

# Oracle® Financial Services Profitability Management Cloud Service User Guide



Release 23.06.01

F82935-05

August 2023

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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## 6 Technical Documents

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# 1

## Getting Started

This chapter covers the Oracle Cloud, followed by Profitability Management Cloud Service and the instructions to get started with the cloud service, and instructions to use the Admin Console.

Topics:

- [Getting Started with Oracle Cloud](#): Oracle Cloud is the industry's broadest and most integrated cloud provider, with deployment options ranging from the public cloud to your data center. Oracle Cloud offers best-in-class services across Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS).
- [Profitability Management Cloud Service](#): Profitability Management Cloud Service (PFTCS) under Profitability and Balance Sheet Management Cloud Service (PBSMCS) helps Institutions measure and manage profitability at the lowest level of detail, the account level, and allows for a rollup of profitability results across any dimension. The application provides robust Allocation functionality supporting both top-down and bottom-up Allocation methodologies and generates multidimensional Profitability Views.
- [Admin Console](#): Use the Admin Console to perform System Configuration and Identity Management. It is a single point of access to manage identity functions and view administrative features such as Metering, Audit Trail Report and other miscellaneous configuration details in the Profitability and Balance Sheet Management Cloud Service (PBSMCS).

### 1.1 Getting Started with Oracle Cloud

This chapter introduces to the Oracle Cloud, Users and Roles, User Groups, User Management, and Session Time Out configuration.

Topics:

- [Welcome to Oracle Cloud](#)
- [Users and Roles](#)
- [User Groups](#)
- [User Management](#)
- [Configuring Session Timeout](#)

#### 1.1.1 Welcome to Oracle Cloud

Oracle Cloud is the industry's broadest and most integrated cloud provider, with deployment options ranging from the public cloud to your data center.

Oracle Cloud offers best-in-class services across Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS).



### 1.1.1.1 About Oracle Cloud

Oracle Cloud is one of the few cloud providers that can offer a complete set of cloud services to meet all your enterprise computing needs.

Use Oracle Infrastructure as a Service (IaaS) offering to quickly set up the virtual machines, storage, and networking capabilities you need to run just about any kind of workload. Your infrastructure is managed, hosted, and supported by Oracle.

Use Oracle Platform as a Service offerings to provision ready-to-use environments for your enterprise IT and development teams, so they can build and deploy applications, based on proven Oracle databases and application servers.

Use Oracle Software as a Service (SaaS) offerings to run your business from the Cloud. Oracle offers cloud-based solutions for Human Capital Management, Enterprise Resource Planning, Supply Chain Management, and many other applications, all managed, hosted, and supported by Oracle.

### 1.1.1.2 Supported Web Browsers

Oracle Financial Services Cloud Services support the latest version of the following major browsers:

- Google Chrome
- Microsoft Edge
- Mozilla Firefox

For more details, see [Oracle Software Web Browser Support Policy](#).

When sharing a link to a document or folder, users of Microsoft Edge need to use the Show Link button and copy the link shown in the dialog.

### 1.1.1.3 Order Oracle Cloud Applications

You can order Oracle Cloud Applications (Software as a Service) offerings by contacting Oracle Sales. After your order is processed, you can then activate your services.

To order a subscription to Oracle Cloud Applications:

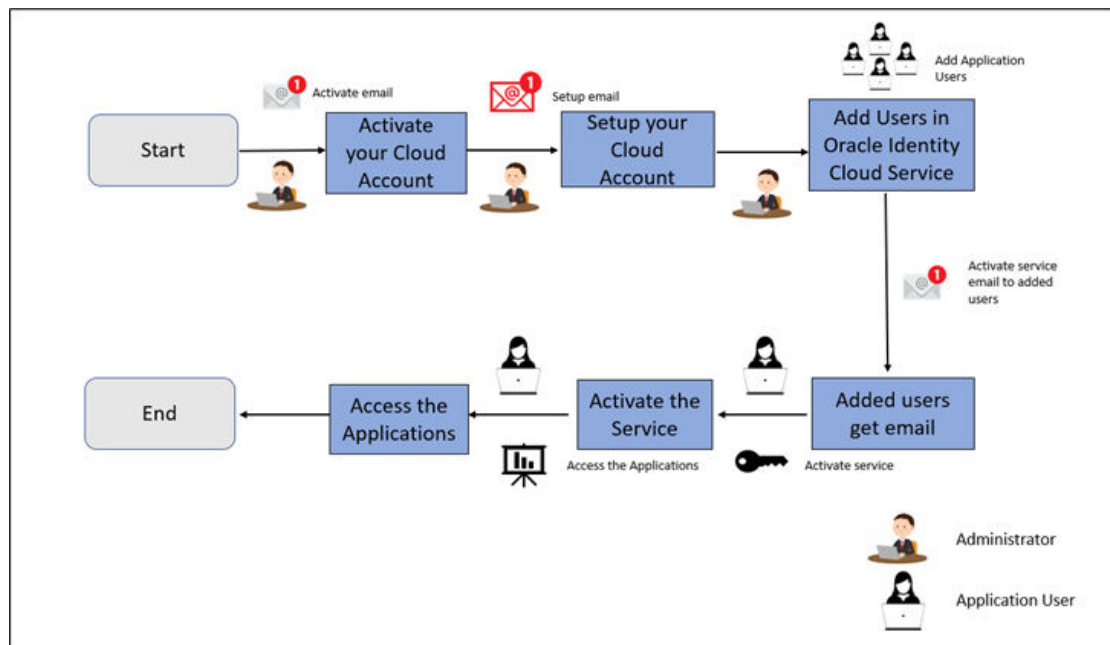
1. Go to the [Oracle Financial Services Risk and Finance solutions](#) page.
2. Scroll down and select the Cloud Service that you are subscribed to. For example, **Profitability Management** or **Cash Flow Engine**, or **Climate Change Analytics**.
3. Review the features and capabilities of the service and read the Datasheet.
4. When you are ready to order, scroll up and click **Request a Demo**.
5. You can either write an email or click **Request Now** to receive a call from Sales.
6. Enter your **Business email**, select the confirmation check box, and click **Continue**.
7. Provide a description of your need and click **Request Now**.

Later, after you have worked with Oracle Sales to order the Oracle Cloud Application best suited to your requirements, you will receive an email, which contains a link you can use to activate the service you have ordered.  
To know how to activate, see [Create and Activate New Cloud Account](#).

## 1.1.2 Getting Started with Profitability Analytics Cloud Service

To get started, you must activate the Profitability Analytics Cloud Service (PACS). After activating the Cloud Service, you can onboard Application Users to use the subscribed Cloud Services.

**Figure 1-1 Illustration of the Cloud Subscription Workflow**



This topic describes the set of actions that can be performed by:

- An Administrator to activate the Cloud Account and onboard Applications Users for the subscribed Cloud Services.
  - Create and Activate New Cloud Account
  - Access the Cloud Account
  - Access the Oracle Identity Cloud Service Console
- The Application Users to activate and use the Cloud Services that are provisioned by the Administrator.
  - Activate your Account as Application Users

## 1.1.2.1 Create and Activate New Cloud Account

If you are a new Oracle Cloud Applications User, you will receive a Welcome to Oracle Cloud email that asks you to activate your Cloud Account. Follow the instructions in the email to create and activate your new Cloud Account.

You will then receive a follow-up email with the information you need to sign in and start using your Cloud Applications.

As an Administrator, to create and activate your new Cloud Account, perform the following steps:

1. Click **Create New Cloud Account** in the email.
2. Complete the **New Cloud Account Information** to sign up.

**Figure 1-2 New Cloud Account Information page**

3. Enter the following details:
  - **First Name** and the **Last Name**.
  - **Email:** Provide the same email address which you had given to receive the Welcome email. Instructions to log into your new Oracle Cloud Account will be sent to this email address.
  - **Password** to access the New Cloud Account.  
Re-enter the Password for confirmation. Make a note of the credentials. The same is required to log in after receiving the Activation email.
  - **Tenancy Name:** New Tenancy name to be associated with the Cloud Account.
  - **Home Region:** Select your Home Region, where the Identity Resources and Account are located. Check the service availability before selecting the Home Region.

4. Click **Create Tenancy**.
5. The **New Cloud Creation Confirmation** screen is displayed.  
After successful activation, you'll receive a **Setup Complete** email.

### 1.1.2.1.1 Add to an Existing Cloud Account

As an Administrator, if you already own a Cloud Account and need to use the another Cloud Service, perform the following steps:

1. In the Welcome email, click **Add** to existing cloud account option.
2. Perform the steps as mentioned in the [Access the Oracle Identity Cloud Service Console](#) section.

### 1.1.2.2 Access the Cloud Account

As an Administrator, to access the Cloud Account:

1. In the **Setup Complete** email, click **Sign In**.
2. Enter the Username and Password to access the **Oracle Cloud Console URL**. Use the same Username and Password that you provided during activation setup.
3. Reset the Password.
4. Re log in to **Oracle Cloud Infrastructure Classic Console** using the new Password.
5. Navigate to the **Oracle Cloud Infrastructure Classic Console** where the Application URLs are displayed.

### 1.1.2.3 Create an Environment

After logging into the Oracle Cloud Infrastructure Classic Console, you can create one or multiple instances that can be used by different user groups.

To create an instance, follow these steps:

1. Log into Oracle Cloud Infrastructure Classic Console.  
Under **My Applications**, you will see the list of environments (instances) provisioned for the one or mutiple cloud applications. The following details are provided for each environment:
  - **Name:** The given name to the cloud application's instance.
  - **Type:** The type of the instance.
  - **Lifecycle status:** The status of the instance.
  - **Region:** The region from where this instance is active.
  - **Application URL:** The URL to access the instance.
2. To create a new environment, click **Create environment**.  
This screen displays a list of Cloud Services to which the customer has subscribed and the Region from where these services are operated.

 **Note:**

If **Region** selection drop-down is displayed, then you must select the appropriate Region as follows.

- US East (Ashburn) for United States of America
- Japan East (Tokyo) for Japan
- Australia east (Sydney) for Australia

If you are not sure about the Region, contact [My Oracle Support \(MoS\)](#).

3. Under **Environment Details**, enter the following information:
  - **Name:** The name of the new environment or instance.
  - **Instance type:** Select from the following options:
    - **Production:** An environment that will be tagged as Production and can be used for Production activities.
    - **Non-production:** An environment that will be tagged as Non-production and which will be used for testing and development purposes. For example, a sandbox environment.
  - **Admin email:** The email ID with which you have logged into the Cloud Console. You can also enter a different email ID that needs to be part of the cloud tenancy. For more details, see [Managing Users](#).
  - **Admin first name** and **Admin last name:** The first and last names of the Admin.
4. Click **Create**.

The environment details are added to the Oracle Cloud Infrastructure Classic Console under the **Environments** tab (visible in the LHS menu). It may take a few hours for the State to change to Active. If there are any issues, you can raise a service ticket with [My Oracle Support \(MoS\)](#) .

After the environment becomes active i.e., the **State** column displays Active, you can click on name link to open the **Environment details** page, and view the details. Under **Environment Information**, click the Service console URL to create users and groups.

### 1.1.2.4 Access the Identity and Access Management

Oracle Cloud Infrastructure Identity and Access Management (IAM) provides identity and access management features such as authentication, single sign-on (SSO), and identity lifecycle management for Oracle Cloud as well as Oracle and non-Oracle applications, whether SaaS, cloud-hosted, or on-premises. Employees, business partners, and customers can access applications at any time, from anywhere, and on any device in a secure manner.

IAM integrates with existing identity stores, external identity providers, and applications across cloud and on-premises to facilitate easy access for end users. It provides the security platform for Oracle Cloud, which allows users to securely and easily access, develop, and deploy business applications such as Oracle Human Capital Management (HCM) and Oracle Sales Cloud, and platform services such as Oracle Java Cloud Service, Oracle Business Intelligence (BI) Cloud Service, and others.

Administrators and users can use IAM to help them effectively and securely create, manage, and use a cloud-based identity management environment without worrying about setting up any infrastructure or platform details.

To add users to your Cloud Services, you need to navigate to the **Oracle Identity and Access Management (IAM) Console**.

To access the **IAM Console**, perform the following steps:

1. Browse to [Cloud.Oracle.com](https://cloud.oracle.com).

The Oracle Cloud Infrastructure console is the console where the information about your cloud order is available. You need to access the service link from the console to start using your service.

2. Enter the **Cloud Account Name** and click **Next** to access the **IAM Console**.
3. Click **Change tenancy** option if you want to use a different tenancy.
4. Select the **Identity domain** from the drop-down list and click **Next**.

The IAM login page is displayed.

5. Log in with your User Name and Password.

As an Administrator, you can create users to have different access rights to the Cloud Service.

For example, the IAM Administrator has superuser privileges for an Oracle Identity and Access Management Domain. This administrator can create users, groups, group memberships, and so on.

### 1.1.2.5 Activate Application User Account

After an Application User is provisioned by their Administrator, they will receive an Account Activation email.

As an Application User, perform the following steps to login and activate your account:

1. Open the email you received from Oracle Cloud.
2. Review the information about your service in the email.
3. Click **Activate Your Account**. You will be prompted to change your Password on the initial login.
4. Enter your new credentials in the **Reset Password** window to activate your account. After the Password is successfully reset, the **Congratulations** window is displayed.
5. Access the Application URL that your Application Administrator shared with you.
6. Enter your credentials to sign into your account. The Welcome page is displayed.

### 1.1.3 Users and Roles

Understand the following terms before you begin performing User Management.

- **Users:** Customers create users in Identity and Access Management (IAM) and can do the following:
  - Map them to existing groups
  - Create new groups to map them

After users are created, they are synced from IAM to the Cloud Service.

- **Groups:** Groups are seeded (available out-of-the-box) by your Cloud Service. Customers can also create new groups in IAM. After groups are created, they are synced from IAM to the Cloud Service. Groups are mapped to roles using the Cloud Service by the same user that was created using IAM.
- **Roles:** Roles are seeded by the Cloud Service. Customers can also create new roles using the Cloud Service and assign existing functions to these new roles.
- **Functions:** Functions are seeded by the Cloud Service. Customers cannot create new functions; however, they can only use the existing functions.

### 1.1.3.1 View List of Application Users

The Users Summary Page shows the list of available users. You can view the details of a user and map the user to one or more User Groups.

Select the Username in the Users Summary page and then select Details to view the User ID and Username of the selected User.

To search for a specific User, type the first few letters of the Username that you want to search in the **Search** box and click **Search**.

The search result displays the names that consist of your search string in the list of available users.

You can use the navigation buttons at the bottom of this page to move around in different pages. Also, you can enter the number of entries to be listed on a single page in the **Records** box or use the buttons to increase or decrease the number of entries.

Also, you can enter the page number in the **View Bar Control** and jump to the page you want.

### 1.1.3.2 Create Application Users

After you sign in to your IAM console, one of your first tasks is to create additional user accounts. You should assign specific user groups to the user accounts that you are creating. There are seeded user groups available with the respective services, users must be mapped to one or more of the user groups, depending on the role that they perform.

For example, you can create a user for each member of your team. Each team member can then sign into the account with their credentials. You can also assign each user to specific user groups and apply specific security policies or roles to each group.

You can create the users and map the users to groups for your service. After creating the users, the users will receive a Welcome email. The users must activate their accounts and enter a new password to access the services.

To create users in the IAM Console, perform the following steps:

1. In the IAM Console, click the **Profile** icon and select **Identity domain** to add the Application Users.
2. In the **Identity Domain** left pane, click **Users** and select **Create user**.
3. Enter the following details:

To have the user sign in with their email address:

- Leave the **Use the email address as the username** check box selected.
- In the **Username / Email** field, enter the email address for the user account.

Or

To have the user sign in with their user name:

- Clear the **Use the email address as the username** check box.
- In the **First name** and **Last name** fields, enter the user name that the user is to use to sign in to the Console.

**Figure 1-3 Add User Details**

Create user

First name *Optional*

Last name

Username / Email

Use the email address as the username

Groups *Optional*

Select groups to assign this user to.

Search...

<input type="checkbox"/>	Name	Description
<input type="checkbox"/>	RRANALYSTGRP	RR Analyst Group
<input type="checkbox"/>	THRESHOLDADMINGRP	Threshold Admin Group
<input type="checkbox"/>	RRUSSRMENUGRP	RR US SAR Menu Group
<input type="checkbox"/>	OBJMIGADMIN	Object Migration Admin Group

Create Cancel

 **Note:**

Ensure that you restrict the User Name to the following:

- Do not enter your Email ID as the Username and do not select the **Use the email address as the username** check box.
- Enter a maximum of 20 characters.
- Enter Alphanumeric Characters.
- Enter only Hyphen (-) and Underscore ( ) Special Characters.

- In the **Groups (Optional)** section, select the user groups according to your user-specific groups or access.



 **Note:**

After a user sign in to the PBSM Cloud Service, the User to User-Group Mapping created in the **IAM Console** will onboard into the Master and Mapping Tables. Later, if you deselect (remove) a User from a Group in the **Assign User to Groups** Window after provisioning, ensure that you also unmap the User from the corresponding User- Group in the **Admin Console**. This is a mandatory step to complete the unmapping process.


5. To create an Identity Administrator or Authorizer user, assign the users to the following:
  - **IDNTY\_ADMIN**: You can use this option to create an Administrator User.
  - **IDNTY\_AUTH**: You can use this option to create an Authorizer User.

**Figure 1-4 Assign Users to Groups Window**

Groups *Optional*  
Select groups to assign this user to.

<input type="checkbox"/>	Name	Description
<input type="checkbox"/>	<a href="#">IDNTY_AUTH</a>	Identity Authorizer Group
<input type="checkbox"/>	<a href="#">IDNTY_ADMIN</a>	Identity Administrator Group

0 selected

 [Show advanced options](#)

**Create**
[Cancel](#)

6. Click **Create**.

For Bulk User Creation, you can batch import User Accounts using a comma-separated values (.CSV) file.

### 1.1.3.3 Create a User Group

You can create groups to manage user access to applications and resources. A group has no permissions until you do one of the following:

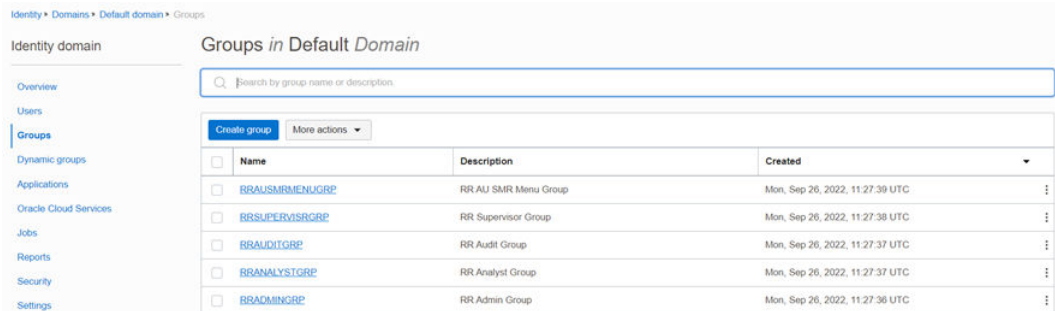
- Write at least one policy that gives that group permission to either the tenancy or a compartment. When writing the policy, you can specify the group by using either the unique name or the group's OCID.
- Assign the group to an application.

To create a User Group in IAM Console, perform the following steps:

1. In the IAM Console, click the **Profile** icon and select **Identity domain** to add a User Group.

- In the Identity Domain left pane, click **Groups** and select **Create group**.

**Figure 1-5 Identity Domain**



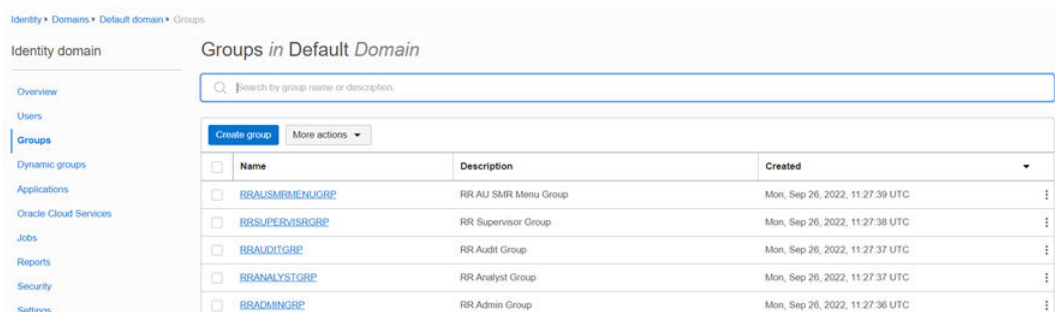
- Enter the following details:
  - The name of the group. This field is mandatory.
  - Description for the group.
- To allow users to request access to this group, select **User can request access**.
- To add users to the group, select the check box for each user that you want to add to the group.
- Click **Create**.

### 1.1.3.4 Add User to Group

To add a User to Group in IAM Console, perform the following steps:

- In the IAM Console, click the **Profile** icon and select **Identity domain: Default** to add the User Group.
- In the Identity Domain left pane, click **Groups** and select the group for which you want to add the users.

**Figure 1-6 Groups in Default Domain**



- Click **Assign user to groups**.
- To add users to the group, select the check box for each user that you want to add to the group.
- Click **Add**.

### 1.1.3.5 Import Application Users

If you are an Administrator, you can batch import User Accounts using a Comma-separated Values (.CSV) file.

 **Note:**

Before you can import user accounts, you must create a CSV file that is properly formatted for the import process.

To import user accounts, perform the following steps:

1. In the IAM Console left pane, click Users and select More Actions drop down and select Import Users.
2. In the **Import Users** dialog box, click **Browse** to locate and select the CSV file that contains the user accounts to import.

 **Note:**

Click **Download sample file** in the dialog box to download a sample file and carry out your accounts upload.

3. Verify that the path and name of the .CSV file that you selected appear in the **Select a file to import** field.
4. Click **Import**.

 **Note:**

If a user account is missing a required value, such as the user's first name, last name, or username, then Oracle Identity Cloud Service cannot import it. If Oracle Identity Cloud Service cannot import a User Account, then it evaluates the next account in the CSV file.

After Oracle Identity Cloud Service evaluates all User Accounts, the **Jobs** page displays the accounts you have imported. You can also get information related to the successful imports and imports that did not happen due to system errors.

### 1.1.4 User Groups

User Groups are seeded (available out-of-the-box) by the Cloud Service. Customers can also create new groups in IAM. After groups are created, they are synced from IAM to the Cloud Service. Groups are mapped to roles using the Cloud Service by the same user that was created using IAM.

#### 1.1.4.1 Map Application with the User

To map the application to a User Group, log in to IAM and follow these steps:

1. Search for the **Domain**.
2. Select the **Default Domain** and then from the LHS menu, select **Oracle Cloud Services**.  
The screen displays the various Oracle Cloud Services.
3. Select the Cloud Services you are subscribed to (for example: **PBSMCS xxxx-prd** and **PBSMCS xxxx-nprd**).  
Where **Description** is mentioned as PBSM Cloud Service.
4. From the LHS menu, select **Users**.
5. Click **Assign Users**, and then select the user.
6. Click **Assign**.

### 1.1.4.2 Map Application with the Groups

To map the application to a User Group, log in to IAM and follow these steps:

1. Search for **Domain**.
2. Select the **Default Domain** and then from the LHS menu, select **Oracle Cloud Services**.  
The screen displays the various Oracle Cloud Services.
3. Select the Cloud Services you are subscribed to like, **PBSMCS xxxx-prd** and **PBSMCS xxxx-nprd**  
Where **Description** is mentioned as PBSM Cloud Service.
4. From the LHS menu, select **Groups**.
5. Click **Assign Groups**, and then select the relevant **Group**.
6. Click **Assign**.

### 1.1.4.3 Map Users to Groups

If you are an Administrator and want to map a User to a User Group, log in to IAM and follow these steps:

1. Select the **User Name** in the **Users Summary** page.
2. Select **Mapped Groups**.
3. Select the **User Group Name**.

 **Note:**

To select a User Group, select the check-box corresponding to the User Group.  
To select all User Groups displayed on the page, select the check-box marked **Select All**.

4. Click **New Mapping** to map the User to the selected User Group.

Or

Click **Unmap** to remove the User Group-Role Mapping.

If the Unmap action requires authorization, see the [Unmap User from Group](#) section for details.

 **Note:**

User-Group mapping changes from IDCS will take some time to sync with your Cloud Service. If these changes are made during the active user session, then it will be reflected on the next login. After a user signs into the Cloud Service, the User to User-Group Mapping created in the IDCS Console will onboard into the Master and Mapping Tables. If you unmap a User from a Group in the Admin Console, navigate to the associated Console and open the Assign User to Groups Window. Deselect the User corresponding to the User Group and click **Finish**. This is a mandatory step to complete the Unmapping Process.

For more information, refer to [Unmap User from Group](#).

After you click New Mapping, the list of User Groups you can map the user to appears in the Available Groups Summary Page.

5. Select a **User Group**.

 **Note:**

To select a User Group, select the check box corresponding to the User Group. To select all User Groups displayed on the page, select the check box marked Select All.

If the logged-in user has both Administration and Authorization Entitlements, an Authorization View Toggle Button is available. Enable this button to complete the Authorization Process.

6. Click **Map**.

 **Note:**

To select a User Group, select the check box corresponding to the User Group. To select all User Groups displayed on the page, select the check box marked Select All.

If the logged-in user has both Administration and Authorization Entitlements, an Authorization View Toggle Button is available. Enable this button to complete the Authorization Process.

#### 1.1.4.4 Unmap User from Groups

To authorize the unmapping of a User to a User Group, log in to IAM and follow these steps:

1. Click **Unmapped Groups**.
2. Click the User Group Name to select the User Group.
3. Click **Authorize** to authorize the unmapping.

Or

Click **Reject** to cancel the Authorization Request.

### 1.1.4.5 Create a User Group

You can create groups to manage user access to applications and resources. A group has no permissions until you do one of the following:

- Write at least one policy that gives that group permission to either the tenancy or a compartment. When writing the policy, you can specify the group by using either the unique name or the group's OCID.
- Assign the group to an application.

To create a User Group in IAM Console, perform the following steps:

1. In the IAM Console, click the **Profile** icon and select **Identity domain** to add a User Group.
2. In the Identity Domain left pane, click **Groups** and select **Create group**.

**Figure 1-7 Identity Domain**

Identity > Domains > Default domain > Groups

Identity domain

Overview  
Users  
Groups  
Dynamic groups  
Applications  
Oracle Cloud Services  
Jobs  
Reports  
Security  
Settings

Groups in Default Domain

Search by group name or description

Create group More actions

<input type="checkbox"/>	Name	Description	Created
<input type="checkbox"/>	<a href="#">RRAUSMRMENUGRP</a>	RR AU SMR Menu Group	Mon, Sep 26, 2022, 11:27:39 UTC
<input type="checkbox"/>	<a href="#">RRSUPERVISORGRP</a>	RR Supervisor Group	Mon, Sep 26, 2022, 11:27:38 UTC
<input type="checkbox"/>	<a href="#">RRAUDITGRP</a>	RR Audit Group	Mon, Sep 26, 2022, 11:27:37 UTC
<input type="checkbox"/>	<a href="#">RRANALYSTGRP</a>	RR Analyst Group	Mon, Sep 26, 2022, 11:27:37 UTC
<input type="checkbox"/>	<a href="#">RRADMINGRP</a>	RR Admin Group	Mon, Sep 26, 2022, 11:27:36 UTC

3. Enter the following details:
  - The name of the group. This field is mandatory.
  - Description for the group.
4. To allow users to request access to this group, select **User can request access**.
5. To add users to the group, select the check box for each user that you want to add to the group.
6. Click **Create**.

### 1.1.5 User Management

During implementation, you prepare your Oracle Application's Cloud Service for the Service Users. The decisions made during this phase determine how you manage users by default. Most of these decisions can be overridden. However, for efficient User Management, Oracle recommends that you configure your environment to reflect both enterprise policy and support most or all users.

For more information, see the [View List of Application Users](#) and [User Roles and Privileges](#).

### 1.1.5.1 Application Users

During implementation, you can use the Create User task to create Test Service Users. By default, this task creates a minimal person record and a user account. After implementation, you should use the Hire an Employee Task to create Service Users. The Create User Task is not recommended after the implementation is complete.

For more information, see [Create Application Users](#).

### 1.1.5.2 User Roles and Privileges

Oracle Financial Services Profitability Management Cloud Service (PFTCS) Users are assigned roles through which they gain access to functions and data. Users can have any number of roles.

The following table shows User Personas and the tasks they can perform:

**Table 1-1 User Roles and Privileges**

IDCS Administrator	PFTCS Application Administrator	PFTCS Business User
Create Users	Map Users to OOB User Groups	Manage PFTCS
Map Users to OOB User Groups	Create User Groups and Roles	Configure Pipelines
Create User Groups	Map Users to User Groups Map Roles to User Group Map Functions to Roles	

#### 1.1.5.2.1 Role Based Access Control

Role-based security in Oracle Financial Services Profitability Management Cloud Service Controls who can do what and to which data.

The following table provides examples of role-based access.

**Table 1-2 Examples of Role Based Access**

Role Assigned to a User	Functions which Users with this Role can Perform	Set of Data which Users with the Role can Access when performing the Function
Application Administrators	Perform Application Administrator activities	User Group with Administration Roles across all Service Features
Business Users	Access to the Application to perform tasks	User Group with Business Tasks' Roles across all Service Features

### 1.1.5.2.2 User Roles and Activities

The following User Roles are seeded in the PBSM Cloud Service to facilitate the activities expected from the users mapped to the seeded User Groups:

- Profitability Application Administrator
- Profitability Application Analyst
- Profitability Application Auditor
- PFT BI Data Steward
- PFT BI Data Steward
- PFT BI Analyst
- PFT BI Analyst
- PFT BI Auditor
- PFT BI Auditor
- PFT BI LOB Head

In addition to this, Custom User Roles can be created and managed as per requirement.

The user roles Profitability Application Administrator, Profitability Application Analyst, and Profitability Application Auditor are required to access the main application for view, edit and other purposes, based on the User Persona accessing the same. An Analyst User Persona can view all PFT Screens and Edit-specific Screens. Similarly, an Admin Persona can view and edit all PFT Screens. These different Persona tasks are facilitated by the User Roles. Thus, these three User Roles facilitate the accesses and activities for the corresponding User Groups that are mentioned in the below table.

The User Roles of - PFT BI Data Steward, PFT BI Analyst, PFT BI Auditor and PFT BI LOB Head - are seeded BI Roles to be used for the users to access the Analytics Menu in the PFT Application. These four roles are created to facilitate Analytics access for four different types of User Persona. These roles can be mapped to any User Group to provide the Analytics access to users under the User Group.

### 1.1.5.2.3 User Groups and Activities

The following table provides the information on the User Groups and related activities.

**Table 1-3 User Groups and Activities**

User Groups	Activities
Identity Administrator Group	<ul style="list-style-type: none"> <li>• View Object Storage</li> <li>• View OAuth Credentials</li> <li>• Perform Identity and Access Management Operations</li> </ul>
IDCS Administrator	<ul style="list-style-type: none"> <li>• Create Users</li> <li>• Map Users to the Instance</li> </ul>



**Table 1-3 (Cont.) User Groups and Activities**

User Groups	Activities
Profitability Application Analyst	<ul style="list-style-type: none"> <li>• Set User and Application Preferences</li> <li>• Set Setup Parameters</li> <li>• Currency and Rate Management</li> <li>• Dimension Management</li> <li>• Data Management: Metadata and Data Loaders</li> <li>• Data Model Extension</li> <li>• Create Filters and Expressions</li> <li>• Create Table Drivers</li> <li>• Create and Execute Allocation Rules</li> <li>• Create and Execute Allocation Models</li> <li>• Schedule Batch Processes</li> <li>• View Allocation Executions</li> <li>• View Profitability Reports</li> </ul>
Profitability Application Auditor	<ul style="list-style-type: none"> <li>• View privileges for all application-specific modules:</li> <li>• Review/Analyze Results</li> <li>• Review Process Logs</li> <li>• View Reports</li> </ul>

In addition to this, Custom User Groups can be created and managed as per requirement.

#### 1.1.5.2.4 User Group and User Role Mapping

The following table lists the seeded mapping of User Groups to the User Roles.

**Table 1-4 User Group and User Role Mapping**

User Group	Mapped User Role
Profitability Application Administrator	Profitability Application Administrator
Profitability Application Analyst	Profitability Application Analyst
Profitability Application Auditor	Profitability Application Auditor

The BI User Roles of PFT BI Data Steward, PFT BI Analyst, PFT BI Auditor, PFT BI LOB Head are not mapped OOTB to any seeded User Group but can be mapped to any User Group to provide the Analytics access to users under than User Group. Customers can custom User Groups and map the seeded or Custom User Roles as it suites the requirement.

### 1.1.6 Configuring Session Timeout

After you complete your tasks, you can sign out of your application. However, sometimes you might get automatically signed out due to session timeouts.

Let us understand how session timeouts work. When you sign in using your credentials, you're authenticated to use the application, and a session is established. During this session, you don't need to re-authenticate. But, for security purposes, your

session is configured to be active for a predefined duration, which is called the session timeout period. Your sessions can expire due to various reasons such as leaving your application idle for a period longer than the timeout period. In such cases, you're automatically signed out of the application. Your timeout periods may vary on certain pages. For example, you may observe a longer timeout period on pages that automatically refresh or UIs that open in separate windows or tabs.

This table lists the various types of session timeouts you may experience. After the specified duration, your session expires, and you need to sign in again to continue your work.

Timeout Type	Description	Configurable	Timeout Duration
Session Lifetime Timeout	After you are authenticated in the application, if you are actively working on it, your session remains active for a predefined duration, referred to as the session lifetime timeout period.  Your session ends after this period, even if you're using the application.	Yes	8 Hours (Default value)
Inactive Session Timeout	This type of timeout considers the duration you leave your application idle/inactive. After this duration, System automatically terminates the session, and you are signed out of the session.	No	60 Minutes
Browser Inactivity Timeout	This type of timeout considers the duration you leave your browser idle. After this duration, your session is terminated by the System, which automatically	No	60 Minutes

### 1.1.6.1 How to configure Session Lifetime Timeout?

You can configure the Session Lifetime Timeout using your Identity Domain Settings in OCI Console. You need to have the Security Administrator Role mapped to you, to access and modify the settings.

To configure the session timeout:

1. Login with your Security Administrator Account.
2. Navigate to the Domain page. Click Settings and select Session Settings.
3. Specify the Session Duration under Session Limits. Enter the required value. By default, this is set to 480 Minutes.

**Figure 1-8 Session Settings**

## 1.2 Profitability Management Cloud Service

Profitability Management Cloud Service (PFTCS) under Profitability and Balance Sheet Management Cloud Service (PBSMCS) helps Institutions measure and manage profitability at the lowest level of detail, the account level, and allows a rollup of profitability results across any dimension. The application provides robust allocation functionality supporting both top-down and bottom-up Allocation Methodologies and generates multidimensional Profitability Views.

### 1.2.1 Key Features

The Key Features in the Profitability Management Cloud Service are as follows:

- Support for both top-down and bottom-up Allocation Methodologies**  
PFTCS supports top-down Allocations from Management Ledger to Customer Accounts to Transaction Summary levels, and also supports bottom-up Allocations from Transaction Summary to Customer Accounts to the Management Ledger Level.
- Source aligned Data Structure with Instruments, Accounts, Transactions, Ledger, and so on.**  
The Data Structure is designed to support ingestion of Data each different Financial Instrument wise, be it Customer Accounts Data or Customer Transaction Data.
- New Registration UI is provided OOTB to configure your Working Data Model over the Physical Placeholders**  
The PBSMCS Data Model comes with additional Placeholders for Columns, Dimensions, and Ledger Tables. We are providing domain Based Placeholder Columns, Placeholders for OFSAA Key Processing Dimensions and Simple Dimensions, and five Placeholder Management Ledger Tables in addition to the regular Management Ledger Table.
- New modes of Member Selection for your Allocation Rule Definitions**  
We offer you four modes of Dimension Member selection in your Source/Driver/Outputs Tabs in Allocation Specification Detail UI namely – Leaf mode, Node mode, Hierarchy Filter mode and Macro mode. This allows typing ahead Member Names while applying constraints on the Source/Driver/Output Dimensions, in addition to selection of Members from the Hierarchy Browser.
- Enhanced Hierarchy Browser flavors catering to differing needs across the Service**  
The current offering of the enhanced Hierarchy Browser is designed according to the mode it is called. The Browser is simpler, intuitive, comes with a user friendly

built in Search Criteria, and provides selection of Member from the Search Tab directly without the need of further operations.

- **Improved performance for Profitability Table Drivers**

The application comes with improved generation of the Coefficient Matrix and user-friendly search option.

- **In-App Analytics that enables to do analysis on your Business Data and Execution Performances**

The Analytics module comes with a host of analytical capabilities - Raw Data Analysis, SQL Querying and Allocation Performance Analysis, PFT Data Insights, Ad-hoc Data Analysis, and Financial Statements Analysis.

The PFT Data Insights Report provides you with the Trend Analysis on the Direct and Indirect Incomes and Expenses components of your Income Statement. The Ad-hoc Data Analysis Report lets you perform ad-hoc analysis on Management Ledger data, while the Financial Statements Analysis Report enables you to perform analysis on the Financial Statement Reporting Lines derived out of the Management Ledger data.

- **Standard Allocation Model**

Standard Allocation Models are capable of logically grouping allocation rules into a single executable unit. More than one allocation rule can be executed at one go as a single unit of work.

- **Enhanced feature for Allocation Rule creation**

The Allocation Specification UI is enhanced with Active/Passive dimension containers to help users navigate easily while in Edit mode and apply the required dimensional constraints. The UI also has additional embedded objects of the Attribute Filter and the Group Filter, and the combination filters of 'Data and Attribute Filter' and 'Group and Attribute Filter'.

- **Enriched Execution History UI**

The enhanced Execution History UI has two new tabs of Allocation Execution History and Ledger Load History. The Allocation Execution History enables users to undo a previously executed allocation rule or to view the inline reports generated by the rule, while the Ledger Load History enables users to undo the results of a Management Ledger table data load.

## 1.2.2 User Groups

The following table provides the information on the User Groups and the related activities:

**Table 1-5 User Groups and Activities**

User Groups	Activities
Profitability Application Administrator	<ul style="list-style-type: none"> <li>• Admin Privileges for all Modules (CRUD Operations)</li> <li>• Create Folders</li> <li>• Set Global Preferences</li> <li>• Set Management Ledger Configuration</li> </ul>

**Table 1-5 (Cont.) User Groups and Activities**

User Groups	Activities
Profitability Application Analyst	<ul style="list-style-type: none"> <li>• Set User and Application Preferences</li> <li>• Set Setup Parameters</li> <li>• Currency and Rate Management</li> <li>• Dimension Management</li> <li>• Data Management: Metadata and Data Loaders</li> <li>• Data Model Extension</li> <li>• Create Filters and Expressions</li> <li>• Create Table Drivers</li> <li>• Create and Execute Allocation Rules</li> <li>• Create and Execute Allocation Models</li> <li>• Schedule Batch Processes</li> <li>• View Allocation Executions</li> <li>• View Profitability Reports</li> </ul>
Profitability Application Auditor	<p>View privileges for all Application specific modules:</p> <ul style="list-style-type: none"> <li>• Review/Analyze Results</li> <li>• Review Process Logs</li> <li>• View Reports</li> </ul>

In addition to this, custom user groups can be created and managed as per requirement. For more information, see the User Roles and Privileges Section.

### 1.2.3 Guidelines for working with Profitability Management

This topic describes an approach to designing and building applications based on your Security Role and the tasks it enables you to perform.

### 1.2.4 Launching Profitability Management

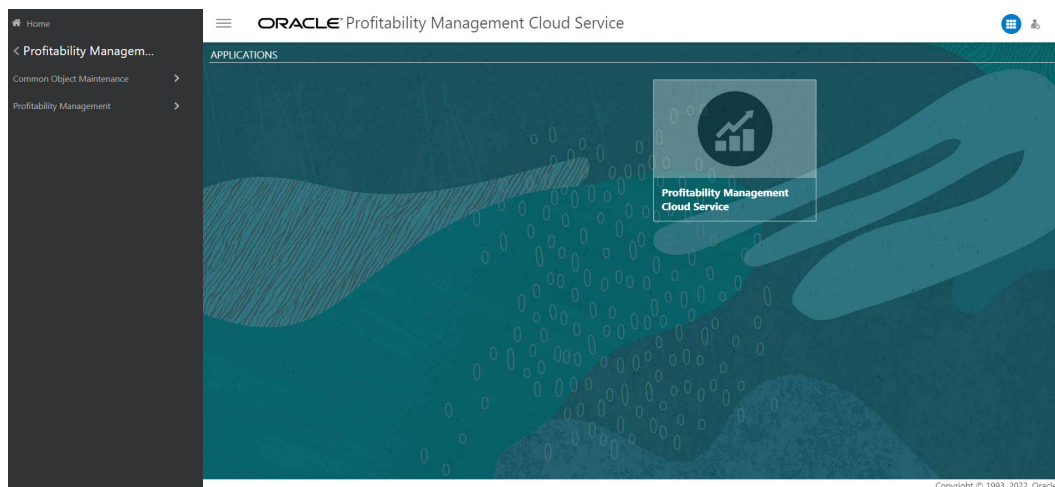
1. In the Web browser, click the link provided by Oracle.
2. Enter your user name and password.

If requested, select an application. The password is case-sensitive.

3. Click Sign In.

The Profitability Management Cloud Service Home Page is displayed.

**Figure 1-9 Profitability Management Cloud Service Home Page**



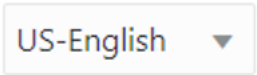
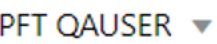




### 1.2.4.1 Profitability Management Cloud Service Home Page

When you log in, you see the Profitability Management Cloud Service Home page.

**Figure 1-10 Home Page Icons**

The Home page contains these main areas:

-  Navigator Screen to access the Menu Items.
-  to navigate to Admin Console
-  Display the Language of the service.
-  The User Name menu with your user name in the header.
-  Click it to view setup information.
-  Shows the details of Last Login Date and Time.

For more information about help and learning assistance, see Profitability Management Document.

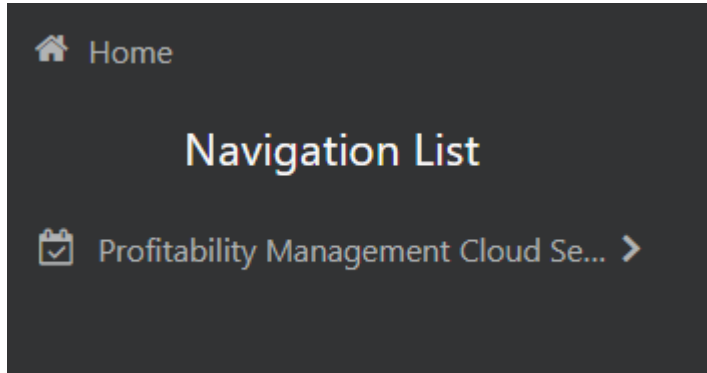
Click the Navigator Screen icon

**Figure 1-11 Navigator Screen Icon**



to display the Navigator Screen. This screen serves as a sitemap of the application features and displays links to all of the pages you can access. Use the Navigator Screen to navigate among the rules and processes required to define, review, and analyze the application, and to report results.

**Figure 1-12 Navigation Path**



PBSM Profitability Management Cloud Service Navigation Paths are displayed in the List of Navigation Paths. Access all these pages through the PFT Administrator, PFT Auditor, or PFT Analyst Responsibility.








### 1.2.4.2 Common Icons

Use the icons to view and analyze data and related information for each features.

**Figure 1-13 Common Icons**

Icon Name	Icon	Uses
Add		Click Add icon to build a new rule.
Refresh		Click to refresh the Summary Page.
Help		Click to view the Help.
Multiple Delete		Select one or more rules in the table and then click the (-) icon at the top right of the Summary Page to delete more than one rule at the same time.
Search		To Search the rule(s).
List View		To view the Rule Summary Page items in List View.
Table View		To view the Rule Summary Page items in Table View.
Ascending and Descending		To sort the rules on Rule Summary Page.

**Figure 1-14 Common Icons**

Icon Name	Icon	Uses
Action		Click to perform view various action options.
View/Edit		Click in the Action column and select View/Edit to view or edit the contents of a rule in Read/Write format. Depending on User Privileges, the rule will open in either View or Edit mode.
Copy or Save As		Click in the Action column and select Save As to create a copy of an existing rule.
Delete		Click in the Action column and select Delete to delete an existing rule.
Execute		To execute a process.
Execution Details		To view the execution details of the process.
Add New		Click Add icon to add new items on Rule screen.

### 1.2.4.3 Common Feature Controls

Many feature screens in Profitability Management Cloud Service include the controls discussed in this topic.

#### 1.2.4.3.1 Audit Trail

The Audit Trail container is a standard footer container for every PBSM rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab.

#### 1.2.4.3.2 User Comments

The User Comments tab may be used to add comments to any rule, subject to a maximum of 4000 characters.

## 1.3 Admin Console

Use the Admin Console to perform System Configuration and Identity Management. It is a single point of access to manage identity functions and view administrative features such as Metering, Audit Trail Report and other miscellaneous configuration details in the Profitability and Balance Sheet Management Cloud Service (PBSMCS).

To access the Admin Console, the PBSM Cloud Administrator must have granted you administrative privileges by mapping your user account to the Identity Administrator and Identity Authorizer user groups. These user groups are seeded in Oracle Identity Cloud Service (IDCS).



## 1.3.1 Introduction to Admin Console

Use the Admin Console to perform System Configuration and Identity Management. It is a single point of access to manage identity functions and view administrative features such as Metering, Audit Trail Report and other miscellaneous configuration details in the Profitability and Balance Sheet Management Cloud Service (PBSMCS).

To access the Admin Console, the PBSM Cloud Administrator must have granted you administrative privileges by mapping your user account to the Identity Administrator and Identity Authorizer user groups. These user groups are seeded in Oracle Identity Cloud Service (IDCS).

When you access the Admin Console, you see the System Configuration and Identity Management tabs. Use these tabs to perform the following tasks:

### 1.3.1.1 Administrator Tasks

As an Administrator, use the Admin Console to perform the following tasks:

- View the Metering Report, Audit Trail Report, Object Storage, and Object Authentication (OAUTH) credential details in the System Configuration tab.
- Perform the Identity and Access Management operations in the Identity Management tab.

### 1.3.1.2 Authorizer Tasks

As an Authorizer, use the **Admin Console** to authorize the Identity and Access Management Operations in the **Identity Management** tab.

## 1.3.2 System Configuration

Using System Configuration, Administrators can view how many units of a service have been consumed. You can also view the following:

- The Audit Report to see what actions the users have performed in the application and when they have performed it
- The provisioned object storage details and the OAUTH authentication details.
- The production instance URL and the email ID of the login user.

The components are as follows:

- **Metering:** Click Metering to view the usage of services using the Metering Report.
- **Audit Trail Report:** Click **Audit Trail Report** to view the details of the user's login and logout details, the action they performed, the status of the action, and the date and time when the action was performed.
- **Component Details:** Click **Component Details** to view details such as the Object Storage, Pre-Authenticated Request (PAR) URL, and OAUTH authentication details.
- **Configurations:** Click **Configurations** to specify the instance name and the user or users who receive Emails related to operations tasks.

### 1.3.2.1 Metering

Use the **Metering** page to view the monthly unit usage of the number of transactions and the number of report types within the PBSM Cloud Service.

### 1.3.2.2 Component Details

Use the Component Details page to view the OCI Console, Object Storage Standard and Archive details, and OAUTH Authentication details.

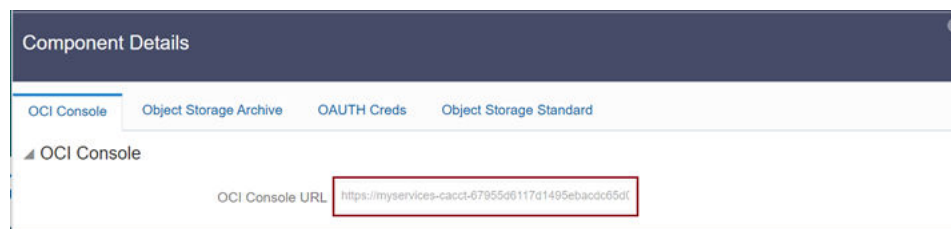
To access Component Details Window

1. Login to PBSM Admin Console.
2. Go to **System Configuration** tab, and click **Component Details** tile.

#### 1.3.2.2.1 OCI Console

Click **OCI Console** tab to view and copy the OCI Console details.

**Figure 1-15 OCI Console Page**



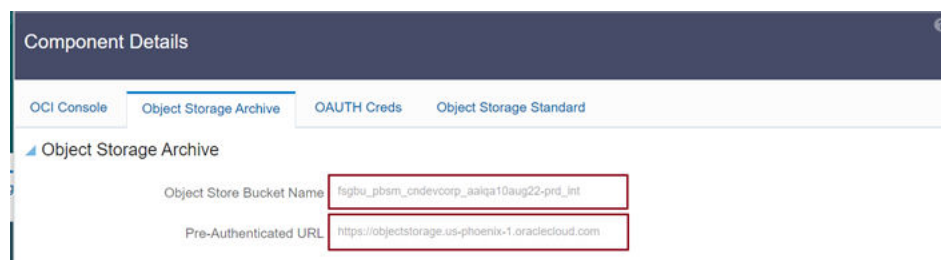
#### 1.3.2.2.2 Object Storage Archive

When you provision an instance of the application, two buckets, a standard storage bucket and an archive storage bucket are automatically provisioned. The objects data that you want to load into the application for processing must be uploaded to the standard storage bucket.

Archive storage is used for storing objects which are not in use but must be retained and preserved for long periods of time. Objects are automatically moved from standard to archive storage, after 7 days.

Click **Object Storage Archive** Tab to view and copy the **Object Store Bucket Name** and the **Pre-Authenticated URL**.

**Figure 1-16 Object Storage Archive Page**



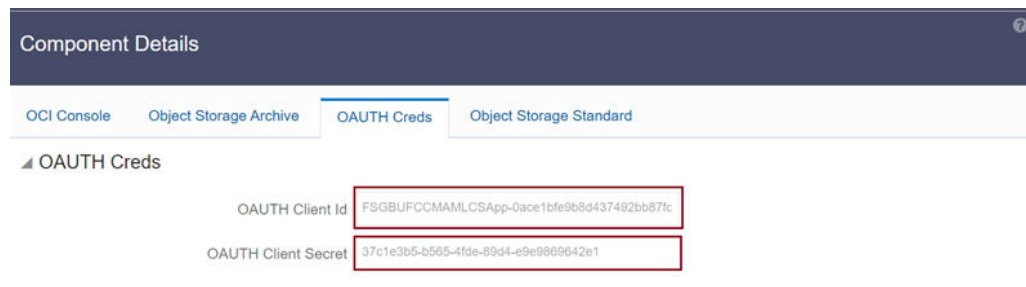
Field	Description
Object Store Bucket Name	The logical container in which objects are stored
Pre-Authenticated URL (PAR URL)	Request that enables you to access a bucket without providing any credentials.

### 1.3.2.2.3 OAUTH Creds

The OAUTH Creds is used for implementing authentication in cloud services.

Click OAUTH Creds tab to view and copy the OAUTH Client ID and OAUTH Client Secret details.

**Figure 1-17 OAUTH Creds Page**



**Table 1-6 Field Description**

Field	Description
OAUTH Client ID	ID of the OAuth client used for OAuth authentication performed by IDCS while doing any API calls
OAUTH Client Secret	Password of the OAuth client secret used for OAuth authentication performed by IDCS while doing any API calls

### 1.3.2.2.4 Object Storage Standard

Object Storage Standard is used for storing objects which are currently in use and require fast, immediate, and frequent access.

Click Object Storage Standard Tab to view and copy the Object Store Bucket Name and the Pre-Authenticated URL.

**Figure 1-18 Object Storage Standards Page**

Component Details

OCI Console Object Storage Archive OAUTH Creds **Object Storage Standard**

Object Storage Standard

Object Store Bucket Name fsgbu\_pbsm\_ondvcorp\_aaiqa10aug22-prd

Pre-Authenticated URL https://objectstorage.us-phoenix-1.oraclecloud.com/p/ol

**Table 1-7 Field Description**

Field	Description
Object Store Bucket Name	The logical container in which objects are stored
Pre-Authenticated URL (PAR URL)	Request that enables you to access a bucket without providing any credentials.

### 1.3.2.3 Audit Trail Report

You can use Audit Trail Report to view details of the user's activities such as Login, Add Action, Status of the Action, and the Machine Name.

To generate an Audit Trail Report, follow these steps:

1. Login to PBSM Admin Console.
2. Go to **System Configuration** tab, and click **Audit Trail Report** tile. The **Audit Trail Report** page is displayed.

**Figure 1-19 Audit Trail Report**

Audit Trail Report

Search and Filter

User Name: All

Action: All

From Date: 09/07/2022

To Date: 09/22/2022

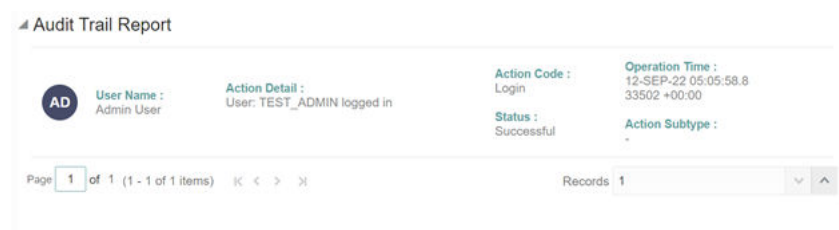
Action Detail: Search Code...

Reset Search

3. Enter the following values and click Search to generate the Audit Trail Report for all users or a specific user.

**Table 1-8 Audit Trail Report Filters**

Field	Description
User Name	Enter or Search for a user name to view the report for the selected user.
Action	Select the Action from the actions. to generate a report for a specific action.
From Date	Select the start date for the report.
To Date	Select the end date for the report.
Action Detail	Enter the string to search and filter the audit trail report for a specific action.

**Figure 1-20 OAUTH Creds Page****Table 1-9 Audit Trail Report Details**

Field	Description
User Name	The user name selected in the User Name filter field.
Action Details	The action selected in the Action Detail filter field.
Action Code	The type of action performed by the user.
Status	The status of the action performed. The values are Successful or Failure.
Action Subtype	The sub type of the action.
Operation Time	The date and time of the action performed.

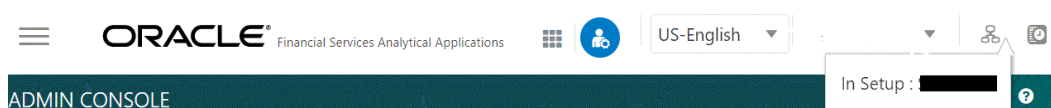
4. Click **Reset** to clear all values from the filter fields and enter new search criteria. The report filters are described in the following table:

### 1.3.2.4 Configurations

Use the Configurations page to specify the values for the instance name and Email ID of the operations user.

To provide the values, follow these steps:

1. Enter the instance name in the Configurations page. For example, UAT, SIT, or PROD. You can provide alphanumeric characters and special characters such as hyphen (-) or underscore (\_). The name you specify in this field is displayed when you click In Setup as shown in the following image:

**Figure 1-21** Displayed Instance Name

This allows you to know the instance or setup you are working on at the moment, when you have multiple UI windows open simultaneously from different setups.

2. Enter one or more operations user's Email IDs in the Operations User Email-ID field of the Configurations window. The operations user receives Emails about any operations tasks such as batch or task failure. You can enter multiple email IDs separated by a comma (as comma-separated values).
3. Click **Save** after the changes.

### 1.3.2.5 Reports For Download

The Reports for Download tile in the Admin Console consists of a set of pre-defined and pre-configured reports that are available for download. You can use the functions in the interface such as filter and sort to segregate the data and drill down to the details of the reports. You can then investigate the information, analyze, and export the data in CSV format.

In the Admin Console, you can download reports from Reports for Download in the System Configuration tab.

#### 1.3.2.5.1 Prerequisites

To use Reports for Download from the Admin Console, your user profile must be mapped to the Data Maintenance Admin group to access the Reports for Download menu.

#### 1.3.2.5.2 Access Reports for Download

To access the Data View window, click **Reports for Download** in the **System Configuration** tab. The **Data Reporting - Data View Page** is displayed.

#### 1.3.2.5.3 Data Reporting - Data View

You can view the list of reports available for download, from the Data Entry window. Use one of the following criteria to view various reports.

- To search reports, click the Search field to display the search criteria pop-up. Enter search terms in the Name, Description, or Created By fields, or use a combination of the fields, and click Search.  
The search result displays reports that match the criteria.
- To sort reports, click the Sort By drop-down and select from the options: Name, Description, or Created By.  
The reports are displayed in ascending order for the selected option.
- To view the report creation and modification details, click the More Options (three dots) icon of a report to display the pop-up with the details for the following:
  - **Created By** - Displays the User ID of the user who created the report.
  - **Created Date** - Displays the date and time of the creation of the report.

- **Last Modified By** - Displays the User ID of the user who last modified the report.
- **Last Modified Date** - Displays the date and time of the last modification of the report.
- **Authorizer** - Displays the User ID of the authorizer who approved the report to be displayed in the window.
- **Authorizer Comments** - Displays the comments entered by the authorizer when approving the report to be displayed in the window.
- To view a report, mouse over the record, and the hidden menu appears. Click View from the menu.  
The details for the selected report are displayed in the Data Entry window.

#### 1.3.2.5.4 View the Report Details

The Data Entry window is the interface where you can apply filter conditions (optional) on the reports and export the details.

You can apply the filter conditions (optional) to the reports in the Attributes Selection tab, and the results are displayed in the Data Preview tab from where you can export the report in the CSV format.

The procedure to view report details is described as follows:

1. In the **Data View** window, click **Attributes Selection**.  
The Attributes Selection tab displays the details for the database table name in View Name and the table columns in Attribute Name. Expand View Name to display the columns in Attribute Name.
2. Click **Apply**.  
The Data Preview tab displays the report details. The number of records displayed in the Data Preview tab is pre-configured in the system. However, you can export the details in the CSV format by clicking Download CSV.

#### 1.3.2.5.5 Apply a Custom Filter to the Data View

In addition to the reports that you can view, you can also use the filter provided in the Data View window to custom filter the data in the reports for analysis purposes.

To apply a custom filter to the data view, follow these steps:








1. Click **Launch Filter** Condition to display the Filter Condition window.
2. Select **AND** or **OR** from the drop-down.
3. Select the required report column from **Select a Column**.
4. Select the required condition from **Select a Condition**.
5. Click **+ Condition** to add more conditions and click **+ Group** to add more groups.  
Repeat the selection procedure to add details. To remove a condition or group, click Remove.
6. Click **Apply** in the **Filter Condition** window to save the custom filter condition.
7. Click **Apply** in the **Attributes Selection** tab.

The Data Preview tab displays the results of the Attributes filtered in the Attributes Selection tab. The number of records displayed in the preview is pre-configured in

the system. However, you can export the details in the CSV format by clicking Download CSV.

## 1.3.3 Identity Management

Using Identity Management, Administrators can manage fine-grained and coarse-grained entitlements that consist of fewer functions than fine-grained entitlements) entitlements. Authorizers can authorize the entitlement mappings. The components are as follows:

- **Users:** A user is a person who has access to and can perform specific actions based on the user group or groups they are mapped to. Before you can map a user to a user group, your Administrator must have created and authorized the user. After the user is authorized, they are added in the Users Summary page. Click **Users**  to view the list of available users in the Users Summary page.
- **Groups:** Groups are a set of users that can perform specific activities. For example, the administrator role performs administrative activities. Any user who belongs to a specific user group can access the roles mapped to that user group. Click **Add**  to add a user group or click **Groups**  to view the list of user groups in the Groups Summary page.
- **Roles:** Roles are a set of functions grouped together and having specific privileges. Any user who belongs to a specific role can access functions mapped to the role. Click **Add**  to add a role or click **Roles**  to view the list of roles in the Roles Summary page.
- **Folders:** Folders are used to control access rights on defined list of objects. They are mapped to a specific Information Domain, Click **Folders**  , to view the list of folders and edit the access rights, in the Folders Summary page.
- **Functions:** Functions enable users to perform a specific activity. Any user who belongs to a specific function can access the folders mapped to the function. Click **Functions**  to view the list of functions in the Functions Summary page.


### Note:

Only those user groups and roles which are authorized are displayed in the Groups Summary page and Roles Summary page, respectively.

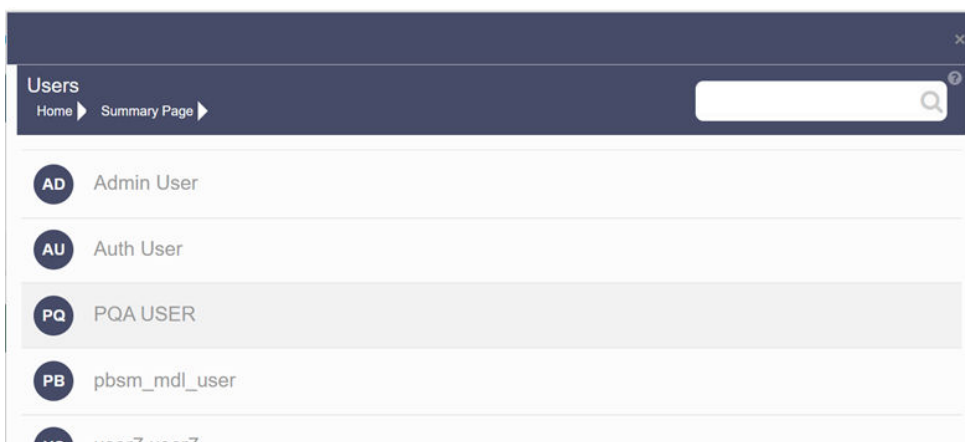
### 1.3.3.1 Users Summary Page

The Users Summary page shows the list of available users. You can view the details of a user and map the user to one or more user groups.

To access Users Summary page, complete the following steps:

1. Click **Identity Management** tab in the **Admin Console** page.
2. Click the **Users** tile ().  
The **Users Summary** page is displayed.







**Figure 1-22 Users Summary Page**

3. Select a specific User Name in the Users Summary page and then click **Details** to view the associated User ID and User Name.
4. Select a User name and click Mapped Groups to view the list of groups that are mapped to the particular user. For more information about mapped groups, refer to [Mapped and Unmapped Groups](#).  
You can also Unmap an user from a specific group. For more information, refer to [Mapped and Unmapped Groups](#).

To search for a specific user, type the first few letters of the user name that you want to search in the Search box and click Search. The search results display the names that consist of your search string in the list of available users.

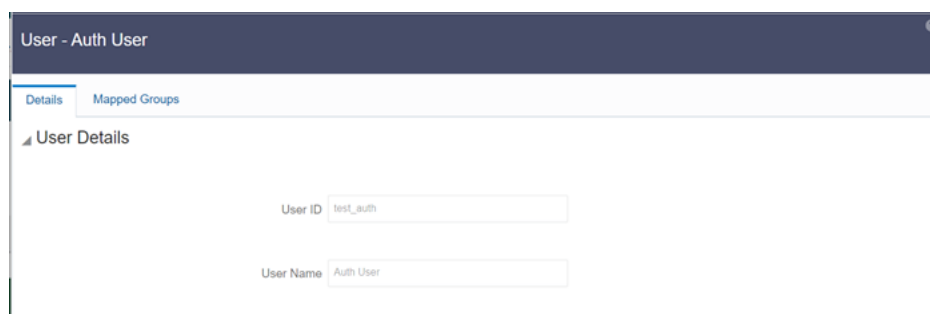
At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

- Use the First page  button to view the entries in the first page.
- Use the Previous page  button to view the entries in the previous page.
- Use the Next page  button to view the entries in the next page.
- Use the Last page  button to view the entries in the last page.

You can also navigate to the desired page. To do this, enter the page number in the View bar control and press Enter.

### 1.3.3.1.1 User Details

Click a specific User listed in the User Summary page and click Details to view the User ID and the User name of that user.

**Figure 1-23 User Details Page**

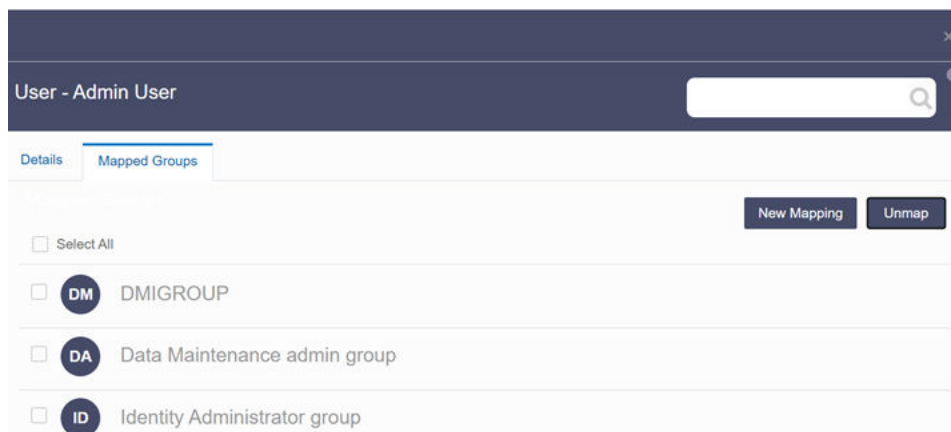
### 1.3.3.1.2 Mapped and Unmapped Groups

If you are an Administrator, you can map and unmap a user to a User group, from the **Users Summary** page.

#### 1.3.3.1.2.1 Mapped Groups

Complete the following steps, to map an user to a User Group.

1. Select the **User name** in the **Users Summary** page.
2. Select **Mapped Groups**.  
The list of groups mapped to the specific user is displayed.

**Figure 1-24 Mapped Groups**

3. Click **New Mapping**.  
After you click New Mapping, the list of user groups you can map the user to appears in the **Available Groups** page.
4. Click **Map**.  
A confirmation message is displayed after successful mapping. The mapping will be completed after authorization.

If you are an Authorizer and want to authorize a mapping, follow these steps:

- In **Mapped Groups**, select the user group name.

- Click **Authorize** to authorize the user-user group mapping. Click **Reject** to cancel the authorization request.

### 1.3.3.1.2.2 Unmapped Groups

To unmap a user from a user group, complete the following steps.

1. Select the User name in the Users Summary page.
2. Select **Mapped Groups**.  
The list of groups mapped to the specific user is displayed.
3. Select the check box corresponding to a User Group or click Select All to select all the available User groups.
4. Click **Unmap**.  
A confirmation message is displayed after successful unmapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In Mapped Groups, select the user group name.
2. Click **Authorize** to authorize the user-user group unmapping. Click **Reject** to cancel the authorization request.

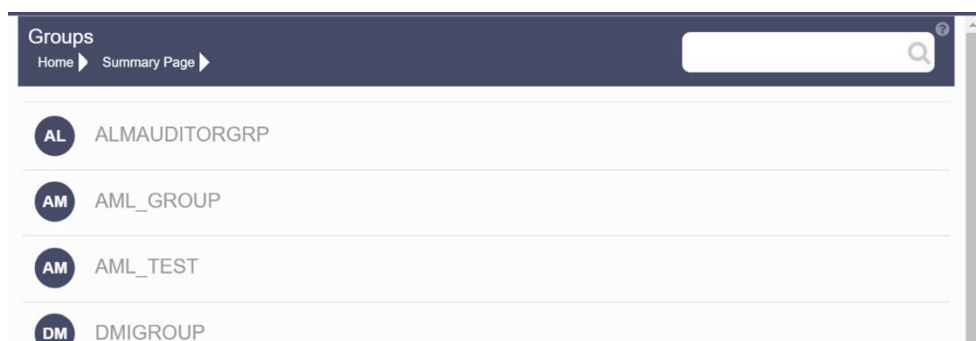
### 1.3.3.2 Groups Summary Page

The Groups Summary page shows the list of available groups. You can view the details of a group and map the group to one or more user Roles.

To access Groups Summary page, complete the following steps:

1. Click **Identity Management** tab in the **Admin Console** page.
2. Click the **Groups** tile (👤).  
The Groups Summary page is displayed.

**Figure 1-25** Groups Summary Page







3. Select a specific Group Name in the Groups Summary page and then click Details to view the associated Group ID, Group Name and Group Description. For more information refer to [Group Details](#).
4. Select a Group name and click Mapped Roles to view the list of Roles that are mapped to the particular Group. For more information about mapped groups, refer to [Mapped and Unmapped Roles](#).

You can also Unmap a group from a specific Role. For more information, refer to [Mapped and Unmapped Roles](#).

To search for a specific user group, type the first few letters of the user group name that you want to search in the search box and click Search. The search results display the names that consist of your search string in the list of available users.

At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

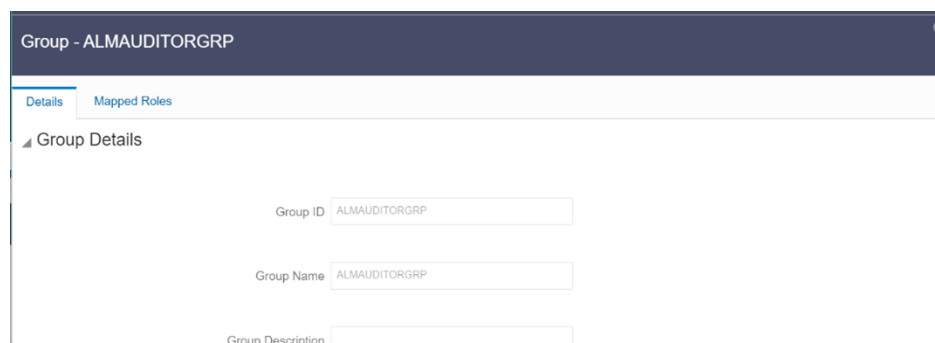
- Use the First page  button to view the entries in the first page.
- Use the Previous page  button to view the entries in the previous page.
- Use the Next page  button to view the entries in the next page.
- Use the Last page  button to view the entries in the last page.

You can also navigate to the desired page. To do this, enter the page number in the View bar control and press Enter.

### 1.3.3.2.1 Group Details

Select the Group name in the Groups Summary page and then select Details to view the Group ID, Group Name and Group Description.

**Figure 1-26 Group Details Page**



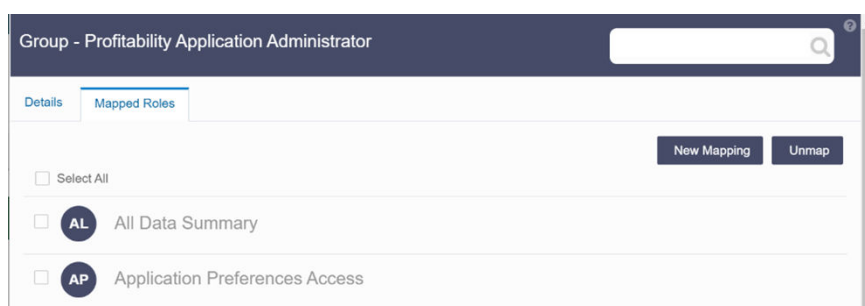
### 1.3.3.2.2 Mapped and Unmapped Roles

If you are an administrator, you can map and unmap a Group to a User Role, from the Groups Summary page.

#### 1.3.3.2.2.1 Mapped Roles

Complete the following steps, to map an user to a User Group.

1. Select the User name in the Groups Summary page.
2. Select Mapped Roles.  
The list of Roles mapped to the specific user is displayed.

**Figure 1-27 Mapped Roles**

3. Click **New Mapping**.  
After you click New Mapping, the list of user Roles you can map the group to appears in the **Available Roles** page.
4. Select the check box corresponding to a User Role or click **Select All** to select all the available User Roles.
5. Click **Map**.  
A confirmation message is displayed after successful mapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Roles**, select the user Role name.
2. Click **Authorize** to authorize the user-user group mapping.  
Click **Reject** to cancel the authorization request.

#### 1.3.3.2.2 Unmapped Roles

To unmap a Group from a Role, complete the following steps.

1. Select the Group name in the **Groups Summary** page.
2. Select **Mapped Roles**.  
The list of Roles mapped to the specific user is displayed.
3. Select the check box corresponding to a User Role or click **Select All** to select all the available User Roles.
4. Click **Unmap**.  
A confirmation message is displayed after successful unmapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Roles**, select the user group name.
2. Click **Authorize** to authorize the user-user Role unmapping.  
Click **Reject** to cancel the authorization request.

#### 1.3.3.2.3 Available Roles

Click New Mapping to view the list of roles you can map to the user group.

To select a role, select the check box corresponding to the role. To select all roles, select the check box marked **Select All**.

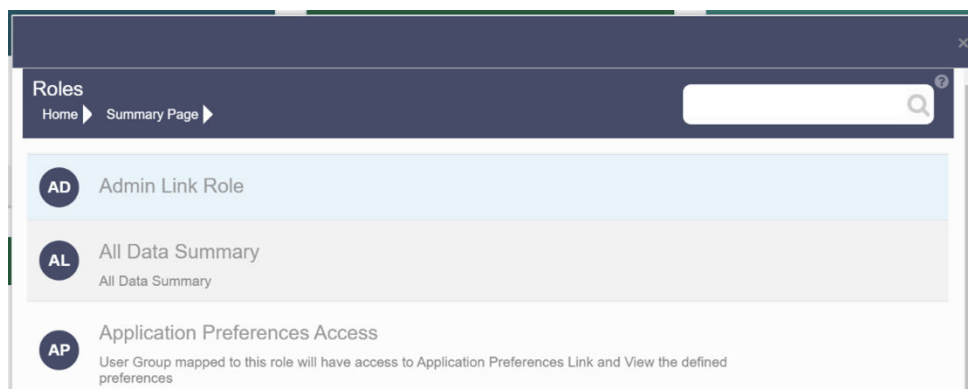
### 1.3.3.3 Roles Summary Page

The Roles Summary page shows the list of available User Roles. You can view the details of a Role and map the Role to one or more user Functions.

To access Roles Summary page, complete the following steps:

1. Click **Identity Management** tab in the **Admin Console** page.
2. Click the **Roles** tile (🗄️🔑).  
The **Roles Summary** page is displayed.





**Figure 1-28 Roles Summary Page**



3. Select a specific Role Name in the Roles Summary page and then click Details to view the associated Role Code, Role Name and Role Description. For more information refer to [Role Details](#).
4. Select a Role name and click Mapped Functions to view the list of Functions that are mapped to the particular Role. For more information about mapped Functions, refer to [Mapped and Unmapped Functions](#).  
You can also Unmap a Role from a specific Function. For more information, refer to [Mapped and Unmapped Functions](#).

To search for a specific role, type the first few letters of the role name that you want to search in the Search box and click Search. The search results display the names that consist of your search string in the list of available users.

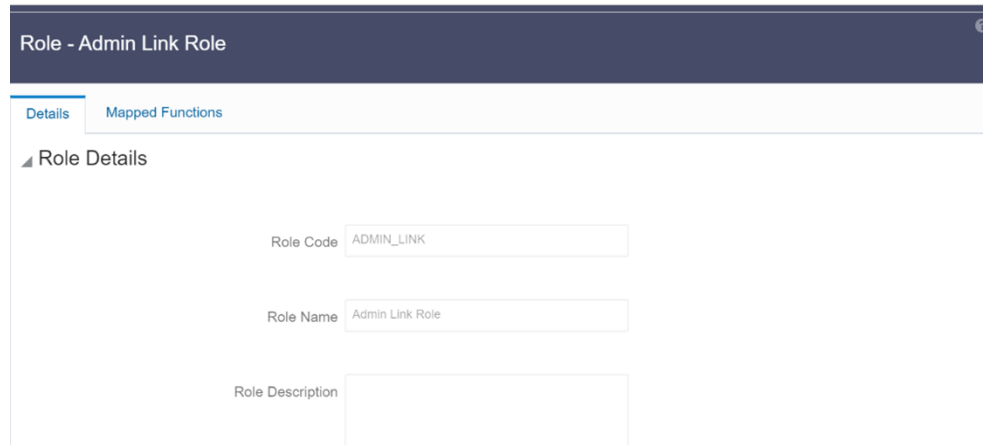
At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

- Use the First page  button to view the entries in the first page.
- Use the Previous page  button to view the entries in the previous page.
- Use the Next page  button to view the entries in the next page.
- Use the Last page  button to view the entries in the last page.  
You can also navigate to the desired page. To do this, enter the page number in the View bar control and press Enter.

### 1.3.3.3.1 Roles Details

Click a specific Role listed in the Roles Summary page and click Details to view the Group ID, Group name and the description of that group.

**Figure 1-29 Roles Details Page**



The screenshot shows the 'Role - Admin Link Role' page. It has two tabs: 'Details' (selected) and 'Mapped Functions'. Under the 'Details' tab, there is a section titled 'Role Details' with three input fields: 'Role Code' containing 'ADMIN\_LINK', 'Role Name' containing 'Admin Link Role', and 'Role Description' which is empty.

### 1.3.3.3.2 Mapped and Unmapped Functions

If you are an administrator, you can map and unmap a User Role to a Function, from the Roles Summary page.

#### 1.3.3.3.2.1 Mapped Functions

Complete the following steps, to map a Role to a Function.

1. Select the Role name in the **Roles Summary** page.
2. Select **Mapped Functions**.  
The list of Functions mapped to the specific user is displayed.

**Figure 1-30 Mapped Functions**



The screenshot shows the 'Role - Admin Link Role' page with the 'Mapped Functions' tab selected. At the top right, there are 'New Mapping' and 'Unmap' buttons. Below them is a 'Select All' checkbox. A table lists one mapped function: 'AD Admin Link'. At the bottom, there is a pagination bar showing 'Page 1 of 1 (1 - 1 of 1 Items)' and 'Records 1'.

3. Click **New Mapping**.  
After you click New Mapping, the list of user Functions you can map the Role to appears in the **Available Functions** page.

4. Select the check box corresponding to a Function or click **Select All** to select all the available Functions.
5. Click **Map**.  
A confirmation message is displayed after successful mapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Functions**, select the Function Name.
2. Click **Authorize** to authorize the Role Function mapping.  
Click **Reject** to cancel the authorization request.

#### 1.3.3.3.2.2 Unmapped Functions

To unmap a Role from a Function, complete the following steps.

1. Select the Role name in the **Roles Summary** page.
2. Select **Mapped Functions**.  
The list of Functions mapped to the specific Role is displayed.
3. Select the check box corresponding to a Function or click **Select All** to select all the available Functions.
4. Click **Unmap**.  
A confirmation message is displayed after successful unmapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Functions**, select the Function Name
2. Click **Authorize** to authorize the Role Functions unmapping.  
Click **Reject** to cancel the authorization request.

#### 1.3.3.4 Folders Summary Page

You can create multiple Folders, store objects and assign access rights based on the security level of the user.

The Folders Summary page shows the list of available groups. You can view the details of a group and map the group to one or more user Roles.

To access Folders Summary page, complete the following steps:

- Click **Identity Management** tab in the **Admin Console** page.
- Click the **Folders** tile, to access the Folders Summary page.  
The **Folders Summary** page is displayed.







**Figure 1-31 Folders Summary Page**

Select a specific Folder Name in the Folders Summary page and then click Details to view the associated Folder ID, Folder Name and Folder Type. For more information refer to [Folder Details](#).

To search for a specific user group, type the first few letters of the user group name that you want to search in the search box and click Search. The search results display the names that consist of your search string in the list of available users.

At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

- Use the First page  button to view the entries in the first page.
- Use the Previous page  button to view the entries in the previous page.
- Use the Next page  button to view the entries in the next page.
- Use the Last page  button to view the entries in the last page.

You can also navigate to the desired page. To do this, enter the page number in the View bar control and press Enter.

#### 1.3.3.4.1 Folder Details

Select the Folder name in the Folders Summary page and then select Details to view the Folder ID, Folder Name, and Folder Type of the selected Folder.

**Figure 1-32 Folder Details**

Folder - TEST0811

Details

Folder Details

Folder ID TEST0811

Folder Name TEST0811

Folder Type PUBLIC

Edit Delete

#### 1.3.3.4.1.1 Editing Folder Details

You can edit the Folder Type from the folder details page.

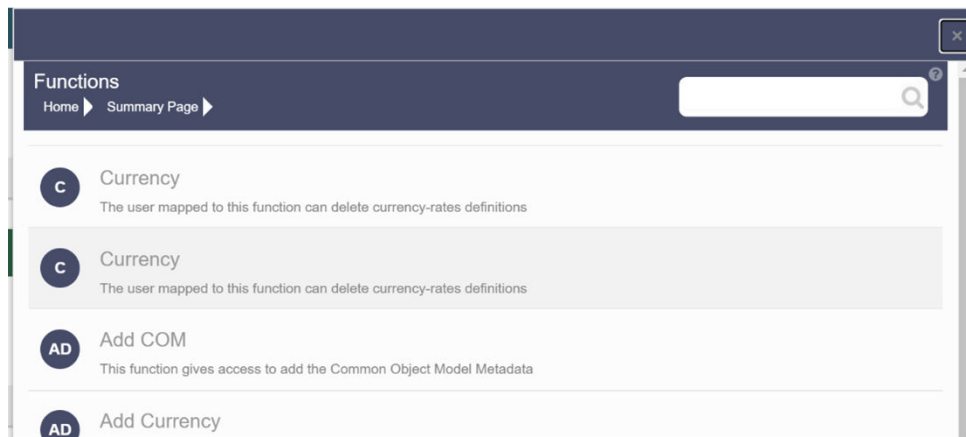
1. Click **Edit** button on the **Folder Details** page.
2. Set the Folder Type to one of the following options:
  - **Public**- These folders are accessible to all users
  - **Private** - These Folders can be viewed only by the users associated with that folder.
  - **Shared** - These folders can be accessed by those users mapped to specific User groups. These User groups are mapped to specific roles that are associated with the folder.

#### 1.3.3.5 Functions Summary Page

The Functions Summary page shows the list of available functions. You can view the Function details.

To access Functions Summary page, complete the following steps:





1. Click **Identity Management** tab in the **Admin Console** page.
2. Click the **Functions** tile. The **Functions Summary** page is displayed.

**Figure 1-33 Functions Summary page**

3. Select a specific Folder Name in the Functions Summary page and then click Details to view the associated Function ID, Function Name and Function Description. For more information refer to [Function Details](#).

To search for a specific function, type the first few letters of the function name that you want to search in the search box and click Search. The search results display the names that consist of your search string in the list of available users.

At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

- Use the First page  button to view the entries in the first page.
- Use the Previous page  button to view the entries in the previous page.
- Use the Next page  button to view the entries in the next page.
- Use the Last page  button to view the entries in the last page.

You can also navigate to the desired page. To do this, enter the page number in the View bar control and press **Enter**.

### 1.3.3.5.1 Function Details

Select the function name in the Functions Summary page and then select Details to view the Function ID, Function Name, and Function Description of the selected function.

**Figure 1-34 Function Details**

The screenshot shows a web interface titled "Function - Currency". Below the title bar, there is a "Details" tab. Underneath, the "Function Details" section contains three input fields: "Function ID" with the value "CRRLSL", "Function Name" with the value "Currency", and "Function Description" with the text "The user mapped to this function can delete currency-rates definitions".

### 1.3.3.5.2 Mapped and Unmapped Functions

If you are an administrator, you can map and unmap a User Role to a Function, from the Roles Summary page.

#### 1.3.3.5.2.1 Mapped Functions

Complete the following steps, to map a Role to a Function.

1. Select the Role name in the **Roles Summary** page.
2. Select **Mapped Functions**.  
The list of Functions mapped to the specific user is displayed.

**Figure 1-35 Mapped Functions**

The screenshot shows a web interface titled "Role - Admin Link Role". Below the title bar, there is a "Mapped Functions" tab. Underneath, there is a "Select All" checkbox, a "New Mapping" button, and an "Unmap" button. Below these, there is a list of functions with a checkbox and the role name "AD Admin Link". At the bottom, there is a pagination bar showing "Page 1 of 1 (1 - 1 of 1 Items)" and "Records 1".

3. Click **New Mapping**.  
After you click New Mapping, the list of user Functions you can map the Role to appears in the **Available Functions** page.
4. Select the check box corresponding to a Function or click Select All to select all the available Functions.
5. Click **Map**.  
A confirmation message is displayed after successful mapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Functions**, select the Function Name.
2. Click **Authorize** to authorize the Role Function mapping.  
Click **Reject** to cancel the authorization request.

#### 1.3.3.5.2.2 Unmapped Functions

To unmap a Role from a Function, complete the following steps.

1. Select the Role name in the **Roles Summary** page.
2. Select **Mapped Functions**.  
The list of Functions mapped to the specific Role is displayed.
3. Select the check box corresponding to a Function or click **Select All** to select all the available Functions.
4. Click **Unmap**.  
A confirmation message is displayed after successful unmapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Functions**, select the Function Name
2. Click **Authorize** to authorize the Role Functions unmapping.  
Click **Reject** to cancel the authorization request.

# 2

## Data Administration

This chapter covers the Data Model Extension, Data File Specification, File Upload and Download, Data Maintenance Interface, and Data Quality Framework topics.

Data Administration Topics:

- **Data Model Extension:** The PBSM Cloud Service provides OOTB placeholder Columns and Tables that can be configured to use as custom Columns, Custom Dimensions, and Custom Management Ledger Tables as suitable to the business requirements. However, these Columns and Table are placeholder items and must be registered before use. The Data Model Extension module enables you to register these Columns and Tables.
- **Data File Specification:** The Data File Specification module helps you to load the data from your systems to the PBSM Cloud Services.
- **File Upload and Download Utility:** The File Upload and Download Utility enables you to upload or download files to the Object Store.
- **Data Maintenance Interface:** Data Maintenance Interface (DMI) helps to design a Data Form in a user-specified format. Further, it allows to perform maintenance activities using the Designed Form.
- **Data Quality Framework:** Data Quality Framework consists of a scalable rule-based engine which uses a single-pass integration process to standardize, match, and duplicate information across global data.

### 2.1 Data Model Extension

Customization of Physical Data Model is restricted in the Profitability and Balance Sheet Management (PBSM) Cloud Service. However, it is understood that there may be a need to extend the Data Model to meet multiple business requirements. For this purpose, the PBSM Cloud Service provides OOTB placeholder Columns and Tables that can be configured to use as custom Columns, Custom Dimensions, and Custom Management Ledger Tables as suitable to the business requirements.

These placeholder Columns and Tables must be registered before use. The Data Model Extension Module allows you to do the following types of registrations:

- Dimensions Registration
- Columns Registration
- Management Ledger Registration

After registration, you can start loading the data in the selected placeholder Columns and Tables and use them to define the Rules and Assumptions for further processing and reporting.

Appropriate user roles must be created and maintained for the users to perform the registration and registration approval processes.

To register the placeholder Columns and Tables, perform the following steps:

1. From the LHS Menu, select Data Management Tools, and then select Data Model Extension to display the DataModel Extension Summary Screen.

**Figure 2-1 DataModel Extension Summary Screen**



The DataModel Extension Summary Screen displays the following tiles:

- Dimensions
- Columns
- Management Ledger
- Pending Registration

Using this UI, you do the registration of Dimensions, Columns, and Management Ledger Tables. After the registration is done, the detail will be sent to the Supervisor or Approver User who either approves or rejects the registration.

## 2.1.1 Registering Dimensions

Through the Dimension Registration UI, you register two types of Dimensions; Simple Dimension and Key Processing Dimensions that are explained in the following topics.

Through the Dimension Registration UI, you register two types of Dimensions; Simple Dimension and Key Processing Dimensions that are explained in the following topics. Dimensions are the Placeholder Columns and Tables. The column names appear in the Instrument Tables as Physical Column Names. The Data Model Extension UI allows you to define the Logical Layer with details Name, Description, and the purpose of the column. After these columns are defined, they appear in the drop-down lists in the application screens as UDPs (User Defined Properties) that you can use. This process of defining the Dimensions is called Registering.

### 2.1.1.1 Register a Simple Dimension

Simple Dimensions are list of values that support neither attributes nor hierarchies.

Simple Dimensions are list of values that support neither attributes nor hierarchies. Their three key uses are:

- Reserved for use within the Analytical Application Engines
- Stratifying your data for process or report filtering purposes

- Serving as list of values when used as attributes

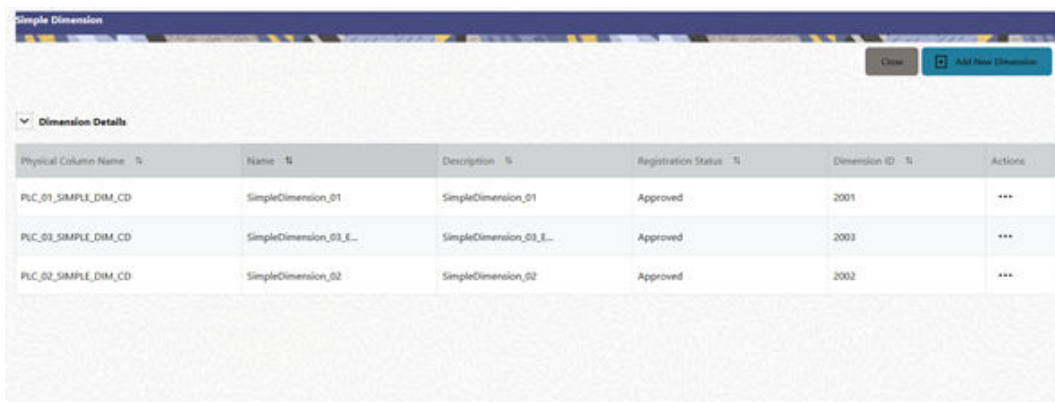
The PBSM Data Model comes with 20 placeholder Simple Dimensions for configuration and use. The member details of simple dimensions are stored in two tables:

- A code table (For example, FSI\_SIMPLE\_DIM\_01\_CD)
- A Multi-Language Support table (for example, FSI\_SIMPLE\_DIM\_01\_MLS)

To register a Simple Dimension, perform the following steps:

1. Navigate to the **Data Model Summary** Screen, and click the **Simple Dimensions** Tile to display the **Simple Dimension Summary** Screen.

**Figure 2-2 Simple Dimension Summary Screen**



Physical Column Name	Name	Description	Registration Status	Dimension ID	Actions
PLC_01_SIMPLE_DIM_CD	SimpleDimension_01	SimpleDimension_01	Approved	2001	***
PLC_01_SIMPLE_DIM_CD	SimpleDimension_03_E_	SimpleDimension_03_E_	Approved	2003	***
PLC_02_SIMPLE_DIM_CD	SimpleDimension_02	SimpleDimension_02	Approved	2002	***

The Simple Dimension Summary Screen displays the summary of existing Simple Dimensions with the Physical Column Names, Name, Description, Registration Status, Dimension ID details, and Actions Icon.

2. Click **Add New Dimension** to collapse the Dimension Details Summary and to display the Dimension Details.

When you click **Add New Dimension**, the UI displays Save and Submit for Approval Buttons.

3. Enter the following details:

- **Name** (mandatory): Specify the required logical name of the dimension.
- **Description** (mandatory): Specify the required description of the dimension.
- **Comment**: Specify the required maker/checker comment. Note that special characters \*, newline, and double quotes are not allowed.

The **Details** section displays the Physical Column and Data Type information that the dimension uses for user reference. As and when a registration takes place successfully and the physical column is utilized, the next registration process proceeds to take the next-in-numerical-order physical column available for registration.

4. Click **Save** to save the details. The details are saved as a Draft and displayed on the Summary Screen. You can change the Name, Description, and Comments later by double clicking the details.



5. Click **Submit for Approval** to send the Dimension Details for approval. Or Select a Name from the list and click the Actions Icon to View, View, Edit, Submit for Approval or Delete the Simple Dimension.

OR

Select a Name from the list and click the Actions Icon to View, View, Edit, Submit for Approval or Delete the Simple Dimension.

 **Note:**

- You can delete a registration when it is in Draft state.
- If the selected Dimension is in Approved state, then the Actions menu displays only View, Edit, and Submit for Approval actions.

### 2.1.1.1.1 View a Simple Dimension

To view a Simple Dimension, perform the following steps.

To view a Simple Dimension, perform the following steps:

1. Click the **Actions** Icon against the selected Simple Dimension to expand the Actions Menu.
2. Click **View** to see the details of the selected Simple Dimension.

### 2.1.1.1.2 Edit a Simple Dimension

To edit a Simple Dimension, perform the following steps:

1. Click the **Actions** Icon against the selected Simple Dimension to expand the Actions Menu.
2. Click **Edit** to display the selected Dimension details in edit mode.
3. Edit the following details:
  - a. **Name:** This is mandatory.
  - b. **Description:** This is mandatory.
  - c. **Comment:** Specify the required maker/checker comment. Note that special characters \*, newline, and double quotes are not allowed.
4. Click **Save** to save the details as a draft.
5. Click **Submit for Approval** to send the Dimension Details for approval.

 **Note:**

- When you edit an already approved Dimension, the Dimension must be submitted for approval again. You cannot delete or edit the Dimension again.
- Additionally, if you edit an approved Dimension, then the Actions Icon displays only the View option for the Dimension.

### 2.1.1.1.3 Delete a Simple Dimension

To delete a Simple Dimension, perform the following steps:

1. Click the **Actions** Icon against the selected Simple Dimension to expand the Actions Menu.
2. Click **Delete** to delete the Dimension.

 **Note:**

You can only delete a Dimension that is in Draft stage. The Actions Menu does not display the Delete action for an approved dimension.

### 2.1.1.2 Register a Key Processing Dimension

Key Processing Dimensions have the following features:

- Accessible as modeling dimensions for all of the OFSAA Analytical Engines.
- Expressed as columns in nearly all of your Business Fact Tables.
- Support both attributes and hierarchies.

Metadata for Key Processing Dimensions is stored in four tables:

- A base table (For example, DIM\_PRODUCTS\_B)
- A translation table (For example, DIM\_PRODUCTS\_TL)
- An attribute table (For example, DIM\_PRODUCTS\_ATTR)
- A hierarchy table (For example, DIM\_PRODUCTS\_HIER)

Base tables store basic information about each Dimension Member and Translation Tables store names and descriptions for each Dimension Member in multiple languages.

Attribute Tables store one or many attribute values for each Dimension Member. Hierarchy Tables store one or more hierarchies for each dimension (you may define as many hierarchies as you wish for any dimension that supports hierarchies).

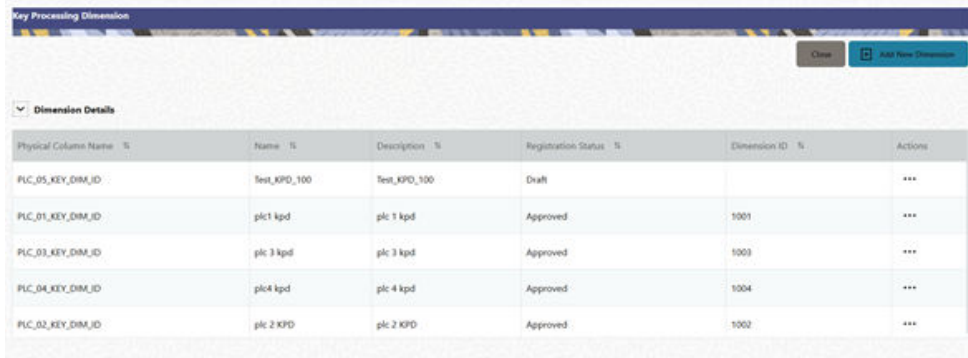
PBSM Cloud Service seeds the following Key Processing Dimensions:

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

In addition to the OOTB Key Processing Dimensions, the application's DM Extension Module enables you to create Custom Dimensions as required by the business. To register a Key Processing Dimension, perform the following steps:

1. Navigate to the Data Model Summary Screen, and click the Key Processing Dimension Tile to display the Key Processing Dimension Summary Screen.

Figure 2-3 Key Processing Dimensions Summary Screen



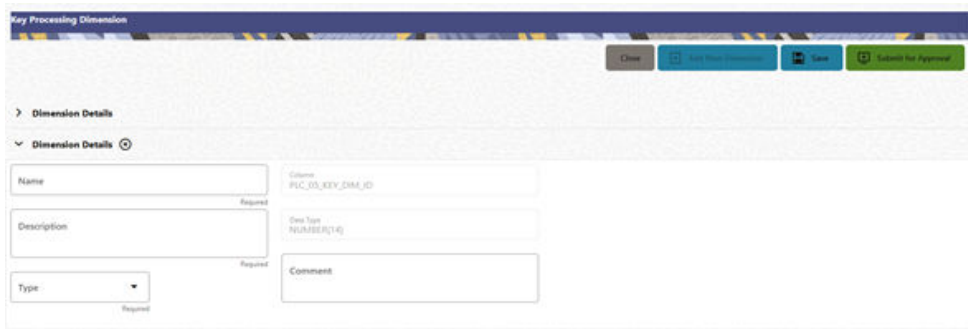
Physical Column Name	Name	Description	Registration Status	Dimension ID	Actions
PLC_05_KEY_DIM_ID	test_kpd_100	test_kpd_100	Draft		***
PLC_01_KEY_DIM_ID	plc1 kpd	plc 1 kpd	Approved	1001	***
PLC_03_KEY_DIM_ID	plc 3 kpd	plc 3 kpd	Approved	1003	***
PLC_04_KEY_DIM_ID	plc4 kpd	plc 4 kpd	Approved	1004	***
PLC_02_KEY_DIM_ID	plc 2 KPD	plc 2 KPD	Approved	1002	***

The Summary Screen displays the summary of existing Key Processing Dimensions with the details Physical Column Names, Name, Description, Registration Status, Dimension ID, and Actions icon.

The registration of a Dimension happens after the Dimension is approved. The Dimension ID is displayed only for the approved Dimensions.

- Click Add New Dimension to collapse the Dimension Details Summary and to display the Dimension Details. When you click Add New Dimension, the UI displays Save and Submit for Approval buttons.

Figure 2-4 Key Processing Dimension Screen



Key Processing Dimension

Clear Add New Dimension Save Submit for Approval

Dimension Details

Dimension Details

Name Required

Description Required

Type Required

Comment

- Enter the following details:
  - Name:** This is a mandatory field. Specify the required logical name of the dimension.
  - Description:** This is a mandatory field. Specify the required description of the dimension.
  - Type:** This is a mandatory field. Select a relevant Dimension Type.
    - Product (Prod):** Select this option if you want to use the placeholder Dimension to define Business Rules and Assumptions.
    - Organization (Org):** Select this option if you want to use the Placeholder Dimension to define a new Organization structure.
    - Other:** Select this option if you want to use the placeholder Dimension for any other purpose.

- **Comment** Specify the required maker/checker comment. Note that special characters \*, newline, and double quotes are not allowed.

The **Details** section displays the Physical Column and Data Type information that the dimension uses for user reference. As and when a registration is successful and the physical column is utilized, the next registration process proceeds to take the next-in-numerical-order physical column available for registration.

4. Click **Save** to save the details. The details are saved as a Draft and displayed on the Summary Screen. You can change the Name, Description, and Comments later by double clicking the details.
5. Click **Submit for Approval** to send the Dimension Details for approval.  
Or

Select a **Name** from the list and click the **Actions** Icon to View, Edit, Submit for Approval or Delete the Simple Dimension.

 **Note:**

- You can delete a registration when it is in Draft state.
- If the selected Dimension is in Approved state, then the Actions Menu displays only View, Edit, and Submit for Approval actions.

## 2.1.2 Registering Columns

The Placeholder Columns are categorized under the different domains to be used for different purposes.

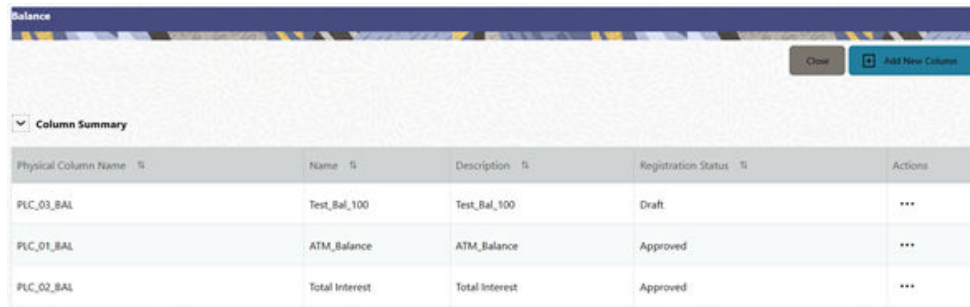
The following domain types are available for the columns:

- Data
- Rate
- Volume
- CHAR
- Long Description
- Flag
- Balance

The procedures to register the listed Columns are similar. To register a Column, perform the following steps:

1. Navigate to the Data Model Summary Screen, and click a Column tile to display the Column Summary Screen.

Figure 2-5 Column Summary Screen



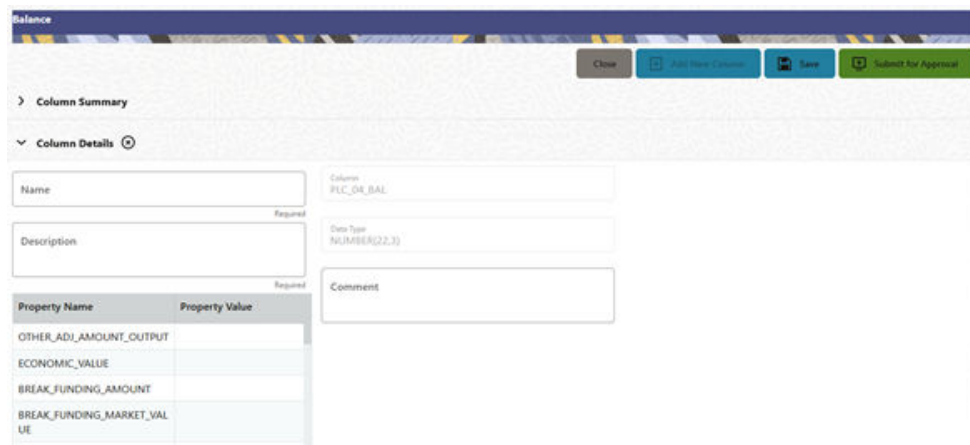
Physical Column Name	Name	Description	Registration Status	Actions
PLC_03_BAL	Test_Bal_100	Test_Bal_100	Draft	...
PLC_01_BAL	ATM_Balance	ATM_Balance	Approved	...
PLC_02_BAL	Total Interest	Total Interest	Approved	...

The Summary Screen displays the summary of existing Columns with the details Physical Column Names, Name, Description, Registration Status, and Actions Icon.

The registration of a Column happens after the Column is approved.

- Click Add New Column to collapse the Column Details Summary and to display the Column Details. When you click Add New Column, the UI displays the Save and Submit for Approval Buttons.

Figure 2-6 Column Screen



Column Summary

Column Details

Name: PLC\_01\_BAL (Required)

Description: ATM\_Balance (Required)

Property Name: OTHER\_ADJ\_AMOUNT\_OUTPUT

Property Value: [Dropdown]

Data Type: NUMBER(22,3)

Comment: [Text Area]

- Enter the following details:
  - Name:** This is mandatory. Specify the required logical name of the column.
  - Description:** This is a mandatory field. Specify the required description of the column.
  - Property Name:** This is an optional field used to select a relevant Property from the drop-down list, as applicable to the Column.
  - Property Value:** Double click to display a drop-down where you can select Yes if it is applicable to the Column.
  - Comment:** Specify any Maker/Approver comment. Note that special characters \*, newline, and double quotes are not allowed.

The **Details** Section displays the Physical Column and Data Type Information that the column uses for user reference. As and when a registration takes

place successfully and the Physical Column is utilized, the next registration process proceeds to take the next-in-numerical-order physical column available for registration.

4. Click Save to save the details. The details are saved as a Draft and are displayed on the Summary Screen. You can change the Name, Description, and Comments later by double clicking the details.
5. Click **Submit for Approval** to send the Column Details for approval.  
OR

Select a Name from the list and click the Actions Icon to View, Edit, Submit for Approval, or Delete the Column. Editing, Submitting for Approval, or Deleting procedures are similar to Dimension Edit, Submit for Approval, or Delete procedures.

#### Note:

- You can delete a registration when it is in Draft state.
- If the selected Dimension is in Approved state, then the Actions menu displays only View, Edit, and Submit for Approval actions.

## 2.1.3 Registering a Management Ledger

PBSM Cloud Service contains the default Management Ledger (FSI\_D\_MANAGEMENT\_LEDGER). However, you can add up to five other Management Ledgers to the Service.

To view and edit the Management Ledger, perform the following steps:

1. Navigate to the **Data Model Summary** Screen, and click the **Management Ledger** tile to display the **Edit Management Ledger** Screen.

**Figure 2-7 Edit Management Ledger Screen**

This screen displays the following details of the Management Ledger as follows:

- **Name** (non-editable)
  - **Physical Name** (non-editable)
  - **Description** (non-editable)
2. Click **Standard Management Ledger Attribute** to collapse and see the available Standard Dimensions, Standard Columns, and Approved Dimensions.

The Standard Dimensions Section shows the Key Processing Dimensions that are available OOTB for the Management Ledger. In addition to this, the Screen enables the selection of custom Key Processing Dimensions for the Management Ledger through a shuttle box component that displays the registered custom dimensions in the Available Dimensions and the Selected Dimensions Boxes. You can select from the Available Dimensions Box and move them to the Selected Dimension Box using the Move Button. Additionally, you can remove the Selected Dimensions by clicking the Move Back Button.

The Standard Columns comprises of the OOTB Ledger-level Simple Dimensions and Admin Columns. The Approved Dimensions shows the list of Custom Dimensions approved for the Management Ledger.

### 2.1.3.1 Adding a Management Ledger

To add a new Management Ledger, perform the following steps:

1. Navigate to the **Data Model Summary** Screen, and click the **Add Management Ledger** tile to display the Add Management Ledger Screen.

**Figure 2-8 Add Management Ledger Screen**

2. Enter the following details:
  - **Name:** This is a mandatory field. Specify the logical name of the Management Ledger.
  - **Description:** This is a mandatory field. Specify the description of the Management Ledger.
3. Select the applicable Dimensions from the **Available Dimensions** Box and click the **Move** Button to move them to Selected Dimensions Box. The selected Dimensions are included as the additional activated Key Processing Dimensions for the Management Ledger.

- Click **Submit for Approval** to send the Column Details for approval.

The details are sent to the Supervisor or Approver for approval. The newly added Management Ledger is displayed on the Summary Screen in a new tile.

 **Note:**

- You can delete a registration when it is in Draft state.
- If the selected Dimension is in Approved state, then the Actions Menu displays only View, Edit, and Submit for Approval actions.

## 2.1.4 Approving or Rejecting the Registrations

The Supervisor or Approver can see the Dimensions or Columns or Management Ledgers that are ready for approval on the Data Model Extension Summary Screen.

To approve the Dimensions, Columns, and Management Ledgers, perform the following steps:

- Navigate to the **Data Model Extension** Summary Screen.

**Figure 2-9 Data Model Extension Summary Screen**



The Dimensions and Columns that are ready for approval are displayed in one tile and the Management Ledgers that are ready for approval are displayed in another tile against the **Pending Approval** Table.

- Click on any Tile to open to the **Pending Dimension** and **Column Registration** Screen or **Approve Management Ledger Registration** Screen.
- Enter a comment and click the **Approve** or **Reject** Buttons.
- Select **OK**.
  - The approved Dimension or Column or Management Ledger is displayed in the Summary Screen with *Approved* status.
  - Select **Cancel** to keep the Dimension or Column or Management Ledger in a Pending for Approval Status.



5. Click **Reject** to reject the registration. Complete the approval process. The Registration will be marked with status Rejected in the Summary Screen.
6. After it is approved or rejected, the registration is available for further modification by the Maker and can be submitted again.

A registration cannot be deleted after it has passed the Draft State and is currently in Pending, *Approved* or *Rejected* state.

## 2.2 Data File Specification

This chapter covers the following topics:

- [Loading External Data](#)
- [Data Loaders](#)
- [Data File History](#)

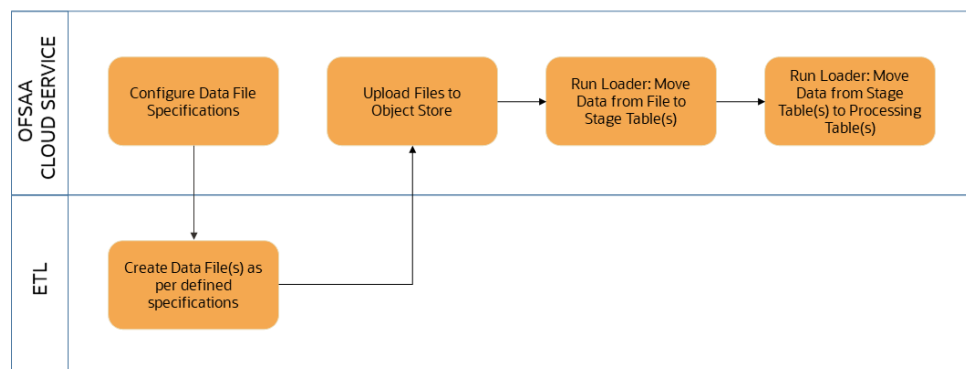
### 2.2.1 Loading External Data

The (OFSAA or Oracle) Cloud Services use following categories of data:

- Account or Instrument
- Management Ledger
- Transaction Summary
- Dimensions and Hierarchies
- Market data like Interest Rate, Currency Exchange Rate

The following illustration depicts the process of loading data from your systems into the Cloud Services:

**Figure 2-10 Loading External Data**



Oracle Cloud Services uses Oracle's Object Store Service to transfer data between your machine/laptop and its databases. Object Storage Service allows storing the files as objects in a highly secure, scalable, and durable way. Files can be uploaded through a Web Console; however, it is possible to do so only with files up to 1 GB.

Uploaded Data Files are temporarily stored in the Object Storage for Data Loaders to read and move them to the corresponding Database Tables for further use by the individual services.

Before the files can be created and uploaded, format, column order and other properties must be defined using Data File Specifications User Interface. This chapter discusses the supported formats and contents of the data file that is being imported into the Object Storage.

For information on uploading files, see the File Upload and Download section. For information on running the Data Loaders, see the [Data Loaders](#) section.

### 2.2.1.1 Data File Specification

The three supported formats for the Data Files are TXT, DAT, and CSV. These files contain the name of the table for which the specifications are being created.

Ensure that there are no duplicate records in a single Data File. If there are duplicate records, then the Data File Upload results in a failure.

To open the Data File Specification Window, navigate to the **Data Management Tools**, select **Data File Administration**, and then select **Data File Specification** to display the Data File Specification Summary Page.

**Figure 2-11 Data File Specification Summary Screen**

<input type="checkbox"/>	Data file name	Target File name	Created By	Created Date	Modified By	Modified Date	Action
<input type="checkbox"/>	Flexcube_Corporate_Loan.csv	STG_ASSET	cfeuser1	05-24-2022 06:23:42	cfeuser1	05-24-2022 06:23:42	...
<input type="checkbox"/>	Flexcube_Home_Loan.csv	STG_ASSET	cfeuser1	05-24-2022 06:24:13			...

The Summary Page of Data File Specification displays the Search Criteria Pane, Specific Search Pane, and the already created Data Files and their details.

#### 2.2.1.1.1 Searching for a Data File Specification

There are two Search Panes provided to search the Data Files on the Summary Page.

To search the Data File, perform the following steps:

1. Click the **Search** icon on the Search pane to collapse (display) the Criteria Window.
2. Data File Name and/or Target File Name and click **Search** to display the Data File Names that match the criteria.
3. Click **Cancel/Reset** to remove the filter criteria on the Search Window and refresh the window.
4. Click **Search** after entering the search criteria.  
The search results are displayed in a table containing all the Data Files that meet the search criteria with the following details:

- **Data File Name:** The name of the Data File.

- **Target File Name:** The Target File Name.
  - **Created By:** Displays the Name of the user who created the Data File.
  - **Created Date:** Displays the Date and Time at which the Data File was created.
  - **Modified By:** Displays the Name of the user who last modified the Data File.
  - **Modified Date:** Displays the Date and Time at which a Data File was last modified.
5. Click on the **Action** icon against the Data File Name to do further actions as follows:
    - **View:** Click View to view the contents of a Data File in read-only format.
    - **Edit:** Click the Edit icon to modify a previously saved Data File. Note that you cannot change the File Name.
    - **Save As:** Click Save As to create a copy of the selected Data File.
    - **Delete:** Click Delete to delete the selected Data File.
  6. Click on the **Action** icon against the Data File to do further actions **View**, **Edit**, **Save As**, and **Delete** on the selected Data File.

The other method to search a Data File is using the **Field Search** pane. You can enter any one of the details of a Data File and press the **Enter** key to display the details of the Data File.

### 2.2.1.1.2 Creating a Data File Specification

The Data File usually contains the Name of the Physical Table on which the specifications are being created and the columns included in the file.

For the complete list of available columns, see the Download Specifications available at [Doc ID: 2959143.1](#)

To create a new Data File Specification, perform the following steps:

1. Navigate to the Data File Specification Summary Page and click the **Add** icon to open the Data File Specification window.

**Figure 2-12 Data File Specification**

2. Under the Details Section of the screen, enter the following details:
  - a. Click on **Target Table Name** to open a list **Category – Table Names**. The tables are categorized into different groups and are as follows:
    - Transaction Summary
    - Ledger
    - Others
    - Schedule o Instruments

Each of the above **Categories** lists the **Tables** available for data loading. The list of categories is dependent on the Metadata from the Seeded Tables that come with the various Cloud Services and may differ from that shown above based on the services you have subscribed.
  - b. Select a **Table** from the list for which you want to create the Data File Specification.
  - c. Enter a unique **Name** for Data File Specification with an extension of the file format. The formats supported are TXT, CSV, and DAT types.
3. Under the **Load Properties** Section of the screen, enter the following details:
  - a. Select the **Incremental** toggle switch if the data in the file is incremental. If the data is a complete load, then do not select this switch.  
This flag identifies if the Data File is incremental or fresh accounts. In the case of incremental accounts, if account 1 is loaded as part of the Data File 1 and needs a correction. In that case, the account is corrected and will be uploaded as part of Data File 2. In this case, Data File 2 is the incremental file.
  - b. Select **File contains Header record** toggle switch if the file contains a Header Record.
  - c. Select **Validate Manifest File** toggle switch if you want to validate the data in the Data File. This validation checks the Checksum of the file, the number of records that are being loaded from the file and other additional details such as Date Format and so on. To use this toggle switch, a prerequisite is to generate a manifest file for the Data File that is being created and it must be uploaded using the File Upload process. For more details, see the [File Upload and Download](#) section.  
This is an optional step. However, if you want to generate a manifest file in JSON format, then enter the following details and save it as a .manifest file. A sample JSON file format is as follows:

```
{"file_name":"test.dat","as_of_date":"2022-03-24","checksum":"2587cdb6a2b87835c6adfce627671486","record_count":"10","rejection_threshold":"0"}
```

 **Note:**

Ensure that the name of the manifest file is same as the Data File with .manifest extension. For example, if the Data File Name is asset.csv, then the manifest file must be named asset.manifest.

**Table 2-1 MANIFEST File Details**

Property Name	Notes
file_name	Full name of the file, without the leading path. Not validated; Only for information purposes.

**Table 2-1 (Cont.) MANIFEST File Details**

Property Name	Notes
as_of_date	Date for which file contains the data; Not validated; Only for information purposes.
checksum	Mandatory. The checksum of the file will be validated before loading commences.
record_count	Mandatory. The number of records in the file (ignoring header-record); will be validated after SQL*Loader completes.
rejection_threshold	Limit for % of records rejected, for calling the loading as “failed”. This can also be set from the UI.

- d. Select the **Date Format** from the drop-down list to indicate the Date Format used in the Data File.
  - e. Select the **Delimiter** used in the Data File.
  - f. Select the **Rejection Threshold**. You should enter a number that is greater than or equal to zero.  
The Rejection Threshold is used to check the allowed percentage of rows that can be rejected in a Data File. As an example, if you define a 10% Rejection Threshold for a Data File that has 1000 rows, then the Data File Upload fails if more than 100 rows are rejected. If the number of rows rejected is less than 100, then Data File Upload succeeds.
4. Under the **Columns Order** section of the screen, enter the following details. If you enter zero, then none of the records from the Data File should fail.
    - a. Select the relevant option for Column Type from the following options:
      - **Key Columns:** The Key Columns are the primary keys of the record. A table displays the Key Columns available for the selected Target Table Name. By default, the primary keys will be selected.
      - **Other Columns:** If you select the Other Columns, all remaining columns (key dimensions, simple dimensions, dates, measures, and so on) for the selected Target Table are displayed. Select the applicable columns from the list and click the Move button to display them in the table on the right-hand side.

Within the selected Column Type, Column Names can be re-ordered by dragging and dropping. The columns are always ordered by their type, that is, Key Columns will appear before the Dimension Columns and Dimension Columns will always appear before the Other Columns. After saving a definition, if you add a new Dimension Column then it will appear in the order before the remaining Other Columns. For example, assume that the initial definition is saved with the below columns:

**Figure 2-13 Column Preview**


Name	Default Value	Column Order
Account Number		1
As Of Date		2
General Ledger Account Code		3
Ifrs9 Stage Code		4
Account Close Date		5
Accrual Basis Code		6
Accumulated Basis Risk Charge Credit		7

After this, if a new Dimension Column (say Product Id) is selected, it will push the Other Columns down in order.

**Figure 2-14 Columns Preview**


Name	Default Value	Column Order
Account Number		1
As Of Date		2
General Ledger Account Code		3
Ifrs9 Stage Code		4
Product Code		5
Account Close Date		6
Accrual Basis Code		7
Accumulated Basis Risk Charge Credit		8

The same order must be followed while preparing the Data File.

The default value for each Column can also be given in the table. If the Column Value is null in the Data File, then the default value is used.

- b. Select Logical Name or Physical Name to display the logical or physical names for the columns in the table.
5. Click **Save** to save the file. The newly created file will be listed on the Data File Specification Summary Screen.
6. On the Summary Screen, click on the **Action** icon against the File Name to perform further actions **View**, **Edit**, **Save as**, and **Delete**.

After you create the Data File, you must upload the file into the Object Store using the File Upload and Download option. If you have created a MANIFEST file for the Data File, you must upload the MANIFEST file too. For more information and procedure to upload or download the file, see the [File Upload and Download](#) section.

### 2.2.1.1.3 Creating the Data File

After the Data File Specification is defined, follow the below mentioned guidelines to prepare the Data Files:

- Columns to be included in the Data File must be as per the [Data File Specification](#).
- Name of the Data File must be same as the Data File Specification with a prefix of “input\_yyyymmdd” where yyyymmdd is the Date (As of Date) for which the Data File is prepared. For example:
  - Data File Specification Name is “Asset.dat”
  - The As of Date is 06-July-2022
  - Data File Name must be “input\_20220706\_asset.dat”
- Unique Data Validations:
  - Instrument Data Files: Account Numbers must be unique across the data files for a single As of Date.
  - Management Ledger Data Files: The combination of KPDs and Simple Dimensions must be unique across the data files for a single As of Date.
  - Transaction Summary Data Files: The combination of Account Numbers and KPDs must be unique across the data files for a single As of Date.
- Permitted Delimiters are comma (,) and pipeline (|).
- Data Validations:
  - Number fields: only numbers and dot (.) are allowed.
  - Description fields: comma (,) pipeline (|), single quotes (’), and double quotes (“ ”) are not supported.
  - Any nullable fields which are mapped in the Data File Specification definitions should not be skipped in the Data File.
  - The column order in the Data File should be in sync with the order defined in the Data File Specification definition.
  - Field Enclosures: Only double quotes (“”) are considered as Field Enclosures.

See the following sample files for your reference:

- [input\\_20151009\\_asset.dat](#)
- [input\\_20150330\\_ASSETTXN.dat](#)
- [input\\_20220110\\_STGML.dat](#)

For more information about the data required by the PBSM Services, see the Download Specifications available at the following documents:

- For Profitability Management Cloud Service: [Doc ID: 2879433.1](#)
- For Profitability Analytics Cloud Service: [Doc ID 2901994.1](#)
- For Funds Transfer Pricing Cloud Service: [Doc ID 2896355.1](#)
- For Asset Liability Management Cloud Service: [Doc ID 2940325.1](#)
- For Cash Flow Engine Cloud Service: [Doc ID 2869409.1](#)

## 2.2.2 Data Loaders

Oracle Financial Services Profitability and Balance Sheet Management (PBSM) Cloud Service's Data Loaders are used to move the data from one stage to another stage and in turn update the underlying Database Tables.

PBSM Cloud Service supports the following types of Data Loaders:

- **Dimension Data Loaders:** The Dimension Data Loaders are used to populate the Dimension Members, Attributes, and Hierarchies from the Staging Dimension Tables to the Dimension Tables registered with the PBSM Cloud Services.
- **Instrument Data Loaders:** The Instrument Data Loaders are used to move the data from the files to the staging instrument tables.
- **Management Ledger Data Loaders:** The Management Ledger Data Loaders are used to move the data from the files to the staging Ledger tables and then to the processing Ledger tables.
- **Transaction Summary Data Loaders:** The Transaction Summary Data Loaders are used to move the data from the files to the staging Ledger tables and then to the processing Transaction Summary tables.
- **Exchange Rate Data Loader:** The Exchange Rate Data Loader allows the user to load the Exchange Rate Data required by the PBSM Cloud Services to enrich the data.

### 2.2.2.1 Dimension Data Loader

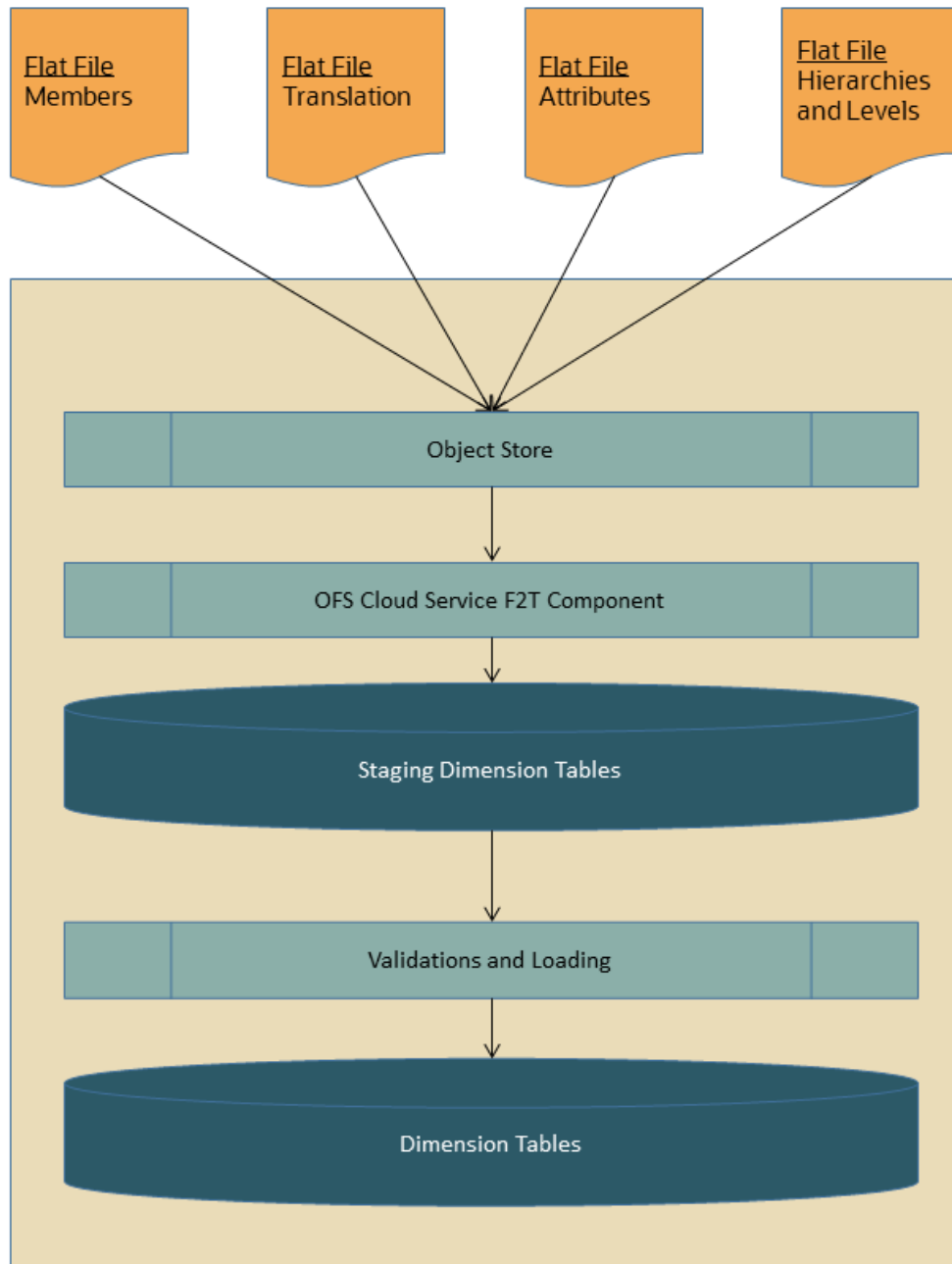
The Dimension Loader procedure populates Dimension Members, Attributes, and Hierarchies from Staging Dimension Tables into the Dimension Tables registered with Profitability and Balance Sheet Management (PBSM) Cloud Service. You can view the Members and Hierarchies loaded by the Dimension Loader through the PBSM Screens.

The Data File Specification is not applicable to Dimension Data Loaders. The file format and the file names are static in nature.

The following illustration depicts the process of Dimension Loading.



**Figure 2-15 Dimension Loading Process**



The Dimension Loader is used to:

- Load the Dimension Members and their Attributes from the Staging area into the Dimension Tables that are registered with OFS Cloud Service framework.
- Create Hierarchies for Key Dimensions in the Cloud Service.
- Load Hierarchical relationships between Key Dimension Members within the Hierarchies from the Staging area into the Cloud Service.

The following are the features of Dimension Loader:

- Loading Simple Dimensions from Staging Tables.
- Multiple Hierarchies can be loaded from Staging Tables.
- Validations of Members and Hierarchies are similar to that of being performed within the Cloud Service Screens.

Before you start the Dimension Loader, you must upload the Data Files that have the Dimension details.

As part of the File Definition, it is required Dimension Identifier for both Key and Simple Dimensions.

To get the correct DIMENSION ID to be used for the data file definition, you should use the SQL Query Browser and following query under OFSAAMETA schema the REV\_DIMENSIONS\_B table:

```
SELECT
dimension_id,
member_b_table_name,
member_tl_table_name,
dimension_active_flag,
simple_dimension_flag,
user_defined_flag,
write_flag,
dimension_editable_flag,
key_dimension_flag
FROM
ofsaameta.rev_dimensions_b
WHERE
dimension_active_flag = 'Y';
```

Then for the dimension table desired, available in REV\_DIMENSIONS\_B.MEMBER\_B\_TABLE\_NAME or REV\_DIMENSIONS\_B.MEMBER\_TL\_TABLE\_NAME table columns, the End User should pick up the correct value displayed in REV\_DIMENSIONS\_B.DIMENSION\_ID to be used for correct input file definition.

The following sections list the sample files that you can use to build the Dimension Data. The name of the Data Files must be same as mentioned below and the File Extension must be .DAT. Click on each Data File Name to open a Sample Data File.

### 2.2.2.1.1 For Key Dimensions

The following is a list of sample files that you can use to build the Dimension Data.

The name of the Data Files must be same as mentioned below and the File Extension must be .DAT. Click on each Data File Name to open a Sample Data File.

Stage Dimension Loaders (Task 1):

- [input\\_stg\\_dimensions\\_attr\\_intf.dat](#)
- [input\\_stg\\_dimensions\\_b\\_intf.dat](#)
- [input\\_stg\\_dimensions\\_tl\\_intf.dat](#)
- [input\\_stg\\_dimensions\\_hier\\_intf.dat](#)

Stage Hierarchy Loaders (Task 2):

- [input\\_stg\\_hierarchies\\_intf.dat](#)
- [input\\_stg\\_hierarchy\\_levels\\_intf.dat](#)

To load the Dimensions, perform the following steps:

1. Define a new Batch and save it.
2. Add the following Tasks to the above Batch:

**Table 2-2 Dimension Loading Process Tasks**

Task Code	Task Name	Component	Parent Task
1	Stage Dimension Loader	Stage Dimension Loader	
2	Stage Hierarchy Loader	Stage Hierarchy Loader	1
3	Stage DRM Loader	Stage DRM Loader	2

 **Note:**

The above Tasks must be executed in the same order.  
The Stage DRM Loader allows you to select a Dimension.

3. Execute the Batch.

### Dimension Loader with ZIP File Support

You can zip all the DAT files into a single file and upload it to the Object Store.

To process the zip file:

- Create a Batch.
- Create a Task with the Component Name as **Dimension and Hierarchy Loader**.
- Execute the Batch.

For detailed instructions on Creating a Batch, Defining a Task, Execute the Task, and Schedule a Batch, see the [Scheduler Services User Guide](#).

#### 2.2.2.1.2 For Simple Dimensions

The following is a list of sample files that you can use to build the Dimension Data.

The name of the Data Files must be same as mentioned below and the File Extension must be .DAT. Click on each Data File Name to open a Sample Data File.

Stage Dimension Loaders (Task 1):

- [input\\_stg\\_dimensions\\_b\\_intf.dat](#)
- [input\\_stg\\_dimensions\\_tl\\_intf.dat](#)

To load the Dimensions, perform the following steps:

1. Define a new Batch and save it.
2. Add the following Tasks to the above Batch:

**Table 2-3 Dimension Loading Process Tasks**

Task Code	Task Name	Component	Parent Task
1	Stage Dimension Loader	Stage Dimension Loader	
2	Stage DRM Loader	Stage DRM Loader	1

 **Note:**

The above Tasks must be executed in the same order.  
The Stage DRM Loader allows you to select a Dimension.

- Execute the Batch.

**Dimension Loader with ZIP File Support**

You can zip all the DAT files into a single file and upload it to the Object Store.

To process the zip file:

- Create a Batch.
- Create a Task with the Component Name as **Dimension and Hierarchy Loader**.
- Execute the Batch.

For detailed instructions on Creating a Batch, Defining a Task, Execute the Task, and Schedule a Batch, see the [Scheduler Services User Guide](#).

## 2.2.2.2 Instrument and Ledger Data Loaders

After the Data Files are uploaded to the Object Store, the Data Loaders are used to move the data from the files to the standing tables and then to processing tables.

**File to Stage**

To load the Data to Staging Tables:

1. Define a new Batch and save it.
2. Add the following Tasks to the above Batch:

**Table 2-4 Data Loader – File to Stage Data**

Task Code	Task Name	Component	Parameters
1 *	Custom Task Name *	Stage Data Loader	<p><b>Table Name:</b> select the stage table name from the available list.</p> <p><b>Data File Specification:</b> select the data file specification definition from the available list.</p> <p><b>File Name:</b> free text where file name uploaded to the object store to be provided.</p>

 **Note:**

You can also zip the file and then upload. Ensure the file name in the zip file is inline with the Data File Specification.

\* Task Code and Task Name in the above table are for illustration purpose only. You can name them as per your requirements.

Execute the Batch for the As-of-Date used in the Data File.

For detailed instructions on Creating a Batch, Defining a Task, Execute the Task, and Schedule a Batch, see the [Scheduler Services User Guide](#).

### Stage to Processing

To load the Data from Staging Tables to Processing:

1. Define a new Batch and save it.
2. Add the following Tasks to the above Batch:

**Table 2-5 Data Loader – Stage to Processing Data**

Task Code	Task Name	Component	Parameters
1 *	Custom Task Name *	Select the relevant Component depending on the Data that you want to process. The options are: <ul style="list-style-type: none"> <li>• Instrument Data Loader</li> <li>• Ledger Data Loader</li> <li>• Transaction Summary Loader</li> </ul>	Stage Table: select the stage table name from the available list. Data File Specification: select the Data File Specification name from the available list.

### 2.2.2.3 Exchange Rate Data Loader

The Exchange Rate Data Loader allows the user to load the Exchange Rate Data required by the PBSM Cloud Services to enrich the data.

To load the Exchange Rate Data, you need to use the Generic Data Loader service. First you need to upload the data, and then run a Batch to propagate the data into the Processing Layer.

1. From the LHS menu, select **Data Management Tools**, select **Data File Administration**, and then select **File upload and download** to display the File Upload/Download screen. The File Upload/Download screen displays the list of files that are uploaded to the Object Store. The list displays the following details for each file:
  - **File ID:** The unique file id. This is auto generated during upload.
  - **Prefix:** The prefix added to the file name.
  - **File Name:** The name of the uploaded file.
  - **Stripe Name:** The unique identifier for storing the files.
  - **Uploaded Date:** The file upload date.
  - **Download File:** Click the Download icon to download a copy of the file.
  - **Delete:** Click Delete to delete the uploaded file.
2. Click **Drag and Drop** to browse and select a file for upload from the local directory. You can also browse to the local directory from the File Explorer and select file and drop it here.

The File Upload/Download service supports upload of TXT, DAT, and CSV format files.

Name of the Data File must follow the format as given below:

- A prefix as **input\_yyyymmdd** where the date format is related to the As of Date of Exchange Rate (i.e., 02-May-2023 becomes 20230502).
- A suffix as **\_filename.dat**.
- An example of a Data File Name could be: **input\_20230502\_filename.dat**.

 **Note:**

The file name is case-sensitive.

For example, **input\_20230622\_stg\_exchange\_rates.dat**. For a sample Exchange Rates Data File, see [stg\\_exchange\\_rates.dat](#).

The order of the columns in the input file must be as follows:

- AS\_OF\_DATE
- EFFECTIVE\_FROM\_DATE
- RATE\_DATA\_SOURCE\_CODE
- FROM\_CURRENCY\_CODE
- TO\_CURRENCY\_CODE
- EXCHANGE\_RATE

For more information about File Upload and Download, see [File Upload and Download Utility](#) section.

3. After selecting the file to upload, click **Upload**.  
The UI displays a confirmation message *Upload successful*.
4. From the LHS menu, navigate to **Operations and Processes**, select **Scheduler**, and then select **Create Batch**. For more details, see [Define Batch](#).
  - Batch Service URL: GENERIC\_LOADER\_SERVICE
5. From the LHS menu, navigate to **Operations and Processes**, select **Scheduler**, and then select **Create Task**. For more details, see [Define Tasks](#).
  - a. Task Type: REST
  - b. Component: Generic Data Loader
  - c. Loader Type: Exchange Rates Loader
  - d. File Name: stg\_exchange\_rates.dat
6. From the LHS menu, navigate to **Operations and Processes**, select **Scheduler**, and then select **Schedule Batch**. For more information, see [Schedule Batch](#)
7. Select the seeded batch and click **Edit Parameters**. In the Dynamic Parameters pop-up window, change the date to the relevant As-of-Date, and then save the batch.
8. From the LHS menu, navigate to **Operations and Processes**, select **Scheduler**, and then select **Execute Batch**.
9. From the LHS menu, navigate to **Operations and Processes**, select **Scheduler**, and then select **Monitor Batch**. For more information, see [Monitor Batch](#)
10. Select the **Batch** and then select the **MISDATE** and the **Batch name**. There may be multiple executions of the Customer Master Loader batch. Select the latest execution and click **Start Monitor**.  
The UI displays the Status of the batch.

## 2.2.3 Data File History

The Data File History Screen in the OFS Cloud Service allows you to see the Data Files that are uploaded to the Staging Tables and their status.

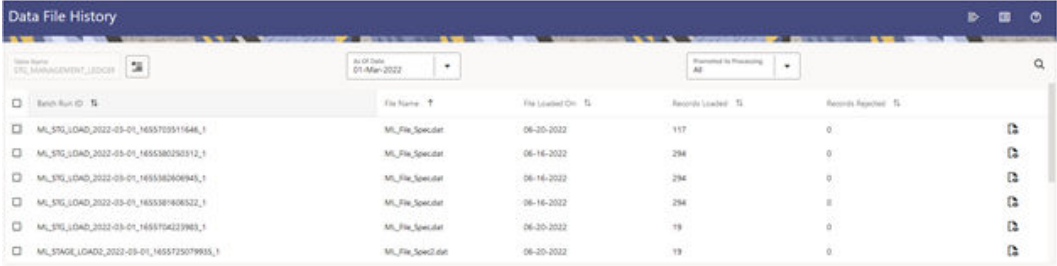
The Data File History UI allows you to do the following:

- Search for Data Files for which the Stage Data Loader Batch is already executed.
- Move the Data from State to Processing Tables.
- Delete the Data from the Stage.

To open the Data File History Window, perform the following steps:

1. Navigate to the **Data Management Tools**, select **Data File Administration**, and then select **Data File History** to display the Data File History Summary Screen.

**Figure 2-16 Data File History Summary Screen**



Batch Run ID	File Name	File Loaded On	Records Loaded	Records Rejected
ML_STG_LOAD_2022-03-01_165702911646_1	ML_File_Spec.dat	06-20-2022	117	0
ML_STG_LOAD_2022-03-01_165538020312_1	ML_File_Spec.dat	06-16-2022	294	0
ML_STG_LOAD_2022-03-01_165538260945_1	ML_File_Spec.dat	06-16-2022	294	0
ML_STG_LOAD_2022-03-01_1655381606522_1	ML_File_Spec.dat	06-16-2022	294	0
ML_STG_LOAD_2022-03-01_1659704223983_1	ML_File_Spec.dat	06-20-2022	19	0
ML_STG_LOAD_2022-03-01_1659725079935_1	ML_File_Spec2.dat	06-20-2022	19	0

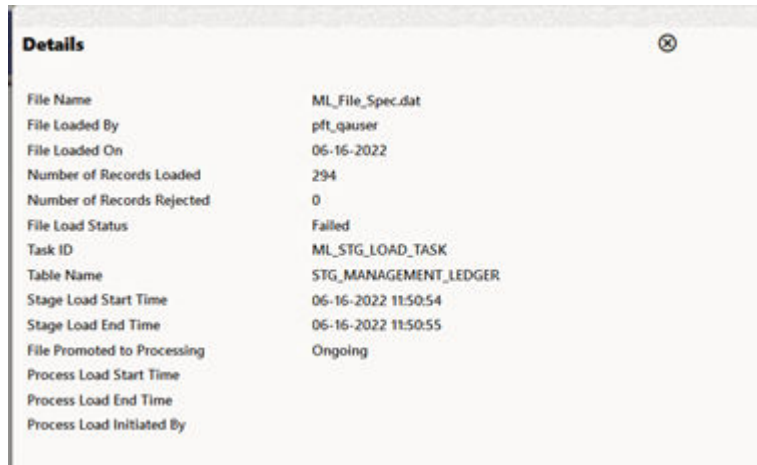
The Summary screen displays the following information of the Data Files:

- **Batch Run ID:** The ID used to run the Batch.
- **File Name:** The Data File Name.
- **File Loaded On:** The date on which the Data File is loaded.
- **Records Loaded:** The number of records loaded using the Data File.
- **Records Rejected:** The number of records that are rejected from the Data File.
- **View Details (Icon):** Select a Batch Run ID and click the details of the Data File.

The following illustration is a sample of the Data File's details.



Figure 2-17 File Details



The screenshot shows a 'Details' window with a close button (X) in the top right corner. The window contains a list of key-value pairs representing file load details.

File Name	ML_File_Spec.dat
File Loaded By	pft_qauser
File Loaded On	06-16-2022
Number of Records Loaded	294
Number of Records Rejected	0
File Load Status	Failed
Task ID	ML_STG_LOAD_TASK
Table Name	STG_MANAGEMENT_LEDGER
Stage Load Start Time	06-16-2022 11:50:54
Stage Load End Time	06-16-2022 11:50:55
File Promoted to Processing	Ongoing
Process Load Start Time	
Process Load End Time	
Process Load Initiated By	

- **Promote selected files to Processing** (Button): To promote the selected File or Files for processing. This triggers the Batch Scheduler and queues the selected File or Files for processing.
- **Advanced Actions** (Button): If you select a File and click this button, a Delete Data from Staging button is displayed. Click Delete Data from Staging button to displays the Dalete Data pop-up window.

Figure 2-18 Delete Data

**Delete Data**

Delete Cancel

As Of Date  Required

Table Name  Required

Data File Specification  Required

Staging

File Name(s)

Comments / Notes  Required

Enter or select the following details:

- As Of Date (mandatory)
- Table Name (mandatory)
- Data File Specification (mandatory)
- File Name(s)
- Comments / Notes

Click **Delete**.

- **Help** (Button): Click the Help icon to view the Data File History help.

### 2.2.3.1 Promoting a Data File for Processing

By promoting a Data File for processing, you insert the Data from the Data Staging Tables to the Processing Tables.

To promote a Data File for processing, perform the following steps:

1. Click on the **Table Name** icon to display the **Category – Table Names** window. This window displays the Stage Table Names where data is already loaded. The tables are categorized into different groups and are as follows:

- Transaction Summary
- Ledger
- Others
- Schedule
- Instruments

Each of the above Categories lists the Tables available to which the data is loaded. The list of categories is dependent on the Metadata from the Seeded Tables that come with the various OFS Cloud Services and may differ from that shown above based on the services you have subscribed.

2. Select the **Table** for which you want to see the File History from the list.
3. Select the relevant **As Of Date** from the drop-down list. This drop-down list displays different As-of-Dates. These dates are based on processed or not processed data loading. For example, if you have already processed some data on a previous date, this drop-down displays that date and displays the current date.
4. Click on **Promoted to Processing** and select the following options:
  - **All**: To display all the Data Files that are specified on the selected As-of-Date.
  - **Yes**: To display only the Data Files that are already specified and processed on the selected As-of-Date.
  - **No**: To display only the Data Files that are specified but are in the queue to be processed on the selected As-of-Date.
5. Click the **Search** icon to display the Data Files information as per the option you selected in the previous step.
6. Select one or more **Batch Run IDs** that you want to promote for processing and click the **Promote selected files to Processing** button. This triggers the Batch Scheduler and schedules the Batch for processing. You can monitor the status using the Monitor Batch screen.

### 2.2.3.2 Reloading a Data File

OFS Cloud Services allows you to reload a Data File.

For the detailed instructions on Reloading the Data File, see the [Scheduler Service](#) section.



#### Note:

While defining the Task, ensure that you select Delete Data Loader from the Component drop-down list.

## 2.3 File Upload and Download Utility

The File Upload and Download Utility enables you to upload or download files to the Object Store. Complete the following steps to Upload or Download a file.

- [Upload or Download File from Object Store Using Console](#)
- [Uploading/Downloading a File Using Utility](#)
- [Uploading/Downloading a File Using PAR URL](#)

### 2.3.1 Roles and Functions

The following table lists the role codes and function codes required to configure the File Upload/Download Utility.

#### Role Codes

Role Code	Function Code
FILE_READ	FILE_SUMMARY
FILE_UPLOAD	FILE_UPLOAD
FILE_DOWNLOAD	FILE_DOWNLOAD
FILE_ADV	FILE_UPLOAD
	FILE_DOWNLOAD
	FILE_DELETE
	FILE_SUMMARY

### 2.3.2 File Upload and Download Utility

The File Upload and Download Utility enables you to upload or download files to the Object Store. Complete the following steps to Upload or Download a file.

#### 2.3.2.1 Upload or Download File from Object Store Using Console

1. From the left menu, click **Common Object Maintenance**.
2. Click **Data Management** in the left navigation pane.

The **File Upload and Download** Page is displayed. The Files that are uploaded to the Object Store are listed here. The following details are provided for each File.

- **File ID** - The unique file ID associated with the file. This is auto-generated during the upload.
- **Prefix** - The prefix is added to the file name.
- **File Name** - The name of the file that is uploaded. This is automatically updated after you select the file.
- **Stripe Name** - The Unique Identifier for storing a collection of files. Collection examples: Project, organization, tenant.
- **Uploaded Date** - The file upload date.
- **Download File** - Click to download a copy of the uploaded file.

- **Delete** - Click to delete the file.

### Related Topics

- [Uploading/Downloading a File Using Utility](#)  
Complete the following steps to Upload or Download a file using the Utility.
- [Uploading/Downloading a File Using PAR URL](#)  
Complete the following steps to upload or download a file using the PAR URL.

## 2.3.2.2 Uploading/Downloading a File Using Utility

Complete the following steps to Upload or Download a file using the Utility.

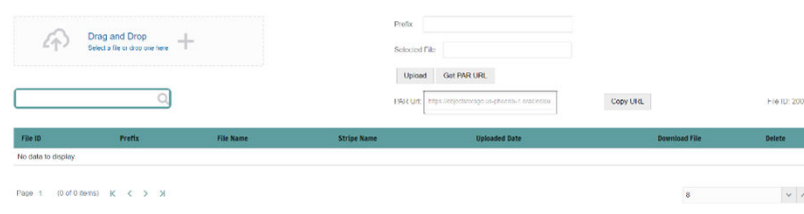


1. Click **Drag and Drop** to browse and select a file for upload from the local directory.  
You can also browse to the local directory from the **File Explorer** and select the file and drop it here.  
The file name is automatically updated in the **Selected File** field.
2. Enter the **Prefix** to be added to the file name.  
The Prefix is added to the file name. In case, you have two files with the same file name, you can save them with different prefixes.  
Example: **/abc/test.txt** and **/def/test.txt**. Both these files have the same file name but different Prefixes.
3. Click **Upload** to upload the selected file.  
A confirmation message is displayed after successful upload and the file is listed in the Uploaded Files list.

## 2.3.2.3 Uploading/Downloading a File Using PAR URL

Complete the following steps to upload or download a file using the PAR URL.

**Figure 2-19 Get PAR URL**



1. Click **Drag and Drop** to browse and select a file for upload from the local directory.  
You can also browse to the local directory from the File Explorer and select the file and drop it here. The file name is automatically updated in the **Selected File** field.

2. Enter the **Prefix** to be added to the file name.
3. Click **Get PAR URL**.

This will generate the PAR URL and File ID which are required to upload the file.

You can also generate PAR URL using Rest API. For more information refer to, [Calling the API to Generate the URL](#).

4. Copy the PAR URL and note the related File ID.
5. You can upload the file content referred with the specific PAR URL into the object store using one of the following options: Console, CLI, or SDK.

For example, you may use the following curl command directly in local Gitbash.

```
curl -X PUT --data-binary '@<local-filename>' <unique-PAR-URL>
```

You can also use the following command.

```
curl -T '<Filepath>' -X PUT <PAR_URL>
```

You can scan the file referred with the specific File ID (obtained in Step 3) using one of the following options: Console, CLI, or SDK. For example, use the following CURL command to scan the File. Use the File ID.

```
curl -k --location --request PUT 'https://<Host:Port>/<Tenant-ID>/utils-service/v1/file/scan/<FileID>' \
--header 'ofs_tenant_id: <Tenant-ID>' \
--header 'ofs_service_id: <Service-ID>' \
--header 'ofs_workspace_id: <WorkspaceId>' \
--header 'Authorization: Bearer <Generated_Token>'
```

A confirmation message is displayed after successful upload and the file is listed in the Uploaded Files list.

## 2.3.3 File Upload Automation

To simplify the file upload process, configure and execute the File Upload automation utility.

File Upload automation can be implemented by completing the following steps in sequence.

- [Step 1: Generate Access Token](#)
- [Step 2: Generate PAR URL](#)
- [Step 3: Upload file to Object Store](#)
- [Step 4: Scan the file to ensure Upload was Successful](#)

### 2.3.3.1 Step 1: Generate Access Token

Generate the Access Token for your Profitability and Balance Sheet Management Cloud Service by:

1. Submitting a RESTful API Post Request to your Oracle IDCS environment as defined in the Identity Cloud Service User Guide. For information, see [OAuth Runtime Tokens REST Endpoints](#).

Note that a sample code snippet has been provided below using cURL to generate the access token for Basic Authorization and assign it to a variable for use within a script:

```
access_token=`curl -s --insecure -H "Authorization: Basic $ENCODED" -H
"Content-Type: application/x-www-form-urlencoded;charset=UTF-8" --
request POST $IDCS_URL -d
"grant_type=password&username=$USERNAME&password=$PASSWORD&scope=urn:op
c:idm:__myscopes__ urn:opc:resource:expiry=9153600" | python3 -c
"import sys, json; print(json.load(sys.stdin)['access_token'])"`
```

### 2.3.3.2 Step 2: Generate PAR URL

Generate the PAR URL for your Profitability and Balance Sheet Management Cloud Service by:

1. Submitting a RESTful API Post Request to your Cloud Service as defined in the [Calling the API to Generate the URL](#) section.

Note a sample code snippet has been provided below using cURL to generate the PAR URL and assign it to a variable for use within a script:

#### PAR URL Generation Code Snippet

```
curl --location --insecure --request POST "$FILEUPLOADURL" --header
"Authorization: Bearer $access_token" --header 'Content-Type:
application/json' --data-raw "{
  \"fileName\": \"$1\",
  \"fileSize\": \"$2\",
  \"mimeType\": \"$3\"
}" >> "$HOME"/FILEUPLOAD_UTIL/"$1"_PARURLresponse.out 2>&1
```

#### PAR URL Variable Assignment Code Snippet

```
grep -oE '(https)[^ ]*' "$HOME"/
FILEUPLOAD_UTIL/"$1"_PARURLresponse.out > "$HOME"/
FILEUPLOAD_UTIL/"$1"_PARURLresponse1.csv
while IFS="," read -r H1 H2
do
  URLtrim="$H1"
  FinalPAR=${URLtrim::-1}
  echo -e "\n PAR_URL is $FinalPAR"
done < "$HOME"/FILEUPLOAD_UTIL/"$1"_PARURLresponse1.csv
```

#### PAR URL Variable Assignment Code Snippet – Used in File Scanning Step

```
grep -oE '(fileId)[^ ]*' "$HOME"/
FILEUPLOAD_UTIL/"$1"_PARURLresponse.out > "$HOME"/
FILEUPLOAD_UTIL/"$1"_PARURLresponse2.csv
while IFS="," read -r F1 F2
do
  FILEIDtrim="$F1"
  FINALFILEID=`echo "$FILEIDtrim"| sed -r 's/^.{8}//'`
```

```
echo -e "\n FILE ID is $FINALFILEID"
done < "$HOME"/FILEUPLOAD_UTIL/"$1"_PARURLresponse2.csv
```

### 2.3.3.3 Step 3: Upload file to Object Store

Upload the file to the Object Store of your Profitability and Balance Sheet Management Cloud Service by:

1. Submitting a RESTful API Post Request to your Cloud Service as defined in the [Uploading/Downloading a File Using PAR URL](#) topic.

Note a sample code snippet has been provided below using cURL to upload the file:

```
curl -T "$HOME"/FILEUPLOAD_UTIL/"$1" -X PUT "$FinalPAR"
```

### 2.3.3.4 Step 4: Scan the file to ensure Upload was Successful

Scan the file that was uploaded to the Object Store of your Profitability and Balance Sheet Management Cloud Service by:

1. Submitting a RESTful API Put Request to your Cloud Service as defined by the code snippet below:

#### File Scanning Code Snippet – Using File ID from Step 2 – Generate PAR URL

```
if [ $last_error -eq 0 ]; then
    echo -e "\n *****Scanning the File *****"
    curl -k --location --request PUT "$SCANURL/$FINALFILEID" --header
'ofs_tenant_id: $TENANT' --header 'ofs_service_id: OFS_FTP' --header
'ofs_workspace_id: WS001' --header "Authorization: Bearer $access_token"
    last_error=$?
    if [ $last_error -eq 0 ]; then
        echo -e "\n ***File Upload is Successful please check File
Upload / Download UI***"
    else
        echo "Scan failed"
        exit -2;
    fi
else
    echo "Upload failed"
    exit -3;
fi
```

### 2.3.3.5 Automating the File Upload Process Using File Upload Utility

This section provides the procedure including the script to automate the process of uploading input data files using the File Upload utility.

You can download this script from this MoS Doc ID [2927077.1](#).

#### 2.3.3.5.1 Executing the File Upload Automation Script

File Upload Automation script assists you to upload the files seamlessly.

Complete the following procedure to execute the fileupload automation script.



Python 3.10 is required to access data elements from the API JSON responses.

1. Extract the **FILEUPLOAD\_UTIL.zip** file located in the **\$HOME** directory.
2. Copy the Data Loader input file (text file) to the **\$HOME/FILEUPLOAD\_UTIL** directory.
3. Edit the script **Env\_setup.sh** file to update the following environment variables.

- **IDCS URL** - The Service Instance URL to access your IDCS console. You can get the IDCS URL from the following menu:

**Oracle Cloud Infrastructure Console > Identity Cloud.**

**Syntax:** <idcs-url>/oauth2/v1/token

- **Encoded** - The <OAuth Client ID>:<OAuth Client Secret> encoded using **base64encode**  
To extract and encode the Client ID and Client Secret, refer to the following steps:

- a. Login to **Admin Console**.
- b. Go to **System Configuration** tab, and click **Component Details** tile.
- c. Click **OAUTH Creds** tab to view and copy the **OAUTH Client ID** and **OAUTH Client Secret** details.
- d. Using any **base64encode** utility, encode <OAUTH Client ID>:<OAUTH Client Secret>.

**Example (Input OAUTH Client ID and Client Secret):**

```
ftptenant-prd_APPID:99140e14-4d30-4e86-85fb-09501fe45fe0
```

**Example (Encoded OAUTH Client ID and Client Secret):**

```
ZnRwcWEzMDEyMzEtcHJkX0FQUElEOjBkMmU5MDBiLTlhYjItNGFmOS05OWM0LTEwNTYyMDVhYjYwYwNQ==
```

- **Username** - The Username to access the application.

 **Note:**

The user should have appropriate roles and privileges. For more information about roles and privileges, refer to [Roles and Functions](#).

- **Password** - The password to login to the application.
- **Tenant** - The tenant associated with the application.
- **PBSM Host** - Details of the PBSM host on which the application is hosted.

**Sample Env\_setup.sh**

```
IDCS_URL=https://idcs-xyz123.identity.c9xyz.oc9xyz.com/oauth2/v1/token
ENCODED=ZnRwbWFydXAxNDIyMzEtcHJkX0FQUElEOjk5MTQwZTE0LTrkMzAtNGU4Ni04NWZiLTA5NTAxZmU0NWZlMA==
USERNAME=<user_name>
PASSWORD=<password>
TENANT=<tenant-prd>
PBSMHOST=dc.pbsmcloud.us-xxxxx -1.ocs.oc-test.com
```

4. Execute **PBSMCS\_PAR\_fileupload.sh** with the following parameters –
  - **filename** - The file to be uploaded
  - **filesize** - The file size in Bytes
  - **Mimetype** - The mimetype of the file.

**Format:** Filename<space>Filesize<space>mimetype

**Example:** `./PBSMCS_PAR_fileupload.sh input_20150101_filename_example_8007.txt 334 text/plain`

This script generates the access token and the PAR URL. It also uploads the file into the object store and scans the file too.

 **Note:**

To upload multiple files, you must execute the script for each file, separately.

Once the script is executed successfully, the file is uploaded and added to the list of files in the File Upload/Download page. To access the File Upload/Download page refer to [Upload or Download File from Object Store Using Console](#).

## 2.3.4 Generating PAR URL for File Operations

The PAR URL for File Operations API creates a PAR File that you can use to perform file operations in the Object Store for end-to-end integrations.

### 2.3.4.1 Generating PAR URL for File Upload

You can use this REST API to generate the PAR URL for File Upload. See the following sections for information on how to perform the POST operation.

#### Related Topics

- [Calling the API to Generate the URL](#)

#### 2.3.4.1.1 End Point Details

- **Method** – POST
- **URL** - `https://<HOST_NAME:PORT>/<TENANT>/utils-service/v1/file/uploadfile/parURL?prefix=<prefix>`
- **Content-Type** - Application/Json

### 2.3.4.2 Calling the API to Generate the URL

To call the API, follow these steps:

1. Open a relevant tool, such as via cURL command.
2. Prepare a cURL command with the authentication token and other details. For more information refer to the following code.

## Syntax

```
curl -k --location --request POST 'https://<hostname>/<TENANT-ID>/
utils-service/v1/file/uploadfile/parURL?prefix=' \
--data-raw '{"fileName": "<remote filename>", "fileSize": <file
size>, "mimeType": "<file type>"}' \
--header 'ofs_remote_user: <USERID>' \
--header 'locale: en-US' \
--header 'ofs_tenant_id: <TENANT-ID>' \
--header 'ofs_workspace_id: WS001' \
--header 'content-type: application/json' \
--header 'Authorization: Bearer <TOKEN>'
```

## Example (truncated)

```
curl -k --location --request POST 'https://<hostname>/<TENANT-ID>/
utils-service/v1/file/uploadfile/parURL?prefix=' \
--data-raw '{"fileName": "idcs_log1.txt", "fileSize": 100,
"mimeType": "text/plain"}' \
--header 'ofs_remote_user: cneadmin' \
--header 'locale: en-US' \
--header 'ofs_tenant_id: aaitestdev1001-prd' \
--header 'ofs_workspace_id: WS001' \
--header 'content-type: application/json' \
--header 'Authorization: Bearer
eyJ4NXQjUzI1NiI6Ildia25rQUR5TUZIMlh1Q1pKcTY1c3o4VzdEVWhKa0s4MldYY0ha
dk4wWkkiLCJ4
...
...
sQXj0iohsSIEmQXVwwjhhqnc4eJNnmCjx8Tb7TXjx1MIQLe0IcfrIj5gkzoMKX94_7US
xHv-6LhBzw'
```

### 2.3.4.2.1 Request JSON Parameters

This section provides the list of parameters in the JSON Request.

**Table 2-6 Request JSON Parameters**

Name	Type	Required	Description
fileName	STRING	Yes	<p>The name of the file to be uploaded.</p> <p>The following are the conditions for to enter in this field:</p> <ul style="list-style-type: none"> <li>• Must start with an Alphanumeric Character</li> <li>• Allowed characters are alphabets, numbers, and special characters - hyphen(-), dot(.), and underscore(_)</li> <li>• Length of characters must not be greater than 255 characters</li> </ul>
fileSize	INTEGER	Yes	<p>The size of the file (in Bytes) to be uploaded.</p> <p>The size of the file should be greater than 1 Byte and should be less than 10 TB.</p> <p>It is recommended to use multipart upload for uploading files of size more than 100 MB. For more information about uploading large objects and multipart uploads, refer to <a href="#">Working with Pre-Authenticated Requests</a>.</p>
mimeType	STRING	Yes	<p>The mime type to be uploaded.</p> <p>The following mime types are allowed:</p> <ul style="list-style-type: none"> <li>• Text/CSV</li> <li>• Text/plain</li> <li>• DAT</li> </ul>

**Request JSON Sample**

```
[{
  "fileName": "File.csv",
  "fileSize": 7654,
  "mimeType": "text/csv"
}]
```

### 2.3.4.2 Response JSON Parameters

This section provides the list of parameters in the JSON Response.

**Table 2-7 POST JSON Response**

Name	Type	Description
fileName	STRING	The name of the file to be uploaded.
uploadURL	STRING	The generated pre-authenticated URL to upload a file.
fileId	INTEGER	The unique File Identifier.

#### Response JSON Sample

```
{
  "payload": {
    "uploadURL": "https://objectstorage.us-
phoenix-1.oraclecloud.com/p/bdSI-
hzigiAoUU0lyEKnuK0YGs05L172gt_woZAgqNFYmUFQeexV3BDfT097mhBI/n/
oraclegbudevcorp/b/fsgbu_pbsm_cndevcorp_ftpqa101231-prd_default/o/
default/2023-01-31/jfr/f9ce031f-4a42-471d-b4da-d0577f3eca15",
    "createUser": "user1",
    "stripeName": "default",
    "fileId": 5025,
    "createDate": "2023-01-31T09:14:16",
    "token": "",
    "status": "success"
  }
}
```

### 2.3.4.3 Viewing List of Uploaded Files

Run the following cURL command to generate and view all the files that are uploaded using PAR URL.

#### Syntax

```
curl -k --location --request GET 'https://<hostname>/<TENANT-ID>/utils-
service/v1/listfiles stripeName=default' \
--header 'locale: en-US' \
--header 'ofs_remote_user: <user id>' \
--header 'ofs_tenant_id: < TENANT-ID >' \
--header 'ofs_workspace_id: WS001' \
--header "Authorization: Bearer <TOKEN>"
```

#### Example

```
curl -k --location --request GET 'https://dc.pbsmcloud.us-
phoenix-1.ocs.oc-test.com/aaitestdev1001-prd/utils-service/v1/
listfiles?stripeName=default' \
```

```
--header 'locale: en-US' \
--header 'ofs_remote_user: cneadmin' \
--header 'ofs_tenant_id: aaitestdev1001-prd' \
--header 'ofs_workspace_id: WS001' \
--header "Authorization: Bearer ${TOKEN}"
```

## Response

```
{
  "payload":
  [
    {
      "v_file_name": "Idcs_log3.txt",
      "n_file_id": 9916,
      "d_upload_date": "31-JAN-23 06:33:43 AM",
      "v_stripe_name": "default"
    },
    {
      "v_file_name": "Idcs_log4.txt",
      "n_file_id": 9917,
      "d_upload_date": "31-JAN-23 06:40:25 AM",
      "v_stripe_name": "default"
    }
  ],
  "count": 2
}
```

## 2.3.5 Generating PAR URL For File Download

You can use this REST API to generate the PAR URL for File Download. See the following sections for information on how to perform the post operation.

### 2.3.5.1 Calling the API to Generate PAR URL for File Download Using File ID

To call the API, follow these steps:

1. Open a relevant tool, such as via the cURL command.
2. Prepare a cURL command with the authentication token and other details. For more information, refer to the following code.

#### Syntax

```
curl -k --location --request GET 'https://<hostname>/<TENANT-ID>/utils-service/v1/file/downloadfile/<file id>' \
--header 'ofs_remote_user: <userid>' \
--header 'locale: en-US' \
--header 'ofs_tenant_id: < TENANT-ID> ' \
--header 'ofs_workspace_id: WS001' \
--header "Authorization: Bearer <TOKEN>"
```

#### Example

```
curl -k --location --request GET 'https://<hostname>/<TENANT-ID>/utils-service/v1/file/downloadfile/9916' \
--header 'ofs_remote_user: cneadmin' \
--header 'locale: en-US' \
--header 'ofs_tenant_id: aaitestdev1001-prd' \
--header 'ofs_workspace_id: WS001' \
--header "Authorization: Bearer ${TOKEN}"
```

#### Response

```
{
  "payload": {
    "downloadURL": "https://objectstorage.us-phoenix-1.oraclecloud.com/p/"
  }
}
```

```
gTxxzhqLEea4Or2TRkBgTqHxt_JogVF9G_0wtN8NYy_op0Zk4lvKGDxxeXGhLq7/n/  
oraclegbudevcorp/b/fsgbu_pbsm_cndevcorp_aaitestdev1001-  
prd_default/o/default/2023-01-31/fae/2d63d2fe-2090-4fb7-  
a4c8-9940d22987db?  
httpResponseContentDisposition=ATTACHMENT%3B%20filename%3DIcsc_log3.  
txt"}}}
```

## 2.3.5.2 Calling the API to Generate PAR URL for File Download Using File Name

To call the API, follow these steps:

1. Open a relevant tool, such as via the cURL command.
2. Prepare a cURL command with the authentication token and other details. For more information refer to the following code.

### Syntax

```
curl -k --location --request GET <'https://<hostname>/<TENANT-ID>/  
utils-service/v1/file/download?fileName=<file  
name>&stripeName=default&prefix=' \  
--header 'ofs_remote_user: <userid>' \  
--header 'locale: en-US' \  
--header 'ofs_tenant_id: <TENANT-ID>' \  
--header 'ofs_workspace_id: WS001' \  
--header "Authorization: Bearer <TOKEN>"
```

### Example

```
curl -k --location --request GET 'https://<hostname>/<TENANT-ID>/  
utils-service/v1/file/download?  
fileName=test3GB.xml&stripeName=default&prefix=' \  
--header 'ofs_remote_user: cneadmin' \  
--header 'locale: en-US' \  
--header 'ofs_tenant_id: aaitestdev1001-prd' \  
--header 'ofs_workspace_id: WS001' \  
--header "Authorization: Bearer ${TOKEN}"
```

### Response

```
{"payload":{"downloadURL":"https://objectstorage.us-  
phoenix-1.oraclecloud.com/p/8R68eVcQAxQjNjK__S04MZjS-  
v4BqEbWSILvu0w40kJNrzfKeCB8vWBwugW5XvsK/n/oraclegbudevcorp/b/  
fsgbu_pbsm_cndevcorp_aaitestdev1001-prd_default/o/default/  
2023-01-20/rnz/6c023e75-09e2-4265-815e-32cedcd2415e?  
httpResponseContentDisposition=ATTACHMENT%3B%20filename%3Dtest3GB.xml  
1"}}}
```

## 2.4 Data Maintenance Interface

Data Maintenance Interface (DMI) helps to design a Data Form in a user-specified format. Further, it allows to perform maintenance activities using the Designed Form.

### **Designer View**

The Designer allows the user to design a form to maintain the underlying data.

### **Data View**

This allows the user to maintain the data either through the form that has been defined or do a bulk upload using the excel upload mechanism. A strong data governance process is enabled through an approval workflow of the data maintained.

### **Related Topics**

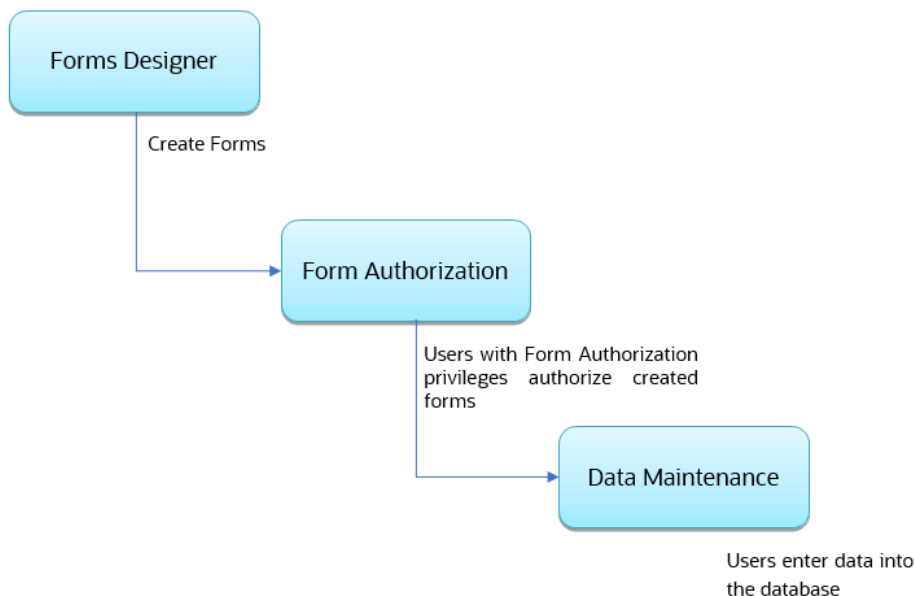
- [Process of DMI Windows](#)
- [User Role Mapping and Access Rights](#)
- [Access the Data Maintenance Interface](#)
- [Form Designer Summary Page](#)
- [Creating New Forms in Form Designer](#)
- [Approving and Rejecting New Form Definitions](#)
- [Managing Form Definitions](#)

### 2.4.1 Process of DMI Windows

The DMI Process starts with a user creating forms in the Form Designer. After the creation of forms, a user with Authorization Privileges authorizes the forms. The Authorized Forms are then used by users to enter data into the database.



**Figure 2-20 DMI Process Flowchart**



## 2.4.2 User Role Mapping and Access Rights

User access to the DMI UI and the ability to perform functions in it is dependent on the mapping of the user profile to the roles and the access rights assigned.

To access the DMI features, you must be mapped to the following roles:

**Table 2-8 User Role Mapping for Data Maintenance Interface**

Role Code	Role Name	Functionality
DMIDSGNREAD	Data Designer Read	Assign this role to the user to access the Configure View menu from Navigation Tree. NOTE: The mapping of this role does not allow view, edit, and add actions.
DMIDSGNAUTH	Data Designer Auth	Assign this role to the user to Authorize, Excel Upload, and Designer Summary.
DMIDSGNREJ	Data Designer Reject	Assign this role to the user to Reject, Excel Upload, and Designer Summary.
DMIDGNFORM	Data Designer Form	Assign this role to the user to Create Designer Form Definition.
DMIDGNTEMPLATE	Data Designer Template	Assign this role to the user to Create Excel upload Definition.

**Table 2-8 (Cont.) User Role Mapping for Data Maintenance Interface**

Role Code	Role Name	Functionality
DMIDSGNDEL	Data Designer Delete	Assign this role to the user to Delete, Excel upload, and Designer Summary.
DMIDGNVIEW	Data Designer View	Assign this role to the user to Create View Definition.
DMIDSGNWRITE	Data Designer Write	Assign this role to the user to Add, Edit and Copy all kinds of definitions in Designer screen.
DMIDATAREAD	Data Entry Read	Assign this role to the user to access the Data View menu from the Navigation Tree.  NOTE: The mapping of this role does not allow view, edit, and add actions.
DMIDATAALL	Data All Summary	Assign this role to view the list of all Component Records in Data Entry Screen.
DMIDATAWRTE	Data Entry Write	Assign this role to the user to Add, Edit Records in Data Entry Screen.
DMIDATADEL	Data Entry Delete	Assign this role to the user to Delete a Record Summary Data Entry Screen
DMIDATAAUTH	Data Entry Auth	Assign this role to Authorize a Record Summary in Data Entry Screen.
DMIDATAREJ	Data Entry Reject	Assign this role to Reject a Record Summary in Data Entry Screen.
DMIDGNAUTO	Enable Auto Approve	The user mapped to this function will have access to create Auto Approved Forms

 **Note:**

All the DMI roles are mapped to a single group, Data Maintenance admin group. If a user is mapped to this group all the DMI roles are automatically assigned to the user.

### 2.4.3 Access the Data Maintenance Interface

To access the Data Maintenance Interface (DMI), proceed with the following steps:

1. Login to your Oracle Cloud account, with the required credentials to access DMI.
2. Select an application, to access the DMI for that application.

For example, to access DMI for CFECS, select **Cash Flow Engine Cloud Service (CFECS)**.

 **Note:**

The navigation steps vary for different applications. Refer to the respective application documentation for accessing Data Maintenance Interface.

3. Click **Data Management Tools** and click **Data Management Interface**.  
The **Navigation List** is displayed.
4. Click one of the following menu items to access the respective windows:
  - [Designer View](#)
  - [Data View](#)

## 2.4.4 Form Designer Summary Page

You can create forms from the Form Designer View. The forms in the application are created with details configured for data maintenance and require authorization for use after creation.

To view the Forms Designer page, follow these steps:

1. Click **Data Maintenance Interface**.
2. Click **Designer View**, in the DMI navigation list.

The Form Definitions Summary page comprising the list of Form definitions is displayed. The following details are included the Summary page.

**Table 2-9 Field Description**

Field	Description
Name	The unique name of the Form Definition.
Status	The processing status of the form definition. The various processing statuses are: <ul style="list-style-type: none"> <li>• <b>Draft</b> – when the form is under development and is yet to be submitted for approval.</li> <li>• <b>Waiting for Approval</b> – When the approval is pending.</li> <li>• <b>Approved</b> – When the form definition is approved.</li> </ul>
Type	The form definition type: <ul style="list-style-type: none"> <li>• <b>Data Exporter</b> – creates form based on an entity table.</li> <li>• <b>Excel Upload</b> – creates form based on uploaded Excel Sheet.</li> <li>• <b>View</b> – Creates form based on Database views.</li> <li>• <b>Designer</b> – creates the form based on the entities, attributes and rulesets provided by the user.</li> </ul>
Description	The Form Definition description.
Created By	The username of the logged in User who created the form.

It has a [Search](#) tile to search for forms and a Forms tile that shows a list of existing forms in the application. You can sort the Form definition based on Name, Description and Created By fields.

To filter and view Form definitions with a specific processing status, click the respective status name in the top of the page.

You can also add, edit, view, and delete forms, from the Forms Definitions Summary page, based on the assigned roles and privileges. For more information, refer [User Role Mapping and Access Rights](#).

#### Related Topics

- [Creating Forms Using Data Exporter](#)  
Forms created using Data Exporter are used to export table data to CSV or JSON format.
- [Creating Forms Using Excel Upload](#)
- [Creating Forms Using View](#)
- [Creating Forms Using Designer](#)

## 2.4.5 Accessing Information in Summary Page

A Form definition Summary Page contains a list of existing Form definitions. You can search, filter, and customize the view to access the required data.

### 2.4.5.1 Searching a Summary Page

Search for forms in the application from this pane. The search pane is common to all the windows in DMI and shows at the top. Enter search terms in the **Form Name** or **Form Code** field, or use a combination of both the fields. Click **Search**. The search result is displayed in the Forms pane. Click **Cancel**, to clear the search criteria and view all the form records.

Select the required records, to view data, and edit or delete records.

### 2.4.5.2 Sorting a Summary Page

You can sort the Definitions list using **Name**, **Description** and **Created By** fields. You can also sort the page in ascending/descending order.



### 2.4.5.3 Setting Number of Records Per Page

At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. By default, this value is set to 10.

You can increase or decrease the number of entries that are displayed using the up and down arrows.

To access a particular page, enter the page number in the Page Box located at the bottom of the page.

To navigate between pages, use the following buttons:

- Use the **First Page** (  ) to view the entries in the First page.
- Use the **Previous Page** (  ) to view the entries in the Previous page.

- Use the **Next page** ( > ) to view the entries in the Next page.
- Use the **Last page** ( >> ) to view the entries in the Last page.

## 2.4.6 Creating New Forms in Form Designer

Form creation involves selecting entities, displaying columns with attributes on the form, and if required, selecting authorization of data. Security settings provide for the creation of specific-user access for the forms and authorization.

To add a form, follow these steps:

1. In the DMI Summary page, click **Add**.  
The **Create Forms Definition page** is displayed.
2. Enter/select the following details.

**Table 2-10 Field Description**

Field	Description
Type	Select the Definition Type: <ul style="list-style-type: none"> <li>• <b>Data Exporter</b> – creates form based on an entity table.</li> <li>• <b>Excel Upload</b> – creates form based on uploaded excel sheet.</li> <li>• <b>View</b> – Creates form based on Database views.</li> <li>• <b>Designer</b> – creates the form based on the entities, attributes and rulesets provided by the user.</li> </ul>
Code	The application generates a unique value for Form Code and does not require any input.
Name	Enter the name of the form in Form Name. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
Description	The Form Definition description. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed
Created By	The username of the logged in User who created the form.

3. Click **Apply** to create a new Form definition or **Close** to cancel the Form creation process.

The **New Form Configuration page** is displayed based on the selected input type.

For more information about each form creation method, refer to the respective sections:

### Related Topics

- [Creating Forms Using Data Exporter](#)  
Forms created using Data Exporter are used to export table data to CSV or JSON format.
- [Creating Forms Using Excel Upload](#)
- [Creating Forms Using View](#)
- [Creating Forms Using Designer](#)

## 2.4.6.1 Creating Forms Using Data Exporter

Forms created using Data Exporter are used to export table data to CSV or JSON format.

You can also include filters and Dynamic placeholders to view and export specific set of data.

1. Select **Data Exporter** in Create New Form Definition page.
2. Enter the following details:
  - **Source** - Select one of the following input sources for the new form definition.
    - Table
    - View
  - **Code** - The application generates a unique value for Form Code and does not require any input.
  - **Name** - The name of the form in Form Name. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
  - **Description** - The Form Definition description. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
  - **Created By** - The username of the logged in User who created the form.
3. Click **Apply** to proceed with the Form creation.  
Click **Close** to return to the Form Designer Summary Page.  
The **Table selection** tab is displayed.
4. Select the Table from the drop-down list and click **Apply**.  
The **Attributes** tab is displayed.
5. Click the drop-down arrow corresponding to the table in the **Entity Name** field.  
The source attributes from the table and the mapped attributes from the Excel file are displayed.  
If the selected table has Child tables, the Child tables that you select from the Mapped Entities tab are also displayed in the **Attributes** tab. You can configure the attributes for the master table and its child tables.
6. Click **Filter** to apply filters to the form data. For more information, refer [Creating Data Filters for New Form Definitions](#).
7. Select **Participate in Data Security** if you want to configure a specific condition. The condition that you configure is applicable when a user performs the data entry for the table records for each approved Forms Definition from the Data Entry Page. For more information, refer [Enabling Data Security for New Form Definitions](#).
8. Click **Select columns** to view only specific columns.
9. Click **Data Preview** to preview the form data.

10. Select **Auto Approve** if you do not want to the Forms Definition through the PMF workflow. When you select this option, the Forms Definition is automatically approved from Forms **Definition Summary Page** and is available for Data Entry. A user with the required role can then perform the data entry without the need for an approval process. For more information, see [Enabling Data Security for New Form Definitions](#).
11. Click **Save as Draft** if you want to save the Forms Definition in draft format.
12. Click **Submit** if you want to submit the Forms Definition for approval.

## 2.4.6.2 Creating Forms Using Excel Upload

Excel Upload Definition Type creates new forms based on the uploaded Excel file that has column names as per the table in the application data source. You can also modify the mapping for the attributes while you create the Forms Definition. When the Forms Definition that you create using the Excel option is approved from the Forms Definition Summary Page, users with the necessary role and permission can perform Data Entry for the records updated by the Excel file.

1. Select **Excel Upload** in Create New Form Definition pane.
2. Select **Auto Map Entities**, to auto map the attributes in the Excel file with the attributes in the Entity Table.
3. Enter the following details:

**Table 2-11 Field Description**

Field	Description
Code	The application generates a unique value for Form Code and does not require any input.
Name	The name of the form in Form Name. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
Description	The Form Definition description. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
Created By	The username of the logged in User who created the form.

4. Click **Apply**.  
The **File Upload tab** is displayed.
5. Enter the following details. a name and description for the excel template in the Template Name, and Description Fields.

**Table 2-12 Field Description**

Field	Description
Name	Enter the name of the form in Form Name. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.

**Table 2-12 (Cont.) Field Description**

Field	Description
Description	The Form Definition description. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
Created By	The username of the logged in User who created the form.

- Click **Drag and Drop** and select the excel file to update the required table.

 **Note:**

You can also drag and drop the required excel file in the Drag and Drop Field.

The excel file is uploaded and a confirmation box is displayed.

The **Mapped Entities Tab** is displayed.

- Enter the name of the table that you want to modify in the Primary Entity Field.  
If the table has Child tables, the Child tables also get displayed in the **Mapped Entities** tab. You can select the required child tables for which data should be input during data entry.
- Select **Enable Bulk Authorization** if you want to enable the bulk authorization of all the records when you edit an approved Form from Data Entry.
- Click **Apply**. To update the data in the mapped attribute tab, you have click **Apply** every time you update the Mapped entities.  
The **Mapped Attributes Tab** is displayed.
- Click the drop-down arrow corresponding to the table in the Entity Name.  
The source attributes from the table and the mapped attributes from the Excel file are displayed.  
If the selected table has Child tables, the Child tables that you select from the Mapped Entities tab are also displayed in the Attributes tab. You can configure the attributes for the master table and its child tables here.
- Click the required mapping in the **Override Mapping Column** and enter the required attribute name if you want to change the default mapping.
- Click **Select Columns** to select the columns for bulk update, during Data entry.
- Select **Participate in Data Security** if you want to configure a specific condition. The condition that you configure is applicable when a user performs the data entry for the table records for each approved Forms Definition from the Data Entry Page. For more information, refer [Enabling Data Security for New Form Definitions](#).
- Click **Filter** to apply filters to the form definition.  
This filters the data based on specified filter conditions. For more information, refer [Creating Data Filters for New Form Definitions](#).



15. Click **User Security** to select the user or user groups who can perform data entry to maintain the data in the table. For more information about adding user security, refer to [Enabling User Security for New Form Definitions](#).
16. Click **Data Preview** to preview the form data.
17. Select **Auto Approve** if you do not want to the Forms Definition through the PMF workflow. When you select this option, the Forms Definition is automatically approved from Forms Definition Summary page and is available for Data Entry. A user with the required role can then perform the data entry without the need for an approval process. For more information, see [User Role Mapping and Access Rights](#).
18. Click **Save as Draft** if you want to save the Forms Definition in draft format. The form is added to the summary page with Draft status.
19. Click **Submit** if you want to submit the Forms Definition for approval. For more information refer to [Approving and Rejecting New Form Definitions](#). After approval/ auto approval, the form is added to the Form Definition Summary page.

### 2.4.6.3 Creating Forms Using View

View Definition Type creates new forms based on Database views. You can also download the Database data in CSV format.

1. Select **View** Option in Create New Form Definition pane.
2. Enter the following details:

**Table 2-13 Field Description**

Field	Description
Code	The application generates a unique value for Form Code and does not require any input.
Name	Enter the name of the form in Form Name. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
Description	The Form Definition description. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
Created By	The username of the logged in User who created the form.

3. Click **Apply**.  
The **View Selection tab** is displayed.
4. Click **Apply**.  
The **Attribute Selection Tab** is displayed.
5. Click the drop-down arrow in the **View Name** field.

The source attributes from the table and the mapped attributes from the Excel file are displayed. If the selected table has Child tables, the Child tables that you select from the Mapped Entities tab are also displayed in the Attributes tab.

6. Click the check-box next to an Attribute Name , to include the Attribute in the Form definition.  
To remove the attribute from the form definition, uncheck the selection.
7. Click **Filter** to apply filters to the form definition.  
For more information, refer [Creating Attribute Filters for New Form Definitions](#).
8. Click **Apply**.  
The **Data Preview Tab** is displayed. You can view the sample form based on the selected view, attributes and filter conditions.
9. Click **Download CSV** to download the preview data.
10. Click **Save as Draft** if you want to save the Forms Definition in draft format.
11. Click **Submit** if you want to submit the Forms Definition for approval.

### 2.4.6.4 Creating Forms Using Designer

You can use the Designer option to create a Forms Definition and select the table and attributes that you want to modify. When the Forms Definition that you create using the Designer option is approved from the Forms Definition Summary Page, you can enter the values for the table records in the approved Forms Definition from Data Entry.

To create a Forms Definition by using the Designer option, perform the following steps:

1. Select **Designer** in Create New Form Definition page.
2. Enter the following details:

**Table 2-14 Field Description**

Field	Description
Code	The application generates a unique value for Form Code and does not require any input.
Name	The name of the form in Form Name. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
Description	The Form Definition description. You can enter between 3 to 100 characters. Only alphabets, numbers, spaces, and underscores are allowed.
Created By	The username of the logged in User who created the form.

3. Click **Apply**.  
The **Entities tab** is displayed.
4. Select the table that you want to modify in the **Primary Entity** Field.  
If the selected table have child tables, the child tables is also displayed. You can select the required Child tables for which you wish to input the data during data entry.

 **Note:**

You can select up to four Child tables only for each Master table.

5. Select **Enable Bulk Authorization**, if you want to enable the bulk authorization of records while performing data entry.
6. Click **Apply**.  
The **Attributes tab** is displayed.
7. Click the drop-down arrow corresponding to the table in the Entity Name field.  
The attributes in the entity table are displayed.  
If your table has Child tables, the Child tables that you select from the Entities tab also gets displayed in the Attributes tab.
8. Select the attributes for which you want to modify the data from the Attribute Name field.
9. Select **Participate in Data Security** if you want to configure a specific condition. The condition that you configure is applicable when a user performs the data entry for the table records for each approved Forms Definition from the Data Entry Page. For more information, refer [Enabling Data Security for New Form Definitions](#).
10. Click **Filter** to apply filters to the form definition.  
For more information, refer [Creating Attribute Filters for New Form Definitions](#).
11. Click **Select Columns** to search and select specific columns.
12. Click **Apply**.  
The **Ruleset Tab** is displayed. This tab enables you to give permission to add data during data entry for those attributes that are set to Editable mode. The key fields that cannot be modified are set to Read-only mode.  
Attributes that you select from the Child tables are also displayed in the Ruleset tab.
13. Select the checkbox corresponding to **Allow Add column** for the attributes that you want to modify.
14. Click **User Security** to select the user or user groups who can perform data entry to maintain the data in the table. For more information about adding user security, refer to [Enabling User Security for New Form Definitions](#).
15. Select **Auto Approve** if you do not want to the Forms Definition through the PMF workflow. When you select this option, the Forms Definition is automatically approved from Forms Definition Summary Page and is available for Data Entry.  
A user with the required role can then perform the data entry without the need for an approval process. For more information, see [Enabling Data Security for New Form Definitions](#).
16. 16. Click **Save as Draft** if you want to save the Forms Definition in draft format.  
Click **Submit** if you want to submit the Forms Definition for approval.

## 2.4.6.5 Creating Data Filters for New Form Definitions

Complete the following steps if you want to add filters to the Forms Definition:

1. Click **Launch Filter** Condition.

The Filter Condition pane is displayed.

2. Enter/ select the following details.

- **Column** - Select the column from the applying the filter.
- **Condition** - Select one of the following filter conditions, to filter the column data.
  - = - Equal to
  - **IN** - <Verify>Validates the filter condition and return True or False.
  - <> - Not equal to
  - < - Lesser than
  - <= - Lesser than or equal to
  - > - Greater than
  - >= - Greater than or equal to
  - **IS** - <TBD>
- **Type** - Select one of the following filter types.
  - **Static** - Select Static, to enter a value and execute the filter using only one value. You cannot change the value at a later point.
  - **Dynamic** - Select Dynamic, to change the filter value when needed. After setting the filter type to Dynamic, select the **Placeholder** and set one of the default seeded values, to process the filter.

 **Note:**

Only values that are already seeded in the Database table, are displayed in the Placeholder drop-down list.

- **Filter Value** - Select/enter the filter value.

 **Note:**

For Language Placeholder the default locale language is displayed and cannot be modified.

3. Click **Add**. to add a new Filter expression. You can add multiple Filter expressions to the same filter.

The filter is added to the list of filters.

Mouse-over the place holder filter, to view more details about the filter.

4. Click **Validate** to verify the filter condition is valid.

A confirmation is message is displayed, if the filter is valid.

5. Click **Apply**.  
The filter is displayed in the Filter Condition Field.
6. Click **Reset**, to clear all the filter expressions and create a new expression.
7. Click **Delete** to delete an existing filter expression.
8. Click **Edit** to modify a filter expression. After editing the expression, click **Validate**, to verify if the condition is valid.
9. Click **Apply** to add the filter expression to the form definition.

### 2.4.6.6 Enabling Data Security for New Form Definitions

Data security conditions allows you to apply certain filters when a user performs the data entry for the table records for each approved Forms Definition from the Data Entry page.

For example, consider that you configure the condition `COUNTRY_NAME = 'INDIA'` for the reference table **DIM\_COUNTRY**. When a user performs the data entry for this Forms Definition from the Forms Definition - Summary Page and enters a country name other than 'INDIA', the record gets rejected by the application when another user approves this record.

Complete the following steps to configure Data Security for the Forms Definition:

1. Select the check box next to the **Attribute Name**, in the **Participate in Data Security** Column.

 **Note:**

Data Security information must be configured for each attribute name, separately.

2. Click **Data Security**.  
The **Data Security page** is displayed.
3. Select the table based on which you want to build your condition from the Reference Table drop-down list.
4. Build your expression by selecting the required column, condition, and filter value.
5. Click **Apply**.

### 2.4.6.7 Enabling User Security for New Form Definitions

The User Security option helps you to select the users/user groups who can add, edit, delete and/or authorize data entry.

1. Click **User Security** to select the user or user groups who can perform data entry to maintain the data in the table.  
The **User Security** page is displayed.
2. Enter the required user group or user to assign permissions from the Map Users / Groups Field.

When you select the user group or user, the permissions for each approved Forms Definition are displayed. These permissions are the actions that the selected user group or user can perform while performing Data Entry.

**Table 2-15 Permissions in the Map Users / Groups Pane**

Option	Description
Add /Edit	Add or modify records in an approved Forms Definition
Delete	Delete records in an approved Forms Definition
Authorize	Authorize the records in an approved Forms Definition
Duration From	Optional. Select the start date for which the permissions are available to the user or user group.
Duration To	Optional. Select the end date for which the permissions are available to the user or user group.

The User Security Configuration is complete.

 **Note:**

If you select a user group for User Security, you can view the users mapped to that group by clicking the **Users** icon.

## 2.4.7 Approving and Rejecting New Form Definitions

You can validate and approve the new Forms Definition if you have the required role assigned to you.

If the configuration in the Forms Definition is incorrect, you can reject the Forms Definition. The rejected Forms Definition changes into Draft status. You can then request the required user to edit the Forms Definition and submit it for approval again.

You can also view, copy, and edit each Forms Definition from the Forms Definition – Summary page by clicking Menu. These actions are available based on the roles assigned to you. For more information, refer [User Role Mapping and Access Rights](#).

### 2.4.7.1 Approving a Forms Definition

You can approve new forms based on the assigned roles. For more information about the roles, refer. [User Role Mapping and Access Rights](#).

To approve a Forms Definition, perform the following steps:

1. In the Designer View, click **Menu** in the Forms Definition that is in Awaiting status, and then click **Approve**.

The **Configure page** is displayed.

2. Click **Approve** and then enter the required description for the approval in the Comments field.
3. Click **Submit**.

The Forms Definition is approved and is displayed in the **Data Entry page** as a new entry.

### 2.4.7.2 Rejecting a Forms Definition

You can reject new forms based on the assigned roles. For more information about the roles, refer to [User Role Mapping and Access Rights](#).

To reject a Forms Definition, perform the following steps:

1. In the Designer View, click **Menu** in the Forms Definition that is in Awaiting status, and then click Reject.

The **Configure page** is displayed.

2. Click **Reject** and then enter the required description for the approval in the Comments field.
3. Click **Submit**.

The Forms Definition is rejected, moved to draft status. The form definition is displayed in Forms Definition Summary page. You can then edit the Forms Definition in draft status and submit it for approval again.

For more information on editing a Forms Definition, see [Editing Form Definitions](#).

### 2.4.8 Managing Form Definitions

You can view, edit, copy, and delete the existing Form Definitions from the Form Definition Summary Page, based on the assigned roles. For more information, refer to [User Role Mapping and Access Rights](#).

In the Summary Page, highlight a specific Definition and click **Action**. The following options are displayed:

**Table 2-16 Action Details**

Action	Description
<a href="#">View</a>	View the <b>Member details</b> for a specific Member Definition.
<a href="#">Edit</a>	Edit the <b>Member details</b> of a form definition.
<a href="#">Copy</a>	Copy the Member Definition Details and create another Member Definition by changing Alphanumeric Code, Numeric Code and Name.
<a href="#">Upload</a>	Upload a new Excel sheet for an Excel upload form definition. You need to delete the attached excel sheet before uploading the new data.
<a href="#">Delete</a>	
<a href="#">Approve</a>	If you have the required role, you can approve a new Form that is in Awaiting Approval status. For more information, refer to <a href="#">Approving a Forms Definition</a> .

**Table 2-16 (Cont.) Action Details**

Action	Description
<a href="#">Reject</a>	If you have the required role, you can approve a new Form that is in Awaiting Approval status. For more information, refer to <a href="#">Rejecting a Forms Definition</a> .

### 2.4.8.1 Viewing Form Definitions

To view a form definition, you will require specific roles. For more information about Roles, refer [User Role Mapping and Access Rights](#).

You can view the details of an individual Form Definition, using the following procedure:

1. Highlight the Form Definition and click **Action**.
2. Click **View**.

The **Form Definition page** is displayed.

### 2.4.8.2 Editing Form Definitions

Editing form details requires specific assigned roles. For more information about the roles, refer [User Role Mapping and Access Rights](#). Forms that are already approved cannot be edited.

You can edit individual Definition Details, using the following procedure:

1. Highlight the Definition and click the Action button
2. Click **Edit**.

The **Form Definition page** is displayed with the details.

3. Edit the required information and click **Save**.

### 2.4.8.3 Copying Form Definitions

You can copy form details, based on the assigned roles. For more information about the roles, refer. [User Role Mapping and Access Rights](#).

You can copy individual Definition Details, to recreate another new Definition, using the following procedure:

1. Highlight the Definition and click **Action**.
2. Click **Copy**.

The **Form Definition Page** is displayed with the Details.

3. Edit the unique information and modify details like entity table, attribute filters, user and data security details and click **Save**.



## 2.4.8.4 Re-Uploading Form Definitions

You can upload a new Excel Sheet based on the assigned roles.

For more information about the roles, refer. [User Role Mapping and Access Rights](#).. You can change the Excel Sheet attached to an Excel Upload form Definition, using the following procedure:

1. Highlight the Definition and click **Action**.
2. Click **Upload**.  
The **Definition page** is displayed with the details.
3. In the Entities tab, click **Remove**, to delete the existing Excel sheet.
4. Click **Drag and Drop** and select the new Excel sheet to be uploaded.

## 2.4.8.5 Deleting Form Definitions

You can only delete the form definitions that are in Draft status, you can delete a form based on the assigned roles. For more information about the roles, refer. [User Role Mapping and Access Rights](#).

Highlight the draft form definition and click **Delete**.

## 2.4.9 Data View

The Data View feature of Data Maintenance Interface (DMI) enables you to maintain or modify the table data by using the Forms Definition that is created and approved from Forms Definition Summary page. For more information on Forms Definitions, see [Creating Forms Definition](#).

If the approved Forms Definition is created by using the designer option, a user with the necessary role can add or modify the records in the table as per the configuration in the Forms Definition. These records are then sent to another user with the necessary permission for final approval.

If the approved Forms Definition is created by using an Excel file, a user with the necessary permission can verify and approve the records that are modified with the values from the Excel file. If the records modified by the Excel file are incorrect, the user can reject the records. The rejected record can be modified by a different user with the necessary role and can be sent for the final approval again. The Forms Definitions that are created by using an Excel file are labeled with an Excel icon in Data Entry.

### 2.4.9.1 Viewing Data Entry

You can view records based on the assigned roles. For more information about the roles, refer. [User Role Mapping and Access Rights](#).

Complete the following steps to view Data entry:

1. Login to your Oracle Cloud account, with the required credentials to access DMI.
2. Select an application, to access the DMI for that application.

For example, to access DMI for CFECS, select **Cash Flow Engine Cloud Service (CFECS)**.

 **Note:**

The navigation steps vary for different applications. Refer to the respective application documentation for accessing Data Maintenance Interface.

3. Click **Data Management Tools** and click **Data Management Interface**.

The **Navigation List** is displayed.

4. Click **Data View**.

The **Data Entry page** is displayed. All the approved forms are displayed in the Data Entry page. Forms in Draft and Awaiting Approval status can be accessed from the Designer View page.

## 2.4.9.2 Data Entry – Forms Created Using Designer

If the Forms Definition is created by using the designer option, the user with the necessary role can enter the values for the table records as per the configuration in the Forms Definition. This user can also add or delete records. These records are then submitted for approval to another user with the necessary role. For more information, refer to [User Role Mapping and Access Rights](#).

Complete the following procedure, to update/delete data in the table records:

1. Click **Menu** button in the required Forms Definition from the Data Entry Page.
2. Click **Edit**.

The **Entity Details Page** is displayed.

The records are classified based on the following Status:

- **Draft** – Records that are created but not submitted. In Draft state, you can add, new rows or delete/edit an existing row submit for Auto-approval.
- **Ready** – Records that are approved. You can only edit the records.

For adding/deleting records and editing existing draft or Ready records, refer to the following sections:

### Related Topics

- [Adding/Editing a Draft Record](#)
- [Deleting Draft Records](#)

### 2.4.9.2.1 Adding/Editing a Draft Record

To Add or Edit a draft record, follow these steps:

1. Select **Draft** from the Status drop-down list.

The entity records with Draft status are displayed.

2. To add a new record, click **Add**.

A new entry with Draft Status is added to Entity details page. This entry is empty. Edit the record to add the attribute details.

3. To edit a record, click **Edit** next to the record.

The **Edit page** is displayed.

4. Enter the values in the attributes that you want to modify and click **OK**.

You can repeat the steps for all the records for which the data needs to be entered.

5. Click the modified record in draft status, and then click **Submit for Approval** or **Submit with Auto Approval**.

If the record is submitted with Auto approval, it is approved instantaneously.

If the record is submitted for approval, is sent for approval, and is changed to **Awaiting status**. A user with the necessary role can approve these records. For more information, see [Approving and Rejecting Records after Data Entry](#).

After Approval, the status is changed from Draft to Ready. Refer [Editing Approved Records](#), to edit the records in Ready Status.

 **Note:**

If the user has configured the Participate In Data Security option while creating a Forms Definition, you must enter the value as per the configured condition. If you enter a value that does not meet the condition, then the record is rejected by the application and the approval gets failed. You can view the details of the rejection by using the Audit trail option for each record. For information on the Participate In Data Security option, see [Enabling Data Security for New Form Definitions](#).

### 2.4.9.2.2 Deleting Draft Records

You can delete the records in Draft status. If the record is approved and moved to Ready status, it cannot be deleted.

1. Select **Draft** from the Status drop-down list.

The entity records with Draft status are displayed for entering data are displayed.

2. Select a record and click **Delete**.

To delete multiple records, select all the required records and click **Delete**.

To bulk delete all the records, select the Check box on the Header. All the records are selected. Then, click **Delete**.

### 2.4.9.2.3 Editing Approved Records

The Approved records are set to Ready Status. When you edit the record, it is moved to Draft Status.

1. Select **Ready** from the Status drop-down list.

The entity records with Ready status are displayed for entering data are displayed.

2. To edit a record, click **Edit** next to the record.

An edit pane is displayed.

3. Update the values for the attributes that you want to modify and click **OK**.

4. Enter a valid reason for modification.

You can repeat the steps for all the records for which the data needs to be entered.

5. Click the modified record in draft status, and then click **Submit for Approval** or **Submit with Auto Approval**.

To submit multiple records, select all the required records and click **Submit**.

To bulk submit all the records, select the Check box on the Header. All the records are selected. Then, click **Submit**.

If the record is submitted with Auto approval, it is approved instantaneously. The record is sent for approval and is changed to Awaiting status. A user with the necessary role can approve these records. For more information, see [Approving and Rejecting Records after Data Entry](#).

### 2.4.9.3 Forms Created Using Excel Upload

When a Forms Definition created using an Excel file is approved from Forms Definition Summary Page, the table records in the selected table are updated using the data in the Excel file. These records are in Awaiting status for the approved Forms Definition in Data Entry. You can verify the records modified by the Excel file records and approve them if you are assigned to the necessary role. If the records modified by the Excel file are incorrect, you can reject the records. The status of the rejected records is changed to Draft. A user with the necessary role can edit the records in draft status and submit them for approval again.

- To approve records, see [Approving a Record](#).
- To reject records, see [Rejecting a Record](#).
- To edit a record in draft status, see [Editing a Rejected Record](#).

### 2.4.9.4 Approving and Rejecting Records

A user with the necessary role can approve or reject the edited records. For more information, refer to [User Role Mapping and Access Rights](#).

#### 2.4.9.4.1 Approving Draft Records

To approve records that are in the Draft status, perform the following steps:

1. In the **Entity Details page**, select **Draft** from the Status drop-down list.

The entity records with Draft status are displayed.

2. Select the required record.

You can select multiple records, to perform bulk Approval. Bulk Approval is enabled only if Bulk Authorization is activated during Form Creation.

3. Enter the required comment in the Comments Field, and then click **Approve**.

The record is approved successfully with the values from the Excel file.

#### 2.4.9.4.2 Rejecting a Record

To reject a record in Awaiting status, perform the following steps:

1. Click **Menu button** in the required Forms Definition from the Data Reporting - Data Entry page.

2. Click **Edit**.

The Entity Details page is displayed. The records that are waiting for the final approval are displayed here.

Select the required record, and then click **Reject**.

You can select multiple records to perform bulk rejection. Bulk rejection is enabled only if Bulk Authorization is activated during Form Creation.

3. Enter the required comment in the Comments field, and then click **Reject**.

The record is rejected, and the status is changed to **Draft**. A user with the necessary role can now edit the record.

#### 2.4.9.4.3 Editing a Rejected Record

You can edit the records that are in draft status and send them approval to the user with the necessary role.

To edit a record, perform the following steps:

1. Select **Draft** from the Status drop-down list.
2. Click **Edit** in the record that you want to edit.

The Edit pane is displayed.

3. Modify the required attributes, and click **OK**.
4. Select the record and then click **Send for Approval**.

The modified record is now moved to **Awaiting** status. A user with the necessary role can approve the record.

#### Note:

If the user has configured the Participate In Data Security option while creating a Forms Definition, you must enter the value as per the configured condition. If an incorrect value is entered, the record gets rejected by the application and the approval is failed. You can view the details of the rejection by using the Audit Trail option for each record. For information on the Participate In Data Security option, see [Enabling Data Security for New Form Definitions](#).

#### 2.4.9.5 Audit Trail

The Audit Trail option for each record enables you to view the history of changes made to that record.

## 2.5 Data Quality Framework

Data Maintenance Interface (DMI) helps to design a Data Form in a user-specified format. Further, it allows to perform maintenance activities using the Designed Form.

Data Quality Framework within the Infrastructure system facilitates you to define rules and execute them to query, validate, and correct the transformed data existing in an environment. This framework includes the following components:

- **Data Quality Rules:** Data Quality Rules allows you to create a DQ (Data Quality) definition and perform Data Quality checks using Single column and Multi-column checks.

- **Data Quality Groups:** Data Quality Groups facilitates you to logically group the defined DQ definitions.

## 2.5.1 Roles and Functions for Managing DQ Framework

The following roles and function are required to create, view and manage the Rules and Groups in DQ Framework.

Role	Action
<b>DQACC</b> - DQ Access	Data Quality Rule Access Role
<b>DQADVND</b> - DQ Advanced	Data Quality Rule Advanced Role
<b>DQAUTH</b> - DQ Authorize	Data Quality Rule Authorize Role
<b>DQAUTOAUTHR</b> - DQ Auto Authorize Rule	Data Quality Auto Authorize Rule
<b>DQREAD</b> - DQ Read	Data Quality Rule Read-only Role
<b>DQWRITE</b> - DQ Write	Data Quality Rule Write Role

Functions	Action
<b>DQ_SUMM</b> - Data Quality Rule Summary	Access DQ Rule Summary
<b>DQ_GP_EXEC</b> - Execute Data Quality Group	Execute DQ Rule Group
<b>DQ_GP_ADD</b> - Add Data Quality Group	Add DQ group
<b>DQ_ADD</b> - Add Data Quality Rule	Add DQ Rule
<b>DQ_EDT</b> - Data Quality Edit Rule	Edit DQ Rule
<b>DQ_VIW</b> - Data Quality View Rule	View DQ Rule
<b>DQ_GP_VIW</b> - Data Quality View Rule Group	View DQ Rule Group
<b>DQ_GP_DEL</b> - Data Quality Delete Rule Group	Delete DQ Rule Group
<b>DQ_DEL</b> - Data Quality Delete Rule	Delete DQ Rule
<b>DQ_AUTH</b> - Data Quality Authorisation Rule	Authorize DQ Rule
<b>DQ_GP_EDT</b> - Data Quality Edit Rule Group	Edit DQ Rule Group
<b>DQ_GP_ADD</b> -Data Quality Add Rule Group	Add DQ Rule Group
<b>DQAUTOAUTH</b> - Data Quality Auto Authorize	Save the Rule/Group in authorized state
<b>DQ_PURGE</b> - DQ Rule Purge	Purge the DQ Rule
<b>DQ_GP_SUMM</b> - Data Quality Group Summary	Access DQ Group Summary
<b>DQ_GP_EXEC</b> - Data Quality Execute Rule Group	Execute DQ Rule
<b>DQ_GP_PURGE</b> - DQ Group Purge	Purge the DQ Group
<b>DQ_GP_AUTH</b> - DQ Group Authorisation	Authorize DQ Group
<b>DQ_EXE_SUMMARY</b> - DQ Execution Summary	Access DQ Execution Summary
<b>DQ_EXE_ASSIGN</b> - DQ Execution Assignment	Enable Data correction in the execution summary

## 2.5.2 Data Quality Rules

Data Quality Rules allows you to create a DQ (Data Quality) definition using data quality checks based on single column or multiple columns of a single base table. The defined Data Quality Rules can be logically grouped and executed together.

## 2.5.2.1 Data Check Definitions

Data Check definitions included the Data Quality Rules help in performing data quality check and correction.

You can include the following Data quality checks in the DQ Rule.

- **Single Column Check** - You can set the Check Type to Single Column Check during DQ Rule creation. This check will perform Data Quality Check on only one column selected during Rule creation. For more details about the various Single column Checks, refer to [Single Column Data Check Definitions](#).
- **Multi Column Check** - You can set the Check Type to Multi Column Check during DQ Rule creation. This check will perform Data Quality Check on one or more columns of a single base table, selected during Rule creation. For more details about the various Multi-column Checks, refer to [Multi Column Data Check Definitions](#).

### 2.5.2.1.1 Single Column Data Check Definitions

Single Column Data Checks help to perform data quality check on only one column selected during DQ Rule creation.

You can include the following Data Quality checks in the DQ Rule, if the check type is set to Single Column Check.

- **Range Check** - Range Check identifies if the base column data falls outside a specified range of Minimum and Maximum value. Range check can be enabled only if the base column has date or number value.
  - Select the check-box to enable the Range check.
  - Set the warning level to **Severity, Warning** or **Information**.
  - If the selected Base Column is of **Date** type, select Minimum and Maximum date range. If the selected base column is of **Number** type, enter the Range value. You can specify numeric, decimal, and negative values for number Data type.
  - Check the Inclusive check-box, to include the specified date/value during the data check.
  - Click **Edit** to add specific filter expressions, as additional conditions. For more information, refer to [Creating Expressions](#).
  - Select the **Assignment** option. The Assignment option is enabled only if Warning/Information is selected as the Warning level.
    - \* Select the Assignment Type from the drop-down list. For more information, see [Assignment Types](#).
    - \* Specify the **Assignment Value**.
    - \* Select the **Message Severity** as 1 or 2 from the drop-down list.
    - \* Select a pre-defined Message to be displayed from the drop-down list. To enter a specific message other than the listed pre-defined messages, select **Custom Message**, in the Message drop-box and enter the required **Custom Message**.

- **Null Value Check** -Null Value Check checks identifies if there is any null value in the selected column.
  - Select the check-box to enable the Null Value check.
  - Set the warning level to **Severity, Warning or Information**.
  - Click **Edit** to add specific filter expressions, as additional conditions.
  - Select the **Assignment** option. The Assignment option is enabled only if Warning/Information is selected as the Warning level.
    - \* Select the Assignment Type from the drop-down list. For more information, see [Assignment Types](#).
    - \* Specify the **Assignment Value**.
    - \* Select the **Message Severity** as 1 or 2 from the drop-down list.
    - \* Select a pre-defined Message to be displayed from the drop-down list. To enter a specific message other than the listed pre-defined messages, select **Custom Message**, in the Message drop-box and enter the required **Custom Message**.
- **Blank Value Check** -Null Value Check checks identifies if there is any entry in the selected column is blank.
  - Select the check-box to enable the Blank Value check.
  - Set the warning level to **Severity, Warning or Information**.
  - Click **Edit** to add specific filter expressions, as additional conditions.
  - Select the **Assignment** option. The Assignment option is enabled only if Warning/Information is selected as the Warning level.
    - \* Select the Assignment Type from the drop-down list. For more information, see [Assignment Types](#).
    - \* Specify the **Assignment Value**.
    - \* Select the **Message Severity** as 1 or 2 from the drop-down list.
    - \* Select a pre-defined Message to be displayed from the drop-down list. To enter a specific message other than the listed pre-defined messages, select **Custom Message**, in the Message drop-box and enter the required **Custom Message**.
- **Data Length Check** -Data Length Check checks for the length of the base column data using a minimum and maximum value and identifies if it falls outside the specified range.
  - Select the check-box to enable the Data Length check.
  - Set the warning level to **Severity, Warning or Information**.
  - Enter the Minimum and maximum values for validation.
  - Click **Edit** to add specific filter expressions, as additional conditions.
- **Duplicate Check** - Duplicate Check can be used when a combination of column is unique and identifies all the duplicate data of the base table in terms of the columns selected for the duplicate check.
  - Select the check-box to enable the Duplicate Check.
  - Set the warning level to **Severity, Warning or Information**.
  - Click **Edit** to add specific filter expressions, as additional conditions.



- Click **Edit** and select the required column to be added to the **Column List**, for duplicate check validation.
- **Custom Check/Business Check**- Custom Check/Business Check is a valid SQL query to identify the data with the query specified as the Custom/business SQL. You can define the SQL, but the Select clause of the query has to follow the order as specified in the template of the Custom Check panel.  
**Sample Template** : "SELECT 'N\_COUNTRY\_SKEY' PKNAMES, N\_COUNTRY\_SKEY PK1, null PK2, null PK3, null PK4, null PK5, null PK6, null PK7, null PK8, V\_COUNTRY\_DESC ERRORCOL FROM DIM\_COUNTRY WHERE N\_COUNTRY\_SKEY >50"
  - Select the check-box to enable the Custom Check.
  - Set the warning level to **Severity, Warning or Information**.
  - Enter the SQL Query to perform the custom check.
- **Column Reference/Specific Value Check** - Column Reference / Specific Value Check compares the base column data with another column of the base table or with a specified direct value using the list of pre-defined operators.
  - Select the check-box to enable the Column Reference check.
  - Set the warning level to **Severity, Warning or Information**. Column reference check can be enabled only if the base column has date or number value.
  - Select the **Mathematical Operator** from the drop-down list.
  - Select the **Filter Type** as one of the following:
    - \* Select **Specific Value** and specify the Value. You can specify numeric, decimal, and negative values for number Data type.
    - \* Select **Another Column** and select Column Name from the drop-down list.
  - Click **Edit** to add specific filter expressions, as additional conditions.
  - Select the **Assignment** option. The Assignment option is enabled only if Warning/Information is selected as the Warning level.
    - \* Select the Assignment Type from the drop-down list. For more information, see [Assignment Types](#).
    - \* Specify the **Assignment Value**.
    - \* Select the **Message Severity** as 1 or 2 from the drop-down list.
    - \* Select a pre-defined Message to be displayed from the drop-down list. To enter a specific message other than the listed pre-defined messages, select **Custom Message**, in the Message drop-box and enter the required **Custom Message**.
- **List of Value** - List of Value Check verifies the values where a dimension / master table is not present. This check identifies if the base column data is not matching with any value or code specified in a list of values.
  - Select the check-box to enable the List of Value check.
  - Set the warning level to **Severity, Warning or Information**.
  - Select **Input Values** and specify the List of Values. You can specify numeric or String values.
  - Click **Edit** to add specific filter expressions, as additional conditions.

- Select the **Assignment** option. The Assignment option is enabled only if Warning/Information is selected as the Warning level.
  - \* Select the Assignment Type from the drop-down list. For more information, see [Assignment Types](#).
  - \* Specify the **Assignment Value**.
  - \* Select the **Message Severity** as 1 or 2 from the drop-down list.
  - \* Select a pre-defined Message to be displayed from the drop-down list. To enter a specific message other than the listed pre-defined messages, select **Custom Message**, in the Message drop-box and enter the required **Custom Message**.
- **Referential Integrity Check** - Referential Integrity Check identifies all base column data which has not been referenced by the selected column of the referenced table. Here, the reference table and columns are user specified.
  - Select the check-box to enable the Referential Integrity Check.
  - Set the warning level to **Severity, Warning or Information**. Column reference check can be enabled only if the base column has date or number value.
  - Select the **Table** (Referential Integrity Check dimension table) from the drop-down list. The base table selected under the Select grid is excluded from the drop-down list.
  - Select the Column from the drop-down list. The list displays those columns that have the same Data Type as that of the Base Column selected under Select grid.
  - Select the **Is Composite Key** check-box if the base column is part of a Composite Key.
  - Click **Edit** to add specific filter expressions, as additional conditions.

### 2.5.2.1.2 Multi Column Data Check Definitions

Multi Column Data Check definitions help in data quality checks and correction of one or more columns of a single table, selected during Rule creation.

### 2.5.2.1.3 Assignment Types

To populate the Assignment Type details, select any of the below Assignment Type option from the dropdown list and do the following:

- **No Assignment** - This assignment is selected by default and does not have any target column update, but the message details are pushed.
- **Direct Value** - Enter the **Assigned Value**. You can specify number, date or string values, as required.
- **Another Column** - Select the required Column as **Assigned Value** from the drop-down list.
- **Expression** - Specify the required expression in the Specify Expression Page. For more information, refer to [Creating Expressions](#).

## 2.5.2.2 Creating Expressions

You can define an expression in the Expression Builder to combine two selected tables.

The expression builder includes the following sections:

- **Entities** - consists of the Entities folder with the list of tables that you selected from the Entity Groups folder. Double-click the Entities folder to view the selected dimension tables (Product and Segment tables).
- **Functions** – The 2 types of functions are,
  - **Database Functions** - consists of functions that are specific to databases.
  - **User Defined Functions** - use these functions along with Operators to specify the join condition.
- **Operators** - Consists of the function operators categorized into folders. The various types of operators are,
  - **Arithmetic** - +, -, %, \* and /
  - **Comparison** - '=', '!=', '< >', '>', '<', '>=', '<=', 'IN', 'NOT IN', 'ANY', 'BETWEEN', 'LIKE', 'IS NULL', and 'IS NOT NULL'.
  - **Logical** - 'NOT', 'AND' and 'OR'
  - **Set** - UNION, UNION ALL, INTERSECT and MINUS
  - **Other** - The Other operators are 'PRIOR', '(+)', '(' and ')'

To specify the join condition:

1. Select the **Entity** of the fact table to which you want join the dimension entities.
2. Select a **Function** depending on the database type.
3. Select the **Operator** you want to use for the join condition.
4. Select the **Second Entity** from the Entities pane that you want to join with the first entity. You can also select more than one table and link to the fact table.

The defined expression is displayed in the Expression pane. Click **Reset** to reset the values.

5. Click **OK**.

The defined expression is validated as per the selected table and entity definition and on successful validation, it is added to the DQ Rule.

## 2.5.2.3 DQ Rules Summary

The Data Quality Rule Summary page contains the list of user-defined Data Quality Rules with details such as Name, Status, Folder, Is Executed, Version, Is Grouped, Check Type and Base table.

Refer to the following procedure to view DQ Rules Summary and the relevant details:

- Click **Data Quality Rules**, to access the Data Quality Rules Summary.  
The Data Quality Rules Summary page with the following details is displayed.
  - **Name** - The Unique Identifier Name of the Data Quality Rule.

- **Status** - The Approval status of the specific rule.
  - **Approval** - The Rule is approved and ready for execution. The approved rules can be grouped further for execution.
  - **Pending for Approval** - The rule requires approval and can be executed only after approval.
  - **Draft** - A defined rule is set to **Draft** status until it is submitted for approval by the creator.
  - **Rejected** - The rejected rules are sent back to the creator with the Approver comments.
- **Folder** - The folder associated with the rule.
- **Version** - The current active version of the rule.

When a new definition is created, it will be saved as version 1 and once it is authorized, it will be in Active status. After you modify any DQ Rule and save, it will be saved with version as highest available version +1. For example, if you modify a DQ Rule of version 2 and the highest version available is 4, after you save the definition, its version becomes 5. Only the latest version will be in Active status.
- **Check Type** - Select one of the following check types:
  - **Single Column Check** - define conditions based on individual checks on a single column. For more information, refer to [Single Column Data Check Definitions](#).
  - **Multi Column Check** - define conditions based on multiple columns of a single base table. These checks are not pre-defined and can be specified (user-defined) as required. For more information, refer to [Multi Column Data Check Definitions](#).
- **Base Table** - The base table within the environment, associated with the rule.
- **Created By** - The login name of the user who created the rule.
- **Created Date** - The rule creation date.
- **Action** - Click **Action**, to view, approve, reject edit, or delete the rule.

To search for a particular rule, enter the first few letters of the rule name in the Search column.

You can also sort the rule summary based on the Status, Folder name, check type, record status, Rule name and Select table.

To sort the Summary based on the Status, click **Status** in the Search bar, and select the required status.

## 2.5.2.4 Creating DQ Rule

You can create a Data Quality Rule Definition by specifying the DQ Definition details along with the entity details and the type of data quality check to be performed on the selected base table. You can also define the required search conditions to query and correct the transformed data.

1. To create a DQ Rule, click **Add Rule** on the DQ Rules Summary.

The Data Quality Rules page with DQ Group Details and DQ Rules Mapping tab is displayed.

2. Click **Start**, to enter the following basic details for the new DQ Rule.

- **Name** - The unique identifier name for the rule.  
The name should start with alphabet and should not be more than 50 characters.  
**Blank space ( ), Underscore ( \_ ) and Hyphen ( - )** are allowed as special characters.
- **Description** - The description/details for the rule.  
The description should start with alphabet and should not be more than 250 characters.
- **Folder** - Select the folder present in the current environment, to be associated with the rule.
- **Check Type** - Select one of the following check types for the rule.
  - **Single Column** - Select Single column to perform data quality check only on one column. For more information, refer to [Single Column Data Check Definitions](#).
  - **Multi-Column** - Select Multi-Column to perform data quality check on more than one column in a single table. For more information, refer to [Multi Column Data Check Definitions](#).
- **Access-type** - Select one of the following Access types.
  - **Read-only** - only the creator can edit the rule. Other users can only view the rule.
  - **Read-Write** - all users can view, modify any fields (including Access Type), and also delete the DQ Rule.
- Check **Auto DQ Group Required** option, to create a new DQ group, for this Rule.  
The new group will be associated only with the created DQ rule. The group name will be set as <DQ\_Rule\_Name\_group>, and this group will have only Read-only access.
- Check **Auto Assignment**, to execute the rule, and also perform the assignment.

 **Note:**

The Auto Assignment is applicable only to the Auto DQ Group.

- Click **Continue** to proceed with the Entity Selection page.
3. Enter/select the following entities:
- **Table** - Select the basic table on which the rule is executed.
  - If the rule is a single-column rule, select the **Base Column**, to be included for the rule execution. Base column will not be present for Multi-Column rule.
  - Select the **Identifier Columns** required to execute the rule.
    - To select multiple columns, click **Edit**.
    - Select the required columns from the **Available Members** pane and move them to **Selected Members** pane.
  - Click **Edit**, to include the filter expression.

The **Specify Expression** page is displayed. For more information refer to [Creating Expressions](#).

- Select the entities to be included in the filter expression and click **OK**.

4. Click **Continue**, to proceed with the **Data Check Definitions**.
5. Select the required Data Check Definitions, to validate the data.

Enter/select the required information for each Data Check Definition. For more information about each Data check type, refer to [Data Check Definitions](#).

6. Click **Submit**, to submit the new DQ Rule for approval.

The DQ Rule is saved with the status **Pending for Approval**, in the Rules Summary and a confirmation message is displayed.

While creating the DQ Rule, you can also click **Save As Draft**, to save the new incomplete DQ Rule at any point of time and resume the process at a later point. A confirmation message is displayed, after the draft is saved successfully.

The new Rule added to the DQ Rules Summary, and is set to **Draft** Status in the DQ Rules Summary.

 **Note:**

If the user has **DQAUTOAUTH** Role assigned, the Rule will be auto-approved.

## 2.5.2.5 Editing DQ Rules

You can update all the definition details except for the Definition Name, Check Type, Table, and the Base Column selected.

You can only edit the DQ rules that are set to **Draft**, **Approved** and **Rejected** status. You cannot edit the rules that are set to **Pending for Approval** status.

To edit the required Data Quality Rule definition details:

1. Click **Action** adjacent to the DQ Rule to be modified.
2. Click **Edit**, to modify the DQ Rule.
3. Click **Start** to edit the **DQ Rule Details**.
4. Modify the description and click **Continue** to proceed with editing the Entity Selection details.

You can also click **Save as Draft**, to save the changes and proceed with Submission later.

5. Modify the Filter expression and click **Continue** to proceed to **Data Check Definitions** page.
6. Add/remove the data checks required during rule execution and click **Submit**, to submit the modified rule for approval.

The rule is updated and added to the DQ Rules Summary. A confirmation message is displayed.

The Rule is set to **Pending for Approval** state.

 **Note:**

If the user has **DQAUTOAUTH** Role assigned, the Rule will be auto-approved.

## 2.5.2.6 Approving/Rejecting a Data Quality Rule

An authorizer can approve a user-defined Data Quality Rule definition or reject an inappropriate DQ Definition listed within the Data Quality Rule Summary.

You should be mapped to DQ Authorizer function role to approve or reject a DQ Definition.

 **Note:**

You can only approve those DQ Rules that are set to **Pending for Approval** status.  
If the user has **DQAUTOAUTH** Role assigned, the DQ rule will be auto-approved.

To view a Data Quality rule, and approve/ reject Data Quality rule:

1. Click **Action** adjacent to the DQ Rule to be approved/rejected.
2. Click **Preview**, to view the DQ Rule.  
All the details pertaining to the selected rule is displayed.
3. Click **Approve/Reject**, after reviewing the rule.
4. Enter valid reason for approval or rejection.
5. Click **Approve/Reject**.

The DQ Rule is approved/rejected and a confirmation message is displayed.

### 2.5.2.6.1 Bulk Approving/Rejecting Data Quality Rules

An authorizer can approve multiple user-defined Data Quality Rule definitions or reject an inappropriate DQ Definition listed within the Data Quality Rule Summary.

You should be mapped to DQ Authorizer function role to approve or reject a DQ Definition.

 **Note:**

You can only approve those DQ Rules that are set to **Pending for Approval** status.  
If the user has **DQAUTOAUTH** Role assigned, the DQ rule will be auto-approved.

 **Note:**

When you initiate bulk approval/rejection, all the selected rules are approved/rejected based on the user input. If you want to stop the approval/rejection of one specific rule, cancel the whole process and restart again.

To view several Data Quality rules, and approve/ reject them:

1. Filter Rule Summary, to view only the rules with **Pending For Approval** Status.  
All the rules that need be approved/rejected are displayed.
2. Select the rules for approval/rejection.  
You can select all the rules displayed in a page, by clicking the check box next to the **Name** header. To select all the rules in the Summary, with **Pending** Status, select **Click All Rules in Summary** link.
3. Click **View Details**, to view the Rule details of all the selected rules.  
All the rule details, and base table for the selected rules are displayed. Review the details and add appropriate comments and click **OK**.  
You can also **Proceed without Viewing** the details.
4. Click **Approve/Reject**.  
The selected DQ Rules are approved/rejected and a confirmation message is displayed.

### 2.5.2.7 Deleting a Data Quality Rule

You can remove the Data Quality Rule definition(s) that are not grouped in the Data Quality Framework. A grouped and non-executed Data Quality Rule definition can still be deleted by unmapping the same from all the associated group(s).

To delete a DQ Rule:

1. Click **Action** adjacent to the DQ Rule to be approved/rejected.
2. Click **Delete**, to delete the DQ Rule.

The selected rule is set to **Pending for Approval** status and is deleted after approval.

 **Note:**

If the user has **DQAUTOAUTH** Role assigned, the Rule will be auto-deleted.

### 2.5.2.8 Purging a Data Quality Rule

You can delete a Data Quality Rule definition permanently from the setup.

You can purge only those DQ Rules that are deleted after approval.

To delete a DQ Rule:

1. Click **Action** adjacent to the deleted DQ Rule.
2. Click **Purge**, to delete the DQ Rule from the setup.

The selected rule is is deleted permanently after confirmation.



## 2.5.3 Data Quality Groups

Data Quality Groups facilitates you to logically group the defined DQ Definitions .

DQ Group Definitions can be executed through Scheduler Services. For more information, refer to [Adding a DQ Check Task](#) .

### 2.5.3.1 DQ Groups Summary

The Data Quality Groups Summary displays the list of user-defined Data Quality Groups with the other details such as Name, Folder, Creation Date, Created By, Last Modification Date, Last Modified By, Last Run Date, and Last Run Status. .

You can create and execute DQ Group definitions and view, modify, copy, refresh, or delete DQ Group definitions within the Data Quality Groups Summary.

- Click **Data Quality Groups**, to access the Data Quality Groups Summary.  
The Data Quality Rules Summary with the following details is displayed.
  - **Name** - The Unique Identifier Name of the Data Quality Group.
  - **Status** - The Approval status of the specific group.
    - **Approval** - The group is approved and ready for execution.
    - **Pending for Approval** - The group requires approval and can be executed only after approval.
    - **Draft** - A defined group is set to **Draft** status until it is submitted for approval by the creator.
    - **Rejected** - The rejected rules are sent back to the user with the Approver comments.
  - **Version** - The current active version of the group.  
When a new definition is created, it will be saved as version 1 and once it is authorized, it will be in Active status. After you modify any DQ Group and save, it will be saved with version as highest available version +1. For example, if you modify a DQ Group of version 2 and the highest version available is 4, after you save the definition, its version becomes 5. Only the latest version will be in **Active** status.
  - **Folder** - The folder associated with the group.
  - **Created Date** - The group creation date.
  - **Created By** - The login name of the user who created the Group.
  - **Last Run Date** - The last date on which the DQ Group was executed.
  - **Last Run Status** - The last execution state if the specific DQ Group.
    - **Success** - The last execution of the selected DQ Group was completed successfully.
    - **Failed** - The last execution did not complete.
    - **NA** - The DQ Group was not executed.
  - **Action** - Click **Action**, to view, approve, reject edit, or delete the group.

To search for a particular group, enter the first few letters of the group name in the Search column.

You can also sort the groups summary based on the Status, Folder name, record status and group name.

### 2.5.3.2 Creating DQ Groups

You can create a DQ Group definition by defining the DQ Definition details and mapping the required DQ Rules which are authorized and approved within the system.

The DQ Group definition is flexible and purpose driven. Groups can be created for different subject areas such as Credit and Market or it can be application specific like Basel II, Economic capital.

1. To create a DQ Group, click **Add Group** in the DQ Group Summary.

The Data Quality Group page with DQ group Details and DQ Rules Mapping tab is displayed.

2. Click **Start**, to enter the following basic details for the new DQ Group.

- **Name** - The unique identifier name for the groups.  
The name should start with alphabet and should not be more than 50 characters.  
**Blank space ( )**, **Underscore ( \_ )** and **Hyphen ( - )** are allowed as special characters.
- **Folder** - Select the folder present in the current environment, to be associated with the group.
- **Description** - The description/details for the group.  
The description should start with alphabet and should not be more than 250 characters.
- Check **Auto Assignment**, to execute the group, and also perform the assignment.

3. Click **Continue** to proceed with the Data Rules Mapping page.

The list of available rules are displayed in the Data Rules Mapping page.

4. Select the Rules to be added to the new DQ Group.

5. Click **Submit**, to submit the new DQ Group for approval.

The DQ Groups is saved with the status **Pending for Approval**, in the Group Summary and a confirmation message is displayed.

While creating the DQ Group, you can also click **Save As Draft**, to save the new incomplete DQ Group at any point of time and resume the process at a later point. A confirmation message is displayed, after the draft is saved successfully.

The new Group added to the DQ Groups Summary, and is set to **Draft** Status in the DQ Groups Summary.

 **Note:**

If the user has **DQAUTOAUTH** Role assigned, they can save and approve the DQ Group, immediately after creating it.

### 2.5.3.3 Editing DQ Groups

You can modify all the details of a saved Data Quality Group Definition, except the Group name.

To edit the required Data Quality Group Definition details:

1. Click **Action** adjacent to the DQ Group to be modified.
2. Click **Edit**, to modify the DQ Group.
3. Click **Start** to edit the **DQ Group Details**.
4. (Optional). Modify the description and click **Continue** to proceed with adding/deleting the rules associated with the DQ Group.
5. Add/remove the DQ Rules associated with the DQ Groups and click **Submit**, to submit the modified group for approval.

The group is updated and added to the DQ Groups Summary. A confirmation message is displayed.

The Group is set to **Pending for Approval** state.

 **Note:**

If the user has **DQAUTOAUTH** Role assigned, they can save and approve the DQ Group, immediately after creating it.

### 2.5.3.4 Approving/Rejecting a Data Quality Group

An authorizer can approve a user-defined Data Quality Group definition for further execution or reject an inappropriate DQ Definition listed within the Data Quality Rule Summary.

You should be mapped to DQ Authorizer function role to approve or reject a DQ Definition.

 **Note:**

You can only approve those DQ Rules that are set to **Pending for Approval** status.

If the user has **DQAUTOAUTH** Role assigned, they can save and approve the DQ Group, immediately after creating it.

To view a Data Quality Group, and approve/ reject it:

1. Click **Action** adjacent to the DQ Groups to be approved/rejected.
2. Click **Preview**, to view the DQ Groups.  
All the details pertaining to the selected rule is displayed.
3. Click **Approve/Reject**, after reviewing the groups.
4. Enter valid reason for approval or rejection.

5. Click **Approve/Reject**.
6. The DQ Group is approved/rejected and a confirmation message is displayed.

#### 2.5.3.4.1 Bulk Approving/Rejecting Data Quality Groups

An authorizer can approve multiple user-defined Data Quality Groups or reject an inappropriate DQ Groups listed within the Data Quality Group Summary.

You should be mapped to DQ Authorizer function role to approve or reject a DQ Definition.



##### Note:

You can only approve those DQ Groups that are set to **Pending for Approval** status.  
If the user has **DQAUTOAUTH** Role assigned, the DQ group will be auto-approved.



##### Note:

When you initiate bulk approval/rejection, all the selected groups are approved/rejected based on the user input. If you want to stop the approval/rejection of one specific group, cancel the whole process and restart again.

To view several Data Quality groups, and approve/ reject them:

1. Filter Group Summary, to view only the groups with **Pending For Approval** Status.  
All the groups that need be approved/rejected are displayed.
2. Select the groups for approval/rejection.  
You can select all the groups displayed in a page, by clicking the check box next to the **Name** header. To select all the groups in the Summary, with **Pending** Status, select **Click All Groups in Summary** link.
3. Click **View Details**, to view the Group details of all the selected Groups.  
All the group details, and base table for the selected groups are displayed. Review the details and add appropriate comments and click **OK**.  
You can also **Proceed without Viewing** the details.
4. Click **Approve/Reject**.  
The selected DQ groups are approved/rejected and a confirmation message is displayed.


#### 2.5.3.5 Deleting a Data Quality Group

You can remove the Data Quality Group definition(s) that are not grouped in the Data Quality Framework. A grouped and non-executed Data Quality Rule definition can still be deleted by unmapping the same from all the associated group(s).

To delete a DQ Group:

1. Click **Action** adjacent to the DQ Group.
2. Click **Delete**, to delete the DQ Group.

The selected group is deleted after confirmation.

 **Note:**

If the user has **DQAUTOAUTH** Role assigned, the Group will be auto-deleted.

### 2.5.3.6 Purging a Data Quality Group

You can delete a Data Quality Group definition permanently from the setup.

To delete a DQ Group:

1. Click **Action** adjacent to the deleted DQ Group.
2. Click **Purge**, to delete the DQ Group from the setup.

The selected Group is deleted permanently after confirmation.

### 2.5.4 Adding a DQ Check Task

You can add a new DQ check Task in the Scheduler Services and add the task to a Batch Definition, for execution.

For more information about adding a task to the Batch and about Scheduler Services, refer to [Scheduler Services Documentation](#).

To add new task using the Define Tasks page in Scheduler Services, perform the following steps:

1. Click **Define Tasks** from the Header panel.
2. Select the **Batch**, to add new task.
3. Click **Add**, to add a new DQ task in the **Create Task** page.
  - Complete all the generic details in the Create Task Page. For more information refer to [Create Task Using Scheduler Services](#).
  - Select the **Task Type** as DQ Task.
  - Select the **Group** to perform the DQ check.
  - Enter the **Threshold** percentage for the maximum number of errors permissible during the DQ check. By default this value is set to 100.
  - Set **Fail If Threshold Breaches** to **TRUE**, to abort the job and not include the failure records in the DQ table, when the DQ check errors are more than the set threshold value.

If the **Fail If Threshold Breaches** is set to **FALSE**, the job will proceed further and the failure records will be inserted in the DQ Result tables.
  - Enter the **Additional Parameters** required for the Run DQ Rule filtering criteria for execution in the pattern: Key#Data type#Value; Key#Data type#Value; and so on.
4. Click **Save** to add the new DQ task to the selected Batch.

## 2.5.5 Execution Summary

The Execution Summary provides the consolidated list of executed DQ batches, for the last 30 days .

You can also view the consolidated details related to the total number of records analysed, total number of passed records and the pass percentage and total number of error records and their percentage. The number of error records categorized based on the Data checks is also displayed as a pie chart.

To view the Execution Summary Details:

- Click **Execution Summary**, to access the consolidated Execution Summary.

The Execution Summary page with the following details is displayed.

- **Batch ID** - The Unique Identifier Name of the particular Batch in which the DQ group is added for Data Quality Check.
- **Process Instance ID** - The unique identifier of the execution process.
- **DQ Group** - The DQ group associated with the Batch for Data Quality check.
- **DQ Group Desc** - The DQ group description.
- **FICMIS Date** - FICMIS Date refers to the date with which the data for the execution would be filtered. In case the specified MIS date is not present in the target table, execution completes with the message **No Records found**.
- **Execution Date** - The last execution date of the Batch.
- **Scanned Records** - The total number of records scanned for Data Quality check.
- **Erroneous Records** - The total number of records that failed the Data Quality check.
- **Execution Status** - The DQ Batch execution status.
- **Assignment Status** - The current Assignment status of the DQ Batch.
- **Action** - Click **Action**, to view the Run Details of the DQ Batch.

To search for a particular Batch, enter the first few letters of the Batch name in the Search column.

You can also sort the Execution summary based on the Execution Date, FICMIS Date, Execution status and Group Name, Assignment Status, Batch Id and Process Instance ID.

### 2.5.5.1 Viewing Run Details

Execution Details page provides the information related to the Data Quality Rule and the Data Quality Check executed during a Batch Execution.

You can also view the consolidated details related to the total number of records analysed, total number of passed records and the pass percentage and total number of error records and their percentage.

The number of error records categorized based on the Data checks is also displayed as a pie chart.

1. Click **Action** adjacent to the specific Batch.
2. Click **View Run Details**, to access the Run details of the particular Batch execution.

The Run details of the selected Batch is displayed with the following information.

- **Rule** - The Rule name of the executed DQ Rule.
  - **Entity** - The Table entity associated with the Rule.
  - **Column** - The column associated for Data Quality check
  - **Check Type** - The type of check performed on the Data.
  - **Consolidated Records Scanned** - The total number of records scanned.
  - **Error Records** - The total number of erroneous records.
  - **Assignment Type** - The assignment type set during the DQ rule creation.
3. Generate and download the report, and perform assignment action based on the report.

 **Note:**

To perform assignment, you must have the **DQ\_EXE\_ASSIGN** role assigned.

After the assignment process is completed, the Assignment status of the particular DQ Batch is set to **Success**.

# 3

## Business Rules Administration

This chapter covers the following topics.

1. **Currencies:** Currency module supports the definitions and maintenance of currencies.
2. **Dimension Management:** Dimension Management facilitates you to categorize data into a single object as a Member; define levels and aggregate data to form the Hierarchies, and distinguish each member by defining the required Attributes.
  - **Members:** Dimension Members refer to the individual items that constitute a dimension when data is categorized into a single object such as Product, Organization, Time, and so on.
  - **Attributes:** Attributes refers to the distinguished properties or qualifiers that describes a Dimension Member.
  - **Hierarchies:** Hierarchies refer to Dimension Members that are arranged in levels, with each level representing the aggregated total of the data from the level below. One dimension type can have multiple hierarchies associated with it.
3. **Currency Rates:** Currency Rates module uses the currencies defined and activated in the Currency module to support the creation and maintenance of Historical Exchange Rates.
4. **Preferences:** This section covers the procedures to set the Global Preference Settings and User Preference Settings.
5. **Filters:** Filters allow you to select data using the defined expressions.
6. **Expressions:** An Expression is a user-defined tool that supplements other IDs and enables to manipulate data flexibly.
7. **Management Ledger Configuration:** This section covers the procedure to define the Functional Currency and the Fiscal Year Start Month for each registered Management Ledger Table.
8. **Allocation Specification:** This topic covers the Allocation Specification feature of Profitability Management Cloud Service.
9. **Allocation Models:** An Allocation Model consists of a list of individual allocation rules that can be executed as a single unit.
10. **Execution History:** The Execution History screen displays the historical executions of Allocation Rules/Models and Management Ledger loads.
11. **Static Table Driver:** Static Table Drivers are declared as drivers in the Driver process tab for allocation rules of the type Static Driver Table.
12. **Lookup Table:** Lookup Tables are user-defined database tables that are created to hold user data to match Instrument level measures or attributes and thereby deduce a return factor.
13. **Lookup Table Driver:** Lookup Table Driver rules are used in conjunction with Allocation rules (of the Lookup Driver Table type) to match Instrument level data with data from user-defined lookup tables.



## 3.1 Currency

Financial institutions transact business in more than one currency. Transacting business in multiple currencies demands functional capabilities for multi-currency accounting and currency rate management.

Currency module supports the definitions and maintenance of currencies. Currency definitions are fundamental to the definition of both interest rate yield curves and currency exchange rates. A key attribute of every yield curve is the currency with which it is associated, and currency exchange rates can only be established between defined currencies. A comprehensive list of ISO-defined currencies is provided; you can also define and add your user-defined currencies.

### Topics

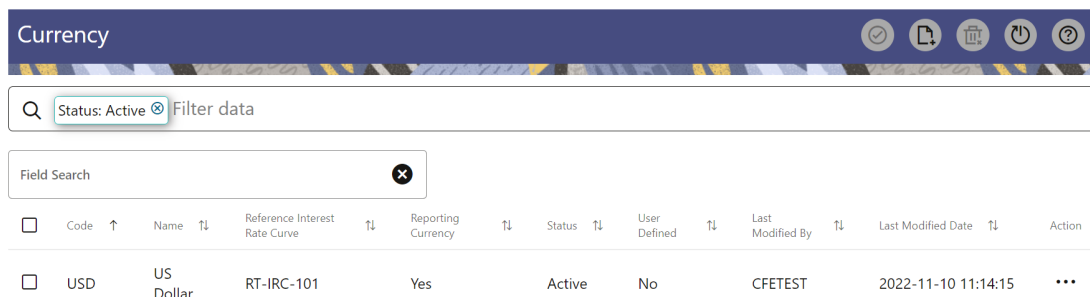
- [Currency Summary Page](#)
- [Search for Currency](#)
- [Add a Currency](#)
- [View and Edit Currency](#)
- [Delete Currency](#)

### 3.1.1 Currency Summary Page

This page is the gateway to all Currencies and related functionality. You can navigate to other pages relating to Currency from this point. The Currency Summary Page displays the following columns.

**Table 3-1 Table: Currency – Fields and Descriptions**

Column	Description
Code	Displays the 3-letter ISO code of Currency
Name	Displays the name of currency
Reference Interest Rate Curve	Displays the Reference Interest Rate Curve of Currency
Reporting Currency	Indicates whether currency is marked for use as Reporting Currency
Status	Displays the Active or Inactive status of Currency.
User Defined	Identifies any user-defined currency, that is, a currency not seeded by Cloud Service
Last Modified By	Displays the Name of the user who last modified the Currency
Last Modified Date	Displays the Date and Time when Currency was modified last
Action	Displays the list of actions that can be performed on the Currency. For more information, see <a href="#">Currency – Icons and Descriptions</a> .

**Figure 3-1** Currency Summary Page

The **Action** column on the **Currency Summary** page and icons on top right of the page offers several actions that allow you to perform different functions. The following actions are available for the Currency.

**Table 3-2** Table: Currency– Icons and Descriptions

Fields	Description
Activate	Select one or more currency and click Activate icon to change status to active.
Add	Click Add icon to create a new Currency.
Multiple Delete	Select one or more currencies in the table and then click the Delete icon at the top right of the summary page to delete more than one Currencies at the same time.
View/Edit	Click on the <b>Action</b> icon against the Currency Name and select View/Edit to view or edit the contents of a Currency in read/write format. Depending on user privileges the currency will open in either View or Edit mode.
Delete	Click on the <b>Action</b> icon against the Currency Name and select Delete to delete an existing Currency.

### 3.1.2 Add Currency

To add a Currency, follow these steps:

1. Navigate to **Reference Data** and select **Currency**.
2. Click **Add** icon on Currency summary page. The **Add Currency** page is displayed.

Figure 3-2 Add Currency Page

The screenshot shows a web form titled "Add Currency". At the top right, there are two buttons: "Save" (with a floppy disk icon) and "Cancel" (with a close icon). The form contains five fields:

- Currency Code:** A text input field with a placeholder "Enter 3 letter ISO currency code".
- Currency Name:** A text input field with a "Required" label below it.
- Reference Interest Rate Curve:** A dropdown menu.
- Reporting Currency:** A dropdown menu with "No" selected.
- Status:** A dropdown menu with "Inactive" selected.

3. Enter the following details:

Table 3-3 Adding a Currency – Fields and Descriptions

Fields	Description
Currency Code	For seeded currencies, these are ISO Currency Codes. For user-defined currencies, these can be any pure character string (no numbers) up to a length of 3 characters.
Currency Name	For seeded currencies, these are ISO Currency Codes. For user-defined currencies, these can be any string up to a length of 40 characters.
Reference Interest Rate Curve	Reference Interest Rate Curve is the Interest Rate Curve with which currency is associated for exchange rate forecasting purposes. Define multiple yield curves each of which has the same Reference Currency, but a currency can only have one Reference Interest Rate Curve.

**Table 3-3 (Cont.) Adding a Currency – Fields and Descriptions**

Fields	Description
Reporting Currency	A reporting currency is an active currency to which balances in other currencies can be consolidated to facilitate reporting. Balances in reporting currencies can be, in turn, consolidated to the functional currency. For example, an American multinational bank might consolidate its holdings in Asian currencies to the Japanese yen (Reporting Currency) and its balances in European currencies to the Euro (Reporting Currency) after which it might consolidate these reporting currencies to the U.S. dollar (Functional Currency).
Status	The status of any currency can be either Active or Inactive. You must Activate a currency before doing the followings: <ol style="list-style-type: none"> <li>a. Define that currency as a Reference Currency for an Interest Rate curve.</li> <li>b. Enter Exchange Rate data for a currency.</li> <li>c. Define Forecast Rates for that currency.</li> <li>d. Define any other business rule like Prepayment, Transfer Pricing for that currency.</li> </ol>

 **Note:**

- For the Oracle Financial Services Climate Change Analytics Cloud Service application, select 'Yes' for the Reporting Currency. This supports the Exchange Rate Conversion in the Currency Rate feature.
- The Reference Interest Rate Curve is not applicable for processing and analytical purposes in Oracle Financial Services Climate Change Analytics Cloud Service.

4. Click **Save**.

### 3.1.3 Search a Currency

Search for a Currency to perform any of the following tasks:

- Activate
- View
- Edit
- Delete

#### Prerequisites

Predefined Currencies

### Procedure

To search the Currency, follow these steps:

1. Navigate to **Reference Data** and select **Currency** .
2. Enter the **Code, Name, Status, Reporting Currency**, or **User Defined** status of the Currency.
3. Click **Search**.

Only Currencies that match the search criteria are displayed.

## 3.1.4 View and Edit Currency

You can view existing Currency, and you can edit existing Currencies, provided you have read/write privileges.

To view and edit a Currency, follow these steps:

1. Navigate to **Currency Summary Page**.
2. Search for a Currency. For further information, see the [Searching a Currency](#) section.
3. Click on the **Action** icon against the Currency Name and select **View/Edit** to open the Currency you want to update.
4. Update the Currency details.
5. Click **Save**.

## 3.1.5 Delete a Currency

You can delete Currencies that are no longer required.



### Note:

A Currency cannot be retrieved after deletion. Restrictions on deleting Currencies are:

- You cannot delete Currencies if you have only Read privileges. Only users with read/write privileges and Currency owners can delete Currencies.
- You cannot delete a Currency that has a dependency.

To delete a Currency, follow these steps:

1. Navigate to Currency Summary Page.
2. Search for a Currency and select it. For further information, see the [Searching a Currency](#) section.
3. Click on the **Action** icon against the Currency Name and select Delete.

## 3.2 Dimension Management

Dimension Management facilitates you to categorize data into a single object as a Member; define levels and aggregate data to form the Hierarchies, and distinguish each member by defining the required Attributes.

The roles mapped to Dimension Management are as follows:

- Dimension Advanced
- Dimension Authorization
- Dimension Read Only
- Dimension Write

### 3.2.1 Components of Dimension Management

You can create and manage the following Object Definitions using from Dimension Management:

- [Members](#)
- [Attributes](#)
- [Hierarchy](#)

### 3.2.2 Object Security

Object security helps to secure data and also to decide what each user can access. You can apply Object security to various object definitions like Hierarchy definitions, Filters, Expressions and Migration definitions.

You can assign specific user roles and functions to user groups, to implement Object Security. To assign user roles and functions, Seeded User Groups and Seeded User Roles are mapped to the User Groups. If you are using the Seeded User Groups, the security to access objects depends on the associated User Groups.

Map your User Group to the folder in case of public or shared folder, for creating/editing/copying/removing an object in Dimension Management Module. You should also be the owner of the folder in case of Private Folder. Additionally, the WRITE role should be mapped to your User Group.

To access the link and the Summary page, map your User Group to ACCESS Role. You can view all objects created in Public Folders - Shared Folders to which you are mapped and Private Folders for which you are the owner.

### 3.2.3 Members

Dimension Members refer to the individual items that constitute a dimension when data is categorized into a single object such as Product, Organization, Time, and so on. Members are available within Dimension Management Section.

#### 3.2.3.1 Member Summary Page

The list of created member definitions are displayed in the Member Summary.

To access the Member Summary Page, complete the following procedure.

1. From the left menu, click **Common Object Maintenance**.
2. Select Dimension Management and select **Member**.  
The **Member Summary Page** containing the following details is displayed.
  - **Alphanumeric Code** - The Alphanumeric Code assigned to a Member.
  - **Numeric Code** - The Numeric Code assigned to a Member.
  - **Name** - The unique Member Name.
  - **Is Leaf** - The leaf node status of the member definition.
    - **Yes** - The member is set as a leaf node in any hierarchy and child cannot be added to this node.
    - **No** - The member is a not a leaf and can have Child Nodes.
  - **Action** - Click to View, Edit, Copy or Delete a Member Definition.

### 3.2.3.2 Creating Member Definitions

You can add new Member Definitions from the Member Summary page.

To create a Member Definition in the Members Page, complete the following steps.

1. To create a Member definition, click the **Add** in the Member Summary Page. The Add Member Definition Page is displayed.
2. Enter the following **Member Details** as described in the following table:
  - **Dimension** - Select the Dimension to be associated with the new Member.
  - **Alphanumeric Code** - The Alphanumeric Code to be assigned to the new Member Definition.  
You can enter up to 100 characters. We recommend using only Underscore (“\_”) as a special character.
  - **Numeric Code** - The Numeric Code to be assigned to the new Member Definition. You can enter the value between 0 and 999,999,999 manually or click **Generate**, to auto-generate a unique code.  
If you enter the value manually, it is assigned after validation.
  - **Name** - The unique Member Definition Name.  
You can enter up to 100 characters. All characters are allowed except " & ' and " ' " .
  - **Description** - A brief description about the Member Definition.  
You can enter up to 100 characters. All characters are allowed except " & ' and " ' " .
  - **Is Leaf** - Check this option if the member is a leaf of another member. By default, it is set to **Yes**.
    - **Yes** - The member can be used as a Leaf Node in any hierarchy and Child cannot be added to this node.
    - **No** -The Member is not set as a Leaf and can have Child Nodes.

 **Note:**

If a Member is set as a Non-Leaf and is associated with Child Nodes, it cannot be set as a Leaf again.

- **Enabled** - This field is set to **Yes** by default and can be edited only after the Member is created. To edit a Member, refer [Editing Member Definition Details](#).

 **Note:**

You can change the option to **No** only when the particular member is not used in any hierarchy. The disabled members will not be displayed in Hierarchy Rules, or utilities which are based on Hierarchies, such as Hierarchy Filters and Hierarchical Assumption Browsers used in applications.

- **Copy Attribute Assignment** - Attach an existing attribute to this new Member Definition.

3. Click **Copy Attribute Assignment** ().

The **Attributes Page** associated with the selected Dimension is displayed. This field can be left blank so that the Member Attributes Panel can be filled in without considering the values already assigned.

Click **Search** to search for a specific Member based on Alphanumeric Code, Numeric Code, Name, Description, Enabled status, Is Leaf status, Attribute Name, or Attribute Value. You can also enter any of these parameters as Keywords in the Search field and click **Search**.

4. Locate the Attribute to be copied and click Move and select **Copy**, located under **Actions**.
5. Click **Save**.

### 3.2.3.3 Managing Member Definitions

You can View, Edit, Copy, and Delete the existing Member Definitions from the Member Summary Page.

In the Members Summary Page, highlight a specific Member Definition and click the **Action**. The following Options are displayed:

- **View** - View the **Member Details** for a specific Member Definition.
- **Edit** - Edit the **Member Details** for a specific Member Definition.
- **Copy** - Copy the Member Definition Details and create another Member Definition by changing Alphanumeric Code, Numeric Code and Name.
- **Delete** - Delete the Member Definition Details.

#### 3.2.3.3.1 Viewing Member Definition Details

You can view the details of an individual Member Definition, from Member Summary page.

To view a Member Definition, the Read Only Role should be mapped to your User Group.



You can view the details of an individual Member Definition, using the following procedure:

1. Highlight the Member Definition and click the **Action**.
2. Click the **View** button.

The Member Definition Page is displayed with the details Dimension, Alphanumeric Code, Numeric Code, Name, Is Leaf and Enabled status.

### 3.2.3.3.2 Editing Member Definition Details

To edit the existing Member Definition details, the Write Role should be mapped to your User Group.

You can edit individual Member Definition Details, using the following procedure:

1. Highlight the Member Definition and click the **Action**.
2. Click the **Edit** button.

The Member Definition Page is displayed with the details Dimension, Alphanumeric Code, Numeric Code, Name, Is Leaf and Enabled status.

Edit the required information and click **Save**.

### 3.2.3.3.3 Copying Member Definition Details

To copy the Member Definition Details, the Write Role should be mapped to your User Group.

You can copy individual Member Definition Details, to recreate another new Member Definition, using the following procedure:

1. Highlight the Member Definition and click the **Action**.
2. Click the **Copy** button.

The **Member Definition Page** is displayed with the details Dimension, Alphanumeric Code, Numeric Code, Name, Is Leaf and Enabled status.

Edit the unique information such as Name, Alphanumeric Code, Numeric Code and click **Save**.

### 3.2.3.3.4 Deleting Member Definition Details

To delete a Member Definition, the Write Role should be mapped to your User Group.

You can delete individual Member Definition Details, using the following procedure:

1. Highlight the Member Definition and click the **Action**.
2. Click the **Delete** button.

The Member Definition is deleted after confirmation.

## 3.2.4 Attributes

Attributes refers to the distinguished properties or qualifiers that describes a Dimension Member. Attributes are applicable to key dimensions only.

### 3.2.4.1 Attribute Summary Page

The list of created attribute definitions are displayed in the Attribute Summary.

To access the Attribute Summary Page, complete the following procedure:

1. From the left menu, click **Common Object Maintenance**.
2. Select Dimension Management and select **Attribute**.

The **Attribute Summary Page** containing the following details is displayed.

The Attribute Summary Page provides the list of Member Definitions with the following details:

Field	Description
Code	The Numeric Code assigned to the Attribute Definition.
Name	The unique Attribute Definition Name.
Data Type	The Data Type associated with the Attribute. The Data Type is set to Date, Dimension, Number or String.
Required	<ul style="list-style-type: none"> <li>• <b>Yes</b> – Attribute Value is mandatory for the Dimension Member.</li> <li>• <b>No</b> - The Attribute value is optional for the Dimension Member.</li> </ul>
Seeded	<ul style="list-style-type: none"> <li>• <b>Yes</b> - This Attribute is seeded by the service.</li> <li>• <b>No</b> - The Attribute is created by the user.</li> </ul>
Action	Click to View, Edit, Copy or Delete an Attribute Definition.

#### 3.2.4.1.1 Navigating Attribute Summary Page

To access records in a Summary Page, you can search, sort and navigate to multiple pages.

### 3.2.4.2 Creating Attribute Definition

To create a new Attribute for a dimension, complete the following steps:

1. Click the **Add** in the Attribute Summary Page.  
The **Add Attribute Definition** Page is displayed.
2. Enter the Attribute Details as described in the following table:

Field	Description
<b>Attribute Details</b>	
Dimension	Select the Dimension for which the new Attribute is getting created.

Field	Description
Numeric Code	<p>The Numeric Code to be assigned to the new Attribute Definition.</p> <p>You can enter the value manually or click <b>Generate</b>, to auto-generate a unique code.</p> <p>If you enter the value manually, the system will verify if the value is unique and assigns it.</p> <p>You can enter any number between 0 and 999,999,999.</p>
Name	<p>The unique Attribute Definition Name.</p> <p>You can enter up to 100 characters. All characters are allowed except "&amp;" and "'".</p>
Alphanumeric Field Value	<p>The name of physical column name that will be used to store attribute value in the Report Dimension Table.</p> <p>You can enter up to 100 characters. We recommend using only Underscore ("_") as a special character.</p>
Description	<p>A brief description about the Attribute Definition.</p> <p>You can enter up to 100 characters. All characters are allowed except "&amp;" + "@" and "~".</p>
<b>Attribute Properties</b>	
Data Type	<p>Select the Data Type as Date, Dimension, Number, or String from the drop-down list.</p> <p>If Number is selected as the Data Type:</p> <p>Enter a Scale value <math>\geq 0</math>. If it is left as 0, values for this attribute will be limited to Integers. If you wish to enable decimal entries for this attribute, the maximum Scale Value must be <math>&gt; 0</math> and <math>\leq</math> the scale defined for NUMBER in the dimension's underlying attribute table.</p> <p>The maximum value of the NUMBER is set to 22.</p>
Dimension	<p>Select the Dimension to be associated with the new Attribute Definition.</p> <p>This field is enabled only if the Data Type is set to Dimension.</p>

Field	Description
Default Value	<p>The Default Value is set based on the selected Data Type. The Default Value is mandatory if this attribute is set as a Required Attribute.</p> <ul style="list-style-type: none"> <li>If Dimension is set as the Data Type, select the Default Value from the drop-down list of members mapped to the selected Dimension.</li> <li>If NUMBER is selected as the Data Type, enter a Numeric Value in the Default Value field, and it must be consistent with the Scale you have defined.</li> <li>If DATE is selected as the Data Type: Click button to select a valid date as the Default Value from the calendar.</li> <li>If STRING is selected as the Data Type: Enter the Alphanumeric Value in the Default Value field.</li> </ul> <p>The Maximum characters allowed in Default Value field for String Data Type is 1000.</p>
Required Attribute	<ul style="list-style-type: none"> <li><b>Yes</b> - This Attribute is mandatory for the associated Dimension Members.</li> <li><b>No</b> - This is an optional Attribute for the associated Dimension Members.</li> </ul> <p>This field is disabled in Add and Edit Modes if any members already exist for the Dimension on which this attribute is defined.</p>
Seeded Value	<ul style="list-style-type: none"> <li><b>Yes</b> – This is selected only when the attribute is seeded out of box by the Cloud Service.</li> <li><b>No</b> – Always select this when you are creating a new attribute.</li> </ul>

3. Click **Save**.

### 3.2.4.3 Managing Attribute Definitions

You can view, edit, copy and delete the existing Attribute Definitions from the Summary Page.

In the Attribute Summary Page, highlight a specific Attribute Definition and click the **Action**. The following Options are displayed.

Field	Description
View	View the <b>details</b> for a selected Attribute.
Edit	Edit theselected Attribute.
Copy	Copy the Attribute Definition Details and create another Attribute Definition by changing the unique values like Alphanumeric Field Value, Numeric Code and Name.
Delete	Delete the selected Attribute.

### 3.2.4.3.1 Viewing Attribute Definition

You can view individual Attribute Definition Details at any given point. The Read Only Role should be mapped to your User Group.

To view the existing Attribute Definition details in the Attribute page:

1. Highlight the Attribute Definition and click **Action**.
2. Click **View**.

The **Attribute Definition** Page is displayed with the details Code, Name, Data Type, Required and Seeded status.

### 3.2.4.3.2 Copying Attribute Definition

The Copy Attribute Definition facilitates you to quickly create a new Attribute Definition based on the existing attributes or by updating the values of the required attributes.

To copy an existing Attribute Definition, the Write Role should be mapped to your User Group.

Refer to the following steps, to copy an attribute definition.

1. Highlight the Attribute Definition and click **Action**.
2. Click **Copy**.

The Attribute Definition Page is displayed with the details: Code, Name, Data Type, Required and Seeded status.

Edit the unique information such as Name, Alphanumeric Field Value, Numeric Code and click **Save**.

### 3.2.4.3.3 Deleting Attribute Definition

You can remove the Attribute Definitions which are not required in the system by deleting from the Attributes summary.

To delete an attribute definition, the Write role should be mapped to your User Group.

1. Highlight the Attribute Definition and click the **Menu** button.
2. Click the **Delete** button.

The Attribute Definition is deleted after confirmation.

 **Note:**

You cannot delete a definition if any dependency like Attribute, Hierarchy or Filter is attached to it. Detach the dependency before deleting the definition.

## 3.2.5 Hierarchy

Hierarchies refer to Dimension Members that are arranged in levels, with each level representing the aggregated total of the data from the level below. One dimension type

can have multiple hierarchies associated with it. Hierarchies are available within the Dimension Management Section.

A Default Hierarchy definition is required to support BI Users to perform multi dimensional analysis, in the BI reporting. The hierarchy name of a default hierarchy definitions are suffixed with the term **System Hierarchy**. You can only view the details of the default hierarchy, from the Hierarchy summary page. All orphan members under their corresponding default hierarchy, are automatically updated, when they are added/deleted to/from the system.

### 3.2.5.1 Hierarchy Summary Page

The list of created Hierarchy definitions are displayed in the Hierarchy Summary.

To access the Hierarchy Summary Page, complete the following procedure.

1. From the left menu, click **Common Object Maintenance**.
2. Select Dimension Management and select **Hierarchy**.

The Hierarchy Summary Page provides the list of Member Definitions with the following details:

Field	Description
Name	The unique Hierarchy Name.
Description	The brief description about the Hierarchy.
Folder	The folder in which the Hierarchy is stored.
Dimension	The Dimension associated with the Hierarchy.
Tag	Tags are labels that help to simplify the data search and locate the required details.
Action	Click to View, Edit, Copy or Delete a Hierarchy Definition.

#### Note:

The name of a default hierarchy is always suffixed with the term **System Hierarchy**.

#### 3.2.5.1.1 Navigating Hierarchy Summary Page

To access records in a Summary Page, you can search, sort and navigate to multiple pages.



### 3.2.5.2 Creating Hierarchy Definitions

To create a Hierarchy Definition in the Hierarchy Summary Page, complete the following steps.

1. To create a Hierarchy definition, click **Add** in the Hierarchy Summary Page. The **Add Hierarchy Definition** Page is displayed.

Enter the **Hierarchy Details** as described in the following table:

Table 3-4 Field Description

Field	Description
<b>Basic Details</b>	
Name	The unique Hierarchy Definition Name.
	 <b>Note:</b> You can enter up to 100 characters. All characters are allowed except " & ' and " ' ".
Description	A brief description about the Hierarchy Definition.
	 <b>Note:</b> You can enter up to 100 characters. All characters are allowed except " & ' + @ and ~.
Hierarchy Sub Type	By default, the sub type is set to <b>Member based</b> and cannot be changed.
Folder	Select the Folder in which the Hierarchy is to be stored.
<b>Based On</b>	
Dimension	Select the Dimension to be associated with the new Hierarchy Definition.
Start Date	The date from which this Hierarchy will be activated. By default the Start Date is set to the current System Date.
<b>Data Grid</b>	
Hierarchy View	The Members associated with the selected Dimension are displayed. You can sort this list in Ascending/Descending order, expand or collapse the list to view in details and search for a specific Member. You can focus on a Member to view the Member Properties. You can add a Child or add a Sibling to an existing Member in the Data Grid.
Search Results	The search results based on the specific keyword entered to search a Member is populated.

**To Add a Child to the Hierarchy:**

- a. Right-click in the **Hierarchy View** tab.
- b. Select **Add Child** option and the **Add Member Page** are displayed.

- c. Select the required Member and click **Move**, to move the Member to the Selected Members panel. To select multiple members, press CTRL and select the members. The selected members are added to the **Selected Members** pane.
    - Click **Move All** to move all Members listed in the Show Members pane, to the Selected Members pane. Click **Fetch from DB** to select all nodes/ members in the server.
    - Select a member and Click **Remove** to deselect a Member. To remove multiple members, press CTRL and select the members.
    - To remove all the members from the **Selected Members** pane, click **Remove all**.
    - You can click **Search** button for the required member using Alphanumeric Code, Numeric Code, Name, Description, Attribute Name, or Attribute Value. Enter the search criteria and Click **Search**, in the Search Panel.
    - You can also click **Search** button to toggle the display of Numeric Code left, right, or name and click button to display Alphanumeric Code left, right, or name.
  - d. Click **OK**. The selected Member is displayed as Child under **Data Grid** panel in the **Hierarchy View** tab.
2. **To add a Sibling to the Child in the Hierarchy Definition:**
    - a. Right-click on the Child and select the option **Add Sibling**. The **Add Sibling** Page is displayed.
    - b. Select the required Members and **Move**, to move the Member to the Selected Members panel. The Member is displayed in the **Selected Members** panel.
    - c. Click **OK**. The selected Member is added as **Sibling** below the **Parent** under Data Grid Panel in the **Hierarchy View** Tab.
  3. **To add a Leaf under a Parent/Child or Sibling:**
    - a. Right-click the Parent or Child and select **Add Leaf**. The Add Member Page is displayed.
    - b. Select the required Members and click **Move**, to move the Member to the Selected Members panel. The Member is displayed in the **Selected Members** panel.
    - c. Click **OK**. The selected Member is displayed as Leaf below the Parent or Sibling under **Show Hierarchy** Panel in the Hierarchy View Tab.
  4. **To define Level Properties:**
    - a. Right-click the Parent or Child and select **Level Properties**. The details are displayed in the Member Properties Panel.
    - b. Enter the valid **Name** and **Description** in the respective fields.
    - c. Click **OK** and the Levels defined are displayed in the drop-down in **Initial Level Display** field in **Data Grid** in **Hierarchy View** Tab.
  5. **To cut and paste Child or Sibling:**
    - a. Right-click on any node and select **Cut**.
    - b. Right-click on any node and **Paste as Child** or **Paste as Sibling**.
  6. **To Delete/Undelete**
    - a. Right-click on the node to be deleted and select **Delete Node**. The node deleted is struck out.



- b. Right-click and select **UnDelete** to cancel deletion of the node.
7. To view the Member Properties and Member Attributes of a node in the **Hierarchy View Panel**:
    - a. Click on a Member.  
The properties such as Alphanumeric Code, Numeric Code, Name, Description, Enabled, Is Leaf, Created By, Creation Date, Last Modified By, Last Modification Date, Attribute, and Value of the selected Member are displayed in the Member Properties and Member Attributes Grids.  
  
In the Hierarchies page you can also:
      - Click **Collapse** or Expand, to collapse or expand a branch .
      - Click **Focus** or **Unfocus**, to focus or unfocus a selected node except the Root Node.
      - Click **Sort** to sort the list in ascending or descending order.
  8. Click **Save**.  
The new Hierarchy Definition is created successfully.

### 3.2.5.2.1 Audit Info

The Audit Info Section provides details such as Created By and Modified By Users, Creation and Modification Date, and Authorized By user Details. You can add Additional information as comments and Tags. Tags are labels that help to simplify the data search and locate the required details.

### 3.2.5.3 Managing Hierarchy Definitions

You can View, Edit, Copy, and Delete the existing Hierarchy Definitions from the Hierarchy Summary Page.

In the Hierarchy Summary Page, highlight a specific Hierarchy Definition and click **Action**. The following options are displayed.

Field	Description
View	View the <b>Hierarchy Details</b> for a specific Member Definition.
Edit	Edit the <b>Hierarchy Details</b> for a specific Member Definition.
Copy	Copy the Hierarchy Definition details and create another Hierarchy Definition by changing the unique values like Name, Description and so on.
Delete	Edit the Hierarchy Definition Details.

#### 3.2.5.3.1 Viewing Hierarchy Definition Details

You can view the details of an individual Hierarchy Definition, using the following procedure:

1. Highlight the Hierarchy Definition and click **Action (three dots)** .
2. Click **View** .

The Hierarchy Definition Page is displayed with the details Name, Description, Folder, Dimension, Start Date and Hierarchy View details.

### 3.2.5.3.2 Editing Hierarchy Definition Details

You can edit individual Hierarchy Definition Details at any given point.

To edit the existing Hierarchy Definition Details:

1. Highlight the Hierarchy Definition and click the **Action (three dots)**.
2. Click **Edit** .

The Hierarchy Definition Page is displayed with the details Name, Description, Folder, Dimension, Start Date and Hierarchy View details.

Edit the required information and click **Save**.

### 3.2.5.3.3 Copying Hierarchy Definition Details

You can copy individual Hierarchy Definition Details, to recreate another new Member Definition. To copy the Member Definition Details:

1. Highlight the Hierarchy Definition and click **Action**.
2. Click **Copy**.

The Hierarchy Definition Page is displayed with the details Name, Description, Folder, Dimension, Start Date and Hierarchy View details.

Edit the unique information such as Name, Description, Folder, Dimension, Start Date and Hierarchy View details and click **Save**.

### 3.2.5.3.4 Deleting Hierarchy Definition Details

To delete a Hierarchy Definition:

1. Highlight the Hierarchy Definition and click **Action**.
2. Click **Delete** .

The Hierarchy Definition is deleted after confirmation.

 **Note:**

You cannot delete a definition if any dependency like Attribute, Hierarchy or Filter is attached to it. Detach the dependency before deleting the definition.

## 3.2.6 Viewing Data in a Summary Page

A Summary Page will contain a list of definitions associated with a specific Dimension Data, Filters, Batch or Schedules.

You can search, filter and customize the view to access the required data faster.

## 3.3 Preferences

This section discusses the procedure to set the Global Preference Settings, Application Preference Settings, and User Preference Settings.

Topics:

- [Select Preferences](#)
- [User Preferences](#)
- [Application Preferences](#)
- [Global Preferences](#)

### 3.3.1 Select Preferences

To configure the User Preferences, perform the following steps:

1. From the LHS Menu, navigate to **Maintenance**, and select **Preferences** to display the Application Preference Screen.
2. Select the user from Show Preferences for the drop-down list. This has the following options:
  - **All User:** If you have Administrator Privileges, you can define preferences for the All User Group and their individual account, which may be the same or different from the All User Settings. The Administrator can also designate the All User Preferences as Editable or Non-Editable on a row-by-row basis. If the individual preference is selected, as is Editable, then End Users can update or override the Administrator's default value for their own individual account. If the Is Editable box is deselected, then End Users cannot change the default for their individual account.
  - **End-User:** If you do not have Administrator Privileges, then certain preference items are pre-set by the Administrator and you may not be allowed to change the value. All Application Preference Settings are displayed, regardless of the access privilege.

### 3.3.2 User Preferences

User Preferences Parameters are used to configure the User Settings.

To update the User Preferences, perform the following steps:

1. From the LHS Menu, navigate to **Maintenance** and select **Preferences**.
2. Click the **User** tab and enter following values in as described in following table.

**Table 3-5 User Preference settings for PFT Application**

Parameter	Description
<b>Parameters - General</b>	

**Table 3-5 (Cont.) User Preference settings for PFT Application**

Parameter	Description
As of Date	All processes reference this date at Runtime to determine the data to include in the process. The As-of-Date value you set in Application Preferences applies to interactive job execution (that is, when you choose to execute a rule directly from a Summary Window). For Batch Processing, the As-of-Date is derived from the Information Date. The As-of-Date is also referenced by some assumptions UI's to display relevant information therein.
Show Execution Parameters	If this option is selected, a pop-up window is displayed whenever you execute a process interactively from a Summary Screen. Within this pop-up window, you may confirm or modify your Run Execution Parameters (As-of-Date and Legal Entity).
Legal Entity	Similar to As-of-Date, all processes reference Legal Entity at Runtime to determine the data to include in the process. The value of the Legal Entity you set in Application Preferences applies to interactive job execution (that is, when you choose to execute a process directly from a Summary Window) and Batch Processing. NOTE: Legal Entity is designed to support implementations that require multi-entity or multi-tenant functionality. If your implementation does not require this functionality, you may utilize the Default Legal Entity in all your processes. Default implies -1 code. The Default Value for the Legal Entity Dimension Column in the instrument data is -1.
<b>Processing – Application Specific Parameters</b>	
Enable UNDO for Selected Allocations	Set this value to Yes to enable UNDO functionality for individual allocation rules. For details, see Allocation Execution History.
Enable Mass UNDO	Set this value to Yes to enable Mass UNDO functionality. For details, see Allocation Execution History.
Enable UNDO for Selected Batches	Set this value to Yes to enable UNDO for selected batches. For details, see Allocation Execution History.
Enable UNDO for Selected Allocation Models	Set this value to Yes to enable UNDO for selected allocation models. For details, see Allocation Execution History.
Enable UNDO for Ledger Load	Set this value to Yes to enable UNDO for selected ledger loads. For details, see Ledger Load History.

**Table 3-5 (Cont.) User Preference settings for PFT Application**

Parameter	Description
Scenario Values	<p>The Application Preference setting for the Scenario Dimension allows you to run the same rules for different scenarios, such as Actuals, Budget, and so on. These values are inherited by rules that specify Use Application Preferences in their Sources, Drivers, or Outputs. For more details, see the Allocation Specification chapter.</p> <ul style="list-style-type: none"> <li>Scenario for Source: When an Allocation Rule's Source is configured as Use Application Preferences in the Allocation Source Section, the value used by the rule in its Source is the one specified in Application Preferences.</li> <li>Scenario for Driver: When an Allocation Rule's Driver is configured as Use Application Preferences in the Allocation Source Section, the value used by the Allocation Rule in its Driver is the one specified in Application Preferences.</li> <li>Scenario for Output: When an Allocation Rule's Output (applicable to both Debit and/or Credit) is configured as Use Application Preferences in the Dimension Section, the value used by the Allocation Rule is the one specified in Application Preferences.</li> </ul>
<b>Assumption Management Defaults</b>	
Folder Name	This parameter allows you to define the default folder selection. The folder selection for all rule types is defaulted to this selection within the Summary Page search window and when creating a new rule. This selection acts as the Starting Value for convenience only and users can change to any other available value at their discretion.
Access Type	This parameter allows you to set the default access type. Selections include Read / Write and Read Only. This selection acts as the Starting Value for convenience only and users can change at their discretion.

- Click **Save** to confirm the changes.  
Or

Click **Restore to Default** to reset the Custom Configuration.

### 3.3.3 Application Preferences

Application Preferences Parameters are used to configure the Settings at the application level.

To update the Application Preferences, perform the following steps:

1. Navigate to **Profitability Management** and select **Preferences**.
2. Click the **Application** tab and enter following values:
  - **Maximum circular allocation iterations:** This value governs the maximum number of circular iterations within a Circular Allocation Model. Its purpose is to ensure that circular models terminate without going into an infinite loop.
3. Click **Save** to confirm the changes.  
Or  
Click **Reset to Default** to reset the Custom Configuration.

### 3.3.4 Global Preferences

To set the Global Preferences, perform the following steps:

1. From the LHS Menu, navigate to **Maintenance**, select **Preferences**, and **Global Parameters**.
2. Enter following values as described in the following table.  
**Is Editable** status is disabled since individual users are not expected to modify the following parameters.

**Table 3-6 Global Preferences**

Parameter	Description
Date Format	<p>Select one value from the following list:</p> <ul style="list-style-type: none"> <li>• dd-MMM-yy</li> <li>• yyyy/MM/dd</li> <li>• MM/dd/yyyy</li> <li>• dd.MM.yyyy</li> <li>• MM-dd-yyyy</li> <li>• yyyy.MM.dd</li> <li>• yyyy/MMM/dd</li> <li>• dd-MMM-yyyy</li> <li>• dd/MMM/yyyy</li> <li>• yyyy.MMM.dd</li> <li>• dd/MM/yyyy</li> <li>• MM.dd.yyyy</li> <li>• dd-MM-yyyy</li> <li>• yyyy-MM-dd</li> <li>• dd.MMM.yyyy</li> <li>• yyyy-MMM-dd</li> </ul>
Pagination Count	<p>Pagination Records determine how many rows are displayed on summary and other screens. If you select Pagination Records to be 25 records, then any screen displaying results in a tabular format displays a maximum of 25 records.</p>
Group Company Legal Hierarchy	<p>This displays list of Legal Entity hierarchies that are configured in Dimension Management. Select one hierarchy that must be used to identify the internal (part of the same financial group) customers of the institutions.</p>

**Table 3-6 (Cont.) Global Preferences**

Parameter	Description
Currency Rate Provider	<p>This displays list of providers of Currency Exchange Rate. Value “Default” is seeded and selected as default.</p> <p>If you load Exchange Rates from more than one source like Reuters and Bloomberg then select one which you want the engine to use during processing.</p> <p>Members of dimension Rate Data Source are displayed in the drop-down list.</p>

- Click **Save** to confirm the changes.  
Or  
Click **Restore to Default** to reset the Custom Configuration.

## 3.4 Currency Rates

Currency Rates Module uses the currencies defined and activated in the Currency Module to support the creation and maintenance of Historical Exchange Rates. In the Currency Rate Window, you can manage historical Exchange Rates between currencies.

To Currency defaults to the Initial Currency selection from the Assumption Management defaults in the Active Preferences Window. You can select another To Currency from the drop-down list that displays all Active Currencies.

### 3.4.1 Adding Exchange Rate Data

Based on the Rate Types, you can add the following Exchange Rate Data:

- Floating Rates**  
 Floating Exchange Rates, such as those between the US Dollar (USD), the Pound Sterling (GBP), the Japanese Yen (JPY), and the Euro (EUR), are market-driven and can change from day-to-day, hour-to-hour, or minute-to-minute.
- Fixed Rates**  
 Some countries, especially smaller countries or countries that have experienced significant inflation in the recent past, can wish to “peg” their currency to a larger, more stable currency such as the US Dollar, Japanese Yen, or Euro.

**Figure 3-3** Currency Rates

The screenshot shows the 'Currency Rate' configuration pane. It includes the following fields:

- From Currency:** A dropdown menu currently empty.
- To Currency:** A dropdown menu set to 'US Dollar'.
- Rate Type:** A dropdown menu set to 'Floating Rate'.
- Effective Date Range:** A dropdown menu set to 'Last Month'.
- From Date:** A date field set to '09-09-2015' with a calendar icon.

**Adding Floating Rate Data**

To add the Exchange Rate Data, follow these steps:

1. Select a **From Currency**.
2. Select a **To Currency**.
3. Select **Rate Type** as **Floating Rate** (default selection is Floating Rate).
4. The RHS pane is displayed as Floating Currency Rates.
5. Select **Effective Date Range** to enter the values in From Date and To Date fields.
6. Select the **Rate Provider**.
7. Currency Rate Pane initially displays a single blank row followed by the most recent month's Exchange Rate data (if any such Exchange Rate Data already exists). To enter a single new Exchange Rate Data Point, enter data into the blank row.

**Table 3-7** Floating Currency Rates

Fields	Description
Effective Date	Directly enter a date or select the Calendar icon to choose an effective date for your new Exchange Rate data point. Rate Management Stores the Historical Exchange Rate Data. You cannot enter Exchange Rate data for dates greater than the current date.
Exchange Rate	This must be entered as 1 unit of From Currency are converted to n unit of To Currency.
Status	Status is a read-only display that is updated after the Currency Rates Validation has been run.
Data Origin	The Data Origin is displayed read-only and indicates whether the rates were input through the UI or the Data Loader.

8. Click **Save**.



- Click **Add** to add additional blank rows to enter the additional Effective Dates and Exchange Rates. After adding the multiple new Exchange Rates, click **Save**.

### Adding Fixed Rate Data

To add the Exchange Rate Data, follow these steps:

- Select a **From Currency**.
- Select a **To Currency**.
- Select **Rate Type** as **Fixed Rate**.
- After selecting a **To Currency** value, the RHS pane is displayed as Fixed Currency Rates.
- Select **Effective Date Range** to enter the values in From Date and To Date fields.
- Select the **Rate Provider**.
- Currency Rate Pane initially displays a single blank row followed by the most recent month's Exchange Rate Data (if any such Exchange Rate Data already exists). To enter a single new Exchange Rate Data Point, enter data into the blank row.

**Table 3-8 Fixed Currency Rates**

Fields	Description
Effective From Date	Directly enter a date or select the Calendar icon to choose a starting effective date for your new Exchange Rate Data Point.
Effective To Date	Directly enter a date or select the Calendar icon to choose a ending effective date for your new Exchange Rate Data Point.
Currency Exchange Rate	This must be entered as 1 unit of From Currency are converted to n unit of To Currency.
Status	Status is a read-only display that is updated after the Currency Rates Validation has been run.
Data Origin	The Data Origin is displayed read-only and indicates whether the rates were input through the UI or the Data Loader.

- Click **Save**.
- Click **Add** to add additional blank rows to enter the additional Effective Start and End Dates and Exchange Rates. After adding the multiple new Exchange Rates, click **Save**.

## 3.4.2 Viewing Exchange Rate Data

By default, both the Floating Currency Rates Pane and the Fixed Currency Rates Pane display the most recent month of historical Exchange Rate Data. You can control the amount of data displayed by selecting a different value from the **Effective Date Range** drop-down list in the **Currency Selection Window**.

**From Date** and **To Date** can also be modified to view relevant Currency Rates.

### 3.4.3 Editing Exchange Rate Data

Select the check box on the left-hand side of any row to enable the **Edit** icon. After clicking Edit, the row becomes active to edit the **Effective Date** and (or) the **Exchange Rate**. Click **Save** to save the changes.

### 3.4.4 Deleting Exchange Rate Data

Select one or more check boxes on the left-hand side of any row to enable the **Delete** icon. After clicking Delete, a confirmation message is displayed. Click **Ok**.

### 3.4.5 Currency Exchange Rate Validation

Exchange Rate Validation has the following features:

- Movement of historical Exchange Rates to the Currency Direct Access Table.
- Calculation of inverse Exchange Rates for Reporting Currencies.
- Calculation of triangulated Exchange Rates where possible.

#### Features of Exchange Rate Validation

The goal of Exchange Rate Validation is to ensure that Exchange Rates from all active currencies to all reporting currencies are available for processing. Some of these rates can come from the validated direct input, others are calculated based on relationships with other rates. To support triangulation, all fixed Exchange Rates are available for all currencies that make up an exchange that needs to be triangulated. Also, a direct Exchange Rate between each Child Currency and each reporting currency is calculated and supplied to support quick access to Exchange Rates. If a Child currency is a Reporting Currency, then Exchange Rates are calculated for all currencies having an exchange relationship with the Parent Currency.

#### Validating Exchange Rate Relationships

You must run the Exchange Rate Validation Process after adding or modifying Exchange Rate Data. Run the process immediately or schedule one or more to be run in the future.

Each Exchange Rate has one of the following statuses:

**Table 3-9 Details of Exchange Rates**

Fields	Description
Not Yet Validated	The Exchange Rate has been input or loaded but not yet validated.
Valid	The Exchange Rate has been validated.
Invalid	The Exchange Rate has violated one or more acceptance rules.

Only Exchange Rates in valid status are available for processing and they are not subject to future validation unless you edit them. The Rate Validation Status is displayed in the Currency Rates Window of the Rate Management.

#### Exchange Rate Validation Criteria

In the Rate Validation Process, all Exchange Rate relationships in the database are examined for compliance with the following criteria. Error messages and warnings are displayed if one or more criteria are not met.

- If a currency is defined as a Child in a fixed exchange relationship then it must not be in any floating (standard) Exchange Rate Relationship at the same time. Consequently, all floating Exchange Rates to or from the Child Currency must be defined through the Parent Currency. If this criterion is not met then the following message is displayed: Invalid fixed relationship—Child Currency exists in a standard Exchange Rate within the same time period.
- A Child Currency within a fixed relationship must not be a Child Currency in any other Fixed Relationship during the same time period. If this criterion is not met then the following message is displayed: Invalid fixed relationship—Child Currency already exists in a fixed relationship for the same time period.
- A Circular Relationship must not exist. In other words, a Child Currency cannot link back to its Parent in any other FixedRate Relationship within the same time period. If it does, then the following message is displayed: Invalid fixed relationship creates a circular relationship with other fixed Exchange Rates.
- Regarding new Floating (standard) Exchange Rates, from and To currencies must not exist as Child Currencies within any Fixed Exchange Rate Relationships. If this criterion is not met then the following message is displayed: From/To/Both currency(ies) in the new Exchange Rate already exist in a fixed relationship for the same time period.
- If any Exchange Rate is equal to 0, then a warning message is displayed. Generally speaking, 0 is a valid value. You can use it, for example, to designate an Exchange Rate with a currency of a country that no longer exists.

If two Exchange Rate Relationships fail to meet these criteria then both of them will be labeled Invalid. (Exception, if one of the relationships is already in Valid status, then the other one will be labeled Invalid.) For example, if a currency is defined as a Child in a Fixed Rate Relationship and is also defined as being in a Floating Relationship at the same time, then both Fixed and Floating Rates for that currency will be labeled Invalid.

If there are both direct and Inverse Floating Exchange Rates defined for any two currencies (in other words, one currency is both a To and a From Currency in relation to the other), then both relationships will be marked valid.

### Running an Exchange Rate Validation

You can run a validation immediately or schedule one or more for later. The Validation Status is displayed in the **Currency Rates** Window.

You can execute the Exchange Rate validation using the **Currency Rates Validation** option.

To execute the Exchange Rate Validation, follow these steps:

1. Click **Currency Rates** Validation.
2. To execute Exchange Rate validation from the **Currency Rates** Window, the following two options are available:
  - **Specify Dates:** After selecting this option, a Select Dates Pane is displayed to enter or verify the Start Date and End parameters. These dates will be passed to the batch for execution.

- **Start Date:** This defaults to the date of last rate validation.
- **End Date:** This defaults to the current date.
- **Validate For All Dates:** Select this option to validate all the rates irrespective of dates.

**Note:**

This option will replace all of the validated Exchange Rate History and can be a time-consuming process depending on the amount of history available to be processed.

## 3.4.6 Download

The Download functionality is used to download the Historical Exchange Rates.

## 3.4.7 Importing Currency Rates

To import the Currency Rate, follow these steps:

1. Navigate to the **Currency Rate** page.
2. Select **Upload Data**.
3. Select the type of Rate as **Floating** or **Fixed**.
4. Click the **Drag and Drop** option to select the file.

**Note:**

The excel file, you are uploading should be in a specific format. You can download the template using the Download Template option. The Templates for Fixed and Floating Rate Types.  
Currency rates UI bulk upload supports only **YYYY-MM-DD** date format

5. Click **Upload**.

## 3.5 Filter

Filters allow you to view and select data using the defined expressions.

### 3.5.1 Filter Definition Types

Filter definitions are created based on the different object types.

The following filter definition types are supported:

- **Attribute Filter** - filters based on one or more Dimension Type Attributes. For each attribute, you can select one or more values.

- [Data element filter](#) -filters the columns based on specific data constraint. These filters are used within other rule types such as Allocation Rules, Transfer Pricing Rules, Asset and Liability Management Rules.
- [Group filter](#) - combined filter containing multiple Data element filters logically connected using the **AND** operator.
- [Hierarchy filter](#) - filters using Rollup Nodes within a Hierarchy and exclude or include data within an OFSAA Rule.

## 3.5.2 Accessing Filter Feature

The **Filters Summary Page** shows the list of available filters.

- To access the Filter Summary page, click **Maintenance** and select **Filter**.  
The Filter Summary Page provides the list of already created Filter definitions with the following details.
  - **Name** - The unique Filter Name. You can mouse-over the filter name to view more details such as the description of the filter.
  - **Folder** - The folder in which the Filter Definition is stored.
  - **Filter Type** - One of the following Filter Types associated with the Filter Definition. The filter type is selected based on the type of the object that needs to filtered.
    - [Attribute Filter](#)
    - [Data element filter](#)
    - [Group filter](#)
    - [Hierarchy filter](#)
  - **Modified By** - The login name of the User who has modified the Filter Definition.
  - **Modification Date** - The date of modification.
  - **Action** - Using **Action (three dots)**, you can perform the following tasks on a selected filter definition.
    - [View](#) - View the details of selected filter definition.
    - [Edit](#) - Edit a filter definition.
    - [Copy](#) - Copy a filter definition.
    - [Delete](#) - Delete a filter definition.
    - [View SQL](#) - View the SQL statement for a filter definition.
    - [Check Dependency](#) - Check the dependent objects associated with the filter definition.

### 3.5.2.1 Searching Summary

You can search for a specific Definition based on the following criteria. Select/Enter one or more unique values/tag associated with the definition and click **Search**.

- **Name** - Enter unique filter name, to search for a specific definition based on the entered name,

- **Folder** - Select a specific folder to view the definitions stored in that folder.
- **Filter Type** - Select the Filter type, to view all the definitions associated with it.
- **Description** - Enter one or more keywords, to view the definitions containing those keywords.

### 3.5.2.2 Sorting a Summary Page

Sorting helps to view/group the filter definitions sequentially based on the selected criteria

You can sort/group the Definitions based on the following parameters:

- Filter Type
- Folder
- Name

### 3.5.3 Creating Filter Definitions

To create a Filter definition, complete the following steps:

1. To create a Filter Definition, click the **Add** in the Filter Summary.

The **Add Filter Definition** Page with the following details is displayed.

- **Name** - The unique Filter Definition Name.

 **Note:**

You can enter up to 120 characters. All allowed characters are **blank space** ( ), **Underscore** ( \_ ), **comma** ( , ), **dot** ( . ) and **hyphen** ( - ) .

- **Folder** - Select the Folder, to save the Filter definition.
- **Description** - A brief description about the Filter Definition.

 **Note:**

You can enter up to 250 characters. All characters are allowed except " & ", "+ ", "@ " and "~".

- **Read-Only** - Select this option to give other users the access to only view the Filter Definition.
  - **Filter Type** - Select one of the following filter types, based on the type of the object that needs to be filtered. For more information about creating a filter based on the filter type refer, to the respective sections.
    - [Attribute Filter](#)
    - [Data Element filter](#)
    - [Group filter](#)
    - [Hierarchy filter](#)
2. After including all the filters, Click **Save**.

The new Filter Definition is created successfully and added to the Filter Summary.

### 3.5.3.1 Defining an Attribute Filter

Attribute Filters are created using defined Attributes. Attribute filters facilitates you to filter on one or more Dimension Type Attributes.

For each attribute, you can select one or more values.

1. Select the Filter Type as **Attribute**.
2. Select the required **Dimension** from the drop-down list.
3. Select the associated **Attribute** from the drop-down list.  
Only those attributes associated with the selected Dimension are displayed.
4. In the **Attributes Value** pane, click **Search**. The list of attribute values associated with the selected Attribute are displayed.
5. Click the **Action** adjacent to the attribute to be added and click **Copy**.  
The selected Attribute value is added the **Attribute Values** pane.
6. After adding the required filters, click **Save**, to add the Filter definition to the Filter Summary page.

The filter definition is added and a confirmation message is displayed.

To Delete a Filter, highlight the filter and click **Delete**.

To view the SQL Query for a filter, highlight the filter and click **View SQL**.

### 3.5.3.2 Defining a Data Element Filter

Data Element Filter is a stored rule that expresses a set of constraints.

Data Element Filters can access most instrument columns and most columns in the Management Ledger. Data Element Filters are used within other rule types such as Allocation Rules, Transfer Pricing Rules, Asset and Liability Management Rules.

Only columns that match the data type of your Data Element selection are displayed in the drop-down list. For example, Balances between 10,000 and 20,000 Accounts opened in the current month Loans with amortization terms greater than 20 years.

Refer to the following steps, to create a Data Element filter:

1. Select the required database table from the **Table Name** drop-down list.
2. Select one or more columns from the **Column Name** to be included in the filter for viewing specific values.  
The columns that are present in the selected Database table are only listed.
3. Select the **Data Element** from the drop-down list.  
The Data elements are listed as a combination of the selected Database table and the selected column
4. Select one of the following Filter Methods to be applied to each data element, add the filter conditions based on the selected method.
  - [Specific Values Filter](#)
  - [Ranges Filter](#)

- [Another Element Filter](#)
  - [Expressions Filter](#)
5. After adding the required filters, click **Save**, to add the Filter definition to the Filter Summary page.  
The filter definition is added and a confirmation message is displayed.  
To Delete a Filter, highlight the filter and click **Delete**.  
To view the SQL Query for a filter, highlight the filter and click **View SQL**.

### 3.5.3.2.1 Specific Values Filter

You can match a selected database column to a specified value or values, using the Specific Value filter.

You may either include or exclude Specific Values, to view the data.

To create a specific value filter, proceed with the following steps, after selecting the Database table name, column name and the Data element.

1. Select **Specific Values** in the Filter Methods.
2. Enter the required filter value in the **Values** column.
  - When comparing Specific Values for a date type column, select the date using the Calendar control.
  - When comparing Specific Values for a character type column, enter only Character strings.
3. To add another row click **Add** (Plus sign) on the right hand side corner of the **Specific Values** pane. Repeat the previous step, to enter multiple values.
4. To include or exclude the specific values, in the results:
  - To view the results containing the entered specific value, select the value and select **Include**. Click **Add** to add the expression to the filter condition.
  - To view the results without the entered specific value, select the value and select **Exclude**. Click **Add** to add the expression to the filter condition.
5. To delete a value, select the value by clicking the check-box adjacent to the value. Click **Delete**.
6. To view the SQL statement for the specific value, select the value and click **View SQL**.

### 3.5.3.2.2 Ranges Filter

You can match a selected database column to a specified range/ranges of values or to ranges of values.

You may either include or exclude Specific Values, to view the data.

To create a Ranges filter, proceed with the following steps, after selecting the Database table name, column name and the Data element.

1. Select **Ranges** in the Filter Methods.
2. Refer to the following steps, and create a range or multiple ranges, view require data.  
You can use Ranges for data types - Term, Frequency, Leaf, Code, Identity, Date, Numeric and Varchar.



- a. Select the **From Operator** (> or >=), to include the lower limit of the range.
  - b. Enter the **Value From** which the Range begins.
  - c. Select the **To Operator** (< or <=), to indicate whether to include the specified value in the higher limit of the range.
  - d. Enter the **Value To** , to include the higher limit of that range.
3. To include or exclude the specific range, in the results:
    - To view the results containing the entered specific range, select the range and select **Include**. Click **Add** to add the range to the filter condition.
    - To view the results without the entered specific range, select the range and select **Exclude**. Click **Add** to add the range to the filter condition.
  4. To delete a range, select the range by clicking the check-box adjacent to the value. Click **Delete**.
  5. To view the SQL statement for the specific range, select the range and click **View SQL**.

### 3.5.3.2.3 Creating Another Element Filter

You can match a selected database column to another database column.

When creating an Another Data Element Filter Method, you may only compare a column to other columns that you have already selected (the Data Element drop-down list box will only contain columns that you have already selected).

To create an Another Element filter, proceed with the following steps, after selecting the Database table name, column name and the Data element.

1. Select **Another Element** in the Filter Methods.
2. Select a **Table Column**, that needs to be compared with the Data Element Column.
3. Select one of the following mathematical operators for comparison.
  - = - Equal to
  - <> = Not equal to
  - < - Lesser than
  - > - Greater than
  - <= - Lesser than or equal to
  - >= - Greater than or equal to
4. Select a **Data Element**, that needs to be compared with the Table Column.
5. Click **Add** to add the expression to the filter condition.

To edit an existing Another Element Filter entry, select the entry listed in the **Filter Condition** pane. Modify the expression in the Another Element Pane and click **Update**.

### 3.5.3.2.4 Expressions Filter

Expressions filters help to include calculated conditions in filters.

To create an Expression filter, proceed with the following steps, after selecting the Database table name, column name and the Data element.

Refer to the following steps, to create a Expressions filter:

1. Select **Expressions** in the Filter Methods.
2. Refer to the following steps, to include an expression and filter the data based on the calculated output.
  - a. Select one of the **Operator** (> or >=), to process the data in the specific column.
    - = - Equal to
    - <> - Not equal to
    - < - Lesser than
    - > - Greater than
    - <= - Lesser than or equal to
    - >= - Greater than or equal to
  - b. Select the **Expression** for comparing the data in the selected table column.
3. Click **Add** to add the expression to the filter condition.

To edit an existing Expression Filter entry, select the entry listed in the **Filter Condition** pane. Modify the expression in the Expressions pane and click **Update**.
4. To delete a range, select the range by clicking the check-box adjacent to the value. Click **Delete**.
5. To view the SQL statement for the specific range, select the range and click **View SQL**.

### 3.5.3.3 Defining Group Filter

Group Filters can be used to combine multiple Data Element Filters with a logical "AND".

For each attribute, you can select one or more values.

1. Select the Filter Type as **Group**.
2. Select the checkbox(s) adjacent to the required Data Element Filters in the **Available Filters** pane, and click **Move Selected Available Filters to Selected Filters**, to move them to **Selected Filters** pane.

To select all the filters, click **Select All**.

To search for a specific filter, enter the few letters from the filter name, and click the **Search**
3. To remove a filter from the **Selected Filters** pane, select the filter and click **Move Selected Filters to Available Filters**. Click **Select All** to move all the selected filters.
4. After adding the required filters, click **Save**, to add the Filter definition to the Filter Summary page.

The filter definition is added and a confirmation message is displayed.

### 3.5.3.4 Defining Hierarchy Filter

Hierarchy Filter allows you to utilize Rollup Nodes within a Hierarchy to help you exclude (filter out) or include data within an OFSAA Rule.

For each attribute, you can select one or more values.

1. Select the Filter Type as **Hierarchy**.
2. Select the required **Dimension** from the drop-down list.
3. Select the required **Folder** from which you want to select the Hierarchy.
4. Select the **Hierarchy** from the list of Hierarchies displayed based on the selected Folder.
5. Click **Launch Hierarchy Browser**, access the Hierarchy Browser and select/unselect the Child/Sibling Members to be included in the Filter.

For more information about Hierarchy browser, refer [Hierarchy Browser](#) .

6. After adding the required filters, click **Save**, to add the Filter definition to the Filter Summary page.

The filter definition is added and a confirmation message is displayed.

#### 3.5.3.4.1 Hierarchy Browser

The Hierarchy Browser contains the list of available Members associated with the selected Hierarchy.

You can view the list of available members and the child nodes associated with the members, in the **Show Hierarchy** tab.

- To select a Member, click the check-box adjacent to the member.

#### Note:

When a Member is selected, all the associated child members are also included in the Hierarchy filter. To include only a specific child member, expand the node and selected the required child member.

- To search for a specific member, click **Search**. Enter the keyword in the **Search Value** and click **Search** adjacent to the Search box. The searched members are displayed in the **Search Results** tab.
- You can view a selected tree member in a flat list, in the **Show Members** tab.
- To navigate through the list of available members.
  - Click **Expand/Collapse** to expand/collapse all the nodes. You can also click **Node** next to a member, to expand or collapse a Member node.
  - Click **Sort Ascending/Descending**, to view the list Members in alphabetical order.
  - In Search Results tab, click **Focus/Unfocus**, to select/deselect any specific node.

## 3.5.4 Managing Filter Definitions

You can view, edit, copy, delete and view SQL for the existing Filter Definitions from the Filter Summary.

In the Filter Summary Page, highlight a specific Filter Definition and click the **Action** (three dots). The following Options are displayed.

- [View](#) - View the details of selected filter definition.
- [Edit](#) - Edit a filter definition.
- [Copy](#) - Copy a filter definition
- [Delete](#) - Delete a filter definition.
- [View SQL](#) - View the SQL statement for a filter definition.
- [Check Dependency](#) - Check the dependent objects associated with the filter definition.

### 3.5.4.1 Viewing Filter Definition Details

You can view the details of an individual Filter Definition, using the following procedure:

1. Highlight the Filter Definition and click **Action** (three dots).
2. Click **View** .

The Filter Definition page is displayed with the details such as Name, Description, Folder, Filter Type, Filter Conditions and Audit Info.

### 3.5.4.2 Editing Filter Definition Details

You can edit individual Filter Definition details at any given point. To edit the existing Filter Definition details:

1. Highlight the Filter Definition and click **Action** (three dots).
2. Click **Edit**.

The Filter Definition Page is displayed with the details: Name, Description, Folder, Filter Type, Filter Conditions and Audit Info. Edit the required information and click **Save**.

### 3.5.4.3 Copying Filter Definition Details

You can copy individual Filter Definition Details, to recreate another new Member Definition. To copy the Member Definition Details as follows:

1. Highlight the Filter Definition and click **Action** (three dots ).
2. Click **Copy** button.

The Filter Definition Page is displayed with the details Name, Description, Folder, Filter Type and Filter Conditions.

Edit the unique information such as Name, Description, Folder, Filter Type and Filter Conditions, and click **Save**.

### 3.5.4.4 Deleting Filter Details

To delete a Filter Definition:

1. Highlight the Filter Definition and click **Action** (three dots).
2. Click **Delete** .

The Filter Definition is deleted after confirmation.

 **Note:**

You cannot delete a definition if any dependency like Attribute, Hierarchy or Filter is attached to it. Detach the dependency before deleting the definition.

### 3.5.4.5 Checking Dependencies

To check the dependencies of a Filter Definition from the Filters Summary:

1. Click **Action** adjacent to the filter definition.
2. Click the **Check Dependency** .

The list of Dependent Objects is displayed with Object ID, Name, and ID Type of the dependent Objects.

### 3.5.4.6 View SQL

To view SQL of a Filter Definition, perform the following steps:

1. Highlight the Filter Definition and click **Action** .
2. Click the **View SQL** button.

The SQL statement of Filter Definition is displayed.

## 3.6 About Expressions

An Expression is a user-defined tool that supplements other IDs and enables to manipulate data flexibly.

Expressions help you to perform the following tasks, easily.

- Specify a calculated column that the Oracle Financial Services Analytical Application derives from other columns in the database.
- Calculate assignments in data correction.
- Create calculated conditions in data and relationship filters.

### 3.6.1 Roles and Functions

The following table lists the role codes and function codes required to use the expressions editor. Based on the role that you are mapped to, you can access read, modify or authorize Expression definitions.

**Table 3-10 Roles and Functions**

Role Code	Function Code
EXPR_WRITE	EXPR_ADD
EXPR_ADV	EXPR_AUTH
EXPR_MAINT	EXPR_SUMM
EXPR_OPER	EXPR_MOD
EXPR_AUTH	EXPR_VIEW
	EXPR_DEL
	EXPR_COPY

## 3.6.2 Expressions Summary Page

The **Expression Summary** page displays the list of pre-defined Expressions with other details such as the Expression Name, Folder Name, Return Date, Created By and Creation Date.

You can also search for a specific Expression definition based on Folder Name, Expression Name, and Return Type.

## 3.6.3 Adding Expression Definition

This option allows you to add an expression definition using columns, operators, functions and constants.

To create a new Expression from the Expressions Summary page:

1. Click **Actions** and select **Add** in the Expressions summary page.  
The **Add Expression** page is displayed.
2. Enter the unique **Expression Name**.

 **Note:**

The characters & ' " are restricted

3. Enter the **Description** for the new expression.

 **Note:**

The characters ~&+ ' "@ are restricted

4. Enable the **Access Type** if the other users can view and edit the expressions. By default, the Access Type is set to Read Only and the users can only view the expressions.
5. Select the **Folder Name** from the drop-down list.

The new expression is associated with the selected folder. The folders are displayed based on the role and the access level of the logged in user. The folder names are displayed as sorted in alphabetical order in the dropdown menu.

6. Select the **Table** to process using the new Expression. Tables are limited to Instrument tables, Virtual Portfolio table, Transaction Summary tables and PFT Lookup tables.
7. Enter the expression to process the data based on the selected table. Refer to the following rules while adding/editing an expression.

 **Note:**

- You can edit and navigate within the expression editor only using the keyboard.
  - To select functions, columns and other entries, from the drop-down list, always use the mouse.
- 
- To add a column, select the **Column** option. Enter **wildcard search** or part of the column name and click **Search Columns**. The columns present in the selected table are displayed in drop-down list. Single click on the column name in the list to include the column in the Expression editor.
  - To add a Function, select the **Function** option. Navigate to the required function using the mouse and click to include it in the expression editor. To include value or arguments within the function, focus your pointer to the required position, using the Keyboard. Select the required value using the mouse. You can include a column or constants as arguments.
  - To include numerical values in the expression, select **Constants** option, enter the number in the textbox and click the + button.
  - To add numerical operators (+, -, \* and /), select the **Operator** option. Navigate to the required operator and click to include it in the expression editor.
  - To delete an entry in the Expressions editor, position the pointer at the required entry and press **Backspace key**. You can click **Reset** to clear the expression editor completely.
  -
8. After entering the required expression, click the **Check mark** button to validate the expression add it to the Expression tile.

## 3.6.4 Managing Expressions

You can view, edit, copy, delete and view SQL for the existing expressions Definitions from the Expressions Summary Page.

- In the Expressions Summary Page, highlight a specific Expression Definition and click **Action**. The following Options are displayed.
  - **View** - View the Expression Details for a specific Expression Definition.
  - **Edit** - Edit the Expression Details for a specific Expression Definition.
  - **Copy** - Copy the Expression Definition details and create another Definition by changing the unique values like Name and Description.
  - **Delete** - Delete the selected Expression definition.

- **View SQL** - View the SQL statement for the selected expression.
- **Check Dependencies** - View the list of dependencies associated with the selected Expression definition.

## 3.7 Management Ledger Configuration

This screen enables the user to define the Functional Currency and the Fiscal Year Start Month for each registered Management Ledger Table.

To configure the Management Ledger, perform the following steps:

1. From the LHS menu , select **Maintenance**, and then select **Management Ledger Configuration**.

This UI displays the details for each registered Management Ledger. Users can modify the Functional Currency and the Start Month Information for each registered Management Ledger Table, but cannot delete the details for an activated Management Leger Table.

By default, the UI displays a single row corresponding to the OOTB Regular Management Ledger Table (FSI\_D\_MANAGEMENT\_LEDGER). As and when any Placeholder Management Ledger Table is registered, the UI displays an additional row corresponding to the Registered Management Ledger. On registering and activating of all the Management Ledger Tables, the UI displays six rows pertaining to – one row for the OOTB Management Ledger Table and five rows for the registered five placeholder Management Ledger Tables.

**Figure 3-4 Management Ledger Configuration**

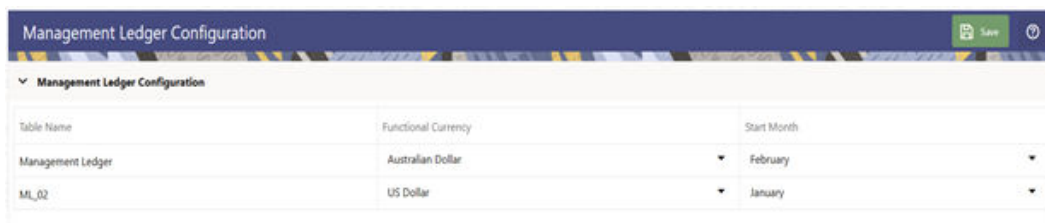


Table Name	Functional Currency	Start Month
Management Ledger	Australian Dollar	February
ML_02	US Dollar	January

2. Select the following details:
  - **Functional Currency:** This field is to be used to select the functional currency that is applicable to the ledger table. Accounts and Instruments can be defined across various currencies, but to consolidate the accounts at multiple hierarchy Levels, across units, a common currency is required which you can set here. This currency can be the currency used in the primary economic environment where an entity operates, or in other words, the main currency used by a business unit.  
  
The default value of Functional Currency for any Management Ledger table is set as 'US Dollar'.
  - **Start Month:** The field is to be used to select the start month of the fiscal year. The default value of Start Month for any Management Ledger table is set as 'January'.
  - **Table Name:** This field displays the logical name of the Management Ledger table for which the user wants to input the details. The physical name of the Management Ledger table is displayed in a toolkit on mouse-hover over the logical name of the table.



- Click **Save** to save the configuration.

## 3.8 Allocation Specification

Profitability and Balance Sheet Management (PBSM) Cloud Service's Allocation Specification Documentation covers the following topics:

- Allocation Specification Summary & Detail Screens
- Navigation within the Allocation Specification Summary Screen
- Navigation within the Allocation Specification Detail Screen
  - Initial Definition Process Tab
  - Operator Process sTab
  - Driver Process Tab
  - Outputs Process Tab
  - Review Process Tab
- Allocation Examples

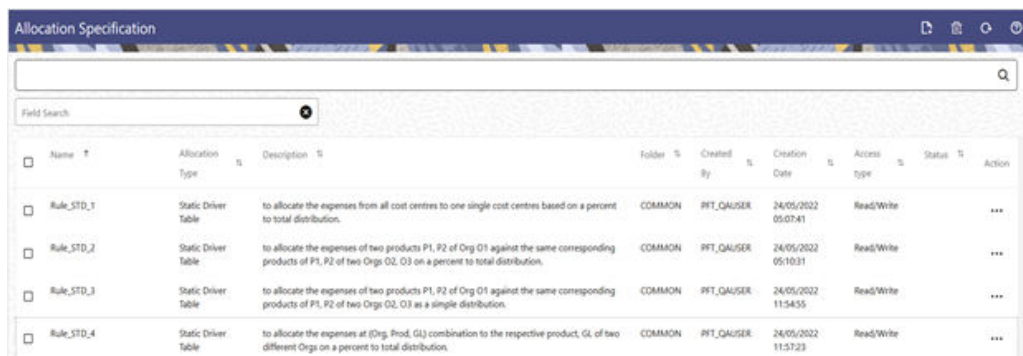
### 3.8.1 Summary Screen

To open the Allocation Specification Summary Screen, select **Profitability Management** from the LHS menu, select **Rule Specification**, and then select **Allocation Specification**.

#### 3.8.1.1 Navigation in Summary Screen

When you navigate to the Allocation Specification Summary Screen for the first time, the Allocations stored within your current default folder are presented in a Summary Table.

**Figure 3-5 Allocation Specification Summary Screen**



Name	Allocation Type	Description	Folder	Created By	Creation Date	Access type	Status	Action
Rule_STD_1	Static Driver Table	to allocate the expenses from all cost centres to one single cost centres based on a percent to total distribution.	COMMON	RFT_GAUSER	24/05/2022 09:07:41	Read/Write		...
Rule_STD_2	Static Driver Table	to allocate the expenses of two products P1, P2 of Org 01 against the same corresponding products of P1, P2 of two Orgs 02, 03 on a percent to total distribution.	COMMON	RFT_GAUSER	24/05/2022 09:10:31	Read/Write		...
Rule_STD_3	Static Driver Table	to allocate the expenses of two products P1, P2 of Org 01 against the same corresponding products of P1, P2 of two Orgs 02, 03 as a simple distribution.	COMMON	RFT_GAUSER	24/05/2022 11:54:55	Read/Write		...
Rule_STD_4	Static Driver Table	to allocate the expenses at (Org, Prod, GL) combination to the respective product, GL of two different Orgs on a percent to total distribution.	COMMON	RFT_GAUSER	24/05/2022 11:57:23	Read/Write		...

The title bar of the Summary Screen displays several actions for the user. They are:

- Add:** Click Add to build a new Allocation Rule. The Add icon is disabled if any rows in the table are selected.

- **Multiple Delete:** Select one or more rules in the table and then click Delete at the top right of the Summary Page to delete more than one rule at the same time.
- **Refresh:** Click Refresh to refresh the Summary Page.
- **Help:** Click Help to view the Allocation Specification Help Page.

The Allocation Specification Summary can be divided under two sections – the Search Section and the Summary Table.

### 3.8.1.1.1 Search

There are two Search options provided to search the Allocation Specifications on the Summary Screen.

To search the Allocation Rules, perform the following steps:

1. Click the **Search** icon on the Search Pane to display the Criteria window.
2. Enter the Allocation Rule **Name**, **Description**, **Folder**, or the **Allocation Type** and click **Search** to display the Allocation Rules that match the criteria.
3. Click **Cancel** to remove the filter criteria on the Search window and refresh the window.
4. Click **Search** after entering the Search Criteria. The screen displays the search results that meet the Search Criteria in a table containing all the Allocation Rules.
5. The other method to search an Allocation Rule is using the **Field Search** option. The Field Search is an inline wildcard search that allows you to enter value partially or fully and the rows that match the entered string in any of its column is fetched in the Summary Table.

### 3.8.1.1.2 Allocation Specification Summary Table

This section presents a table containing all of the Allocation Rules that meet your Search Criteria. The Allocation Specification Summary Table displays the details of the already created Allocation Rules.

The Allocation Specification Summary Table displays the following details:

- **Name:** Displays the Allocation Rule's Short Name. Hovering over an Allocation Name displays the Allocation Rule's Object\_ID and the Object\_Code.
- **Allocation Type:** Displays an Allocation Rule's Type. The following Rule types are supported:
  - Constant
  - Static Driver
  - Leaf
  - Field
  - Dynamic Driver
  - Static Driver Table
  - Lookup Driver Table
- **Description:** Displays the Allocation Rule's Long Name.
- **Folder:** Displays the Folder in which the Rule is created.
- **Created By:** Displays the name of the User who created an Allocation Rule.

- **Creation Date:** Displays the Date and Time at which an Allocation Rule was created.
- **Access Type:** Displays the “Read/Write” or “Read Only” property of an Allocation Rule. The creator of a Rule only may change its Access Type.
- **Status:** Before executing an Allocation Rule for the first time, the Status is blank. After executing an Allocation Rule, the appropriate status of the Rule is displayed among Ongoing, Success, or Failed. For a successful or a failed execution, the Log Viewer screen can be invoked by clicking on the status of a rule. The Log Viewer screen displays the logs/messages for the execution.
- **Action:** Displays the list of actions that can be performed on the Rule.

The Action column on Allocation Specification Summary Page offers the following actions that allow you to perform different functions. The following actions are available for the Allocation Rule.

- **View:** Click the View icon to view the contents of an Allocation Specification Rule on a Read-Only basis as the user is launched into the Allocation Specification Detail Screen in View Mode.
- **Edit:** Click the Edit icon to modify a previously saved Allocation Specification Rule as the User is launched into the Allocation Specification Detail Screen in Edit Mode.
- **Run:** Click Run to execute the selected Allocation Specification Rule. On click of **Run**, the Run Execution Parameters Window opens up to show the process name being executed and take User input of Run Time Parameters – the As-of-Date and the Legal Entity. The As-of-Date can be reset in the User Preferences for Profitability Management.
- **Save As:** Click on this option to create a copy of an existing Allocation Specification rule. The Save As pop-up window allows you to enter the Name, Description, Folder, and Access Type Details for the copy rule.
- **Delete:** Click Delete to delete the rules you have selected.
- **Check Dependencies:** This action button is to check for any dependency of the selected object with other objects in the application. On click of this action, the Dependent Information window is displayed with the Object Name, Object Type, Object Subtype and the Version of the dependent objects. The ‘Higher Order Dependency’ states if the selected object has an upstream objects dependency and is to be treated as the actual dependency of the selected object. While, the ‘Lower Order Dependency’ displays the downstream objects dependency of the selected object. If an object has a Higher Order Dependency then the object cannot be deleted without removing the dependency first.

You may select or de-select all of the Allocation Rules in the Summary Table by clicking on the check-box in the upper left-hand corner of the Summary Table directly to the left of the Name Column Header.

## 3.8.2 Detail Screen

Click on **Add** from the Title bar of Summary Screen or Edit/View an Allocation Rule from Summary to launch into the Allocation Specification Detail Screen.

### 3.8.2.1 Navigation in Detail screen

The Allocation Specification Detail Screen is composed of six Process Tabs that are described in the following sections. The appearance of the Detail Screen depends on the Tab that is active, which in turn is dependent on the Allocation Type selected for the Rule.

**Figure 3-6 Allocation Specification Detail Screen in New Mode**

The screenshot displays the 'Allocation Specification' interface. At the top, there are 'Save', 'Cancel', and a refresh icon. Below this is a 'Process Tabs' section with a linear progression of six tabs: 1. Initial Definition (active), 2. Source, 3. Operator, 4. Driver, 5. Outputs, and 6. Review. The 'Initial Definition' pane includes a 'Rule Name' field (marked as Required), a 'Rule Description' field, a 'Folder' dropdown menu set to 'COMMON', an 'Access Type' section with radio buttons for 'Read Only' and 'Read/Write' (selected), and a 'Variable Rule' toggle switch. Below this is an 'Allocation Type' pane with a dropdown menu set to 'Dynamic Driver'.

#### 3.8.2.1.1 Process Tabs Pane

The Process Tabs Pane is arranged in a linear train fashion with each button or step representing one process. The button icon is blank when the tab is not defined and turns green when the definition is complete. A tab that is undergoing modification turns black.

Each of the six Process Tabs is designed to create, edit, or view different components of an Allocation's Specification. You may navigate from one tab to any other tab at any time. The six Process Tabs are as follows:

- Initial Definition
- Source
- Operator
- Driver
- Outputs
- Review

#### 3.8.2.1.2 Initial Definition Process Tab

The Detail Screen launches itself into the first tab called the Initial Definition Process Tab. The Initial Definition Tab is organized under two panes.

The Initial Definition pane allows user to specify the Rule Name, Rule Description, Folder, and the Access Type of an Allocation Rule.

The Allocation Type pane allows you to specify the Allocation Type of the Allocation Rule.

### 3.8.2.1.2.1 Initial Definition Pane

Specify the Allocation Rule Name and Description, select a Folder in which the Allocation Rule is to be stored, and specify whether you want the Allocation Rule to be Read/Write or Read Only (Access Type).

Naming your Allocation Rule is required before it is saved. Default values for Folder and Access Type are stored in Application Preferences for Profitability Management Cloud Service. It also hosts the toggle button of Variable Rule.

**Figure 3-7 Initial Definition Pane**



The screenshot shows the 'Initial Definition' pane with the following elements:

- Rule Name:** A text input field with a 'Required' label.
- Rule Description:** A larger text input field.
- Folder:** A dropdown menu currently showing 'COMMON'.
- Access Type:** Radio buttons for 'Read Only' and 'Read/Write', with 'Read/Write' selected.
- Variable Rule:** A toggle switch currently in the 'off' position.

#### 3.8.2.1.2.1.1 Variable Rule

Legal Entity is an optional Run-time Parameter. If the Disable Legal Entity check box in the Application Preferences Screen is checked, then the Legal Entity will no longer be a Run-time Parameter.

If Legal Entity is disabled, then you must select a value for the Legal Entity Dimension in all applicable tabs while defining a Variable Allocation Rule in the Allocation Specification Screen.

**Figure 3-8 Initial Definition Pane with Variable Rule selected**



This screenshot is identical to Figure 3-7, but the 'Variable Rule' toggle switch is now turned 'on' (green).

For already defined Variable Allocation Rules, edit the Allocations, and modify the value of the Legal Entity Dimension in all applicable tabs in the Allocation Specification Screen. The value of Legal Entity is used when your Rule Execution is specified within your Batch Definition (for Batch Processes) or is obtained from your Profitability Management Cloud Service Application Preferences (for interactive executions launched from a Summary Screen). If this check-box is not selected on the Initial Definition Process Tab, then you must specify a value for Legal Entity in your Allocation Rule's Source, Driver, and Outputs.

 **Note:**

Legal Entity is designed to support implementations that require Multi-Entity or Multi-Tenant functionality. If your implementation does not require this functionality, you may utilize the Default Legal Entity in all your processes and you may declare all your Allocation Rules to be Variable.

### 3.8.2.1.2.2 Allocation Type Pane

When you initially build an Allocation Rule, you must select its Allocation Type. After an Allocation Rule is saved, you may no longer change its type. After you have chosen an Allocation Type on the Initial Definition Process Tab, the appearance of subsequent Process Tabs depends upon the Allocation Type you have chosen.

The available rule types are as follows:

- Constant
- Static Driver
- Leaf
- Field
- Dynamic Driver
- Static Driver Table

### 3.8.2.1.2.3 Allocation Types

The following list describes the Allocation Types:

- **Constant:** A Constant Allocation Rule creates a simple balanced transaction consisting of one debit and one credit. You may optionally specify either one debit or one credit (at a minimum, you must supply at least one debit or one credit). The Constant Rule Type only operates against the Management Ledger. For Constant Allocation Rules, the Operator and Driver Process Tabs are disabled; specify a fixed amount in the Source Tab and debit and/or credit in the Outputs Process Tab.
- **Static Driver:** The Static Driver Method enables you to perform simple factor calculations against a set of source balances. The source balances can be drawn from the Management Ledger Table, Instrument Tables, or Transaction Summary Tables. For Static Driver Rules, the Driver Process Tab is disabled. For this kind of rule, define where to get your Source Data on the Source Process Tab, a Static Driver Amount on the Operator Process Tab, and the resulting debits and/or credits on the Outputs Process Tab.
- **Leaf:** Leaf type Allocations are used only against the Management Ledger Table. They are used to operate between two sets of rows that differ in a single Dimension.
- **Field:** A Field type Allocation is used to multiply two columns within a single row in an Instrument Table update Allocation Rule.
- **Dynamic Driver:** Dynamic Driver Allocation Rules aggregate or distribute balances using Dynamic Data (Business Resident Driver Data) such as Headcount, Square Footage, or Instrument-Level Balances. Dynamic Driver Data is not limited to statistics sourced as part of your ETL load to the OFSAA Data Model. Dynamic Driver Data can be “captured” or developed within an Allocation Rule. For example, balances by product within each Cost Center can normally be obtained from your Instrument Data. You can build

Allocation Rules to aggregate these statistics from your Instrument-Level Data and post them to your Management Ledger for use in subsequent rules, or you can write an Allocation that develops this set of driver data by querying your Instrument Data at Runtime. The Driver Data obtained from your instruments is not limited to balances. Examples of Instrument Level Dynamic Drivers you might use in Allocation Rules include:

- The number of accounts by product by Cost Center by year of origination.
- The number of loan payments processed by the loan processing center by month.
- ATM transaction counts by region by month.

Uniform Method: The most common Distribution Methods for the Dynamic Driver type of allocation are:

- Percent-to-Total
- Force to 100%
- Simple Method

Dynamic Driver Allocation Rules and Methods are described in detail in the Driver Process Tab and Output Process Tab sections.

- **Static Driver Table:** Static Driver Table Allocation Rules offer functionality similar to Dynamic Driver Allocation Rules but use Driver Data that is stored in a Profitability Management Rule type called Static Table Driver. For more information on how to build and use Static Table Driver Rules, see [Static Table Drivers](#).

#### 3.8.2.1.2.4 Definitions of Static and Dynamic Drivers

Most Allocation Rules distribute, or aggregate balances using the Driver Data and can be used in the following ways:

- Expense Allocations as a function of Square Footage occupied or Headcount.
- Aggregation of Instrument Balances to the Management Ledger.
- Reclassification of Management Ledger Balances to Dimensions not found in the original General Ledger Data.

Drivers can be stored as components of your overall Allocation Model, or they can be stored as facts within your Business Data. Headcount and Square Footage Statistics, for example, are frequently stored as memo accounts within your General Ledger. When you load the OFSAA Management Ledger Table with your General Ledger Data, those Headcount and Square Footage statistics can be utilized as drivers within your Allocation Rules. These kinds of Business-Data Resident Drivers are referred to as Dynamic Drivers.

In some other cases, you will embed your Driver Data into an Allocation Rule or into a Driver Table that the Allocation Engine supports. These kinds of drivers are referred to as Static Drivers. The Profitability Management Cloud Service supports the following types:

- Static Driver
- Static Driver Table

Dynamic Drivers often have many advantages over Static Drivers. An Allocation Rule that uses a Static Driver takes the same value or values every time you use it in a rule, but an Allocation Rule that uses a Dynamic Driver may have different driver sets from day to day or month-to-month. Additionally, you must normally pre-compute your Static

Drivers and Dynamic Drivers that are generated at Run time. Dynamic Drivers, frequently used in full cost-Absorption Allocation Models, are generated by other Allocation Rules.

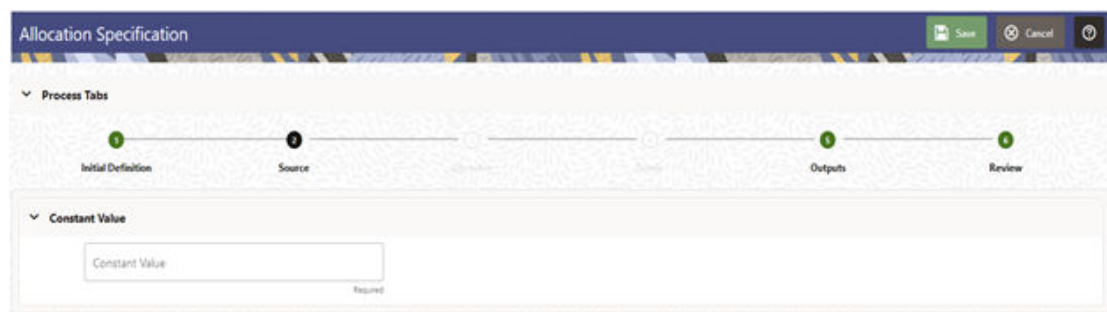
Static Drivers sometimes have advantages over Dynamic Drivers. For example, you may have pre-computed unit costs that you wish to use to drive your allocations to generate Partial Absorption Costing.

### 3.8.2.1.3 Source Process Tab

The Source Process Tab is to be used to specify an Allocation Rule's Data Source.

For a Constant Type Allocation Rule, you need to specify an amount as follows:

**Figure 3-9 Allocation Specification Source Process Tab**

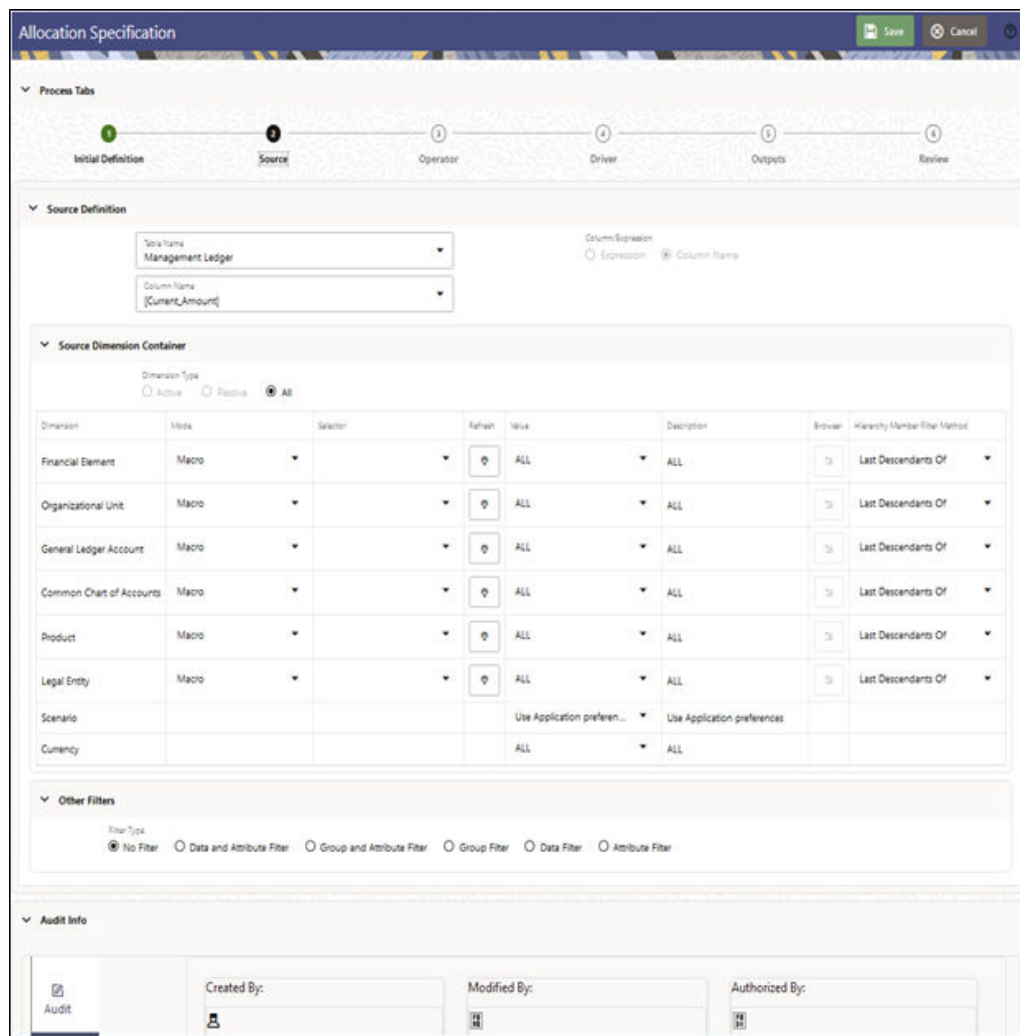


The screenshot shows the 'Allocation Specification' interface. At the top, there is a title bar with 'Allocation Specification' and buttons for 'Save', 'Cancel', and a refresh icon. Below the title bar, there is a 'Process Tabs' section with a progress indicator showing four steps: 'Initial Definition', 'Source', 'Allocation', and 'Outputs'. The 'Source' step is currently selected and highlighted. Below the progress indicator, there is a 'Constant Value' section with a text input field labeled 'Constant Value' and a 'Required' label below it.

For all other types of Allocation Rule, the Source Process Tab contains the Source Definition Pane, the Source Dimension Container, and Other Filters Pane.



**Figure 3-10 Source Process Tab for all rule types except Constant type**



### 3.8.2.1.3.1 Source Definition Pane

The Source Definition Pane is the parent pane of the Source process tab and hosts two sub sections of – the Source Dimension Container and the Other Filters. This parent pane allows the user to select a Source Table and then select either a Column from the selected table or an Expression on the selected table, that serves the Source Data for the Allocation Rule.

**Figure 3-11 Source Definition Pane**



#### 3.8.2.1.3.1.1 Management Ledger Source

This section describes using the Management Ledger as the Source in Allocation Rules.

The Management Ledger is a Seeded Table of a new Management Ledger Class of Tables (see the Data Model Extension Guide for details on adding User-Defined Dimensions to the Management Ledger or for defining new User-Defined Management Ledger Tables.)

When your Source is the Management Ledger Table, use the <Current Amount> macro as your column name. The Management Ledger Table is the default table for new Allocation Rules (except for the Constant type), and <Current Amount> is the default column. The <Current Amount> macro selects the current month from your Management Ledger based on your As-of-Date and Fiscal Year definitions. If your As-of-Date is set to any day in March, <Current Amount> is interpreted as Fiscal Month 3. If your fiscal year begins in April, your March data is stored in the Management Ledger under Fiscal Month 12, since March is the last month in your Fiscal Year.

 **Note:**

Allocation Rules that aggregate instrument-level data to the Management Ledger Table maintain literal As-of-Dates when posting to the Management Ledger, but when data is retrieved from the Management Ledger Table (such as in Allocation Sources or Allocation Drivers), it is consolidated into a month-to-date balance. For example, if you perform daily instrument-level Funds Transfer Pricing and if you use an Allocation Rule to aggregate daily Funds Transfer Pricing Charges or Credits from the instrument level to the Management Ledger, each day's charges and credits are posted to the Management Ledger by As-of-Date (by business date). Allocation Rules that reference these Management Ledger balances, however, combine the daily postings to obtain month-to-date balances. Similarly, all outputs at the Management Ledger level are inherently month-to-date balances.

When your Source is the Management Ledger table, the following macros are supported:

- <Last\_Mo\_Amount>
- <Months\_Ago\_Amt>
- <Current\_Amount>
- <YTD\_Amount>
- <Months\_Ago\_YTD\_Amt>
- <Last\_Mo\_YTD\_Amt>

<Last Mo\_Amount> selects month-to-date balances from the month before your As-of-Date. <Months\_Ago\_Amount> selects month-to-date balance as of a designated number of months ago. For example, with a typical January to December fiscal year, if today's As-of-Date is March 31, 2015 (Fiscal Month = 3, Fiscal Year = 2015) then in the Enter Months field, enter 6 months ago. This corresponds to September 2014 (Fiscal Month = 9, Fiscal Year = 2014). The month range for entering Months is from -99 to 999.

 **Note:**

When you select any of these macros, the Entered\_Balance column in the Management Ledger Table is selected.

### 3.8.2.1.3.1.2 Instrument or Transaction Summary Source

When your Source is an Instrument or Transaction Summary Table, you may choose any valid measure in the table. Valid measures include only rates, balances, and numeric statistics such as activity counts.

### 3.8.2.1.3.2 Source Dimension Container

The Source Dimension Container is used to provide dimensional constraints on your Source Data. For any Dimension, you may constrain your Source Data by selecting a leaf member, a roll-up node member within a Hierarchy, or a Hierarchy Filter. As and when a placeholder KPD is registered, the registered KPD appears in the dimension list in the order of the dimension number.

The Source Dimension Container is table that lists the OOTB and custom dimensions available for the rule, as follows:

**Figure 3-12 Source Dimension Container**

Source Dimension Container							
Dimension Type							
<input type="radio"/> Active <input type="radio"/> Passive <input checked="" type="radio"/> All							
Dimension	Mode	Selector	Return	Value	Description	Browser	Hierarchy Member Filter Method
Financial Element	Macro			ALL	ALL		Last Descendants Of
Organizational Unit	Macro			ALL	ALL		Last Descendants Of
General Ledger Account	Macro			ALL	ALL		Last Descendants Of
Common Chart of Accounts	Macro			ALL	ALL		Last Descendants Of
Product	Macro			ALL	ALL		Last Descendants Of
Legal Entity	Macro			ALL	ALL		Last Descendants Of
KPD_01	Macro			ALL	ALL		Last Descendants Of
Scenario				Use Application prefer...	Use Application preferences		
Currency				ALL	ALL		

The Dimension Container starts with the Dimension Type radio button selection that displays the active, passive or all dimensions available for the allocation rule, through the options of Active, Passive and All respectively.

A Passive dimension is a dimension that the user has not applied any constraint to, and it comes with default Mode of 'Macro' and default Value as 'ALL'.

Similarly, on the other hand, an Active dimension is a dimension that the user has applied a constraint to, and its Mode is not 'Macro' and Value is not 'ALL'.

The Dimension column holds the Key Processing Dimensions for the Source Definition.

The separation of dimensions into shorter Active and Passive list was introduced to solve the problem of a long list of dimensions to choose from while in Edit mode. The dimensions list would be long when all the placeholder KPDs are registered, and user would need to search through the list to find the KPD he/she wants to apply constraint to.

In New mode, the Dimension Type radio button is defaulted as All while the other buttons are disabled.

In Edit mode, the Dimension Type is defaulted as Active and only the dimensions for which a constraint has been applied, is displayed under the Active set. All the dimensions for which a constraint has not been applied, is shown in the Passive set which can be viewed through changing the radio button to Passive. User can apply constraint to any dimension in the Passive set and the dimension comes to the Active set, that can be observed by changing the radio button to get the current Active set. In Edit mode, the All option is disabled.

In View mode, the allocation UI defaults to Active, and the user can toggle between the two sets of Active and passive to view the constraint applied or not applied dimensions.

#### 3.8.2.1.3.2.1 Mode Selection for a Dimension

The Source Dimension Container grid contains a column called Mode that corresponds to the different modes of defining constraint to a dimension. The Mode displays a drop-down containing four modes – Macro, Leaf, Node and Hierarchy Filter.

The default mode for all dimensions is **Macro** and the default value for all dimensions is **ALL**. ALL means no constraint is applied to the dimension.

**Leaf Mode** must be used when you want to input a Leaf Value for a dimension. Once you select the Leaf Mode, the Value column drop-down is populated with all the leaf members available for the selected dimension. You can choose a member from the list of Leaf Members in the Value drop-down, or can type-ahead the required leaf member name in the Value Text Box. This free text type-ahead feature comes with Autosuggestion that creates a Dynamic List of values in the drop-down, matching the input string. If the Type-Ahead string does not match with a value from the drop-down list, the string will not be accepted.

**Node Mode** is to be used when you want to input a node value for a dimension. Once you select the Node mode, two things happen. First, the Selector Column drop-down is populated with all the Hierarchies available for that dimension and the first Hierarchy in ascending alphabetical order of Hierarchy Name is selected as default in the Selector column. Second, the Value column drop-down is populated with all the node members applicable for the Hierarchy selected in the Selector column. This means the Value column drop-down displays all the node members available for the first Hierarchy (in ascending alphabetical order of Hierarchy Name) in the Selector.

 **Note:**

If no hierarchy can be found for the dimension you have selected, the Selector column will be blank.

The Selector values appear as Folder name, hyphen and Hierarchy name for each of the hierarchies available for that dimension. The Folder name gives the name of the folder in which the displayed hierarchy is stored. You need to select one hierarchy from the Selector drop-down. This facilitates node member population in Value column dropdown, that are particular to that hierarchy. You can choose a member from the list of node members available in the Value drop-down, or type the required node member name in the Value text box. This free text type-ahead feature comes with Autosuggestion that creates a Dynamic List of values in the drop-down, matching the input string. If the type-ahead string does not match with a value from the drop-down list, the string will not be accepted.

**Hierarchy Filter** Mode is to be used when the user wants to apply a Hierarchy Filter constraint on a dimension. Hierarchy Filter mode works in similar fashion as that of Node mode. Once you select the Hierarchy Filter mode, the **Selector** Column drop-down is populated with all the available Hierarchies for that Dimension.

 **Note:**

If no hierarchy can be found for the dimension you have selected, the Selector column will be blank.

The Selector values appear as Folder name, hyphen and Hierarchy name for each of the hierarchies available for that dimension. The Folder name gives the name of the folder in which the displayed hierarchy is stored. You need to select one hierarchy from the Selector drop-down. This facilitates Hierarchy Filter population in Value column dropdown, that are particular to that hierarchy.

 **Note:**

If no Hierarchy Filter can be found for the Hierarchy you have selected, the Value column will be blank.

You can choose a hierarchy filter from the list of hierarchy filters available in the Value drop-down or can type-ahead the hierarchy filter in the Value text box. This free text type-ahead feature comes with Autosuggestion that creates a Dynamic List of values in the drop-down, matching the input string. If the type-ahead string does not match with a value from the drop-down list, the string will not be accepted.

The **Selector** is used for the Node mode and the Hierarchy Filter mode where selection of the Hierarchy is essential before selecting the node member or the hierarchy filter.

The **Refresh** button can be alternatively used to refresh and load the members in the Value column dropdown if the user faces performance issues with normal operation.

The **Value** column displays the value of a Macro, Leaf Member, Node Member, or a Hierarchy Filter. The member/filter value appears as Member Name, Hyphen and Member ID. You can choose a value from the list of values (that are essentially members and filters) in the Value drop-down, or can type-ahead the required member/filter in the Value text box. This free text type-ahead feature comes with Autosuggestion that creates a dynamic List of values in the drop-down, matching the input string. If the type-ahead string does not match with a value from the drop-down list, the string will not be accepted.

The **Description** Column displays the description of the member/filter selected in the Value column. The description includes information on the Dimension, Folder where the hierarchy is stored, the level of the member in the hierarchy, the member's name, and the member ID.

Next comes the column that hosts the Hierarchy Browser Widget, clicking on which invokes the **Hierarchy Browser**. The Hierarchy Browser functionality differs across the various modes of constraint selection. The following section discusses more details.

The last column, the Hierarchy Member Filter Method is discussed in the next section, along with the Hierarchy Browser.

**Source Scenario:** For Allocation Rules that Source Data from the Management Ledger-level, you must select a Source Scenario from the Allocation Source Pane. The default for new Allocation Rules is <Use Application Preferences>. When you use

this default value, the Scenario (also called Consolidation Code) is determined by the value that is set in Application Preferences for Profitability Management Cloud Service for the user who is running the rule. If you do not select <Use Application Preferences>, you must select a Defined Dimension Member Value (for example, Actual, Budget, Forecast, and Forecast Prior). These values are provided with the data model, but you may add additional Dimension Members in the Consolidation Code Dimension.

**Table 3-11 Examples of using the Source Tab**

Desired Data	Constraint
Get all expenses for all GL Accounts within a specific Cost Center.	Single-leaf constraint on Organizational Unit plus single-leaf constraint on Financial Element 457 – Non-Interest Expense.
Get all current mortgage balances for adjustable rate products originated in the past year.	Hierarchy member constraint on the Product dimension plus a Data Filter constraint.
Get all initial General Ledger balances and all allocated balances for a specified set of Cost Centers for one GL Account.	Single leaf constraint on General Ledger Account plus a Hierarchy member constraint on Organizational Unit.
Get ending balances for all balance sheet assets for the North, South, and East divisions (but not the West division except for the South-West sub-region).	Single leaf constraint on Financial Element plus Hierarchy member constraint on the GL Account dimension plus an Organizational Hierarchy Filter.

The dimensions listed in the Allocation Source Pane are limited to your Key Processing Dimensions. The seeded Key Processing Dimensions for all OFS Analytical Applications are:

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

#### 3.8.2.1.3.2.2 Hierarchy Browser on the Source Tab

We have learnt from the previous section how to define Dimension Constraints through user inputs, either through selection from drop-down or through free text type-ahead. The other way of Constraint Application is through the Hierarchy Browser.

The Hierarchy Browser Widget is enabled for the two modes of Leaf and Node. The widget is disabled for the Macro Mode and the Hierarchy Filter Mode.

To select a Constraint, click on the Hierarchy Browser icon in the column adjacent to the Description column in the Source Dimension Container table, next to the Dimension you want to constrain.

##### 3.8.2.1.3.2.2.1 Hierarchy Browser for Leaf Mode

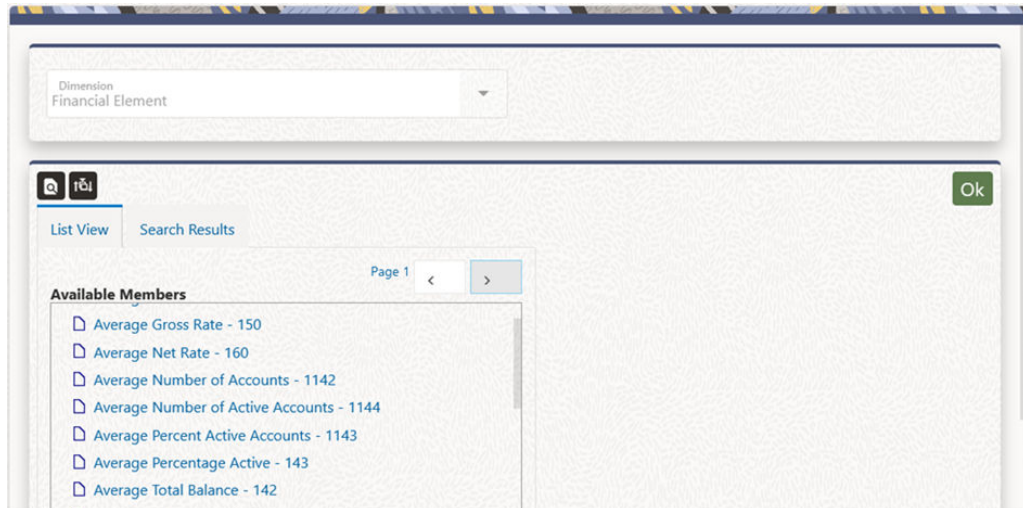
When in Leaf Mode, the Browser opens to show the List view of all Leaf Members available for the selected Dimension, in the List View Tab. The members appear as Member name, hyphen, Member ID. You can select a Single-Leaf Member by directly clicking on the Member.

The browser has only two action buttons – Search and Sort. You can search by clicking the Search icon and auto wild card search with search criteria as 'contains' is applied on the Member ID and the Member Name that tries to match with the input string in the Search box. The Search results are displayed in the Search Results Tab.



The Sort function helps to sort the members in alphabetical order or Member Name. The Ascending or the Descending order of Sort action is as per user click and happens alternatively. Alternate member selection: You can select a Leaf Member from the Search Results Tab from among the search results.

**Figure 3-13 Financial Element Hierarchy Browser – List View Tab**



#### 3.8.2.1.3.2.2.2 Hierarchy Browser for Node Mode

When in Node Mode, the browser opens to show the Hierarchy view of the selected Dimension Hierarchy, in the Hierarchy View Tab. The Hierarchy View displays the list of all the Node and Leaf Members for the Hierarchy. The members appear as Member Name, Hyphen, and Member ID. You can select a Single-Node Member by directly clicking on the Member. The Leaf Members are disabled for user selection.

The browser has four action buttons – Search, Sort, Expand All/Collapse All, and Focus/Unfocus. You can search by clicking the Search icon and Auto Wild Card Search with Search Criteria as 'contains' is applied on the Member ID and the Member Name that tries to match with the input string in the search box. The Search results are displayed in the Search Results Tab.

The Sort function works on a selected node that has Child Members under it. It sorts only the immediate level child members (of the selected node member) into ascending or descending alphabetical order of Member Name. The Ascending or the Descending order of Sort action is as per the user click and happens alternatively. The default Sort order of members is as per the display order of members in the hierarchy definition.

The Expand-All/Collapse-All function works on a selected node that has Child Members under it. The function expands or collapses the selected node until the level of the Leaf Members under the selected node.

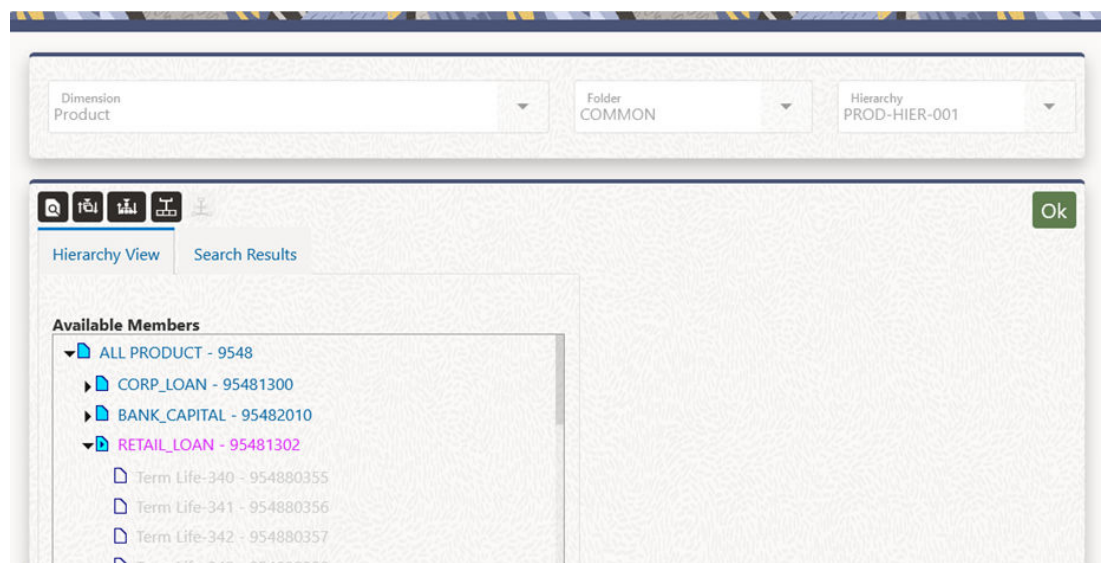
The Focus/Unfocus functions to focus a searched Member (from the Search Results tab) into the Hierarchy View with the position of the Member in the Hierarchy. When you click for the first time on Focus, the next click does not unfocus the focussed Member from the Hierarchy View back in the Search Results tab. Focus is on the first click on the icon, and the next click does an unfocus of the focussed Member from the Hierarchy View back in the Search Results tab.

The Hierarchy View Tab or the Search Results Tab gives a full parentage information, on mouse hover, of each of its members starting from the root node until the mouse-hovered member.

Pagination is applicable only for a selected Node Member that has children spanning across multiple pages. On mouse-click of such Member, a pagination capability is displayed on the top right corner of the Available Members box. You can navigate across the pages to view the Members displayed in other pages.

Alternate Member Selection: You can select a node member from the Search Results Tab from among the search results.

**Figure 3-14 Product Hierarchy Browser**



#### 3.8.2.1.3.2.2.3 Hierarchy Member Filter Method

When the Source Table is Management Ledger and the Allocation Type is either Static Driver or Dynamic Driver, you can select a Hierarchy Member with additional options. You can select the Hierarchy Member by selecting any of the four “Hierarchy Member Filter Method”:

1. Node Only
2. Last Descendants Of
3. Descendants Of
4. Node and Descendants Of

This selection is applied at the per-dimension level of the Source Dimensions, meaning you have the liberty to select the “Nodes Only” filter method for the General Ledger Dimension while applying a “Last Descendants Of” Filter Method on the Organization Unit Dimension.



 **Note:**

Caution should be used when posting node-level outputs from allocation rules. It is only intended to be used to temporarily post node-level results. If you build rules that output node-level results, you should plan to have follow on allocation rules to distribute those node-level results down to the leaf level.

A sample use case might include initial generation of node-level Cost Pools before subsequent rules distribute the node-level Cost Pools down to more granular, leaf-level Cost Pools.

You can query the results of node-level data, but results expressed along a hierarchy are always derived from rolling up level-level data so data posted at the node-level will not be included in any reporting results.

The Data Loader Service that loads the data from Staging to Management Ledger supports loading data to any kind of member in the Management Ledger – Leaf-Level members or Node Level members, rendering the user to select any of the two kinds of the member from the UI.

- If you choose the Hierarchy Member Filter Method as "Nodes Only", only the Node Member is selected in the filter.
- If you choose the Hierarchy Member Filter Method as "Last Descendants Of", only the Leaf Members of the Hierarchy rolling up to the selected Node are selected in the filter.
- If you choose the Hierarchy Member Filter Method as "Node and Descendants Of ", all the Descendant Nodes and Leaves of the selected Node in the Hierarchy including the selected Node itself, are selected in the filter.
- If you choose the Hierarchy Member Filter Method as "Descendants Of ", all the Descendant Nodes and Leaves of the selected Node in the Hierarchy but excluding the selected Node itself are selected.

### 3.8.2.1.3.3 Other Filters Pane

You may optionally select a Data Filter, a Group Filter, an Attribute Filter, or a combination filter between a 'Data and Attribute Filter' and a 'Group and Attribute Filter' to further constrain your Source Data.

**Figure 3-15 Other Filters Pane**



Data Filter or Data Element Filter is a stored rule that expresses a set of constraints on table columns. You can build a data filter on regular columns of instrument tables, management ledger tables, transaction summary tables, the portfolio table, or a lookup table or on any registered placeholder column.

We can combine different data filters with a logical AND condition and we call this new filter as the Group Filter. A group filter applies the conditions of all the individual data filters, over the dataset it is applied on.

Attribute filters are used to filter records based on one or more dimension type Attributes. An attribute filter filters the records for which the dimension members satisfy the given attribute conditions.

A Hierarchy filter can be used to filter members from a dimension hierarchy. Applying this filter, it filters the records that contain the members specified in the hierarchy filter.

### 3.8.2.1.4 Operator Process Tab

The Operator Process Tab allows you to specify how the Source data and Driver Data interact to create results.

- **Operator Process Tab for Constant Rules:** No Driver is necessary to specify a Constant Rule. Both the Operator Process Tab and the Driver Process Tab are disabled for the Constant Rule type.
- **Operator Process Tab for Static Driver Rules:** For Static Driver Rules, the Driver Process Tab is disabled, but the Operator Process Tab is enabled to allow you to specify a Static Driver Balance. Static Amounts are entered into the Factor Operator Pane.

**Figure 3-16 Allocation Specification - Operator Process Tab**

- **Operator Process Tab for All Other Rule Types:** For all other Rule Types, the Operator Process Tab offers both a Factor Operator and an Allocation Operator. The Allocation Operator links the Allocation Rule's Source Data with its Driver data. The Factor Operators may be interposed between the Source and Driver.

#### 3.8.2.1.4.1 Factor Operator Pane

Factor Operators may be used to either:

- To store static driver amounts and/or accrual basis macros for Static Driver Rule types.
- To interject constant values and/or accrual basis macros between allocation Sources and Drivers for Leaf, Field, Dynamic Driver, Static Driver Table, or Lookup Driver Table rule types.

The Factor Operator allows you to modify Source Data by adding, subtracting, multiplying, or dividing Source Data by a Constant Amount, an Accrual Basis Macro, or both.

##### 3.8.2.1.4.1.1 Examples of Usage of the Factor Operator

Instrument-level Rate Times Balance Allocations commonly use the “Both” type Factor Operator in which the first-factor operator is “times <accrual-basis> macro” and the second-factor operator is “divided by 100” when posting to a monthly income or expense balance. If

you were to choose a 30/360 accrual basis factor, you could equally well specify your factor operator as “divide by 1200”.

Instrument-level Rate Times Balance Allocations can also utilize actual instrument-level accrual bases instead of applying the same Accrual Basis to every calculation.

In a Percent Distribution Allocation such as “distribute all Human Resource expense to all Cost Centers as a function of headcount”, you may sometimes want to distribute less than 100% of total expense. In this example, your Source Data would be “all Human Resource Expense”, your Driver Data would be “headcount by Cost Center” on a percent-to-total basis, and your Factor Operator would be whatever percentage of the total expense you are choosing to allocate.

#### 3.8.2.1.4.2 Allocation Operator Pane

For all Allocation Types except Constant and Static Driver, the Allocation Operator links the Allocation Rule's Source Data with its Driver Data. The most common form of linkage is multiplication, but both multiplication and division are supported. For some Allocation Types, addition and subtraction are also supported.

#### 3.8.2.1.5 Driver Process Tab

The Driver Process Tab allows you to specify a set of Driver Data that is combined with Source Data to create Allocation Outputs. How the Source Data and the Driver Data interact is a function of the type of Allocation Rule you are using and the nature of the Operator you have specified.

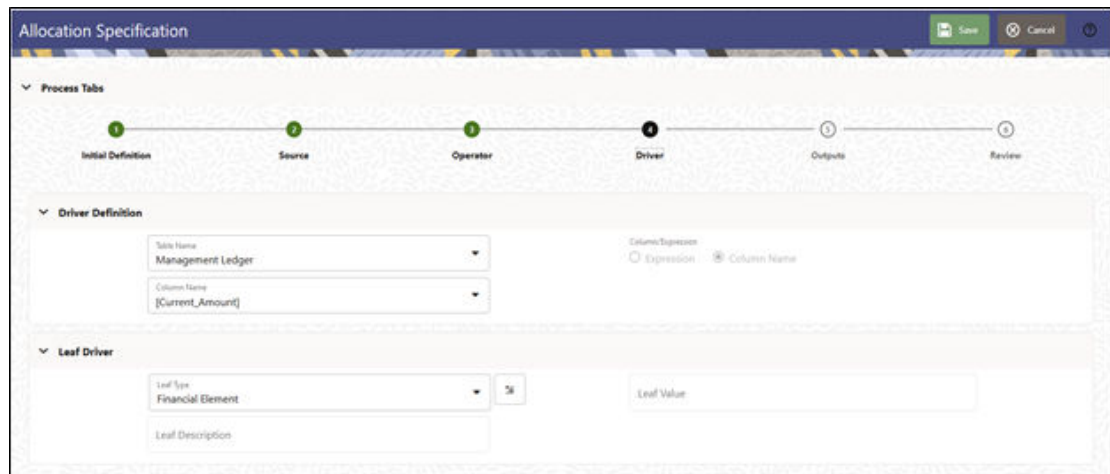
The Driver Process Tab is enabled for the following Allocation Types:

- Leaf
- Field
- Dynamic Driver
- Static Driver Table

The Panes displayed on the Driver Process Tab vary according to the different types of Rules.

##### 3.8.2.1.5.1 Leaf

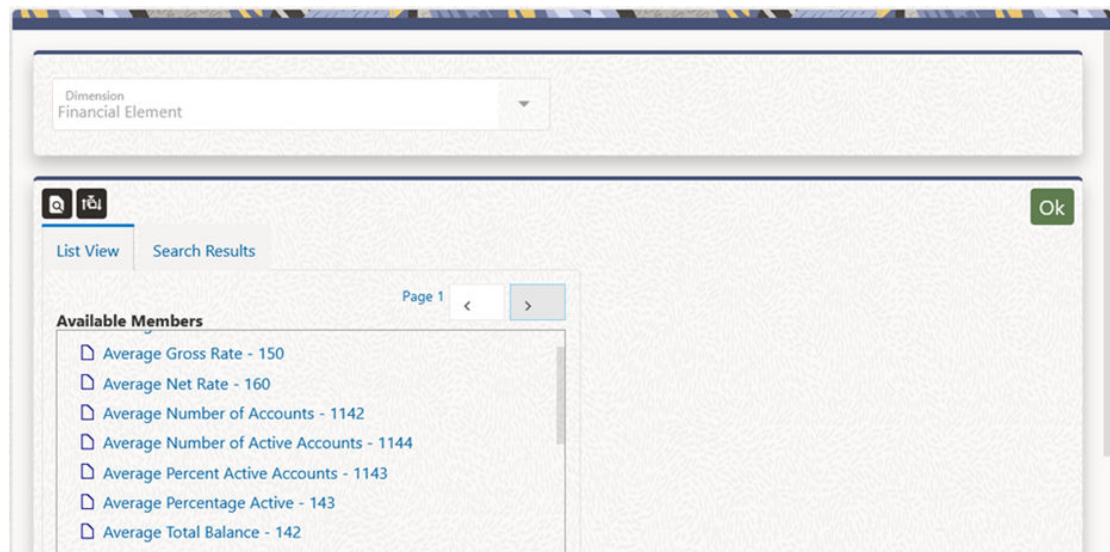
For a Leaf Allocation Type, the Driver Process Tab comprises of the Driver Definition Pane and the Leaf Driver Pane.

**Figure 3-17 Allocation Specification Driver Process Tab**

The Driver Definition Pane lets you choose the Driver Table and the Driver Column to serve as the source of your Driver Data.

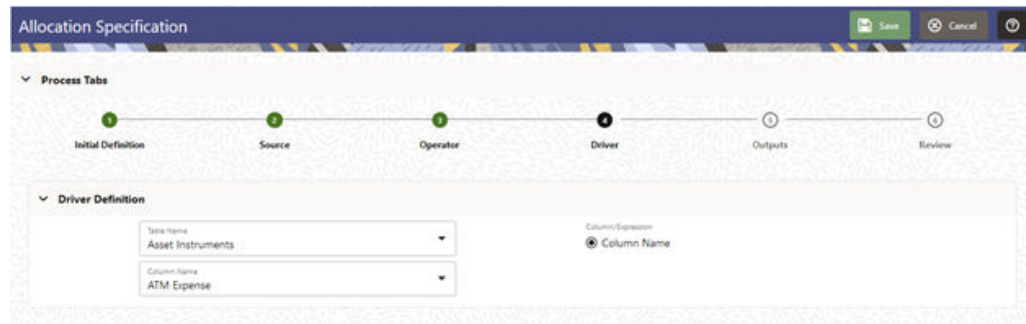
The Leaf Driver Pane is only displayed for the Leaf Allocation Type. This Pane is to be used to specify the Leaf Driver Dimension and the Leaf Value of the Dimension that you want to use. You can select the Leaf Value by invoking the Hierarchy Browser Widget.

This Hierarchy Browser is identical to the Source Process Tab Browser used in Leaf Mode.

**Figure 3-18 Financial Element Hierarchy Browser**

### 3.8.2.1.5.2 Field

For a Field Allocation Type, the Driver Process Tab displays the Driver Definition Pane that lets you choose the Driver Table and the Driver Column to serve as the source of your Driver Data.

**Figure 3-19 Driver Process Tab - Driver Definition**

### 3.8.2.1.5.3 Dynamic Driver

For a Dynamic Driver Allocation Type, the Driver Process Tab displays the Driver Definition Pane, the Distribution Type Pane, the Driver Dimension Container and Other Filters Pane.

#### 3.8.2.1.5.3.1 Driver Definition Pane

The Driver Definition Pane lets you choose the Driver Table and the Driver Column to serve as the source of your Driver Data.

**Figure 3-20 Driver Definition Pane**

#### 3.8.2.1.5.3.2 Distribution Type Pane

The Distribution Type Pane is displayed only for the Dynamic Driver Allocation Type. This Pane allows you to select the Simple, Percent Distribution, or Uniform Distribution Method for a Dynamic Driver Allocation. By default, the Distribution Type is selected as Percent Distribution.

**Figure 3-21 Distribution Driver Pane**

- Percent Distribution Method:** The most common distribution method is Percent Distribution (sometimes referred to as Force to 100%). The use cases include Expense Allocations as a function of a driver set that has not been normalized and is converted to percentages of the total Driver Set. For example, if you want to distribute some expense balance to Departments 1, 2, and 3, and if Departments 1, 2, and 3 have headcounts of 100, 200, and 700, you choose the Percent Distribution method to allocate 10% (100/1,000) to Department 1, 20% (200/1,000) to Department 2, and 70% (700/1,000) to Department 3.

- **Simple Method:** Use the Simple Distribution Method in cases where your Dynamic Drivers are stored as percentages. You might also use the Simple Distribution Method if your Allocation Source Data were activity counts and your Driver Data represented unit costs.
- **Uniform Method:** Use the Uniform Distribution Method in cases where you want to allocate equal shares of your Source Data for each destination in your driver set regardless of driver amount. Continuing with the above headcount example, you may want to allocate equal shares of 10% of the total Human Resource department expense to any department having a non-zero headcount. In this case, you need to use Human Resource department expenses as your allocation source, specify a Factor Operator of 10%, specify your “Headcount by Cost Center” statistic set as Driver, and select the Uniform Distribution Method. Statistical Driver Sets are frequently stored in the Management Ledger under user-defined Financial Elements.

### 3.8.2.1.5.3.3 Driver Dimension Container

The Driver Dimension Container is used to provide Dimensional Constraints on your Driver Data. For any dimension, you may constrain your source data by selecting a leaf member, a roll-up node member within a Hierarchy, or a Hierarchy Filter. As and when a placeholder KPD is registered, the registered KPD appears in the dimension list in the order of the dimension number.

The Driver Dimension Container is table that lists the OOTB and custom dimensions available for the rule follows:

**Figure 3-22 Driver Dimension Container**

Dimension	Mode	Sector	Refresh	Value	Description	Browser
Financial Element	Macro			ALL	ALL	Last Descendants Of
Organizational Unit	Macro			ALL	ALL	Last Descendants Of
General Ledger Account	Macro			ALL	ALL	Last Descendants Of
Common Chart of Accounts	Macro			ALL	ALL	Last Descendants Of
Product	Macro			ALL	ALL	Last Descendants Of
Legal Entity	Macro			ALL	ALL	Last Descendants Of
KPD_01	Macro			ALL	ALL	Last Descendants Of
Scenario				Use Application prefe...	Use Application preferences	
Currency				ALL	ALL	

The Dimension Container starts with the Dimension Type radio button selection that displays the active, passive or all dimensions available for the allocation rule, through the options of Active, Passive and All respectively.

A Passive dimension is a dimension that the user has not applied any constraint to, and it comes with default Mode of ‘Macro’ and default Value as ‘ALL’.

Similarly, on the other hand, an Active dimension is a dimension that the user has applied a constraint to, and its Mode is not ‘Macro’ and Value is not ‘ALL’.

The Dimension column holds the Key Processing Dimensions for the Driver Definition.

The separation of dimensions into shorter Active and Passive list was introduced to solve the problem of a long list of dimensions to choose from while in Edit mode. The dimensions list would be long when all the placeholder KPDs are registered, and user would need to search through the list to find the KPD he/she wants to apply constraint to.

In New mode, the Dimension Type radio button is defaulted as All while the other buttons are disabled.

In Edit mode, the Dimension Type is defaulted as Active and only the dimensions for which a constraint has been applied, is displayed under the Active set. All the dimensions for which a constraint has not been applied, is shown in the Passive set which can be viewed through changing the radio button to Passive. User can apply constraint to any dimension in the Passive set and the dimension comes to the Active set, that can be observed by changing the radio button to get the current Active set. In Edit mode, the All option is disabled.

In View mode, the allocation UI defaults to Active, and the user can toggle between the two sets of Active and passive to view the constraint applied or not applied dimensions.

#### 3.8.2.1.5.3.3.1 Mode Selection for a Dimension

The **Selector** is used for the Node mode and the Hierarchy Filter mode where selection of the Hierarchy is essential before selecting the node member or the hierarchy filter.

The **Refresh** button can be alternatively used to refresh and load the members in the Value column dropdown if the user faces performance issues with normal operation.

The **Value** column displays the value of a Macro, Leaf Member, Node Member, or a Hierarchy Filter. The Member/Filter Value appears as Member Name, Hyphen, and Member ID. You can choose a value from the list of values (that are essentially members and filters) in the Value drop-down, or can type-ahead the required member/filter in the Value text box. This free text type-ahead feature comes with Autosuggestion that creates a Dynamic List of values in the drop-down, matching the user input string. If the type-ahead string does not match with a value from the drop-down list, the string will not be accepted.

The **Description** column displays the description of the member/filter selected in the Value column. The description includes information on the Dimension and the Folder where the hierarchy is stored, the level of the Member in the Hierarchy, the Member Name, and the Member ID.

Next comes the column that hosts the Hierarchy Browser Widget, clicking on which invokes the **Hierarchy Browser**. The Hierarchy Browser functionality differs across the various modes of constraint selection. This is discussed in detail in the following section. The last column, Hierarchy Member Filter Method is also discussed in the next section, along with the Hierarchy Browser.

**Driver Scenario:** For Dynamic Driver Allocation Rules that obtain their driver data from the Management Ledger-level, you must also select a Driver scenario. The default for new Allocation Rules is <Use Application Preferences>. When you use this default value, the Scenario (also called Consolidation Code) is determined by the value that is set in Application Preferences for Profitability Management for the user who is running the rule. If you do not select <Use Application Preferences>, you must select a defined dimension member value (for example, Actual, Budget, Forecast, Forecast Prior). These values are provided with the data model, but you may add additional dimension members in the Consolidation Code dimension.



#### 3.8.2.1.5.3.4 Hierarchy Browser on the Driver Tab

We have learnt from the previous section how to define Dimension Constraints through user inputs, either through selection from drop-down or through free text type-ahead. The other way of Constraint Application is through the Hierarchy Browser.

The Hierarchy Browser Widget is enabled for the two modes of Leaf and Node. The widget is disabled for the Macro Mode and the Hierarchy Filter Mode.

To select a Constraint, click on the Hierarchy Browser icon in the column adjacent to the Description Column in the Source Dimension Container Table, next to the Dimension you wish to constrain.

##### 3.8.2.1.5.3.4.1 Hierarchy Browser for Leaf Mode

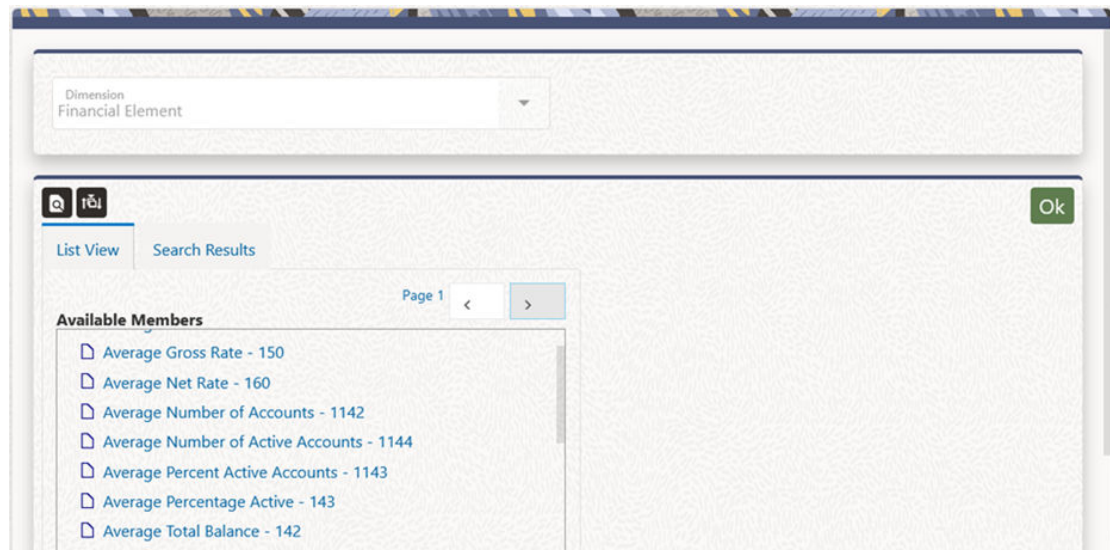
When in Leaf Mode, the Browser opens to show the List view of all the Leaf Members available for the selected Dimension, in the List View Tab. The Members appear as Member Name, Hyphen, and Member ID. You can select a single Leaf Member by directly clicking on the Member.

The browser has only two action buttons – Search and Sort. User can search by clicking the Search icon and auto wild card search with search criteria as 'contains' is applied on the Member ID and the Member Name that tries to match with the user input string in the search box. The Search results are displayed in the Search Results Tab.

The Sort function helps to sort the Members in alphabetical order or Member Name. The ascending or the descending order of Sort action is as per user click and happens alternatively.

Alternate Member Selection: You can select a Leaf Member from the Search Results Tab from among the search results.

**Figure 3-23 Financial Element Hierarchy Browser**



##### 3.8.2.1.5.3.4.2 Hierarchy Browser for Node Mode

When in Node Mode, the Browser opens to show the Hierarchy View of the selected Dimension Hierarchy in the Hierarchy View Tab. The Hierarchy View displays the list of all the Node and Leaf Members for the Hierarchy. The Members appear as Member Name, Hyphen,



and Member ID. You can select a Single Node Member by directly clicking on the Member. The Leaf Members are disabled for user selection.

The browser has four action buttons – **Search**, **Sort**, **Expand All/Collapse All**, and **Focus/Unfocus**.

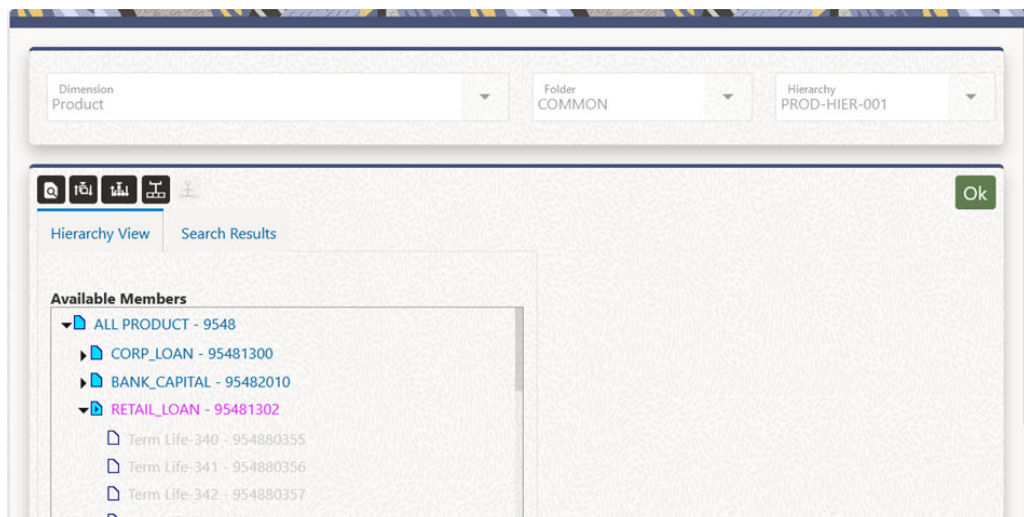
- **Search:** You can search by clicking the Search icon and auto wild card search with search criteria as 'contains' is applied on the Member ID and the Member Name that tries to match with the input string in the search box. The Search results are displayed in the Search Results Tab.
- **Sort:** The Sort function works on a selected Node that has Child Members under it. It sorts only the immediate-level Child Members (of the selected Node Member) into ascending or descending alphabetical order of Member Name. The ascending or the descending order of Sort action is as per user click and happens alternatively. The default Sort order of Members is as per the display order of Members in the Hierarchy Definition.
- **Expand-All/Collapse-All:** The Expand-All/Collapse-All function works on a selected Node that has Child Members under it. The function expands or collapses the selected Node until the level of the Leaf Members under the selected node.
- **Focus/Unfocus:** The Focus/Unfocus functions to focus a searched Member (from the Search Results Tab) into the Hierarchy View with the position of the Member in the Hierarchy. Focus is on the first user click on the icon, and the next click does an unfocus of the focussed member from the Hierarchy View back in the Search Results Tab.

The Hierarchy View Tab or the Search Results Tab gives a full Parentage Information, on mouse hover, of each of its members starting from the root node until the mouse-hovered Member.

Pagination is applicable only for a selected Node Member that has Children spanning across multiple pages. On mouse-click of such Member, a pagination capability is displayed on the top right corner of the Available Members box. User can navigate across pages to view Members displayed in other pages.

**Alternate Member Selection:** You can select a Node Member from the Search Results Tab from among the search results.

**Figure 3-24 Product Hierarchy Browser**



### 3.8.2.1.5.3.4.3 Hierarchy Member Filter Method

When the Driver Table is Management Ledger and the Allocation Type is either Static Driver or Dynamic Driver, you are provided with additional options to select a Hierarchy Member. You can select any of the four Hierarchy Members “Hierarchy Member Filter Method” from the following:

1. **Node Only:** Only the Node Member is selected in the filter.
2. **Last Descendants Of:** Only the Leaf Members of the Hierarchy rolling up to the selected node are selected in the filter.
3. **Descendants Of:** All the Descendant Nodes and leaves of the selected node in the hierarchy including the selected node itself are selected in the filter.
4. **Node and Descendants Of:** All the Descendant Nodes and leaves of the selected node in the hierarchy but excluding the selected node itself is selected.

This selection is applied at the per-Dimension Level of the Driver Dimensions, meaning you have the liberty to select the “Nodes Only” filter method for the General Ledger Dimension while applying a “Last Descendants Of” filter method on the Organization Unit Dimension.

The Data Loader service that loads the data from Staging to Management Ledger supports loading data to any kind of member in the Management Ledger – Leaf-Level Members or Node Level Members, rendering you to select any of the two kinds of a member from the UI.

### 3.8.2.1.5.3.5 Other Filters Pane

You may optionally select a Data Filter, a Group Filter, an Attribute Filter, or a combination filter between a ‘Data and Attribute Filter’ and a ‘Group and Attribute Filter’ to further constrain your Source Data.

**Figure 3-25 Other Filters Pane**



Data Filter or Data Element Filter is a stored rule that expresses a set of constraints on table columns. You can build a data filter on regular columns of instrument tables, management ledger tables, transaction summary tables, the portfolio table, or a lookup table or on any registered placeholder column.

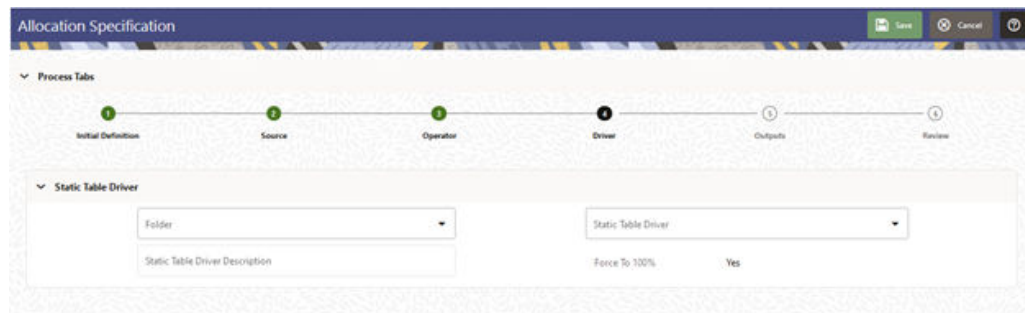
We can combine different data filters with a logical AND condition and we call this new filter as the Group Filter. A group filter applies the conditions of all the individual data filters, over the dataset it is applied on.

Attribute filters are used to filter records based on one or more dimension type Attributes. An attribute filter filters the records for which the dimension members satisfy the given attribute conditions.

A Hierarchy filter can be used to filter members from a dimension hierarchy. Applying this filter, it filters the records that contain the members specified in the hierarchy filter.

### 3.8.2.1.5.4 Static Table Driver

For a Static Driver Table Allocation Type, the Driver Process Tab displays the Folder to select your Static Table Driver Rule. By default, the Distribution Type of the Static Table Driver is set to Force to 100%.

**Figure 3-26 Driver Process Tab - Static Table Driver Pane**

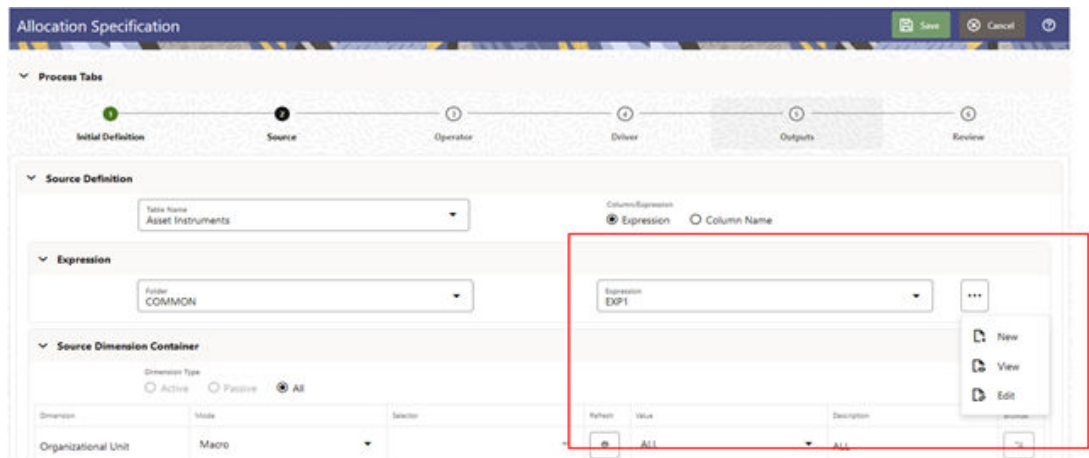
After you have chosen a Static Table Driver Rule, a View control is added to the Static Table Driver Title Bar. Click the **View Control** to view a read-only version of the Static Table Driver Rule you have chosen.

### 3.8.2.1.5.5 Embedded Objects in Source and Driver

In an allocation rule, there are a number of embedded objects that are used, namely filters, expressions and table drivers. The Allocation Specification Detail screen provides view, edit and create option for these embedded objects. This means, the user does not need to navigate to the embedded object detail screen from LHS menu for viewing, editing or creating an object to be used for an allocation rule, but can open the object detail screen in new/edit/view mode directly from the Allocation Specification Detail screen.

The embedded objects that can be opened in this manner from the Allocation Detail screen are:

- Data filters
- Attribute filters
- Group filters
- Expressions
- Satic Table drivers
- Lookup Table drivers

**Figure 3-27 New/Edit/View option for Expressions in an Allocation Rule**

Users will find a three dot meatballs menu icon adjacent to an embedded object dropdown, clicking which will display the options of New, View and Edit in a dropdown to choose from. User can select the required action to open the object detail screen in the selected mode.

### 3.8.2.1.6 Outputs Process Tab

The Outputs Process Tab allows you to specify where the outputs of an Allocation Rule are written. When the output generates to the Management Ledger Table, the allocation engine creates Management Ledger debits and/or credits. When the output generates to Instrument or Transaction Summary Tables, the Allocation Engine updates Target Columns.

Figure 3-28 Allocation Specification – Output Process Tab

The screenshot shows the 'Output Definition' interface. At the top, there are tabs for 'Debit' and 'Credit'. Below that, a 'Debit Definition' section is visible, containing a 'Table Name' dropdown set to 'Management Ledger' and a 'Column Name' dropdown set to 'Current\_Amount'. Below this is a 'Debit Dimension Container' section with radio buttons for 'Active', 'Passive', and 'All' (selected). A table lists various dimensions with their respective values and descriptions.

Dimension	Meta	Sector	Reflex	Value	Description	Browser
Financial Element	Macro			< Same As Source >	< Same As Source >	🔍
Organizational Unit	Macro			< Same As Source >	< Same As Source >	🔍
General Ledger Account	Macro			< Same As Source >	< Same As Source >	🔍
Common Chart of Accounts	Macro			< Same As Source >	< Same As Source >	🔍
Product	Macro			< Same As Source >	< Same As Source >	🔍
Legal Entity	Macro			< Same As Source >	< Same As Source >	🔍
KPO_01	Macro			< Same As Source >	< Same As Source >	🔍
Scenario				Use Application prefer...	Use Application preferences	
Currency				Functional Currency	Functional Currency	

### 3.8.2.1.6.1 Source-Driver Relationship Pane

The Source-Driver Relationship Pane appears in the Outputs Tab only when the Allocation Type is set as Leaf Allocation in the Initial Definition Tab.

Figure 3-29 Outputs Process Tab - Source-Driver Relationship

The screenshot shows the 'Process Tabs' section with a flow diagram: Initial Definition (1) → Source (2) → Operator (3) → Driver (4) → Outputs (5) → Review (6). Below this is the 'Source-Driver Relationship' pane, which has a 'Rows to Include' dropdown menu. The menu is open, showing options: 'Include All Rows', 'Include Rows Found Only in Source', 'Include Rows Found Only in Driver', and 'Include Only Rows Found in Both Source & Driver'. Below the menu is the 'Debit Definition' section, partially visible.

The following options are available:

- **Include All Rows:** When you select this option, the output includes all the rows that are available in both Driver and Source.
- **Include Rows Found Only in Source:** When you select this option, the output includes the rows that are available only in Source.

- **Include Rows Found Only in Driver:** When you select this option, the output includes the rows that are available only in Driver.
- **Include Only Rows Found in Both Source & Driver:** When you select this option, the output fetches the rows from both Source and Driver based on defined condition(s).

### 3.8.2.1.6.2 Output Definition

The Output Definition Tab is divided under two Tabs – the Debit and Credit tabs. The Debit Tab and the Credit Tab are similar in design and contain the Debit or Credit Definition Pane and the Debit/Credit Dimension Container.

Within the Outputs Process Tab, the Debit/Credit tabs allow you to navigate back and forth between a rule's Debit Definition and its Credit Definition. You may also use the Debit/Credit Tabs to suppress the output of either Debits or Credits, but you may not suppress the output of both Debits and Credits.

#### 3.8.2.1.6.2.1 Debit/Credit Definition Pane

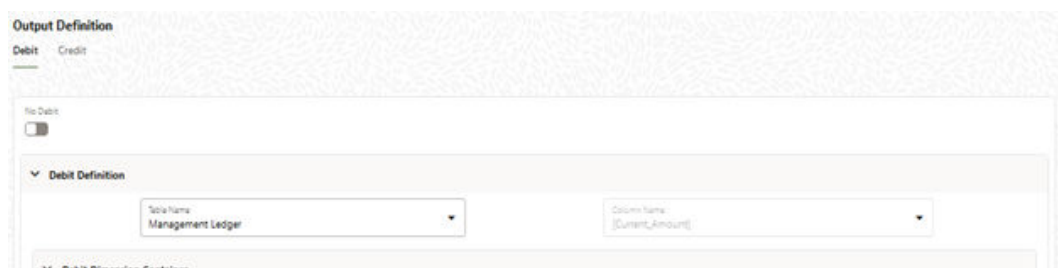
The Debit/Credit Definition is Pane allows you to input the Output Table and/or the Output Column.

- **When Output is Management Ledger-level:** When posting Allocation Results to the Management Ledger-level, the Profitability Management Allocation Engine generates a balanced accounting transaction consisting of multiple debits and credits. One debit or credit is generated, or you may generate thousands of debits and credits. When the output table is Management Ledger, Hierarchy Node Members can be selected in Output [Debit and Credit] tabs only for Static Driver and Dynamic Driver Allocation Types. Other allocation Types do not support Hierarchy Node Member Selection in Output.

#### Note:

For more information on usage of node member outputs in Allocation Rules, see the [Hierarchy Member Filter Methods](#) section.

**Figure 3-30 Debit Definition Pane when Output table is Management Ledger**



- **When the Output Table is Instrument Level:** When using an Allocation Rule to update an Instrument or Transaction Summary Table, the Profitability Management Allocation Engine updates your chosen output column for each Instrument-Level Account found in your Source and for which a matching Driver is found. When the output is generated to the Instrument or Transaction Summary Tables, you may choose to either Replace or Increment your Target Column Values. The default behavior for Allocation Rules built is Replace.

**Figure 3-31 Debit Definition Pane when Output table is Instrument**

Output Table and Output Column Specification: To specify the output table and column for the Allocation Rule, use the following rules:

- You may only output to < Current Amount > when posting allocation results to the Management Ledger-level.
- For Constant and Leaf type rules, you may only output to the Management Ledger-level.
- For Field type rules, you may only output to an Instrument or Transaction Summary Table.

#### 3.8.2.1.6.2.2 Aggregate to Ledger

For Allocation Rules that update an Instrument or Transaction Summary Table, you can aggregate your results and post them to the Management Ledger level.

For Allocation Rules that update an Instrument or Transaction Summary Tables, you can aggregate your results and post them to the Management Ledger, or Ledger Stat Table. To do this, select the Aggregate to Ledger option as Yes and select Ledger Stat or Management Ledger from the Ledger Table Name drop-down list.

#### Note:

In Profitability Management Cloud Service, Lookup Driver Table Type Allocation Rules can send the output to the Management Ledger-level.

#### 3.8.2.1.6.2.3 Debit/Credit Dimension Container Pane

The Debit/Credit Dimension Container Pane is displayed for every Allocation Type.

The Dimension Container is used to provide dimensional constraints on your Output data. For any Dimension, you may constrain your Source Data by selecting a Leaf Member, a Roll-Up Member within a Hierarchy, or a Hierarchy Filter.

The Dimension Container includes a table that lists the Dimensions, and the Output Scenario as follows:



**Figure 3-32 Debit/Credit Dimension Container**

Dimension	Mode	Selector	Relation	Value	Description	Browser
Financial Element	Macro	▼	⊕	< Same As Source >	< Same As Source >	⊞
Organizational Unit	Macro	▼	⊕	< Same As Source >	< Same As Source >	⊞
General Ledger Account	Macro	▼	⊕	< Same As Source >	< Same As Source >	⊞
Common Chart of Accounts	Macro	▼	⊕	< Same As Source >	< Same As Source >	⊞
Product	Macro	▼	⊕	< Same As Source >	< Same As Source >	⊞
Legal Entity	Macro	▼	⊕	< Same As Source >	< Same As Source >	⊞
KPD_01	Macro	▼	⊕	< Same As Source >	< Same As Source >	⊞
Scenario				Use Application preferences		
Currency				Functional Currency	▼ Functional Currency	

The Dimension Container starts with the Dimension Type radio button selection that displays the active, passive or all dimensions available for the allocation rule, through the options of Active, Passive and All respectively.

A Passive dimension is a dimension that the user has not applied any constraint to, and it comes with default Mode of 'Macro' and default Value as 'Same as Source'.

Similarly, on the other hand, an Active dimension is a dimension that the user has applied a constraint to, and its Mode is not 'Macro' and Value is not 'Same as Source'.

The Dimension column holds the Key Processing Dimensions for the Output Definition.

The separation of dimensions into shorter Active and Passive list was introduced to solve the problem of a long list of dimensions to choose from while in Edit mode. The dimensions list would be long when all the placeholder KPDs are registered, and user would need to search through the list to find the KPD he wants to apply constraint to.

In New mode, the Dimension Type radio button is defaulted as All while the other buttons are disabled.

In Edit mode, the Dimension Type is defaulted as Active and only the dimensions for which a constraint has been applied, is displayed under the Active set. All the dimensions for which a constraint has not been applied, is shown in the Passive set which can be viewed through changing the radio button to Passive. User can apply constraint to any dimension in the Passive set and the dimension comes to the Active set, that can be observed by changing the radio button to get the current Active set. In Edit mode, the All option is disabled.

In View mode, the allocation UI defaults to Active, and the user can toggle between the two sets of Active and passive to view the constraint applied or not applied dimensions.

The design and operation on the fields in the Output Dimension Container is similar to the Source or Driver Dimension Container. For more information, see [Driver Dimension Container](#).



There is, however, some differences of Output Dimension Container in comparison to the Source or Driver Dimension Containers.

The Output Dimension Container table ends with the column hosting the Hierarchy Browser Widget. It does not contain the Hierarchy Member Filter Method Column.

The modes applicable to Output Dimension Container are – Macro, Leaf and Node. Hierarchy Filter mode is not applicable for Output. When the Output table is Management Ledger, the modes of Macro, Leaf, and Node are applicable. When the output table is not Management Ledger, only the modes of Macro and Leaf are applicable.

The default mode for all Dimensions is Macro and the default value for each Dimension is <Same As Source>. The other macros applicable to Output Dimensions are <Same As Driver>, <Match Source & Driver> and <Same As Table>.

You can choose a specific Dimension Member Value for any Dimension for both debits and credits for any Allocation Type.

**Output Scenario:** For Allocation Rules posting to the Management Ledger-level, you must select an Output Scenario. The default for new Allocation Rules is <Use Application Preferences>. When you use this default value, the Scenario (also called Consolidation Code) is determined by the value that is set in Application Preferences for Profitability Management Cloud Service for the user who is running the rule. If you do not select <Use Application Preferences>, you must select a defined Dimension Member Value (For example, Actual, Budget, Forecast, and Forecast Prior). These values are provided with the Data Model, but you may add additional Dimension Members in the Consolidation Code Dimension.

#### 3.8.2.1.6.2.4 Specific Leaf Value versus <Same as Source> Macro

For Allocation Rules posting to the Management Ledger-level, <Same as Source> for a particular Dimension means that for that Dimension, the values found in Source records are passed directly to Output records. For example, you might want to allocate 100% of the expenses from one department to a second department. In your original General Ledger data, expenses for the Source Cost Center can be posted under hundreds of different General Ledger accounts. In this example, you might specify your Credit Output (expense allocation offset) as follows:

- <Same as Source> for the Organizational Unit Dimension.
- <Same as Source> for the General Ledger Account Dimension.

In this way, your Allocation Rule generates a credit to the original department for every original expense balance. If the Source Department contained balances under 81 different General Ledger Accounts, the Allocation Rule would generate 81 Credit Records.

Specify your Debit Output as:

- Target Department (leaf value) for the Organizational Unit Dimension.
- Allocated Expense (leaf value) for the General Ledger Account Dimension.

In this example, Allocated Expense is a user-defined General Ledger Account. Define this Dimension Member in a reserved range of accounts for use in your Profitability Management model. Note that only one debit row is created in this scenario.

 **Note:**

When you choose to output to a specific Leaf Value, you may not output to a node value. The output generating to node values is not supported.

**Other Output Macros:** Other output macros include:

- <Same as Driver>
- <Match Source & Driver>
- <Same as Table>
- **Constant Allocation Type:** For Constant type Allocations, specify a target leaf value for each processing Dimension for both debit and credit. You may optionally suppress either the Debit or the Credit.
- **Static Driver Allocation Type:** For Static Driver Allocations, choose either a specific Dimension Member Value or the <Same as Source> macro for each processing Dimension.
- **Leaf Allocation Type:** For Leaf Allocations, choose either a specific Dimension Member value or the <Same as Source> macro for each processing Dimension.
- **Field Allocation Type:** For Field Allocations, choose either a specific Dimension Member Value or the <Same as Source> macro for each processing Dimension.
- **Dynamic Driver Allocation Type:** For Dynamic Driver Allocations, for each processing Dimensions choose either a specific Dimension member value or from the following:
  - <Same as Source>
  - <Same as Driver>
  - <Match Source & Driver>

At least one Dimension in either your Debit or Credit specification must be either <Same as Driver> or <Match Source & Driver>.

- **Same as Driver Macro:** The <Same as Driver> macro is used when you want your outputs to inherit values from your Driver Data. For example, building an Allocation Rule to distribute some kind of processing expense to branches using “Number of Checks Processed per Branch” as your driver statistic set. In this example, your statistics “drive” your processing expense to branches, therefore, you must specify <Same as Driver> in the Organizational Unit Dimension of your Debit definition. Since this is an expense allocation, you might want to construct a Credit definition using <Same as Source> in every Dimension.
- **Match Source & Driver Macro:** The <Match Source & Driver> macro is used when you want to distribute data to one Dimension while holding another Dimension constant. For example, you might want to build an Allocation Rule that allocates a Human Resource expense cost pool as a function of headcount, but that also allocates an Occupancy Expense cost pool as a function of square footage occupied. If your destinations are Cost Centers, then you can store your statistic sets – one for headcount and one for square footage – on a per Cost Center per Cost Pool basis. In this example, you would use <Match Source & Driver> on the Cost Pool dimension and <Same as Driver> on the Organizational Unit Dimension. This causes the rule engine to create two sets of Debits to Cost Centers:
  - Debits from the Human Resource expense Cost Pool using the headcount statistics.

- Debits from the Occupancy expense Cost Pool using the square footage occupied statistics.
- **Static Driver Table Allocation Type:** For Static Driver Table allocations, for each of the Processing Dimensions, choose either a specific Leaf Value or choose from the following:
  - <Same as Source>
  - <Same as Table>

When you choose <Same as Table> for a Dimension, you indicate the Allocation Engine that the rule to inherit its destination Dimension Member values from the Static Table Driver.

- **Lookup Driver Table Allocation Type:** For Lookup Driver Table Allocations, choose either a specific Leaf Value or the <Same as Source> macro for each processing Dimension.

### 3.8.2.1.7 Review Process Tab

The Review Process Tab displays a single-page, printable report of an Allocation Rule's specification.

The review tab shows the Dimension Values for source and debit/credit output.

**Figure 3-33 Allocation Specification Definition - Review Process Tab**

Process Tabs

1 Initial Definition 2 Source 3 Operator 4 Driver 5 Outputs 6 Review

Allocation Specification Definition

Rule Name:

Rule Description:

Folder: CDUMADN

Variable Rule No.:

Access Type: Read/Write

Allocation Type: Dynamic Driver

Source Definition

Source Management Ledger (Current,Amount)

Dimension	Value	Sector	Value	Description	Hierarchy Member Error Message
Financial Element	Macro		ALL	ALL	Last Descendants Of
Organizational Unit	Macro		ALL	ALL	Last Descendants Of
General Ledger Account	Macro		ALL	ALL	Last Descendants Of
Common Chart of Accounts	Macro		ALL	ALL	Last Descendants Of
Product	Macro		ALL	ALL	Last Descendants Of
Legal Entity	Macro		ALL	ALL	Last Descendants Of
KPO,DI	Macro		ALL	ALL	Last Descendants Of
Scenario			Use Application preferences	Use Application preferences	
Currency			ALL	ALL	

Other Filters

Filter Type: No Filter

Operator Definition

Factor Operator

Factor Type: None

Figure 3-34 Allocation Specification Definition - Review Process Tab

Allocation Operator

Arithmetic Operator

Driver Definition

Driver: Management Ledger (Current\_Amount)

Driver Dimension Container

Dimension	Mode	Selector	Value	Description	Hierarchy Member Filter Method
Financial Element	Macro		ALL	ALL	Last Descendants Of
Organizational Unit	Macro		ALL	ALL	Last Descendants Of
General Ledger Account	Macro		ALL	ALL	Last Descendants Of
Common Chart of Accounts	Macro		ALL	ALL	Last Descendants Of
Product	Macro		ALL	ALL	Last Descendants Of
Legal Entity	Macro		ALL	ALL	Last Descendants Of
KPD_01	Macro		ALL	ALL	Last Descendants Of
Scenario			Use Application preferences	Use Application preferences	
Currency			ALL	ALL	

Other Filters

Filter Type: No Filter

Output Definition

Debit Definition

Debit: Management Ledger (Current\_Amount)

Debit Dimension Container

Dimension	Mode	Selector	Value	Description
Financial Element	Macro		< Same As Source >	< Same As Source >
Organizational Unit	Macro		< Same As Source >	< Same As Source >
General Ledger Account	Macro		< Same As Source >	< Same As Source >
Common Chart of Accounts	Macro		< Same As Source >	< Same As Source >
Product	Macro		< Same As Source >	< Same As Source >
Legal Entity	Macro		< Same As Source >	< Same As Source >
KPD_01	Macro		< Same As Source >	< Same As Source >
Scenario			Use Application preferences	Use Application preferences
Currency			Functional Currency	Functional Currency

Figure 3-35 Allocation Specification Definition - Review Process Tab

KPD_01	Macro		< Same As Source >	< Same As Source >
Scenario			Use Application preferences	Use Application preferences
Currency			Functional Currency	Functional Currency

Credit Definition

Credit: Management Ledger (Current\_Amount)

Credit Dimension Container

Dimension	Mode	Selector	Value	Description
Financial Element	Macro		< Same As Source >	< Same As Source >
Organizational Unit	Macro		< Same As Source >	< Same As Source >
General Ledger Account	Macro		< Same As Source >	< Same As Source >
Common Chart of Accounts	Macro		< Same As Source >	< Same As Source >
Product	Macro		< Same As Source >	< Same As Source >
Legal Entity	Macro		< Same As Source >	< Same As Source >
KPD_01	Macro		< Same As Source >	< Same As Source >
Scenario			Use Application preferences	Use Application preferences
Currency			Functional Currency	Functional Currency

## 3.8.3 Allocation Examples

The Static Driver Allocation Rules are explained in the following sections:

- [From Management Ledger to Management Ledger](#)
- [From Instrument to Management Ledger](#)
- [From Instrument to Instrument](#)
- [From Transaction Summary to Management Ledger](#)
- [From Transaction Summary to Instrument](#)
- [From Transaction Summary to Transaction Summary](#)
- [Examples of Leaf Allocations](#)
- [Examples of Field Allocations](#)
- [Examples of Dynamic Allocations](#)
- [Aggregation to the Management Ledger](#)
- [Instrument to Instrument](#)
- [Management Ledger to Instrument](#)

### 3.8.3.1 From Management Ledger to Management Ledger

For Static Driver Allocation Rules, Management Ledger-to-Management Ledger is a common use case. Allocate 15% of the occupancy expense from one Cost Center to another Cost Center. In this example, the Static Driver is 15%.

Create a cost pool by aggregating 25% of the expense found under a select group of General Ledger accounts for a Region or a Division or a Department, or a single Cost Center. In this kind of aggregation, the static driver is 25%.

Transfer 100% of loan assets from all loan origination centers within a region to a regional holding center. In this example, the static driver is 1.

#### Note:

While such allocations are relatively common when you have a series of such allocations utilize Static Driver Table Rules. Using a Static Driver Table Rule, you can accomplish with a single Rule what might otherwise require dozens or even hundreds of Static Driver Allocation Rules.

### 3.8.3.2 From Instrument to Management Ledger

The Instrument-to-Management Ledger is a very common use case. Such allocations are inherently aggregative, that is multiple rows from the instrument source map to each row posted to the Management Ledger.

You may aggregate your instrument-level principal balances (current book balances) to the Management Ledger to either enrich your ledger with a dimensionality that is present in your Instrument Data but not present in your initial Financial Accounting Data. For example, General Ledgers normally have more constrained dimensionality

than is available in your Instrument Data. Each row of your Instrument Data may designate an owning Cost Center, a General Ledger corresponding to the Instrument's principal balance, its Product, its Customer Segment, and so on. Your General Ledger, however, may only have Dimensions corresponding to Cost Center and GL Account. In this case, although the Management Ledger Table includes columns for Product and Customer Segment, every row from your source General Ledger System populates a single value for these Dimensions as Not Applicable or N/A.

The following example demonstrates how to use a Static Driver Allocation Rule to reclassify the Management Ledger Data using Data from the Liability Instrument Table. Build a Static Driver Allocation Rule as follows:

1. Set the Source to Current Par Balance for the Liability Instrument Table.
2. Set the Allocation Operator to multiply by 1.
3. Credit Management Ledger for Financial Element 100 (Ending Balance) using <Same as Source> for every Dimension.
4. Debit Management Ledger for Financial Element 100 (Ending Balance) using <Same as Source> for the GL Account and Organizational Unit Dimensions; set every other Key Processing Dimension to N/A.

 **Note:**

When allocating debit balances, you must post them using the Debit Output Tab; offsets to these debits should be posted using the Credit Output Tab. Conversely, when allocating credit balances, you must post them using the Credit Output Tab; offsets to these credits should be posted using the Debit Output Tab.

This allocation effectively eliminates your original balances and replaces them with “enriched” data which is the data that is aligned to the Product and Customer Segment, Organizational Unit, and General Ledger Account. For more information about the aggregation rule, especially, when there are any variances between the sum of your Instrument Level Balances and your initial General Ledger Balances, see the Examples of Dynamic Allocations Section.

Another general use case for aggregating Instrument-level Data to the Management Ledger concerns is summarizing Funds Transfer Pricing results. An example of the Liability Instrument table is as follows:

5. Set the Source to Transfer Pricing Charge/Credit for the Liability Instrument Table.
6. Set the Allocation Operator to multiply by 1.
7. Credit Management Ledger for Financial Element 450 (Transfer Pricing Charge/Credit) using <Same as Source> for every dimension.
8. Debit Management Ledger for Financial Element 450 (Transfer Pricing Charge/Credit) using <Same as Source> for every dimension except for Organizational Unit; for the Organizational Unit dimension, post to the Funding Center.

Here, the Funding Center is a Shadow Cost Center established to house all the transfer pricing offsets. The Funding Center acts as an interest rate risk management center. For a typical bank whose weighted asset duration exceeds its weighted liability duration, the Funding Center is usually a profit center (at least in a normal upward sloping yield curve environment).

### 3.8.3.3 From Instrument to Instrument

Instrument-to-Instrument is a common use case.

- For each Instrument, calculate and update a Target Column as a fixed relationship to some other column. For example, calculate a loan loss reserve as a fixed percentage of the current balance of each mortgage loan.
- For each Instrument, calculate a rate times a balance and multiply it by an accrual basis factor and divide it by 100 to update a revenue or expense column. This allocation uses Expression as a Source where the expression contained a Rate Time Balance Calculation. The Static Driver would consist of (1) an accrual basis macro and (2) and factor of 0.01.

### 3.8.3.4 From Transaction Summary to Management Ledger

Transaction Summary-to-Management Ledger is a common use case.

- Aggregate Transaction Summary level costs to the Management Ledger; post results to a user-defined Financial Element.

### 3.8.3.5 From Transaction Summary to Instrument

Transaction Summary-to-Instrument is a common use case.

Aggregate Transaction Summary level costs to an associated Instrument Table Column. For example, you may record activity level volumes and costs in your Liability Transaction Summary Table. You may want to aggregate a group of ATM-related activities such as ATM Withdrawal Expense, ATM Inquiry Expense, ATM Transfer Expense, ATM Deposit Expense, and Other ATM Expense to an Instrument Column in the Liability Instrument Table called ATM Expense.

### 3.8.3.6 From Transaction Summary to Transaction Summary

Transaction Summary-to-Transaction Summary is an infrequent use case.

- Multiply Liability Transaction Summary volumes by a fixed unit cost and post the result to Liability Transaction Summary costs.
- Another reason that Transaction Summary-to-Transaction Summary is an infrequent use case is that customers often have unit cost data for their activities that allow them to multiply their Volumes times Unit Costs to populate the both the Volume & Cost columns within their ETL that is used to initially load Transaction Summary tables.
- Because Transaction Summary Tables commonly store activity volumes, you are more likely to build this kind of rule using Static Table Driver Rules that contain unit costs for many activities. To complete your Volume \* Unit Cost process, one Static Driver Table Allocation Rule could take the place of dozens or hundreds of Static Driver Allocation Rules.

### 3.8.3.7 Examples of Leaf Allocations

Leaf Allocations only support the Management Ledger-to-Management Ledger use case. Leaf Allocations are used to compare a Source set of Management Ledger



Balances to a Driver set of Management Ledger balances to create an Output set of Management Ledger Balances.

In this type of rule, the Allocation Engine attempts to match each Source row to a Driver row where the two rows share the same values for every Key Processing Dimension. For example, in an implementation in which there are seven Key Processing Dimensions, for each Source row, the Engine attempts to find a Driver row that matches the Source row in six dimensions, but which differs in one dimension. The one dimension in which Source and Driver rows must differ is the dimension chosen in the Driver as the “Leaf” dimension.

- **Example 1:** You divide a set of Management Ledger Transfer Pricing Charge/Credit balances (stored under Financial Element 450) by a set of Management Ledger Average Balances (stored under Financial Element 140) to generate a third set of Management Ledger Weighted Average Transfer Rates (stored under Financial Element 170). In this case, constrain your Source data to Financial Element 450; for your Driver, you specify Financial Element as your Leaf Dimension and you select Financial Element 140. For your output, choose a Financial Element of 170.
- **Example 2:** You subtract a set of “Aggregated Instrument Level Ending Balances” (stored under a user-defined Financial Element such as 10100) from a set of “original General Ledger ending balances” (stored under Financial Element 100) to generate a set of variances between your General Ledger data and your Instrument data. These variance records might be stored under a second user-defined Financial Element such as 20100.

### 3.8.3.8 Examples of Field Allocations

In the Instrument Table context, Field Allocations perform Arithmetic Operations on different columns within the same row of data. For example, you might use a Field Allocation Rule to multiply Instrument-level balance times a rate times an accrual basis factor to update a Rate-related income or expense column. Such an Allocation could update a single row or millions of rows depending on your filtering criteria.

In the Management Ledger context, Field Allocations are rarely used. When they are used, Field Allocations perform Arithmetic Operations on different columns within the same “logical” row of data. For example, to generate a result set of rows in the Management Ledger that represent changes in asset values from month-to-month, build a Field Allocation that used the < Current Amount > macro for all Management Ledger asset balances as your Source and that subtracted the < Last Month Amount > in the Driver. In this example, you would suppress the Credit output and write the Debit output to a user-defined Financial Element. If your Source Financial Element were 100 (Ending Balance), post your results to a user-defined Financial Element whose name was Month-Over-Month Change.

### 3.8.3.9 Examples of Dynamic Allocations

Management Ledger Reclassification Using Instrument Level Driver Data.

#### 3.8.3.9.1 Example #1

Commonly, General Ledger constitutes a starting point for building up Management Ledger. One way of enriching your Management Ledger is to exploit your Instrument level data to distribute balances to additional dimensions that are not present in your book-of-record General Ledger.

For this example, assume that your General Ledger Data is aligned in the Organizational Unit and GL Account Dimensions but is not aligned to the Product Dimension. For example:



- Your General Ledger records principal balances for Commercial Loans and Consumer Loans under 2 GL accounts for Branch 1 and Branch 2.
- Your Asset Instrument table contains thousands of loan records for the same 2 GL Accounts (Commercial Loans and Consumer Loans) for Branch 1 and Branch 2 for two different products.

**Table 3-12 Summary of the Balances for Example 1**

Table	GL Account	Branch	Product	Balance	# of Loans
Management Ledger	Commercial Loan	1	—	\$1,000	—
Management Ledger	Commercial Loan	2	—	\$2,000	—
Management Ledger	Consumer Loan	1	—	\$3,000	—
Management Ledger	Consumer Loan	2	—	\$4,000	—
Asset Instrument	Commercial Loan	1	Land	\$600	214
Asset Instrument	Commercial Loan	1	Construction	\$400	659
Asset Instrument	Commercial Loan	2	Land	\$1,400	814
Asset Instrument	Commercial Loan	2	Construction	\$600	907
Asset Instrument	Consumer Loan	1	Auto	\$2,100	273
Asset Instrument	Consumer Loan	1	Personal	\$900	622
Asset Instrument	Consumer Loan	2	Auto	\$2,600	861
Asset Instrument	Consumer Loan	2	Personal	\$1,400	590

Note that the Instrument balances and General Ledger balances reconcile perfectly. For example, the 214 Land loans and 659 Construction Loans under Branch 1 have balances totaling \$1,000 that reconcile with the General Ledger balance of \$1,000 for Commercial Loans under Branch 1.

To product align the Management Ledger:

1. Build a Dynamic Driver Allocation Rule where the Source filters on the Management Ledger for the < Current Amount > macro for the Asset branch of your GL Hierarchy for Financial Element 100 (Ending Balance). Instead of utilizing a Rollup Node to filter on assets, construct a Data Element Filter for the Commercial Loans and Consumer Loans GL accounts. For this reason, only the Financial Element constraint is truly required.
2. Set the Allocation Operator to Multiply.
3. Set the Dynamic Driver to utilize Current Par Balance from your Asset Instrument Table. Set the Driver's Distribution Type to Percent Distribution. No dimensional constraints or other filters are necessary.

4. Set the Credit Output to Management Ledger (Note: when posting outputs to Management Ledger, you must output to the < Current Amount > macro). Set < Same as Source > for each Key Processing Dimension.
5. Set the Debit Output to Management Ledger; use < Match Source & Driver > for the GL Account and Organizational Unit dimensions, < Match Driver > for the Product dimension, and < Same as Source > for all other Key Processing Dimensions.

Written in this fashion, the Allocation Rule will (1) generate credit records that exactly offset the original ledger (debit) balances and (2) aggregate the instrument ending balances on a per GL Account, per Organization Unit, per Product basis and post the results to Management Ledger.

**Table 3-13 Summary of the Management Ledger Rows before and after the Allocation Run**

Row Type	GL Account	Branch	Product	Balance
Initial Load	Commercial Loan	1	—	\$1,000
Initial Load	Commercial Loan	2	—	\$2,000
Initial Load	Consumer Loan	1	—	\$3,000
Initial Load	Consumer Loan	2	—	\$4,000
Credit	Commercial Loan	1	—	(\$1,000)
Credit	Commercial Loan	2	—	(\$2,000)
Credit	Consumer Loan	1	—	(\$3,000)
Credit	Consumer Loan	2	—	(\$4,000)
Debit	Commercial Loan	1	Land	\$600
Debit	Commercial Loan	1	Construction	\$400
Debit	Commercial Loan	2	Land	\$1,400
Debit	Commercial Loan	2	Construction	\$600
Debit	Consumer Loan	1	Auto	\$2,100
Debit	Consumer Loan	1	Personal	\$900
Debit	Consumer Loan	2	Auto	\$2,600
Debit	Consumer Loan	2	Personal	\$1,400

Note the following:

- The original Ledger balances are exactly offset by the Allocation's Credit Records.
- The Allocation Rule produces a balanced accounting transaction- a set of Debit and Credit records that sum to zero.
- The Allocation Rule's Debit records effectively “product align” the Management Ledger.

Also, note that it was not necessary to supply any kind of GL Account or Organizational Unit filter in the Allocation's Source specification. The reason that doing so is not strictly speaking required is that your rule is written to < Match Source & Driver > in the GL Account and Organizational Unit dimensions. Since only 2 GL Accounts (Commercial Loans and Consumer Loans) and 2 Organizational Units (Branch 1 and Branch 2) are found in the driver data (the instrument records), the Source is effectively constrained to these values even if you do not explicitly filter on them in the Source specification.

### 3.8.3.9.2 Example #2

The same results from Example #1 above can be obtained from a Static Driver Rule:

- Source = Instrument ending loan balances.
- Allocation Operator = “times 1.00”.
- Debit = < Same as Source > for all dimensions.
- Credit = < Same as Source > for Organization Unit and GL Account and N/A for Product.

**Table 3-14 Summary of the Instrument Data that does not reconcile to the General Ledger data**

Table	GL Account	Branch	Product	Balance	# of Loans
Management Ledger	Commercial Loan	1	—	\$1,000	—
Management Ledger	Commercial Loan	2	—	\$2,000	—
Management Ledger	Consumer Loan	1	—	\$3,000	—
Management Ledger	Consumer Loan	2	—	\$4,000	—
Asset Instrument	Commercial Loan	1	Land	\$603	214
Asset Instrument	Commercial Loan	1	Construction	\$399	659
Asset Instrument	Commercial Loan	2	Land	\$1,401	814
Asset Instrument	Commercial Loan	2	Construction	\$604	907
Asset Instrument	Consumer Loan	1	Auto	\$2,106	273
Asset Instrument	Consumer Loan	1	Personal	\$903	622
Asset Instrument	Consumer Loan	2	Auto	\$2,597	861
Asset Instrument	Consumer Loan	2	Personal	\$1,399	590

Note that total Commercial Loans under Branch #1 is now \$1,002 whereas the Ledger Balance is only 1,000. A simple Static Driver Allocation that aggregated these balances to the Management Ledger would create one credit record for \$1,002 and two debit records totaling \$1,002. This would leave a net “unaligned” balance of \$2. The Dynamic Driver Allocation, however, would still create a single credit record for Commercial Loans under Branch 1 in the Management Ledger for \$1,000; and it would still create two debit records for Commercial Loans under Branch 1 totaling \$1,000.

**Table 3-15 Summary of Data Dynamic Driver Allocation creates an Example #2**

Row Type	GL Account	Branch	Product	Balance
Initial Load	Commercial Loan	1	—	\$1,000
Initial Load	Commercial Loan	2	—	\$2,000
Initial Load	Consumer Loan	1	—	\$3,000
Initial Load	Consumer Loan	2	—	\$4,000

**Table 3-15 (Cont.) Summary of Data Dynamic Driver Allocation creates an Example #2**

Row Type	GL Account	Branch	Product	Balance
Credit	Commercial Loan	1	—	(\$1,000)
Credit	Commercial Loan	2	—	(\$2,000)
Credit	Consumer Loan	1	—	(\$3,000)
Credit	Consumer Loan	2	—	(\$4,000)
Debit	Commercial Loan	1	Land	\$601.80
Debit	Commercial Loan	1	Construction	\$398.20
Debit	Commercial Loan	2	Land	\$1,397.51
Debit	Commercial Loan	2	Construction	\$602.49
Debit	Consumer Loan	1	Auto	\$2,099.70
Debit	Consumer Loan	1	Personal	\$900.30
Debit	Consumer Loan	2	Auto	\$2,599.60
Debit	Consumer Loan	2	Personal	\$1,400.40

### 3.8.3.9.3 Management Ledger Allocations Using Statistics

The Management Ledger Allocation using statistics covers the following:

- Percent Distribution:** Examples #1 and #2 above utilize the Instrument-level statistics as Driver Data for rules whose Source is the Management Ledger and that generates an output to the Management Ledger. It is also possible to use the Management Ledger as a Source, the Management Ledger as the source of Driver data, and the Management Ledger as your output target. Two examples of percentage distribution are:
  - Distributing Human Resource expenses to Cost Centers as a function of (Management Ledger Resident) headcount statistics.
  - Distributing Occupancy expenses to Cost Centers as a function of (Management Ledger resident) square footage statistics (space occupied by the target Cost Centers).
- Uniform:** See the Uniform Method Section for an example of the Uniform allocation method.
- Simple:** Your Institution might obtain volumetric statistics for different kinds of activities either from your source systems or as memo accounts within your General Ledger. If you have such activity counts stored within your Management Ledger, you could build Allocation Rules to develop Cost Pools. Subsequently, build other rules to develop unit costs for each of your activities. For example, beyond general marketing expense, your Institution might track advertising expense for Time Deposits under a single General Ledger account and record “Number of CD’s Sold” for each Time Deposit product under a General Ledger memo account (likely stored in Management Ledger under Financial Element 10,000: Statistic). In this case, build a Dynamic Driver Allocation Rule that used the “Time Deposit Advertising Expense” GL Account as its Source. Divided by the “Number of CD’s Sold” on a Percent to Total basis, and that debited a new, user-defined Financial Element 10,100: CD Acquisition Unit Costs (for this Allocation, set your debit GL Account and Org Unit and all other Key Processing Dimension Values to a dummy value meaning of which was “N/A” or “Not Applicable”). In creating these unit costs, use instrument-level data to obtain your “Number of CD’s Sold” statistic. To accomplish this, your driver would look to the Record Count column (the Record Count column contains the number “1”) of the Time Deposit table (FSI-D-TERM-DEPOSITS). This would include

a Data Element Filter that isolated new accounts; and a Hierarchy Filter on the Product Dimension that included only the relevant Time Deposits Products.

Under either approach, your result set is a series of unit costs by Product for acquiring new CDs. In this example, we assumed that the only costs included in acquiring new Time Deposits were the advertising costs directly related to Time Deposit products. More realistically, you might first build a series of Allocation Rules that created a cost pool for this expense category; or you might have to build a more complex Source expression to capture all of the relevant costs dynamically. Moreover, your Institution might capture these unit costs within your General Ledger or might develop these costs in an external model. The following example demonstrates how to utilize unit costs using a Dynamic Driver Allocation Rule under the “Simple” method. Having acquired (or developed) your unit cost statistics, build a Dynamic Driver Allocation Rule as follows:

- **Source:** Record Count (1) from the Time Deposits Table.
- **Allocation Operator:** Multiplication.
- **Driver:** CD Acquisition Unit Costs under Financial Element 10,100 using the Simple Method.
- **Debit Outputs:** A user-defined Acquisition Costs column within the Time Deposits Table; set the Product Dimension to < Match Source & Driver >; set all other Key Processing Dimensions to < Same as Source >.
- **Credit Outputs:** None

Written in this fashion, the Allocation Engine reads each record, matches it to the appropriate unit cost for the record's Product, and updates the record with that appropriate unit cost.

**Note:**

You could set the Credit Output to the aggregate total allocated costs to offset the Management Ledger GL Account or Cost Pool containing the original costs.

In achieving the objective of distributing activity-based costs, it is not strictly necessary to either build cost pools or unit costs. You might be able to simply define your cost pool dynamically within an Allocation Rule and allocate those costs directly to your instruments on a Percent to Total basis using appropriate instrument-level drivers (in this example, number of new accounts).

One reason to take the more complicated path of developing unit costs is to be able to more readily report directly on those unit costs, or that you have obtained those unit costs from an independent cost study or an external Activity Based Costing Application.

You may decide that burdening new Time Deposits with their entire Acquisition Cost based on:

- In the month in which there were originated,
- The current month's advertising costs were not economically “fair” or realistic.

To develop unit costs reflecting the average of your YTD or “rolling 12” advertising expense; allocate not only to new accounts but to all Time Deposit accounts. Choosing

either of these methods complicates the task of reconciling your total account level profitability back to your General Ledger but choosing Economic allocation methods for allocating expenses to the account level is common.

#### 3.8.3.9.4 From Management Ledger to Instrument

As seen in Example #1 and Example #2 above, Dynamic Driver Allocation Rules can also update balance or rate columns at the Instrument level. The following example uses the Management Ledger as a Source while using an Instrument column as Driver to post to the Instrument level.

In this example, your objective is to distribute Item Processing expenses from your Management Ledger to individual Customer Account Records. If each of your individual Customer Account records for every demand Deposit Account carried a statistic called Number of Items Processed, that statistic would make an excellent Percent Distribution driver for item processing expense; your target column for such a rule would be a user-defined Instrument column called Item Processing Expense. For this rule, you would likely utilize < Match Driver > for each Key Processing Dimension in your Output. Note that Instrument-level allocations can only alter the target balance or rate column. Instrument level allocations cannot alter Key Processing Dimension Values; the Instrument-level Key Processing Dimensions can only be used as lookup keys. If you use either < Same as Source > or < Match Source & Driver > on one dimension, your rule is forced to exclude any Instrument rows that did not match your Management Ledger for the dimension in which you chose < Match Source & Driver >.

#### 3.8.3.9.5 Transaction Summary Tables

Each row within an Instrument Table describes a unique Customer Account or position at a point in time. Instrument rows are “wide” or “horizontal”, that is, they contain potentially hundreds of columns containing Attributes or Measures. By contrast, Transaction Summary Tables (each Instrument Table has a corresponding Transaction Summary Table) also describe unique Customer accounts or positions at a point in time, but they include one or more (meaningful) dimensions in their primary keys that are not populated in the corresponding Instrument Table. In this sense, Instrument Tables and Transaction Summary Tables have a parent-child relationship; each row in an Instrument Table may have one or more child rows in its corresponding Transaction Summary Table; parent and child records share the same business date and “account identifier” (ID-NUMBER), but the “child” records vary in the “differentiating” dimension or dimensions. Each child row in a Transaction Summary Table contains only two fact columns: Volume & Cost (you may, however, customize your Transaction Summary Tables). Unlike Instrument Tables, Transaction Summary Tables are “tall” or “vertical”.

Transaction Summary Tables as vertical expressions of Instrument Tables. Each numeric measure within an Instrument row could be expressed as a single row within a Transaction Summary Table. Used in this fashion, define a Transaction Summary Table to have the same primary key as its parent Instrument Table with the addition of one additional Key Processing Dimension called “Measure Name”. In this case, each member in the Measure Name dimension would correspond to a column in the parent instrument table. Note that Key Processing Dimensions are present in all the Business Fact Tables (Instrument Tables, Transaction Summary Tables, and the Management Ledger). When you actively utilize a Key Processing Dimension within a Transaction Summary Table, you typically do not “actively” use that dimension at the instrument level (that is, the value in the Instrument Table would be “N/A”). Although this is not how Transaction Summary Tables are intended to be used, it may help in understanding their structure.

Another way of conceptualizing Transaction Summary Tables is as follows. At the Instrument level, the value of General Ledger account for a given row is meant to express the principal balance General Ledger account for that row. When you aggregate all instrument-level current book balances, the resulting total balance should reconcile to your General Ledger principal balance. You may, however, want to reconcile balances other than simply principal balances. You might wish to reconcile average book balances, par balances, deferred balances, interest income or expense balances, accrued interest receivable or payable balances, or fee balances. To accomplish this, you might store all your balances in Instrument records but store selected balances in child Transaction Summary Tables under their respective General Ledger accounts that will reconcile back to your General Ledger.

**Table 3-16 Mortgage Instrument Record (hundreds of additional columns not depicted)**

Loan #	As-of-Date	GL Account	Book Balance	Par Balance	Interest Income	Fee Income
1	Jan 2011	Mortgages, Book Balance	100,000	99,734	713	14

**Table 3-17 Associated Transaction Summary Child Records for Selected Balance**

Loan #	As-of-Date	GL Account	Balance
1	Jan 2011	Mortgages, Book Balance	100,000
1	Jan 2011	Mortgages, Par Balance	99,734
1	Jan 2011	Mortgages, Interest Income	713
1	Jan 2011	Mortgages, Fee Income	14

These examples explain the basic structure of Transaction Summary Tables. The primary purpose of Transaction Summary Tables is to support bottom-up profitability models. For example, the “differentiator” between an Instrument Table and its child Transaction Summary Table might be a user-defined Key Processing Dimension called Transaction or Activity. If your source systems can provide account level volume statistics for different kinds of activities, you might develop unit costs for each activity to calculate account-level costs for each activity. For example, you can collect the following account level statistics (counts over time, typically over a month) from your source systems:

- ATM Inquiries
- ATM Withdrawals
- ATM Deposits
- ATM Transfers, In-Network
- ATM Transfers, Out of Network
- Other ATM Transactions



- Direct Deposits (Electronic)
- E-Banking Auto-transfers
- E-Banking Bill Pay
- E-Banking Transfers, In Network
- E-Banking Transfers, Out of Network
- Teller Inquiries
- Teller Withdrawals
- Teller Deposits
- Teller Transfers
- Checks Processed
- Overdrafts Processed
- Paper Statements Processed

You could store these volume and cost statistics using user-defined columns within the Liability Instrument table. The listing of such activities and costs might number in the dozens or even in the hundreds, and each activity would require its own extended Cost (typically populated in “rate times volume allocations” or directly via the ETL process). Moreover, when you have a large number of such activities, many activities might have a count of zero resulting in wasted storage in your instrument columns. Finally, if your list of activities changes over time, you would have to restructure how you use user-defined instrument table columns corresponding to activities & costs you no longer use.

Alternatively, you could store these volume & cost statistics in the Liability Transaction Summary Table utilizing a user-defined Key Processing Dimension called Activity to differentiate child records from parent records. The dimension members within the Activity dimension would correspond to your list of activities.

There are many other advantages to this Transaction Summary approach. First, since your Activity dimension would be a Key Processing Dimension, you could construct an Activity Hierarchy. The Activity Hierarchy might be useful in a reporting context, but more importantly, higher-level rollup points within your Activity Hierarchy are likely to be much more stable than individual activities (leaf members within the Activity dimension). For example, you may wish to construct an account-level profitability model for demand deposits in which you want to calculate and report on higher-level cost elements that have a channel orientation such as ATM Expense, Branch Expense, and E-Banking Expense. You might choose to store your volumes and compute your costs for each (leaf level) activity at the Transaction Summary level and then construct Instrument level columns for ATM Expense, Branch Expense, and E-Banking Expense. Using unit costs, you can construct Allocation Rules to compute your Transaction Summary level costs. Subsequently, you can use other Allocation Rules to roll up your Transaction Summary levels costs to target columns within your Instrument table that correspond to rollup points in your Activity Hierarchy.

Using this approach, you do not pay any storage penalty if many activities frequently have a zero count for any given account (you do not have wasted Instrument columns that have zero counts and zero costs, and Transaction Summary rows only exist for non-zero counts). Also, note that if you add new activities, you need only construct a new Activity member and update your Activity Hierarchy to indicate its rollup point. No further maintenance is required in either terms or your data model or your Allocation Rules.



### 3.8.3.9.6 Updating Transaction Summary Tables

To update a Transaction Summary Table with unit costs held in your Management Ledger, perform the following steps:

Construct an Allocation Rule that uses the Volume column of your Transaction Summary Table as its Source, that uses the Management Ledger statistics as your driver (using the Simple method), and that debits the Cost Column in your Transaction Summary Table. In the debit specification, use < Match Source & Driver > for the Activity dimension and < Same as Source > for every other Key Processing Dimension. The (Management Ledger resident) unit cost drivers are stored under a user-defined Financial Element (one unit cost for each Activity).

 **Note:**

For each Activity, you might have different unit costs for different products. If the statistics were stored under a single Financial Element, but varied by Activity and by Product, you can construct your cost to < Match Source & Driver > for both Activity and Product.

The sample list of Activities used in this discussion has a Channel orientation. You might wish to construct a smaller list of more fundamental Activities that vary by channel. For example, the list of activities presented above could be re-expressed as follows:

- Inquiries
- Debits Processed
- Credits Processed
- Other Transactions
- Reversals Processed
- Statements Processed

Under this smaller set of Activities, you could choose to store your unit costs in Management Ledger by Activity and by Channel (another user-defined Key Processing Dimension). In this scenario, you would define your Transaction Summary Table to utilize both Activity and Channel to differentiate it from its parent Instrument Table.

Note that this example uses a Dynamic Driver Allocation Rule to update the Transaction Summary Table. In this example and the examples of updates to Instrument Tables, you could also use Static Driver Table Allocation Rules. Even if your unit costs are the same from month-to-month, they generally need to be stored for every month in Management Ledger (although you can store your unit costs under a fixed month, for example, January, and then hard code your Allocation Rules to “always use the January balance”). For additional examples of using Static Driver Table Allocation Rules, see the [Static Table Drivers](#) section.

### 3.8.3.9.7 Updating Instrument Tables from Transaction Summary Tables

After you have run your Allocation Rule to update the Cost Column in the Transaction Summary Table, run other Allocation Rules to aggregate costs to the Instrument level. You need one Allocation Rule for each instrument-level target column, but each of

these aggregation allocations is structurally very similar. For example, to aggregate the costs associated with each of the ATM-related activity-based cost in your Transaction Summary Table, build a Static Driver Allocation Rule that uses the Transaction Summary Table's Cost Column as your Source, that multiplies by 1.00 in the Allocation Operator, and that debits the ATM Expense column in your target Instrument Table. The Source specification also utilizes the ATM Expense rollup point within your Activity Hierarchy. Each subsequent allocation would have the same structure but would vary its hierarchy rollup point filter in its Source specification and its Instrument Target column in its Debit specification.

Examples of Static Driver Table Allocations: For more information, see Using Static Table Drivers in [Static Table Drivers](#) section.

### 3.8.3.10 Aggregation to the Management Ledger

Allocation rules can be written to aggregate one column from an instrument table to the Management Ledger Table. Common aggregations include ending or average balances or interest income or transfer charges or credits to specific Financial Elements in the Management Ledger table. Frequently, there may also be other non-interest income or non-interest expense columns that you may want to aggregate to the Management Ledger Table. For any column to be aggregated, the operation is functionally identical for the Asset Instrument table and for the Liability Instrument table (as well as for any other instrument table).

### 3.8.3.11 Instrument to Instrument

Another common rule type performs column-wise calculations such as rate x balance x accrual basis factor that is again identical for different Instrument Tables.

### 3.8.3.12 Management Ledger to Instrument

Another common rule type allocates from Management Ledger to the Instrument Level.

## 3.9 Allocation Models

An Allocation Model consists of a list of individual allocation rules that can be executed as a single unit. This version of Profitability Management Cloud Service supports only the Standard type of Allocation Model construction.

- **Standard Model:** A Standard Allocation Model consists of a list of individual allocation rules that run sequentially and that can be executed as a single unit of work. Standard Allocation Models are useful to assemble a logical grouping of allocation rules into a single executable rule.
- **Circular Model:** A Circular Allocation Model is similar to a Standard Allocation Model, but includes two lists of allocation rules: a list of “circular” rules and a list of “sweep” rules. The list of circular rules executes first; generally, the circular list runs multiple times. Each rule within the circular list of rules runs sequentially. After the circular list has run one or more times, each of the sweep rules also runs sequentially, but the list of sweep rules only runs once.  
The primary purpose of the Circular Allocation Model is to process allocation scenarios in which the allocation rules can Source data that result from previous allocations and that send data back to Sources that had previously been eliminated. One common example of this kind of situation occurs in a center-to-center type of allocation rule that involves providers of shared services. For example, a block of allocation rules can be designed to push expenses from a series of providers of shared services such as IT, Finance, HR,

Payroll, Accounting, Treasury, and so on to a downstream series of direct support centers and profit centers. An issue that you can encounter here is that HR allocates most of its expense to direct support centers and to profit centers, but also allocates some of its expense to other providers of shared services such as Payroll or Accounting. These centers, in turn, might allocate some of their expense back to HR when the first allocation had already cleared all of the expenses from the HR center.

## 3.9.1 Summary Screen

To open the Summary page, from the LHS menu, select **Operations And Processes**, and select **Allocation Model**.

A summary page is displayed showing a set of Allocation Models. Using search criteria, you can control the set of Allocation Models that are displayed. When you Add, Edit, or View a rule, a detailed screen is displayed.

### 3.9.1.1 Navigation within the Summary Screen

When you navigate to the Allocation Model summary page, the Allocation Models stored within your current Default Folder are displayed in the summary table. The Allocation Model Specification summary page has two panes: Search and Allocation Model Specification.

**Figure 3-36 Allocation Model Summary Screen**

Name	Description	Folder	Created By	Creation Date	Access type	Status	Action
M_Rev_LE1	Allocation Model to bucket the revenue allocation rules.	COMMON	PFT_GAUSER	02/09/2022 07:25:53	Read/Write		...
M_OpEx_LE1	Allocation Model to bucket the operating expenses allocation rules.	COMMON	PFT_GAUSER	02/09/2022 07:24:29	Read/Write		...

The title bar of the summary page provides several actions for the user. They are:

- **Add:** Click Add icon to build a new Allocation model. The Add icon is disabled if any rows in the table are selected.
- **Multiple Delete:** Select one or more models in the table and then click the (-) icon at the top right of the summary page to delete more than one rule at the same time.
- **Refresh:** Click the Refresh icon to refresh the Summary Page.
- **Help:** Click Help icon to view the Allocation Model help.

The Allocation Model Summary can be divided under two sections – the Search section and the Summary table.

#### 3.9.1.1.1 Allocation Model Summary Table

This section presents a table containing all the Allocation models that meet your search criteria. The Allocation Model Summary Table displays the details of the already created Allocation Models.

**Figure 3-37 Allocation Model Summary Table**

<input type="checkbox"/>	Name	Description	Folder	Created By	Creation Date	Access type	Status	Action
<input type="checkbox"/>	M_Rev_1E1	Allocation Model to bucket the revenue allocation rules.	COMMON	PFT_QAUSER	02/09/2022 07:25:53	Read/Write		...
<input type="checkbox"/>	M_OpEx_1E1	Allocation Model to bucket the operating expenses allocation rules.	COMMON	PFT_QAUSER	02/09/2022 07:24:29	Read/Write		...

The Allocation Model Summary Table displays the following details:

- **Name:** Displays the Allocation model's short name. Hovering over an allocation model name displays the Allocation model's object\_code.
- **Description:** Displays the Allocation model's long name.
- **Folder:** Displays the folder in which the model has been created.
- **Created By:** Displays the name of the user who created the allocation model.
- **Creation Date:** Displays the date and time at which an Allocation model was created
- **Access Type:** Displays the "Read/Write" or "Read Only" property of an Allocation model. Only the creator of a rule may change its Access Type.
- **Status:** Before executing an Allocation Model for the first time, the Status is blank. After executing an Allocation Model, the appropriate status of the rule is displayed among Processing, Success or Failed.  
For a successful or a failed execution, the **Log Viewer** screen can be invoked by clicking on the status of a rule. The Log Viewer screen displays the logs/messages for the execution.
- **Action:** Displays the list of actions that can be performed on the model.

The Action column on Allocation Model Summary Page offers the following actions that allow you to perform different functions. The following actions are available for the Allocation Model.

- **View:** Click the View icon to view the contents of an Allocation model on a read-only basis as the user is launched into the Allocation Model Detail screen in view mode.
- **Edit:** Click the Edit icon to modify a previously saved Allocation model as the user is launched into the Allocation Model Detail screen in edit mode.
- **Run:** Click Run to execute the selected Allocation model. On click of Run, the Run Execution Parameters window opens up to show the process name being executed and take user input of run time parameters – the As of date and the legal Entity. The As-of-Date can be reset in the User Preferences for Profitability Management.
- **Save As:** Click on this option to create a copy of an existing Allocation model. The Save As pop-up window allows you to enter the Name, Description, Folder, and Access Type Details for the copy model.
- **Delete:** Click Delete to delete the models you have selected.

You may select or de-select all of the Allocation models in the summary table by clicking on the check box in the upper left-hand corner of the summary table directly to the left of the Name column header.

## 3.9.2 Detail Screen

Click on Add from the Title bar of Summary screen or Edit/View an allocation model from Summary to launch into the Allocation Model Detail screen.

### 3.9.2.1 Navigation within the Detail Screen

When you Add, Edit, or View an Allocation Model, the Allocation Model Definition Screen is displayed with the following panes:

- Allocation Model Details
- Allocation Model Type
- Allocation Model Container

**Figure 3-38 Allocation Model Definition Screen**

The screenshot shows the 'Allocation Model Definition Screen' with three main panes:

- Allocation Model Details:** Contains a 'Name' field with 'AllocationModel2', a 'Folder Name' dropdown menu set to 'COMMON', a 'Description' text area, and 'Access Type' radio buttons for 'Read Only' and 'Read/Write' (selected).
- Allocation Model Type:** Contains a 'Type' dropdown menu set to 'Standard'.
- Allocation Model Container:** Contains a table with columns 'Allocation Name', 'Folder', and 'Allocation Type'. It lists three entries: 'Dynamic1' (COMMON, Dynamic Driver), 'Dynamic2' (COMMON, Dynamic Driver), and 'Dynamic3' (COMMON, Dynamic Driver). There are 'Select Rule' and 'Delete' icons on the right.

### 3.9.2.2 Allocation Models Details Pane

The Allocation Model Details pane allows you to specify an allocation model's Name, Description, Folder and the Access Type.

**Figure 3-39 Allocation Model Details Pane**

This close-up screenshot shows the 'Allocation Model Details' pane with the following fields:

- Name:** AllocationModel2
- Folder Name:** COMMON
- Description:** (empty text area)
- Access Type:** Read/Write (selected)

### 3.9.2.3 Allocation Model Type Pane

The Allocation Model Type pane allows you to specify the type of the model you want to construct.

The appearance of the Allocation Model Type pane depends on whether you are building a Standard Model or a Circular Model.

- **Standard Model:** To construct a Standard Allocation Model, select Standard from the Model Type drop-down list box.
- **Circular Model:** To construct a Circular Allocation Model, select Circular from the Model Type drop-down list. By default the screen is launched with the allocation model type selected as 'Standard'.

**Figure 3-40 Allocation Model Type Pane-Standard is selected as default**



To build a Circular Model, the user needs to select the value as 'Circular' in the Allocation Model Type drop-down. The user then needs to specify the number of iterations or cycles the user wants the circular part of the Allocation Model to execute, in text field "Number of Cycles". The user needs to input positive integer values as the number of cycles.

There is however, a maximum limit set for the number of cycles the user can input.

**Maximum Circular Allocation Iterations:** To omit an infinite loop of allocation rules, Allocation Models are governed by an overall limit on the maximum number of iterations or cycles that can be run before the circular part of a model completes. This maximum number of iterations is set in the User Preferences for Profitability Management. For more information, see [User Preferences](#) document.

### 3.9.2.4 Allocation Model Container Pane

To construct a Standard Allocation Model, the Allocation Model Container pane allows a single list of allocation rules.

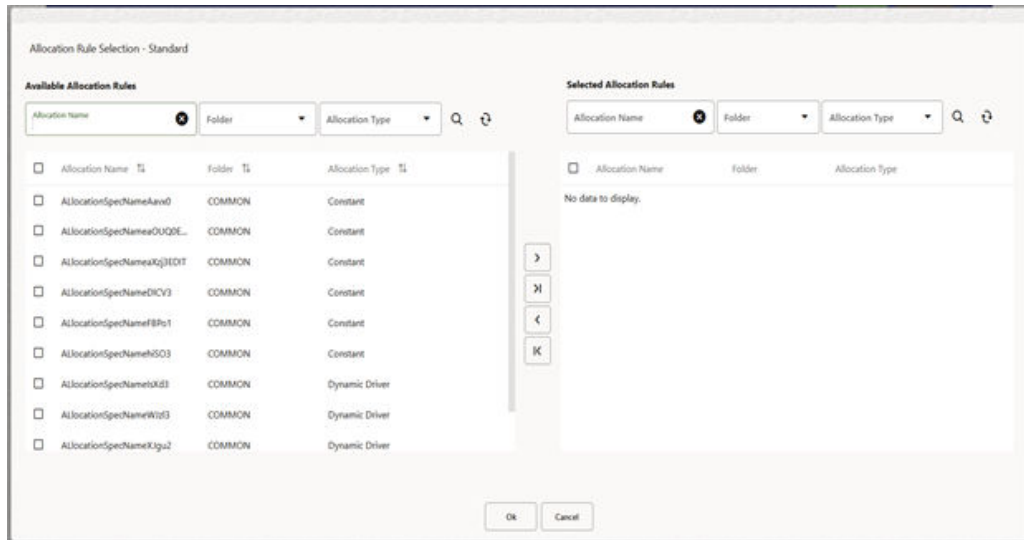
**Figure 3-41 Allocation Model Container Pane for Standard Allocation Model**



Click the **Select Rule** button or to open a pop-up window that lets you select the rules you want to include in your model. The pop-up opens into a shuttle-box element with the list of the

available Allocation Rules on the left hand side and the list of the selected Allocation Rules on the right hand side.

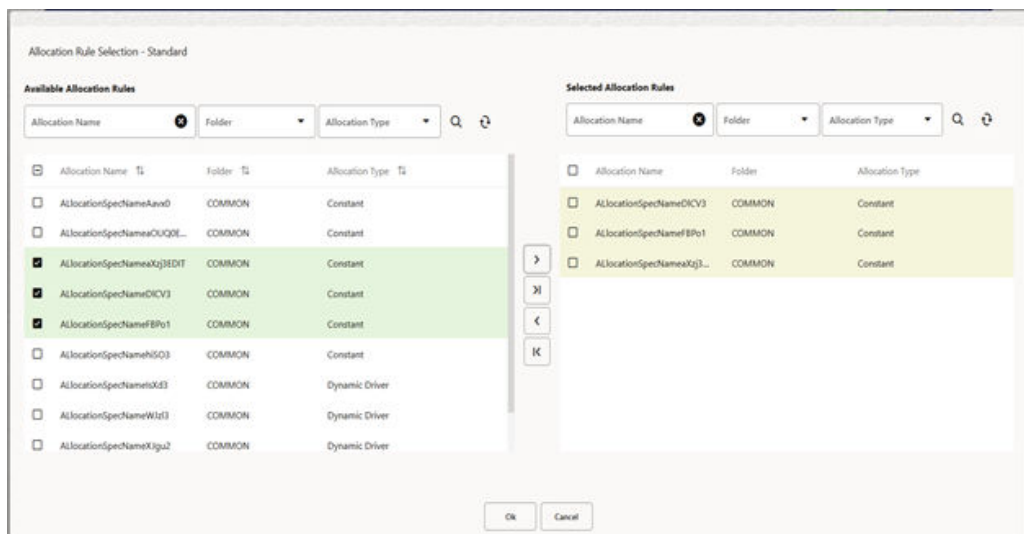
**Figure 3-42 Allocation Rule Selection**



The window has search capability in each of the available and the selected lists, and the search acts as a dynamic search on the list of rules that each list contains. Search capability is provided for Allocation rule name, the folder in which an allocation rule is defined and the Type of the allocation rule.

On launch of the window, the user is directed to the allocation name search field on the available list and the user can perform a search action on available rules to be selected and shuttled into the Selected list, or can directly choose the required available rules to be shuttled into the Selected list. The window gives a feature to shuttle the rules one by one or all at once by using one of the shuttling buttons available.

**Figure 3-43 Allocation Rule Selection**



Once the rules are selected, the user can press OK on the shuttle box window, and the Allocation Model Container section in the Detail screen is populated with the selected rules under this standard Allocation model.

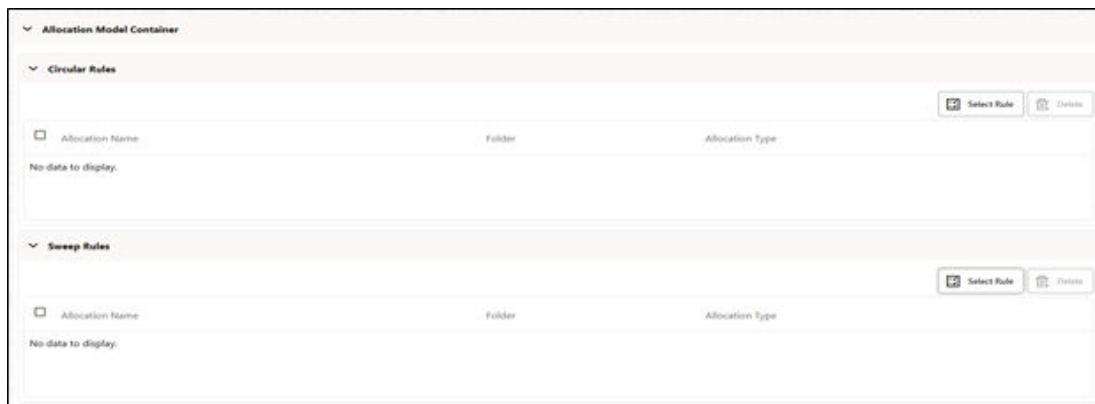
**Figure 3-44 Allocation Model Container (Standard) after Rules selection**



Allocation Name	Folder	Allocation Type
AllocationSpecNameXq3EDIT	COMMON	Constant
AllocationSpecNameDICV3	COMMON	Constant
AllocationSpecNameFBP01	COMMON	Constant

To construct a Circular Allocation Model, the Allocation Model Container pane allows two lists of Allocation Rules - the **Circular Rules** list and the **Sweep Rules** list. The selection operation of the rules in both these lists is the same as described above for rules selection in the Standard Allocation model. The **Select Rule** button opens up a pop-up window that lets the user select the rules for the model. The pop-up opens into a shuttle-box element with the list of the available Allocation Rules on the left hand side and the list of the selected Allocation Rules on the right hand side.

**Figure 3-45 Allocation Model Container for Circular Allocation Model**



Allocation Name	Folder	Allocation Type
No data to display.		

Allocation Name	Folder	Allocation Type
No data to display.		



**Figure 3-46 Allocation Model Container (Circular) after rules selection**

Allocation Model Container		
Circular Rules		
Allocation Name	Folder	Allocation Type
<input type="checkbox"/> Rule_Dyn_3	COMMON	500
<input type="checkbox"/> Rule_Dyn_4	COMMON	500
<input type="checkbox"/> Rule_Dyn_5	COMMON	500
Sweep Rules		
Allocation Name	Folder	Allocation Type
<input type="checkbox"/> AC_1	COMMON	400
<input type="checkbox"/> AC_2	COMMON	400

**Use Case of Circular Allocation Model:**

The general use case for Circular Allocation Models involves sequences of center-to-center rules where your objective is to transfer a series of expense balances in which each allocation rule allocates expense from one center to a series of target centers. In this scenario, it is very common to credit back to the source using <Same as Source> in your specification for each dimension within your allocation credit specification. In a shared service's context, centers that you have cleared of the expense become the targets of allocations that come later in a sequence of allocation rules. Often, each center allocates 100% of its original expense, but by the end of the series of shared services allocations, each center has some small expense balances that have been allocated back to it from other centers. The amount of expense that backwashes to centers that have already been cleared of the expense vary in the range of 1% to 10% of the expenses originally found in each center. For example, if the center in a series of such rules ends up with 10% of its original expense after the full sequence of rules runs one time; then after running the same sequence of rules a second time, the center has 1% of its original expense remaining. After two cycles, the center has 1/10th of 1% of its original expense remaining.

The Circular Allocation Model allows you to organize lists of allocation rules that you wish to run iteratively for multiple cycles to reduce to near zero balances that were originally present. After the remaining balances have reached an acceptable threshold, you can sweep the remaining balances from all sources with one or more additional rules that run only once.

## 3.10 Execution History

The Execution History screen displays the historical executions of Allocation Rules/Models and Management Ledger loads. The screen has two tabs – Allocation Execution History and Ledger Load History- to serve the purpose applicable to the two historical views.

The Allocation Execution History enables the user to view the rule definition and the inline reports at the time when an Allocation Rule was executed, and Undo the results of previously executed Allocation Rule.

The Ledger Load History enables the user to Undo the results of a Management Ledger Table load.

## 3.10.1 Allocation Execution History

Allocation Execution History allows you to review the runtime history of any Allocation Rule. You may see the order in which Allocation Rules are completed, you may Undo the results generated by any Allocation Rule, and you may drill into the details of individual allocation executions to audit what a rule did at the time that it ran.

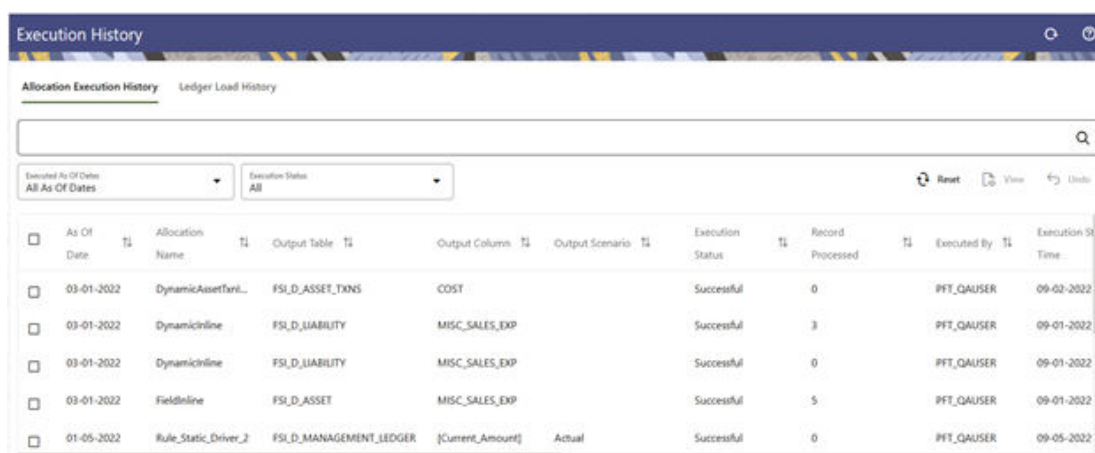
The Allocation Execution History screen presents a table that lists a series of allocation runs sorted by As-of-Date and by Execution End Time. You may sort on any column you choose by clicking on the column header upward/downward arrows, but the results are sorted first by As-of-Date and second by the column you have chosen.

## 3.10.2 Navigation in Allocation Execution History

When you first enter the Allocation Execution History screen, your results are shown for all As-of-Date values for which an allocation was run with the Executed As of Dates displaying value “All As of Dates”. You may select a different As-of-Date from a drop-down list as required.

With the ‘All As of Dates’ selected, the Allocation Execution History Table displays the Allocation Names sorted in descending order based on the As-of-Date and the Execution End Time.

**Figure 3-47 Allocation Execution History Screen**



The screenshot shows the 'Allocation Execution History' screen. At the top, there is a search bar and two dropdown menus: 'Executed As Of Dates' (set to 'All As Of Dates') and 'Execution Status' (set to 'All'). To the right of these are buttons for 'Reset', 'View', and 'Undo'. Below this is a table with the following columns: As Of Date, Allocation Name, Output Table, Output Column, Output Scenario, Execution Status, Record Processed, Executed By, and Execution Time. The table contains five rows of data.

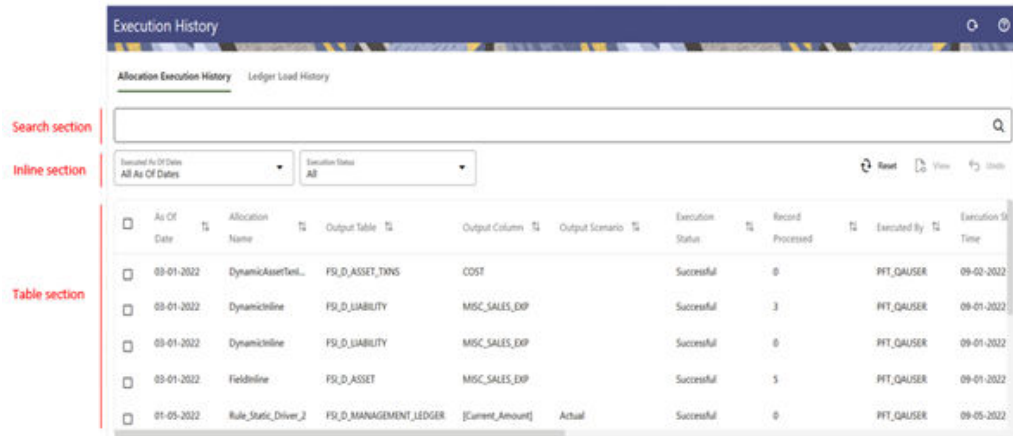
As Of Date	Allocation Name	Output Table	Output Column	Output Scenario	Execution Status	Record Processed	Executed By	Execution Time
03-01-2022	DynamicAssetTrn...	FSL_D_ASSET_TXNS	COST		Successful	0	PFT_GAUSER	09-02-2022
03-01-2022	DynamicInLine	FSL_D_LIABILITY	MISC_SALES_EXP		Successful	3	PFT_GAUSER	09-01-2022
03-01-2022	DynamicInLine	FSL_D_LIABILITY	MISC_SALES_EXP		Successful	0	PFT_GAUSER	09-01-2022
03-01-2022	FieldInLine	FSL_D_ASSET	MISC_SALES_EXP		Successful	5	PFT_GAUSER	09-01-2022
01-05-2022	Rule_Static_Driver_2	FSL_D_MANAGEMENT_LEDGER	[Current_Amount]	Actual	Successful	0	PFT_GAUSER	09-05-2022

The title bar of the Screen displays several actions for the user. They are:

- **Refresh:** Click Refresh to refresh the Allocation Execution History Page.
- **Help:** Click Help to view the Allocation Execution History Help Page.

The Allocation Execution History screen is divided in to three sections – the Search section, the Inline section, and the Table section.

**Figure 3-48 Allocation Execution History – Sections**



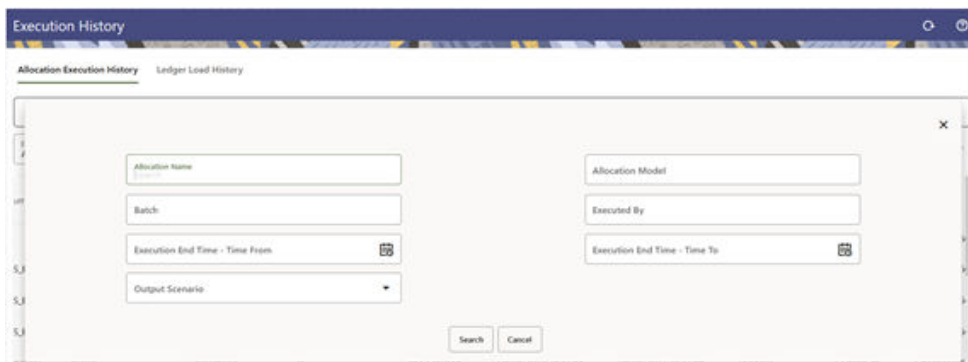
### 3.10.2.1 Search Section

The Search pane is used to specify the search criteria that will reduce the number of rule executions that gets displayed in the Allocation Execution History table.

To search the Allocation Rules, perform the following steps:

1. Click the **Search** icon on the Search Pane to display the Criteria Window.
2. Enter the **Allocation Rule Name**, **Allocation Model Name**, **Batch**, **Executed By**, **Execution End Time**, or the **Output Scenario** and click **Search** to display the Allocation Rules that match the criteria.
3. Click **Cancel** to remove the filter criteria on the Search Window and refresh the Window.
4. Click **Search** after entering the Search Criteria.

**Figure 3-49 Allocation Execution History – Criteria Window**



The screen displays the search results that meet the Search Criteria in a table containing all the Allocation Rules.

You may search based on the following parameters:

- **Allocation Name:** Performs a wild card search on Allocation Rule Name. You can execute the search when you select the Search button.
- **Allocation Model:** Performs a wild card search on Allocation Model Name under which different Allocation Rules are grouped together. You can execute the search when you select the Search button.
- **Batch:** Performs a wild card search on Batch Name. You can execute the search when you select the Search button.
- **Executed By:** Performs a wild card search on the logged-in username that has executed the rule when rule execution happened through Allocation Summary. While it performs a wild card search on the username that has been passed as a parameter in the batch when rule execution happened through batch method.
- **Execution End Time:** Restricts the number of rules displayed on the Allocation Execution History summary screen based on a user's specification of a single execution date and a no earlier than Execution End Time – Time From and a no later than Execution End Time – Time To. You can execute the search when you select the Search button.
- **Output Scenario:** Performs a wild card search on the Output scenario for any Allocation Rule. You can execute the search when you select the Search button.

### 3.10.2.2 Inline Section

The Inline section contains two additional filters as follows:

- Executed As-of-Dates with default value as 'All As of Dates'.
- Execution Status with default value as 'All'.

The following statuses occur when an Allocation Execution is initiated:

- **Processing:** Allocation Engine updates this status when rule execution is started.
- **Successful:** Allocation Engine updates this status when rule execution is successful.
- **Failed:** Allocation Engine updates this status when rule execution is failed.

An Undo operation on any Allocation Execution can lead to one of the following statuses:

- **Undo in Progress:** Undo engine updates this status when it picks up a record for Undo so that another process does not pick up the same record.
- **Undo Failed:** Undo engine updates this status when the Undo is failed.
- **Undo Rolled Back:** When one of the rules as part of a Batch or an Allocation Model, is processed for Undo and fails, the status of the rule is marked as 'Undo Failed'.

All the previous rules in the Batch/Model that were successfully processed for Undo before the point of failure, will be rolled back, and the status of those records will be updated as 'Undo Rolled Back'.

User can apply these two filters to select the execution rows he wants to see in the Allocation Execution History Table.

This section also offers several controls that allow the user to perform different functions when an Allocation Rule is selected. You can select multiple Allocation Rules at a time, but this may disable some of the icons.

The following are the controls in the Inline section:

- **Reset:** Resets the search criteria and also refreshes the Allocation Execution History table. 'Reset' applies to all fields under the Criteria Window but not to the Inline filters.
- **View:** On choosing a single row of the Allocation Execution History table, select View to drill into an audit trail for the currently selected rule. The View icon is disabled if no rows have been selected or if multiple rows have been selected. See the [Allocation Execution Audit Functionality](#) section for details.
- **Undo:** You can use this icon to UNDO or reverse one or more allocation runs. For details, see the [UNDO Functionality](#) section.

### 3.10.2.3 Table Section

The following columns categorize each Allocation Execution row in the table:

You can sort any of these columns by clicking on the text in the column header.

- **As of Date:** Displays the As-of-Date when the Allocation Rule was executed.
- **Allocation Name:** Displays the Allocation Rule's short name. A "mouse over" on the Rule's name displays the Rule's long description as well as the Identity Code generated or used by that allocation. You can use Identity Codes in queries against the database to identify rows generated by the rule.
- **Output Table:** This denotes the target table name in the database where the Allocation is either posted or updated records. For example, Management Ledger, Assets, and so on.
- **Output Column:** This denotes the target column name in the database where the Allocation is either posted or updated records.
- **Output Scenario:** This denotes the scenario value configured in the Output Configuration of the executed Allocation Rule.
- **Execution Status:** Denotes the status of each allocation execution. See the [Inline section](#) for more details.
- **Record Loaded:** Displays the record count of the Allocation Execution, meaning the count of inserts or updates that has taken place.
- **Executed By:** Displays the username that has executed the Allocation Rule.
- **Execution Start Time:** Displays the date and time at which each Allocation Rule has been started.
- **Execution End Time:** Displays the date and time at which each Allocation Rule is completed.
- **Execution Time:** Displays the elapsed time required for each Allocation Rule to complete, shown in hours, minutes & seconds.
- **Folder:** Displays the name of the Folder to which the Allocation Rule belongs.
- **Batch:** Displays the Batch name under which each Allocation Rule was executed. For rules executed directly from the Allocation Specification user interface, the system automatically generates synthetic batch names.
- **Allocation Model Name:** Displays the allocation model name under which the Allocation Rule is grouped. The Allocation Model consists of a list of individual Allocation Rules that can be executed as a single unit.

**Note:**

Allocation Model Name column remains blank for any Allocation Rule that was not executed from within an Allocation Model.

### 3.10.2.4 UNDO Functionality

For Allocations that insert data into the Management Ledger, an UNDO operation reverses the effect of that rule run by deleting the inserted rows.

**Figure 3-50 Allocation Execution History - Undo**

The screenshot shows the 'Allocation Execution History' interface. At the top, there are two tabs: 'Allocation Execution History' (selected) and 'Ledger Load History'. Below the tabs is a search bar. There are two dropdown menus: 'Executed As Of Date' (set to 'All As Of Dates') and 'Execution Status' (set to 'All'). To the right of these are buttons for 'Reset', 'View', and 'Undo' (highlighted with a red box). Below the filters is a table with the following columns: 'As Of Date', 'Allocation Name', 'Output Table', 'Output Column', 'Output Scenario', 'Execution Status', 'Record Processed', 'Executed By', and 'Execution Time'. The table contains three rows of data:

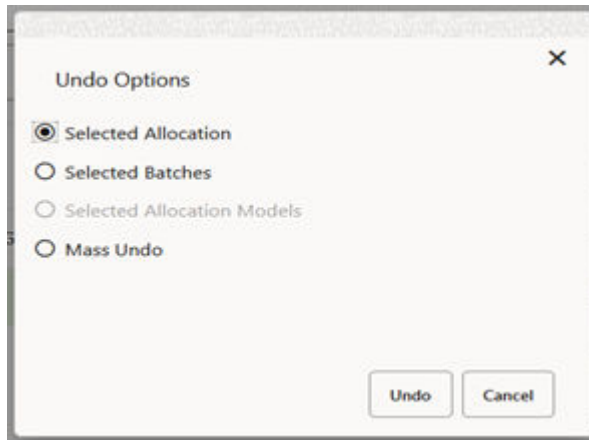
As Of Date	Allocation Name	Output Table	Output Column	Output Scenario	Execution Status	Record Processed	Executed By	Execution Time
12-31-2020	DynamicAssetTimeline	FSLD_AS...	COST		Successful	25	FFT_GAUZER	09-06-2022
12-31-2020	Rule Static Driver 58	FSLD_M...	{Current_Amount}	Actual	Successful	6	FFT_GAUZER	09-05-2022
12-31-2020	Rule Static Driver 58	FSI D LL...	ATM EXP		Successful	9	FFT_GAUZER	09-05-2022

For Allocations that update data in Instrument or Transaction Summary Tables, an UNDO operation reverses the effect of that rule run by updating the output column targeted by that Allocation Run with a value of zero.

UNDOING a rule effectively removes completed allocation data from your environment, thus your management may wish to restrict your access to UNDO functionality. For details on restricting action to UNDO functionality, see [User Preferences](#) section. The UNDO icon is enabled whenever you select one or more rows from the table. Upon requesting an UNDO operation, a pop-up dialog appears offering the following UNDO options:

- Selected Allocations
- Selected Batches
- Selected Allocation Models
- Mass UNDO

**Figure 3-51 Allocation Execution History - Undo Options**



- If you choose Selected Allocations, each row that you have selected from the table will be UNDONE. This functionality works only if the Enable Undo for Selected Allocations option in the User Preferences is set to Yes.
- If you choose Selected Batches, all rule executions that belong to any of the batches you have selected will be UNDONE. This functionality works only if the Enable Undo for Selected Batches option in the User Preferences is set to Yes.
- If you choose Selected Allocation Models, all rule executions that belong to any of the Allocation Models that you have selected will be UNDONE. This functionality works only if the Enable Undo for Selected Allocation Models option in the User Preferences is set to Yes.
- If you choose Mass UNDO, every rule execution whose Execution End Time (a time-stamp value) is chronologically later than the earliest row that you have selected from the table will be UNDONE. This functionality works only if the Enable Mass Undo option in the User Preferences is set to Yes.

### 3.10.2.5 Allocation Execution Audit Functionality

When we select a single row from the Allocation Execution History table and click the View icon, a series of screens are displayed in a separate window that shows the Allocation Rule as it appeared at the time the rule was executed.

**Figure 3-52 Allocation Execution History - View**

As Of Date	Allocation Name	Output Table	Output Column	Output Scenario	Execution Status	Record Processed	Executed By	Execution Start Time
12-31-2020	DynamicAssetTimeline	FSI_D_AS...	COST		Successful	25	PFT_GAUSER	09-06-2022
12-31-2020	Rule_Static_Driver_58	FSI_D_M...	[Current_Amount]	Actual	Successful	6	PFT_GAUSER	09-05-2022
12-31-2020	Rule Static Driver 58	FSI D LI...	ATM EXP		Successful	9	PFT_GAUSER	09-05-2022

### 3.10.2.5.1 Inline Reports

The Audit functionality provided within the Allocation Execution History includes inline reports for Sources, Drivers, and Outputs of Allocation Rules. These inline reports are described in detail in the following sections of Source Tab, Driver Tab and Output Tab.

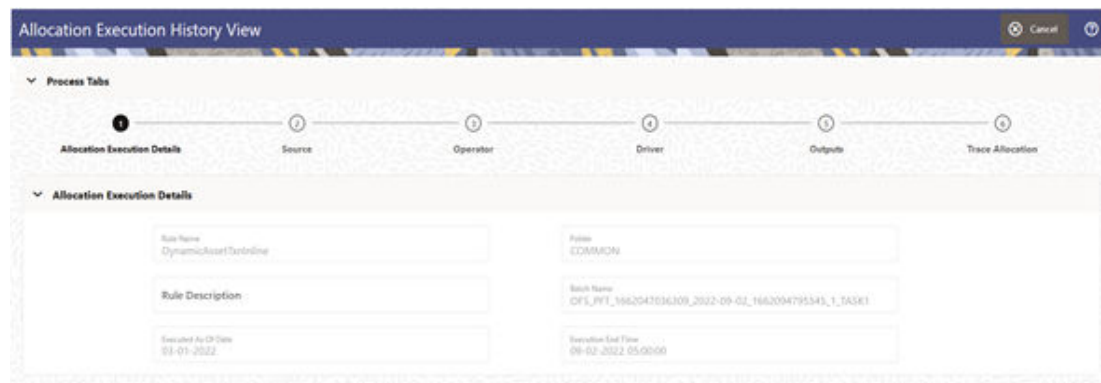
The View screen displays the following tabs:

- Allocation Execution Details Tab
- Source Tab
- Operator Tab
- Driver Tab
- Output Tab
- Trace Allocation Tab

#### 3.10.2.5.1.1 Allocation Execution Details Tab

This is the first tab to be displayed when the user chooses to view a specific Allocation Run on the Allocation Execution History Summary page.

**Figure 3-53 Allocation Execution Details Tab**



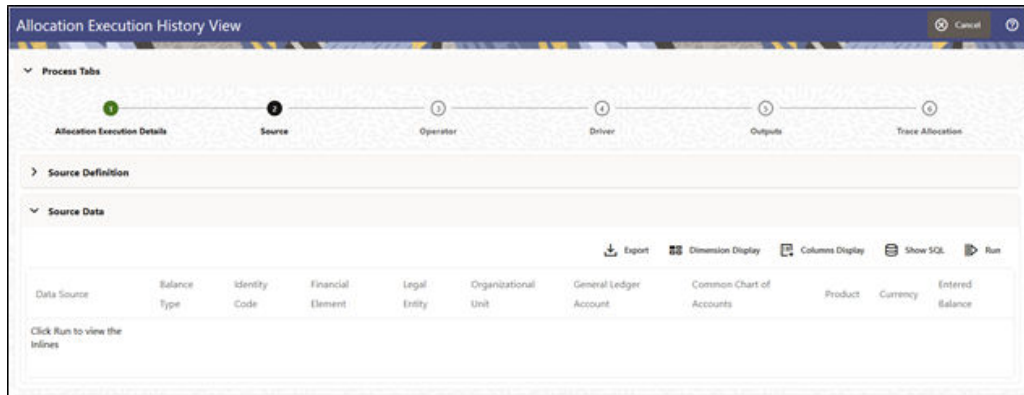
The tab displays the Allocation Rule Name, Description, Folder, Batch Name, Executed As-of-Date and Execution End Time.

#### 3.10.2.5.1.2 Source Tab

The Source tab displays the details about the Allocation's Source Specification at the time that it was run. This view-only screen also offers an inline report of the Source data generated by the Allocation Rule at the time that it was run, and enables the user the ability to trace the sources of the data that fed into the current allocation.



Figure 3-54 Source Tab



**Source Definition:** This section of the Allocation Execution History Source tab displays a read-only version of the Source Definition section of the underlying Allocation Rule's Source specification. This section is by default collapsed in the Source tab and the user can expand the section to view the source definition.

**Source Data:** This section of the screen remains empty initially and displays the message Click Run to view the Inlines. Refer to the earlier figure to view the source data section as it appears when you click on Source tab. If you wish to see an inline report for The Allocation's Source Data, you must click on the Run icon.

Figure 3-55 Source Data in Source Tab

Data Source	Balance Type	Identity Code	Financial Element	Legal Entity	Organizational Unit	General Ledger Account	Common Chart of Accounts	Product	Currency	Entered Balance
constant_test	Debit	371	-99600	-1	-1	-1	-1	-1	USD	10
dyn_ml_2	Debit	383	61	0	0	0	0	154830202	USD	60
dyn_ml_2	Debit	383	65	4	4	4	4	154830206	USD	1512
dyn_ml_2	Debit	383	66	5	5	5	5	154830207	USD	1260
dyn_ml_2	Debit	383	68	7	7	7	7	154830209	USD	270
dyn_ml_2	Debit	383	96	4	4	4	4	4	USD	-100800000

The actual source query of a rule generated by the Allocation Engine at runtime are preserved and the same query is executed to show the source inline report. The source inline will always be available (regardless of whether or not the rule has been modified since it was executed). The source inline report excludes any data generated by allocations or other processes that were run after the execution of the current rule being examined.

**Source Data Controls:** These include Run, Show SQL, Dimensions Display and Columns Display.

- **Run:** Select the Run icon to invoke the Source Inline Report.
- **Show SQL:** Select the Show SQL icon to view the query that generates the inline report. That is, it displays the Source Query that has been prepared and stored in

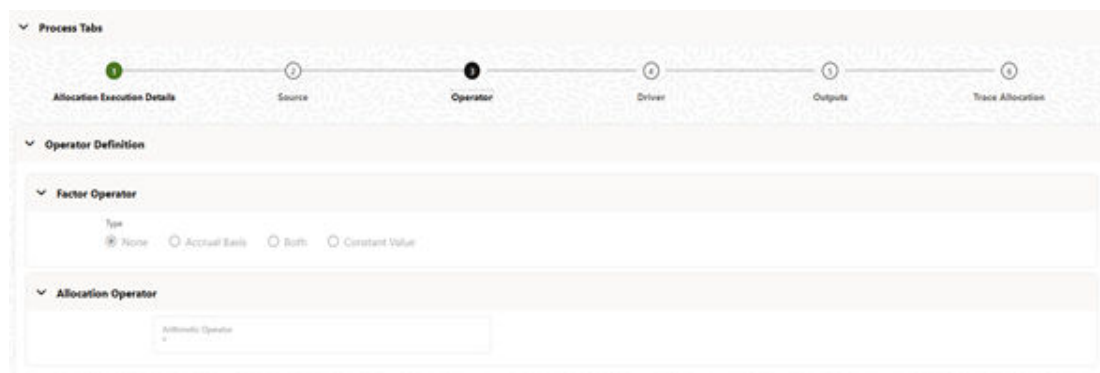
the database while running the allocation. You may copy and paste this SQL to any query tool and execute to get the same inline report.

- **Dimension Display:** Clicking on this icon invokes a small dialog window that displays the choice of displaying the Dimensions as Short Names (Dimension Member ID), Long Names (Dimension Member name) or Both (both Member ID and Member Name) within your inline report.
- **Columns Display:** Clicking this icon opens a window that displays all the Non-Dimensional Columns of the inline. The user has the option of selecting the columns from this window that he wants to display in the inline report.
- **Export:** Clicking on Export, the user can export the inline source data.
- Additionally, user can **trace** an Allocation row that appears in the source inline through a hyperlink feature given in the Data Source column. Each of the source inline rows comes with the Data Source column value as a hyperlink clicking which takes the user to the View of the clicked Allocation row. This hyperlink is currently enabled for Allocation Rows only and not enabled for Ledger Load Rows, Instrument Load Rows, or Transaction Summary Load Rows. For Management Ledger Rows, the data source value comes with the corresponding data sources while for Instrument and Transaction Summary Load Rows, the value comes hardcoded as 'Instrument Load' and 'Transaction Summary Load' respectively.

### 3.10.2.5.1.3 Operator Tab

This tab displays the Allocation's Operator specification at the time the rule was run.

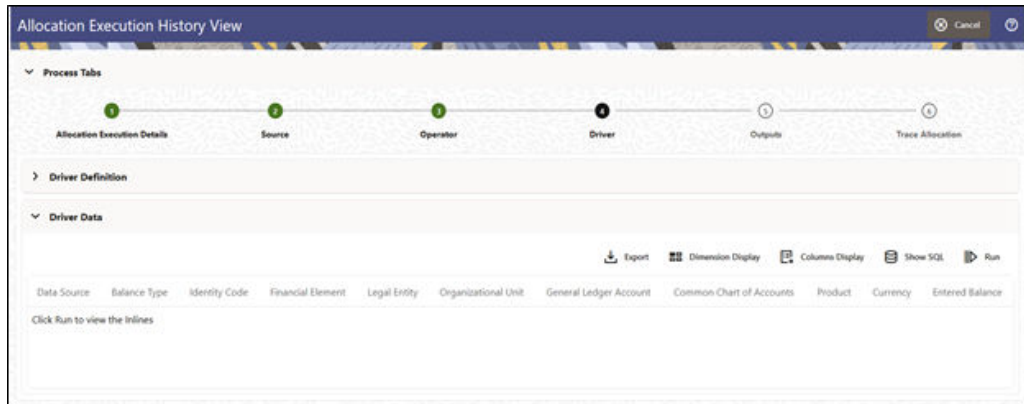
**Figure 3-56 Operator Tab**



### 3.10.2.5.1.4 Driver Tab

The Source tab displays the details about the Allocation's Driver Specification at the time that it was run. This view-only screen also offers an inline report of the Driver Data generated by the Allocation Rule at the time that it was run, and enables the user the ability to trace the sources of the data that fed into the current Allocation.

Figure 3-57 Driver Tab

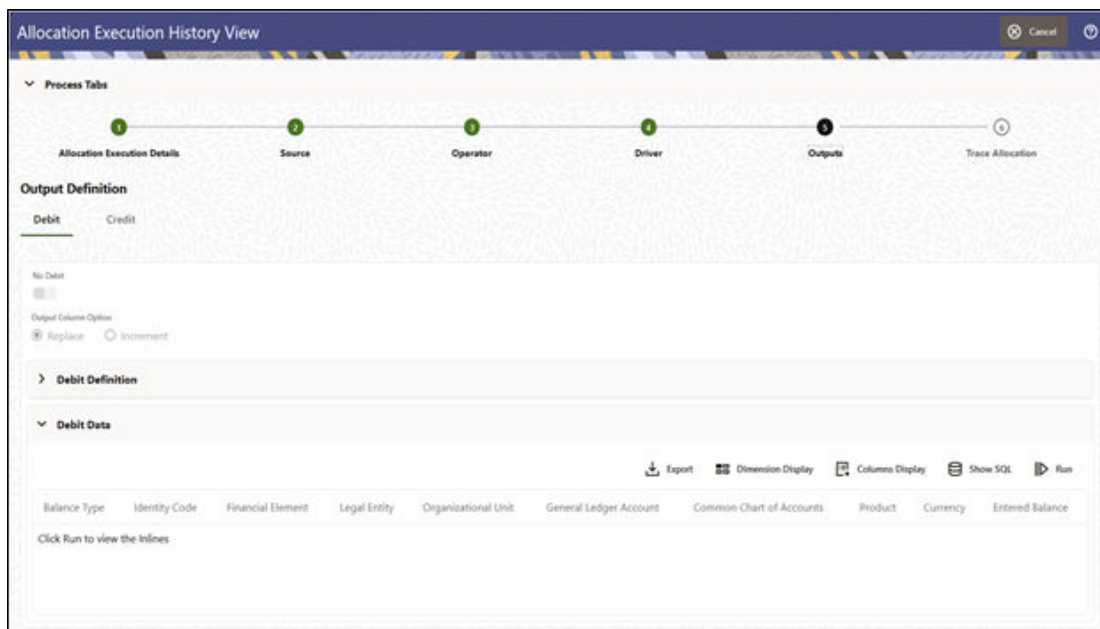


- **Driver Definition:** This section of the Allocation Execution History Driver tab displays a read-only version of the Driver Definition section of the underlying Allocation Rule's Driver specification. This section is by default collapsed in the Driver tab and the user can expand the section to view the source definition.
- **Driver Data:** This section of the screen remains empty initially and displays the message Click Run to view the Inlines. If you wish to see an inline report for the Allocation's Driver Data, you must click on the Run icon. The driver query of a rule generated by the Allocation Engine at Runtime are preserved and the same query is executed to show the Driver Inline Report. The driver inline will always be available (regardless of whether or not the rule has been modified since it was executed). The Driver Inline Report excludes any data generated by allocations or other processes that were run after the execution of the current rule being examined.
- **Driver Data Controls:** This includes Run, Show SQL, Dimensions Display, Columns Display, and Export, and they are identical to those described under the Source Data Controls.

### 3.10.2.5.1.5 Output Tab

The Outputs tab displays the details about the Allocation's Output specification at the time it was run. This view-only screen also offers an inline report of the Output data generated by the Allocation Rule at the time it was run.

Figure 3-58 Output Tab



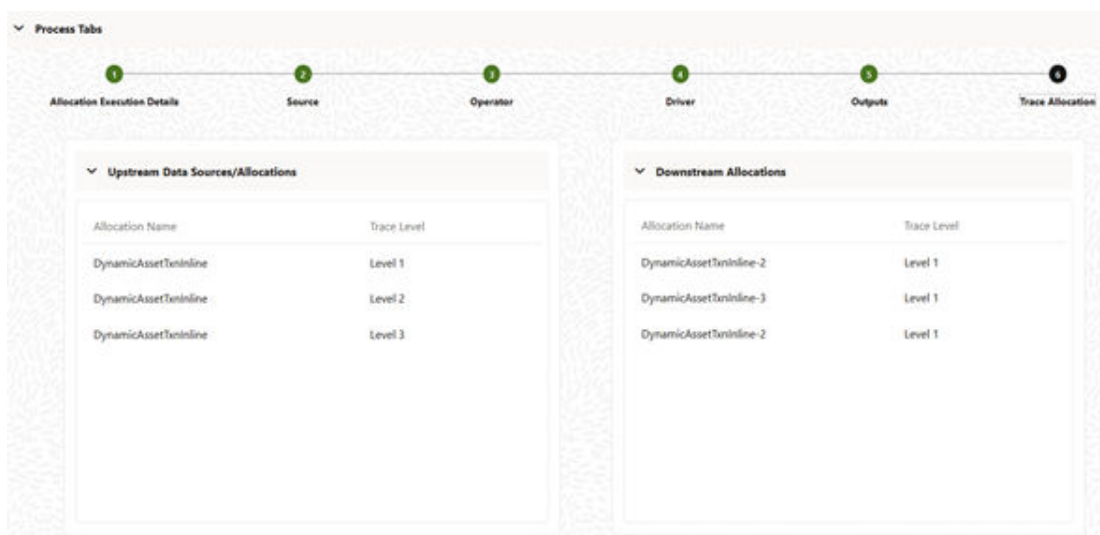
The Output Definition, just like the Output Specification in the Allocation Specification screen, displays two tabs of Debit and Credit. The Debit/Credit Definition and the Debit/Credit Data sections are identical to the Source and Driver tabs.

**Output Data Controls:** This includes Run, Show SQL, Dimensions Display, Columns Display, and Export, and they are identical to those described under the Source Data Controls.

### 3.10.2.5.1.6 Trace Allocation Tab

The Trace Allocation tab displays two panes, one showing distinct Upstream Data Sources or Allocations and the other showing affected Downstream Allocations.

Figure 3-59 Trace Allocation Tab



- **Upstream Data Sources/Allocations:** The pane displays all distinct Sources of data or Allocations that fed into the current Allocation run. You may trace any Upstream Allocation, but you may not trace non-allocation sources (initial Ledger Loads, Initial Instrument Loads, Initial Transaction Summary Loads, transfer pricing rate Migrations, and so on). The pane gives the Data Source or Allocation Name and the trace level of the Data Source or Allocation.
- **Affected Downstream Allocations:** The pane displays all the Downstream Allocation Rules that included the outputs of the current rule run in their Source queries. You may trace to any Downstream Allocation. The pane give the Allocation Name and the trace level of the Allocation.

### 3.10.3 Ledger Load History

Ledger Load History allows you to review the Runtime History of a Management ledger Load. You may see the order in which Ledger Loads are executed, and you may select any Ledger Load row and Undo the Ledger Load.

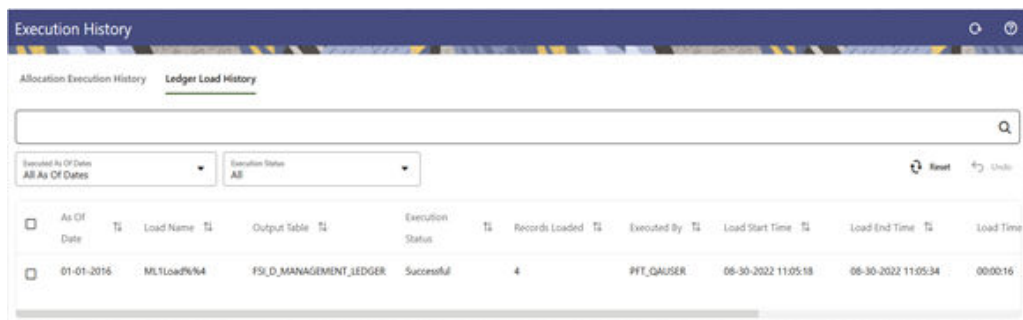
The screen presents a table that lists the Ledger Loads sorted by As-of-Date and by Load End Time. You may sort on any column you choose by clicking on the column header upward/downward arrows, but the results are sorted first by As-of-Date and second by the Column, you have chosen.

#### 3.10.3.1 Navigation in Ledger Load History

When you first enter the Ledger Load History screen, your results are shown for all As-of-Date values for which a ledger load was executed, with the Executed As-of-Dates displaying value “All As of Dates”. You may select a different As-of-Date from a drop-down list as required.

With the ‘All As of Dates’ selected, the Ledger Load History Table will display the load names sorted in descending order based on the As of Date and the Load End Time.

**Figure 3-60 Ledger Load History Screen**



The screenshot shows the 'Ledger Load History' screen. At the top, there is a search bar and two dropdown menus: 'Executed As Of Date' (set to 'All As Of Dates') and 'Execution Status' (set to 'All'). There are 'Reset' and 'Undo' buttons. Below is a table with the following columns: As Of Date, Load Name, Output Table, Execution Status, Records Loaded, Executed By, Load Start Time, Load End Time, and Load Time. One row is visible with the following data: 01-01-2016, ML1Load%N4, FRI\_D\_MANAGEMENT\_LEDGER, Successful, 4, PFT\_GAUSER, 08-30-2022 11:05:18, 08-30-2022 11:05:34, 00:00:16.

As Of Date	Load Name	Output Table	Execution Status	Records Loaded	Executed By	Load Start Time	Load End Time	Load Time
01-01-2016	ML1Load%N4	FRI_D_MANAGEMENT_LEDGER	Successful	4	PFT_GAUSER	08-30-2022 11:05:18	08-30-2022 11:05:34	00:00:16

The title bar of the Screen displays several actions for the user. They are:

- **Refresh:** Click Refresh to refresh the Ledger Load History Page.
- **Help:** Click Help to view the Ledger Load History Help Page.

The Ledger Load History screen can be divided under three sections – the Search section, the Inline section and the Table section.

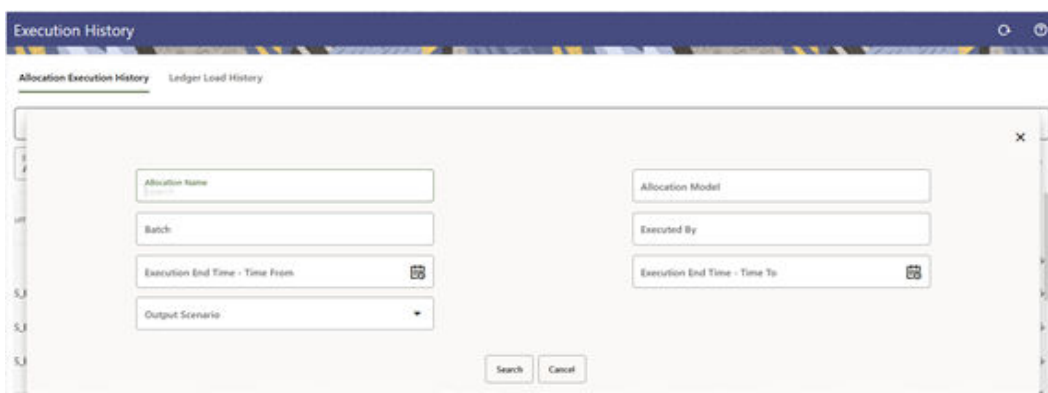
### 3.10.3.1.1 Search Section

The search pane is used to specify the search criteria that will reduce the number of Ledger Loads that are displayed in the Ledger Load History table.

To search the Ledger Loads, perform the following steps:

1. Click the **Search** icon on the Search Pane to display the Criteria Window.
2. Enter the **Load Name**, **Batch**, **Load End Time**, or **Executed By** and click **Search** to display the Allocation Rules that match the criteria.
3. Click **Cancel** to remove the filter criteria on the Search Window and refresh the Window.
4. Click **Search** after entering the Search Criteria.

**Figure 3-61** Ledger Load History – Criteria Window



The screen displays the search results that meet the Search Criteria in a table containing all the Ledger Loads.

You may search based on the following constraints:

- **Load Name:** Performs a wild card search on Ledger Load Name. You can execute the search when you select the Search button.
- **Batch:** Performs a wild card search on Batch Name. You can execute the search when you select the Search button.
- **Load End Time:** Restricts the number of rules displayed on the Ledger Load History screen based on a user's specification of a Single Load Date, and a no earlier than Load End Time – Time From and a no later than Load End Time – Time To. You can execute the search when you select the Search button.
- **Executed By:** Performs a wild card search on the logged-in username that has executed the ledger Load (Management Ledger Data Loader process).

### 3.10.3.1.2 Inline Section

The Inline section contains two additional filters of:

- Executed As-of-Dates with default value as 'All As of Dates'.
- Execution Status with default value as 'All'.

The following status occur when a ledger load is initiated.

- **Successful:** Ledger Load process updates this status when Ledger Load is successful.

An Undo operation on any Ledger Load can lead to one of the following statuses:

- **Undo Status:** Status Description
- **Undo in Progress:** Undo Engine updates this status when it picks up a record for Undo so that another process does not pick up the same record.
- **Undo Failed:** Undo Engine updates this status when the Undo is failed.

User can apply these two filters to select the Ledger Load rows he wants to see in the Ledger Load History table.

This section also offers several controls that allow the user to perform different functions when a Ledger Load is selected.

The following are the controls in the Inline section:

- **Reset:** Resets the search criteria and also refreshes the Ledger Load History table. 'Reset' applies to all fields under the Criteria Window but not to the Inline filters.
- **Undo:** You can use this icon to UNDO or reverse one or more ledger loads. For details, see the [Ledger Load Undo Functionality](#) section.

### 3.10.3.1.3 Table Section

The following columns categorize each Ledger Load row in the table:

You can sort any of these columns by clicking on the text in the column header.

- **As of Date:** Displays the As-of-Date when the Allocation Rule was executed.
- **Load Name:** Displays the Ledger Load name. A “mouse over” on the Load Name displays the Identity Code generated by the Load. You can use Identity Codes in queries against the database to identify rows generated by the Load.
- **Output Table:** This denotes the target Table Name in the database where the load has happened. The Output table is one of the Management Ledger Tables.
- **Execution Status:** Denotes the status of each Ledger Load. See the [Inline section](#) content for more details.
- **Record Loaded:** Displays the load count of the load process, meaning the count of inserts that has taken place.
- **Executed By:** Displays the username that has executed the Ledger Load process.
- **Load Start Time:** Displays the date and time at which each Ledger Load has been started.
- **Load End Time:** Displays the date and time at which each Ledger Load is completed.
- **Load Time:** Displays the elapsed time required for each Ledger Load to complete, shown in hours, minutes & seconds.
- **Batch:** Displays the Batch name under which each Ledger Load was executed.



### 3.10.3.2 Ledger Load UNDO Functionality

A Ledger Load Undo operation reverses the effect of the Ledger Load process meaning it deletes the rows that were inserted into a Management Ledger as part of the Ledger Load process.

**Figure 3-62 Ledger Load History - Undo**

As Of Date	Load Name	Output Table	Execution Status	Records Loaded	Executed By	Load Start Time	Load End Time	Load Time
01-11-2022	LEDGER	FSLD_MANAGEMENT_LEDGER	Successful	10	PFT_GAUSER	09-15-2022 11:22:48	09-15-2022 11:23:05	00:00:17
01-11-2022	LEDGER	FSLD_MANAGEMENT_LEDGER	Successful	10	PFT_GAUSER	09-14-2022 07:46:21	09-14-2022 07:46:39	00:00:18
02-21-2021	LEDGER	FSLD_MANAGEMENT_LEDGER	Successful	4	PFT_GAUSER	08-30-2022 11:04:31	08-30-2022 11:04:50	00:00:19
02-20-2020	LEDGER	FSLD_MANAGEMENT_LEDGER	Successful	4	PFT_GAUSER	08-30-2022 11:06:02	08-30-2022 11:06:19	00:00:17
02-19-2019	LEDGER	FSLD_MANAGEMENT_LEDGER	Successful	4	PFT_GAUSER	08-30-2022 11:07:16	08-30-2022 11:07:32	00:00:16

The Undo icon is enabled whenever you select one or more rows from the table.

For details on restricting action to Undo functionality, see [User Preferences](#) section. This functionality works only if the Enable Undo for Ledger Load option in the User Preferences is set to Yes.

## 3.11 Static Table Driver

Profitability and Balance Sheet Management (PBSM) Cloud Service's Static Table Drivers are declared as drivers in the Driver process tab for allocation rules of the type Static Driver Table.

For more information, see [Allocation Specification](#).

### Topics:

- [Summary and Detail Screens](#)
- [Working with Exported Static Table Driver Data](#)
- [Large Cross Product Static Table Drivers](#)
- [Using Static Table Drivers](#)

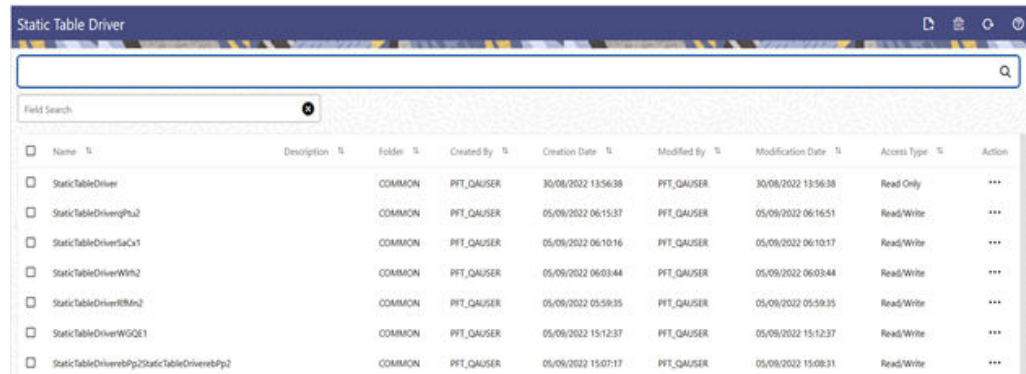
### 3.11.1 Summary and Detail Screens

To open the Summary page, from the LHS menu, select **Maintenance**, and then select **Static Table Driver**.



A summary screen is displayed showing a set of Static Table Driver rules. Using search criteria, you can control the set of rules that are displayed. When you Add, Edit, or View a rule, a detailed screen is displayed.

**Figure 3-63 Static Table Driver Summary Screen**



The screenshot shows a web application window titled "Static Table Driver". It features a search bar at the top with a magnifying glass icon. Below the search bar is a "Field Search" input field with a dropdown arrow. The main content is a table with the following columns: Name, Description, Folder, Created By, Creation Date, Modified By, Modification Date, Access Type, and Action. The table contains eight rows of data, each representing a Static Table Driver rule.

Name	Description	Folder	Created By	Creation Date	Modified By	Modification Date	Access Type	Action
StaticTableDriver		COMMON	PFT_GAUZER	30/08/2022 13:56:38	PFT_GAUZER	30/08/2022 13:56:38	Read Only	***
StaticTableDriver@tsu2		COMMON	PFT_GAUZER	05/09/2022 06:15:37	PFT_GAUZER	05/09/2022 06:16:51	Read/Write	***
StaticTableDriver@cx1		COMMON	PFT_GAUZER	05/09/2022 06:10:16	PFT_GAUZER	05/09/2022 06:10:17	Read/Write	***
StaticTableDriver@win2		COMMON	PFT_GAUZER	05/09/2022 06:03:44	PFT_GAUZER	05/09/2022 06:03:44	Read/Write	***
StaticTableDriver@kin2		COMMON	PFT_GAUZER	05/09/2022 05:59:35	PFT_GAUZER	05/09/2022 05:59:35	Read/Write	***
StaticTableDriver@SQE1		COMMON	PFT_GAUZER	05/09/2022 15:12:37	PFT_GAUZER	05/09/2022 15:12:37	Read/Write	***
StaticTableDriver@pp2StaticTableDriver@pp2		COMMON	PFT_GAUZER	05/09/2022 15:07:17	PFT_GAUZER	05/09/2022 15:08:31	Read/Write	***

### 3.11.1.1 Search

There are two Search options provided to search the Static Table Drivers on the Summary Page.

To search the Static Table Drivers, perform the following steps:

1. Click the **Search** icon on the Search pane to display the Criteria Window.
2. Enter the Static Table Driver **Name**, **Description**, **Folder** or **Created By** and click Search to display the Static Table Drivers that match the criteria.
3. Click **Cancel** to remove the filter criteria on the Search Window and refresh the window.
4. Click **Search** after entering the search criteria.

The search results are displayed in a table containing all the Static Table Drivers that meet the search criteria.

5. The other method to search a Static Table Driver is using the **Field Search** option. The Field Search is an inline wildcard search that allows you to enter value partially or fully and the rows that match the entered string in any of its column is fetched in the Summary table.

### 3.11.1.2 Static Table Driver Pane

The Static Table Driver pane presents a table containing all Static Table Driver rules that meet your search criteria.

The Static Table Driver Summary page displays the following columns.

- **Name:** Displays the short name of the rule.
- **Description:** Displays the description of the rule.
- **Folder:** Displays the folder name where the rule is stored.
- **Created By:** Displays the Name of the user who created the rule.

- **Creation Date:** Displays the Date and Time when the rule was created.
- **Modified By:** Displays the Name of the user who last modified the rule.
- **Modification Date:** Displays the Date and Time when the rule was modified last.
- **Access Type:** Displays the access type of the rule - Read/Write or Read Only property of a Static Table Driver rule. Only the creator of a rule may change its Access Type.
- **Action:** Displays the list of actions that can be performed on the rule.

**Figure 3-64 Static Table Driver Summary Table**

Name	Description	Folder	Created By	Creation Date	Modified By	Modification Date	Access Type	Action
<input checked="" type="checkbox"/> StaticTableDriver		COMMON	PFT_QAUSER	30/08/2022 13:56:38	PFT_QAUSER	30/08/2022 13:56:38	Read Only	...
<input type="checkbox"/> StaticTableDriver@Pu2		COMMON	PFT_QAUSER	05/09/2022 06:15:37	PFT_QAUSER	05/09/2022 06:16:51		View
<input type="checkbox"/> StaticTableDriver@Cv1		COMMON	PFT_QAUSER	05/09/2022 06:10:16	PFT_QAUSER	05/09/2022 06:10:17		Edit
<input type="checkbox"/> StaticTableDriver@Wh2		COMMON	PFT_QAUSER	05/09/2022 06:03:44	PFT_QAUSER	05/09/2022 06:03:44		Save As
<input type="checkbox"/> StaticTableDriver@Hn2		COMMON	PFT_QAUSER	05/09/2022 05:59:35	PFT_QAUSER	05/09/2022 05:59:35		Delete
<input type="checkbox"/> StaticTableDriver@QJ1		COMMON	PFT_QAUSER	05/09/2022 15:12:37	PFT_QAUSER	05/09/2022 15:12:37		Check Dependencies
<input type="checkbox"/> StaticTableDriver@Pu2StaticTableDriver@Pu2		COMMON	PFT_QAUSER	05/09/2022 15:07:17	PFT_QAUSER	05/09/2022 15:08:31		Read/Write

The Action column on Static Table Driver Summary page offers the following actions that allow you to perform different functions. The following actions are available for the Static Table Driver rule.

- **View:** Click View in the Action column and select View to view the contents of a Static Table Driver in read/write format.
- **Edit:** Click Edit in the Action column and select Edit to edit the contents of a Static Table Driver in read/write format.
- **Save As:** Click Save As in the Action column and select Save As to create a copy of an existing Static Table Driver.
- **Delete:** Click Delete in the Action column and select Delete to delete an existing Static Table Driver.
- **Check Dependencies:** This action button is to check for any dependency of the selected object with other objects in the application. On click of this action, the Dependent Information window is displayed with the Object Name, Object Type, Object Subtype and the Version of the dependent objects. The 'Higher Order Dependency' states if the selected object has an upstream objects dependency and is to be treated as the actual dependency of the selected object. While, the 'Lower Order Dependency' displays the downstream objects dependency of the selected object. If an object has a Higher Order Dependency then the object cannot be deleted without removing the dependency first.

You may select or deselect all the Static Table Driver rules in the summary table by clicking the check box in the upper left-hand corner of the summary table directly to the left of the Name column header.

### 3.11.1.3 Navigating in the Detail Screen

When you Add, Edit, or View a Static Table Driver rule, the Static Table Driver Detail Screen is displayed.

In addition to Name, Description, Folder, and Access Type, the definition of a Static Table Driver includes Key Leaves, a Target Leaf, and coefficients values. After a Static Table Driver is defined and saved, you only edit an existing rule to update your driver coefficients (you cannot delete the Key and Target dimensions).

The Audit Trail pane is a standard footer pane for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab is used to add comments to any rule, subject to a maximum of 4000 characters.

Static Table Drivers are used in conjunction with Allocation rules for the following purposes:

- To distribute balances at the Management Ledger level.
- To perform a lookup table function against instrument tables.

#### 3.11.1.3.1 Distribution with the Management Ledger-level

Static Driver Table Allocation rules that distribute balances at the management ledger-level function similarly to Dynamic Driver allocation rules.

- Key Leaves function similarly to Dynamic Driver allocation rules that utilize < Match Source & Driver >
- Target Leaves function similarly to Dynamic Driver allocation rules that utilize < Match Driver >

Instrument Level Update: Static Driver Table Allocation rules perform a lookup table function against an instrument table to match dimension values for each instrument row against the Key Leaf values you define in your Static Table Driver rule. When you find matching rows, the allocation performs an arithmetic operation combining source balance columns and a coefficient value you specify to update a result column.

#### 3.11.1.3.2 Static Table Driver Definition Pane

When creating a new Static Table Driver, first define its structure. After a Static Table Driver has been defined, the maintenance is usually limited to updating driver coefficients. The most critical aspects of a Static Table Driver's structural definition are as follows:

- Key dimension
- Key Leaf values for each Key Leaf
- Target dimension
- Target Leaf values for each Target Leaf
- Defining Key Leaf values and Target Leaf values
- Static Table Driver Coefficients

You do not need to specify both a Key Leaf and a Target Leaf, but you must specify at least one of them. That is, you should select a Key or Target dimension while defining a new Static Table rule.

 **Note:**

You cannot add or delete the Key or Target dimensions after defining the Static Table Driver (edit mode). You can add or delete the dimension members.

- **Key Leaves:** For both Management Ledger-level and Instrument allocations, Key Leaves perform a lookup function. Rows from the Source of the Allocation rule are joined with the Key Leaf values from the Static Table Driver. If an Input Row Leaf value matches a Key Leaf value for the first Key Leaf dimension specified in the Static Table Driver, the row is checked against the second Key Leaf values, and so on. If you find a match for every Key Leaf dimension, the row is processed by the Allocation rule. Profitability Management supports a maximum of three Key Leaf dimensions.
- **Target Leaf:** You can use Target leaves only in allocations that distribute to the Management Ledger-level. You can view the Distribution allocations as first performing a lookup on one or more Key Leaves. When you find a match for each Key Leaf dimension, the matching input row's amount is distributed to all dimension values specified as Target Leaf values. This means that data is added to the Management Ledger for each dimension member value specified as a Target Leaf value. The leaf values specified in the Allocation rule's Debit use the < Same As Source > macro for all Key leaf dimensions and use the < Same As Table > macro for the Target Leaf dimension (very similar to the < Same as Driver > macro used in Dynamic Driver allocation rules).
- **Coefficients:** You must specify coefficient values for every Static Table Driver rule. A part of the coefficient specification process is to enter the values for each distinct combination of each of your Key Leaves and Target Leaves. Where only Key Leaves are used, you must enter values for each distinct combination of each of your Key Leaves.
  - **For Static Table Drivers with a Target Leaf Dimension:** For a Static Table Driver that uses a Target Leaf dimension, you must supply one coefficient value for each distinct combination of each of your Key Leaves and your Target Leaves., Static Table Drivers that use a Target Leaf dimension are only supported for Management Ledger allocation rules.

Target Leaf coefficient values represent distribution statistics. You would typically use these statistics on a Percent-to-Total basis. Static Table Drivers support both the Percent-to-Total method and the Simple method.

Precede the definition of the Target Leaf dimension by the definition of one or more Key Leaf dimensions. Key Leaves are never required unless there is no Target Leaf defined. When Key Leaves are present, they operate as lookup keys as described above. For a Static Table Driver that uses a Target Leaf dimension, the Key leaves function analogously to the Dynamic Driver allocation function of < Match Source & Driver > and the Target Leaf functions analogously to the Dynamic Driver allocation function of < Match Driver >.
  - **For Static Table Drivers with Key Leaf Dimensions But No Target Leaf:** For Static Table Drivers that do not use a Target Leaf dimension, you must supply one coefficient value for each distinct combination of each of your Key Leaves. Static Table Drivers that use Key Leaves but do not use a Target Leaf can support both distributive Management Ledger allocation rules and Instrument level update rules. For an Instrument level update rule using a Static Table Driver, the Key Leaves function as lookup keys, and the coefficients function as arithmetic factors in updating

a target column in an instrument table. For Management Ledger allocation rules, the Key Leaves function analogously to the Dynamic Driver allocation function of < Match Source & Driver >.

### 3.11.1.3.3 Creating a New Static Table Driver – Sample Workflow

This section describes a workflow for defining a Static Table Driver rule.

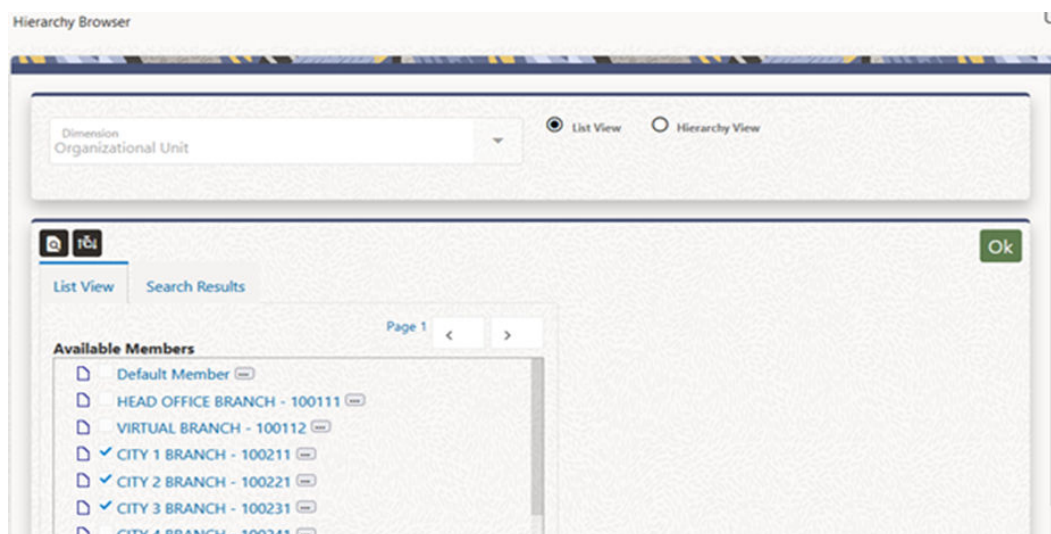
**Figure 3-65 Static Table Driver Definition screen**

#### 3.11.1.3.3.1 Create a New Key Leaf

To define a Key Leaf dimension, perform the following steps:

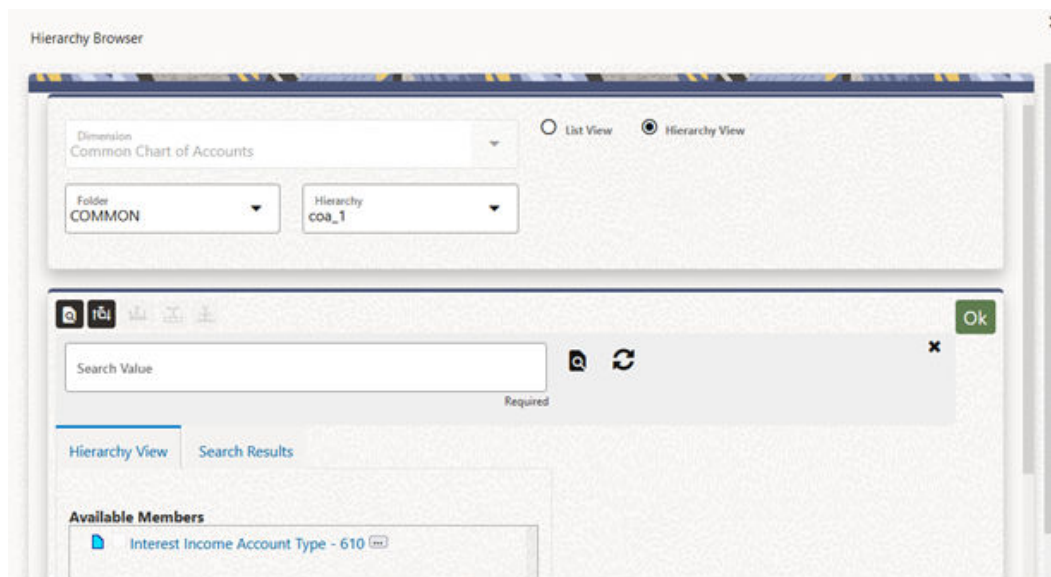
1. Select the **Dimension** you want to define as a Key Leaf from the Add Leaf drop-down list.
2. Select the **Key**.
3. Click **Add Dimension**. The Key Leaf dimension is added to the Key Dimension section.
4. Once a Key Leaf dimension is added, click the first icon in the **Action** column to invoke the **Hierarchy Browser** that appear adjacent to your Key Leaf Dimension. The Hierarchy Browser defaults to the **List View** that contains the list of all leaf members for the Key Leaf dimension you have chosen. You may scroll up and down to find the leaf member or leaf member you want. You may also search for a dimension member's name (short description) using the Search action button. Search has been revised as an inline search that implicitly comes with wildcard search. This functionality allows you to search a Dimension Member by its ID or Name. Once you have selected the Key Leaf values you want, click **OK**.

Figure 3-66 Organizational Unit Hierarchy Browser



- You may also define Key Leaf values to be rollup members within a hierarchy. To select hierarchy rollup point members, click on **Hierarchy View** near the top right of the browser window and then search for the hierarchy you wish to use. After the browser window displays your chosen hierarchy, navigate into the hierarchy until you have found the rollup points you want. Select the value or values you want and click **OK**.

Figure 3-67 Hierarchy Selection screen



- After you have clicked OK within the Hierarchy Browser window, that window closes and you are directed back to the Static Table Driver Definition tab. If you open the Hierarchy Browser of dimension, it shows the members as checked, which were already selected while defining a key leaf.

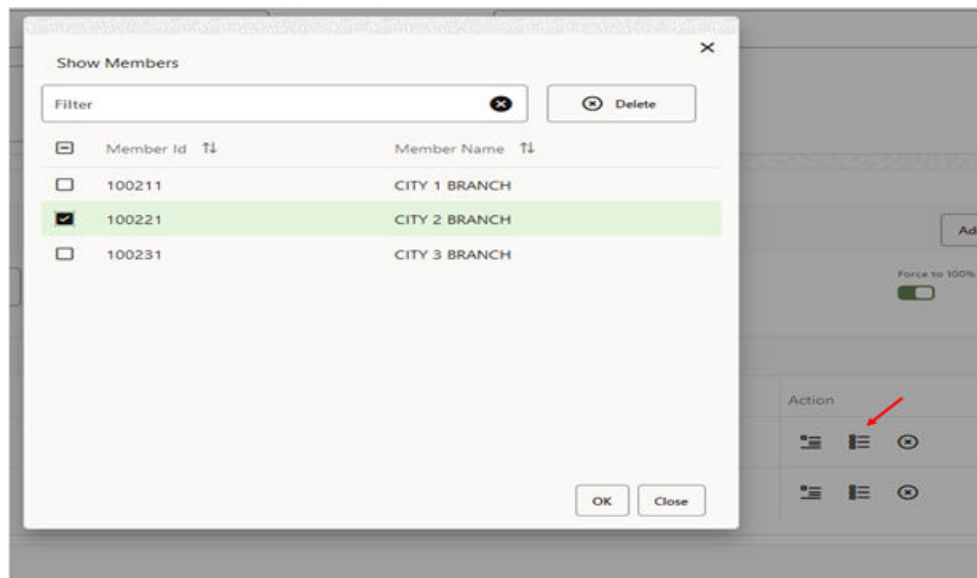
You may now repeat this process to add a second or third Key Leaf if desired. If you do not need any additional Key Leaves, you may proceed to either of the following:

- Adding a Target Leaf dimension.



- Providing coefficients for your chosen Key Leaf value(s).
7. If you want to view the members selected for a Key Leaf Dimension, you can click on the second icon in the Action column that appears adjacent to your Key Leaf Dimension. This feature also gives you the facility to delete any selected member without going through the Hierarchy Browser way.

**Figure 3-68 Members Browser**



 **Note:**

When you select hierarchy, rollup points, all of the members, you select must come from the same level within the underlying hierarchy. Hierarchy Filters, which may include leaves and rollup nodes from different levels within a hierarchy, are not supported in Static Table Driver rules.

Use Target Leaves only in Allocations that distribute to the Management Ledger.

### 3.11.1.3.4 Creating a New Target Leaf

Continuing with the typical setup workflow, the following narrative assumes that you have added only one Key Leaf dimension. To add a Target Leaf, perform the following steps:

1. Select the Dimension you want to define as a **Target Leaf** from the **Add Leaf** drop-down list.
2. Select **Target**.
3. Click **Add Dimension**. The Target Leaf dimension is added under the Target Dimension section.
4. Click on the Hierarchy Browser icon that appears adjacent to your Target Leaf Dimension.

5. Select the Target Leaf values (the selection process is identical to the process of selecting Key Leaf values described above) from the Hierarchy Browser and click **OK**.
6. After you have clicked **OK** within the **Hierarchy Browser** window, that window closes and you are directed back to the **Static Table Driver** detail screen. However, while the screen still displays your Key Leaf values under the Key Dimension section as rows, it now displays your Target Leaf values under the Target Dimension section as rows.

### 3.11.1.3.4.1 Defining Coefficient Values

Once the Key and Target Leaf dimensions have been defined, the next step is to define the coefficients for the cross product of Key and Target dimensions.

Navigate to the top right of the **Definition** tab and click **Generate Grid** to generate the matrix of the cross product.

**Figure 3-69 Static Table Driver – Definition Screen**

The screenshot displays the 'Static Table Driver' configuration interface. At the top, there are 'Save' and 'Cancel' buttons. The main area is divided into sections: 'Static Table Driver' with fields for Name, Folder, and Access Type; 'Definition' with an 'Add leaf' dropdown, Leaf Type selection, and a 'Generate Grid' button (indicated by a red arrow); and a 'Key Dimension' table listing 'Organizational Unit' and 'Product' with associated action icons.

After the matrix is generated, the user is automatically taken to the Coefficient tab that now displays a data entry table. Assign the coefficients to combinations of Key leaf (or node) values and Target leaf values.

You may toggle back and forth between the specification of valid combinations and the entry of coefficient values. You may also return to your Key Leaf dimension tab and modify its definition by adding or removing values. More generally, you are free to navigate at any time between any of your Key Leaf definitions, your Target Leaf definition, your “enabled combinations” definitions, and your coefficient values.



Figure 3-70 Static Table Driver – Coefficient Tab

Organizational Unit	Product	Product	Organizational Unit	Coefficient
CITY 1 BRANCH	OD_Company Account Class	OD_Company Account Class	CITY 3 BRANCH	
CITY 1 BRANCH	OD_Company Account Class	OD_Corporate Cardholder Account Class	CITY 3 BRANCH	
CITY 1 BRANCH	OD_Corporate Cardholder Account Class	OD_Company Account Class	CITY 3 BRANCH	
CITY 1 BRANCH	OD_Corporate Cardholder Account Class	OD_Corporate Cardholder Account Class	CITY 3 BRANCH	
CITY 2 BRANCH	OD_Company Account Class	OD_Company Account Class	CITY 3 BRANCH	
CITY 2 BRANCH	OD_Company Account Class	OD_Corporate Cardholder Account Class	CITY 3 BRANCH	
CITY 2 BRANCH	OD_Corporate Cardholder Account Class	OD_Company Account Class	CITY 3 BRANCH	
CITY 2 BRANCH	OD_Corporate Cardholder Account Class	OD_Corporate Cardholder Account Class	CITY 3 BRANCH	

After the coefficients are defined, click **Apply** to apply the changes. You can click on **Definition** tab to view or edit the Key Leaf and Target Leaf dimensions' definition. Once the definition is modified, the coefficient matrix needs to be re-generated by clicking **Generate Grid**.

Select **Yes** or **No** for the value of the Force to 100% allocation method (see the toggle button near the top right of the Definition tab). The default value for **Force to 100%** is **Yes**.

Static Driver Table rules are similar in many ways to Dynamic Driver rules. Select **Yes** for the value of Force to 100% when you want to perform a distribution using non-normalized statistics such as headcount, square footage of occupancy, and so on. If you are using a normalized set of driver statistics (statistics that sum to 1.00 or 100%) or if you are combining activity counts with activity rates, you need not use Force to 100%.

When you use Force to 100% in a Static Table Driver rule, balances are distributed on a percent-to-total basis within each row visible on your Coefficient data entry table.

For example, for the above coefficient values, balances are distributed from Company A to Cost Center 1 and Cost Center 2 in proportions of 10% and 90%; and balances would be distributed from Company B to Cost Center 2 and Cost Center 3 in proportions of 40% and 60%.

Click **Save** to validate and save your rule.

Click **Cancel** to close the rule without saving any changes you may have made. This control is only active when you are in Edit mode.

#### 3.11.1.3.4.2 Excel Export

Use this feature to export your Static Table Driver data to a spreadsheet. Within the spreadsheet, you can update the coefficient values for any existing Key Target

combination. Later, you can import your spreadsheet back into Profitability Management.

To export to a spreadsheet, perform the following steps:

1. Navigate to **Coefficient** tab. Click **Export**.
2. Open using Excel or save the file to the name and location of your choice.

#### 3.11.1.3.4.3 Excel Import

Use the Excel import functionality for adding and editing leaf data in static table drivers.

To import a file, perform the following steps:

1. Navigate to **Coefficient** tab. Click **Import** to trigger a File Upload dialog.
2. Browse for the spreadsheet that you want to import.
3. Select the file and click **Open**.
4. Click **Upload File**.

#### 3.11.1.3.4.4 Search

The Search option allows you to search the Leaf values that have coefficient values defined on the Static Table Driver Definition page. This functionality works only if the Coefficient option is enabled. You can export this extracted list using the Export functionality.

To perform the search, perform the following steps:

1. Apply Filter to your required column within the Coefficient matrix. You can apply filtering to any number of columns.
2. Click **Search**.  
The selected Leaf values that match the filtering conditions are displayed in the grid. You can also export this list using the Export functionality.
3. Click **Reset** to remove the filter.  
**Reset:** The Reset option on the Static Table Driver Definition page removes any coefficient you may have specified, and refreshes the screen. It also allows you to reset the Search on the Static Table Driver Definition page.

Example: For other uses, you may want only a subset of all possible combinations of Key Leaf values and Target Leaf values. For example, you may wish to allocate a series of Management Ledger balances from a cost center to another cost center. If you wanted to allocate balances from Company A to Cost Centers 1 and 2; and if you wanted to allocate balances from Company B to Cost Centers 2 and 3, then the values would be as follows:

- Key Leaf dimension would be Organizational Unit
- Key Leaf values would be Company A and Company B
- Target Leaf dimension would also be an Organizational Unit
- Target Leaf values would be Cost Centers 1, 2, & 3
- Enabled combinations would be A-1, A-2, B-2, and B-3

### 3.11.2 Working with Exported Static Table Driver Data

During the initial set up on the Definition tab, a Static Table Driver rule has a set of possible Key ' Target combinations equal to the cross product of each of the Key and Target leaves you have defined for your rule. For example, a Static Table Driver rule having one Key leaf

dimension with 10 defined members and one Target leaf dimension with defined 100 members has a total of 1,000 possible Key ' Target combinations. Of these 1,000 possible combinations, you may have defined 75, or 125, or any number coefficient values up to 1,000.

The Excel Export feature exports "active" Key ' Target combinations, which are combinations where you have already established coefficients.

The structure of your exported Static Table Driver depends on how many Key dimensions and Target dimensions are used in your rule. The following example shows an exported data from a Static Table Driver having one Key leaf dimension and one Target leaf dimension with 11 defined coefficients.

**Figure 3-71 Sample Illustration of Exported Static Table Driver Definitions**

	A	B	C	D	E
1	F0_ID	F0_DESC	T1_ID	T1_DESC	COEFF
2	8100	Executive	8100	Executive	10
3	8100	Executive	8400	Facilities Management	35
4	8100	Executive	8200	Finance Department	60
5	8100	Executive	8300	Human Resources	85
6	8100	Executive	8500	Information Technology Unit	110
7	8400	Facilities Management	8100	Executive	135
8	8400	Facilities Management	8400	Facilities Management	160
9	8400	Facilities Management	8200	Finance Department	185
10	8400	Facilities Management	8300	Human Resources	210
11	8400	Facilities Management	8500	Information Technology Unit	235
12	8200	Finance Department	8100	Executive	260

In this example, the first two columns (F0\_ID and F0\_DESC) contain the leaf identifiers and descriptions for the Key leaf dimension. For a Static Table Driver having a 2nd and 3rd Key leaf dimension, the exported spreadsheet would include ID's and descriptions for each Key leaf dimension (F0, F1, and F2 represent "from" dimensions, such as Key leaf dimensions, while T1, T2, and T3 represent your first, second, and third Target leaf dimensions).

### 3.11.2.1 Updating Exported Static Table Driver Data

You may update the coefficient value for any combination in the spreadsheet (yellow cells in the example above).

### 3.11.2.2 Adding New Combinations to Exported Data

The Import Excel functionality does not support for any new rows introduced in the Excel file, meaning the Import functionality does not support for new member combinations of existing Key/Target dimensions. It supports only for the member combination already selected through the Definition facility in the UI. Any additional rows introduced in the Exported Data will be ignored during the Import.

### 3.11.2.3 Validating the Imported Data

On Import, the system validates each row in your spreadsheet. Rows failing validation will not be imported. The validation requirements are as follows:

The spreadsheet structure must match the definition of the rule to which it is being imported. This is not an important restriction because the typical workflow for maintaining a Static Driver Table in a spreadsheet begins with an Export of the rule that you want to edit.

Each Key leaf value and each Target leaf value must be part of the definition of your Static Table Driver rule. In the example above, the Key leaf value of 8200 and the Target leaf value of 8400 must be included in the initial set up of the Static Table Driver rule (on the Definition tab).

**Note:**

You must define a Key ' Target combination on the Static Table Driver Definition tab before you can add that combination to your spreadsheet.

### 3.11.3 Large Cross Product Static Table Drivers

Static Table Drivers are generally used in a distributive fashion, and the Static Table Driver user interface is engineered for this typical use case. Some features of the user interface are limited for Static Table Drivers having large numbers of Key leaf values (or node values) in conjunction with large numbers of Target leaf values. For these cases, you must maintain your large Static Table Driver rules using Excel Export/Import functionality.

#### 3.11.3.1 Limit on Large Cross Products

The Static Table Driver user interface is designed to allow you to specify coefficient values for any combination - or even for every combination - of your Key leaves and Target leaves. For example, a simple Static Table Driver having 50 Key Leaf values (in one Key Leaf dimension) and 100 Target Leaf values (in one Target Leaf dimension) could have as many as 5,000 "active" combinations (that is, combinations for which coefficients are defined). Typically, the number of defined combinations is a small fraction of the number of possible combinations.

The number of possible combinations is determined by the Cartesian product of the number of leaf values in each dimension in your Static Table Driver rule. For example, a Static Table Driver rule having 5,000 Key Leaf values (in one Key Leaf dimension) and 5,000 Target Leaf values (in one Target Leaf dimension) has a cross product of 25 million. The performance and response time of the Static Table Driver user interface can degrade with extremely large cross products. For this reason, the application applies a limit of 20 million on the size of the cross product. You may modify the default limit by manually updating `SETUP_PARAMETERS_MASTER.STATIC_TABLEID_TEMP_TABLE_CROSS_JOIN_LIMIT`.

When you are working with a Static Table Driver whose cross product exceeds the cross-join limit, the Coefficients tab of the Static Table Driver user interface displays only the "defined" combinations, which are combinations where coefficients are previously established.

#### 3.11.3.2 Managing Large Cross Product Static Table Drivers

To build a Static Table Driver that will have a very large cross product, follow the normal steps of building out your Key leaf (or node) values and your Target leaf values on the Static Table Driver Definition tab. If you start with a modest number of defined Key and Target leaves, the Coefficients tab operates normally, and you may save coefficients for any possible combination of Key and Target leaves that you have defined on the Definition tab.

If you navigate to the Definition tab, add more Key leaves and Target leaves, and then return to the Coefficients tab, the Coefficients tab allows you to edit coefficients for any possible combination of your selected Key and Target leaves. This is applicable as long as you have not exceeded the cross-product limit. After you have added enough combinations on the Definition tab for the rule to exceed to cross-product limit, the Coefficients tab no longer shows the unmapped combinations. In this state, you can edit the coefficient values for any previously mapped combination, but you can no longer establish new combinations and coefficient values within the Coefficients tab.

 **Note:**

Instead of starting the build process with a modest number of Key leaves and Target leaves, you might also begin by specifying a very large number of Key and Target leaf values. If you specify enough values in the Definition tab to exceed the cross product limit, then when you initially transition to the Coefficients tab it will appear blank.

Regardless of whether your Static Table Driver rule begins as a small rule and evolves into a large cross product rule or your Static Table Driver rule was "large" at the time it was defined, the Coefficients tab only displays the "defined" combinations after you have exceeded the cross- product limit.

### 3.11.3.3 Editing Existing Coefficient Values

You can edit the coefficient value for any defined combination within the user interface. Alternatively, you can also export your data and edit coefficient values offline.

### 3.11.3.4 Adding New Combinations and Coefficients

To add new combinations and coefficients, perform the following steps:

1. Navigate to the **Definition** tab and add new **Key & Target** leaf values.
2. Navigate to the **Coefficient** tab and export your rule to a spreadsheet.
3. Add your new combinations and their coefficients to the spreadsheet.
4. Save and import the spreadsheet.

### 3.11.3.5 Removing Combinations and Coefficients

You can remove coefficients within the Coefficient tab by deleting the coefficient and saving the rule. After you have removed the coefficient for a combination of Key ' Target leaves, that combination is no longer updatable within the Coefficient tab. However, the combination remains defined (that is, you could still add a coefficient to this combination offline).

Navigate to the Definition tab to completely remove defined Key and Target leaf values, and remove the leaves that are no longer required.

## 3.11.4 Using Static Table Drivers

Static Table Drivers are declared as drivers in the Driver process tab for allocation rules of the type Static Driver Table.

(For more information, see [Allocation Specification](#))

Static Drivers Table allocation rules are similar in many ways to Dynamic Driver allocation rules. Both are used to distribute balances, but while Dynamic Driver allocation rules obtain their driver data directly from your business data, Static Driver Table allocation rules obtain their driver data from a Static Table Driver rule.

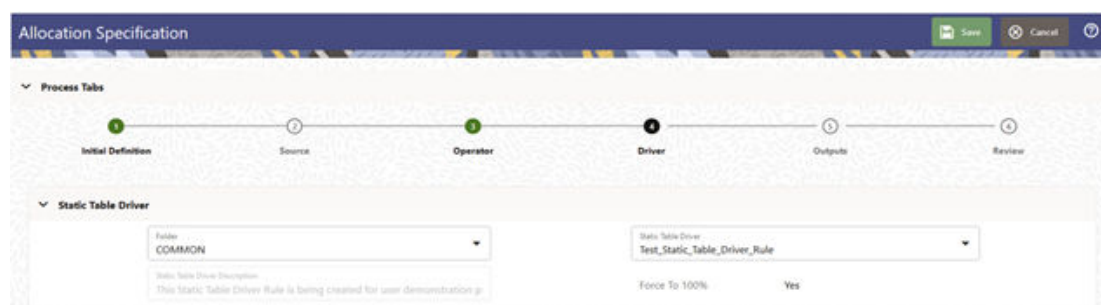
In the following example, your goal is to “product align” your Management Ledger data (your initial General Ledger data is aligned to Organizational Unit and General Ledger Account, but not to Product). You need to write allocation rules that distribute expenses within each cost center to the Product. In this example, you are focusing on expenses incurred in two rollup points within your Organizational Unit hierarchy: Mortgage Origination (a rollup point of multiple regional origination centers) and Statement Processing (a rollup point of multiple statement processing centers).

Your cost studies have told you that 55% of mortgage origination expense is attributable to your 30 Year Fixed Mortgage product, and 45% to your 15 Year Fixed product. At the same time, historical balance reports tell you that 55% of your retail deposits are Savings, and 55% are Time Deposits. On the assumption that balance ratios are a good way to distribute Statement Processing expense, you decide to use a 45-55 split.

To build this allocation, start by constructing a Static Table Driver rule that uses an Organizational Unit Key Leaf and a Product Target Leaf. Select the Mortgage Origination and Statement Processing rollup points from your organizational hierarchy for your Key Leaf values. Select the three mortgage products plus the Checking, Savings, and Time Deposits products as your Target Leaf values. Finally, enable the appropriate combinations of Key Leaf and Target Leaf and enter your coefficient values.

Next, build a new Static Driver Table allocation rule. In the Driver tab, select the Static Table Driver you just built.

**Figure 3-72 Allocation Specification Edit screen - Driver tab**



In the Source tab, constrain the General Ledger Account dimension with a rollup point whose meaning is Total Non-Interest Expense. Alternatively, you may specify the Financial Element Leaf value 457 – Non-Interest Expense.

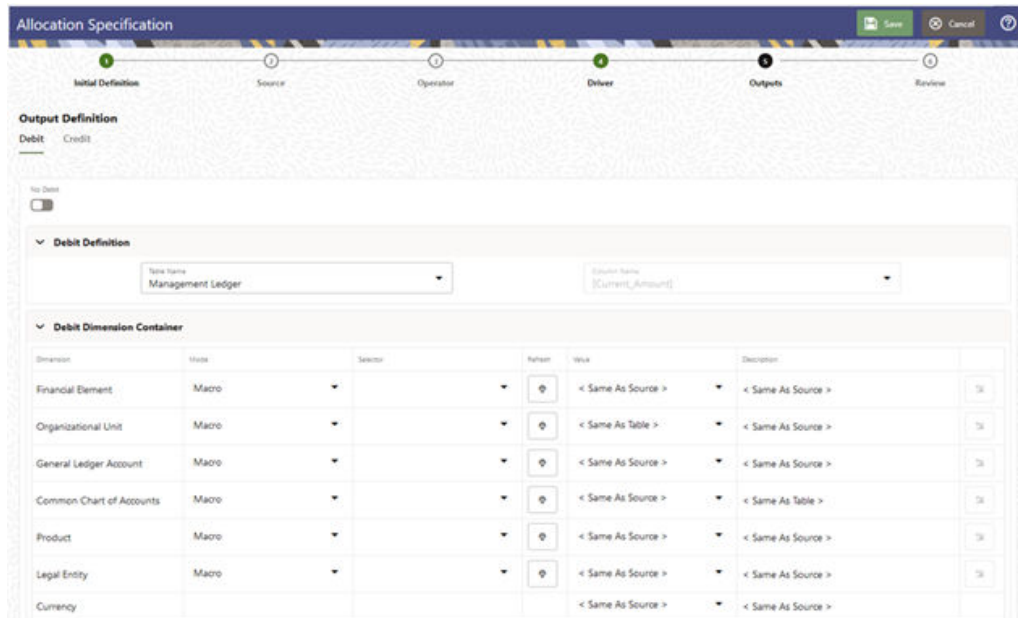
Note that you could specify an Organizational Unit constraint in your Source specification narrowing the source data down to just the Mortgage Origination and Statement Processing



rollup points. Doing so is not strictly necessary as the allocation rule insists on the matching of Source cost centers, Driver cost centers, and you have already constrained the Driver cost centers in your Static Table Driver rule.

In your allocation Output Debit, specify < Same as Table > for the Organizational Unit dimension and specify < Same as Source > for every other dimension.

**Figure 3-73 Allocation Specification Edit screen - Outputs tab**



Note the similarity between the Static Driver Table allocation rule defined above and a very similar allocation built using dynamic drivers. If the statistics we used in the Static Table Driver were available from an external source that we could load every month to the data model, we could achieve the same results with a Dynamic Driver allocation rule. The Output Debits in the following table show the values you would use for the two rule types.

**Table 3-18 Static Table Driver - Output Debits**

Dimension	Dynamic Driver Allocation Debit Definition	Static Table Driver Leaf Type	Static Driver Table Allocation Debit Definition
Organizational Unit	< Match Source and Driver >	Key Leaf	< Same as Source >
General Ledger Account	< Same as Source >	Not defined	< Same as Source >
Product	< Match Driver >	Target Leaf	< Same as Table >

## 3.12 Lookup Table

Lookup Tables are user-defined database tables that are created to hold user data to match Instrument level measures or attributes and thereby deduce a return factor.

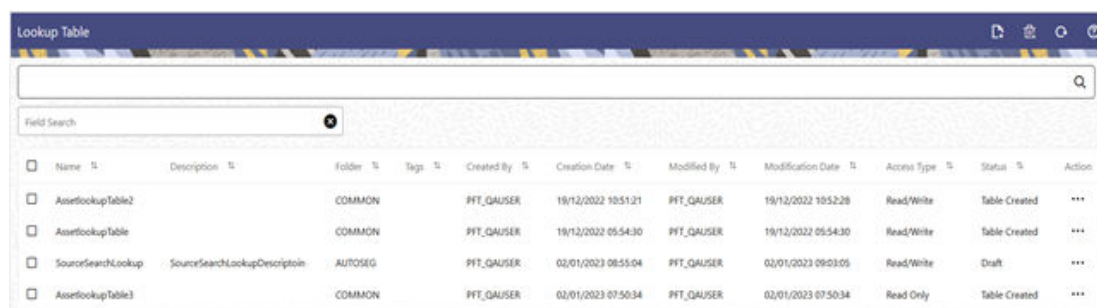
The user data is generally matched conditionally with the similar columns of a PBSMCS instrument table and a user specified value is returned that is stored under the return columns of the Lookup table.

A Lookup table by itself is a non executing component of the Profitability application. It is rendered meaning when used inside an allocation rule with the help of a Lookup Table Driver.

## 3.12.1 Summary and Detail Screens

To open the Summary page, select **Profitability Management Cloud Service**, select **Maintenance**, and then select **Lookup Table**. A summary screen is displayed showing a set of Lookup Table rules. Using search criteria, you can control the set of rules displayed. When you Add, Edit, or View a rule, it displays a detailed screen.

**Figure 3-74** Lookup Table - Summary page



Name	Description	Folder	Tags	Created By	Creation Date	Modified By	Modification Date	Access Type	Status	Action
AssetlookupTable2		COMMON		PFT_GAUSER	19/12/2022 10:51:21	PFT_GAUSER	19/12/2022 10:52:28	Read/Write	Table Created	...
AssetlookupTable		COMMON		PFT_GAUSER	19/12/2022 05:54:30	PFT_GAUSER	19/12/2022 05:54:30	Read/Write	Table Created	...
SourceSearchLookup	SourceSearchLookupDescription	AUTOSEG		PFT_GAUSER	02/01/2023 08:55:04	PFT_GAUSER	02/01/2023 09:03:05	Read/Write	Draft	...
AssetlookupTable3		COMMON		PFT_GAUSER	02/01/2023 07:50:34	PFT_GAUSER	02/01/2023 07:50:34	Read Only	Table Created	...

### 3.12.1.1 Navigation in Summary Screen

When you navigate to the Lookup Table summary screen, the rules stored within your current Default Folder are presented in a summary table.

The Lookup Table summary screen has two panes: Search and Lookup Table summary table.

The title bar of the summary page provides several actions for the user. They are:

- **Add:** Click the Add icon to build a new Lookup Table. The Add icon is disabled if any rows in the table are selected.
- **Multiple Delete:** Select one or more drivers in the table and then click the Multiple Delete icon at the top right of the summary page to delete more than one rule at the same time.
- **Refresh:** Click the Refresh icon to refresh the Summary Page.
- **Help:** Click the Help icon to view the Lookup Table help.

The Lookup Table Summary can be divided under two sections – the Search section and the Summary table.

#### 3.12.1.1.1 Search

There are two Search options provided to search the Lookup Tables on the Summary Page.

To search the Lookup Tables, follow these steps:

1. Click the **Search** icon on the Search pane to collapse (display) the Criteria Window.



2. Enter the Lookup Table **Name** or **Description** and click Search to display the Lookup Tables that match the criteria.
3. Click **Cancel** to remove the filter criteria on the Search Window and refresh the window.
4. Click **Search** after entering the search criteria. The search results are displayed in a table containing all the Lookup Tables that meet the search criteria.
5. The other method to search a Lookup Table is using the **Field Search** option. The Field Search is an inline wildcard search that allows you to enter value partially or fully and the rows that match the entered string in any of its column is fetched in the Summary table.

### 3.12.1.1.2 Lookup Table Summary Table

This section presents a table containing all of the Lookup Tables that meet your search criteria. The table displays the details of the already created Lookup Tables.

**Figure 3-75** Lookup Table Summary Table

Name	Description	Folder	Tags	Created By	Creation Date	Modified By	Modification Date	Access Type	Status	Action
AssetlookupTable2		COMMON		PFT_QAUSER	19/12/2022 10:51:21	PFT_QAUSER	19/12/2022 10:52:28	Read/Write	Table Created	...
AssetlookupTable		COMMON		PFT_QAUSER	19/12/2022 05:54:30	PFT_QAUSER	19/12/2022 05:54:30	Read/Write	Table Created	...

The Lookup Table Summary Table displays the following details:

- **Name:** Displays the Lookup Table's short name. Hovering over an Lookup Table name displays the Lookup Table's object code and the object ID.
- **Description:** Displays the Lookup Table's long name.
- **Folder:** Displays the folder in which the driver rule has been created.
- **Tags:** Displays the tags.
- **Created By:** Displays the name of the user who created the Lookup Table rule.
- **Creation Date:** Displays the date and time at which an Lookup Table rule was created.
- **Modified By:** Displays the name of the user who last modified the Lookup Table rule.
- **Modification Date:** Displays the date and time at which an Lookup Table rule was last modified.
- **Access Type:** Displays the "Read/Write" or "Read Only" property of an Lookup Table rule. Only the creator of a rule may change its Access Type.
- **Status:** Displays the status of the Lookup table. The values that are possible as status are – 'Draft', 'In Progress', 'Table Created' and 'Failed'.
- **Action:** Displays the list of actions that can be performed on the Lookup Table rule.

The Action column in the Lookup Table Summary table offers the following actions based on the status of the lookup table:

- Draft status - allowed actions: View, Edit, Save As, Delete, Create.
- In Progress status - allowed actions: View.
- Table Created status - allowed actions: View, Table Data.
- Failed status - allowed actions: View, Edit, Save As, Delete, Create.

**Draft** status is derived when the user clicks on the 'Save as Draft' button from the Detail screen and this creates only the UI template of the lookup table while the actual database table is not created. The Edit, Save As, Delete, Create actions are applicable only for Lookup UI template before the database table is created.

While in the Draft status, the user can click on Create action available in the Summary table for the selected lookup table resulting in change of the status of the lookup table to In Progress.

The **In Progress** status results into either a Table Created status or a Failed status, based on whether the physical lookup table creation in the database is successful or failed, respectively.

The **Table Created** status is derived either through a resulting status after the 'In Progress' status or when the user clicks on the 'Create' button from the Detail screen. Create option creates the actual database lookup table from the UI template.

Once the database table is created, the actions of Edit, Save As, Delete are not allowed and the user can only View the created lookup table.

The following actions are available for the Lookup Table rule.

- **View:** Click the View icon to view the contents of a Lookup Table rule on a read-only basis as the user is launched into the Lookup Table Detail screen in view mode.
- **Edit:** Click the Edit icon to modify a previously saved Lookup Table as the user is launched into the Lookup Table Detail screen in edit mode.
- **Save As:** Click the Save As option to create a copy of an existing Lookup Table rule. The Save As pop-up window allows you to enter the Name, Description, Folder, and Access Type Details for the copy Lookup Table rule.
- **Delete:** Click Delete to delete the Lookup Table rules you have selected.
- **Create:** Click Create to create the physical Lookup Table from the Draft status of the Lookup Table rule you have selected.
- **Table Data:** Click Table Data to invoke the Lookup Table Data screen to view, add or delete lookup table data.

You may select or de-select all of the Lookup Table rules in the summary table by clicking on the check box in the upper left-hand corner of the summary table directly to the left of the Name column header.

### 3.12.1.2 Navigation in the Detail Screen

When you Add, Edit or View a Lookup Table rule, the Lookup Table Detail screen is displayed.

In addition to Name, Description, Folder and Access Type, the definition of a Lookup Table includes the specification of a source table and defining the lookup table columns.

### 3.12.1.2.1 Lookup Table Details Pane

Specify the Lookup Table rule's Name and Description, select a Folder in which the Lookup Table rule is to be stored, and specify whether you want the Lookup Table rule to be "Read/Write" or "Read Only" (Access Type). Naming your Lookup Table rule is required before you save it. The default values for Folder and Access Type are stored in User Preferences.

**Figure 3-76** Lookup Table Details Pane

### 3.12.1.2.2 Lookup Table Source Selection Pane

Select a Source table to create your Lookup Table. The source table list is limited to the instrument tables available under PBSMCS.

The Source column dropdown lists all the columns available in the selected source table, except the VARCHAR domain type columns.

Click on the 'Add to Grid' button to include the selected column into the Grid.

**Figure 3-77** Lookup Table Source Selection Pane

### 3.12.1.2.3 Lookup Table Grid

The Lookup Table Grid is essentially a table that displays the column type, the physical column name and the logical column name of the columns of the Lookup table.

The grid is displayed as blank in New mode while it displays the lookup table columns in View and Edit mode. The logical names of the columns are editable for user input.

The pane displays the physical database table name at the top of the grid.

The grid is populated by **Add to Grid** button available in the earlier pane.

Users can add return columns with the **Add Return Column** button while any added column in the grid can be removed with the **Delete** button.

The user can feed in or view or delete lookup table data from the Lookup Table Data screen that can be invoked from the Detail screen using the **Table Data** button. The

**Table Data** button is enabled only for Lookup tables in *Table Created* state and the detail screen mode being View.

**Figure 3-78** Lookup Table Grid in New mode



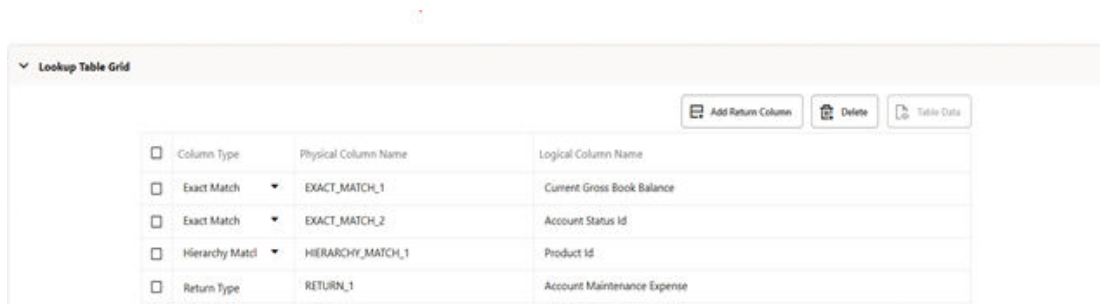
Once an instrument column has been added in the grid, the same column becomes unselectable the next time the user wants to select and add to the grid.

The Lookup Table rule supports three column types:

- Range Lookup: for all instrument non-dimension columns.
- Exact Match: for all instrument columns – both dimension and non-dimension.
- Hierarchy Match: for all instrument dimension columns.

The default column type value for a non-dimension column is Exact Match, while the default column type value for a dimension column is Hierarchy Match.

**Figure 3-79** Lookup Table Grid in View mode



### 3.12.1.2.4 Audit Info Pane

The Audit Trail pane is a standard footer pane for every OFSAA rule type.

The Audit Trail pane displays the following sections – Audit, Comments and Tags.

- **Audit Tab:** It shows the audit data for the object. The Audit tab contains details as:
  - Created By
  - Created Date
  - Modified By
  - Modified Date

- Authorized By
- Authorized Date
- **Comments Tab:** The Comments panel shows the existing comments for the object. Only the latest comment is editable and deletion of existing comments is not allowed. Users can also add new comments for the current object.
- **Tags Tab:** The Tags panel shows the tag associated with the object. The user can add new tags or remove the existing tags.

### 3.12.1.2.5 Lookup Table Column Types

A Range Lookup column type is to be used for columns that is meant to store a range of value from a minimum value to a maximum value. The minimum and the maximum values are stored in two separate Lookup columns in a Lookup column pair. The logical condition that relates to this column pair of values is: Range Lookup Minimum value  $\leq$  matching instrument data  $\leq$  Range Lookup Maximum value.

Range Lookups require that your lookup data do not have overlapping ranges as that would lead to ambiguous lookup values.

An Exact Match is a literal database join and is used for columns meant to store a single value that is to be related as: matching instrument data = Exact Match column value. Exact Match supports all instrument-level measures, attributes, and dimension members (numbers, dates, or strings).

A Hierarchy Match is to be used for columns that would store dimension leaf member values. A Hierarchy Match of a Lookup table Driver lets you to match on dimension member values from a source instrument table with any leaf member that belongs to a hierarchical rollup point of that leaf. Hierarchy matching supports only Key Processing dimensions.

A Lookup Table may contain one or multiple **Return Columns**. The Return columns are meant to hold the values that are expected to be returned in response to a match arrived with the source instrument table. The return values expected in the return columns are, in most cases, numeric values.

A Lookup table may contain any number of rows, each row having the values of the different column types used, including the return column types. A Lookup table does not hold a duplicate row.

The process to input user data into a Lookup table is to use the Lookup Table Data screen invoked through the Lookup Table Driver module. For more information, see the [Lookup Table Driver](#) section on the process to input of data . into a Lookup Table.

## 3.13 Lookup Table Driver

Lookup Table Driver rules are used in conjunction with Allocation rules (of the Lookup Driver Table type) to match Instrument level data with data from user-defined lookup tables. Each Instrument table row retrieved within the Allocation rule's Source definition is matched with your lookup table to return a lookup table factor. For each row, the resulting lookup table factor is arithmetically combined (typically multiplied) with the column specified in the Allocation rule's Source definition to update another column within the same row. A very typical use case might be the allocation of Loan Loss Reserves, Economic Loan Loss Provision, or Credit Risk Capital to each of your commercial loan instruments as a function of Product, Remaining Term to Maturity, and Credit Rating. Static Driver Table rules also support this kind of “matching”, but

only for key processing dimensions (only for Product in this example). Lookup Table Driver rules extend the functionality of Static Table Driver rules by allowing you to match on Instrument level measures or attributes (Remaining Term to Maturity and Credit Rating in this example).

Additional examples of how you might use a Lookup Table Driver rule include the following kinds of assignments:

- Risk equity as a function of Product (a dimension), Division (a rollup point within a dimension), Credit Score (an instrument-level attribute), and Remaining Term to Maturity (also an instrument-level attribute).
- Loan Loss Reserve or Economic Provision (expected loss) as a function of Product (a dimension), Amortization Type (an instrument-level attribute), and Loan to Value Ratio (also an instrument-level attribute).
- Account Maintenance Expense as a function of Product (a dimension) and Current Net Book Balance (an instrument-level measure).

#### Topics:

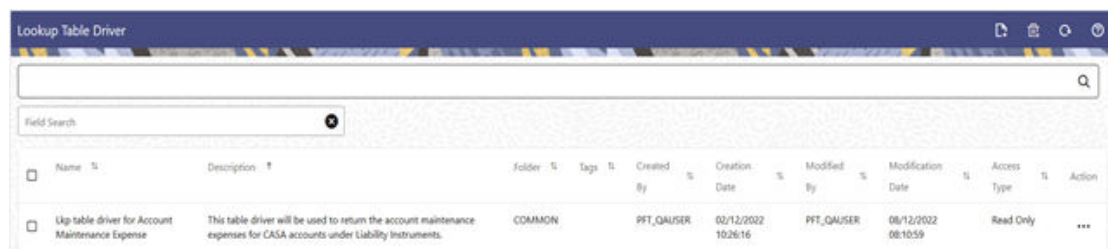
- [Summary and Detail Screens](#)
- [Navigation in the Summary Screen](#)
- [Navigation in the Detail Screen](#)

## 3.13.1 Summary and Detail Screens

To open the Summary page, select **Profitability Management Cloud Service**, select **Maintenance**, and then select **Lookup Table Driver**.

A summary screen is displayed showing a set of Lookup Table Driver rules. Using search criteria, you can control the set of rules displayed. When you Add, Edit, or View a rule, it displays a detailed screen.

**Figure 3-80** Lookup Table Driver - Summary Page



Name	Description	Folder	Tags	Created By	Creation Date	Modified By	Modification Date	Access Type	Action
<input type="checkbox"/> Up table driver for Account Maintenance Expense	This table driver will be used to return the account maintenance expenses for CASA accounts under Liability Instruments.	COMMON		PFT_GAUSER	02/12/2022 10:26:16	PFT_GAUSER	08/12/2022 08:10:59	Read Only	...

### 3.13.1.1 Navigation in Summary Screen

When you navigate to the Lookup Table Driver summary screen, the rules stored within your current Default Folder are presented in a summary table. The Lookup Table Driver summary screen has two panes: Search and Lookup Table Driver summary table.

**Figure 3-81** Lookup Table Driver Summary Screen

Name	Description	Folder	Tags	Created By	Creation Date	Modified By	Modification Date	Access Type	Action
<input checked="" type="checkbox"/> Up table driver for Account Maintenance Expense	This table driver will be used to return the account maintenance expenses for CASA accounts under Liability Instruments.	COMMON		PFT_QAUSER	02/12/2022 10:26:16	PFT_QAUSER	08/12/2022 08:10:59	Read Only	View, Edit, Save As, Delete, Check Dependencies

The title bar of the summary page provides several actions for the user. They are:

- **Add:** Click Add icon to build a new Lookup Table Driver. The Add icon is disabled if any rows in the table are selected.
- **Multiple Delete:** Select one or more drivers in the table and then click the (-) icon at the top right of the summary page to delete more than one rule at the same time.
- **Refresh:** Click Refresh to refresh the Summary Page.
- **Help:** Click Help icon to view the Lookup Table Driver help.

The Lookup Table Driver Summary can be divided under two sections – the Search section and the Summary table.

### 3.13.1.1.1 Search

There are two Search options provided to search the Lookup Table Drivers on the Summary Page.

To search the Lookup Table Drivers, follow these steps:

1. Click the **Search** icon on the Search pane to collapse (display) the Criteria Window.
2. Enter the Lookup Table Driver **Name** or **Description** and click **Search** to display the Lookup Table Drivers that match the criteria.
3. Click **Cancel** to remove the filter criteria on the Search Window and refresh the window.
4. Click **Search** after entering the search criteria.

The search results are displayed in a table containing all the Lookup Table Drivers that meet the search criteria.

5. The other method to search a Lookup Table Driver is using the **Field Search** option. The Field Search is an inline wildcard search that allows you to enter value partially or fully and the rows that match the entered string in any of its column is fetched in the Summary table.

### 3.13.1.1.2 Lookup Table Driver Summary Table

This section presents a table containing all of the Lookup Table Drivers that meet your search criteria. The table displays the details of the already created Lookup Table Drivers.

**Figure 3-82 Lookup Table Driver Summary Table**

Name	Description	Folder	Tags	Created By	Creation Date	Modified By	Modification Date	Access Type	Action
Uip table driver for Account Maintenance Expense	This table driver will be used to return the account maintenance expenses for CASA accounts under Liability Instruments.	COMMON		PFT_QAUSER	02/12/2022 10:26:16	PFT_QAUSER	08/12/2022 08:10:59	Read Only	...

The Lookup Table Driver Summary Table displays the following details:

- **Name:** Displays the Lookup Table Driver's short name. Hovering over a Lookup Table Driver name displays the Lookup Table Driver's object code.
- **Description:** Displays the Lookup Table Driver's long name.
- **Folder:** Displays the folder in which the driver rule has been created.
- **Created By:** Displays the name of the user who created the Lookup Table Driver rule.
- **Creation Date:** Displays the date and time at which an Lookup Table Driver rule was created.
- **Access Type:** Displays the "Read/Write" or "Read Only" property of a Lookup Table Driver rule. Only the creator of a rule may change its Access Type.
- **Status:** Before executing a Lookup Table Driver rule for the first time, the Status is blank. After executing a driver rule the appropriate status of the rule is displayed among Processing, Success or Failed.
- **Action:** Displays the list of actions that can be performed on the rule.

The Action column on Lookup Table Driver rule Summary Page offers the following actions that allow you to perform different functions. The following actions are available for the Lookup Table Driver rule.

- **View:** Click the View icon to view the contents of a Lookup Table Driver rule on a read-only basis as the user is launched into the Lookup Table Driver Detail screen in view mode.
- **Edit:** Click the Edit icon to modify a previously saved Lookup Table Driver as the user is launched into the Lookup Table Driver Detail screen in edit mode.
- **Run:** Click Run to execute the selected Lookup Table Driver rule. On click of Run, the Run Execution Parameters window opens up to show the process name being executed and take user input of run time parameters – the As of date and the legal Entity. The As-of-Date can be reset in the User Preferences for Profitability Management.
- **Save As:** Click on this option to create a copy of an existing Lookup Table Driver rule. The Save As pop-up window allows you to enter the Name, Description, Folder, and Access Type Details for the copy Lookup Table Driver rule.
- **Delete:** Click Delete to delete the Lookup Table Driver rules you have selected. You may select or de-select all of the Lookup Table Driver rules in the summary table by clicking



on the check box in the upper left-hand corner of the summary table directly to the left of the Name column header.

### 3.13.1.2 Navigation in the Detail Screen

When you Add, Edit or View a Lookup Table Driver rule, the Lookup Table Driver Detail screen is displayed. In addition to Name, Description, Folder and Access Type, the definition of a Lookup Table Driver includes the specification of a source table and a lookup table, the mapping of source columns to lookup table columns, a lookup table filter or a lookup table expression (both filters and expressions are optional), and a lookup table return column.

The Audit Trail pane is a standard footer pane for every OFSAA rule type. The Audit Trail pane displays the following sections – Audit, Comments and Tags.

The Audit tab contains the audit data of an object as:

- Created By
- Created Date
- Modified By
- Modified Date
- Authorized By
- Authorized Date

The Comments tab shows the existing comments for the object. Only the latest comment is editable, and the deletion of existing comments is not allowed. Users can add new comments for the current object.

The Tags tab shows the tags associated with the object. We can add new tags or remove the existing tags.

#### 3.13.1.2.1 Lookup Table Driver Details Pane

Specify the Lookup Table Driver rule's Name and Description, select a Folder in which the Lookup Table Driver rule is to be stored, and specify whether you want the Lookup Table Driver rule to be "Read/Write" or "Read Only" (Access Type).

Naming your Lookup Table Driver rule is required before you save it. The default values for Folder and Access Type are stored in User Preferences.

**Figure 3-83** Lookup Table Driver Details Pane



The screenshot shows the 'Lookup Table Driver Details' pane. It contains four main input fields: 'Name' (with a 'Required' label), 'Description', 'Folder Name' (a dropdown menu currently showing 'COMMON'), and 'Access Type' (radio buttons for 'Read Only' and 'Read/Write', with 'Read/Write' selected).

#### 3.13.1.2.2 Source and Lookup Selection Pane

Select a Source table and a Lookup table. The source table list is limited to the instrument tables under PSMCS. The tables available in the Lookup drop-down list

are limited to lookup tables that have been created through the Lookup Table user interface.

Click the **Table Data** button to invoke the 'Lookup Table Data' window that displays the lookup table columns and the data contained in the lookup table. The actual columns of the Table Data depend on the Lookup Table selected.

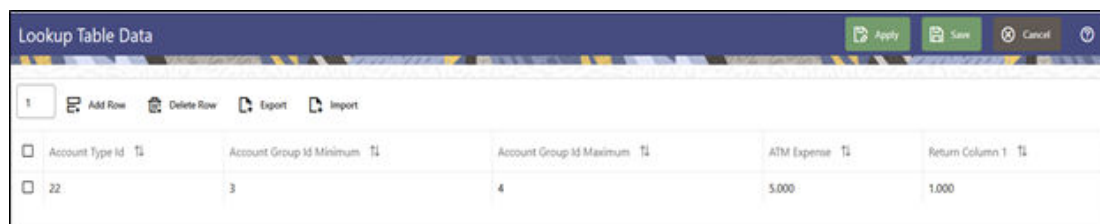
**Figure 3-84 Source and Lookup Tables Pane**



The Lookup Table Data screen allows several operations on the selected lookup table data.

- Enter the number of rows you want to add, and then click the **Add** icon to add the number of new rows to the Lookup table.
- Once the new rows are added, enter the values for the rows and click **Save**. This saves the values of the rows in the database for the lookup table, and then closes the screen.
- Alternatively, the user can click **Apply** to save the values of the rows in the database for the lookup table but does not close the screen.
- Click the **Delete** icon to delete a row(s) from the Lookup table.
- Click the **Export** or the **Import** icons to access the Export or Import functionality. While exporting, the data from this screen is exported as a .xls file.

**Figure 3-85 Lookup Table Data Screen**



### 3.13.1.2.3 Source – Lookup Mapping Grid

When you select a Lookup table in the Source and Lookup Selection pane, the Source – Lookup Mapping Grid responds by displaying one row for each lookup column within your selected lookup table.

Thus, the number of rows in the Mapping Grid is dynamic and gets structured based on the columns present in the selected lookup table.

Lookup Table Driver rules support three types of matching:

- Range Lookup
- Exact Match
- Hierarchy Match

Figure 3-86 Source - Lookup Mapping Grid

Lookup Type	Source Table Column	Hierarchy Level	Lookup Table Column
Range Lookup	ATM Expense ▼		Average Gross Book Balance Minimum Average Gross Book Balance Maximum
Exact Match	ATM Expense ▼		Account Status Id
Exact Match	ATM Expense ▼		Product Id
Hierarchy Match	Common Chart Of Acco ▼		Organization Unit Id

The mapping grid container has a table structure consisting of four columns. The grid maps the columns from the selected lookup table with the columns from the selected source instrument table. The column Hierarchy Level is used only for Hierarchy Match lookup type and stores the folder name containing the hierarchy, the hierarchy's name, and the hierarchy level name.

The Lookup types in the first column gets inherited from the Lookup table selected. An Exact Match displays all the columns of the source table in the second column of the grid, the Source Table Column dropdown. Similarly, a Range Lookup type displays all the columns of the source table in the Source Table Column drop-down. A Hierarchy Match displays only the dimension columns of the source table in the Source Table Column dropdown.

### 3.13.1.2.3.1 Range Lookup

One of the options in defining a lookup table is to define a minimum column and a maximum column that you can employ in a "Range Lookup" against each row of selected instrument data. For example, you may wish to assign an Account Maintenance fee against certain checking account products as a function of balances ranges, such as one fee amount for accounts having balances between 0 and 1,000 and a different fee amount for balances between 1,000 and 5,000, and a third fee amount for accounts having balances greater than 5,000.

If the lookup table you chose in the "Source and Lookup Table" pane includes range lookup columns, a Range Lookup row (this is a row whose Lookup Type is Range Lookup) is automatically generated within the Source – Lookup Mapping pane. Within this automatically generated row, select the source column that you want to compare to the Range Lookup columns from your lookup table. In the example described above, you might want to compare the Average Net Book Balance for each account with the range values from your lookup table. Range Lookup supports all instrument-level measures, attributes, and dimension members (numbers, dates, or strings).

#### Note:

Range Lookups require that your lookup data not have overlapping ranges that would lead to ambiguous lookup values.

### 3.13.1.2.3.2 Exact Match

An exact match is a literal database join. Exact Match supports all instrument-level measures, attributes, and dimension members (numbers, dates, or strings).

### 3.13.1.2.3.3 Hierarchy Match

Similar to Static Table Drivers, Lookup Table Drivers allow you to match leaf values from a Source instrument table with any leaf member that belongs to a hierarchical rollup point of that leaf.

For example, you might have sets of driver statistics that vary by region where regions are defined as rollup points in an Organizational Unit hierarchy.

If you had North, South, East, and West regions, you could store your lookup data in four regional sets. If there were 300 cost centers in the West region, by using Hierarchy Match functionality, you avoid the repetition of 299 sets of otherwise identical driver data for the West region. Hierarchy matching supports only Key Processing dimensions.

### 3.13.1.2.4 Lookup Table Filters Pane

You may constrain the data within your selected lookup table by applying a Lookup Table Filter.

Choose No Filter, Data Filter, or Group Filter. If you have chosen either Data Filter or Group Filter, continue by selecting a Folder and a Filter Name. Note that the Filter Name drop-down list will only display filters that apply to your chosen lookup table.

**Figure 3-87** Lookup Table Filters Pane



### 3.13.1.2.5 Lookup Return Value

Specify a Column or an Expression within your lookup table from which to return a value for each Lookup.

**Figure 3-88** Lookup Table Return Value



Lookup tables may contain multiple lookup columns. For example, you may define a lookup table called Risk Factors that contains return columns for Credit Risk Factor, Operating Risk Factor, Economic Loan Loss Provision Factor, and Loan Loss Reserve Factor. In this example, you could subsequently define four separate Lookup Table Driver rules to be used within four separate Allocation rules (one Lookup Table Driver rule and one Allocation rule for

each defined lookup column). In this example, each of your Allocation rules might utilize the same instrument column source (as defined in each Allocation rule's Source definition), for example, Average Balance.

As another example, you might define a lookup table called Expense Factors that contains return columns for Account Maintenance Expense, Account Origination Expense, ATM Transaction Unit Cost, and Check Processing Unit Cost. In this example, you might develop four Lookup Table Driver rules and four Allocation rules. Here, you would probably utilize different Source columns within your Allocation rule definitions. For maintenance expense and origination expense, you might choose to allocate a flat amount for each account (for example, use the value of 1.00 for each account; you may accomplish this using Record Count as the Source column since the Record Count column within Instrument tables is typically set to 1). For ATM expense and Check Processing expense, you might utilize Instrument source columns of ATM Transaction Count and Number of Checks Processed.

Alternatively, the user can use an user-defined Expression as a return type for the Lookup.

 **Note:**

Lookup table driver supports all types of expressions as return types except any expression involving an aggregate function.

# 4

## Reports & Analytics

Profitability and Balance Sheet Planning Cloud Service (PBSM) Analytics User Guide describes the features and functions of PBSM's Analytics is intended for the use of Administrators, Analysts, Reporting Analysts, and Administrators.

This chapter covers the following topics:

- [Profitability Management Reports & Analytics](#): Oracle Analytics is a scalable and secure Oracle Cloud Service that provides a full set of capabilities to explore and perform collaborative analytics for you, your workgroup, and your enterprise.
- [Balance Reconciliation](#): Balance Reconciliation module helps you to Reconcile the selected processing/instrument/account balances against the Management Ledger. If any differences are found, you will have the flexibility to choose significant differences and create plug entries for those in the Ledger\_Instruments table.

### 4.1 Profitability Management Cloud Service Reports & Analytics

Profitability and Balance Sheet Planning Cloud Service (PBSM) Analytics User Guide describes the features and functions of PBSM's Analytics is intended for the use of Administrators, Analysts, Reporting Analysts, and Administrators.

Profitability and Balance Sheet Management (PBSM) Cloud Service utilizes the power of Oracle Analytics to generate the Business Intelligence Reports.

Oracle Analytics is a scalable and secure Oracle Cloud Service that provides a full set of capabilities to explore and perform collaborative analytics for you, your workgroup, and your enterprise.

With Oracle Analytics Cloud, you also get flexible Service Management capabilities, including fast setup, easy scaling and patching, and automated lifecycle management.

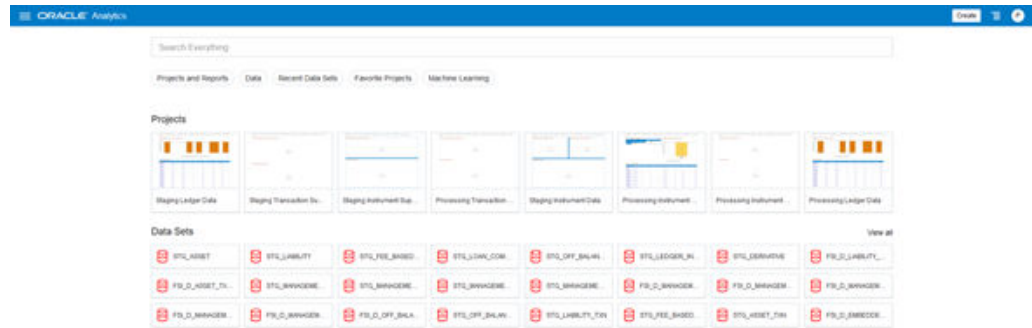
For more information, see the [Oracle Analytics Cloud](#) documentation.

#### 4.1.1 Access Business Intelligence (BI) Reports

This section describes the steps to access the Business Intelligence (BI) Reports.

To access the Oracle Financial Services Profitability Management Cloud Service BI Reports, from the LHS Menu, select **Analytics**, and then select **Home Page**.

**Figure 4-1 Analytics Home Page**



## 4.1.2 Preparing Data using SQL Query Browser

Data Sets are self-service Data Models that you build specifically for your Data Visualization and Analysis requirements.

A Data Set can be based on one Table, Spreadsheet, or a File. Alternatively, a Data Set can be a self-service Data Model that contains multiple Tables with relationships defined between the Tables.

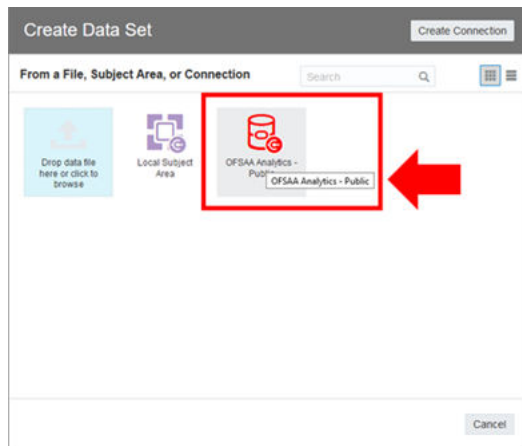
A Data Set contains Data Source Connection Information, Tables, the Columns you specify, and the Data Enrichments, and Transformations that you apply.

For more information, see [Visualizing Data and Building Reports in Oracle Analytics Cloud](#).

To access the SQL Query Browser and prepare Data, follow these steps:

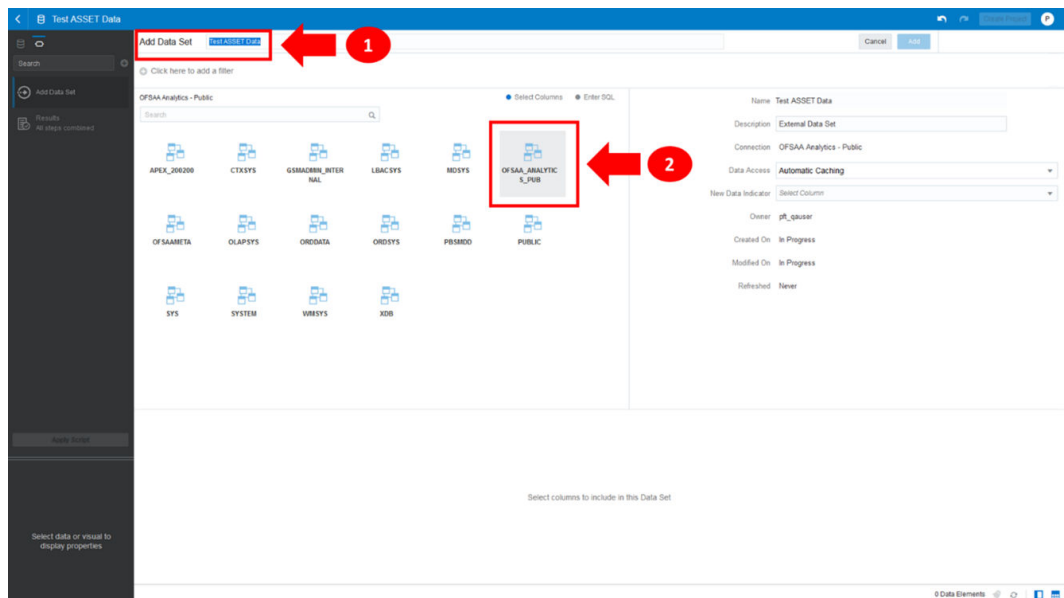
1. From the LHS Menu, select Analytics, and then select SQL Query Browser. The SQL Query Browser allows you to use an existing Database Connector named OFSAA Analytics – Public to interact with the underlying available Database Structures.

Figure 4-2 Create Data Set Screen



2. After selecting the Database Connector, you must select the Database Schema named OFSAA\_ANALYTICS\_PUB to proceed to the next step of Database Object Selection.

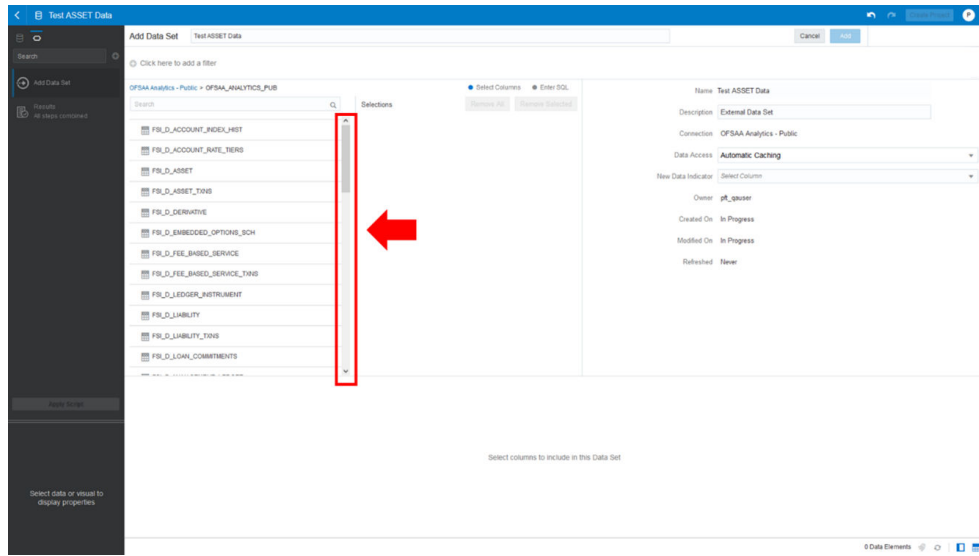
Figure 4-3 Add Data Set



3. Provide a meaningful name to the Data Set, which will be generated from this process and be used for the SQL Query Analysis.
4. You can search for a Database Object from the available options. You can either scroll down or search the Database Objects displayed in alphabetical order.

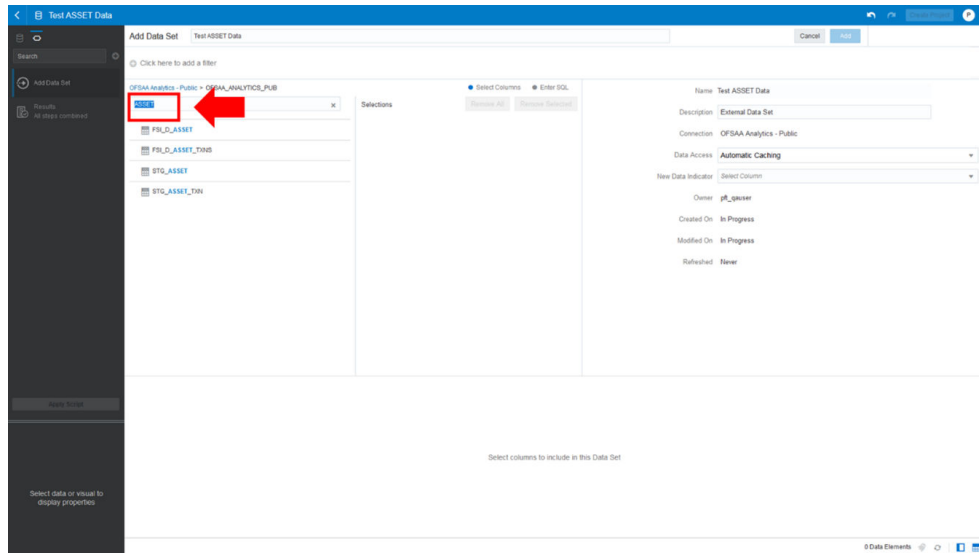


Figure 4-4 Add Data Set – Search from the List



Or  
Type the Database Object Name to filter the list with Description.

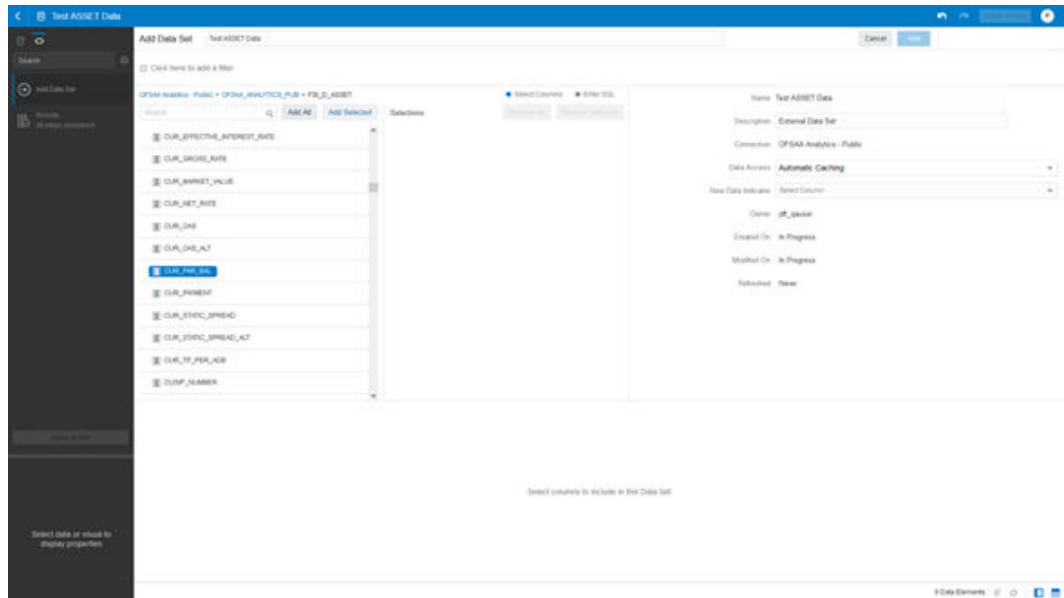
Figure 4-5 Add Data Set – Search by Name



After you select the Object that want, you can proceed to the next step.

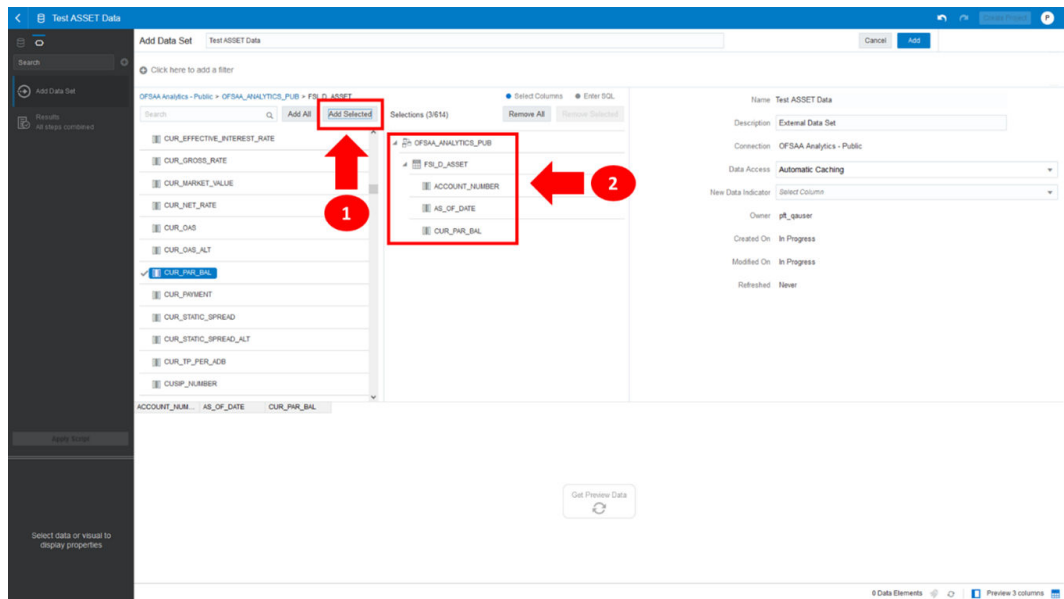
5. You search the Columns that are available for the selected Database Object by scrolling.

Figure 4-6 Add Data Set – Search Columns



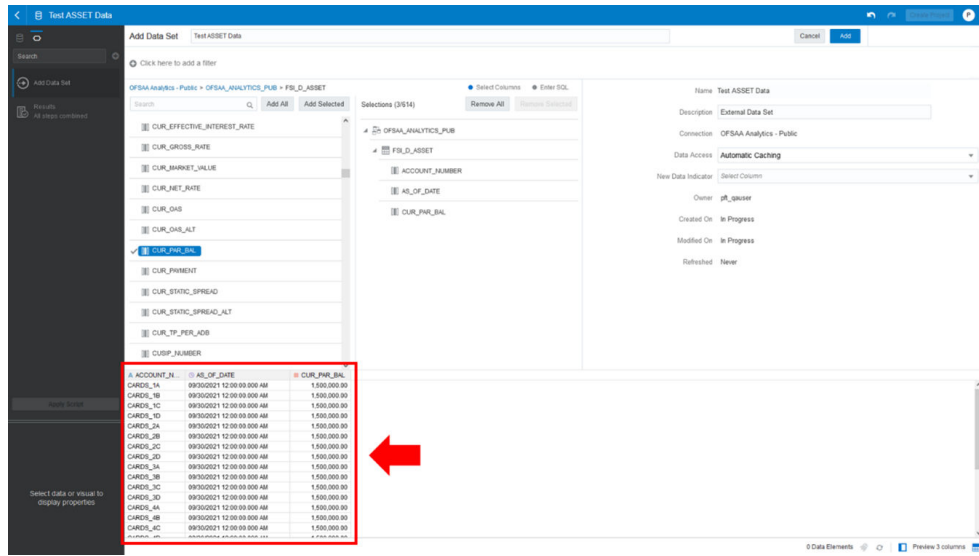
6. Add the Database Object Column as required.

Figure 4-7 Add Data Set – Adding the Database Object Column



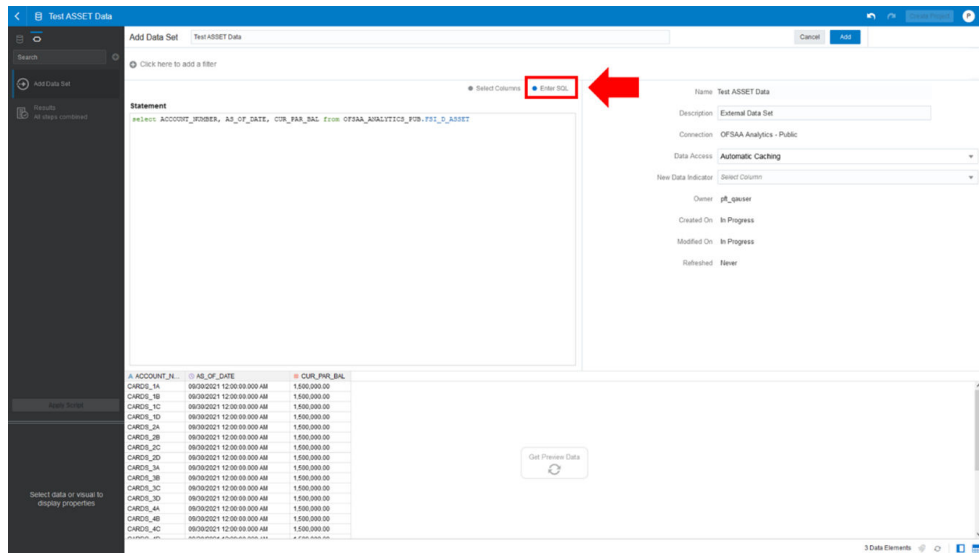
7. Click Get Preview Data to display the retrieved Data Results.

Figure 4-8 Data Results



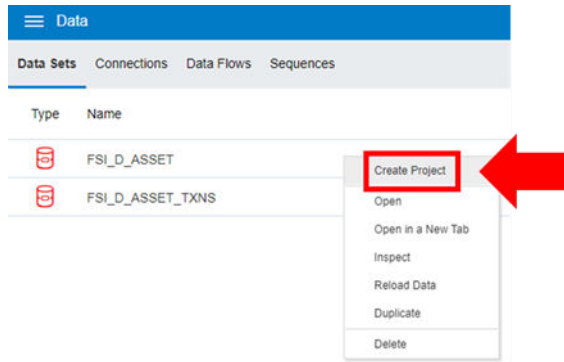
- In addition, you can switch to the Enter SQL Pane Editor. You can change the auto-generated SQL Query at any time and click Get Preview Data to retrieve the results based on the modified SQL Query.

Figure 4-9 Data Results based on modified SQL Query



- Click **Add** to save the SQL Data.
- Click **Data** on the LHS Menu and click **Data Sets** to display the available Data Sets for usage.
- Right-click on the Data Set name to display the options as shown:

**Figure 4-10 Data Set Options**



12. In the menu that is displayed, click **Create Project**.

### 4.1.3 Raw Data Analysis

To access the Raw Data Analysis Screen, from the LHS Menu, select Analytics, and then select Raw Data Analysis.

The following table lists the Raw Data Analysis Reports. You can select any report that you want.

**Table 4-1 Raw Data Analysis Reports**

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging Instrument Data	Instrument	STG Staging	STG_ASSET	Stage Asset Instruments	Assets
			STG_LIABILIT Y	Stage Liability Instruments	Liabilities
			STG_DERIVATI VE	Stage Derivative Instruments	Derivative Contracts
			STG_FEE_BA SED_SERVICE	Stage Fee Based and Other Services	Fee Based Services
			STG_LOAN_C OMMITMENTS	Stage Loan Commitments	Loan Commitments
			STG_OFF_BAL ANCE_SHEET	Stage Off Balance Sheet	Off Balance Sheet Items
			STG_LEDGER _INSTRUMENT	Stage Ledger Instrument	Ledger - Instruments
				Stage Off Balance Sheet Contracts	
				Stage Ledger Instrument	

**Table 4-1 (Cont.) Raw Data Analysis Reports**

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging Instrument Supplementary Data	Instrument Supplementary	STG Staging	STG_ACCOUN	Stage Account	Account Index
			T_INDEX_HIST	Index History	History
			STG_ACCOUN	Stage Account	Account Rate
			T_RATE_TIER	Rate Tiers	Tiers
			S	Stage	Embedded
			STG_EMBEDD	Embedded	Options
			ED_OPTIONS_SCH	Options Schedule	Schedule
Staging Ledger Data	Ledger	STG Staging	STG_PAYMEN	Stage Payment	Schedule
			T_SCHEDULE	Schedule	
			STG_MANAGE	Stage Management	Management
			MENT_LEDGE	Management	Ledger
			R	Ledger	Management
			STG_MANAGE	Stage Placeholder	Ledger 01
			MENT_LEDGE	Placeholder	Management
			R_01	Management	Ledger 02
			STG_MANAGE	Ledger 01	Management
			MENT_LEDGE	Stage Placeholder	Ledger 03
			R_02	Placeholder	Management
			STG_MANAGE	Management	Ledger 04
			MENT_LEDGE	Ledger 02	Management
			R_03	Stage Placeholder	Ledger 05
			STG_MANAGE	Placeholder	Management
MENT_LEDGE	Management	Ledger 03			
R_04	Ledger 03				
STG_MANAGE	Stage Placeholder	Management			
MENT_LEDGE	Placeholder	Ledger 04			
R_05	Management	Ledger 04			
Staging Transaction Summary Data	Transaction Summary	STG Staging	STG_ASSET_T	Stage Asset	Assets
			XN	Transaction	Transaction
			STG_LIABILIT	Summary	Summary
			Y_TXN	Stage Liability	Liabilities
			STG_FEE_BA	Transaction	Transaction
			SED_SERVICE	Summary	Summary
			_TXN	Stage Fee	Fee Based
			STG_OFF_BAL	Based and	Services
			ANCE_SHEET	Other Services	Transaction
			_TXN	Transaction	Summary
	Summary	Off Balance			
	Stage Off	Sheet			
	Balance Sheet	Transaction			
	Transaction	Summary			
	Summary				

**Table 4-1 (Cont.) Raw Data Analysis Reports**

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Instrument Data	Instrument	FSI Processing	FSI_D_ASSET	Asset	Assets
			FSI_D_LIABILITY	Instruments Liability	Liabilities
			FSI_D_DERIVATIVE	Instruments Derivative	Derivative Contracts
			FSI_D_FEE_BASED_SERVICES	Derivative Contracts	Fee Based Services
			FSI_D_LOAN_COMMITMENTS	Fee Based and Other Services	Loan Commitments
			FSI_D_OFF_BALANCE_SHEET	Loan Commitments	Off Balance Sheet Items
			FSI_D_OFF_BALANCE_SHEET_INSTRUMENTS	Off Balance Sheet Contracts	Ledger Instruments
			FSI_D_LEDGER_INSTRUMENT	Ledger Instrument	
			Processing Instrument Supplementary Data	Instrument Supplementary	FSI Processing
FSI_D_ACCOUNT_RATE_TIERS	Account Rate Tiers	Account Rate Tiers			
FSI_D_EMBEDDED_OPTIONS	Embedded Options	Embedded Options			
FSI_D_SCHEDULE_PAYMENT_SCHEDULE	Schedule Payment Schedule	Schedule Payment Schedule			
FSI_D_PAYMENT_SCHEDULE	Payment Schedule	Payment Schedule			
FSI_D_PAYMENT_SCHEDULE	Payment Schedule	Payment Schedule			
FSI_D_PAYMENT_SCHEDULE	Payment Schedule	Payment Schedule			
Processing Ledger Data	Ledger	FSI Processing	FSI_D_MANAGEMENT_LEDGER	Management Ledger	Management Ledger
			FSI_D_MANAGEMENT_LEDGER_01	Placeholder Management Ledger 01	Management Ledger 01
			FSI_D_MANAGEMENT_LEDGER_02	Placeholder Management Ledger 02	Management Ledger 02
			FSI_D_MANAGEMENT_LEDGER_03	Placeholder Management Ledger 03	Management Ledger 03
			FSI_D_MANAGEMENT_LEDGER_04	Placeholder Management Ledger 04	Management Ledger 04
			FSI_D_MANAGEMENT_LEDGER_05	Placeholder Management Ledger 05	Management Ledger 05
			FSI_D_MANAGEMENT_LEDGER_05	Placeholder Management Ledger 05	Management Ledger 05
			FSI_D_MANAGEMENT_LEDGER_05	Placeholder Management Ledger 05	Management Ledger 05
			FSI_D_MANAGEMENT_LEDGER_05	Placeholder Management Ledger 05	Management Ledger 05
			FSI_D_MANAGEMENT_LEDGER_05	Placeholder Management Ledger 05	Management Ledger 05
			FSI_D_MANAGEMENT_LEDGER_05	Placeholder Management Ledger 05	Management Ledger 05

**Table 4-1 (Cont.) Raw Data Analysis Reports**

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Transaction Summary Data	Transaction Summary	FSI Processing	FSI_D_ASSET	Asset	Assets
			_TXNS	Transaction	Transaction
			FSI_D_LIABILI	Summary	Summary
			TY_TXNS	Liability	Liabilities
			FSI_D_FEE_B	Transaction	Transaction
			ASED_SERVIC	Summary	Summary
			E_TXNS	Fee Based and	Fee Based
			FSI_D_OFF_B	Other Services	Services
ALANCE_SHE	Transaction	Transaction			
ET_TXNS	Summary	Summary			
			Off Balance	Off Balance	
			Sheet	Sheet	
			Transaction	Transaction	
			Summary	Summary	

### 4.1.3.1 Staging Instrument Data

You can use this report to perform the analysis on the Staging Area Tables related to Instrument Data. The report contains specifically the following Staging Database Objects:

**Table 4-2 Staging Instrument Data Reports**

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging Instrument Data	Instrument	STG-Staging	STG_ASSET	Stage Asset	Assets
			STG_LIABILIT	Instruments	Liabilities
			Y	Stage Liability	Derivative
			STG_DERIVA	Instruments	Contracts
			TIVE	Stage	Fee Based
			STG_FEE_BA	Derivative	Services
			SED_SERVIC	Contracts	Loan
			E	Stage Fee	Commitments
			STG_LOAN_	Based and	Off Balance
			COMMITMEN	Other	Sheet Items
			TS	Services	
STG_OFF_BA	Stage Loan	Ledger -			
LANCE_SHE	Commitments	Instruments			
ET	Stage Off				
STG_LEDGE	Balance Sheet				
R_INSTRUME	Contracts				
NT	Stage Ledger				
	Instrument				

### 4.1.3.1.1 Assets

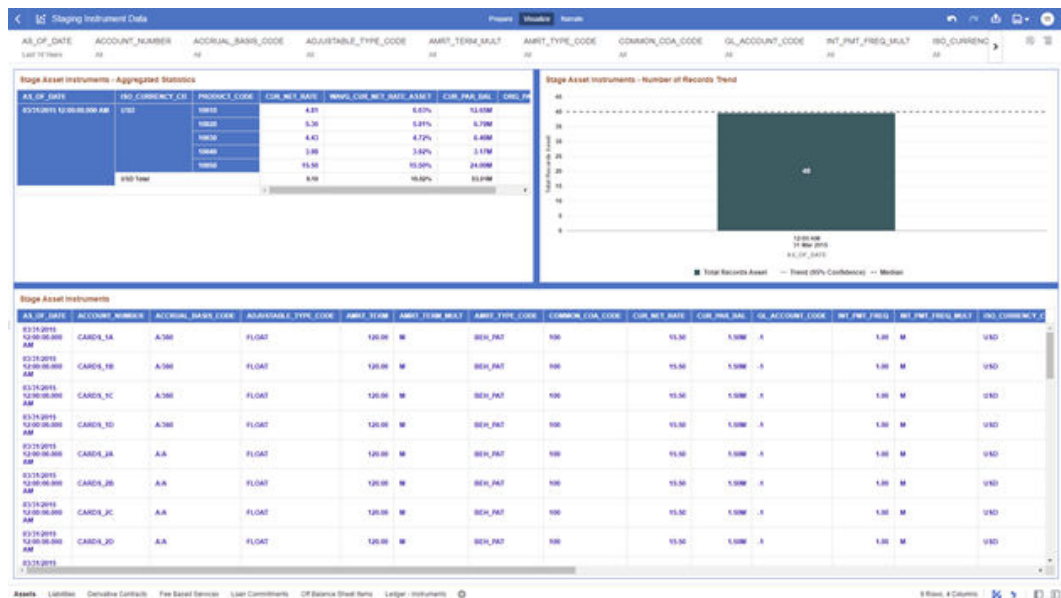
The Assets Report provides the Analysis Capability on the Stage Asset Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Asset Instruments - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.  
In addition, for CUR\_NET\_RATE, the Additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_ASSET, is calculated as the Weighted AVG by CUR\_PAR\_BAL.
- Stage Asset Instruments - Number of Records Trend  
Total Records Asset aggregated by AS\_OF\_DATE.
- Stage Asset Instruments  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-11 Staging Instrument Data - Assets**



### 4.1.3.1.2 Liabilities

The Liabilities Report provides the Analysis Capability on the Stage Liability Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

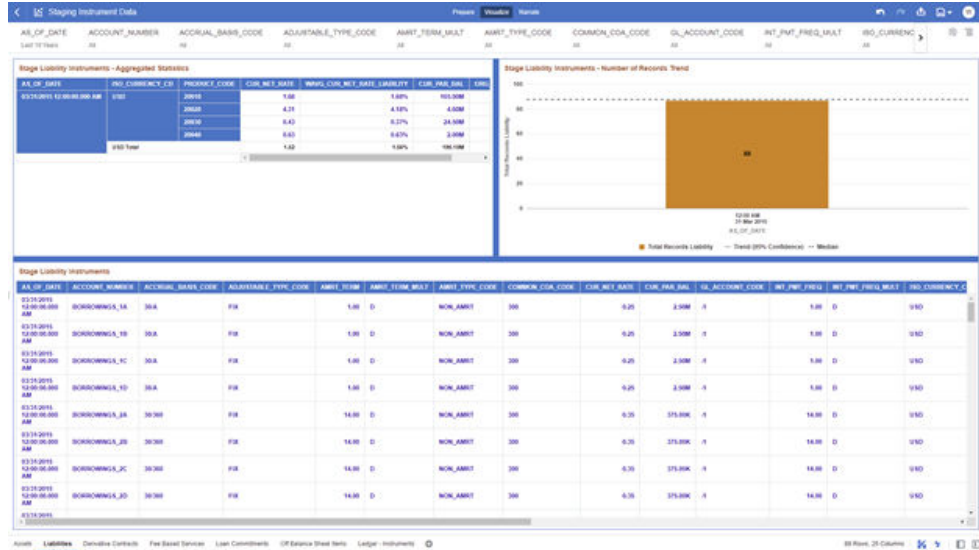
- Stage Liability Instruments - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.



In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LIABILITY, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Liability Instruments - Number of Records Trend  
Total Records Liability aggregated by AS\_OF\_DATE.
- Stage Liability Instruments  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-12 Staging Instrument Data - Liabilities**



#### 4.1.3.1.3 Derivative Contracts

The Derivative Contracts Report provides the Analysis Capability on the Stage Derivative Contracts Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Derivative Contracts (Payment) - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL\_PAY (sum), ORG\_PAR\_BAL\_PAY (sum) and CUR\_NET\_RATE\_PAY (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD\_PAY and PRODUCT\_CODE.

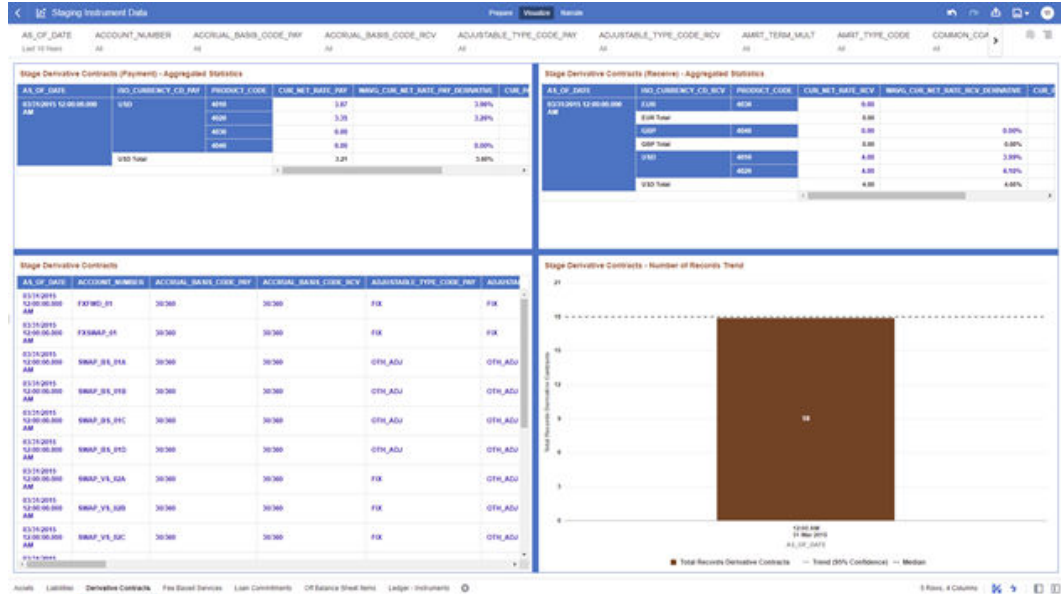
In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_PAY\_DERIVATIVE, is calculated as the Weighted AVG by CUR\_PAR\_BAL\_PAY.

- Stage Derivative Contracts (Receive) - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL\_RCV (sum), ORG\_PAR\_BAL\_RCV (sum) and CUR\_NET\_RATE\_RCV (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD\_RCV and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_RCV\_DERIVATIVE, is calculated as the Weighted AVG by CUR\_PAR\_BAL\_RCV.

- Stage Derivative Contracts - Number of Records Trend  
Total Records Derivative Contracts aggregated by AS\_OF\_DATE.
- Stage Derivative Contracts  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-13 Staging Instrument Data – Derivative Contracts**



#### 4.1.3.1.4 Fee Based Services

The Fee Based Services Report provides the Analysis Capability on the Stage Fee Based and Other Services Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

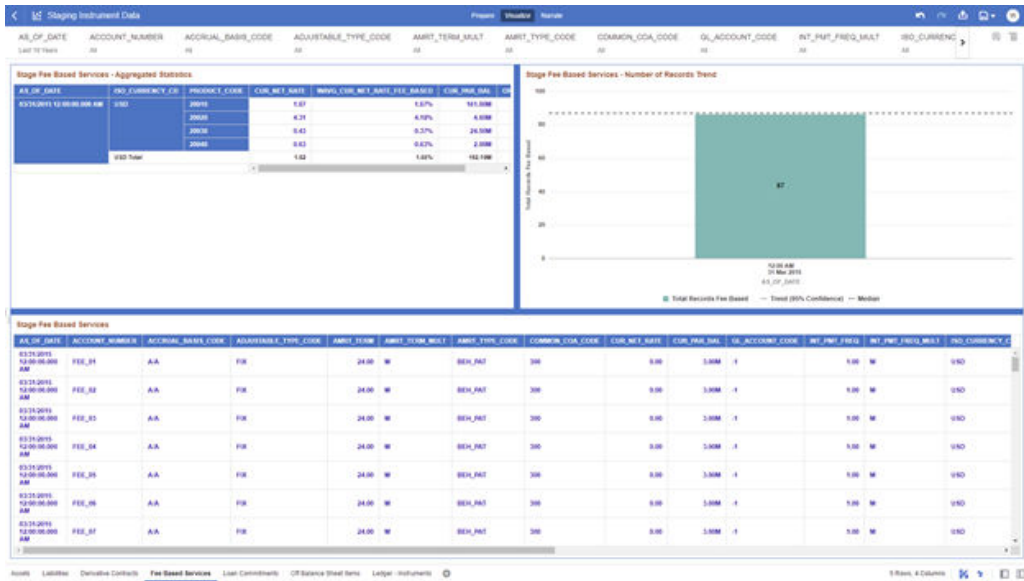
The report displays the underlying data according to the following Charts' logic:

- Stage Fee Based Services - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_FEE\_BASED, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Fee Based Services - Number of Records Trend  
Total Records Fee Based aggregated by AS\_OF\_DATE.
- Stage Fee Based Services  
Granular table records at ACCOUNT\_NUMBER level.

Figure 4-14 Staging Instrument Data – Fee Based Services



#### 4.1.3.1.5 Loan Commitments

The Loan Commitments Report provides the Analysis Capability on the Stage Loan Commitments Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

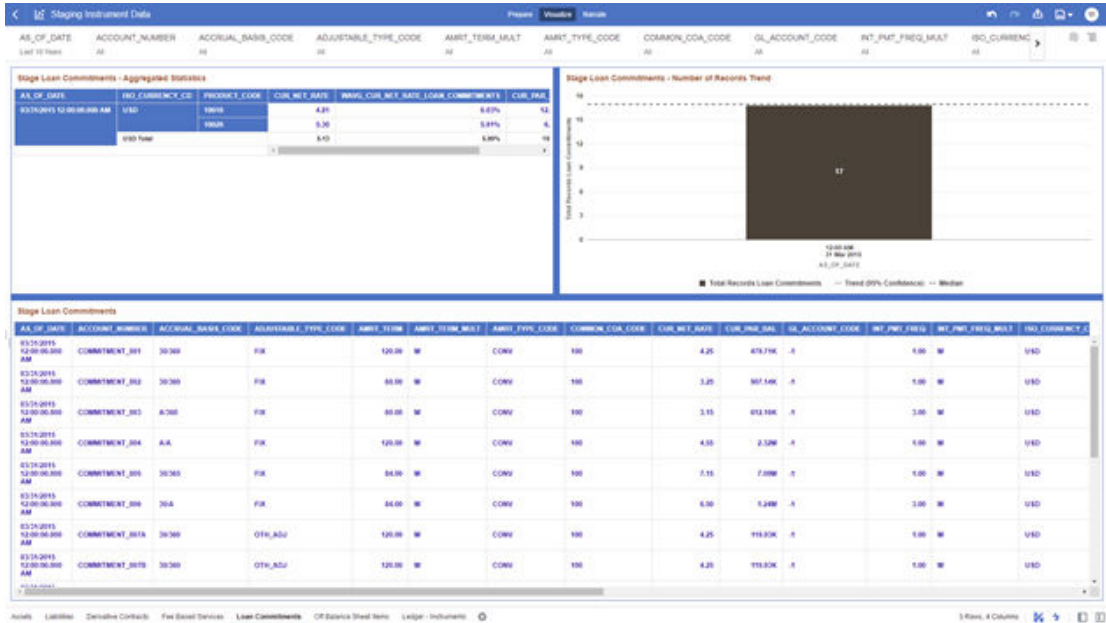
The report displays the underlying data according to the following Charts' logic:

- Stage Loan Commitments - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LOAN\_COMMITMENTS, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Loan Commitments - Number of Records Trend  
Total Records Loan Commitments aggregated by AS\_OF\_DATE.
- 
- Stage Loan Commitments  
Granular table records at ACCOUNT\_NUMBER level.

Figure 4-15 Staging Instrument Data – Loan Commitments



#### 4.1.3.1.6 Off Balance Sheet Items

The Off Balance Sheet Items Report provides the analysis capability on the Stage off Balance Sheet Contracts Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

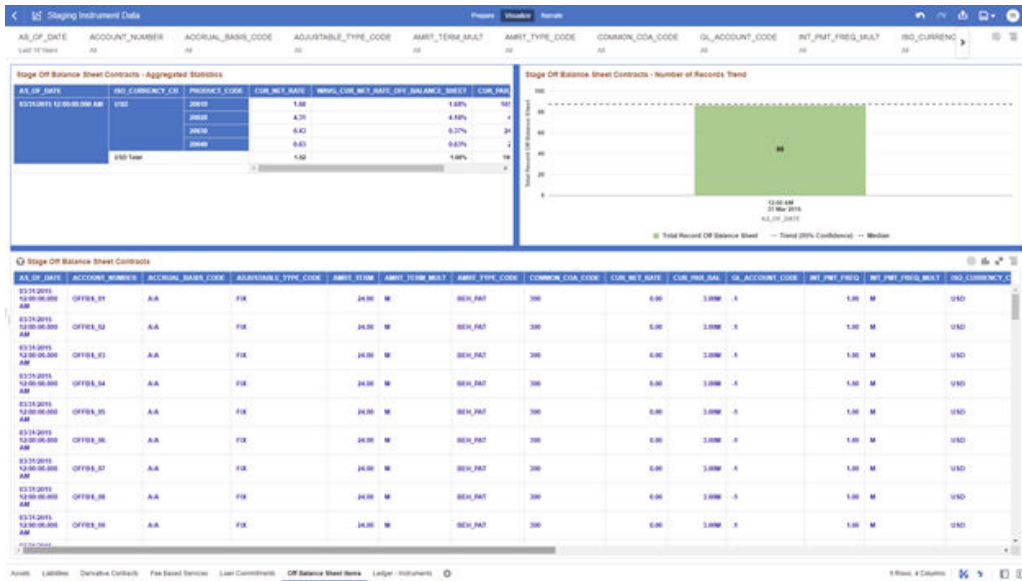
The report displays the underlying data according to the following Charts' logic:

- Stage Off Balance Sheet Contracts - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_OFF\_BALANCE\_SHEET, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Off Balance Sheet Contracts - Number of Records Trend  
Total Record off Balance Sheet aggregated by AS\_OF\_DATE.
- Stage Off Balance Sheet Contracts  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-16 Staging Instrument Data – Off Balance Sheet Items**



#### 4.1.3.1.7 Ledger - Instruments

The Ledger – Instrument Report provides the analysis capability on the Stage Ledger Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

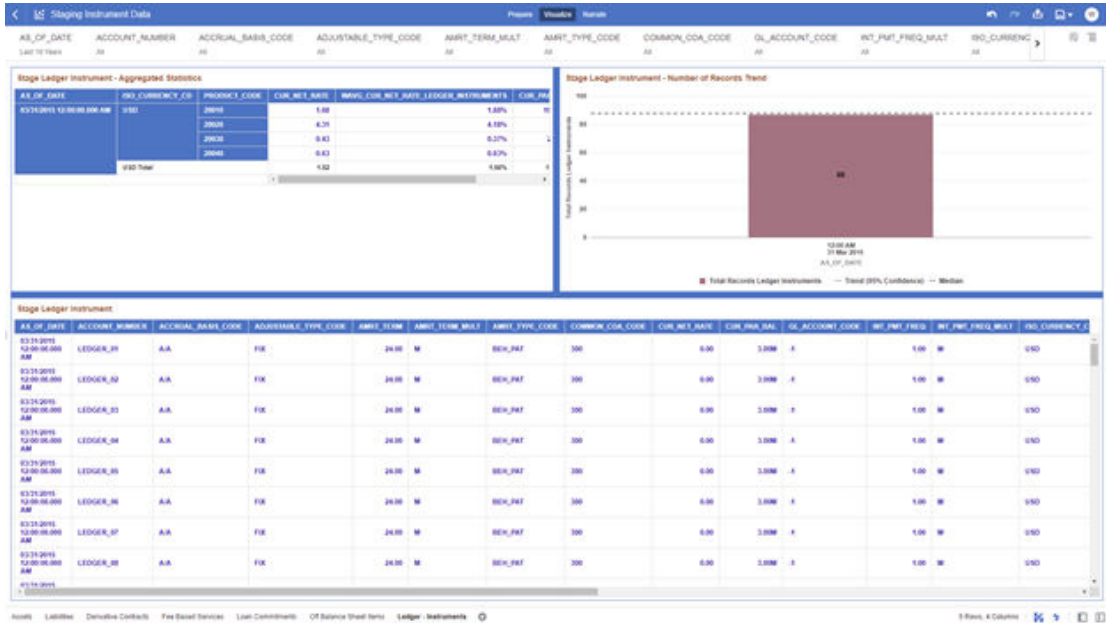
The report displays the underlying data according to the following Charts' logic:

- Stage Ledger Instrument - Aggregated Statistics  
 Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_CODE.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LEDGER\_INSTRUMENTS, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Stage Ledger Instrument - Number of Records Trend  
 Total Records Ledger Instruments aggregated by AS\_OF\_DATE.
- Stage Ledger Instrument  
 Granular table records at ACCOUNT\_NUMBER level.

Figure 4-17 Staging Instrument Data – Ledger - Instruments



### 4.1.3.2 Staging Instrument Supplementary Data

You can use the Staging Instrument Supplementary Data Report to perform the analysis on the Staging Area Tables related to Instrument Supplementary Data. The report contains specifically the following Staging Database Objects:

Table 4-3 Staging Instrument Data Reports

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging Instrument Supplementary Data	Instrument Supplementary	STG-Staging	STG_ACCOUN	Stage Account	Account Index
			T_INDEX_HIST	Index History	History
			STG_ACCOUN	Stage Account	Account Rate
			T_RATE_TIER	Rate Tiers	Tiers
			S	Stage	Embedded
			STG_EMBEDD	Embedded	Options
			ED_OPTIONS_	Options	Schedule
SCH	Schedule	Payment			
STG_PAYMEN	Stage Payment	Schedule			
T_SCHEDULE	Schedule				

#### 4.1.3.2.1 Account Index History

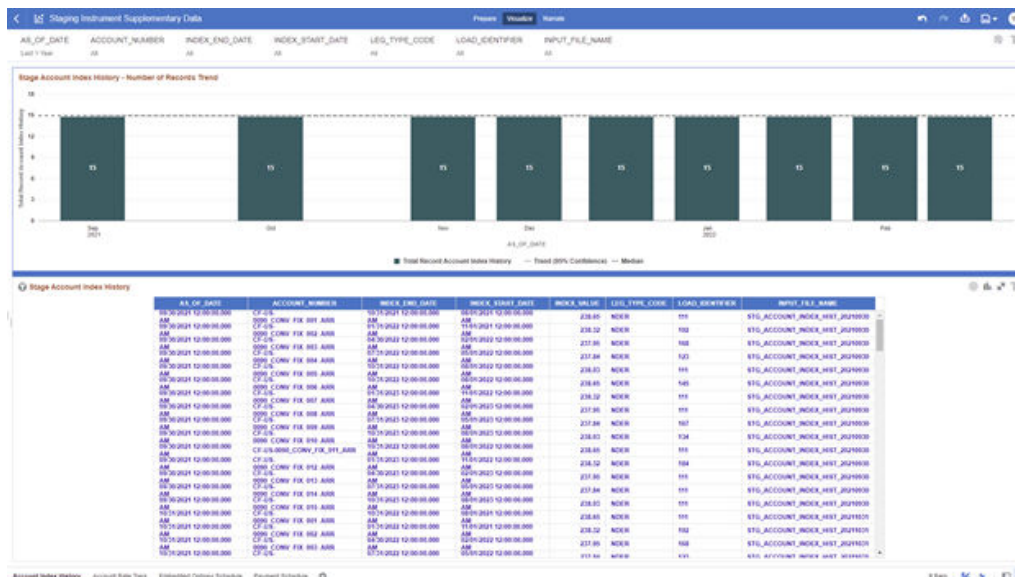
The Account Index History Report provides the analysis capability on the Stage Account Index History Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Account Index History - Number of Records Trend  
Total Records Account Index History aggregated by AS\_OF\_DATE.
- Stage Account Index History  
Granular table records at ACCOUNT\_NUMBER level.

Figure 4-18 Staging Instrument Supplementary Data – Account Index History



#### 4.1.3.2.2 Account Rate Tiers

The Account Rate Tiers Report provides the analysis capability on the Stage Account Rate Tiers Table.

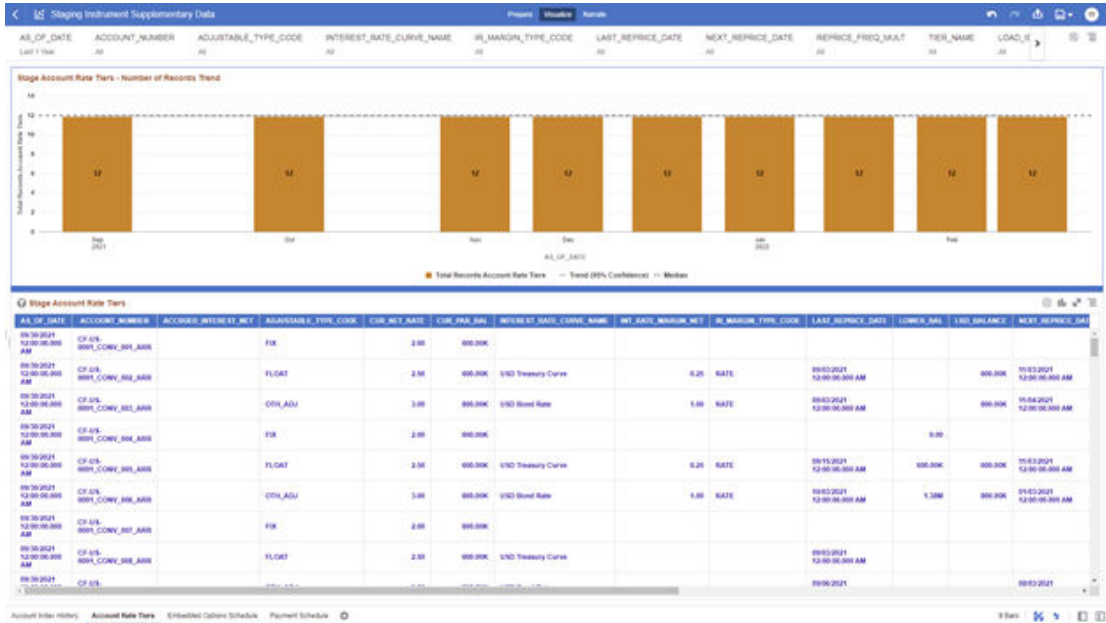
You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Account Rate Tiers - Number of Records Trend  
Total Records Account Rate Tiers aggregated by AS\_OF\_DATE.
- Stage Account Rate Tiers  
Granular table records at ACCOUNT\_NUMBER level.



Figure 4-19 Staging Instrument Supplementary Data – Account Rate Tiers



#### 4.1.3.2.3 Embedded Options Schedule

The Embedded Options Schedule Report provides the analysis capability on the Stage Embedded Options Schedule Table.

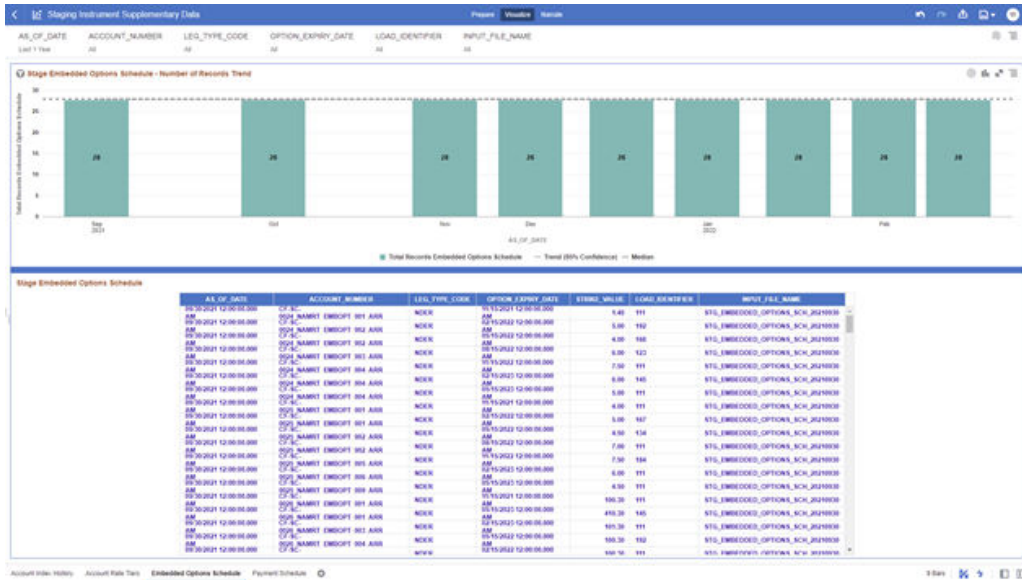
You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Embedded Options Schedule - Number of Records Trend  
Total Records Embedded Options Schedule aggregated by AS\_OF\_DATE.
- Stage Embedded Options Schedule  
Granular table records at ACCOUNT\_NUMBER level.



**Figure 4-20 Staging Instrument Supplementary Data – Embedded Options Schedule**



#### 4.1.3.2.4 Payment Schedule

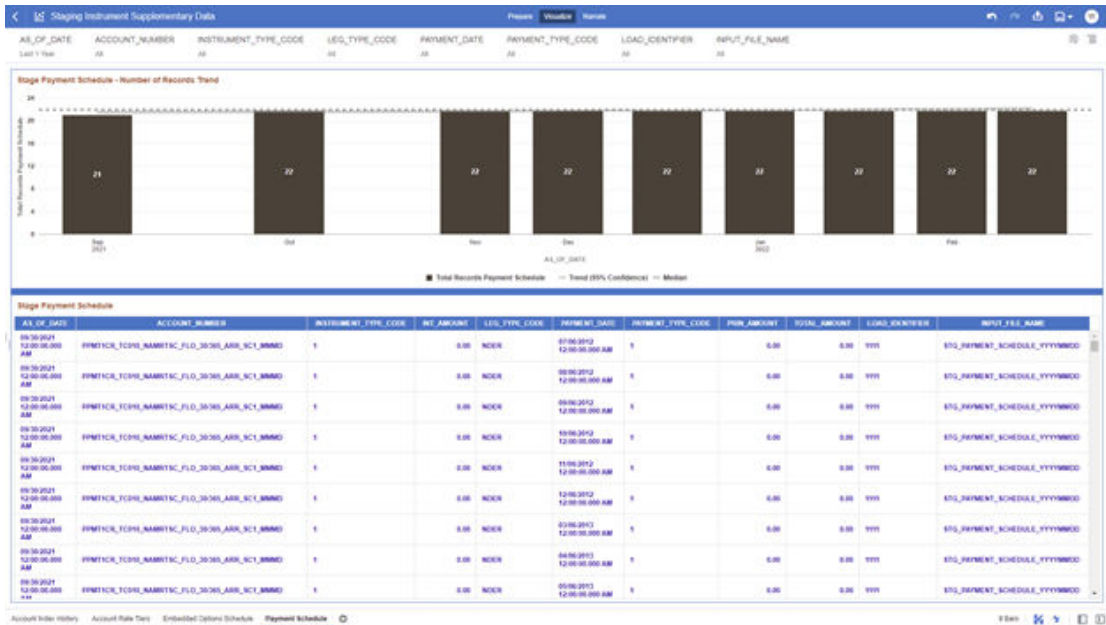
The Payment Schedule Report provides the analysis capability on the Stage Payment Schedule Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Payment Schedule - Number of Records Trend  
 Total Records Payment Schedule aggregated by AS\_OF\_DATE.
- Stage Payment Schedule  
 Granular table records at ACCOUNT\_NUMBER level.

Figure 4-21 Staging Instrument Supplementary Data – Payment Schedule



### 4.1.3.3 Staging Ledger Data

You can use this report to perform the analysis on the Staging Area Tables related to Ledger Data. The report contains specifically the following Staging Database Objects:

Table 4:

**Table 4-4 Staging Ledger Data Reports**

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging Ledger Data	Ledger	STG-Staging	STG_MANAG	Stage	Management
			EMENT_LED	Management	Ledger
			GER	Ledger	Management
			STG_MANAG	Stage	Ledger 01
			EMENT_LED	Placeholder	Management
			GER_01	Management	Ledger 02
			STG_MANAG	Ledger 01	Management
			EMENT_LED	Stage	Ledger 03
			GER_02	Placeholder	Management
			STG_MANAG	Management	Ledger 04
			EMENT_LED	Ledger 02	Management
			GER_03	Stage	Ledger 05
			STG_MANAG	Placeholder	
			EMENT_LED	Management	
			GER_04	Ledger 03	
STG_MANAG	Stage				
EMENT_LED	Placeholder				
GER_05	Management				
	Ledger 04				
	Stage				
	Placeholder				
	Management				
	Ledger 05				

#### 4.1.3.3.1 Management Ledger

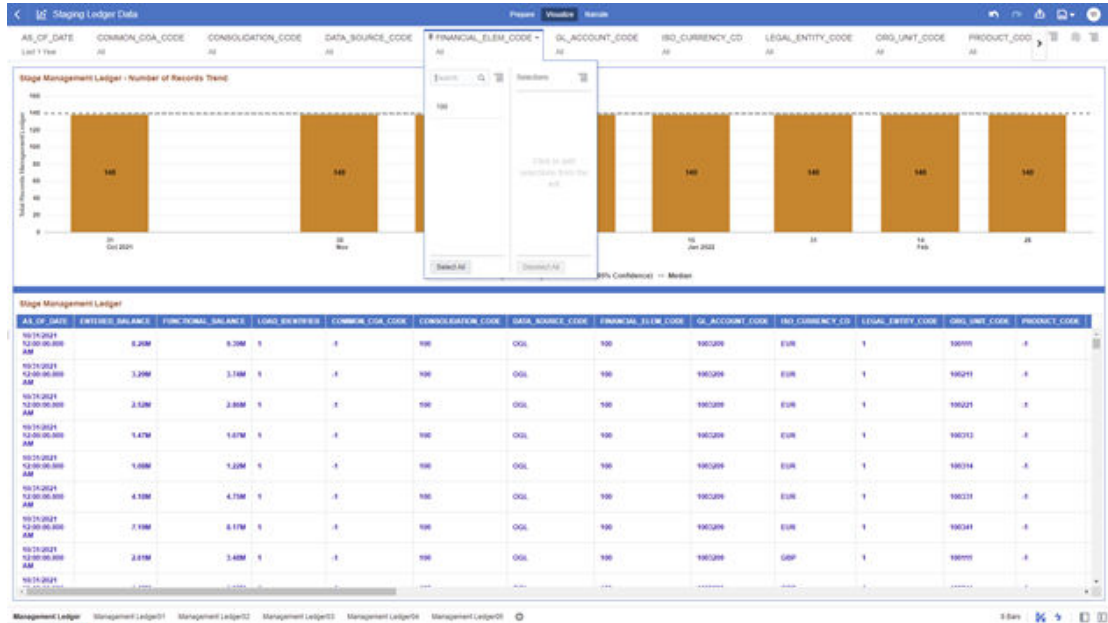
The Management Ledger Report provides the analysis capability on the Stage Management Ledger Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Management Ledger - Number of Records Trend  
Total Records Management Ledger aggregated by AS\_OF\_DATE.
- Stage Management Ledger  
Granular table records at FINANCIAL\_ELEM\_CODE level.

Figure 4-22 Staging Ledger Data – Management Ledger



#### 4.1.3.3.2 Management Ledger01

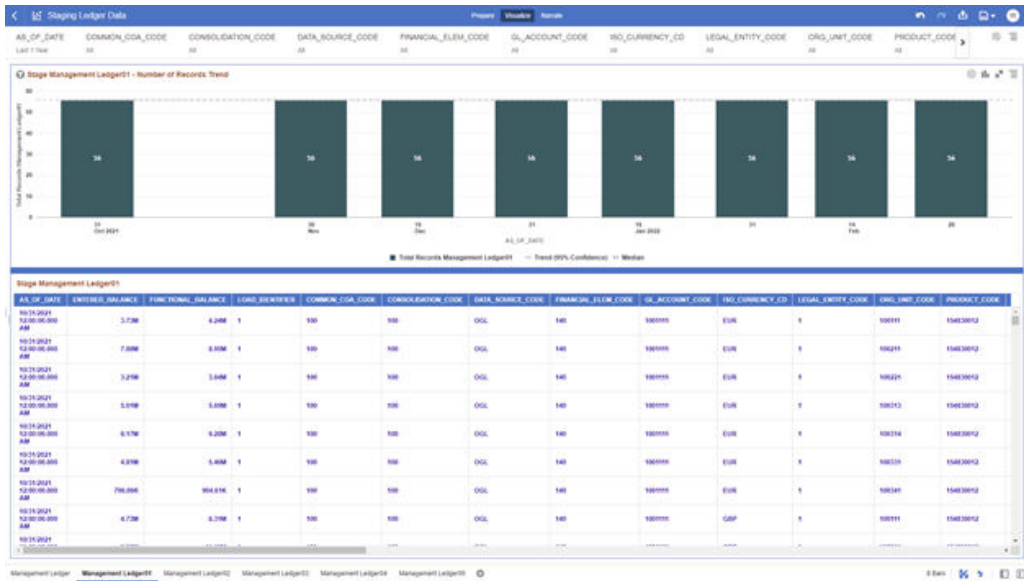
The Management Ledger01 Report provides the analysis capability on the Stage Placeholder Management Ledger 01 table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Management Ledger01 - Number of Records Trend  
Total Records Management Ledger01 aggregated by AS\_OF\_DATE.
- Stage Management Ledger01  
Granular table records at FINANCIAL\_ELEM\_CODE level.

**Figure 4-23 Staging Ledger Data – Management Ledger01**



### 4.1.3.3.3 Management Ledger02

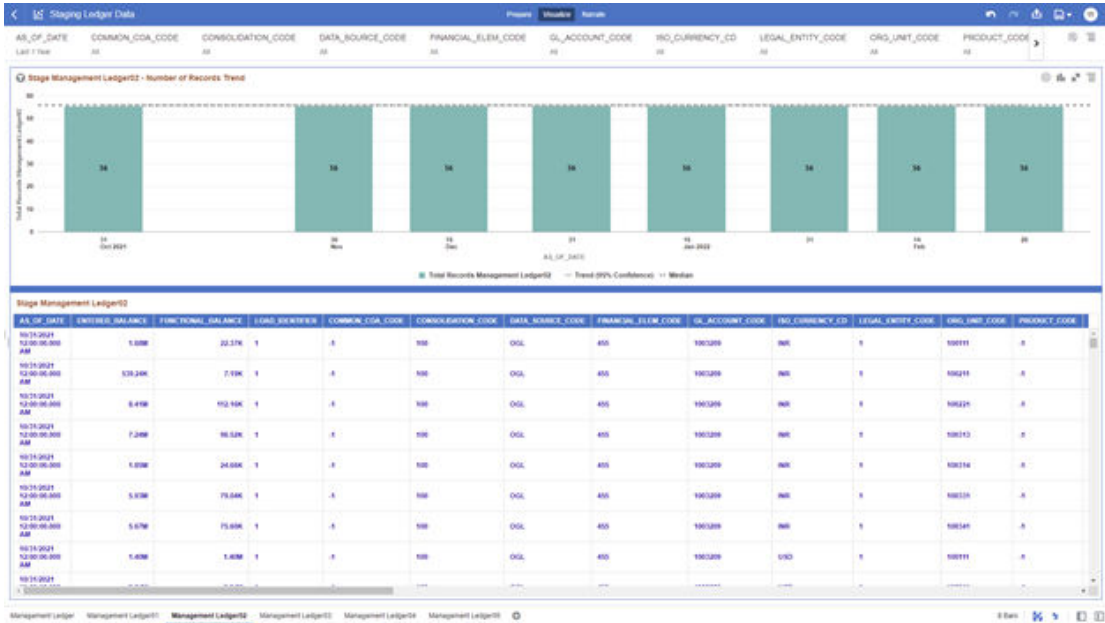
The Management Ledger02 Report provides the analysis capability on the Stage Placeholder Management Ledger 02 table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Management Ledger02 - Number of Records Trend  
Total Records Management Ledger02 aggregated by AS\_OF\_DATE.
- Stage Management Ledger02  
Granular table records at FINANCIAL\_ELEM\_CODE level.

Figure 4-24 Staging Ledger Data – Management Ledger02



#### 4.1.3.3.4 Management Ledger03

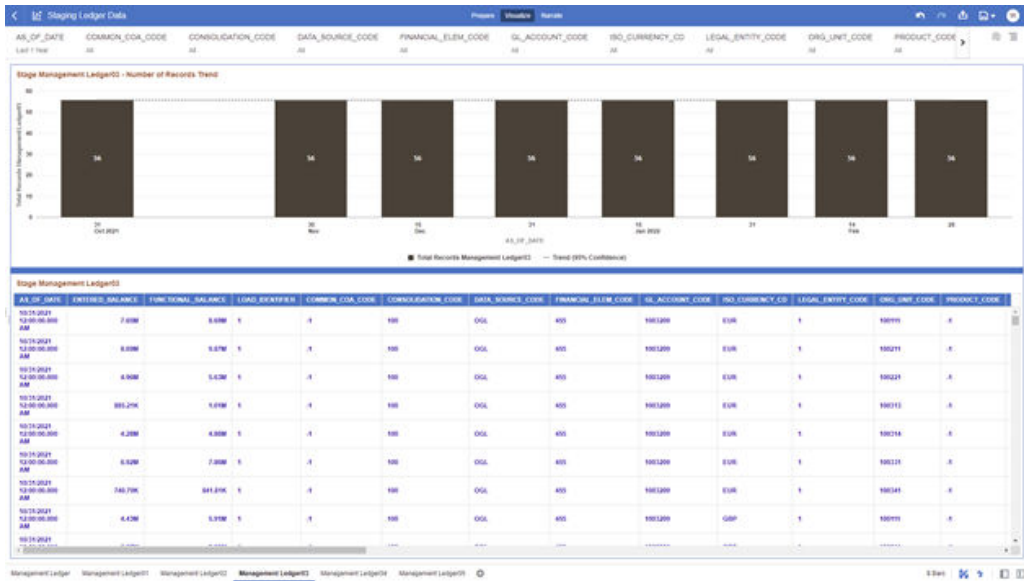
The Management Ledger03 Report provides the analysis capability on the Stage Placeholder Management Ledger 03 table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Management Ledger03 - Number of Records Trend  
Total Records Management Ledger03 aggregated by AS\_OF\_DATE.
- Stage Management Ledger03  
Granular table records at FINANCIAL\_ELEM\_CODE level.

Figure 4-25 Staging Ledger Data – Management Ledger03



#### 4.1.3.3.5 Management Ledger04

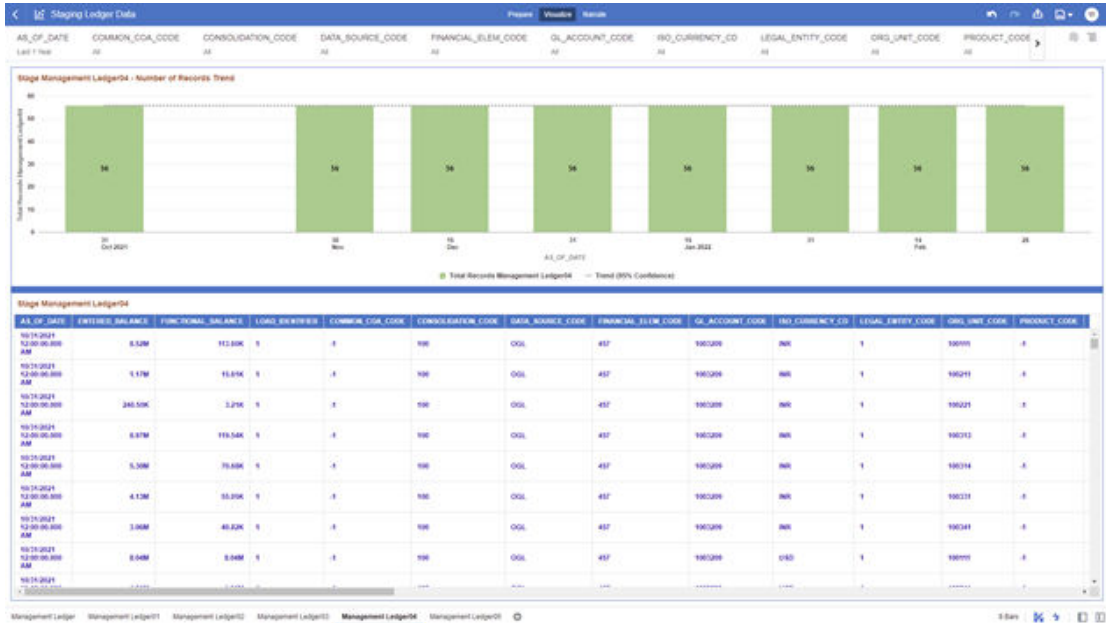
The Management Ledger04 Report provides the analysis capability on the Stage Placeholder Management Ledger 04 table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Management Ledger04 - Number of Records Trend  
Total Records Management Ledger04 aggregated by AS\_OF\_DATE.
- Stage Management Ledger04  
Granular table records at FINANCIAL\_ELEM\_CODE level.

**Figure 4-26 Staging Ledger Data – Management Ledger04**



#### 4.1.3.3.6 Management Ledger05

The Management Ledger05 Report provides the analysis capability on the Stage Placeholder Management Ledger 05 table.

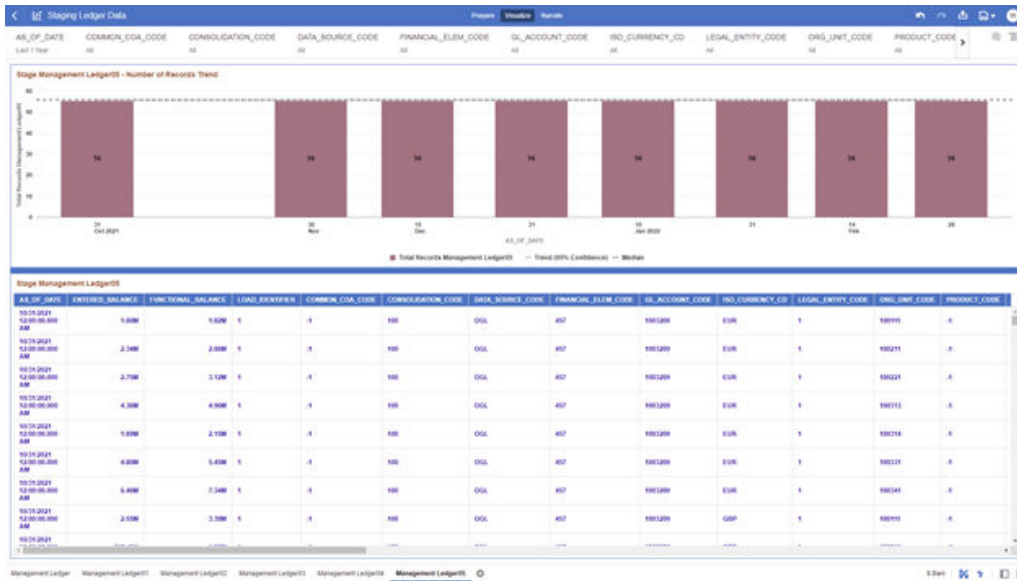
You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Management Ledger05 - Number of Records Trend  
Total Records Management Ledger05 aggregated by AS\_OF\_DATE.
- Stage Management Ledger05  
Granular table records at FINANCIAL\_ELEM\_CODE level.



**Figure 4-27 Staging Ledger Data – Management Ledger05**



#### 4.1.3.4 Staging Transaction Summary Data

You can use this report to perform the analysis on the Staging area tables related to Transaction Summary Data. The report contains specifically the following Staging Database Objects:

**Table 4-5 Staging Ledger Data Reports**

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Staging Transaction Summary Data	Transaction Summary	STG–Staging	STG_ASSET_TXN STG_LIABILITY_TXN STG_FEE_BASED_SERV STG_OFF_BALANCE_SHE ET_TXN	Stage Asset Transaction Summary Stage Liability Transaction Summary Stage Fee Based and Other Services Transaction Summary Stage Off Balance Sheet Transaction Summary	Assets Transaction Summary Liabilities Transaction Summary Fee Based Services Transaction Summary Off Balance Sheet Transaction Summary

##### 4.1.3.4.1 Asset Transaction Summary

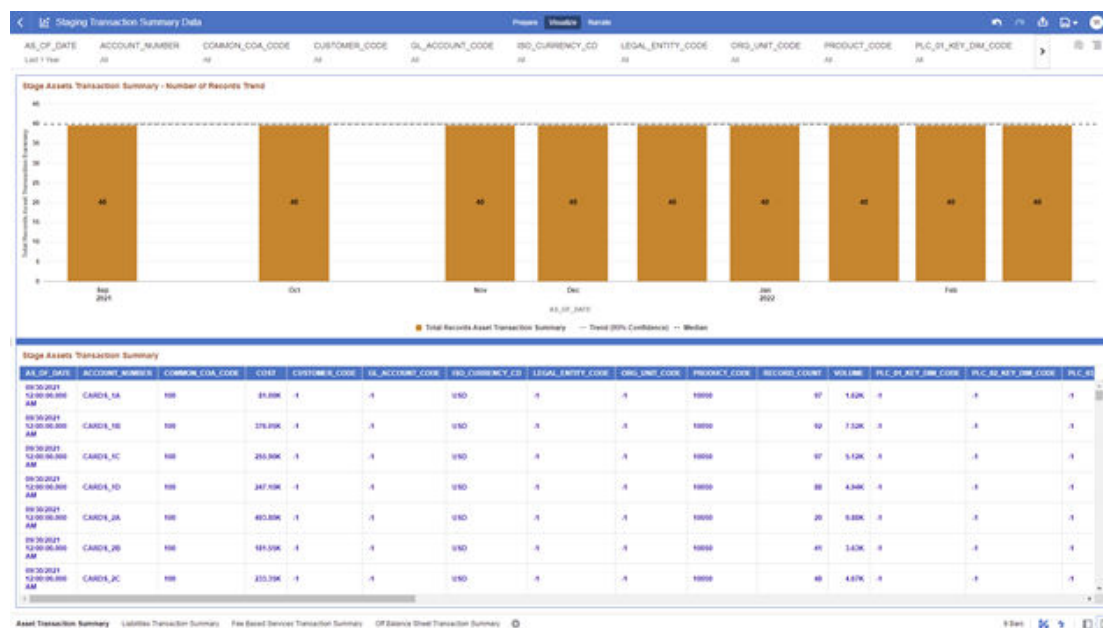
This report provides the analysis capability on the Stage Assets Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Assets Transaction Summary - Number of Records Trend  
Total Records Assets Transaction Summary aggregated by AS\_OF\_DATE.
- Stage Assets Transaction Summary  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-28 Staging Transaction Summary Data – Asset Transaction Summary**



#### 4.1.3.4.2 Liabilities Transaction Summary

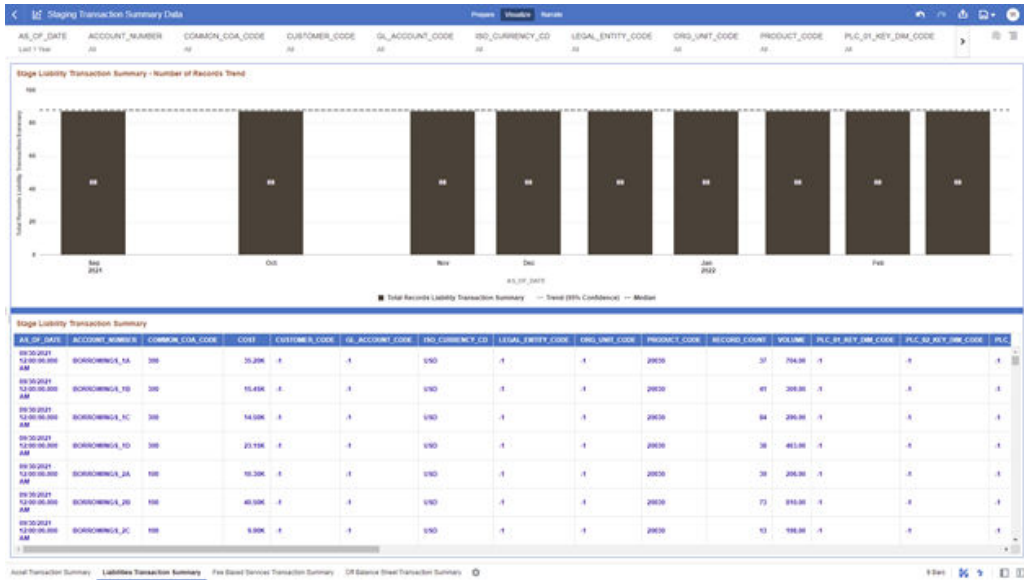
The Liabilities Transaction Summary Report provides the analysis capability on the Stage Liability Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Liability Transaction Summary - Number of Records Trend  
Total Records Liability Transaction Summary aggregated by AS\_OF\_DATE.
- Stage Liability Transaction Summary  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-29 Staging Transaction Summary Data – Liabilities Transaction Summary**



#### 4.1.3.4.3 Fee Based Services Transaction Summary

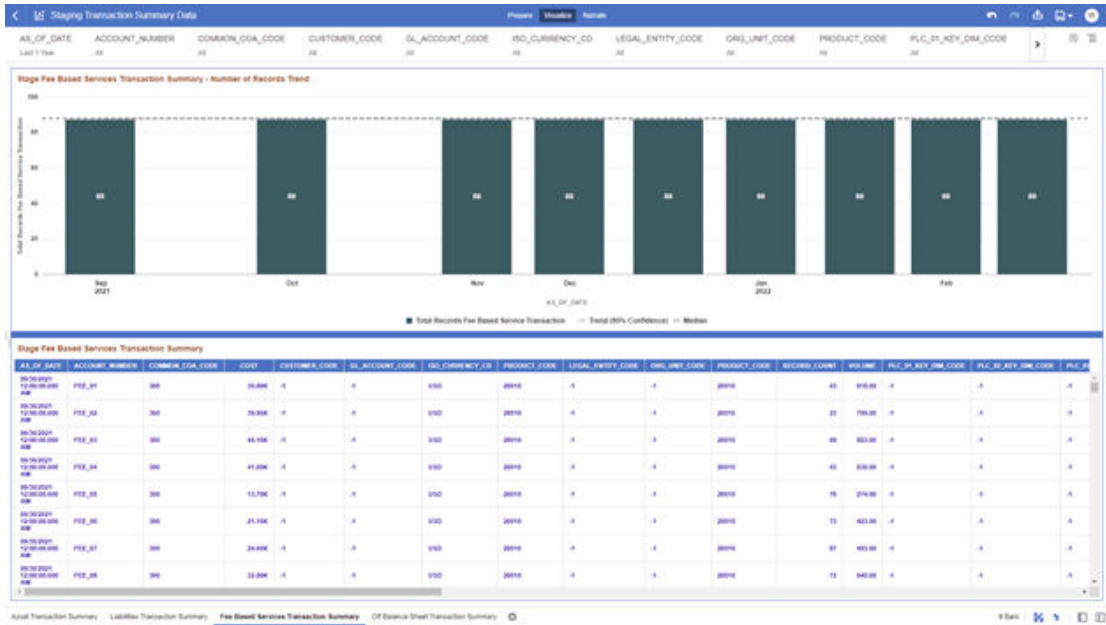
The Fee Based Services Transaction Summary Report provides the analysis capability on the Stage Fee Based and Other Services Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Fee Based Services Transaction Summary - Number of Records Trend  
Total Records Fee Based Service Transaction aggregated by AS\_OF\_DATE.
- Stage Fee Based Services Transaction Summary  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-30 Staging Transaction Summary Data – Fee Based Services Transaction Summary**



#### 4.1.3.4.4 Off Balance Sheet Transaction Summary

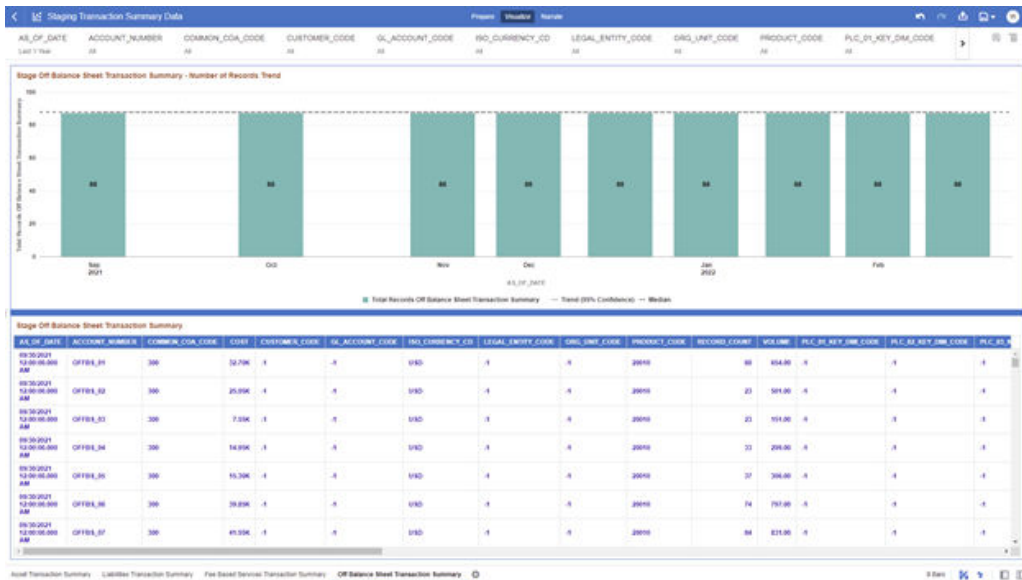
The Off Balance Sheet Transaction Summary Report provides the analysis capability on the Stage Off Balance Sheet Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Stage Off Balance Sheet Transaction Summary - Number of Records Trend  
Total Records Off Balance Sheet Transaction Summary aggregated by AS\_OF\_DATE.
- Stage Off Balance Sheet Transaction Summary  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-31 Staging Transaction Summary Data – Off Balance Sheet Transaction Summary**



### 4.1.3.5 Processing Instrument Data

You can use this report to perform the analysis on the Processing Area Tables related to Instrument Data. The report contains specifically the following Processing Database Objects:

Table 5:

**Table 4-6 Processing Instrument Data Reports**

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Instrument Data	Instrument	FSI-Processing	FSI_D_ASSET	Asset Instruments	Assets
			FSI_D_LIABILITY	Liability Instruments	Liabilities
			FSI_D_DERIVATIVE	Derivative Contracts	Derivative Contracts
			FSI_D_FEE_BASED_SERVICES	Fee Based and Other Services	Fee Based Services
			FSI_D_LOAN_COMMITMENTS	Loan Commitments	Loan Commitments
			FSI_D_OFF_BALANCE_SHEET	Off Balance Sheet Contracts	Off Balance Sheet Items
			FSI_D_LEDGER_INSTRUMENT	Ledger Instrument	Ledger - Instruments

### 4.1.3.5.1 Assets

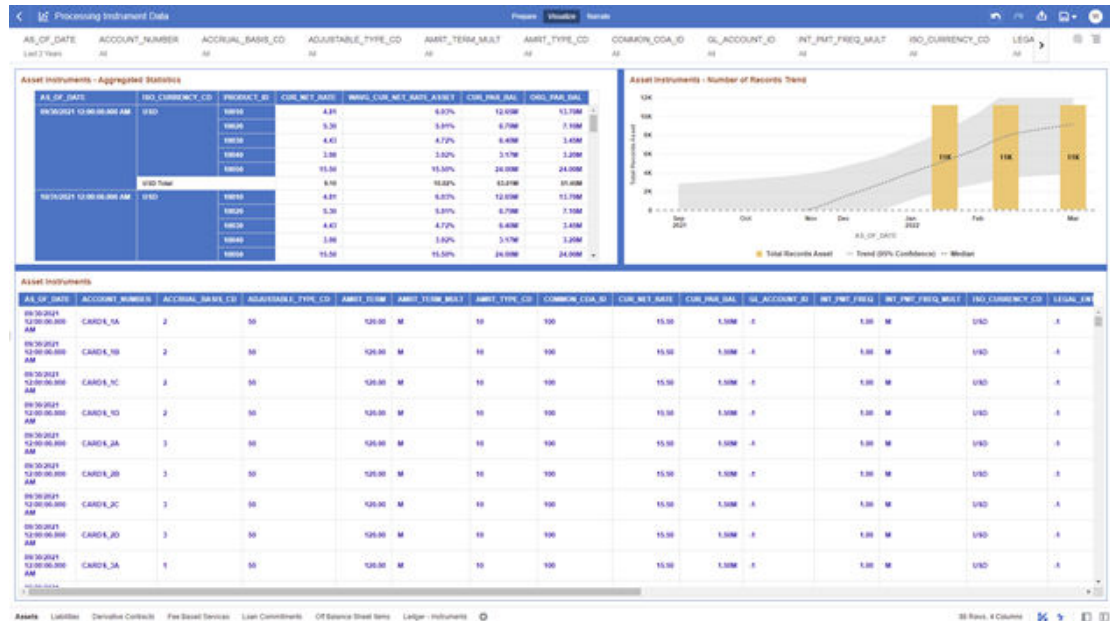
The Assets Report provides the analysis capability on the Asset Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Asset Instruments - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.
- In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_ASSET, is calculated as the Weighted AVG by CUR\_PAR\_BAL.
- Asset Instruments - Number of Records Trend  
Total Records Asset aggregated by AS\_OF\_DATE.
- Asset Instruments  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-32 Processing Instrument Data - Assets**



### 4.1.3.5.2 Liabilities

The Liabilities Report provides the analysis capability on the Liability Instrument Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

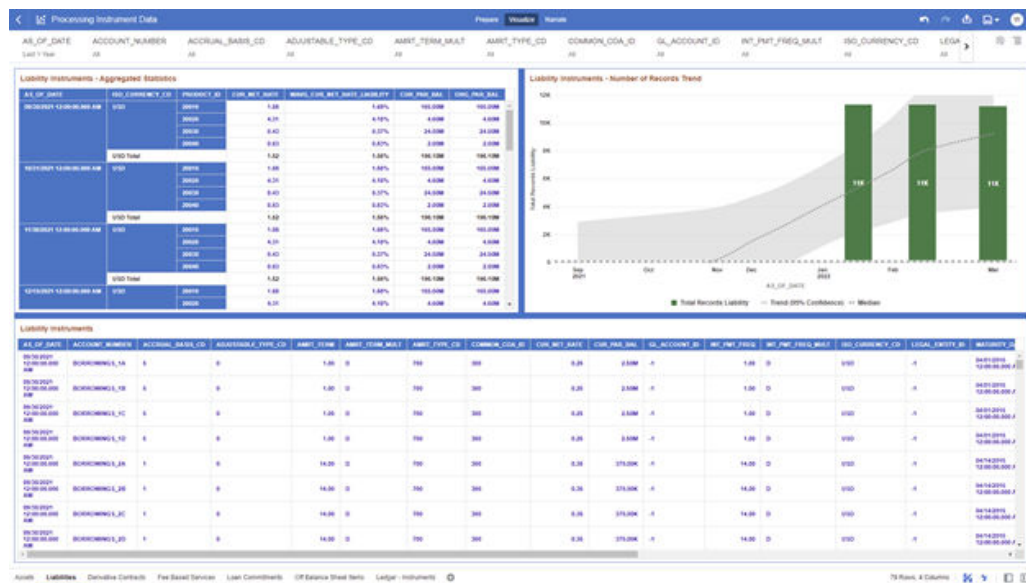
- Liability Instruments - Aggregated Statistics

Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LIABILITY, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Liability Instruments - Number of Records Trend  
Total Records Liability aggregated by AS\_OF\_DATE.
- Liability Instruments  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-33 Processing Instrument Data - Liabilities**



#### 4.1.3.5.3 Derivative Contracts

The Derivative Contracts Report provides the analysis capability on the Derivative Contracts Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Derivative Contracts - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

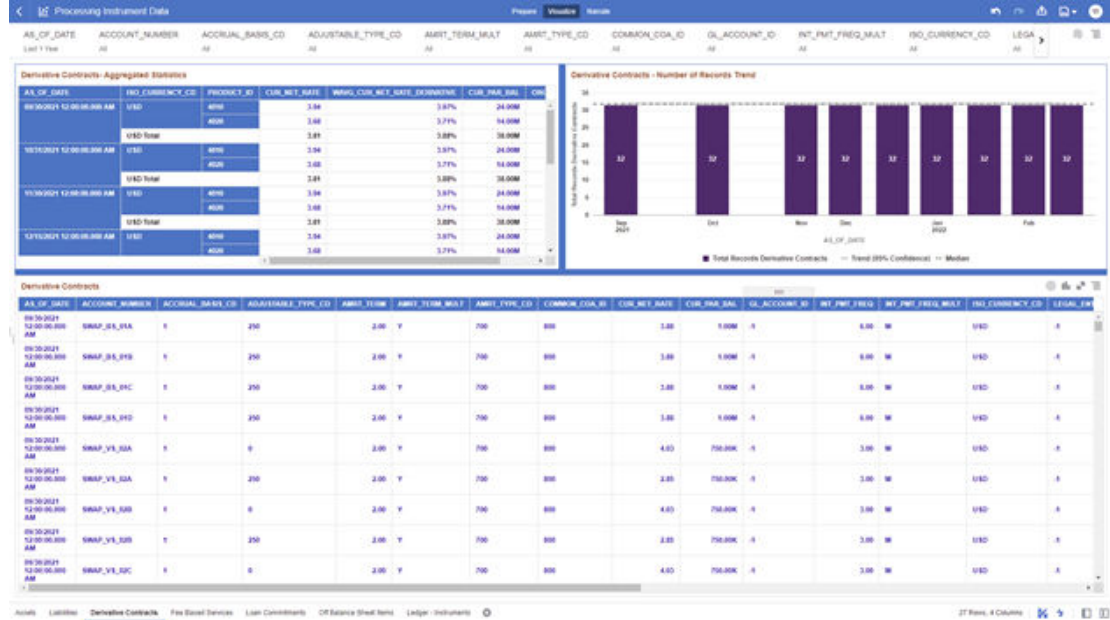
In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LIABILITY, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Derivative Contracts - Number of Records Trend  
Total Records Derivative Contracts aggregated by AS\_OF\_DATE.



- Derivative Contracts  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-34 Processing Instrument Data – Derivative Contracts**



#### 4.1.3.5.4 Fee Based Services

The Fee Based Services Report provides the analysis capability on the Fee Based and Other Services Table.

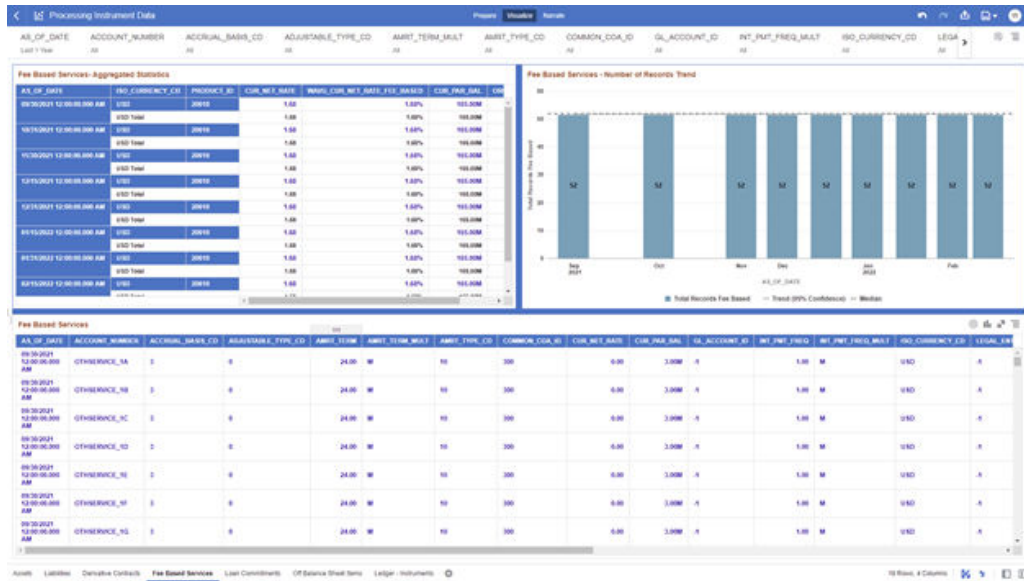
You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Fee Based Services - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.  
In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_FEE\_BASED, is calculated as the Weighted AVG by CUR\_PAR\_BAL.
- Fee Based Services - Number of Records Trend  
Total Records Fee Based aggregated by AS\_OF\_DATE.
- Fee Based Services  
Granular table records at ACCOUNT\_NUMBER level.



Figure 4-35 Processing Instrument Data – Fee Based Services



#### 4.1.3.5.5 Loan Commitments

The Loan Commitments Report provides the analysis capability on the Loan Commitments Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

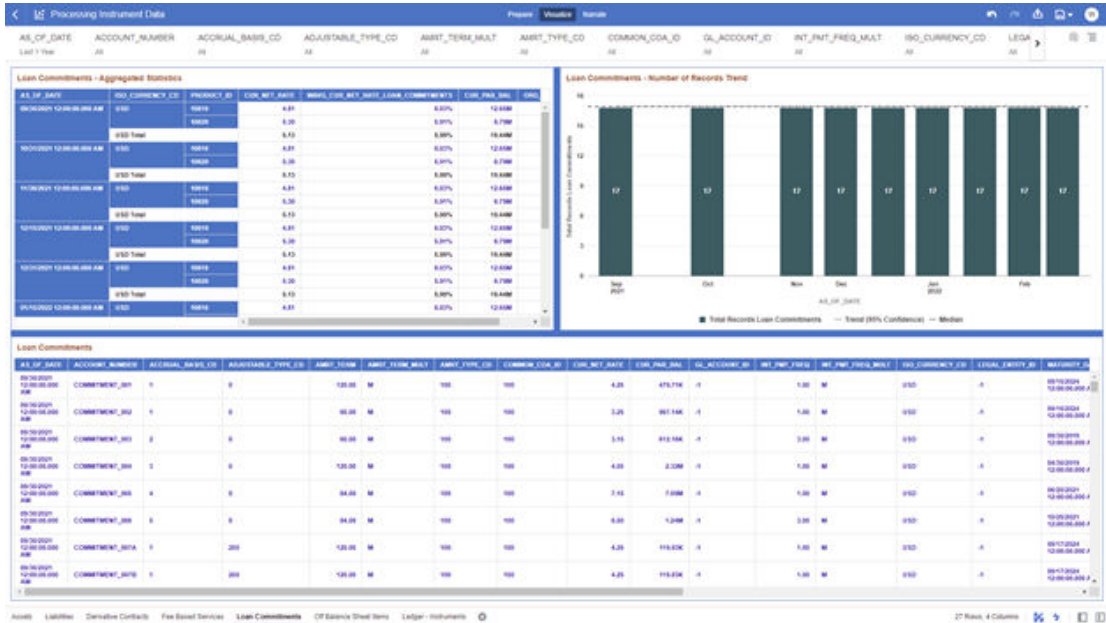
The report displays the underlying data according to the following Charts' logic:

- Loan Commitments - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_LOAN\_COMMITMENTS, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Loan Commitments - Number of Records Trend  
Total Records Loan Commitments aggregated by AS\_OF\_DATE.
- Loan Commitments  
Granular table records at ACCOUNT\_NUMBER level.

Figure 4-36 Processing Instrument Data – Loan Commitments



#### 4.1.3.5.6 Off Balance Sheet Items

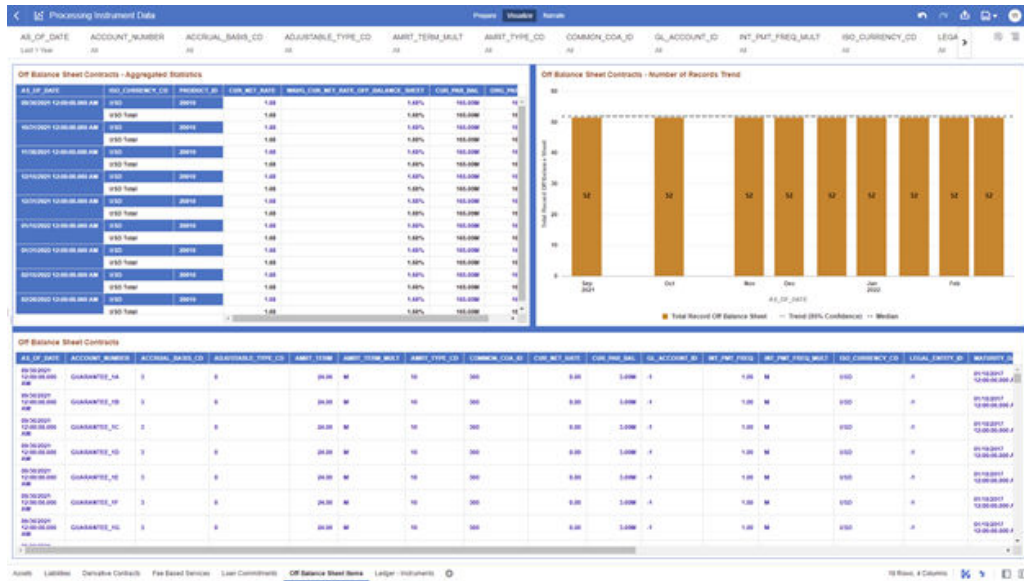
The Off Balance Sheet Items Report provides the analysis capability on the Off Balance Sheet Contracts Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Off Balance Sheet Contracts - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.  
In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAVG\_CUR\_NET\_RATE\_OFF\_BALANCE\_SHEET, is calculated as the Weighted AVG by CUR\_PAR\_BAL.
- Off Balance Sheet Contracts - Number of Records Trend  
Total Record Off Balance Sheet aggregated by AS\_OF\_DATE.
- Off Balance Sheet Contracts  
Granular table records at ACCOUNT\_NUMBER level.

Figure 4-37 Processing Instrument Data – Off Balance Sheet Items



#### 4.1.3.5.7 Ledger - Instruments

The Ledger – Instrument Report provides the analysis capability on the Ledger Instrument Table.

You can use a series of Report Prompts to filter the data according to functional key attributes pertaining to the table columns perimeter.

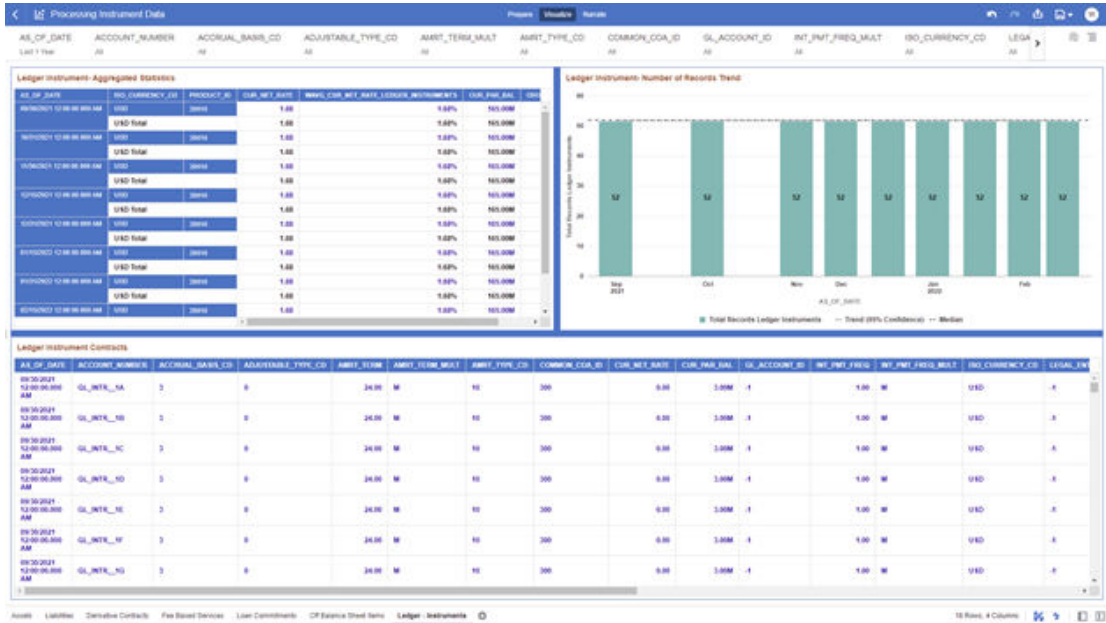
The report displays the underlying data according to the following Charts' logic:

- Ledger Instrument - Aggregated Statistics  
Aggregation for CUR\_PAR\_BAL (sum), ORG\_PAR\_BAL (sum) and CUR\_NET\_RATE (avg) by AS\_OF\_DATE, ISO\_CURRENCY\_CD and PRODUCT\_ID.

In addition, for CUR\_NET\_RATE, the additional Balance Weighted Rate, WAGV\_CUR\_NET\_RATE\_LEDGER\_INSTRUMENTS, is calculated as the Weighted AVG by CUR\_PAR\_BAL.

- Ledger Instrument - Number of Records Trend  
Total Records Ledger Instruments aggregated by AS\_OF\_DATE.
- Ledger Instrument  
Granular table records at ACCOUNT\_NUMBER level.

Figure 4-38 Processing Instrument Data – Ledger Instruments



### 4.1.3.6 Processing Instrument Supplementary Data

You can use this report to perform the analysis on the Processing Area Tables related to Instrument Data. The report contains specifically the below Processing Database Objects:

Table 6: Processing Instrument Supplementary Data

Table 4-7 Processing Instrument Supplementary Data

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Instrument Supplementary Data	Instrument Supplementary	FSI-Processing	FSI_D_ACCOUNT_INDEX_HISTORY FSI_D_ACCOUNT_RATES FSI_D_ACCOUNT_TIERS FSI_D_EMBEDDED_OPTIONS FSI_D_EMBEDDED_SCHEDULE FSI_D_PAYMENT_SCHEDULE FSI_D_PAYMENT_SCHEDULE	Account Index History Account Rate Tiers Embedded Options Schedule Payment Schedule Schedule	Account Index History Account Rate Tiers Embedded Options Schedule Payment Schedule Schedule

#### 4.1.3.6.1 Account Index History

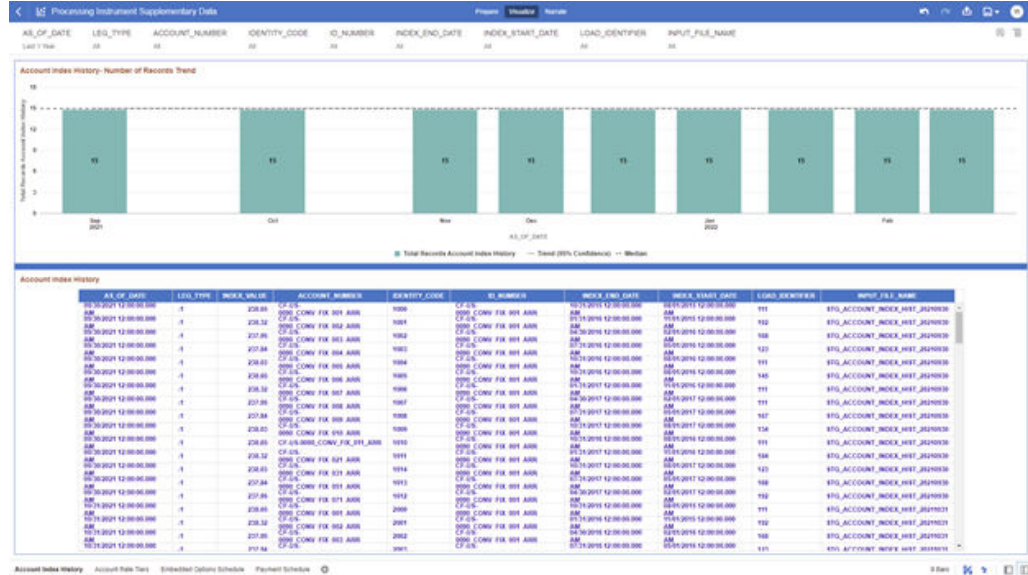
The Account Index History Report provides the analysis capability on the Account Index History Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Account Index History - Number of Records Trend  
Total Records Account Index History aggregated by AS\_OF\_DATE.
- Account Index History  
Granular table records at ACCOUNT\_NUMBER level.

**Figure 4-39 Processing Instrument Supplementary Data – Account Index History**



#### 4.1.3.6.2 Account Rate Tiers

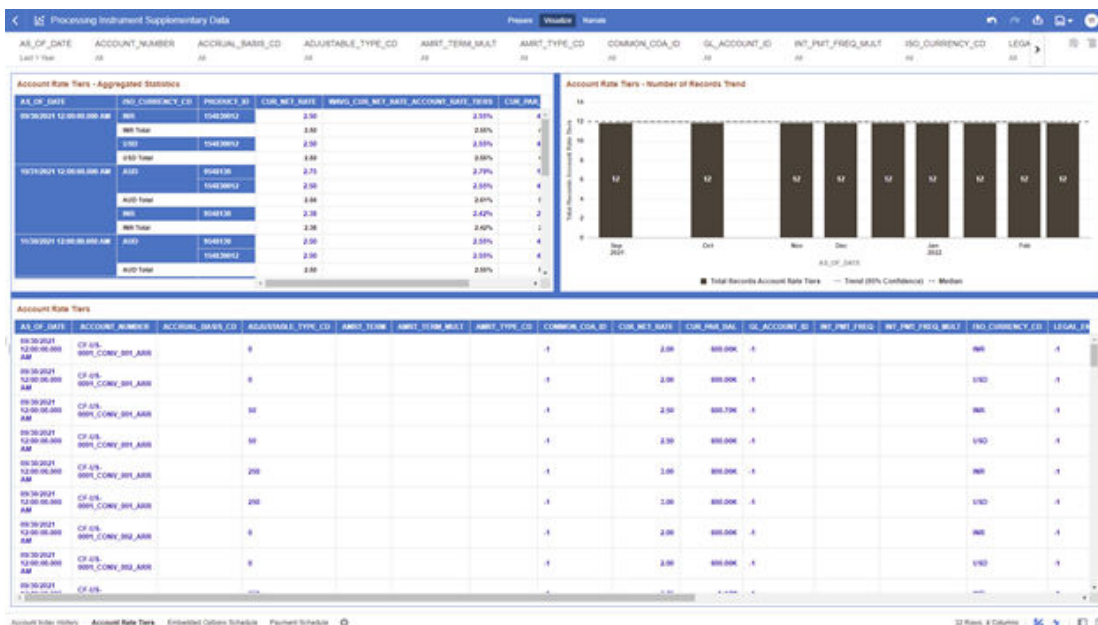
The Account Rate Tiers Report provides the analysis capability on the Account Rate Tiers Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Account Rate Tiers - Number of Records Trend  
Total Records Account Rate Tiers aggregated by AS\_OF\_DATE.
- Account Rate Tiers  
Granular table records at ACCOUNT\_NUMBER level.

Figure 4-40 Processing Instrument Supplementary Data – Account Rate Tiers



### 4.1.3.6.3 Embedded Options Schedule

The Embedded Options Schedule Report provides the analysis capability on the Embedded Options Schedule Table.

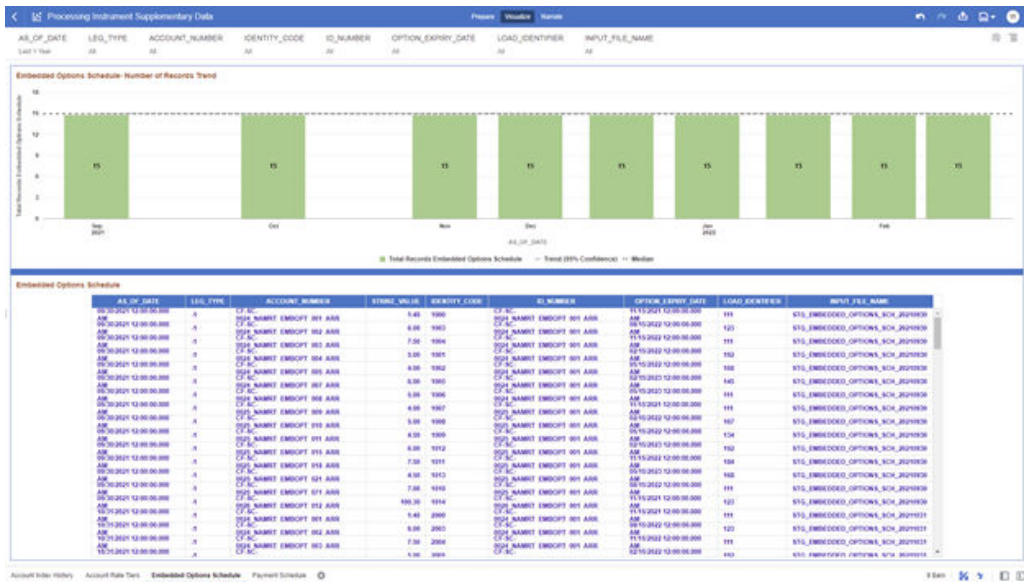
You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Embedded Options Schedule - Number of Records Trend  
 Total Records Embedded Options Schedule aggregated by AS\_OF\_DATE.
- Embedded Options Schedule  
 Granular table records at ACCOUNT\_NUMBER level.



**Figure 4-41 Processing Instrument Supplementary Data – Embedded Options Schedule**



#### 4.1.3.6.4 Payment Schedule

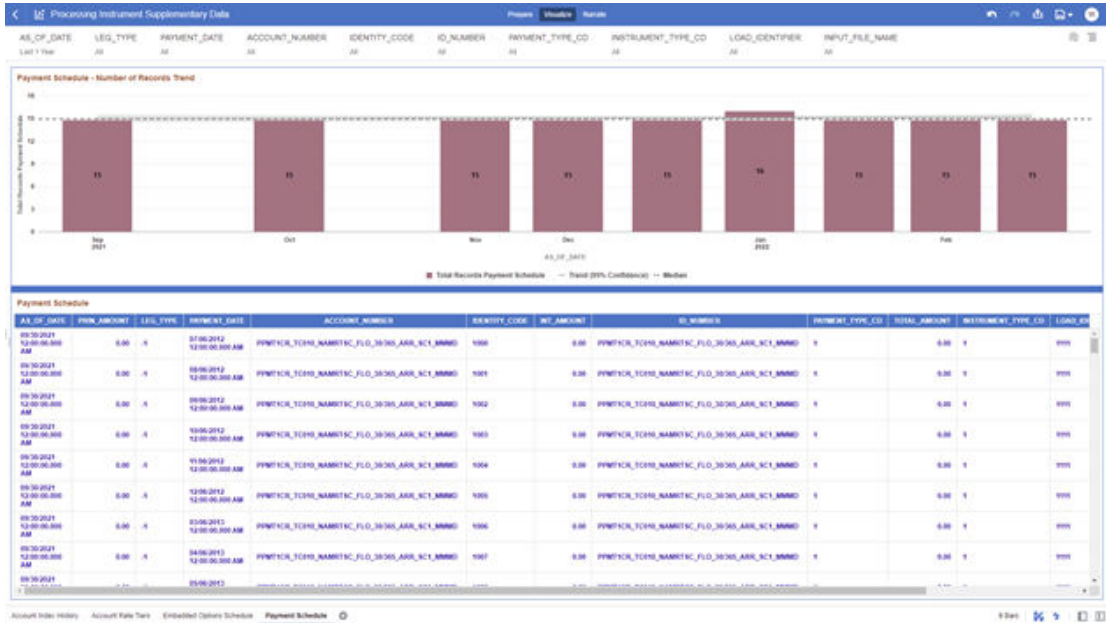
The Payment Schedule Report provides the analysis capability on the Payment Schedule Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Payment Schedule - Number of Records Trend  
Total Records Payment Schedule aggregated by AS\_OF\_DATE.
- Payment Schedule  
Granular table records at ACCOUNT\_NUMBER level.

Figure 4-42 Processing Instrument Supplementary Data – Payment Schedule



### 4.1.3.7 Processing Ledger Data

You can use this report to perform analysis on the Processing Area Tables related to Ledger Data. The report contains specifically the following Staging Database Objects:

Table 7: Staging Ledger Data Reports

Table 4-8 Staging Ledger Data Reports

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name
Processing Ledger Data	Ledger	FSI-Processing	FSI_D_MANAGEMENT_LEDGER	Management Ledger	Management Ledger
			FSI_D_MANAGEMENT_LEDGER_01	Management Ledger 01	Management Ledger 01
			FSI_D_MANAGEMENT_LEDGER_02	Management Ledger 02	Management Ledger 02
			FSI_D_MANAGEMENT_LEDGER_03	Management Ledger 03	Management Ledger 03
			FSI_D_MANAGEMENT_LEDGER_04	Management Ledger 04	Management Ledger 04
			FSI_D_MANAGEMENT_LEDGER_05	Management Ledger 05	Management Ledger 05
			Placeholder	Placeholder	Placeholder
			Placeholder	Placeholder	Placeholder
			Placeholder	Placeholder	Placeholder
			Placeholder	Placeholder	Placeholder



### 4.1.3.7.1 Management Ledger

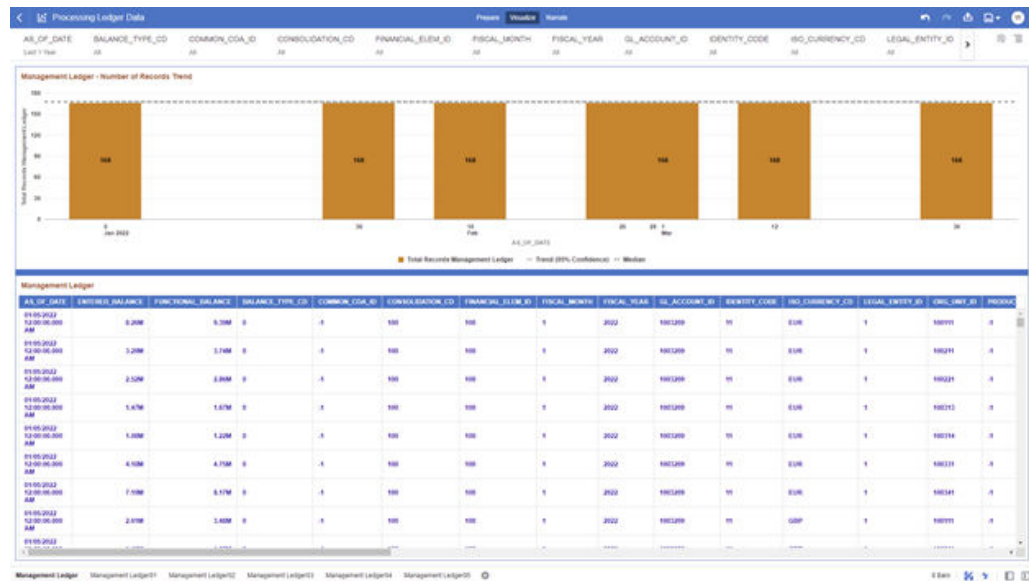
The Management Ledger Report provides the analysis capability on the Management Ledger Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Management Ledger - Number of Records Trend  
 Total Records Management Ledger aggregated by AS\_OF\_DATE.
- Management Ledger  
 Granular table records at FINANCIAL\_ELEM\_ID level.

**Figure 4-43 Processing Ledger Data – Management Ledger**



### 4.1.3.7.2 Management Ledger01

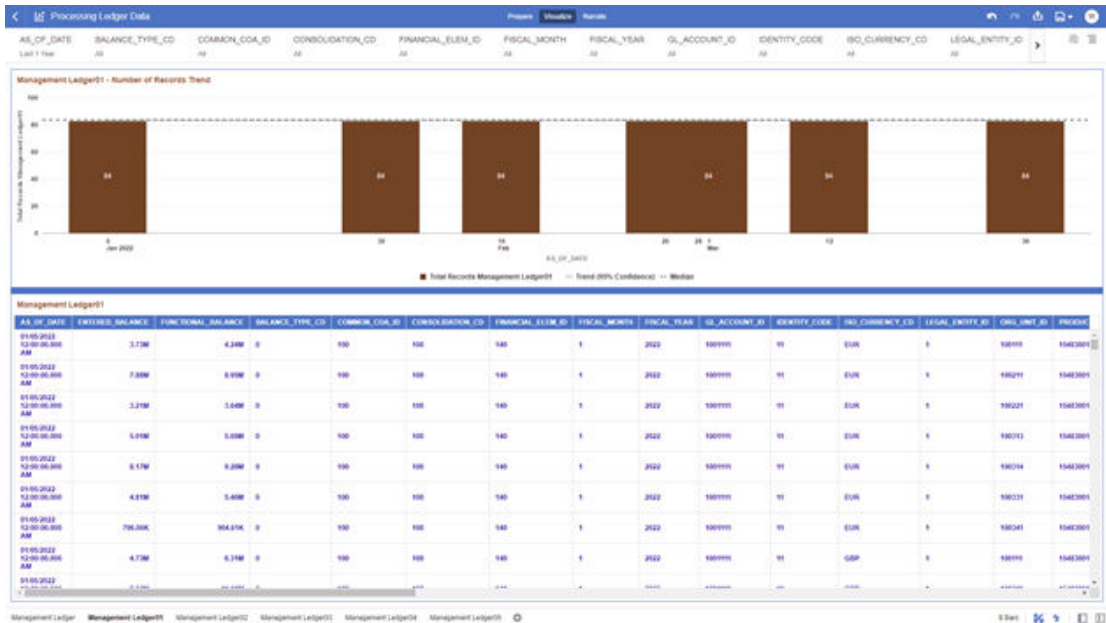
The Management Ledger01 Report provides the analysis capability on the Placeholder Management Ledger 01 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Management Ledger01 - Number of Records Trend  
 Total Records Management Ledger01 aggregated by AS\_OF\_DATE.
- Management Ledger01  
 Granular table records at FINANCIAL\_ELEM\_ID level.

**Figure 4-44 Processing Ledger Data – Management Ledger01**



### 4.1.3.7.3 Management Ledger02

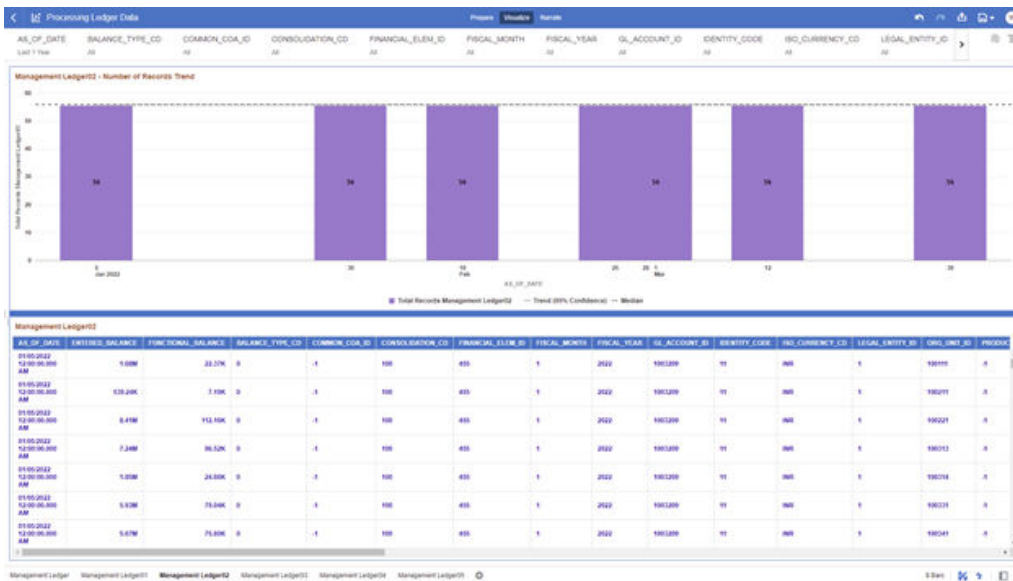
The Management Ledger02 Report provides the analysis capability on the Placeholder Management Ledger 02 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Management Ledger02 - Number of Records Trend  
Total Records Management Ledger02 aggregated by AS\_OF\_DATE.
- Management Ledger02  
Granular table records at FINANCIAL\_ELEM\_ID level.

Figure 4-45 Processing Ledger Data – Management Ledger02



#### 4.1.3.7.4 Management Ledger03

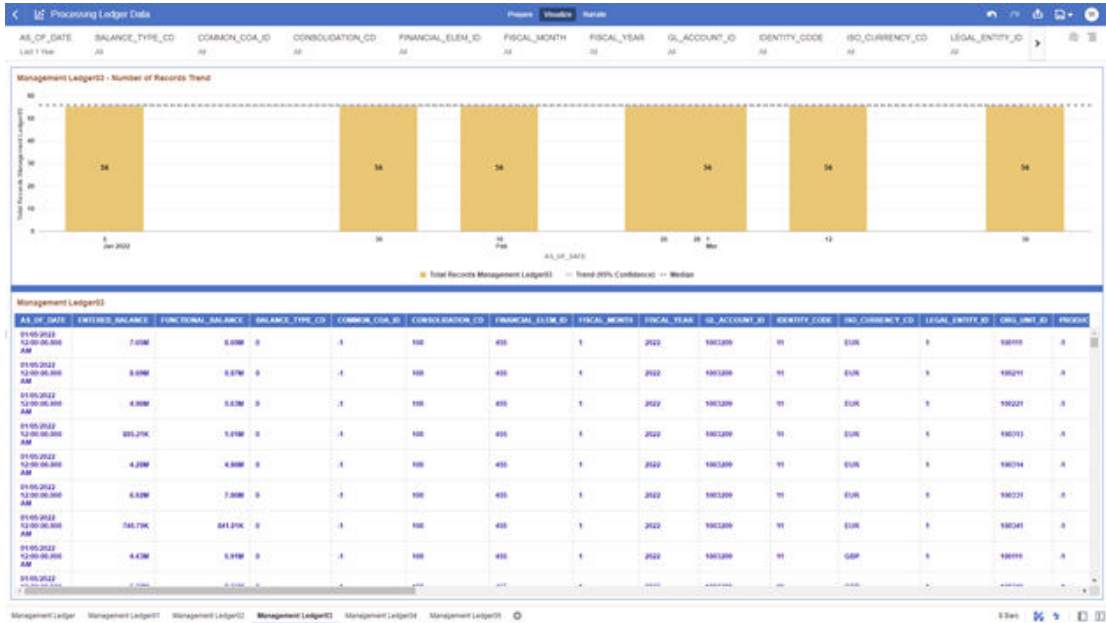
The Management Ledger03 Report provides the analysis capability on the Placeholder Management Ledger 03 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Management Ledger03 - Number of Records Trend  
Total Records Management Ledger03 aggregated by AS\_OF\_DATE.
- Management Ledger03  
Granular table records at FINANCIAL\_ELEM\_ID level.

Figure 4-46 Processing Ledger Data – Management Ledger03



#### 4.1.3.7.5 Management Ledger04

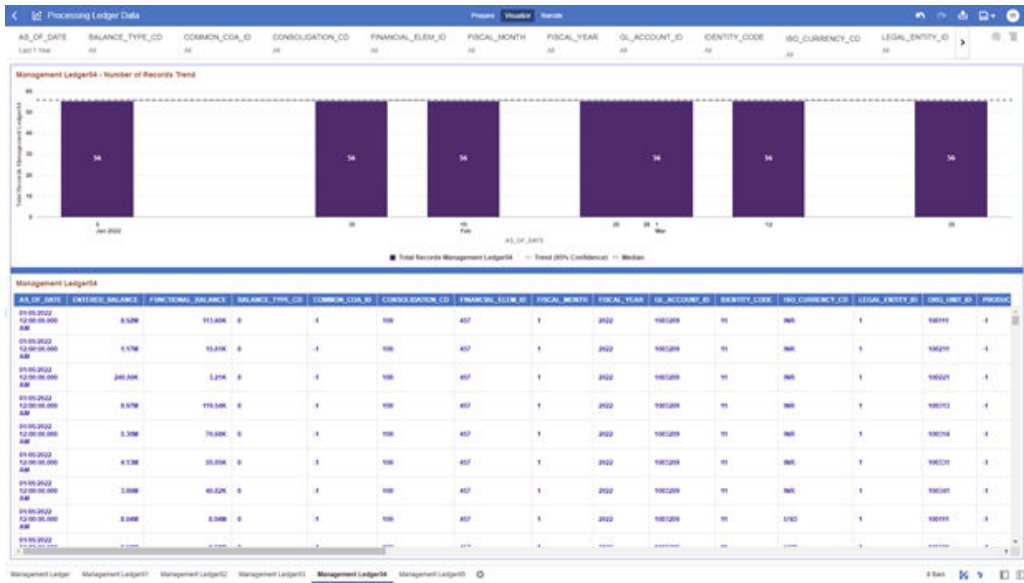
The Management Ledger04 Report provides the analysis capability on the Placeholder Management Ledger 04 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Management Ledger04 - Number of Records Trend  
Total Records Management Ledger04 aggregated by AS\_OF\_DATE.
- Management Ledger04  
Granular table records at FINANCIAL\_ELEM\_ID level.

**Figure 4-47 Processing Ledger Data – Management Ledger04**



#### 4.1.3.7.6 Management Ledger05

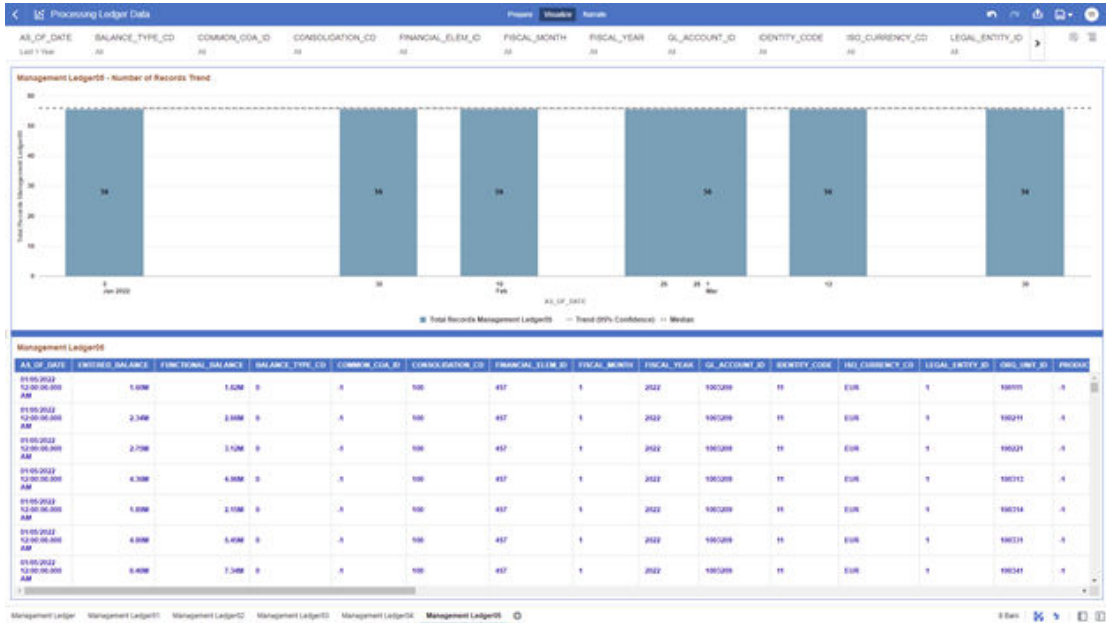
The Management Ledger05 Report provides the analysis capability on the Placeholder Management Ledger 05 Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Management Ledger05 - Number of Records Trend  
Total Records Management Ledger05 aggregated by AS\_OF\_DATE.
- Management Ledger05  
Granular table records at FINANCIAL\_ELEM\_ID level.

Figure 4-48 Processing Ledger Data – Management Ledger05



### 4.1.3.8 Processing Transaction Summary Data

You can use this report to perform the analysis on the Processing Area Tables related to Transaction Summary Data.

The report contains specifically the following Staging Database Objects:

Table 4-9 Staging Transaction Summary Data Reports

Report Name	Scope	Table Layer	Physical Table List	Logical Table List	Report Canvas Name	
Processing Transaction Summary Data	Transaction Summary	FSI-Processing	FSI_D_ASSET_TXNS	Asset Transaction Summary	Assets Transaction Summary	
			FSI_D_LIABILITY_TXNS	Liability Transaction Summary	Liabilities Transaction Summary	
			FSI_D_FEE_BASED_SERVICE_TXNS	Fee Based and Other Services Transaction Summary	Fee Based Services Transaction Summary	
			FSI_D_OFF_BALANCE_SHEET_TXNS	Off Balance Sheet Transaction Summary	Off Balance Sheet Transaction Summary	

#### 4.1.3.8.1 Asset Transaction Summary

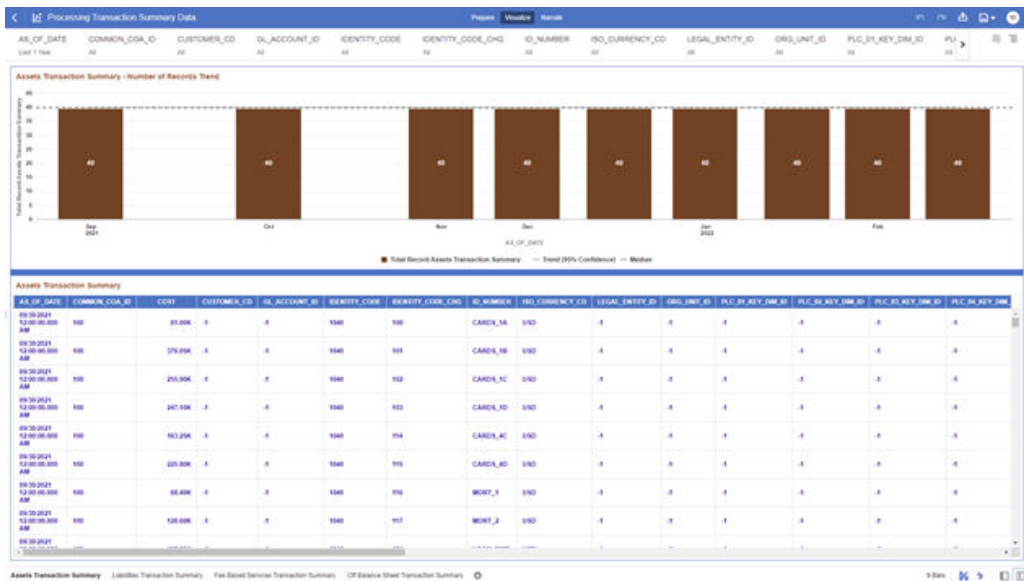
The Asset Transaction Summary Report provides the analysis capability on the Assets Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Assets Transaction Summary - Number of Records Trend  
Total Record Assets Transaction Summary aggregated by AS\_OF\_DATE.
- Assets Transaction Summary  
Granular table records at ID\_NUMBER level.

**Figure 4-49 Processing Transaction Summary Data - Asset Transaction Summary**



#### 4.1.3.8.2 Liabilities Transaction Summary

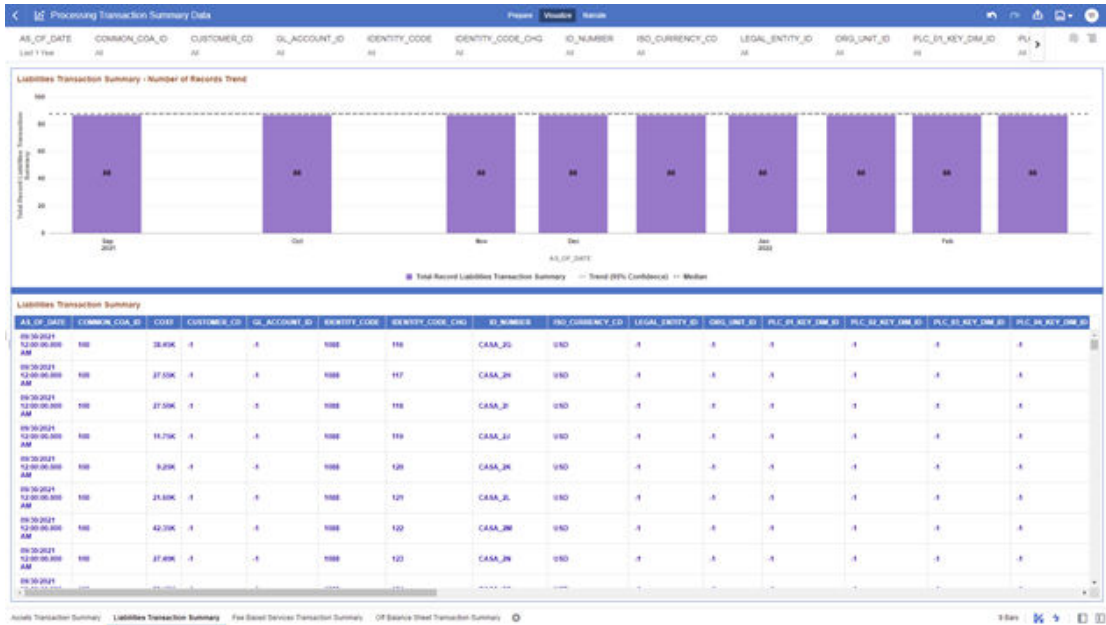
The Liabilities Transaction Summary Report provides the analysis capability on the Liability Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Liabilities Transaction Summary - Number of Records Trend  
Total Record Liability Transaction Summary aggregated by AS\_OF\_DATE.
- Liabilities Transaction Summary  
Granular table records at ID\_NUMBER level.

**Figure 4-50 Processing Transaction Summary Data – Liabilities Transaction Summary**



#### 4.1.3.8.3 Fee Based Services Transaction Summary

The Fee Based Services Transaction Summary Report provides the analysis capability on the Fee Based and Other Services Transaction Summary Table.

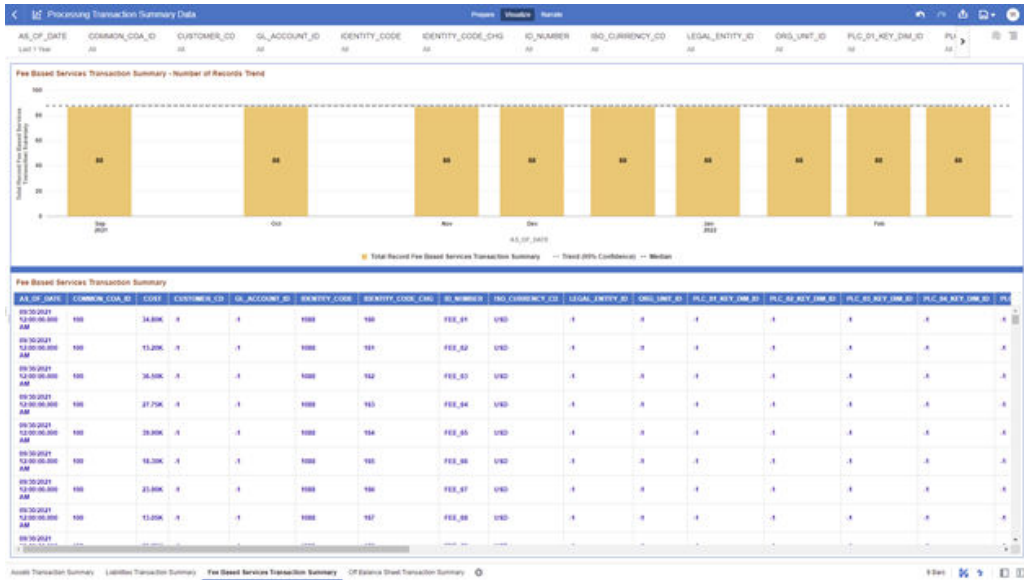
You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Fee Based Services Transaction Summary - Number of Records Trend  
Total Record Fee Based Services Transaction Summary aggregated by AS\_OF\_DATE.
- Fee Based Services Transaction Summary  
Granular table records at ID\_NUMBER level.



**Figure 4-51 Processing Transaction Summary Data – Fee Based Services Transaction Summary**



#### 4.1.3.8.4 Off Balance Sheet Transaction Summary

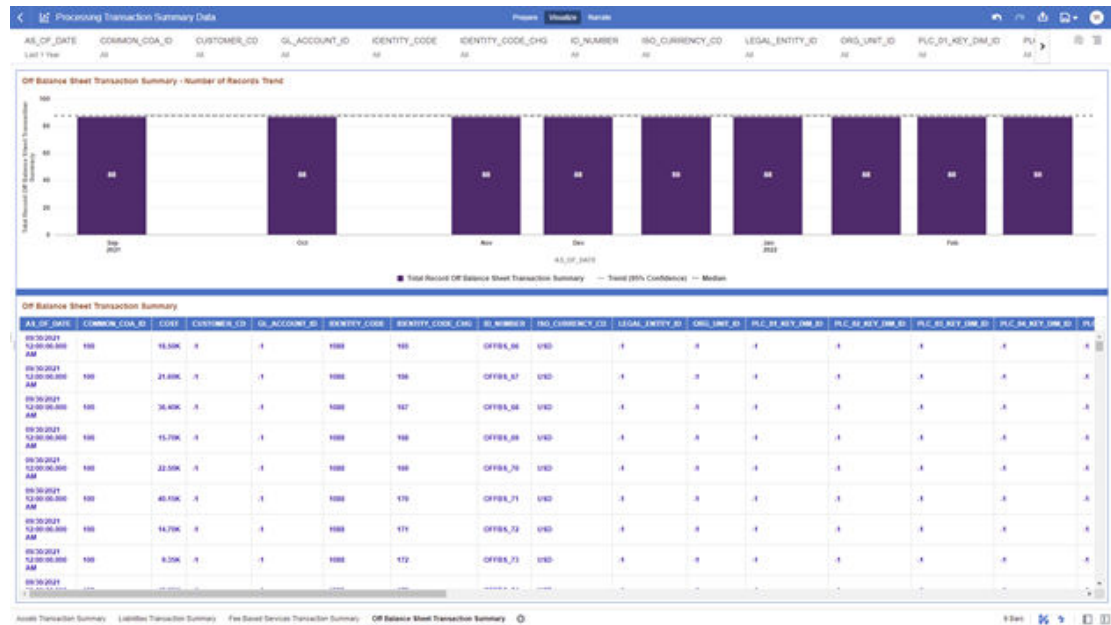
The Off Balance Sheet Transaction Summary Report provides the analysis capability on the Off Balance Sheet Transaction Summary Table.

You can use a series of Report Prompts to filter the data according to Functional Key Attributes pertaining to the Table Columns Perimeter.

The report displays the underlying data according to the following Charts' logic:

- Off Balance Sheet Transaction Summary - Number of Records Trend  
Total Record Off Balance Sheet Transaction Summary aggregated by AS\_OF\_DATE.
- Off Balance Sheet Transaction Summary  
Granular table records at ID\_NUMBER level.

**Figure 4-52 Processing Transaction Summary Data – Off Balance Sheet Transaction Summary**



## 4.1.4 Data Insights

To access the PFT Data Insights Report, select **Analytics** from the LHS Menu, and then select **Data Insights**.

This topic discusses the PFT Data Insights.

### 4.1.4.1 PFT Data Insights

You can use the PFT Data Insights Report to perform analysis on the Direct and Indirect Incomes and Expenses. Direct Incomes and Expenses are directly traceable to the Customer Accounts, while the Indirect Incomes and Expenses need Profitability Allocations to be realized at the Customer Account level.

The Report provides you with the Trend Analysis on the Direct and Indirect Incomes and Expenses components of your Income Statement.

In addition, this Report shows you the Absolute Values and the Variation Percentage of the Metrics over the previous available periods.

The PFT Data Insights is arranged as a Set of Reports catering to analysis of the following categories:

- “1 – Income & Expenses”
- “2 – Non Interest Incomes”
  - “2.a – Fees”
  - “2.b – Charges and Commissions”
- “3 – Non Interest Expenses”
  - “3.a – Other Non Interest Expenses”

### 4.1.4.1.1 Report Common Filters

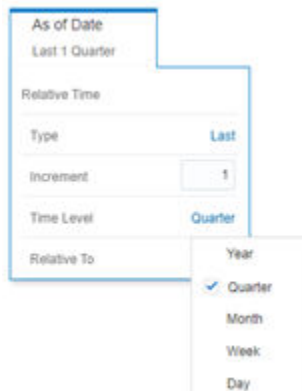
You can use a series of Report Prompts to filter the Data according to Functional Key Attributes as follows:

**Figure 4-53 Canvas Prompt Filters for Time Dimension**



- **As-of-Date:** The Execution Period for the Allocation Rules output results. You can use this filter to isolate a selected timeframe for the analysis. The following screenshot displays the possible options that this filter provides against the Time Dimension.

**Figure 4-54 As-of-Date Selection**



- Additional Filters for the Time Dimension as follows:
  - As-of-Date (Quarter)
  - As-of-Date (Month)
  - As-of-Date (Day)

**Figure 4-55 Canvas Prompt Filters for Simple Dimensions**



- **Currency Code:** You can use this filter to select a specific Currency Code for the underlying Instrument Tables Accounts.
- **Instrument Table Name:** You can use this filter to select the Source Instrument Table used by the Allocation Process.
- **Input File Name:** You can use this filter to select the Input File Name that has sourced the data used by the Allocation Process.

- **Account Officer Name:** You can use this filter to select the Account Officer or Account Manager for the underlying Instrument Tables Accounts.
- **Customer Type Name:** You can use this filter to select the Customer Type for the underlying Instrument Tables Accounts.

**Figure 4-56 Canvas Prompt Filters for Legal Entity Key Processing Dimension**



- **LE Hierarchy Name:** This is a mandatory filter for the group filtering on Legal Entity Key Processing Dimension.  
As the Application supports the creation of multiple Hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “LE Hierarchy Name” must be selected with only a single value simultaneously.
- **LE Level 1 Name:** You can use this filter to select the LE Level 1 Name pertaining to the LE Hierarchy Level 1, for rolling up the results on the underlying Legal Entity Leaf Name that is related to the underlying Instrument Tables Accounts.
- **LE Level 2 Name:** You can use this filter to select the LE Level 2 Name pertaining to the LE Hierarchy Level 2, for rolling up the results on the underlying Legal Entity Leaf Name that is related to the underlying Instrument Tables Accounts.
- **LE Level 3 Name:** You can use this filter to select the LE Level 3 Name pertaining to the LE Hierarchy Level 3, for rolling up the results on the underlying Legal Entity Leaf Name that is related to the underlying Instrument Tables Accounts.
- **Legal Entity Leaf Name:** You can use this filter to select the Legal Entity Leaf Name that is related to the underlying Instrument Tables Accounts.

**Figure 4-57 Canvas Prompt Filters for Common COA Key Processing Dimension**



- **Common COA Hierarchy Name:** N.B. this is a mandatory filter for the group filtering on Common COA Key Processing Dimension.  
As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Common COA Hierarchy Name” must be selected with only a single value simultaneously.
- **Common COA Level 1 Name:** You can use this filter to select the Common COA Level 1 Name pertaining to the Common COA Hierarchy level 1, for rolling up the results on the underlying Common COA Leaf Name that is related to the underlying Instrument Tables Accounts.
- **Common COA Level 2 Name:** You can use this filter to select the Common COA Level 2 Name pertaining to the Common COA Hierarchy level 2, for rolling up the results on the underlying Common COA Leaf Name that is related to the underlying Instrument Tables Accounts.
- **Common COA Level 3 Name:** You can use this filter to select the Common COA Level 3 Name pertaining to the Common COA Hierarchy level 3, for rolling up the results on the

underlying Common COA Leaf Name that is related to the underlying Instrument Tables Accounts.

- **Common COA Leaf Name:** You can use this filter to select the Common COA Leaf Name that is related to the underlying Instrument Tables Accounts.

**Figure 4-58 Canvas Prompt Filters for GL Account Key Processing Dimension**



- **GL Account Hierarchy Name:** N.B. this is a mandatory filter for the group filtering on GL Account Key Processing Dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “GL Account Hierarchy Name” must be selected with only a single value simultaneously.
- **GL Account Level 1 Name:** You can use this filter to select the GL Account Level 1 Name pertaining to the GL Account Hierarchy Level 1, for rolling up the results on the underlying GL Account Leaf Name that is related to the underlying Instrument Tables Accounts.
- **GL Account Level 2 Name:** You can use this filter to select the GL Account Level 2 Name pertaining to the GL Account Hierarchy level 2, for rolling up the results on the underlying GL Account Leaf Name that is related to the underlying Instrument Tables Accounts.
- **GL Account Level 3 Name:** You can use this filter to select the GL Account Level 3 Name pertaining to the GL Account Hierarchy level 3, for rolling up the results on the underlying GL Account Leaf Name that is related to the underlying Instrument Tables Accounts.
- **GL Account Leaf Name:** You can use this filter to select the GL Account Leaf Name that is related to the underlying Instrument Tables Accounts.

**Figure 4-59 Canvas Prompt Filters for Org Unit Key Processing Dimension**



- **Org Hierarchy Name:** This is a mandatory filter for the group filtering on Org Unit Key Processing Dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Org Hierarchy Name” must be selected with only a single value simultaneously.
- **Org Level 1 Name:** You can use this filter to select the Org Level 1 Name pertaining to the Org Unit Hierarchy Level 1, for rolling up the results on the underlying Org Unit Leaf Name that is related to the underlying Instrument Tables Accounts.
- **Org Level 2 Name:** You can use this filter to select the Org Level 2 Name pertaining to the Org Unit Hierarchy Level 2, for rolling up the results on the underlying Org Unit Leaf Name that is related to the underlying Instrument Tables Accounts.

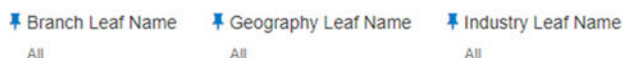
- **Org Level 3 Name:** You can use this filter to select the Org Level 3 Name pertaining to the Org Unit Hierarchy Level 3, for rolling up the results on the underlying Org Unit Leaf Name that is related to the underlying Instrument Tables Accounts.
- **Org Unit Leaf Name:** You can use this filter to select the Org Unit Leaf Name that is related to the underlying Instrument Tables Accounts.

**Figure 4-60 Canvas Prompt Filters for Product Key Processing Dimension**



- **Prod Hierarchy Name:** This is a mandatory filter for the group filtering on Product key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Prod Hierarchy Name” must be selected with only a single value simultaneously.
- **Prod Level 1 Name:** You can use this filter to select the Prod Level 1 Name pertaining to the Product Hierarchy Level 1, for rolling up the results on the underlying Prod Leaf Name that is related to the underlying Instrument Tables Accounts.
- **Prod Level 2 Name:** You can use this filter to select the Prod Level 2 Name pertaining to the Product Hierarchy Level 2, for rolling up the results on the underlying Prod Leaf Name that is related to the underlying Instrument Tables Accounts.
- **Prod Level 3 Name:** You can use this filter to select the Prod Level 3 Name pertaining to the Product Hierarchy Level 3, for rolling up the results on the underlying Prod Leaf Name that is related to the underlying Instrument Tables Accounts.
- **Prod Leaf Name:** You can use this filter to select the Prod Leaf Name that is related to the underlying Instrument Tables Accounts.

**Figure 4-61 Canvas Prompt Filters for Standard Dimensions**

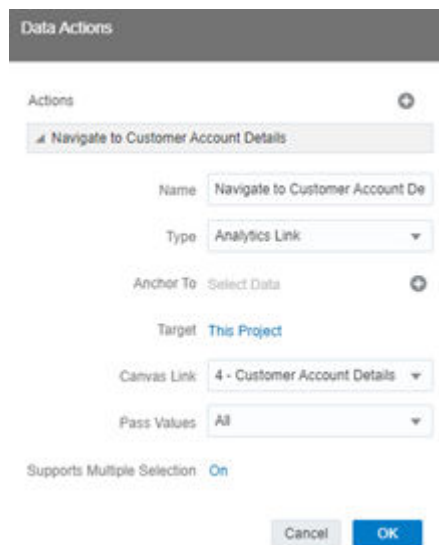


- **Branch Leaf Name:** You can use this filter to select a specific Branch value at leaf level related to the underlying Instrument Tables Accounts.
- **Geography Leaf Name:** You can use this filter to select a specific Geography value at leaf level related to the underlying Instrument Tables Accounts.
- **Industry Leaf Name:** You can use this filter to select a specific Industry value at leaf level related to the underlying Instrument Tables Accounts.

#### 4.1.4.1.2 Report Data Action

The report provides the capability to look at the Allocation Measurements underlying Customer Account Details via a Data Action. The following are the Data Action Configuration details:

Figure 4-62 Data Action Configuration



From every chart available in the Report, except for the last canvas “4 – Customer Account Detail” that provides the actual underlying Customer Account Level Results, you can select a value, and then navigate to the related Customer Account Details.

To do so, with a right-click on the Chart Selection, the Data Action option will appear for you to be able to navigate further at the Customer Account Details.

The following two screenshots are showing the procedure you have to follow. The first one shows how to perform the Data Action on a specific selection, and the second one the result of this Data Action Navigation.

Figure 4-63 Use Data Action to Navigate to Customer Account Details

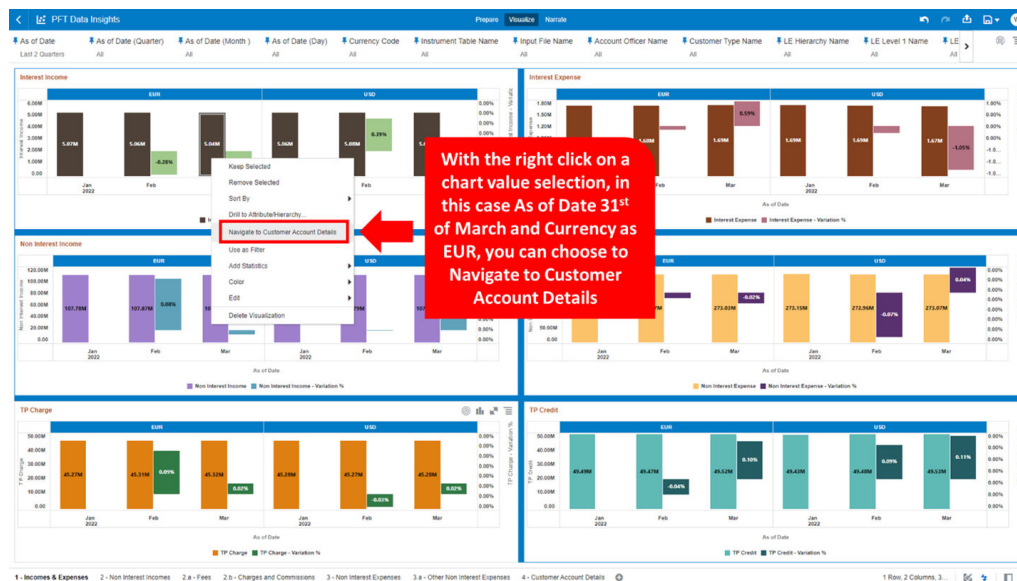




Figure 4-64 Result of Data Action Navigation

The screenshot shows the PFT Data Insights interface. At the top, there are navigation tabs for 'Prepare', 'Visualize', and 'Reports'. Below these are filter menus for 'Orig Unit Leaf Name', 'Prod Hierarchy Name', 'Prod Level 1 Name', 'Prod Level 2 Name', 'Prod Level 3 Name', 'Prod Leaf Name', 'Branch Leaf Name', 'Geography Leaf Name', 'Industry Leaf Name', 'As of Date', and 'Currency Code'. The 'As of Date' is set to '31/3/2022' and 'Currency Code' is set to 'EUR'. The main area displays a table with columns: As of Date, Currency Code, Instrument Name, Instrument Sub Name, Legal Entity Leaf Name, Common COA Leaf Name, GL Account Leaf Name, Orig Unit Leaf Name, Prod Leaf Name, Branch Leaf Name, Customer Identifier, Geography Leaf Name, Industry Leaf Name, Account Officer Name, Customer Type Name, Identity Code, M Number, Account Number, Allocated Cash Expenses, Amortization Expenses, Amount Off COA, Amortization of Financing Expenses, Annual Fees, and ATM Expenses. A red callout box points to the 'As of Date' and 'Currency Code' filters, stating: 'Result of the Data Action navigation based on the criteria selection, in this case As of Date 31st of March and Currency as EUR'. At the bottom, there are navigation tabs for '1 - Incomes & Expenses', '2 - Non Interest Incomes', '2.a - Fees', '2.b - Charges and Commissions', '3 - Non Interest Expenses', '3.a - Other Non Interest Expenses', and '4 - Customer Account Details'. The current view is '4 - Customer Account Details'.

#### 4.1.4.1.3 “1 - Incomes & Expenses”

The “1 - Incomes & Expenses” Report provides a view of the descriptive analytics related to the heads of Income and Expenses.

You can use a series of Report Prompts, as previously described, to filter the data according to Key Attributes pertaining to the underlying Instrument Tables Accounts.

The report displays the underlying data according to the following Charts’ logic:

- **Interest Income:** The chart displays the absolute value for the Interest Income, as well as the relative percentage variation Interest Income – Variation %, that is calculated over the previous period available Interest Income value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Interest Expense:** The chart displays the absolute value for the Interest Expense, as well as the relative percentage variation Interest Expense – Variation %, that is calculated over the previous period available Interest Expense value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Non Interest Income:** The chart displays the absolute value for the Non Interest Income, as well as the relative percentage variation Non Interest Income – Variation %, that is calculated over the previous period available Non Interest Income value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Non Interest Expense:** The chart displays the absolute value for the Non Interest Expense, as well as the relative percentage variation Non Interest Expense – Variation %, that is calculated over the previous period available Non Interest Expense value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **TP Charge:** The chart displays the absolute value for the TP Charge, as well as the relative percentage variation TP Charge – Variation %, that is calculated over the previous period available TP Charge value. The results are displayed according to the As-of-Date and split by the Currency Code.



- **TP Credit:** The chart displays the absolute value for the TP Credit, as well as the relative percentage variation TP Credit – Variation %, that is calculated over the previous period available TP Credit value. The results are displayed according to the As-of-Date and split by the Currency Code.

Figure 4-65 "1 - Incomes & Expenses Report"



#### 4.1.4.1.4 "2 – Non-Interest Incomes"

The "2 - Non Interest Incomes" Report provides a view of the descriptive analytics related to the heads of Non Interest Incomes.

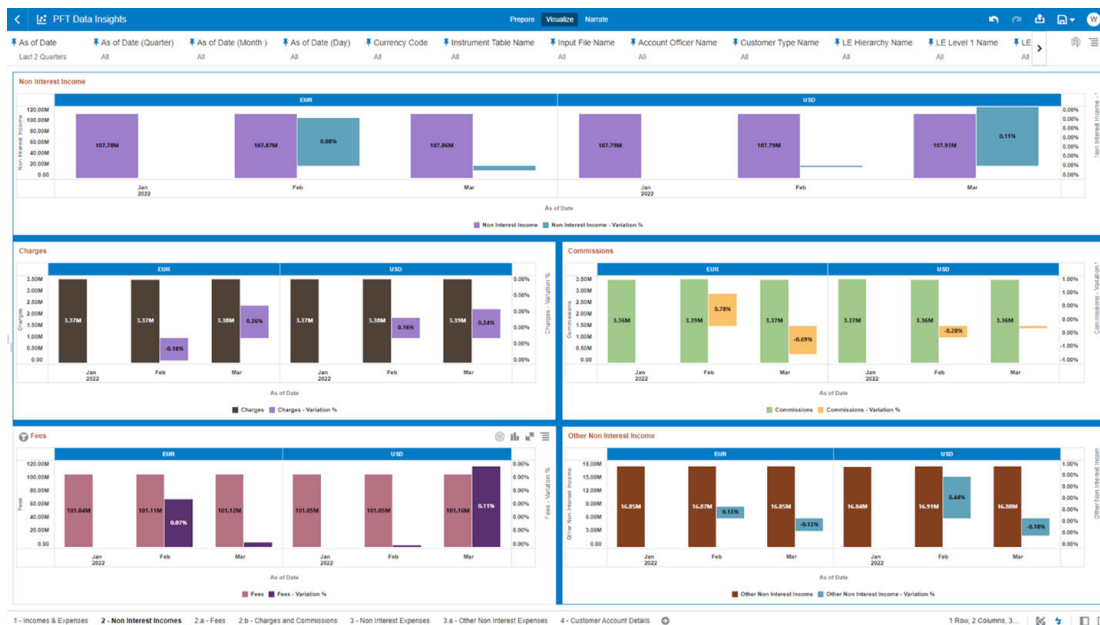
You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Instrument Tables Accounts.

The report displays the underlying data according to the following Charts' logic:

- **Non Interest Income:** The chart displays the absolute value for the Non Interest Income, as well as the relative percentage variation Non Interest Income – Variation %, that is calculated over the previous period available Non Interest Income value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Charges:** The chart displays the absolute value for the Charges, as well as the relative percentage variation Charges – Variation %, that is calculated over the previous period available Charges value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Commissions:** The chart displays the absolute value for the Commissions, as well as the relative percentage variation Commissions – Variation %, that is calculated over the previous period available Commissions value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Fees:** The chart displays the absolute value for the Fees, as well as the relative percentage variation Fees – Variation %, that is calculated over the previous period available Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.

- **Other Non Interest Income:** The chart displays the absolute value for the Other Non Interest Income, as well as the relative percentage variation Other Non Interest Income – Variation %, that is calculated over the previous period available Other Non Interest Income value. The results are displayed according to the As-of-Date and split by the Currency Code.

Figure 4-66 “2 - Non Interest Incomes” Report



#### 4.1.4.1.4.1 “2.a – Fees”

The “2.a – Fees” Report provides a view of the descriptive analytics related to the heads of Fees.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Instrument Tables Accounts.

The report displays the underlying data according to the following Charts’ logic:

- **Annual Fees:** The chart displays the absolute value for the Annual Fees, as well as the relative percentage variation Annual Fees – Variation %, that is calculated over the previous period available Annual Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Balance Transfer Fees:** The chart displays the absolute value for the Balance Transfer Fees, as well as the relative percentage variation Balance Transfer Fees – Variation %, that is calculated over the previous period available Balance Transfer Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Cash Advance Fees:** The chart displays the absolute value for the Cash Advance Fees, as well as the relative percentage variation Cash Advance Fees – Variation %, that is calculated over the previous period available Cash Advance Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Commitment Fees:** The chart displays the absolute value for the Commitment Fees, as well as the relative percentage variation Commitment Fees – Variation %, that is

calculated over the previous period available Commitment Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.

- **Convenience Fees:** The chart displays the absolute value for the Convenience Fees, as well as the relative percentage variation Convenience Fees – Variation %, that is calculated over the previous period available Convenience Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Customer Service Fees:** The chart displays the absolute value for the Customer Service Fees, as well as the relative percentage variation Customer Service Fees – Variation %, that is calculated over the previous period available Customer Service Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Early Redemption Fees:** The chart displays the absolute value for the Early Redemption Fees, as well as the relative percentage variation Early Redemption Fees – Variation %, that is calculated over the previous period available Early Redemption Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Foreign Transaction Fees:** The chart displays the absolute value for the Foreign Transaction Fees, as well as the relative percentage variation Foreign Transaction Fees – Variation %, that is calculated over the previous period available Foreign Transaction Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Interchange Fees:** The chart displays the absolute value for the Interchange Fees, as well as the relative percentage variation Interchange Fees – Variation %, that is calculated over the previous period available Interchange Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Late Fees:** The chart displays the absolute value for the Late Fees, as well as the relative percentage variation Late Fees – Variation %, that is calculated over the previous period available Late Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Management Fees:** The chart displays the absolute value for the Management Fees, as well as the relative percentage variation Management Fees – Variation %, that is calculated over the previous period available Management Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Origination Fees:** The chart displays the absolute value for the Origination Fees, as well as the relative percentage variation Origination Fees – Variation %, that is calculated over the previous period available Origination Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Other Fees:** The chart displays the absolute value for the Other Fees, as well as the relative percentage variation Other Fees – Variation %, that is calculated over the previous period available Other Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Over Limit Fees:** The chart displays the absolute value for the Over Limit Fees, as well as the relative percentage variation Over Limit Fees – Variation %, that is calculated over the previous period available Over Limit Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Overdraft Fees:** The chart displays the absolute value for the Overdraft Fees, as well as the relative percentage variation Overdraft Fees – Variation %, that is

calculated over the previous period available Overdraft Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.

- **Prepayment Fees:** The chart displays the absolute value for the Prepayment Fees, as well as the relative percentage variation Prepayment Fees – Variation %, that is calculated over the previous period available Prepayment Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Processing Fees:** The chart displays the absolute value for the Processing Fees, as well as the relative percentage variation Processing Fees – Variation %, that is calculated over the previous period available Processing Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Statement Fees:** The chart displays the absolute value for the Statement Fees, as well as the relative percentage variation Statement Fees – Variation %, that is calculated over the previous period available Statement Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Total Waived Fees:** The chart displays the absolute value for the Total Waived Fees, as well as the relative percentage variation Total Waived Fees – Variation %, that is calculated over the previous period available Total Waived Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Transaction Fees:** The chart displays the absolute value for the Transaction Fees, as well as the relative percentage variation Transaction Fees – Variation %, that is calculated over the previous period available Transaction Fees value. The results are displayed according to the As-of-Date and split by the Currency Code.

Figure 4-67 “2.a – Fees” Report



#### 4.1.4.1.4.2 “2.b - Charges and Commissions”

The “2.b - Charges and Commissions” Report provides a view of the descriptive analytics related to the heads of Charges and Commissions.

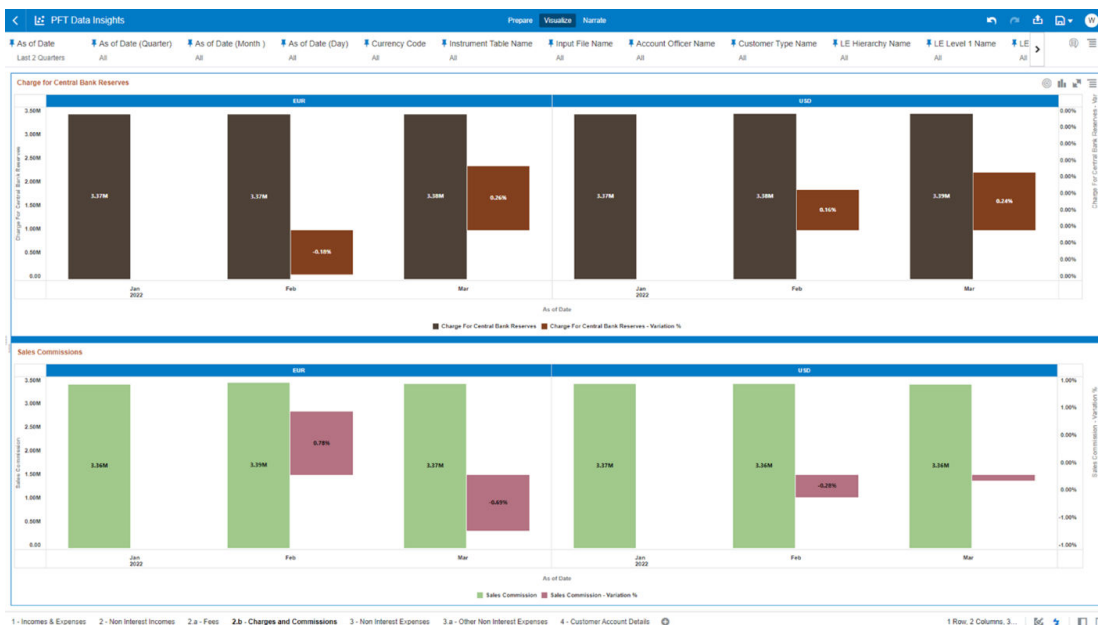
The “2.b - Charges and Commissions” Report provides a view of the descriptive analytics related to the heads of Charges and Commissions.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Instrument Tables Accounts.

The report displays the underlying data according to the following Charts’ logic:

- **Charge for Central Bank Reserves:** The chart displays the absolute value for the Charge for Central Bank Reserves, as well as the relative percentage variation Charge for Central Bank Reserves – Variation %, that is calculated over the previous period available Charge for Central Bank Reserves value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Sales Commissions:** The chart displays the absolute value for the Sales Commissions, as well as the relative percentage variation Sales Commissions – Variation %, that is calculated over the previous period available Sales Commissions value. The results are displayed according to the As-of-Date and split by the Currency Code.

Figure 4-68 “2.b - Charges and Commissions” Report



#### 4.1.4.1.5 “3 - Non Interest Expenses”

The “3 - Non Interest Expenses” Report provides a view of the descriptive analytics related to the heads of Non Interest Expenses.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Instrument Tables Accounts.

The report displays the underlying data according to the following Charts’ logic:

- **Total Account Expenses:** The chart displays the absolute value for the Total Account Expenses, as well as the relative percentage variation Total Account Expenses – Variation %, that is calculated over the previous period available Total Account Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Total Distribution Expense:** The chart displays the absolute value for the Total Distribution Expense, as well as the relative percentage variation Total Distribution Expense – Variation %, that is calculated over the previous period available Total Distribution Expense value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Total Processing Expense:** The chart displays the absolute value for the Total Processing Expense, as well as the relative percentage variation Total Processing Expense – Variation %, that is calculated over the previous period available Total Processing Expense value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Total Tax Expenses:** The chart displays the absolute value for the Total Tax Expenses, as well as the relative percentage variation Total Tax Expenses – Variation %, that is calculated over the previous period available Total Tax Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.



- **Total Brand Management Expenses:** The chart displays the absolute value for the Total Brand Management Expenses, as well as the relative percentage variation Total Brand Management Expenses – Variation %, that is calculated over the previous period available Total Brand Management Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Marketing Expense:** The chart displays the absolute value for the Marketing Expense, as well as the relative percentage variation Marketing Expense – Variation %, that is calculated over the previous period available Marketing Expense value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Business Development Expense:** The chart displays the absolute value for the Business Development Expense, as well as the relative percentage variation Business Development Expense – Variation %, that is calculated over the previous period available Business Development Expense value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Branch Management Expenses:** The chart displays the absolute value for the Branch Management Expenses, as well as the relative percentage variation Branch Management Expenses – Variation %, that is calculated over the previous period available Branch Management Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Retail Operations Expense:** The chart displays the absolute value for the Retail Operations Expense, as well as the relative percentage variation Retail Operations Expense – Variation %, that is calculated over the previous period available Retail Operations Expense value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **ATM Expenses:** The chart displays the absolute value for the ATM Expenses, as well as the relative percentage variation ATM Expenses – Variation %, that is calculated over the previous period available ATM Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Branch Teller Expenses:** The chart displays the absolute value for the Branch Teller Expenses, as well as the relative percentage variation Branch Teller Expenses – Variation %, that is calculated over the previous period available Branch Teller Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Electronic Banking Expenses:** The chart displays the absolute value for the Electronic Banking Expenses, as well as the relative percentage variation Electronic Banking Expenses – Variation %, that is calculated over the previous period available Electronic Banking Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Interchange Expense Amount:** The chart displays the absolute value for the Interchange Expense Amount, as well as the relative percentage variation Interchange Expense Amount – Variation %, that is calculated over the previous period available Interchange Expense Amount value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Infrastructure Expense:** The chart displays the absolute value for the Infrastructure Expense, as well as the relative percentage variation Infrastructure Expense – Variation %, that is calculated over the previous period available Infrastructure Expense value. The results are displayed according to the As-of-Date and split by the Currency Code.

- **Fixed Expense:** The chart displays the absolute value for the Fixed Expense, as well as the relative percentage variation Fixed Expense – Variation %, that is calculated over the previous period available Fixed Expense value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Staff Costs:** The chart displays the absolute value for the Staff Costs, as well as the relative percentage variation Staff Costs – Variation %, that is calculated over the previous period available Staff Costs value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Loan Processing Expenses:** The chart displays the absolute value for the Loan Processing Expenses, as well as the relative percentage variation Loan Processing Expenses – Variation %, that is calculated over the previous period available Loan Processing Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Loan Loss Provision:** The chart displays the absolute value for the Loan Loss Provision, as well as the relative percentage variation Loan Loss Provision – Variation %, that is calculated over the previous period available Loan Loss Provision value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Allocated Non-Cash Expenses:** The chart displays the absolute value for the Allocated Non-Cash Expenses, as well as the relative percentage variation Allocated Non-Cash Expenses – Variation %, that is calculated over the previous period available Allocated Non-Cash Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.
- **Amortization Expenses:** The chart displays the absolute value for the Amortization Expenses, as well as the relative percentage variation Amortization Expenses – Variation %, that is calculated over the previous period available Amortization Expenses value. The results are displayed according to the As-of-Date and split by the Currency Code.



Figure 4-69 “3 - Non Interest Expenses” Report



#### 4.1.4.1.5.1 “3.a - Other Non Interest Expenses”

The “3.a - Other Non Interest Expenses” Report provides a view of the descriptive analytics related to the heads of Other Non Interest Expenses.

The “3.a - Other Non Interest Expenses” Report provides a view of the descriptive analytics related to the heads of Other Non Interest Expenses.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Instrument Tables Accounts.

The report displays the underlying data according to the following Charts’ logic:

- — Other Expenses Variation% breakdown (valid for both Pivot table chart and Bar Chart)

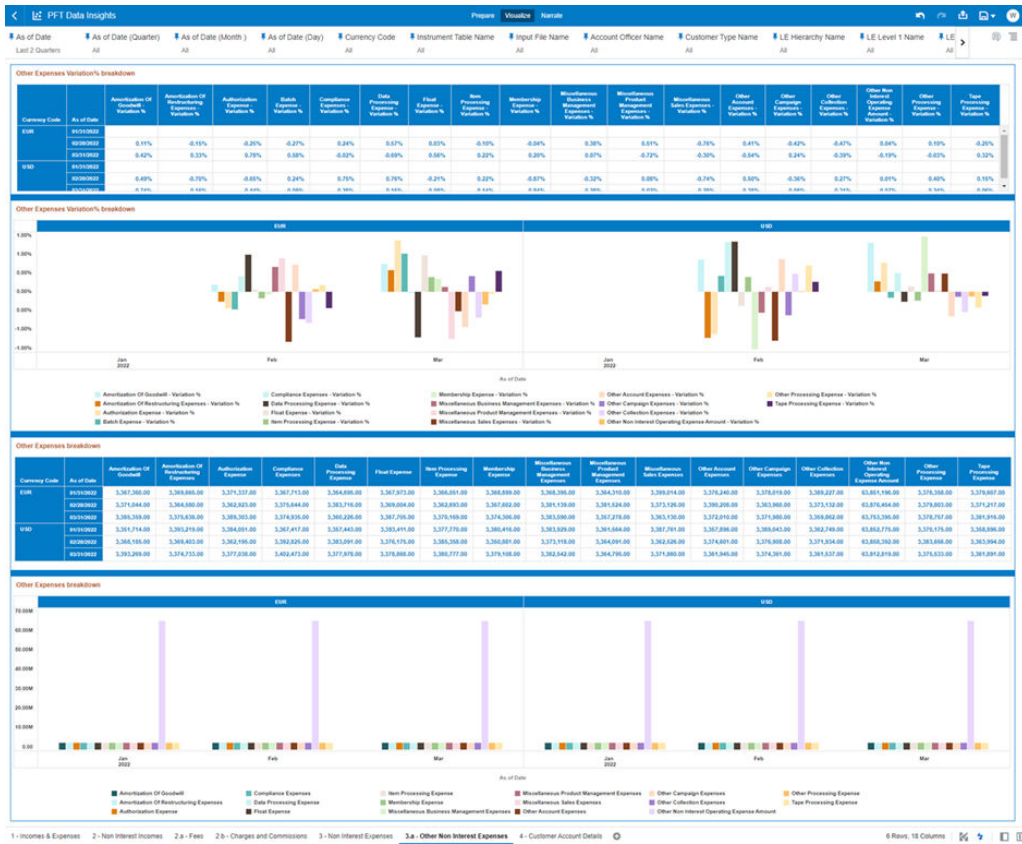
The chart displays the relative percentage variation for the following metrics, that are calculated over the previous period available corresponding metrics values.

The results are displayed according to the As-of-Date and split by the Currency Code.

- \* \* Amortization Of Goodwill - Variation %
- \* Amortization Of Restructuring Expenses - Variation %

- \* Authorization Expense - Variation %
  - \* Batch Expense - Variation %
  - \* Compliance Expenses - Variation %
  - \* Data Processing Expense - Variation %
  - \* Float Expense - Variation %
  - \* Item Processing Expense - Variation %
  - \* Membership Expense - Variation %
  - \* Miscellaneous Business Management Expenses - Variation %
  - \* Miscellaneous Product Management Expenses - Variation %
  - \* Miscellaneous Sales Expenses - Variation %
  - \* Other Account Expenses - Variation %
  - \* Other Campaign Expenses - Variation %
  - \* Other Collection Expenses - Variation %
  - \* Other Non Interest Operating Expense Amount - Variation %
  - \* Other Processing Expense - Variation %
  - \* Tape Processing Expense - Variation %
- Other Expenses breakdown (valid for both Pivot table chart and Bar Chart) The chart displays the absolute value for the following metrics. The results are displayed according to the As-of-Date and split by the Currency Code.
- \* \* Amortization Of Goodwill
  - \* Amortization Of Restructuring Expenses
  - \* Authorization Expense
  - \* Compliance Expenses
  - \* Data Processing Expense
  - \* Float Expense
  - \* Item Processing Expense
  - \* Membership Expense
  - \* Miscellaneous Business Management Expenses
  - \* Miscellaneous Product Management Expenses
  - \* Miscellaneous Sales Expenses
  - \* Other Account Expenses
  - \* Other Campaign Expenses
  - \* Other Collection Expenses
  - \* Other Non Interest Operating Expense Amount
  - \* Other Processing Expense
  - \* Tape Processing Expense

Figure 4-70 “3.a - Other Non Interest Expenses” Report



#### 4.1.4.1.6 “4 - Customer Account Details”

The “4 - Customer Account Details” Report provides a view of the underlying instrument tables Customer Accounts details.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Instrument Tables Accounts.

The report displays the underlying data according to the following Chart' logic:

- **Detailed Acct Level Info:** The tabular report displays all the dimensions and the measures, available at the Account level granularity, that have been displayed in all the other previously described report categories. Following the granular elements available for this table chart:
  - Detailed Acct Level Info
    - The tabular report displays all the dimensions and the measures, available at the Account level granularity, that have been displayed in all the other previously described report categories.
  - \* "As-of-Date", "Currency Code", "Input File Name", "Instrument Table Name", "Legal Entity Leaf Name", "Common COA Leaf Name", "GL Account Leaf Name", "Org Unit Leaf Name", "Prod Leaf Name", "Branch Leaf Name", "Customer Identifier", "Geography Leaf Name", "Industry Leaf Name", "Account Officer Name", "Customer Type Name", "Identity Code", "Id Number", "Account Number", "Allocated Non-Cash Expenses",

"Amortization Expenses", "Amortization Of Goodwill", "Amortization Of Restructuring Expenses", "Annual fees", "ATM Expenses", "Authorization Expense", "Balance Transfer fees", "Branch Management Expenses", "Branch Teller Expenses", "Cash Advance fees", "Charge For Central Bank Reserves", "Charges", "Commissions", "Commitment fees", "Compliance Expenses", "Convenience fees", "Customer Service fees", "Data Processing Expense", "Early Redemption Fees", "Electronic Banking Expense", "Fees", "Fixed Expense", "Float Expense", "Foreign Transaction fees", "Infrastructure Expense", "Interchange Expense Amount", "Interchange fees", "Interest Expense", "Interest Income", "Item Processing Expense", "Late fees", "Loan Loss Provision", "Loan Processing Expenses", "Management Fees", "Marketing Expense", "Membership Expense", "Miscellaneous Business Management Expenses", "Miscellaneous Product Management Expenses", "Miscellaneous Sales Expenses", "Non Interest Expense", "Non Interest Income", "Origination fees", "Other Account Expenses", "Other Campaign Expenses", "Other Collection Expenses", "Other fees", "Other Non Interest Income", "Other Non Interest Operating Expense Amount", "Other Processing Expense", "Over Limit fees", "Overdraft fees", "Prepayment fees", "Processing fees", "Retail Operations Expense", "Sales Commission", "Staff Costs", "Statement fees", "Tape Processing Expense", "Total Account Expenses", "Total Brand Management Expenses", "Total Distribution Expense", "Total Processing Expense", "Total Tax Expenses", "Total Waived Fees", "TP Charge", "TP Credit", "Transaction fees".

Figure 4-71 "4 - Customer Account Details" Report

As of Date	Currency Code	Instrument Table Name	Legal Entity Leaf Name	Common GL Account Leaf Name	Org Unit Leaf Name	Prod Leaf Name	Branch Leaf Name	Customer Identifier	Geography Leaf Name	Industry Leaf Name	Account Officer Name	Customer Type Name	Identity Code	ID Number	Account Number	Allocated Non-Cash Expense	Amortization Expense	Amortization CF Goodwill	Amortization CF Restructuring Expense	Annual Fees	ATM Expenses	
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	FX Interbank Split	Branch 001	77792861	Chicago	Automobile	Account Officer 001	Banks	20200131	EUR_CARDS_20161	EUR_CARDS_20161	447.00	306.00	433.00	472.00	168.00	856.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	Interbank	Branch 002	77792031	Chicago	Other Industries	Account Officer 001	Banks	20200131	EUR_CARDS_20101	EUR_CARDS_20101	109.00	452.00	321.00	131.00	175.00	764.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	Interbank	Branch 001	77792791	Los Angeles	Other Industries	Account Officer 001	Banks	20200131	EUR_LOAN_20201	EUR_LOAN_20201	446.00	409.00	283.00	126.00	275.00	1,156.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	Interbank	Branch 001	77792851	New York	Other Industries	Account Officer 001	Banks	20200131	EUR_MORT_20201	EUR_MORT_20201	454.00	510.00	387.00	423.00	160.00	1,160.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	Trade Refinance	Branch 001	77792072	Chicago	Other Industries	Account Officer 001	Banks	20200131	EUR_CARDS_20072	EUR_CARDS_20072	373.00	708.00	431.00	377.00	333.00	992.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	Trade Refinance	Branch 001	77792892	Los Angeles	Other Industries	Account Officer 001	Banks	20200131	EUR_LOAN_20072	EUR_LOAN_20072	486.00	437.00	132.00	325.00	192.00	874.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	Trade Refinance	Branch 001	77792872	New York	Other Industries	Account Officer 001	Banks	20200131	EUR_MORT_20072	EUR_MORT_20072	115.00	811.00	483.00	348.00	211.00	966.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	Notes Account Other	Branch 001	77792019	Chicago	Other Industries	Account Officer 001	Banks	20200131	EUR_CARDS_20019	EUR_CARDS_20019	137.00	744.00	371.00	373.00	251.00	474.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	Notes Account Other	Branch 001	77792819	Los Angeles	Other Industries	Account Officer 001	Banks	20200131	EUR_LOAN_20019	EUR_LOAN_20019	412.00	736.00	318.00	477.00	100.00	920.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	ALCO CDIT EARNIN	Notes Account Other	Branch 001	77792819	New York	Other Industries	Account Officer 001	Banks	20200131	EUR_MORT_20019	EUR_MORT_20019	236.00	271.00	163.00	166.00	406.00	864.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	CDIF V BRANCH	FX Interbank Split	Branch 002	77791476	Chicago	Healthcare	Account Officer 001	Banks	20200131	EUR_CARDS_01476	EUR_CARDS_01476	156.00	726.00	383.00	423.00	363.00	831.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	CDIF V BRANCH	Interbank	Branch 001	77792837	Los Angeles	Other Industries	Account Officer 001	Banks	20200131	EUR_LOAN_01107	EUR_LOAN_01107	495.00	684.00	387.00	387.00	168.00	642.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	CDIF V BRANCH	Interbank	Branch 001	77792837	New York	Other Industries	Account Officer 001	Banks	20200131	EUR_MORT_01107	EUR_MORT_01107	341.00	316.00	132.00	184.00	276.00	1,260.00
01/01/2022	EUR	Asset_Fin_001	Asset Holdings Company	Earning Asset Account Type	CAPITAL	CDIF V BRANCH	Trade Refinance	Branch 001	77791526	Chicago	Automobile	Account Officer 001	Banks	20200131	EUR_CARDS_01126	EUR_CARDS_01126	176.00	634.00	416.00	378.00	417.00	733.00

### 4.1.5 Processing Analytics

To access the Processing Analytics Report, select **Analytics** from the LHS Menu, and then select **Processing Analytics**.

## 4.1.5.1 Allocation Performance Analysis

You can use the Allocation Performance Analysis Report to perform analysis on the Allocation Statistics. In particular, you can look at multiple periods for the Allocation Executions as well as concentrate the analysis focus on a single execution period.

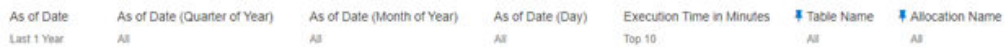
Using this LHS link, you will be redirected to the UI with the related report, as explained in the following section.

### 4.1.5.1.1 Multi-Period Analysis

You can use the Multi-Periods Analysis Report section to analyze the Allocation Execution Performances across different periods.

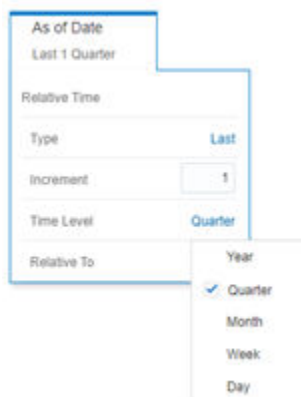
You can use a series of Report Prompts to filter the data according to Functional Key Attributes as described below:

**Figure 4-72 Canvas Prompt Filters**



- **As of Date:** The Execution Period for the Allocation Rules. You can use this filter to isolate a selected timeframe for the analysis. The following screenshot displays the possible options that this filter provides against the Time Dimension.

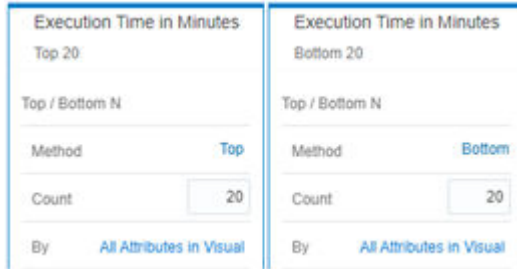
**Figure 4-73 As-of-Date Selection**



- Additional Filters for the Time Dimension as follows:
  - As of Date (Quarter of Year)
  - As of Date (Month of Year)
  - As of Date (Day)
- **Execution Time in Minutes:** You can use this filter to retrieve the Top/Bottom N Allocation rules based on their Execution Time in Minutes.

The possible filter options that you can use are selecting either “Top” or “Bottom” in the “Method” option, as well as define a selected number of occurrences (that is, assigning an integer value such as 5, 10, and so on) in the option “Count”.

**Figure 4-74 Execution Time in Minutes for Top/Bottom Selection**

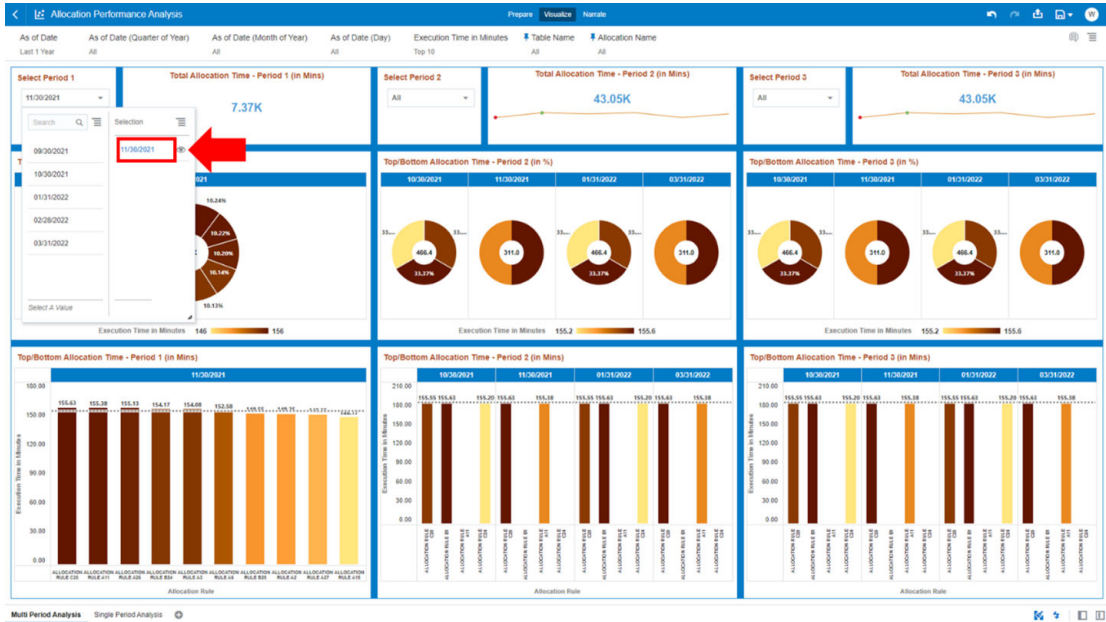


- **Table Name:** You can use this filter to select a specific Table Name (one or more) used by the Allocation Rule that has been utilized for processing.
- **Allocation Name:** You can use this filter to select a specific Allocation rule (one or more) used by the different process executions.

The first step is to select in the Charts List Box “Select Period 1”, “Select Period 2”, and “Select Period 3”, the three different periods that will be used to compare across different As-of-Date the performances of the Allocation Rules executed.

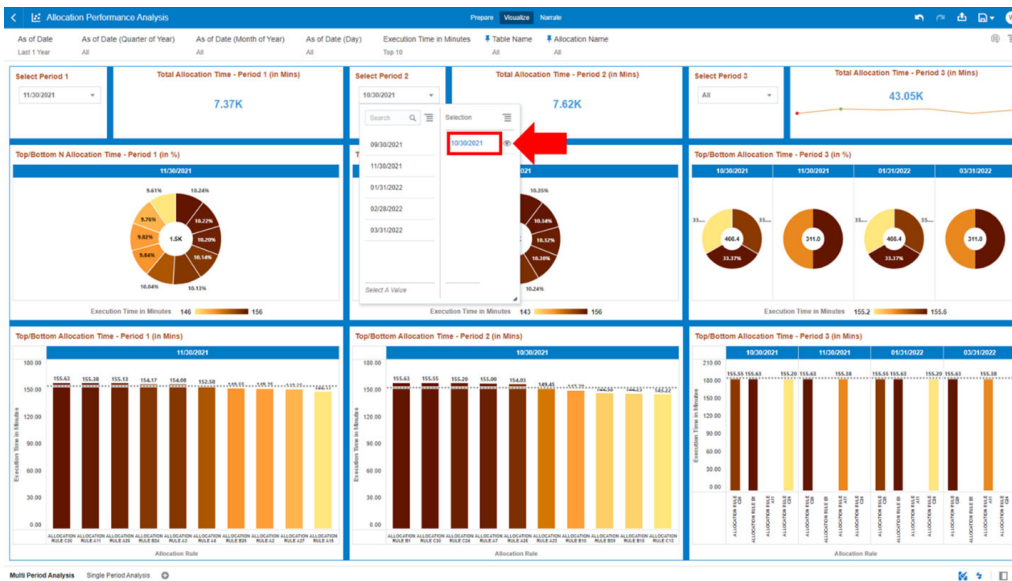
The first screenshot shows how to select the First Period, and the subsequent screenshots show how to select the Second and Third Periods. <Enter a single subject here.>

**Figure 4-75 Select Period 1 for the Allocation Rules Execution**

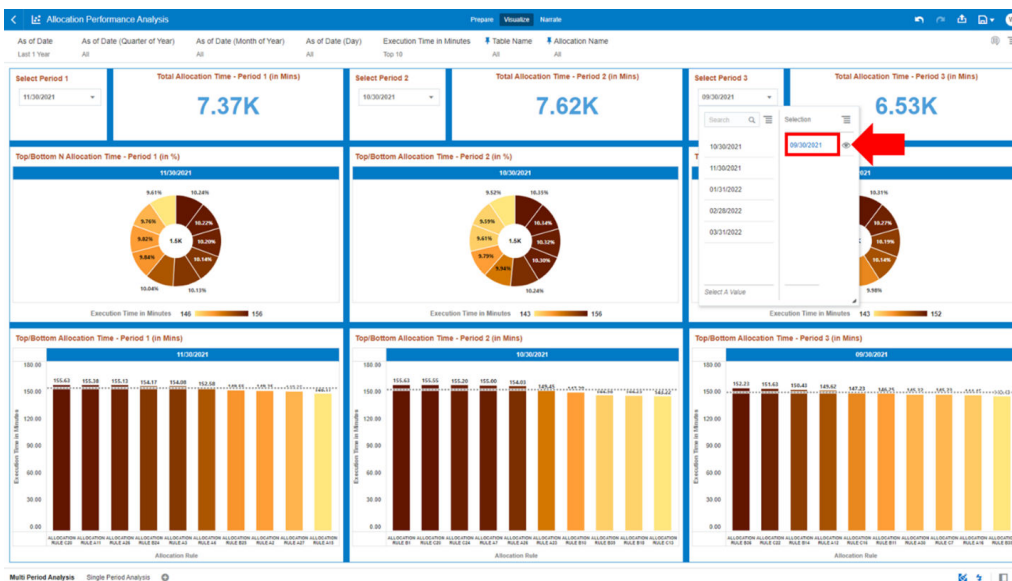




**Figure 4-76 Select Period 2 for the Allocation Rules Execution**



**Figure 4-77 Select Period 3 for the Allocation Rules Execution**



The result of the three previous selection steps is shown in the following screenshot. You can compare the multiple periods and analyze the performances across them.

The report displays the underlying data according to the following charts' logic and for the three sections Period 1, Period 2, and Period 3 (the charts description will reference only the "Period 1" as for the other periods the content will be functionally the same):

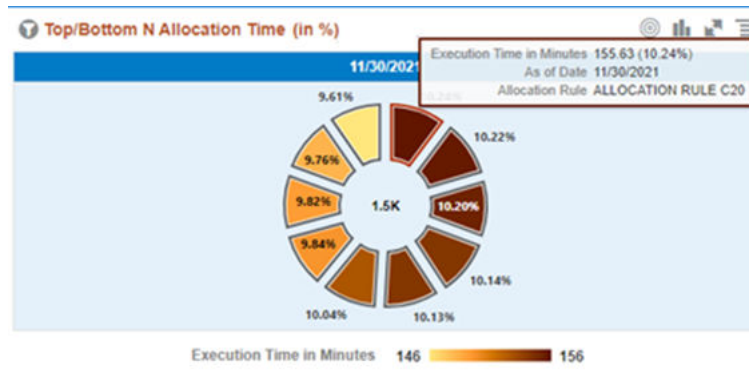
- Select Period 1 (2 or 3)  
 The As-of-Date selected for the Period that you want to analyze.

- Total Allocation Time - Period 1 (2 or 3) (in Mins) – (Tile Chart)  
The total time spent in minutes for all the Allocation Rules executed during the selected period.
- Top/Bottom N Allocation Time - Period 1 (2 or 3) (in %) – (Pie Chart)  
The chart displays the N Allocation Rules, out of the Top/Bottom N selection (where N is related to the value used in the Report Prompts Filter selection on the “Execution Time in Minutes”; in the screenshot for example we have filtered “Top 10”), sorted by the Allocation Rule Percentage Value.

The Percentage Value, is calculated based on the “Execution Time in Minutes” spent for the Allocation Rule, out of the total time spent for the Top/Bottom N Allocation Rules selected.

In the following, we see, for instance, what is the Allocation Rule that needed more time to be executed and that is the one scoring a higher percentage value out of the total time spent within the Top/Bottom N selection.

**Figure 4-78 Top/Bottom N Allocation Time – Period 1 (in %)**

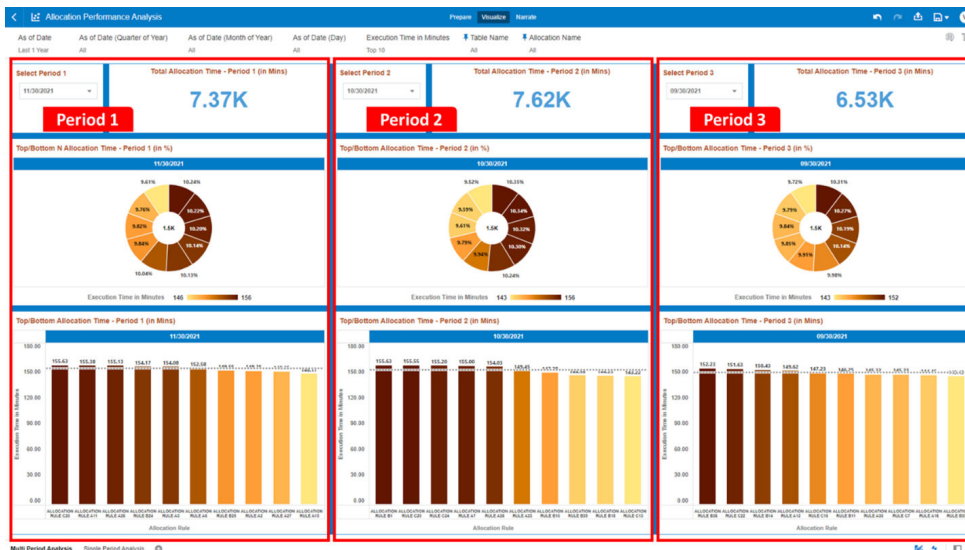


The chart also displays the “Execution Time in Minutes” needed by the Top/Bottom N Allocation Rules (this value is visible at the center of the above pie chart screenshot and in this example is “1.5K” minutes).

- Top/Bottom Allocation Time - Period 1 (2 or 3) (in Mins) – (Bar Chart)  
The chart displays the N Allocation Rules, out of the Top/Bottom N selection, sorted by the “Execution Time in Minutes” in descending order.



**Figure 4-79 Allocation Performance Analysis – Multi Period Analysis**



#### 4.1.5.1.2 Single Period Analysis

You can use this report section to analyze the Allocation Execution Performances within a Single Period.

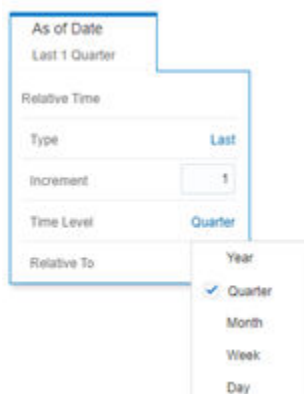
You can use a series of Report Prompts to filter the data according to Functional Key Attributes as described (note that for this report section the “As-of-Date (Day)” filter is a mandatory filter and must be used with one selection value only at the same time):

**Figure 4-80 Canvas Prompt Filters**



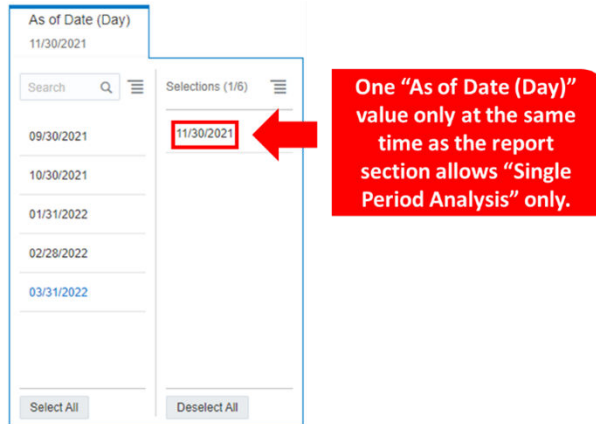
- **As of Date:** The Execution Period for the Allocation Rules. You can use this filter to isolate a selected Timeframe for the analysis. Below, see a screenshot for the possible options that this filter provides against the Time Dimension.

**Figure 4-81 As of Date Selection**



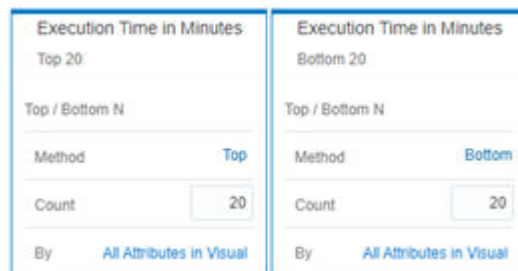
- **As-of-Date (Quarter of Year)**
- **As of Date (Month of Year)**
- **As of Date (Day):** One “As of Date (Day)” value only at the same time as the report section allows “Single Period Analysis” only.

**Figure 4-82 As of Date (Day) Selection**



- **Execution Time in Minutes:** You can use this filter to retrieve the Top/Bottom N Allocation rules based on their Execution Time in Minutes.  
Below, the possible options that this filter provides such as selecting either “Top” or “Bottom” in the “Method” option as well as define a selected number of occurrences (that is, assigning an integer value such as 5, 10, and so on) in the option “Count”.

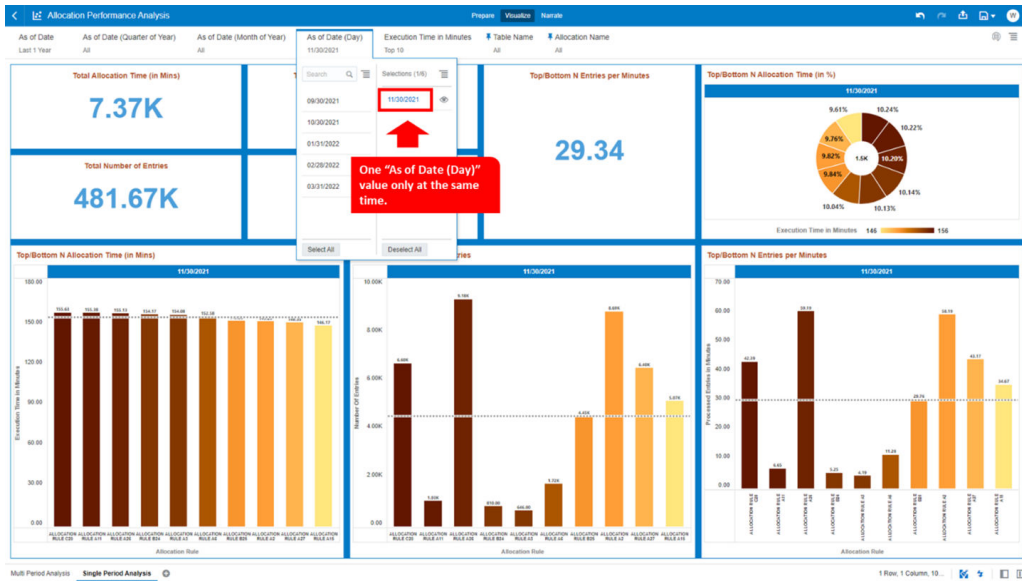
**Figure 4-83 Execution Time in Minutes for Top/Bottom Selection**



- **Table Name:** You can use this filter to select a specific Table Name (one or more) used by the Allocation Rule that has been utilized for processing.
- **Allocation Name:** You can use this filter to select a specific Allocation Rule (one or more) used by the different process executions.

The first step for you would be to select in the Report Prompt filter “As of Date (Day)”, one value only to focus the analysis on a specific Execution Period.

Figure 4-84 As of Date (Day) Selection

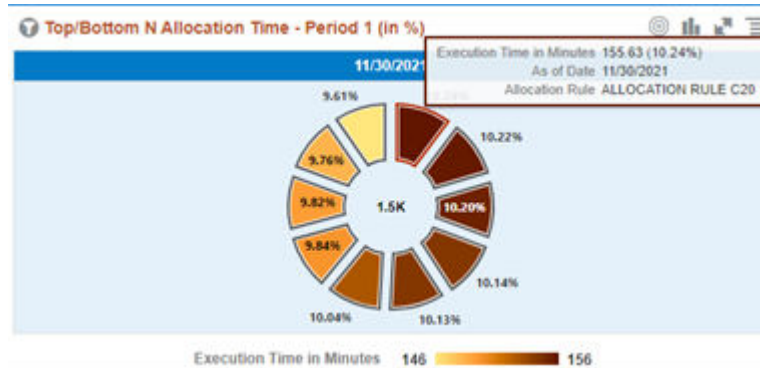


This report displays the underlying data according to the following Charts' logic:

- **Total Allocation Time (in Mins) – (Tile Chart):** The total time spent in minutes for all the Allocation Rules executed during the selected period.
- **Total Number of Entries – (Tile Chart):** The total number of entries allocated for all the Allocation Rules executed during the selected period.
- **Top/Bottom N Allocation Time (in Mins) – (Tile Chart):** The total allocation time spent for the execution of the selected period. The value is calculated out of the Top/Bottom N selection (where N is related to the value used in the Report Prompts filter selection on the "Execution Time in Minutes"; in the screenshot, for example we have filtered "Top 10").
- **Top/Bottom N Number of Entries – (Tile Chart):** The total number of entries processed for the selected period. The value is calculated out of the Top/Bottom N selection (where N is related to the value used in the Report Prompts filter selection on the "Execution Time in Minutes"; in the screenshot, for example we have filtered "Top 10").
- **Top/Bottom N Entries per Minutes – (Tile Chart):** The ratio of processed entries per minutes (calculated as the number of entries divided the execution time in minutes). The value is calculated out of the Top/Bottom N selection (where N is related to the value used in the Report Prompts filter selection on the "Execution Time in Minutes"; in the screenshot, for example we have filtered "Top 10").
- **Top/Bottom N Allocation Time (in %) – (Pie Chart):** The chart displays the N Allocation Rules, out of the Top/Bottom N selection (where N is related to the value used in the Report Prompts filter selection on the "Execution Time in Minutes"; in the screenshot for example we have filtered "Top 10"), sorted by the Allocation Rule percentage value. The percentage value, is calculated based on the "Execution Time in Minutes" spent for the Allocation Rule, out of the total time spent for the Top/Bottom N Allocation Rules selected.

Below we see, for instance, what is the Allocation Rule that needed more time to be executed and that is the one scoring a higher percentage value out of the total time spent within the Top/Bottom N selection.

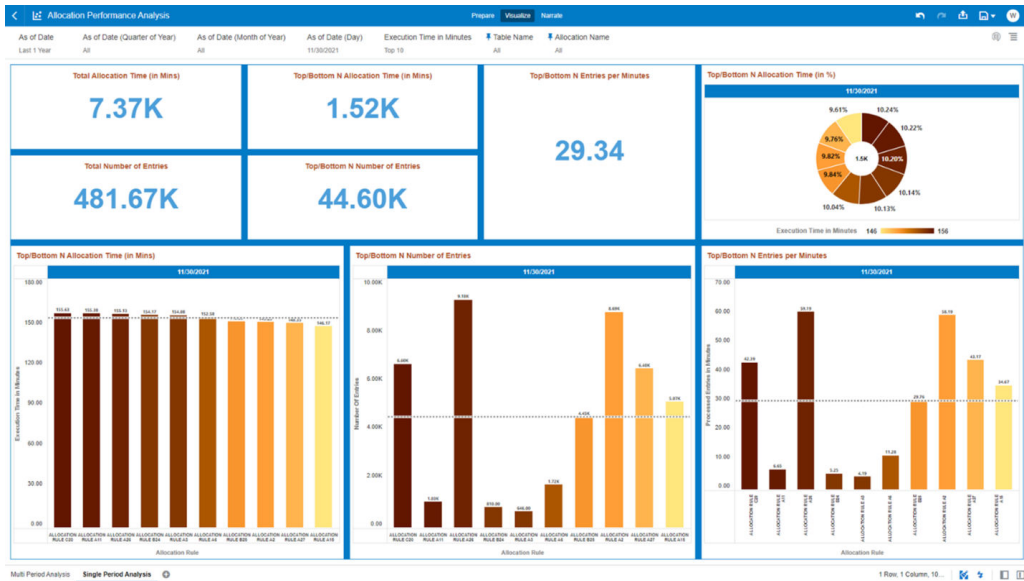
**Figure 4-85 Top/Bottom N Allocation Time (in %)**



In addition, the chart displays the “Execution Time in Minutes” needed by the Top/Bottom N Allocation Rules (this value is visible at the center of the above pie chart screenshot and in this example is “1.5K” minutes).

- **Top/Bottom N Allocation Time (in Mins) – (Bar Chart):** The chart displays the N Allocation Rules, out of the Top/Bottom N selection, sorted by the “Execution Time in Minutes” in descending order.
- **Top/Bottom N Number of Entries – (Bar Chart):** The chart displays, for the N Allocation Rules out of the Top/Bottom N selection, the number of processed entries for each of them keeping the sort by the “Execution Time in Minutes” in descending order.
- **Top/Bottom N Entries per Minutes – (Bar Chart):** The chart displays, for the N Allocation Rules out of the Top/Bottom N selection, the number of processed entries per minutes (calculated as the number of entries divided the execution time in minutes) for each of them keeping the sort by the “Execution Time in Minutes” in descending order.

**Figure 4-86 Allocation Performance Analysis – Single Period Analysis**



## 4.1.6 Processed Data Insights

To access the Processed Data Insights Reports, select **Analytics** from the LHS Menu, and then select **Processed Data Insights**.

The following Reports are available for the Processed Data Insights section. You can select any report that you want.

- Ad-Hoc Data Analysis
- Financial Statement Analysis

### 4.1.6.1 Ad-hoc Data Analysis

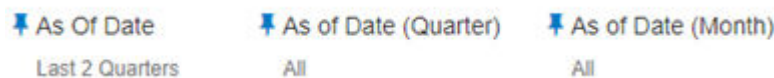
You can use the Ad-hoc Data Analysis Report to perform ad-hoc analysis on Management Ledger data.

Using this LHS link, you will be redirected to the UI with the related report, as explained in the following section.

#### 4.1.6.1.1 Report Filters

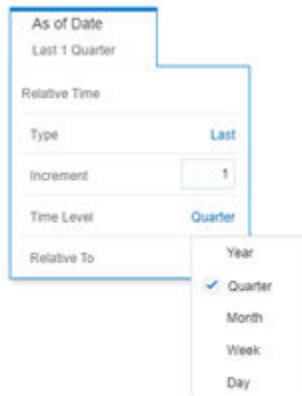
You can use a series of Report Prompts to filter the data according to Functional Key Attributes as described below:

**Figure 4-87 Canvas Prompt Filters for Time Dimension**



- **As of Date:** The Execution Period for the output results. You can use this filter to isolate a selected timeframe for the analysis. The following screenshot displays the possible options that this filter provides against the Time Dimension.

**Figure 4-88 As-of-Date Selection**



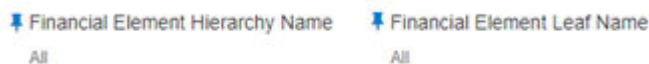
- Additional Filters for the Time Dimension as follows:
  - As of Date (Quarter)
  - As of Date (Month)

**Figure 4-89 Canvas Prompt Filters for Management Ledger Key Attributes (1/2)**



- **Fiscal Year:** You can use this filter to select a specific Fiscal Year derived from As-of-Date.
- **Fiscal Month:** You can use this filter to select a specific Fiscal Month derived from As-of-Date.
- **Currency Code:** You can use this filter to select a specific Currency Code to be applied to the underlying Management Ledger data.
- **Management Ledger Table Name:** You can use this filter to select the source Management Ledger table for your analysis.

**Figure 4-90 Canvas Prompt Filters for Financial Element Key Processing Dimension**



- **Financial Element Hierarchy Name:** Note that this is a mandatory filter for the group filtering on Financial Element Key Processing Dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Financial Element Hierarchy Name” must be selected with only a single value simultaneously.

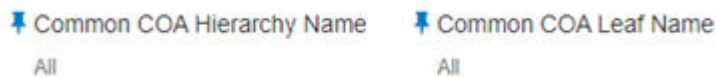
- **Financial Element Leaf Name:** You can use this filter to select the Financial Element Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-91 Canvas Prompt Filters for Legal Entity Key Processing Dimension**



- **LE Hierarchy Name:** Note that this is a mandatory filter for the group filtering on Legal Entity Key Processing Dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “LE Hierarchy Name” must be selected with only a single value simultaneously.
- **Legal Entity Leaf Name:** You can use this filter to select the Legal Entity Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-92 Canvas Prompt Filters for Common COA Key Processing Dimension**



- **Common COA Hierarchy Name:** N.B. this is a mandatory filter for the group filtering on Common COA Key Processing Dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Common COA Hierarchy Name” must be selected with only a single value simultaneously.
- **Common COA Leaf Name:** You can use this filter to select the Common COA Leaf Name that is related to the underlying management ledger data.

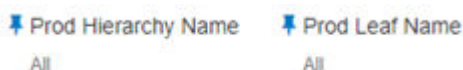
**Figure 4-93 Canvas Prompt Filters for GL Account Key Processing Dimension**



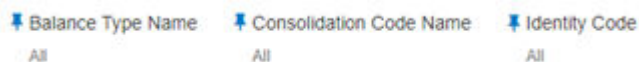
- **GL Account Hierarchy Name:** Note that this is a mandatory filter for the group filtering on GL Account Key Processing Dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “GL Account Hierarchy Name” must be selected with only a single value simultaneously.
- **GL Account Leaf Name:** You can use this filter to select the GL Account Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-94 Canvas Prompt Filters for Org Unit Key Processing Dimension**

- **Org Hierarchy Name:** Note that this is a mandatory filter for the group filtering on Org Unit Key Processing Dimension.  
As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Org Hierarchy Name” must be selected with only a single value simultaneously.
- **Org Unit Leaf Name:** You can use this filter to select the Org Unit Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-95 Canvas Prompt Filters for Product Key Processing Dimension**

- **Prod Hierarchy Name:** Note that this is a mandatory filter for the group filtering on Product Key Processing Dimension.  
As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Prod Hierarchy Name” must be selected with only a single value simultaneously.
- **Prod Leaf Name:** You can use this filter to select the Prod Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-96 Canvas Prompt Filters for Management Ledger Key Attributes (2/2)**

- **Balance Type Name:** You can use this filter to select a specific Balance type, such as Debit and Credit.
- **Consolidation Code Name:** You can use this filter to select a specific Consolidation type as it identifies the values for Actual, Budget, Forecast, Forecast Prior.
- **Identity Code:** You can use this filter to select a specific identity code to be applied to the underlying Management Ledger data.

#### 4.1.6.1.2 Report Hierarchies

The Report provides you with the roll-up and drill-down capability on Management Ledger data, leveraging the available levels for the four following Hierarchies:

- Org Unit Entity Hierarchy
- Common COA Hierarchy
- Product Hierarchy
- GL Account Hierarchy



Following screenshot displays the four available selections for the aforementioned hierarchies.

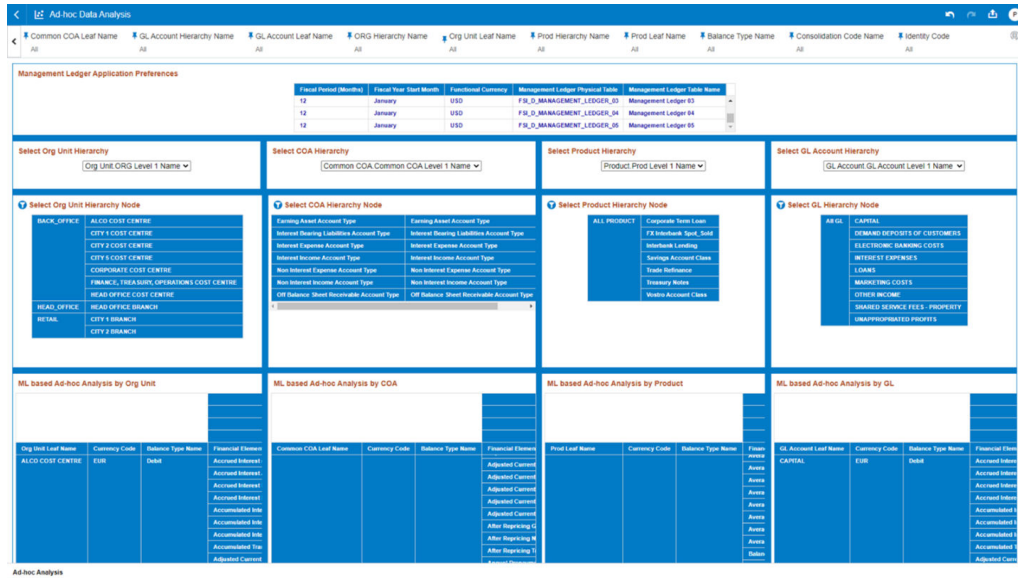
**Figure 4-97 Variable Prompt for Management Ledger Key Processing Dimension Hierarchies**



### 4.1.6.1.3 Ad-hoc Analysis

The “Ad-hoc Analysis” Report can be used to perform ad-hoc analysis on Management Ledger data.

**Figure 4-98 “Ad-hoc Analysis” Report**



You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Management Ledger data.

The report displays the underlying Management Ledger data according to the following Charts' logic:

- Management Ledger Application Preferences  
The chart displays the application preferences values for the following parameters:
  - **Fiscal Period (Months):** this field is always 12 months equivalent to the number of fiscal months available in an ideal fiscal year.
  - **Fiscal Year Start Month:** starting month of the current Fiscal Year.
  - **Functional Currency:** the Functional Currency configured for the corresponding Management Ledger.

- **Management Ledger Physical Table:** name of the underlying Management Ledger physical table.
- **Management Ledger Table Name:** name of the Management Ledger table.
- **Select Org Unit Hierarchy:** The chart provides you with a selection capability for the desired Org Unit Hierarchical level.
- **Select COA Hierarchy:** The chart provides you with a selection capability for the desired Common COA Hierarchical level.
- **Select Product Hierarchy:** The chart provides you with a selection capability for the desired Product Hierarchical level.
- **Select GL Account Hierarchy:** The chart provides you with a selection capability for the desired GL Account Hierarchical level.
- **Select Org Unit Hierarchy Node:** The chart provides you with two levels of the hierarchy – the selected level from the “Select Org Unit Hierarchy” as well as the Org Unit leaf nodes. You use this chart to further filter down the ML based Ad-hoc Analysis charts as well as the Select KPD Hierarchy Node charts.
- **Select COA Hierarchy Node:** The chart provides you with two levels of the hierarchy – the selected level from the “Select COA Hierarchy” as well as the Common COA leaf nodes. You use this chart to further filter down the ML based Ad-hoc Analysis charts as well as the Select KPD Hierarchy Node charts.
- **Select Product Hierarchy Node:** The chart provides you with two levels of the hierarchy – the selected level from the “Select Product Hierarchy” as well as the Product leaf nodes. You use this chart to further filter down the ML based Ad-hoc Analysis charts as well as the Select KPD Hierarchy Node charts.
- **Select GL Account Hierarchy Node:** The chart provides you with two levels of the hierarchy – the selected level from the “Select GL Account Hierarchy” as well as the GL Account leaf nodes. You use this chart to further filter down the ML based Ad-hoc Analysis charts as well as the Select KPD Hierarchy Node charts.

Figure 4-99 “ML based Ad-hoc Analysis by Org Unit” Chart

Org Unit Leaf Name	Currency Code	Balance Type Name	Financial Element Leaf Name	Fiscal Year 2020							
				Fiscal Month							
				1	2	3	4	5	6		
ALCO-COST CENTRE	EUR	Credit	Allocated Indirect Expenses								
			Amortization of Premium for Liability				20,040,432.20	22,879,329.54			17,366,106.10
			Bank's Platform Expenses				21,491,268.82				44,906,371.64
			Change for State Rate				16,261,964.66	19,763,313.64			52,266,200.00
			Commission on Collections								20,792,686.10
			Credit for Fraud					16,457,260.00			7,893,846.90
			E-Banking Expenses				32,182,897.72	20,913,054.54			74,921,629.94
			Economic Provision								46,962,262.10
			Interest Non-Interest Income				14,217,447.72				42,466,772.20
			Manufactures Product Management Expenses				51,482,134.10	23,662,837.20			164,311,656.82
			Out of Network ATM Expenses								4,792,316.90
			Print and Production Expenses				26,419,647.24	24,610,776.44			77,241,268.14
			Reverses of amounts previously written-off				21,759,852.28	33,493,376.44			80,497,558.10
		Debit	Accrued Interest (Without Offset)	3,449.00	2,237.00	955.00					
			Accrued Interest Average Balance	2,923.00	2,192.00	1,680.00					
			Accrued Interest Ending Balance	3,224.00	2,147.00	1,680.00					
			Accrued Interest Net (Without Offset)	6,759.00	3,653.00	4,189.00					
			Accumulated Interest Cash Flow Gross	4,994.00	3,467.00	5,789.00					
			Accumulated Interest Cash Flow Net	4,068.00	4,263.00	3,201.00					
			Accumulated Interest Cash Flow Transfer Rate	2,703.00	3,192.00	622.00					
			Accumulated Transaction Amount	3,644.00	4,809.00	3,201.00					
			Adjusted Current Position Reporting Balance	4,882.00	3,906.00	3,271.00					
			Adjusted Current Position Reporting Rate	2,786.00	4,904.00	794.00					
			Adjusted Current Position Reporting Transfer Rate	5,087.00	6,837.00	3,789.00					
			Adjusted Current Position Receipt Balance	4,912.00	4,975.00	3,697.00					
			Adjusted Current Position Receipt Rate	4,831.00	3,738.00	2,453.00					
			Adjusted Current Position Receipt Transfer Rate	3,927.00	6,166.00	3,696.00					
			Advertising Expenses				14,164,268.20				24,894,313.64
			After Reporting Gross Rate	4,289.00	6,636.00	1,382.00					
			After Reporting Net Rate	4,915.00	6,068.00	2,656.00					
			After Reporting Transfer Rate	6,936.00	4,912.00	1,734.00					

- **ML based Ad-hoc Analysis by Org Unit:** The chart displays the following underlying management ledger data elements:
  - Org Unit Leaf Name
  - Currency Code – displays the account currency of the records
  - Balance Type Name
  - Financial Element Leaf Name
  - Fiscal Year
  - Fiscal Month
  - As of Date (Month)
  - As of Date
  - Functional Balance – displays the balance in functional currency of the management ledger (the functional currency is available in the chart “Management Ledger Application Preferences”)

**Figure 4-100 “ML based Ad-hoc Analysis by COA” Chart**

Common COA Leaf Name	Currency Code	Balance Type Name	Financial Element Leaf Name	Fiscal Year							
				2020							
				1	2	3	4	5	6		
As of Date (Month)	As of Date (Month)	As of Date (Month)	As of Date (Month)	As of Date (Month)	As of Date (Month)	As of Date (Month)	As of Date (Month)	As of Date (Month)	As of Date (Month)	As of Date (Month)	
01/31/2020	02/29/2020	03/31/2020	04/30/2020	05/31/2020	06/30/2020	06/30/2020	06/30/2020	06/30/2020	06/30/2020	06/30/2020	
Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	
Advertising Expenses	USD	Debit	Advertising Expenses								
Branch Platform Expenses	USD	Debit	Branch Platform Expenses								
Change for Interest Rate	USD	Debit	Change for Interest Rate								
IT Consulting Expenses	USD	Debit	IT Consulting Expenses								
Interest Non-Interest Income	USD	Debit	Interest Non-Interest Income								
Manufacturing Product Management Expenses	USD	Debit	Manufacturing Product Management Expenses								
Travel and Entertainment Expenses	USD	Debit	Travel and Entertainment Expenses								
Reversals of accounts previously settled off	USD	Debit	Reversals of accounts previously settled off								
Accrued Interest (Without Offset)	USD	Debit	Accrued Interest (Without Offset)	3,576.00	6,494.00	3,910.00					
Accrued Interest Average Balance	USD	Debit	Accrued Interest Average Balance	4,100.00	3,964.00	3,970.00					
Accrued Interest Ending Balance	USD	Debit	Accrued Interest Ending Balance	3,000.00	3,404.00	1,770.00					
Accrued Interest Net (Without Offset)	USD	Debit	Accrued Interest Net (Without Offset)	4,647.00	2,166.00	1,710.00					
Accumulated Interest Cash Flow Costs	USD	Debit	Accumulated Interest Cash Flow Costs	2,040.00	2,262.00	1,100.00					
Accumulated Interest Cash Flow Net	USD	Debit	Accumulated Interest Cash Flow Net	3,024.00	3,340.00	2,510.00					
Accumulated Interest Cash Flow Transfer Rate	USD	Debit	Accumulated Interest Cash Flow Transfer Rate	1,804.00	7,800.00	3,110.00					
Accumulated Transfer Amount	USD	Debit	Accumulated Transfer Amount	4,300.00	3,937.00	1,700.00					
Adjusted Current Position Reporting Interest	USD	Debit	Adjusted Current Position Reporting Interest	3,140.00	4,400.00	3,100.00					
Adjusted Current Position Reporting Rate	USD	Debit	Adjusted Current Position Reporting Rate	4,870.00	4,300.00	1,100.00					
Adjusted Current Position Reporting Transfer Rate	USD	Debit	Adjusted Current Position Reporting Transfer Rate	4,171.00	6,121.00	1,700.00					
Adjusted Current Position Startoff Interest	USD	Debit	Adjusted Current Position Startoff Interest	4,214.00	3,000.00	1,570.00					
Adjusted Current Position Startoff Rate	USD	Debit	Adjusted Current Position Startoff Rate	7,001.00	4,900.00	3,900.00					
Adjusted Current Position Startoff Transfer Rate	USD	Debit	Adjusted Current Position Startoff Transfer Rate	4,921.00	1,300.00	2,100.00					
Advertising Expenses	USD	Debit	Advertising Expenses	5,710.00	4,900.00	2,800.00	14,104,000.00			40,022,047.74	
After Reporting Gross Rate	USD	Debit	After Reporting Gross Rate	6,000.00	4,711.00	2,270.00					
After Reporting Net Rate	USD	Debit	After Reporting Net Rate	3,900.00	3,200.00	2,100.00					
Amortization of Premium for Asset	USD	Debit	Amortization of Premium for Asset				18,100,000.00	11,200,104.14		33,290,800.04	
Annual Payment Rate	USD	Debit	Annual Payment Rate	3,204.00	3,800.00	3,400.00					
Average Account Balance	USD	Debit	Average Account Balance	4,337.00	4,400.00	1,900.00					
Average Account Revenue (P1114)	USD	Debit	Average Account Revenue (P1114)	4,400.00	3,800.00	1,710.00					
Average Balance	USD	Debit	Average Balance	3,771.00	4,701.00	3,940.00	3,771.00	4,701.00	3,940.00		

- **ML based Ad-hoc Analysis by COA:** The chart displays the following underlying management ledger data elements:ul
  - Common COA Leaf Name
  - Currency Code – displays the account currency of the records
  - Balance Type Name
  - Financial Element Leaf Name
  - Fiscal Year
  - Fiscal Month
  - As of Date (Month)
  - As of Date
  - Functional Balance – displays the balance in functional currency of the management ledger (the functional currency is available in the chart “Management Ledger Application Preferences”)

Figure 4-101 “ML based Ad-hoc Analysis by Product” Chart

Product Leaf Name	Currency Code	Balance Type Name	Financial Element Leaf Name	Fiscal Year							
				2022							
				1	2	3	4	5	6		
As of Date (Month)	As of Date (Quarter)	As of Date (Month)	Fiscal Year	Fiscal Month	Currency Code	Management Ledger Table Name	Financial Element Hierarchy Name	Financial Element Leaf Name	LE Hierarchy Name	Legit	
31 January 2022	Q1	29 February 2022	2022	Jan	USD	AD	AD	AD	AD	AD	
Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	
Allocated Other Income - Misc-Customers		Credit							26,511,425.00		30,450,000.00
Amortization of Discount for Liability											6,888,708.54
Amortization of Premium for Liability											7,328,491.36
Amortization of Distribution Expenses								7,839,847.74		30,985,000.00	33,867,245.46
Branch Platform Expenses											16,328,726.46
Brand Management Expenses											16,523,361.36
Business Protection Expenses											6,948,306.82
Campaign Management Expenses											9,243,000.00
Charge for Bank Hook											1,885,688.10
Charge for Other Allocated Assets											8,363,313.64
Commitment on Collections									31,481,870.46		34,483,176.00
Credit Loans											35,841,077.28
Credit for Equity											20,186,016.00
Credit for Float											35,334,803.64
Credit for Liability									34,265,709.00		42,348,347.72
Credit for Other Allocated Liabilities											18,511,200.00
Customer Break Funding Fees											18,868,877.28
Depreciation											4,382,191.36
IT Banking Expenses											20,069,943.84
IT Expense Processing									21,863,270.44		32,813,729.82
Increase from Discontinued Operations											27,386,687.74
Interest Processing Expense											13,066,300.00
Interest Expenses											9,945,077.28
Lease Expense (Origination Expenses)									16,201,270.84		16,848,945.10
Mail Origination Expenses											20,296,371.36
Miscellaneous Product Management Expenses											33,428,220.46
Other Income - Customers											9,332,609.82
Other Interest Non-Interest Expense											12,238,400.00
Cost of Network ATM Expenses									20,751,475.46		53,371,640.00
Phone Origination Expenses											1,740,487.72

- **ML based Ad-hoc Analysis by Product:** The chart displays the following underlying management ledger data elements:
  - Product Leaf Name
  - Currency Code – displays the account currency of the records
  - Balance Type Name
  - Financial Element Leaf Name
  - Fiscal Year
  - Fiscal Month
  - As of Date (Month)
  - As of Date
  - Functional Balance – displays the balance in functional currency of the management ledger (the functional currency is available in the chart “Management Ledger Application Preferences”)

Figure 4-102 “ML based Ad-hoc Analysis by GL” Chart

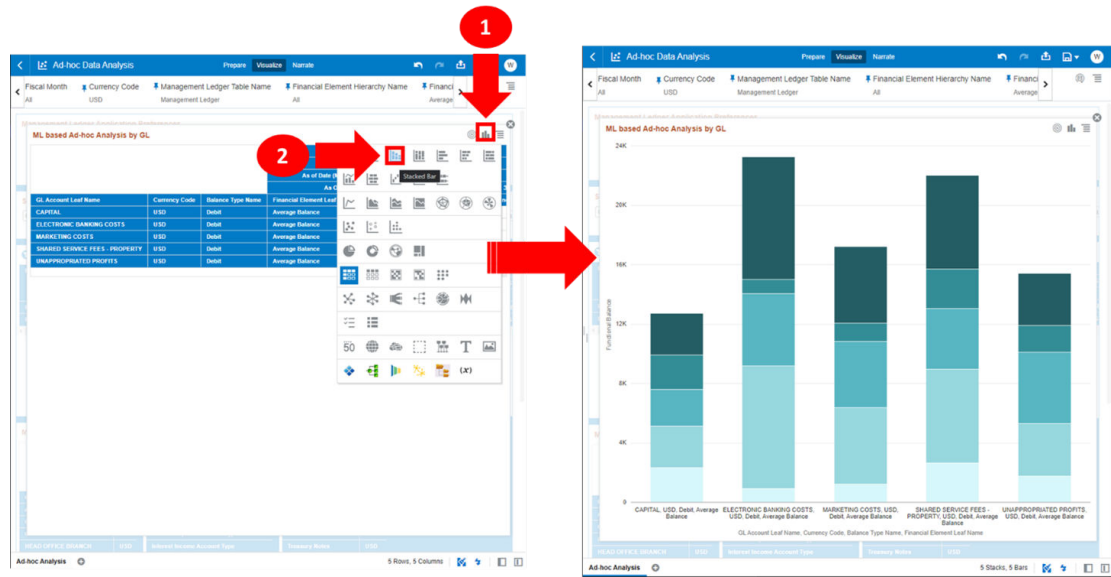
GL Account Leaf Name	Currency Code	Balance Type Name	Financial Element Leaf Name	2022						
				Fiscal Month		Fiscal Month		Fiscal Month		
				1	2	3	4	5	6	
				As of Date	21 January 2022	28 February 2022	31 March 2022	30 April 2022	30 May 2022	30 June 2022
				Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance	Functional Balance
Miscellaneous Sales Expenses									2,685,113.00	3,215,414.00
Other Collection Expenses									6,827,376.00	11,549,300.00
Other Income - Non-Customers										11,549,300.00
Printing Incentives										11,549,300.00
Tel Expense								8,837,439.00		16,363,998.00
Technology and Infrastructure Expenses									7,815,753.00	16,363,998.00
Wired Fees								3,281,910.00	3,284,000.00	
ALL OTHER ASSETS	EUR	Credit	Amortization of Intangible for Liability					6,993,203.04		
			Amortization of Stockbased Compensation					1,517,646.46		
			Change Management Expenses							7,574,726.00
			Charge for Sales Tools							7,574,726.00
			Credit for Locality						2,795,376.00	2,797,307.00
			Customer Bank Funding Fees						3,112,896.00	6,475,438.04
			E-Banking Expenses							1,112,886.00
			Expenses - Personnel						9,327,222.00	
			Fees							7,862,626.00
			Business Processing Expenses							6,828,195.45
			Local Content Development Expenses					9,833,829.45		
			Med Organization Expenses							9,229,006.62
			Miscellaneous Product Management Expenses							9,768,793.16
			Organizational Expenses, Other Expenses							293,919.23
			Use of Network ATM Expenses						4,382,846.32	
			Reconciliation of amounts previously settled off							9,378,072.23
			Staff Costs						7,244,102.27	
			Total Retail Management Expenses						9,451,729.45	
			Transfer Pricing Charge					7,846,498.00		
			Advertising Expenses						6,889,726.04	
			Amortization of Intangible for Asset						6,470,043.78	
			Amortization of Premium for Asset							124,899.77
			Branch Organization Expenses							8,277,442.25
			Call Center Expenses						2,376,899.82	6,666,407.00

- **ML based Ad-hoc Analysis by GL:** The chart displays the following underlying management ledger data elements:
  - GL Account Leaf Name
  - Currency Code – displays the account currency of the records
  - Balance Type Name
  - Financial Element Leaf Name
  - Fiscal Year
  - Fiscal Month
  - As of Date (Month)
  - As of Date
  - Functional Balance – displays the balance in functional currency of the management ledger (the functional currency is available in the chart “Management Ledger Application Preferences”)

After having performed analysis on the off-the-shelf “Ad-hoc Analysis” report charts, you can use the results for further self-service analysis.

You can change the predefined off-the-shelf charts with two clicks’ steps as shown in the following screenshot.

**Figure 4-103 Change Chart type for Self-Service Analysis**



### 4.1.6.2 Financial Statements Analysis

You can use the Financial Statements Analysis Report to perform analysis on the Financial Statement Reporting Lines derived out of the Management Ledger data.

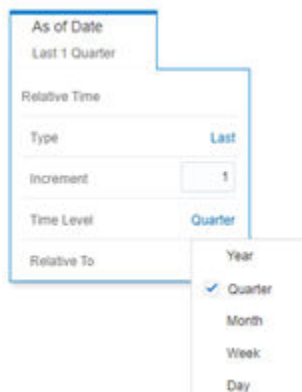
Using this LHS link, you will be redirected to the UI with the related report, as explained in the following section.

#### 4.1.6.2.1 Report Filters

You can use a series of Report Prompts to filter the data according to Functional Key Attributes as described below:

- **As of Date:** The Execution Period for the Management Ledger data output results. You can use this filter to isolate a selected timeframe for the analysis. The following screenshot displays the possible options that this filter provides against the Time Dimension.

**Figure 4-104 As-of-Date Selection**

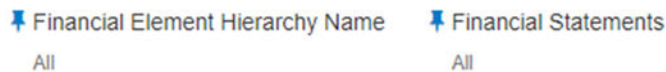


**Figure 4-105 Canvas Prompt Filters for Management Ledger Key Attributes**



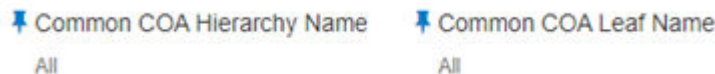
- **Fiscal Year:** You can use this filter to select a specific Fiscal Year derived from As-of-Date.
- **Fiscal Month:** You can use this filter to select a specific Fiscal Month derived from As-of-Date.
- **Management Ledger Table Name:** You can use this filter to select the source Management Ledger table for your analysis.

**Figure 4-106 Canvas Prompt Filters for Financial Element Key Processing Dimension**



- **Financial Element Hierarchy Name:** Note that this is a mandatory filter for the group filtering on Financial Element Key Processing Dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Financial Element Hierarchy Name” must be selected with only a single value simultaneously.
- **Financial Statements:** You can use this filter to select the Financial Statements Reporting Line that is related to the underlying Management Ledger data.

**Figure 4-107 Canvas Prompt Filters for Common COA Key Processing Dimension**



- **Common COA Hierarchy Name:** Note that this is a mandatory filter for the group filtering on Common COA Key Processing Dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Common COA Hierarchy Name” must be selected with only a single value simultaneously.
- **Common COA Leaf Name:** You can use this filter to select the Common COA Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-108 Canvas Prompt Filters for GL Account Key Processing Dimension**





- **GL Account Hierarchy Name:** Note that this is a mandatory filter for the group filtering on GL Account Key Processing Dimension.  
As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “GL Account Hierarchy Name” must be selected with only a single value simultaneously.
- **GL Account Leaf Name:** You can use this filter to select the GL Account Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-109 Canvas Prompt Filters for Legal Entity Key Processing Dimension**



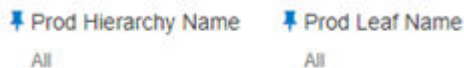
- **LE Hierarchy Name:** Note that this is a mandatory filter for the group filtering on Legal Entity Key Processing Dimension.  
As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “LE Hierarchy Name” must be selected with only a single value simultaneously.
- **Legal Entity Leaf Name:** You can use this filter to select the Legal Entity Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-110 Canvas Prompt Filters for Org Unit Key Processing Dimension**



- **Org Hierarchy Name:** N.B. this is a mandatory filter for the group filtering on Org Unit Key Processing Dimension.  
As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Org Hierarchy Name” must be selected with only a single value simultaneously.
- **Org Unit Leaf Name:** You can use this filter to select the Org Unit Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-111 Canvas Prompt Filters for Product Key Processing Dimension**

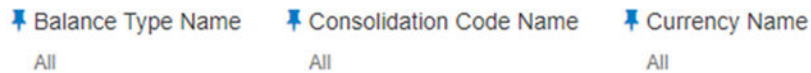


- **Prod Hierarchy Name:** N.B. this is a mandatory filter for the group filtering on Product Key Processing Dimension.  
As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select “Prod Hierarchy Name” must be selected with only a single value simultaneously.



- **Prod Leaf Name:** You can use this filter to select the Prod Leaf Name that is related to the underlying Management Ledger data.

**Figure 4-112 Canvas Prompt Filters for Management Ledger Key Attributes (2/2)**



- **Balance Type Name:** You can use this filter to select a specific Balance type, such as Debit and Credit.
- **Consolidation Code Name:** You can use this filter to select a specific Consolidation type as it identifies the values for Actual, Budget, Forecast, Forecast Prior.
- **Currency Name:** You can use this filter to select a specific Currency Name to be applied to the underlying Management Ledger data.

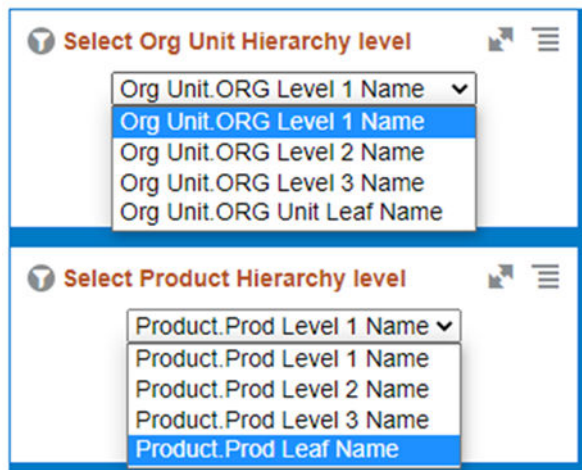
#### 4.1.6.2.2 Report Hierarchies

The Report provides you with the roll-up and drill down capability on the Financial Statement Reporting Lines derived out of the Management Ledger data, leveraging the available levels for the two following Hierarchies:

- Org Unit Entity Hierarchy
- Product Hierarchy

Following screenshot displays the two available selections for the aforementioned hierarchies.

**Figure 4-113 Variable Prompt for Management Ledger Key Processing Dimension Hierarchies**



### 4.1.6.2.3 Report Data Action

The Data Actions provide the capability to perform drill down analysis across the downstream report canvases. The drill-down is enabled through three data actions.

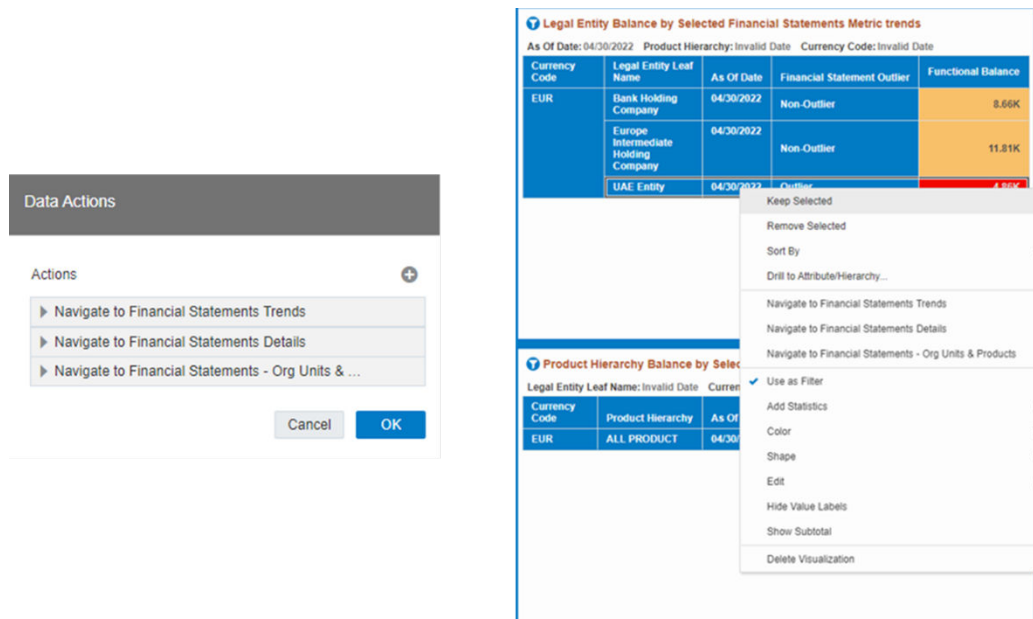
From every chart available in the report, you can select a combination of values, and then perform the navigation to the other report canvases.

In order to do so, with a right-click on the chart selection, the Data Action options will appear for you to be able to navigate further as described in the following mapping:

- **Navigate to Financial Statements Trends** – the Data Action will be drilling through the “Financial Statements - Trends” canvas.
- **Navigate to Financial Statements Details** – the Data Action will be drilling through the “Financial Statements - Detail” canvas.
- **Navigate to Financial Statements - Org Units & Products** – the Data Action will be drilling through the “Financial Statements - Org Units & Products” canvas.

The following screenshot shows the Data Actions list as well as the navigation options that appears once you right click on the desired selection.

**Figure 4-114 Data Action Configuration**



### 4.1.6.2.4 Financial Statements - Outliers

This canvas allows you to look at the Financial Statements reporting lines outliers that are calculated using the Standard Deviation capability available off the shelf with Oracle Analytics.

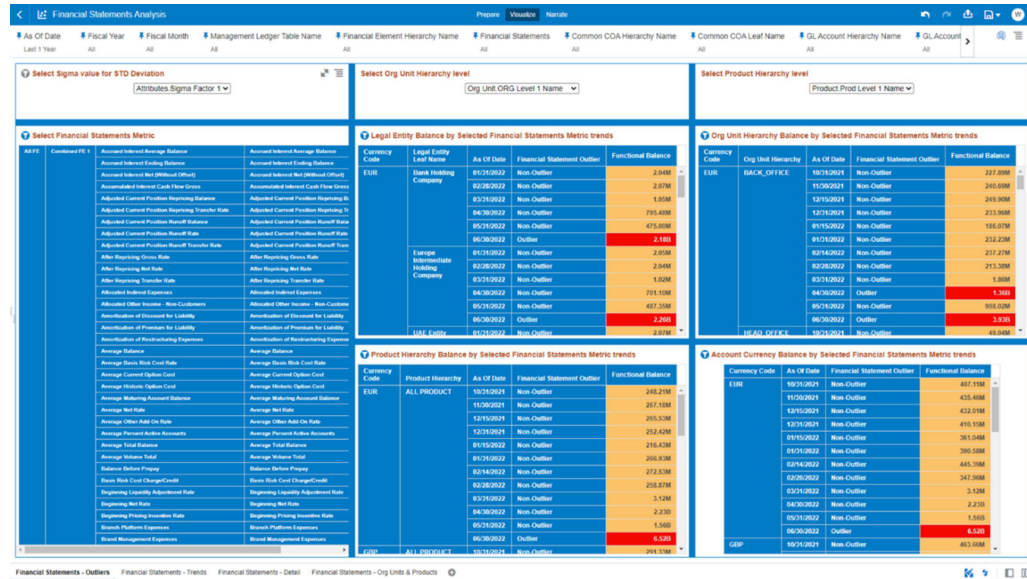
The Financial data is segregated between “Outlier” and “Non-Outlier” in the report column “Financial Statement Outlier”.

“Outlier” refers to a Financial data that lies outside the confidence interval of the deviation that we are adopting in our technique.

“Non-Outlier” would refer to a Financial data that lies inside the confidence interval of the deviation.

The outliers are calculated on the Financial Elements balance aggregated by the respective combination of KPDs, such as Legal Entity, Org Unit, and Product, against the As-of-Date available.

Figure 4-115 “Financial Statements – Outliers” Report Canvas



A Financial data can be identified as an outlier or a non-outlier based on the standard deviation confidence interval that we adopt.

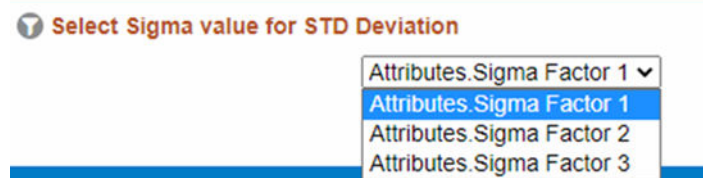
This Confidence Interval is parametrized with the list of the Sigma values available in the report, that is, “Attributes.Sigma Factor 1”, “Attributes.Sigma Factor 2”, and “Attributes.Sigma Factor 3”.

The Sigma Factors are integer values that range from “Attributes.Sigma Factor 1” to “Attributes.Sigma Factor 3” in the increasing order of the conservativeness or the confidence interval of the Standard Deviation.

This means will have more outliers when you perform analysis with “Attributes.Sigma Factor 1” than with the “Attributes.Sigma Factor 3”.

The following screenshot shows the selection for the Sigma Factor available in the report canvas.

Figure 4-116 Sigma Factor selection for STD Deviation



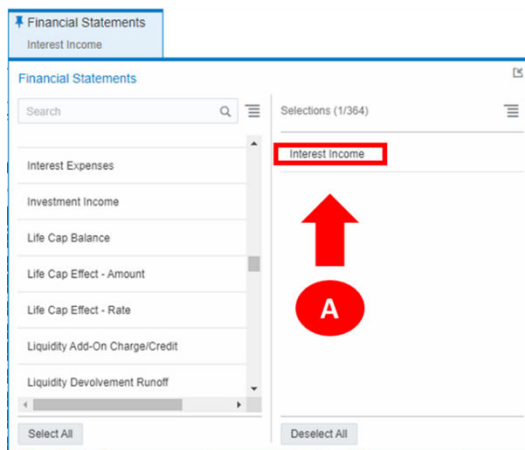
#### 4.1.6.2.4.1 Working with Financial Statement Reporting Lines

The default canvas view displays all the FE's under the "Financial Statement" canvas prompt filter, hence all the balances available in each of the canvas charts are showing the cumulative value of the balances across all the available FE's.

Therefore, to perform a correct analysis, you should select a single FE Reporting Line that you want to use for your analysis.

You can either select a single FE Reporting Line via the "Financial Statement" canvas prompt filter (option "A") or use the left-hand side "Select Financial Statements Metric" chart on the "Financial Element Leaf Name" column (option "B").

**Figure 4-117 FE Reporting Line selection Option "A"**



**Figure 4-118 FE Reporting Line Selection Option "B"**

Select Financial Statements Metric	Financial Element Leaf Name
Gap Principal Runoff	Gap Principal Runoff
Gap Runoff Net Rate	Gap Runoff Net Rate
Historic Option Cost Charge/Credit	Historic Option Cost Charge/Credit
In Network ATM Expenses	In Network ATM Expenses
Index Factor	Index Factor
Indirect Distribution Expense	Indirect Distribution Expense
Inflation Adjustment to Principal	Inflation Adjustment to Principal
Interest	Interest
Interest Accrued	Interest Accrued
Interest Accrued Gross	Interest Accrued Gross
Interest Accrued Gross History FX Basis	Interest Accrued Gross History FX Basis
Interest Cash Flow	Interest Cash Flow
Interest Cash Flow Transfer Rate	Interest Cash Flow Transfer Rate
Interest Credited	Interest Credited
Interest Income	Interest Income
Investment Income	Investment Income
Life Cap Effect - Rate	Life Cap Effect - Rate
Liquidity Add-On Charge/Credit	Liquidity Add-On Charge/Credit
Liquidity Devolvement Runoff	Liquidity Devolvement Runoff

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Management Ledger data.

The report displays the underlying management ledger data according to the following Charts' logic:

- **Select Sigma Value for STD Deviation:** The chart provides you with a selection capability for the desired Sigma value to be used by the STD Deviation, the possible selection values are "Attributes.Sigma Factor 1", "Attributes.Sigma Factor 2", and "Attributes.Sigma Factor 3".
- **Select Org Unit Hierarchy level:** The chart provides you with a selection capability for the desired Org Unit Hierarchical level.
- **Select Product Hierarchy level:** The chart provides you with a selection capability for the desired Product Hierarchical level.
- **Select Financial Statements Metric:** The chart provides you with a selection capability for the desired Financial Element reporting line. The Financial Element Leaf Name is the actual data on which the reporting is based whereas the chart provides with the parent levels for ease of finding out the Financial Element Leaf member.

The columns displayed in the chart are the following:

- Financial Element Level 1 Name
- Financial Element Level 2 Name
- Financial Element Level 3 Name
- Financial Element Leaf Name
- **Legal Entity Balance by Selected Financial Statements Metric trends:** This chart deduces if a Financial data (that is the Functional Balance of a Financial Element Leaf Name) is a "Outlier" or "Non-Outlier" for a combination of As-of-Date, Currency (transaction currency) and Legal Entity. The columns displayed in the chart are the following:
  - Currency Code
  - Legal Entity Leaf Name
  - As Of Date
  - Financial Statement Outlier
  - Functional Balance
- **Org Unit Hierarchy Balance by Selected Financial Statements Metric trends:** This chart deduces if a Financial data (that is the Functional Balance of a Financial Element Leaf Name) is a "Outlier" or "Non-Outlier" for a combination of As-of-Date, Currency (transaction currency) and Org Unit (the Org Unit display is based on the Org Unit Hierarchy level you're analyzing). The columns displayed in the chart are the following:
  - Currency Code
  - Org Unit Hierarchy
  - As Of Date
  - Financial Statement Outlier
  - Functional Balance
- **Product Hierarchy Balance by Selected Financial Statements Metric trends:** This chart deduces if a Financial data (that is the Functional Balance of a Financial Element Leaf Name) is a "Outlier" or "Non-Outlier" for a combination of As-of-Date,

Currency (transaction currency) and Product (the Product display is based on the Product Hierarchy level you're analyzing).

The columns displayed in the chart are the following:

- Currency Code
  - Product Hierarchy
  - As Of Date
  - Financial Statement Outlier
  - Functional Balance
- **Account Currency Balance by Selected Financial Statements Metric trends:** This chart deduces if a Financial data (that is the Functional Balance of a Financial Element Leaf Name) is a "Outlier" or "Non-Outlier" for a combination of As-of-Date and Account Currency (transaction currency).  
The columns displayed in the chart are the following:

- Currency Code
- As Of Date
- Financial Statement Outlier
- Functional Balance

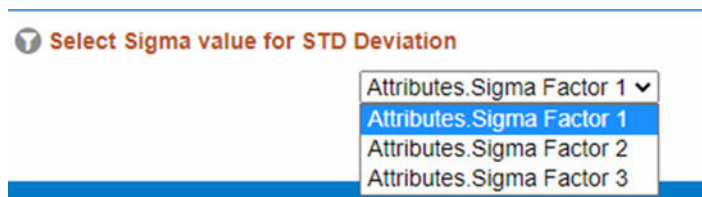
#### 4.1.6.2.4.2 Use Case Flow for Outliers Analysis

You can refer this use case to best leverage the advanced analytics capabilities of the reports.

Starting from the canvas "Financial Statements – Outliers" you can perform a series of actions as following described.

1. Select your desired Sigma value on which the outlier analysis will be generated.

**Figure 4-119 Sigma Value Selection**



2. Select the Financial Statements, as described in the previous section [Working with Financial Statement Reporting Lines](#).

Figure 4-120 Financial Statements Selection

The screenshot displays the 'Financial Statements Analysis' interface with several data tables and filters. The 'Financial Statements' table shows metrics like Interest Credited, Interest Expense, and Investment Income. The 'Legal Entity Balance by Selected Financial Statements Metric trends' table lists entities like Bank Holding Company, Europe International Holding Company, and UAC Entity. The 'Product Hierarchy Balance by Selected Financial Statements Metric trends' table shows data for EUR, GBP, INR, and USD across different product hierarchies. The 'Account Currency Balance by Selected Financial Statements Metric trends' table shows data for EUR, GBP, INR, and USD across different account currencies. A search dialog is open, showing a list of financial statements with 'Interest Income' selected.

3. Select the Outliers and change the desired Hierarchy level for any of the available Key Processing Dimensions.

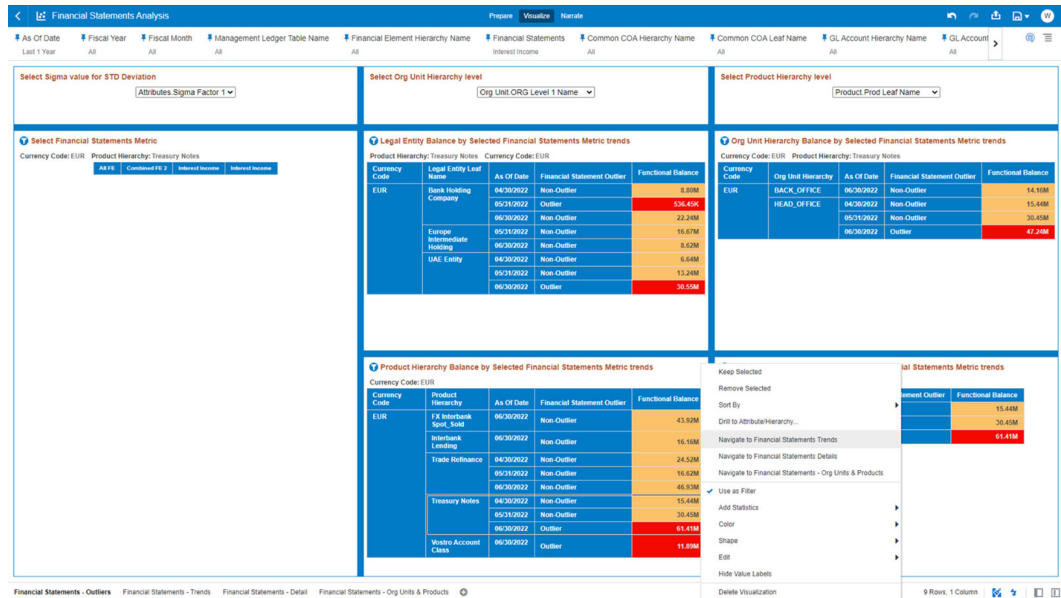
Figure 4-121 Outliers Selection

The screenshot displays the 'Financial Statements - Outliers' view. It features several data tables and filters. The 'Legal Entity Balance by Selected Financial Statements Metric trends' table shows data for EUR, GBP, and INR. The 'Product Hierarchy Balance by Selected Financial Statements Metric trends' table shows data for EUR. The 'Account Currency Balance by Selected Financial Statements Metric trends' table shows data for EUR. The 'Org Unit Hierarchy Balance by Selected Financial Statements Metric trends' table shows data for EUR, with 'BACK\_OFFICE' and 'HEAD\_OFFICE' selected. The 'Select Product Hierarchy level' dialog is open, showing a list of product hierarchies with 'Product Level 1 Name' selected.

4. After you have selected a combination of outliers and related Dimensions, you can use the Data Actions to navigate to the other Report Canvases.



Figure 4-122 Navigation to Report Canvases



#### 4.1.6.2.5 Financial Statements - Trends

The “Financial Statements – Trends” Report describes the trend of the Financial Statements reporting lines with respect to As-of-Date.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Management Ledger data.

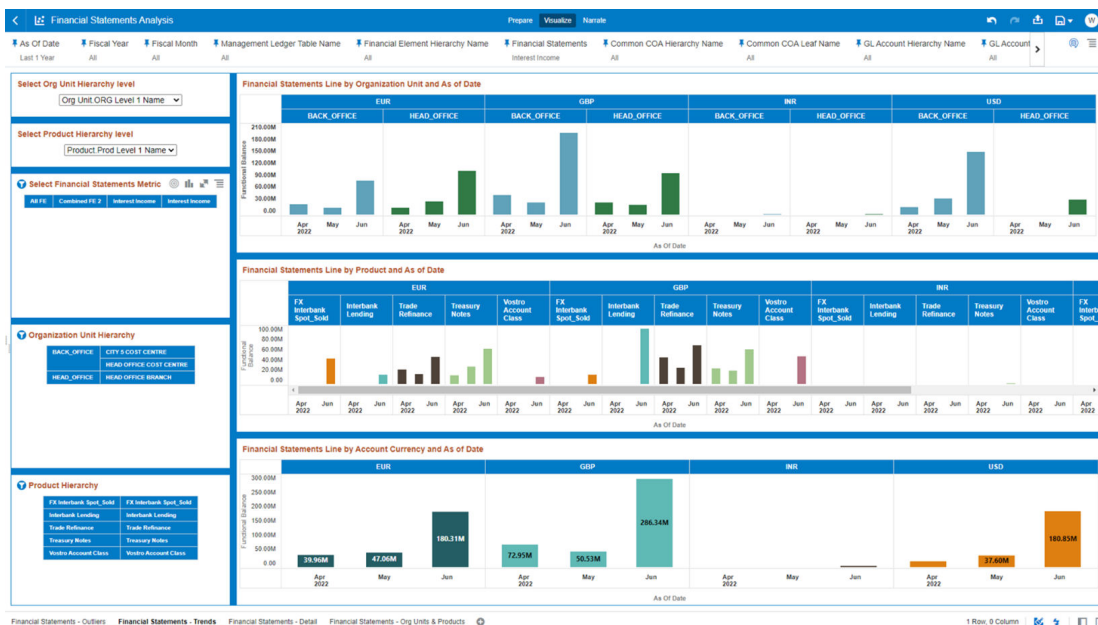
As described in the previous section [Working with Financial Statement Reporting Lines](#), to perform a correct analysis, you should select a single FE Reporting Line that you want to use for your analysis. The report displays the underlying data according to the following Charts’ logic:

- **Select Org Unit Hierarchy level:** The chart provides you with a selection capability for the desired Org Unit Hierarchical level.
- **Select Product Hierarchy level:** The chart provides you with a selection capability for the desired Product Hierarchical level.
- **Select Financial Statements Metric:** The chart provides you with a selection capability for the desired Financial Element reporting line. The Financial Element Leaf Name is the actual data on which the reporting is based whereas the chart provides with the parent levels for ease of finding out the Financial Element Leaf member. The columns displayed in the chart are the following:
  - Financial Element Level 1 Name
  - Financial Element Level 2 Name
  - Financial Element Level 3 Name
  - Financial Element Leaf Name
- **Organization Unit Hierarchy:** The chart provides you with two levels of the hierarchy – the selected level from the “Select Org Unit Hierarchy level” as well as the Org Unit leaf nodes. You use this chart to further filter down the “Financial Statements – Trends” charts.



- **Product Hierarchy:** The chart provides you with two levels of the hierarchy – the selected level from the “Select Product Hierarchy level” as well as the Product leaf nodes. You use this chart to further filter down the “Financial Statements – Trends” charts.
- **Financial Statements Line by Organization Unit and As-of-Date:** The chart reports the trend analysis of the Financial Statements reporting lines with respect to As-of-Date and it is split by Currency and Org Unit (the Org Unit display is based on the Org Unit Hierarchy level you’re analyzing).  
The columns displayed in the chart are the following:
  - Currency Code
  - Org Unit Hierarchy
  - As Of Date
  - Functional Balance
- **Financial Statements Line by Product and As-of-Date:** The chart reports the trend analysis of the Financial Statements reporting lines with respect to As-of-Date and it is split by Currency and Product (the Product display is based on the Product Hierarchy level you’re analyzing).  
The columns displayed in the chart are the following:
  - Currency Code
  - Product Hierarchy
  - As Of Date
  - Functional Balance
- **Financial Statements Line by Account Currency and As-of-Date:** The chart reports the trend analysis of the Financial Statements reporting lines with respect to As-of-Date and it is split further by Currency.  
The columns displayed in the chart are the following:
  - Currency Code
  - As Of Date
  - Functional Balance

Figure 4-123 “Financial Statements – Trends” Report



#### 4.1.6.2.6 Financial Statements - Detail

The “Financial Statements – Detail” Report provides the details of the Financial Statements reporting lines with respect to As-of-Date, with the possibility to analyze multiple reporting lines in the same view or to focus the analysis on one or more specific reporting lines.

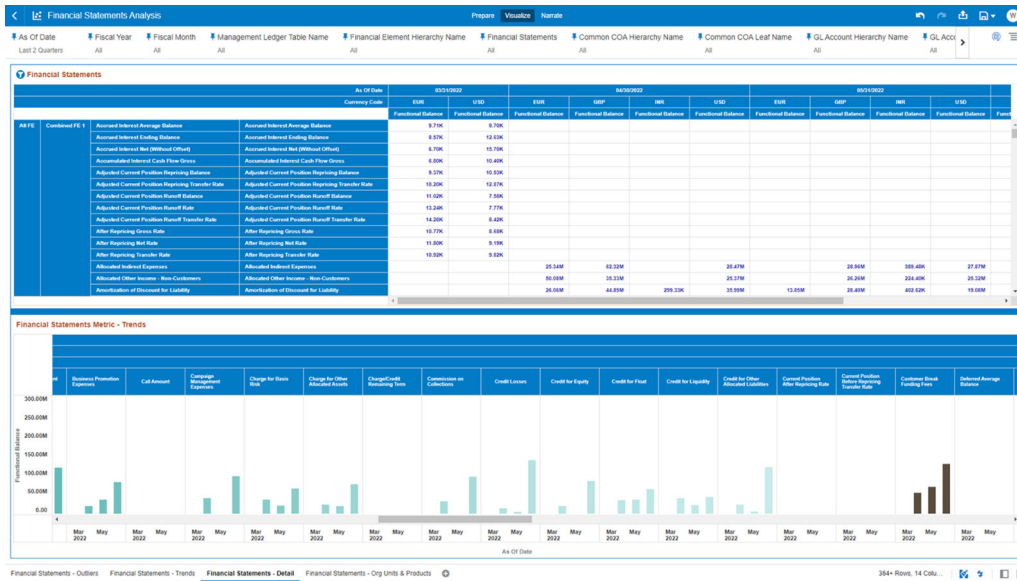
You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying management ledger data.

The report displays the underlying data according to the following Charts’ logic:

- Financial Statements:** The chart reports the detail analysis, in a tabular manner, of the Financial Statements reporting lines with respect to As-of-Date, and it is split by Currency. The columns displayed in the chart are the following:
  - Currency Code
  - Financial Element Level 1 Name
  - Financial Element Level 2 Name
  - Financial Element Level 3 Name
  - Financial Element Leaf Name
  - As Of Date
  - Functional Balance
- Financial Statements Metric – Trends:** The chart reports the trend analysis of the Financial Statements reporting lines with respect to As-of-Date and it is split by Currency. The columns displayed in the chart are the following:
  - Currency Code
  - Financial Element Level 1 Name

- Financial Element Level 2 Name
- Financial Element Level 3 Name
- As Of Date
- Functional Balance

Figure 4-124 “Financial Statements – Detail” Report



#### 4.1.6.2.7 Financial Statements - Org Units & Products

The “Financial Statements – Org Units & Products” Report ranks the top/bottom Org Units and Product based on the Financial Statements reporting lines balances with respect to As-of-Date.

As described in the previous section [Working with Financial Statement Reporting Lines](#), to perform a correct analysis, you should select a single FE Reporting Line that you want to use for your analysis.

The report displays the underlying data according to the following Charts’ logic:

- **Select Org Unit Hierarchy level:** The chart provides you with a selection capability for the desired Org Unit Hierarchical level.
- **Select Product Hierarchy level:** The chart provides you with a selection capability for the desired Product Hierarchical level.
- **Select Financial Statements Metric:** The chart provides you with a selection capability for the desired Financial Element reporting line. The Financial Element Leaf Name is the actual data on which the reporting is based whereas the chart provides with the parent levels for ease of finding out the Financial Element Leaf member.

The columns displayed in the chart are the following:

- Financial Element Level 1 Name
- Financial Element Level 2 Name

- Financial Element Level 3 Name
- Financial Element Leaf Name
- **Top Organization Unit by Selected Financial Statements Metric:** The chart ranks the top Org Units (the Org Units display is derived from the Org Unit Hierarchy level you're analyzing) based on the Financial Statements reporting lines balances with respect to As-of-Date and it is split by Currency. The top count has been defaulted to 5 and you can change the count value as required.  
The columns displayed in the chart are the following:
  - Currency Code
  - As Of Date
  - Org Unit Hierarchy
  - Functional Balance
- **Bottom Organization Unit by Selected Financial Statements Metric:** The chart ranks the bottom Org Units (the Org Units display is derived from the Org Unit Hierarchy level you're analyzing) based on the Financial Statements reporting lines balances with respect to As-of-Date and it is split by Currency. The bottom count has been defaulted to 5 and you can change the count value as required.  
The columns displayed in the chart are the following:
  - Currency Code
  - As Of Date
  - Org Unit Hierarchy
  - Functional Balance
- **Top Products by Selected Financial Statements Metric:** The chart ranks the top Products (the Products display is derived from the Product Hierarchy level you're analyzing) based on the Financial Statements reporting lines balances with respect to As-of-Date and it is split by Currency. The top count has been defaulted to 5 and you can change the count value as required.  
The columns displayed in the chart are the following:
  - Currency Code
  - As Of Date
  - Product Hierarchy
  - Functional Balance
- **Bottom Products by Selected Financial Statements Metric:** The chart ranks the bottom Products (the Products display is derived from the Product Hierarchy level you're analyzing) based on the Financial Statements reporting lines balances with respect to As-of-Date and it is split by Currency. The bottom count has been defaulted to 5 and you can change the count value as required.  
The columns displayed in the chart are the following:
  - Currency Code
  - As Of Date
  - Product Hierarchy
  - Functional Balance

Figure 4-125 “Financial Statements – Org Units &amp; Products” Report

The screenshot displays the Oracle Financial Statements Analysis interface. The main report area is divided into four quadrants, each showing a table of functional balances for selected financial statements metrics. The top-left quadrant is titled 'Top Organization Unit by Selected Financial Statements Metric' and shows data for ESR, GBP, and USD across dates 06/30/2022 and 06/30/2023. The top-right quadrant is titled 'Bottom Organization Unit by Selected Financial Statements Metric' and shows data for INR across dates 04/30/2022, 05/31/2022, and 06/30/2022. The bottom-left quadrant is titled 'Top Products by Selected Financial Statements Metric' and shows data for ESR, GBP, and USD across dates 06/30/2022 and 06/30/2023. The bottom-right quadrant is titled 'Bottom Products by Selected Financial Statements Metric' and shows data for INR across dates 04/30/2022, 05/31/2022, and 06/30/2022. The report also includes filters for Org Unit Hierarchy Level, Product Hierarchy Level, and Financial Statements Metric.

## 4.2 Balance Reconciliation

The Profitability and Balance Sheet Management Cloud Services's Balance Reconciliation module helps you to Reconcile the selected processing/instrument/account balances against the Management Ledger. If any differences are found, you will have the flexibility to choose significant differences and create plug entries for those in the Ledger\_Instruments table.

### Note:

All General Ledger Accounts must mandatorily have a Reconciliation product mapped to them.

You can define the dummy attributes for the Product-Currency combinations, whichever General Ledger Account is used for Reconciliation. Default dummy attributes are auto populated based on the linked product ID and currency selected in Reconciliation dimensions.

Reconciliation is a three-step process.

- Reconciliation Definition and Default Attributes setup
- Reconciliation Report verification
- Plug entry creation and writing the Reconciliation differences back to Ledger Instruments table

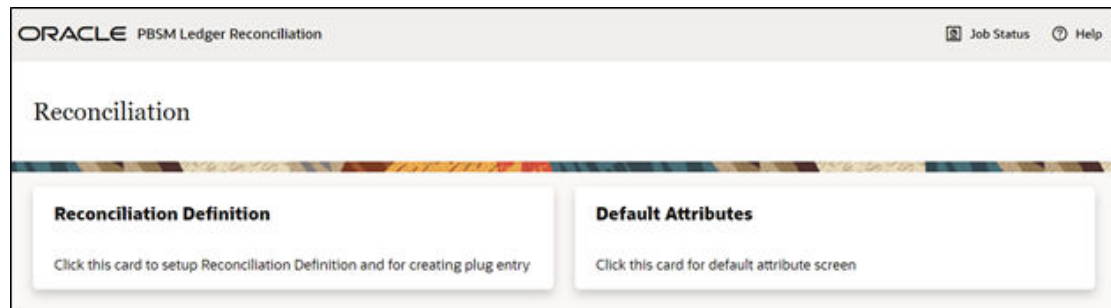
To access the Balance Reconciliation module, from the LHS Menu, navigate to Analytics, and select Balance Reconciliation.

The Balance Reconciliation landing screen displays the following two cards:

- Reconciliation Definition

- Default Attributes

**Figure 4-126 Reconciliation Landing Screen**

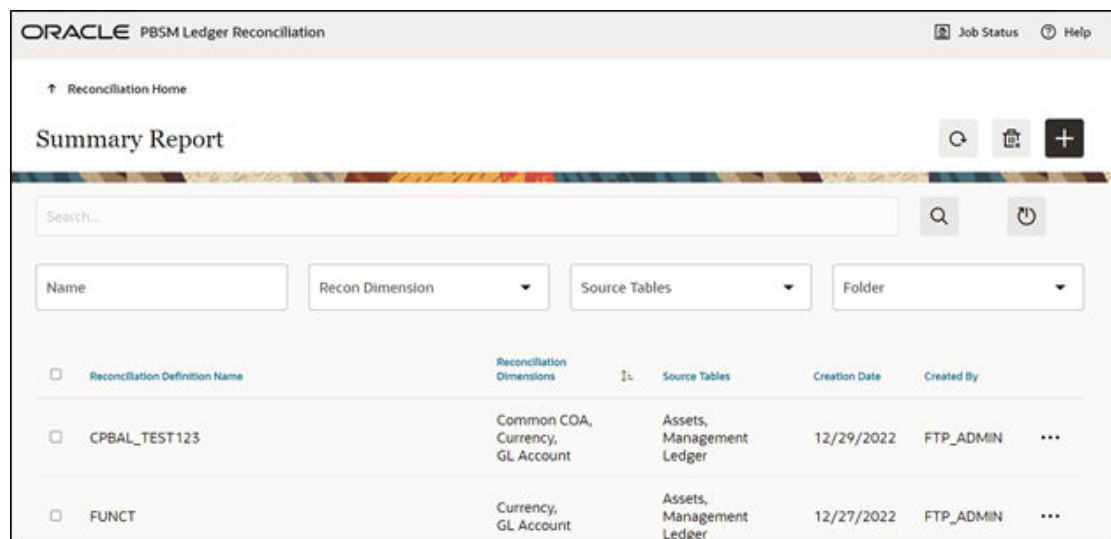


## 4.2.1 Reconciliation Definition

The Reconciliation Definition summary screen allows you to search for any definitions from the displayed list.

The Reconciliation Definition summary screen is as follows:

**Figure 4-127 Reconciliation Definition Summary Screen**



This screen displays the following definition attributes for easy identification:

- Reconciliation Definition Name
- Reconciliation Dimensions across which reconciliation is performed
- Source Tables against which reconciliation is performed
- Creation Date
- Created By

### 4.2.1.1 Adding a New Reconciliation Definition

The Create Reconciliation screen allows you to define a new Reconciliation Definition.

**Figure 4-128 Create Reconciliation Definition Screen**

**Create Reconciliation Definition** [Close]

Name Required

Description

Folder: COMMON

Access Type: Read

Reconcile Against: Entered Balance Required

Ledger Balance: Average Balance Required

Instrument Balance: Average Book Balance Required

Source Tables: Assets, Liabilities, Ledger Instruments Required

**Reconciliation Dimensions**

Common COA       Currency       GL Account

Legal Entity       Org Unit       Product

**Audit Panel**

Id: F16EA4EC70FA6D0FE0531513000AE0D8

To add a new Reconciliation Definition, click the **Add** button, and populate all the required fields as follows:

Reconciliation Definition set up allows you to choose for which Instrument Table, across which Dimensions and on which Balance Type (Cur Book Bal or Cur Par Bal); you would like to perform reconciliation. For example, you can choose to reconcile against just GL Account ID and Currency or do reconciliation at much granular level by selecting the Org Unit, Legal Entity along with GL Account ID and Currency.

### 4.2.1.2 Reconciliation Balance

Management Ledger stores balance using Financial Elements, while corresponding Cur/Avg Balance can be picked directly from the dedicated columns in the Instrument Tables. So, you have an option to choose if you want to reconcile against 100 (ending balance)/140 (average balance). In the Management Ledger for FE 100, you can further select between CUR\_BOOK\_BAL/CUR\_PAR\_BAL from Instrument table. By Default, CUR\_PAR\_BAL would remain selected. You are allowed to create plug entries only when comparison is done against ending balance. For Average balance, you can only see the difference report but would not be allowed to create plug entries.

You can choose to reconcile in functional or local currency as per the selection made under 'Reconcile Against'; Functional or Entered Currency.

You can do the comparison only for Asset, Liability, or can include Ledger Instrument table also. At run time, the As-of-Date can be passed for which Balance Reconciliation will be performed.

### 4.2.1.3 Actions Performed on Reconciliation Definition

To delete one or multiple Reconciliation Definitions, you can select the checkboxes against each one of them and press the **Delete** button.

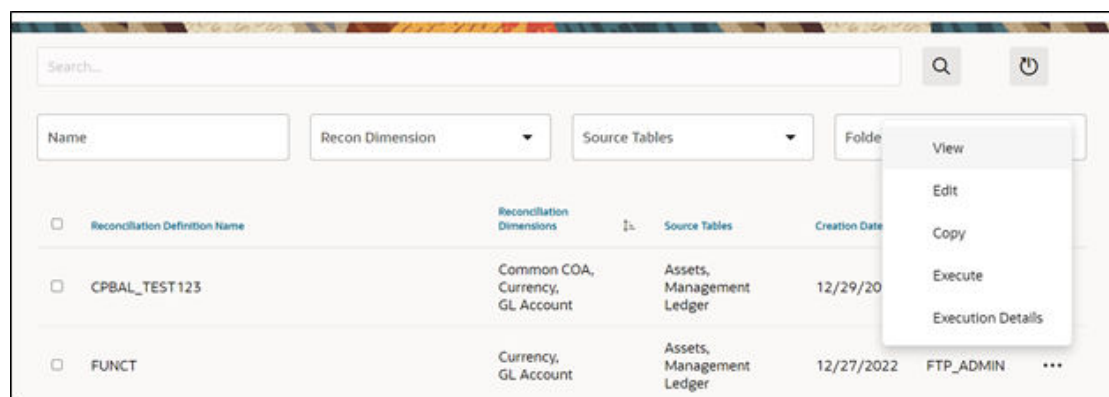
A confirmation message will let you confirm and delete selected definitions.

You can also perform search based on following fields:

- Name
- Reconciliation Dimensions
- Source tables against which reconciliation is performed
- Folder where the reconciliation definition is stored

The following screen display the Actions menu from which the different actions that you can perform on existing Reconciliation Definitions.

**Figure 4-129 Actions Icon and Different Actions**



The following are the actions:

- **View:** Click this action button and view the definition in read only format.
- **Edit:** Click this action button and edit the definition.
- **Copy:** Click this action button and copy the definition to create another definition with similar parameters.
- **Execute:** Click this action button and perform the reconciliation as per the selected parameters.

As-of-Date is a run time parameter, you can choose for which date reconciliation needs to be performed. After clicking **Process**, the Reconciliation Difference Report will be generated as follows:



**Figure 4-130 Reconciliation Report**

**Reconciliation Report**

Name: FUNCT      As Of Date: 01/31/2021

Description:

Folder: COMMON      Access Type: Read      Reconcile Against: Functional Balance

Ledger Balance: Ending Balance      Instrument Balance: Current Par Balance      Source Tables: Assets

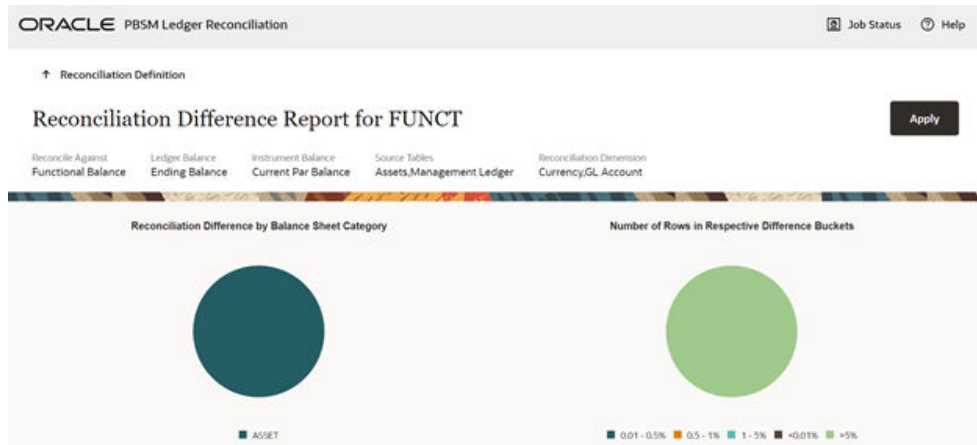
Reconciliation Dimensions

Common COA       Currency       GL Account

Buttons: Cancel, Process

Report starts with the summary across Balance Sheet categories and difference buckets pie charts, which can help you to get an idea about the reconciliation difference in a quick glimpse.

**Figure 4-131 Reconciliation Difference Report**



The detailed report is displayed as follows, where you can filter out insignificant difference using 'Threshold Percentage', also threshold can be applied at each row level or for whole Balance Sheet category level. If threshold is applied at Balance Sheet category level, all the rows that belong to the Balance Sheet category which is less than given percentage will be hidden from the Reconciliation Difference Report. A download button allows you to download the Reconciliation Report.

You can see difference in both percentage and absolute format.

**Figure 4-132 Differences in Percentage and Absolute Formats**

As of Date: 31 January 2021

Threshold   Filter at Category Level

Category	% Diff (Against Ledger Balance)	% Diff (Against Account Balance)
ASSET	72.0538	260.3900

row(s) 1 - 1 of 1

<input checked="" type="checkbox"/>	Category	GL Account	Currency	Ledger Balance (Thousands)	Account Balance (Thousands)	Reconciliation Difference (Thousands)	% Diff (Against Ledger Balance)	% Diff (Against Account Balance)
<input checked="" type="checkbox"/>	ASSET	Assets Ledger - 891	USD	33,672.98	37,754.61	-4,081.63	12.1214	10.8110
<input checked="" type="checkbox"/>	ASSET	Assets Ledger - 891	SGD	0.00	19,156.41	-19,156.41		100.0000
<input checked="" type="checkbox"/>	ASSET	Liability Ledger - 892	SGD	1,564.06	626.68	937.38	59.9324	149.5790

As a next step to create the plug entries for filtered rows, you can click the **Apply** button in extreme right corner. Following a grid appears, along with default attributes fetched from default product attributes: if you like, you can update any of these attributes before plug entries are created for the selected difference records. You can use the **Edit** and **Save** button to edit the default product attributes like Amortization Type, Interest Rate Code, and so on. You cannot edit any Code (CD) or VARCHAR attributes. Only attributes like Number, Rates, Dates, Term can be edited. All types of balances like Org balance, Current/Average balance are same as the reconciliation difference.

After you are convinced with the entered values for all the account attributes, you can click Apply. A job will be submitted and plug entries will be created in the FSI D Ledger Instruments table. To differentiate the plug entries from the customer real accounts, Data source CD will be used, with value 3, which signifies the 'Difference balance entries due to reconciliation performed between account and ledger'.

**Figure 4-133 Differences in Percentage and Absolute Formats**

As of Date: 31 January 2021

Search: All Text Columns

Core Product Attributes									
<input type="checkbox"/>	<input type="checkbox"/>	% Difference (Against Ledger Balance)	% Difference (Against Account Balance)	Comments	Amortization Type *	Adjustable Type *...	Interest Rate Code	Net Rate	Original T
<input type="checkbox"/>	<input type="checkbox"/>	12.1214	10.8110		700	50	USD Curve	222.00	
<input type="checkbox"/>	<input type="checkbox"/>		100.0000		820	50	AUD Curve	99.00	
<input type="checkbox"/>	<input type="checkbox"/>	59.9324	149.5790		820	50	AUD Curve	99.00	

- **Execution Details:** You can click this action button and view all the runs for a selected definition, along with the user information who has triggered the execution.

**Figure 4-134 Execution Details**

Execution Details						
Reconciliation Definition FOCC2C97784B2942E0535613000A65BA						
Workspace Id	Object Id	Execution Mode	As Of Date	Execution Status	Executed By	Executed Date
d604b2a3-9cbb-4b5d-9dfb-350a3fb3258c	FOCC2C97784B2942E0535613000A65BA		01/31/2021		FTP_ADMIN	12/30/2022
d604b2a3-9cbb-4b5d-9dfb-350a3fb3258c	FOCC2C97784B2942E0535613000A65BA		01/31/2021		FTP_ADMIN	01/03/2023
d604b2a3-9cbb-4b5d-9dfb-350a3fb3258c	FOCC2C97784B2942E0535613000A65BA		01/31/2021		FTP_ADMIN	01/03/2023

## 4.2.2 Duplicate Runs for Same As-of-Date

If for a particular As-of-Date plug entries are already created, you have an option to cancel the latest run and exit without creating any plug entries.

You can append to existing entries for same As-of-Date. This case is possible if different reconciliation definitions are being executed for different instrument tables.

You can delete all the existing plug entries for concerned As-of-Date and create all fresh entries. This case is possible if the intermediate day runs took place locally and finally at night a global run took place.

**Figure 4-135 Confirm Plug Entry Creation**

**Confirm Plug Entry Creation**

**Duplicate Plug Entry**

Reconciliation has already been performed for selected as of date, would you like to delete existing plug entries before creating as per latest run?

- Yes - Truncate existing and create fresh
- No - Keep existing and insert new
- Cancel - Abort the operation

## 4.2.3 Historical Difference Report

You can open the Reconciliation Definition in **View** mode and get the Historical Difference Report using the **View Report** button.

**Figure 4-136 View Reconciliation Report**

**View Reconciliation Definition**

Name  
FUNCT

Description

Folder  
FOLDER-1

Access Type  
Read

Reconcile Against  
Functional Balance

Ledger Balance  
Ending Balance

Instrument Balance  
Current Par Balance

Source Tables  
Assets

Reconciliation Dimensions

Common COA  Currency  GL Account

Cancel View Report

Here you can give a historical period by selecting the **From Date**, **To Date** and fetch all the reconciliation difference records along with the user comments to get the justification for plug entries creation.

**Figure 4-137 Historical Differences Report for FUNCT**

**Historical Differences Report for FUNCT**

Reconcile Against: Functional Balance | Ledger Balance: Ending Balance | Instrument Balance: Cur Par Bal | Source Tables: Assets, Management Ledger | Reconciliation Dimension: Currency, GL Account

From Date: 01/20/2021 | To Date: 04/08/2022

Search: All Text Columns | Go | Actions | Reset

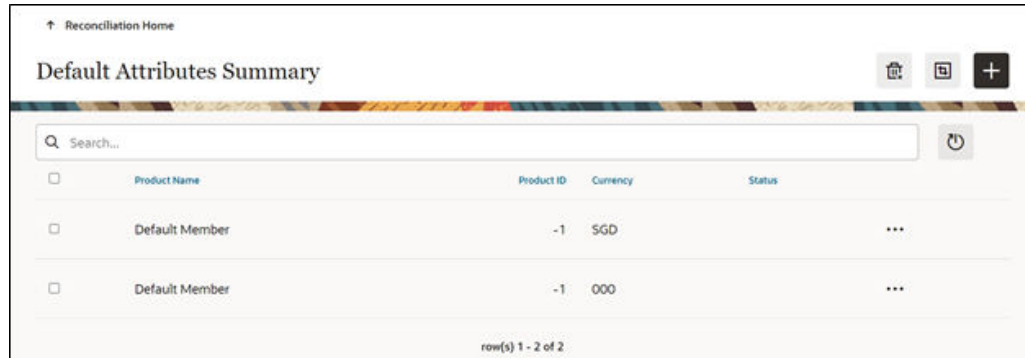
Product	Total Ledger Balance	Total Account Par Balance	Total Account Book Balance	Reconciliation Diff	% Diff Against Ledger Balance	% Diff Against Account Balance	Comments
-1	33,672,978.21	37,754,609.04	37,754,609.04	-4,081,630.83	12.1214	10.8110	
-1	0.00	38,312,827.30	38,312,827.30	-38,312,827...		100.0000	
-1	3,128,112.08	1,253,357.98	1,253,357.98	1,874,754.10	59.9324	149.5790	

## 4.2.4 Default Attributes

The following is the Default Attribute Summary screen, where you can find all the default attributes defined for various Product-Currency combinations.

You can select one or multiple Product-Currency combinations and delete at once, by clicking the **Delete** button.

**Figure 4-138 Default Attributes Summary**

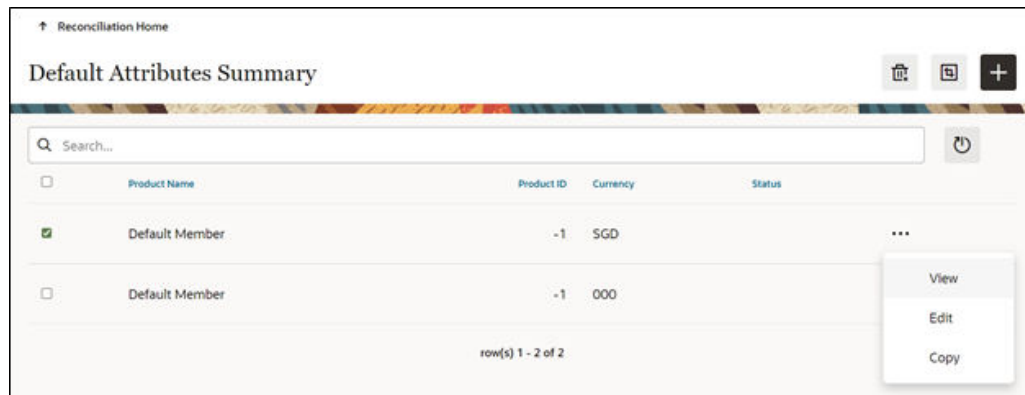


The screenshot shows the 'Default Attributes Summary' page. At the top, there is a breadcrumb 'Reconciliation Home' and the page title 'Default Attributes Summary'. Below the title is a search bar and a refresh icon. The main content is a table with the following columns: Product Name, Product ID, Currency, and Status. There are two rows of data, both with 'Default Member' as the product name. The first row has Product ID '-1' and Currency 'SGD'. The second row has Product ID '-1' and Currency '000'. Each row has a checkbox on the left and a three-dot menu icon on the right. At the bottom of the table, it says 'row(s) 1 - 2 of 2'.

Product Name	Product ID	Currency	Status
Default Member	-1	SGD	...
Default Member	-1	000	...

You can view/edit/copy an existing default attribute using respective button in the Actions icon as follows.

**Figure 4-139 Default Attributes Summary – Actions Column**



This screenshot is similar to Figure 4-138, but the three-dot menu icon for the first row is expanded, showing a dropdown menu with three options: 'View', 'Edit', and 'Copy'. The first row in the table is now selected, indicated by a green checkmark in the checkbox column.

Product Name	Product ID	Currency	Status
Default Member	-1	SGD	...
Default Member	-1	000	...

#### 4.2.4.1 Creating a New Product-Currency Combination and Default Attributes

To create a new Product-Currency combination and default attributes for that. You can click the Add button, and a slide in pop-up will appear with three tabs:

**Core Product Attributes Tab:** Here you can select one or multiple products and one or multiple currencies and start defining core product attributes as follows:

- Amortization Type
- Adjustable Type
- Interest Rate Code
- Net Interest Rate
- Original Term

- Original Term Type

**Figure 4-140 Core Product Attributes**

The screenshot shows a window titled "Default Attribute Details" with a close button (X) in the top right corner. At the top, there are two dropdown menus: "Product" with the value "Asset - 100" and "Currency Code" with the value "US Dollar - USD". Both are marked as "Required". Below these are three tabs: "Core Product Attributes" (which is selected and underlined), "Payment Attributes", and "Adjustable-Rate Attributes". Under the "Core Product Attributes" tab, there is an "Apply" button in the top right. Below it are several fields: "Amortization Type" (Conventional, Required), "Adjustable Type" (Fixed Rate, Required), "Interest Rate Code", "Net Rate", "Original Term", and "Original Term Type" (Date). At the bottom right of the window are three buttons: "Reset", "Close", and "Save".

Click **Apply** and move to the Payment Attributes tab.

**Payment Attributes Tab:** To Define payment attributes, you can select this tab and start filling the following details:

- Payment Frequency
- Payment Frequency Type
- Accrual Basis
- Interest Type
- Compounding Basis
- Payment Amount
- Remaining Number of Payments

**Figure 4-141 Payment Attributes**

**Default Attribute Details** [Close]

Core Product Attributes | **Payment Attributes** | Adjustable-Rate Attributes

**Payment Attributes** [Apply]

Payment Frequency: 1 (Required)

Payment Frequency Type: Months (Required)

Accrual Basis: Actual/Actual (Required)

Interest Type: Interest In Arrears (Required)

Compounding Basis: Simple (Required)

Payment Amount: [ ]

Remaining Number of Payments: 1

Click **Apply** and move to the Adjustable-Rate Attributes tab, which is applicable only for adjustable rate instruments:

**Adjustable-Rate Attributes Tab:** Here you can define following attributes:

- Repricing Frequency
- Repricing Frequency Type
- Rate Change Rounding Type
- Net Margin

Click **Apply** and then click **Save**. The Default Product Attribute for the selected Product-Currency combination is saved.

**Figure 4-142 Adjustable-Rate Attributes**

**Default Attribute Details** [Close]

Product: Asset - 100 (Required)

Currency Code: US Dollar - USD (Required)

Core Product Attributes | Payment Attributes | **Adjustable-Rate Attributes**

**Adjustable-Rate Attributes** [Apply]

Repricing Frequency: [ ]

Repricing Frequency Type: [ ]

Rate Change Rounding Type: [ ]

Net Margin: [ ]

## 4.2.5 Reconciliation using Batch Process

You can do Reconciliation using the Scheduler Services.

To run the Reconciliation using Batch Process, follow these steps:

1. With the Define Batch feature, it is possible to create new batches and review existing ones.
2. Click **+** to create a new batch.
3. In the **Create Batch** screen, enter the following values:
  - a. Code (spaces are not allowed in the code section).
  - b. Batch Name
  - c. Select the Service URL name as **RUN\_CMD\_SERVICE**.
  - d. Click **Save**.
4. In the **Define Task** screen, you can define the tasks related to a specific batch.
  - a. Navigate to Define Task.
  - b. Select the name of the batch that has been created for this task.
5. Click **+** to create a new task.
6. In the **Create Task** screen, enter the following values:
  - a. Task Code (Spaces are not allowed in the code section).
  - b. Task Name.
  - c. Select the task type as **REST**.
  - d. Select the component as **RUNCMD**.
  - e. Select Batch Service URL as **RUN\_CMD\_SERVICE**.
  - f. Click **Save**.
7. In the **Task Parameter** section, enter the following values:
  - a. Select the Code as **RUN CMD RECONCILIATION**.
  - b. Select the Execution Venue as **NATIVE**.
  - c. Select the Optional Parameter as **THRESHOLD\_OBJECTCODE\_OPTION** format.
  - d. Select the IP as **localhost**.

The allowed values for the Option are either 0 or 1.

- **0**: Truncate all existing data for concerned AS\_OF\_DATE/MIS\_DATE for which reconciliation batch is getting executed and insert new data.
- **1**: Append data on top of existing data for concerned AS\_OF\_DATE/MIS\_DATE to ledger instrument and reconciliation difference Audit table (Table to retain comments for each plug entry).

Threshold values must be greater than or equal to zero (0), negative values are not supported. Threshold values should be expressed as "threshold >= 0" The threshold will accommodate null values, allowing all data to be inserted into the ledger instrument and reconciliation difference audit tables.



When a threshold is applied, plug entries will be created only for filtered data into the ledger instrument and reconciliation difference audit tables.

 **Note:**

Select the appropriate object code/reconciliation definition to avoid errors in the batch process.

The optional values should be passed in the following format:  
"THRESHOLD\_OBJECTCODE\_OPTION"

Example 1: "\_F405734331FD795BE053D71A000AD329\_0"

(Threshold is null, and object code is: F405734331FD795BE053D71A000AD329, option value is 0)

Example 1: "12\_F405734331FD795BE053D71A000AD329\_1"

(Threshold is 12, and object code is: F405734331FD795BE053D71A000AD329, option value is 1)

8. Schedule the batch using the **Schedule Batch** screen. Select the **Name** of the batch that has been created.

You can use the **Edit Parameters** option to review the batch parameters and make any necessary changes to initializing the batch process.

9. The following tasks should be performed in a manner similar to what was outlined in point number 7.
  - a. The **MIS Date** is used as the **As of Date** in the Reconciliation UI. Select the appropriate **MIS Date**.
  - b. The values in point 6 are the default values for a specific environment.
  - c. After completing the changes, click **Execute** or **Save**.
    - i. By clicking **Save**, the definition of the batch will be saved, however, the batch will not be executed.
    - ii. By clicking **Execute**, the batch will be executed.

After the batch is executed, an **Execute Status** dialog is displayed, providing information about the executed batch.

After the batch is executed, the information about the executed batch will be available in the **Monitor Batch** screen. Select the following options and check the Batch Status.

Sometimes, a batch may fail. The reason for the batch failure could be as follows:

- Entering an incorrect object code.
- Entering an incorrect option value. Only values of 0 or 1 are supported.
- Entering an incorrect threshold value. Only null or a value  $\geq 0$  are supported.



**Note:**

Following roles mapping to the SKU User group should be present to enable RUNCMD listing and execution.

- RCMDREAD
- RCMDADVND

For detailed instructions for defining, executing, and monitoring a Batch, see the [Scheduler Service](#) documentation.

# 5

## Operations

This chapter covers the following topics:

1. **Scheduler Services:** The Scheduler Service is a service that automates behind-the-scenes work that is necessary to sustain various enterprise applications and functionalities. This automation helps the applications to control unattended background jobs program execution.
2. **Object Migration:** Object Migration is the process of defining, exporting and importing objects across environments (prod and non-prod)/instances. This feature also facilitates to migrate within the same setup or different setups.

### 5.1 Scheduler Services

The Scheduler Service is a service that automates behind-the-scenes work that is necessary to sustain various enterprise applications and their operations. This automation helps the applications to control unattended background jobs program execution.

You can perform the following operations using Scheduler Services utility:

- **Define Batch** - A Batch contains a group of background tasks that are executed together, on a specific date and time during which the resources are available for batch processing.
- **Define Task** - A batch job is a piece of a program meant to meet specific and business-critical functions. The program is a REST API used in a batch.
- **Schedule Batch** - Batch jobs are scheduled to automate the tasks to be processed on a regular basis but don't necessarily need to occur during the day or have an employee interacted with the system are batch schedule. Jobs that happen on a regular basis are incorporated into batch schedules. You can also execute a Batch instantaneously and schedule batches.
- **Monitor Batch** - Track your batch executions using a Web browser. You can access the real-time feedback on the status of the current encoding job and lists the jobs pending in the batch. You can also **Cancel** or **Restart** the service when required.
- **Scheduler Service Dashboard** - The Scheduler Service Dashboard gives the complete status of the Executed Runs, Successful Runs, Failed Runs, Ongoing Runs, Interrupted Runs, and the Upcoming Runs.

#### 5.1.1 User Roles and Functions

The following roles and functions are required to use Scheduler Services, and create and manage Batches and tasks, and also use Scheduler Service Dashboard.

##### Role Codes

- BATCH\_READ
- BATCH\_WRITE

- BATCH\_ADV
- BATCH\_AUTH
- BATCH\_OPER
- BATCH\_MAINT

**Function Codes**

- BATCH\_ADD
- BATCH\_DEL
- BATCH\_MOD
- BATCH\_VIEW
- BATCH\_SCH
- BATCH\_SUMM
- BATCH\_AUTH
- BATCH\_PURGE
- BATCH\_MON
- BATCH\_EXEC
- BATCH\_COPY

## 5.1.2 Accessing Scheduler Services

Using the Scheduler Service feature, you can create and execute batches and schedules to run various tasks and also monitor them.

To access the Scheduler Service feature, from the left Navigation pane in the Service console, click **Operations and Processes > Scheduler**.

## 5.1.3 Define Batch

A Batch contains a group of background tasks that are executed together, on a specific date and time during which the resources are available for batch processing.

Batch Groups are a set of batches that are required to be executed together. Batch groups help to process Date and time-based background tasks based on a defined period during which the resources were available for Batch Processing.

To access the **Define Batch** page, from the left Navigation pane in the application console, click **Operations and Processes > Scheduler > Define Batch**.

The **Scheduler Service Summary Page (Define Batch)** with the list of Batches and Batch Groups is displayed. You can view the following details related to each Batch/ Batch Group.

- **Batch ID** - The unique Alphanumeric Code assigned to a specific Batch.
- **Name** - The unique Batch Name.
- **Description** - The brief description of the Batch.
- **Last Modified** - The last modified By User, Date and Time details.

To search for a specific Batch/Batch Group, enter the keywords in the **Search** Field and click **Search**. You can search based on the Batch/Batch group name, code and description. You can also sort the Batch/Batch group list based on Code, Name, Created Date and Last Modified Date.

You can perform the following operations to manage Batch/Batch Groups, from the **Scheduler Service Summary (Define Batch)** page.

- [Create New Batch](#)
- [Create New Batch Group](#)
- [Edit a Batch](#)
- [Edit a Batch Group](#)
- [Copy a Batch](#)
- [Copy a Batch Group](#)
- [Delete a Batch](#)
- [Delete a Batch Group](#)

### 5.1.3.1 Creating a Batch

A Batch contains a group of background tasks that are executed together, on a specific date and time, when the resources are available for batch processing.

Refer to the following steps, to create a batch from the **Scheduler Service Summary (Define Batch)** page.

1. To create a new Batch, click the **Action** and click **Create**.

The **Create Batch Page** is displayed.

Enter the following **Batch Details** :

- **Code** - Enter a Unique Alphanumeric Code for the new Batch.  
The Code name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore ( \_ )**.
  - **Batch Name** - Enter a unique name for the new batch.  
The Code name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore ( \_ )**.
  - **Batch Description** - The description/details for the batch.  
The description should start with alphabet and should not be more than 250 characters.
  - **Service URL Name/ Service URL** - Select the **Service URL Name** from the drop-down list.  
You can also enter the **Service URL Name** and associated URL is displayed in the **Service URL**. You can also provide the partial URL here and the complete URL in the Task Service URL.
2. After entering the Batch Details, provide the following Batch Parameters.

From the Batch Parameters pane, click **Add** to add a new Batch Parameter. By default, **\$FICMISDATES\$** and **\$BATCHRUNIDS\$** are added as Batch Parameters.

- **Parameter Name** - A valid parameter name for the new Batch parameter.

- **Parameter Value** - A valid Parameter Value required for Batch execution.

 **Note:**

Enclose the Parameter Value for a Run time with \$ symbol. For example, \$paramName\$.

To delete a Batch parameter, click **Delete** next to to that Parameter details.

3. Enter the following **Header Parameter** details.
  - **Parameter Name** - A valid parameter name for the new header parameter.
  - **Parameter Value** - A valid Parameter Value required for Batch execution.
4. Click **Save**. The new Batch is created and displayed in the **Scheduler Services (Define Batch)** Page.

### 5.1.3.2 Creating a Batch Group

You can create a new Batch Group in the Define Batch Page and schedule and monitor the Batch Group that you created.

To create a new Batch Group, perform the following steps:

1. To create a new Batch, click the **Action** and click **Create**.

The **Create Batch Page** is displayed.

Enter the following **Batch Details** :

- **Code** - Enter a Unique Alphanumeric Code for the new Batch group. The Code name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore** (**\_**).
  - **Batch Name** - Enter a unique name for the new batch group. The Code name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore** (**\_**).
  - **Batch Description** - The description/details for the batch group. The description should start with alphabet and should not be more than 250 characters.
2. Select **Batch Group** option.
  3. Select the Batches to be grouped together for processing, from the drop-down list.
  4. Click **Save**.

The new Batch Group is created and added to the **Scheduler Services (Define Batch)** page.

### 5.1.3.3 Editing a Batch

The **Edit Batch** option allows you to edit the Batch details such as Batch Description, Service URL Name and Service URL and also add a new Batch Parameter.

Seeded batches cannot be edited.

1. In the **Scheduler Services (Define Batch)** Page, click **Edit** corresponding to the Batch you want to modify.  
The Edit Batch Page is displayed.
2. Modify the required **Batch** details.  
For more information, see [Create New Batch](#).
3. Click **Save**.  
The edited batch is saved and displayed in the **Scheduler Services (Define Batch)** Page.

### 5.1.3.4 Editing a Batch Group

The Edit Batch Group option allows you to edit the Batch Group details such as Batch Group Name, Added Batches, and Batch Group Description.

To modify a Batch Group, perform the following steps:

1. In the **Scheduler Services (Define Batch)** Page, click **Batch Group** option to list the Batch Groups.
2. Click **Edit** corresponding to the Batch Group you want to modify.
3. Modify the required Batch Group details.  
For more information, see [Create New Batch Group](#) section.
4. Click **Save**.  
The edited Batch Group is saved and updated in the **Scheduler Services (Define Batch)**.

### 5.1.3.5 Copying a Batch

The Copy Batch option allows you to copy a Batch that you want to clone or create instances in the system from the Define Batch Window.

To copy a Batch, perform the following steps:

1. In the **Scheduler Services (Define Batch)** Page, click **Copy** corresponding to the Batch that you want to copy.  
The Copy Batch Page is displayed.
2. Specify the Batch details as you want to clone and copy the existing batch.  
For more information, see [Create New Batch](#) section.
3. Click **Save**.  
The copied batch is saved and displayed in the **Scheduler Services (Define Batch)** Page.

### 5.1.3.6 Copying a Batch Group

The Copy Batch group option allows you to copy a Batch group that you want to clone or create instances in the system from the Define Batch Page.

To copy a Batch Group, perform the following steps:

1. In the **Scheduler Services (Define Batch)** Page, click **Copy** corresponding to the Batch group that you want to copy.  
The Copy Batch group Page is displayed.
2. Specify the Batch group details as you want to clone and copy the existing batch group.  
For more information, see [Copy a Batch Group](#) section.
3. Click **Save**.  
The copied batch group is saved and displayed in the **Scheduler Services (Define Batch)** Page.

### 5.1.3.7 Deleting a Batch

The Delete Batch option allows you to delete a Batch that are no longer required in the system from the Define Batch Page.

Seeded batches cannot be deleted.

To delete a Batch, perform the following steps:

1. From the **Scheduler Services (Define Batch)** Page, click **Delete** corresponding to the Batch you want to delete.
2. Click **OK** to confirm deletion.

 **Note:**

If the batch has any active schedules all the associated schedules of the batch are also deleted, after confirmation.

### 5.1.3.8 Deleting a Batch Group

The Delete Batch group option allows you to delete a Batch group that are no longer required in the system from the Define Batch page.

Seeded batches cannot be deleted.

To delete a Batch Group, perform the following steps:

1. From the **Scheduler Services (Define Batch)** Page, click **Delete** corresponding to the Batch group you want to delete.
2. Click **OK** to confirm deletion.

 **Note:**

If the batch group has any active schedules all the associated schedules of the batch are also deleted, after confirmation.

## 5.1.4 Define Tasks

The Define Tasks Page provides the list of tasks associated with a specific Batch Definition. You can create new tasks, and edit or delete existing tasks .



To access the **Define Task** page, from the left Navigation pane in the Service console,

1. From the left menu, click **Operations and Processes**.
2. Select **Define Task**, to view the page.
3. Select Batch/Batch Group from the drop-down list and select the particular batch/batch group.

The list of tasks associated with the specific batch/batch group is displayed. You can view the following details related to each task.

- Task ID
- Name
- Parent Task
- Component
- Created Date
- Last Modified

To search for a specific task, enter the keywords in the **Search** Field and click **Search**. You can search based on the Task Name, code and description. You can also sort the Task list based on Name Precedence, Component, Created Date and Last Modified Date.

You can perform the following operations to manage a Task, from the **Scheduler Service Summary (Define Task)** page.

- [Add a task](#)
- [Modify a task](#)
- [Define a task precedence](#)
- [Delete a task](#)

### 5.1.4.1 Adding a Task

Adding a new task option allows you to add new tasks to a selected Batch Definition.

To add new task, perform the following steps:

1. In the **Scheduler Service (Define Task)** select the Batch for which you want to add new task from the drop-down list.
2. Click **Actions** in page and click **Add**.  
Add Task page is displayed.
3. Enter the details in the Add Task page:
  - **Task Code** - Enter a Unique Alphanumeric Code for the new Task. The Code always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore ( \_ )**.
  - **Task Name** - Enter a unique name for the new batch. The task name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore ( \_ )**.
  - **Task Description** - The description/details for the batch.

The description should start with alphabet and should not be more than 250 characters. Words like Select From or Delete From should not be entered in the Description.

- **Task Type** - Select the task type from the drop-down list.
  - **Batch Service URL** - Select the **Batch Service URL** from the drop-down list. You can also enter the **Task Service URL** and associated URL is displayed in the **Service URL**. You can also provide the partial URL here and the complete URL in the Task Service URL.
  - **Task Service URL** - Enter task service URL if it is different from Batch Service URL.
4. From the Task Parameters Pane, by default, all Batch Level Parameters are added and enabled as task parameters.
    - a. Enter the Parameter name in the **Param Name** field.
    - b. Enter the Parameter value in the **Param Value** field.You can delete a parameter by clicking corresponding to the parameter.
  5. Click **Save**.

### 5.1.4.2 Modifying a Task

Modifying Task option allows you to modify the details of existing tasks of a Batch Definition such as Task Description, Task Type, Batch Service URL and Task Service URL.

You can also add a new task parameter and enable or disable already existing task parameters.

To modify a Task, perform the following steps:

1. From the **Define Task** Page, select the Batch to modify the task details, from the drop-down list.
2. Click **Edit** corresponding to the Task to be modified.  
The **Edit Task** Page is displayed.
3. Modify the required Task Details.  
For more information, see [Add a task](#) Section.
4. Click **Save**.

### 5.1.4.3 Define Task Precedence

Task Precedence indicates the execution-flow of a Batch. Task Precedence Value helps to determine the order in which the specific Tasks of a Batch are executed.

For example, consider a Batch consisting of four tasks. The first three tasks does not have a precedence defined and hence will be executed simultaneously, during the Batch Execution. However, Task 4 has a precedence value as Task 1 which indicates that, Task 4 is executed only after Task 1 has been successfully executed.

You can set Task precedence between Tasks or define to run a Task after a set of other tasks. However, multiple tasks can be executed simultaneously, and cyclical execution of tasks is not permitted. If the precedence for a Task is not set, the Task is executed immediately on Batch Execution.

To define the task precedence in the Define Task Page, perform the following steps:

1. Click **Add or Remove Precedence** corresponding to the task for which you want to add precedence task.  
The Task Precedence Mapping Window is displayed.

 **Note:**

The **Task Precedence** option is disabled if a batch has only one task associated.

- a. Select the batch that you want to execute before the current task, from the Available Tasks pane and click **Play**.
  - b. To select all the listed batches, click **Move** (Forward arrow).
  - c. To remove a batch, select the task from the Selected Tasks Pane and click **Remove** (Backward arrow).
  - d. To remove all the selected batches, click **Remove All** (double backward arrow).
2. Click **Save** to update Task Precedence in the batches.
  3. Click **Preview** to view the Precedence information.

#### 5.1.4.4 Deleting a Task

You can remove a task from a Batch Definition which are no longer required in the system by deleting it from the Define Task page.

To delete a Task, perform the following steps:

1. From the Define Task Page, select the Batch from the drop-down list.
2. Click **Delete** corresponding to the Task you want to delete.
3. Click **OK** in the confirmation dialog to confirm deletion.

#### 5.1.5 Schedule Batch

The Schedule Batch Page facilitates you to run, schedule, re-start, and re-run the batches in the Scheduler Service. After you upload the data in the required format into the Object Storage, you must load the data into the system using the Scheduler Service. You can schedule them to run in a required pattern and view the Run Time Status of the scheduled services using the Monitor Batch Feature.

To access the **Schedule Batch** page, from the left Navigation pane in the Service console,

1. From the left menu, click **Operations and Processes**.
2. Select **Schedule Batch**, to view the page.
3. Select Batch/Batch Group from the drop-down list and select the particular batch/batch group.  
The list of tasks associated with the specific batch/batch group is displayed. You can view the following details related to each task.

You can perform the following operation for the batch:

- [Execute a Batch](#)

- [Schedule a Batch - Daily, Weekly, Monthly, and Using Cron expression.](#)
- [Re-start a Batch](#)
- [Re-run a Batch](#)
- [Edit Dynamic Parameters](#)
- [Task Definition of a Batch](#)

### 5.1.5.1 Task Definitions of a Batch

You can modify the Task Definition state in the Batch Execution Page to exclude or hold the defined task in a Batch from execution. The excluded tasks are therefore assumed to have completed execution and get excluded during the Batch Run.

While executing or scheduling a Batch from the Schedule Batch Page, you can:

- Exclude a task or include the excluded task.
- Hold a task or release the held task.

### 5.1.5.2 Execute a Batch and Batch Group

The Execute Batch option allows you to run a batch instantaneously.

To execute a Batch/Batch Group, perform the following steps:

1. In the **Schedule Batch** page, select Batch or Bath Group to execute, from the drop-down list.
2. Select the Batch /Batch Group Name from the drop-down list. For example, AMLDataLoad.
3. Click **Execute**.

The **Execution Schedule** Page is displayed.

4. Click **Exclude Tasks**, to add/remove tasks from the execution list..
5. Click **Hold Tasks**, to pause/release tasks during execution..
6. Click **Edit Dynamic Parameters**, to modify the dynamic parameters..
7. Click **Execute**.

The Batch is executed, and the associated unique execution ID is displayed.

8. Schedule a Batch/Batch Group.

You can schedule a Batch/Batch Group to run just for [Daily](#), [Weekly](#), and [Monthly](#). for scheduling the batches. You can also have a user defined schedule to schedule and run a batch, [Using Cron expression](#).

### 5.1.5.3 Schedule Once

To schedule a Batch /Batch Group to run once, perform the following steps:

1. Click **Schedule Batch** from the Header panel.  
The Schedule Batch Page is displayed.
2. In the **Schedule Batch** Page, click **Schedule Once**.
3. Select **Batch or Bath Group** to execute, from the drop-down list.

4. Select the **Batch or Batch Group** Name you want to schedule for once from the drop-down list.
5. Enter a **Schedule Name**.
6. Select the **Start Date** on which you want to run the Batch.
7. Click **Run Time** and select the time at which you want to run the Batch.
8. Click **Schedule**.

#### 5.1.5.4 Daily Batch Scheduling

To schedule a Batch to run daily, perform the following steps:

1. Click **Schedule Batch** from the Header panel. The Schedule Batch Page is displayed.
2. In the Schedule Batch Page, click **Daily**.
3. Select the **Batch /Batch Group Name**.
4. Select the **Batch or Batch Name** you want to schedule daily from the drop-down list.
5. Enter a **Schedule Name**.
6. Select the **Start Date** from which you want to run the Batch.
7. Select the **End Date** till which you want to run the Batch.
8. Select the **Time** at which you want to run the Batch daily.
9. Click **Schedule**.

#### 5.1.5.5 Weekly Batch Scheduling

To schedule a Batch to run weekly, perform the following steps:

1. Click **Schedule Batch** from the Header panel.  
The Schedule Batch Page is displayed.
2. In the Schedule Batch Page, click **Weekly**.
3. Select the Batch /Batch Group Name.
4. Select the **Batch or Batch Name** you want to schedule daily from the drop-down menu.
5. Enter a **Schedule Name**.
6. Select the **Start Date** from which you want to run the Batch.
7. Select the **End Date** till which you want to run the Batch.
8. Select the **Time** at which you want to run the Batch every week.
9. Select the days on a week you want to run the Batch from the **Select Days of the Week** multi-select drop down menu.
10. Click **Schedule**.

#### 5.1.5.6 Monthly Batch Scheduling

To schedule a Batch to run weekly, perform the following steps:

1. In the **Schedule Batch** Page, click **Monthly**.
2. Select the **Batch /Batch Group Name**.

3. Select the **Batch or Batch Name** you want to schedule daily from the drop-down list.
4. Enter a **Schedule Name**.
5. Select the **Start Date** from which you want to run the Batch.
6. Select the **End Date** till which you want to run the Batch.
7. Select the **Time** at which you want to run the Batch every Month.
8. Select the months in a year you want to run the Batch from the **Select Months of the Year** multi-select drop-down list.
9. Select the day of the month that you want to run the Batch from the Select Day of the Month drop down menu.
10. Click **Schedule**.

### 5.1.5.7 Schedule Cron Expression

To run a Batch in a user-defined schedule, you can have custom schedule with the help of Cron Expression.

A Cron Expression is a string comprised of six or seven fields separated by white space. Fields can contain any of the allowed values, along with various combinations of the allowed special characters for that field. For more information, click the icon next to the Cron Expression field.

To schedule a Batch based on Cron Expression, perform the following steps:

1. In the Schedule Batch Page, click **Cron Expression**.
2. Select the **Batch /Batch Group**.
3. Select the Batch or Batch Group Name you want to schedule from the Select drop down menu.
4. Enter a **Schedule Name**.
5. Enter the **Cron Expression** for your schedule.

For more information about the Cron Expression, click Information icon next to the Cron Expression field.

6. Click **Schedule**.

### 5.1.5.8 Re-start a Batch

You can re-start a Batch which has not been executed successfully or which has been explicitly interrupted, or cancelled, or put on hold during the execution process.

By re-starting a Batch, you can continue Batch execution directly from the point of interruption or failure and complete executing the remaining tasks.

To re-start a batch, perform the following steps:

1. Click **Schedule Batch** from the Header panel.  
The Schedule Page is displayed.
2. From the **Schedule** Page, select Re-start tab.
3. Select **Batch /Batch Group**.

4. Select the **Batch or Batch Name** you want to schedule daily from the drop-down list.
5. Select the **Batch Run ID**.
6. Click **Re-start**.

### 5.1.5.9 Re-run a Batch

You can re-run a Batch which has previously been executed. Re-run Batch facilitates you to run the Batch irrespective of the previous execution state.

A new Batch Run ID is generated during the Re-run process and the Batch is executed as similar to the new Batch Run.

To re-run a batch, perform the following steps:

1. Click **Schedule Batch** from the Header panel.  
The **Schedule Batch** Page is displayed.
2. In the **Schedule Batch** Page, select **Re-run** tab.
3. Select **Batch /Batch Group**.
4. Select the **Batch or Batch group Name** you want to re-run from the Select Name drop down menu.
5. Select the **Batch Run ID**.
6. Click **Re-run**.

### 5.1.5.10 Edit Dynamic Parameters

Dynamic Parameters facilitate you to modify the dynamic parameters for the batch.

You can change the Param Value from the Edit Dynamic Params Page and save the changes to the Batch. The Edit Dynamic Parameters option is available in all the tab in the Schedule Batch Page.

To edit the dynamic parameters for a batch, perform the following steps:

1. In the **Schedule Batch Page**, click **Edit Dynamic Parameters**.  
The **Edit Dynamic Params** Page is displayed.
2. In the **Edit Dynamic Params** Page, modify the values as required.
3. Click **Save**. The modified parameters are applied to the Batch.

## 5.1.6 Monitor Batch

The Monitor Batch enables you to view the status of executed Batch along with the tasks details. You can track the issues if any, on regular intervals and ensure smoother Batch Execution. A visual representation as well as tabular view of the status of each Tasks in the Batch is available.

To monitor a batch, perform the following steps:

1. Click **Monitor Batch** from the Header panel.  
The **Monitor Batch Page** is displayed.
2. Select the **Batch/Batch Group** from the drop-down list and then select the **Batch Run ID**.

3. Click **Start Monitor**.

The results are displayed in **Visualization** and **List View** tabs. Details of these tabs are as follows:

The **Visualization** tab displays the details in the form of a chart represented with the following details:

- **Batch Status:** Displays the batch status, the different batch status are NOT-STARTED, ON-GOING, SUCCESSFUL, FAILED, INTERRUPTED, EXCLUDED, HELD, and UNDEFINED.
- **Batch Start Time:** Displays the Batch Start Time details.
- **Batch End Time:** Displays the Batch End Time details.
- **Task Details:** Mouse-over the task to display its status and details.

The **List View** tab displays the details in a tabular form with the following details:

- **Batch Status:** Displays the batch status, the different Batch Status are NOT-STARTED, ON-GOING, SUCCESSFUL, FAILED, INTERRUPTED, EXCLUDED, HELD, and UNDEFINED.
- **Batch Start Time:** Displays the Batch Start Time details.
- **Batch End Time:** Displays the Batch End Time details.
- **Task Details:** Mouse-over the task to display its status and details.
- **More Information:** The message returned by the Rest Service.

Select **Stop Monitor**, to stop monitoring. You can also specify the Start and Stop Monitor options along with refresh interval in the Refresh every second and minute fields.

You can also setup auto refresh to automatically update the status based on the set **Refresh Interval** and **Duration**. At any point, click **Stop Monitor** to stop the auto refresh.

- By default, the refresh interval is set to **5 seconds** and duration is set to **5 minutes**.
  - The refresh interval ranges between 5 to 60 seconds.
  - The duration ranges between 5 to 180 seconds.
4. To restart the Batch /Batch Group, select **Restart**.
  5. To rerun the Batch/Batch Group, select **Rerun**.
  6. To interrupt the Batch /Batch Group, select **Stop**.
  7. In the Log Viewer pop-up the log information is displayed. You can click the **Download** icon to download the log or click the **Close** icon to close the log information.

## 5.1.7 Scheduler Service Dashboard

You can view and monitor the complete status of the Executed Runs, Successful Runs, Failed Runs, Ongoing Runs, Interrupted Runs, and the Upcoming Runs, from the Scheduler Service Dashboard.

To access the **Scheduler Service Dashboard** page, from the left Navigation pane in the Service console, click **Operations and Processes > Scheduler > Dashboard**.



The Scheduler Service Dashboard with the following details is displayed.

- The Executed Runs, Successful Runs, Failed Runs, Ongoing Runs, Interrupted Runs, and Upcoming Runs tabs. You can click the tabs to view the details of the Batches based on their status. For example, click **Ongoing Runs** to view the details of the batches that are currently running.
- The Batches that were executed within the last 7 or 30 days contain details such as Batch Name, Batch Run ID, and Run Time. Click 30 days to view the batches that were executed within the last 30 days. You can click the icon corresponding to a Batch to monitor it.
- The Batch Execution Summary Pane displays the count of total batches executed that were executed within the last 7 days, 30 days, and 120 days. You can also view the separate count of successful batches, failed batches, interrupted batches, on-going batches, and the batches which are yet to start, by hovering your mouse the batches.

## 5.2 Object Migration

Object Migration is the process of define, export and import objects across environments (prod and non-prod)/instances. This feature also facilitates to migrate within the same setup or different setups.

Objects refer to the various metadata definitions defined for various domains. You may want to migrate objects for several reasons such as manage global deployments on multiple environments or to create multiple environments so that you can separate the development, testing, and production processes.

For example, you can use the object migration feature to define PMF process object such as balance computation on your testing environment. After successful testing, you can use this feature to export the object to production/non-production environment.

You can migrate the following object types:

- **Schedule** - Schedule provides the instruction to schedule the execution of defined processes. When a schedule is migrated, the associated batch is also migrated.
- **Batch** - Batch is a group of jobs that are scheduled to automatically execute at a preset interval of time, without any user's intervention. When a batch is migrated, the batch and the associated pipeline information are also migrated.
- **Batch\_Group** - A set of individual batches are consolidated to form a single Batch\_Group. When we migrate a Batch\_Group all the batches, tasks and pipeline information associated with that Batch\_Group are also migrated.
- **Pipeline** - A pipeline is an embedded data processing engine that runs inside the application to filter, transform, and migrate data on-the-fly. Pipelines are a set of data processing elements called widgets connected in series, where the output of one widget is the input to the next element.
- **Threshold** - The threshold limit associated with set variables values for scenarios in FCCM Cloud Service. These threshold values are set when scenarios are created or installed and can be changed, if required.
- **Job** - Jobs provide set of instructions to execute Workflow Pipelines, based on the set threshold values.
- **Roles** - Roles are used to map functions to a defined set of groups to ensure user access system security.

- **Groups** - Groups are used to map Roles. Specific User Groups can perform only set of functions associated with that group.
- **CM\_ADMIN** - The CM\_ADMIN object type refers to all the case management related admin screens. Under this object type, you can export case management related admin metadata and settings for Business Domain, Case Actions/Statuses, Case Priority, Case Rules, Case System Parameters, Case Types, Jurisdictions and Security Mapping.

## 5.2.1 Migration Object Types

You can create object export and import definitions for the following object types using Object Export/Import feature.

The Migration object types are categorized as follows:

### Asset Liability Management

- Standardized\_IRRBB\_Shock
- Static\_Deterministic\_Process
- Time Bucket

### Business Assumptions

- Behaviour\_Pattern\_Rule
- Discount\_Methods
- Forecast\_Rates
- Prepayment Model
- Prepayment\_Rule
- Transferring\_Price\_Rules

### Cash Flow Edits

- Cash\_Flow\_Edits\_Rules
- Cash\_Flow\_Edits

### Cash Flow Engine

- Cashflow\_Process

### Common objects

- Batch
- Batch\_Group
- Currency
- Datamodel\_Extension\_Dimension
- Data\_File\_Specification
- Dimensions

 **Note:**

Dimension definitions should be migrated before migrating the dependent object definitions. The source and the target dimension of the dependent objects should be the same.

- Expressions
- Filters
- Folder
- Hierarchy

 **Note:**

Dimension definitions should be migrated before migrating the Hierarchy associated with it. The Dimension should be the same in both source and target environments.

- Holiday\_Calendar
- Job
- Pipeline
- Schedule
- Slowly Changing Dimensions

**Funds Transfer Pricing**

- Add-on Rate Rule
- Alternate\_Rate\_Output\_Mapping
- Replicating Portfolio
- Standard\_Process

**Identity Management**

- **Groups** - For more information, refer to [Groups Summary in Admin Console](#).
- **Roles** - For more information, refer to [Roles Summary in Admin Console](#)

**Patterns**

- Behaviour Pattern
- Payment Pattern
- Reprice Pattern

**Profitability Management**

- Allocation Model
- Lookup Table
- Allocation Specification
- Static\_Table

### Rate Management

- Interest\_Rates
- Economic\_Indicator
- Volatility\_Surface

## 5.2.2 Accessing Object Export and Object Import Features

Using the Object Export and Import features, you can create export and import object definitions.

To access the Object Export and Import feature, from the left Navigation pane in the PBSM console, click **Operations and Processes > Object Administration**

- To access Object Export feature, click **Export Object**.
- To access Object Import feature, click **Import Object**.

## 5.2.3 Object Export Definitions

Object Export Definition is a collection of objects that can be exported across environments.

You can view the list of object export definitions that are already created in the **Object Export Summary**. You can also view the following details about each object definition.

- **Name** - The unique name assigned to the collection when the export definition was created.
- **Object Migration Status** - The export status of a specific object definition.
  - **Success** - Indicates that the export is completed successfully.
  - **Failed** - Indicates that the export was not successful. You can reintiate the migration of the specific object definition.
  - **Saved** - Indicates that the object definition is created successfully and is yet to be exported.
  - **In Progress** - Indicates that the export is in progress. Once the export is complete, the status will change to Success/Failed.
- **Last Modified By** - The ID of the Last Modified by user who has modified the definition.  
On mouseover, the Last modified time and date are displayed.

To filter the list and view specific object definition, use one of the following search options.

- To search for a specific export object definition, type the first few letters of the export definition that you want to search in the Search box and click **Search**. The search results display the names that consist of your search string in the list of available definitions.
- Enter the number of records to be viewed in a single page, in the **Records** box, at the bottom of the page. You can increase or decrease the number of entries that are displayed using the up and down arrows.
- You can navigate between pages in the **View** bar, use the navigation buttons present at the bottom of the page.

### 5.2.3.1 Creating Export Definitions

You can create export Meta data objects using the System Configuration tab in Admin Console.

For more information about the supported object types, refer to [#unique\\_575](#). Refer to the following steps, to create a migration export object.

1. Click **Add** in the **Object Export Summary** Page to view the **Migration Definition** page.
2. Enter the following details, in the **Migration Definition** page.
  - **Migration Name:** Enter the code of the export of objects to be migrated definition. This is a unique identifier.
  - **File Name:** The system auto-creates the file name of the objects that can be used to export the definition in the following format:
    - **For Business Objects:** Migration Name\_BO\_Time Stamp (MMDDYYYY HHMMSS)
    - **For Identity Objects:** Migration Name\_IDM\_Time Stamp (MMDDYYYY HHMMYY)
3. Click **Apply** to save the details and view the **Object Selection** Page.
4. Click **Add** to include Migration objects to the definition.
5. select the required **Object Type** from the Object Types drop-down list.
6. Select the objects to be added to the Migrate Definition and click **Save**, to create a new migration object.

A confirmation message is displayed, when the definition is saved successfully. The new migration definition is listed in the Object Export Summary Page and the status is set to **Saved**.

You can also click **Export**, to export the object.

### 5.2.3.2 Editing Export Object Definitions

You can edit the Export object definitions that are not exported and their status is **Saved** or **Failed**.

If the definitions is already exported and the status is set to **Success**, you cannot edit that definition.

To edit an Export object definition, follow these steps.

1. In the Object Export Summary Page, highlight the definition and click **Menu**, and select **Edit**.  
The **Object Selection** page is displayed.
2. Modify the following details, if required, and click **Save** to changes.
  - Select the required **Object Type** from the Object Types drop-down list.
  - Select the objects to be added to/deleted from the definition.
3. After adding/deleting all the required objects, click **Save**.

The export definition is saved successfully and a confirmation message is displayed. The new definition is listed in the Object Export Summary Page and the status is set to **Saved**.

4. If you want to Save and Export the Definition, click **Export**.

### 5.2.3.3 Exporting Object Definition

After creating the object definitions, you can export them for migrating between environments, using Object Migration (Export) feature.

You can export object definitions in **Saved** or **Failed** state from the object Summary page. Refer to the following steps, to export definitions.

1. In the Object Summary Page, highlight the migration definition and click **Menu**.
2. Select **Export** from the menu.

After you export, the following Export status types are displayed:

- **Success** - Indicates that the definition is exported successfully.
- **Failed** - Indicates that the definition was not exported. Right-click and select **Export**, to reinitiate the export process.
- **In Progress** - Indicates that the export is in progress. Once the export is completed, the status will change to Success/Failed.

### 5.2.3.4 Viewing Export Object Details

Using the **View** option, you can view the list of objects and the dependancies added to an Object definition. You can also view the object details.

1. Highlight the Export definition and click **Menu**.
2. Select **View**. The object types, list of objects and the dependent objects added to the export definition are listed in the left pane.
3. Double-click an object to view the object attribute details.

### 5.2.3.5 View Object Definition Export Log Details

View log facilitates you to view the export log information of the object definition with the migration status.



#### Note:

The View Log page for an object definition with status **Saved** will be empty.

To view the log details of object with migration status **Success** or **Failed**, follow these steps.

1. In the Object Export Summary page, mouseover the object definition and click **Menu**.
2. Select **View Log** from the drop-down menu, to access the **View Log** page.

The migration status of the objects with following details is displayed.

- **Object Migration ID** - The migration ID associated with the definition.
  - **Object Type** - The object type of the definition.
  - **Object Code** - The object code associated with the definition.
  - **Creation Date** - The date of creation of the definition.
  - **Created By** - The User Id of the User who created the definition.
  - **Status** - The migration status of the definition.
    - **Success** - Indicates that the export migration was completed successfully.
    - **Failed** - Indicates that the export migration did not complete.
3. Click **OK** to close the page, after viewing the log details.

### 5.2.3.6 Downloading Dump File

You can download the export dump file for exported definitions to a local directory, using Download Dump file option.

The downloaded export dump file can be used to upload objects to a different environment.



#### Note:

This option is enabled, only if the definition is exported successfully and the **Migration Status** is set to **Success**.

To download a export dump file, refer to the following procedure.

1. Mouseover a migrated object and select **Menu**.
2. Select **Download Dump File** from the drop-down menu, to download the associated dump file and store it to the local directory.

### 5.2.3.7 Deleting Export Object Definition

You can delete only definitions that are set to **Saved** or **Failed** status.

To delete a export object definition, follow these steps.

1. In the Object Export Summary page, mouseover the definition to be deleted and click **Delete**.
2. Click **Yes** to confirm and proceed with the deletion.

## 5.2.4 Object Import Definitions

Object import definitions a collection of objects that can be imported across environments. .

You can view the list of object import definitions that are already created in the **Object Import Summary**. You can also view the following details about each object definition.

- **Name** - The unique name assigned to the collection when the import definition was created.
- **Object Migration Status** - The import status of a specific object definition.

- **Success** - Indicates that the import is completed successfully.
- **Failed** - Indicates that the import was not successful. You can reinitiate the migration of the specific object definition.
- **Saved** - Indicates that the object definition is created successfully and is yet to be imported.
- **In Progress** - Indicates that the import is in progress. Once the import is complete, the status will change to Success/Failed.
- **Last Modified By** - The ID of the Last Modified by user who has modified the definition.  
On mouseover, the Last modified time and date are displayed.

To filter the list and view specific object definition, use one of the following search options.

- To search for a specific import object definition, type the first few letters of the import definition that you want to search in the Search box and click **Search**. The search results display the names that consist of your search string in the list of available definitions.
- Enter the number of records to be viewed in a single page, in the **Records** box, at the bottom of the page. You can increase or decrease the number of entries that are displayed using the up and down arrows.
- You can navigate between pages in the **View** bar, use the navigation buttons present at the bottom of the page.

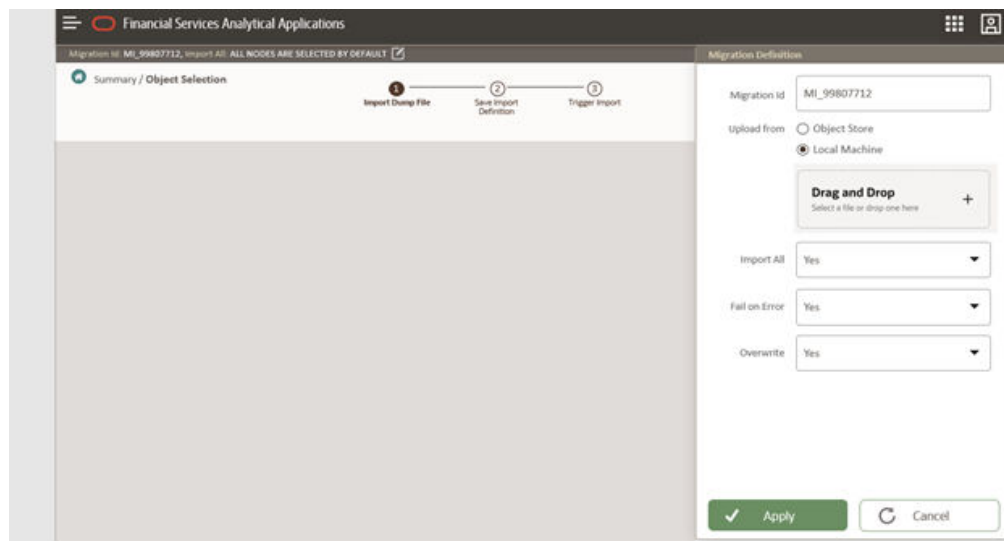
### 5.2.4.1 Creating Object Import Definitions

You can create Import definitions and add Import objects using the Object Migration (Import) feature.

1. Click **Add** in the **Object Import Summary** Page to view the **Migration Definition** page.
2. Enter the following details, in the **Migration Definition** page.
  - **ID** - The unique name for the new import object definition.  
The migration ID should not contain any space and exceed 30 characters. Underscore ( \_ ) and hyphen ( - ) are allowed.
  - **Dump File** - Select the .DMP file to be uploaded for creating the Import definition.



Figure 5-1 Importing Dump File



You can select the dump file using one of the following options:

- Select the option **Object Store**, to select the dump file (.DMP file) from the list of dump files available in the same environment.
- Select the option **Local Machine** and click **Drag and Drop**, to add a .DMP file, from the local directory. You can only add dump file that are downloaded using Download Dump file option.

#### Note:

- Uploading a dmp file either created or edited locally will generate an error.
  - You can rename the .DMP file, if required. Ensure to follow the naming convention. For more information, refer to [File Naming Conventions for Migrate Objects](#).
- **Import All** - Select an option to import the objects that are associated with the selected object type. You can edit this option if required, in the **Object Selection** page.
    - **Yes** - Imports all the objects that are included in the dump file.
    - **No** - Imports only those objects that you can select in the **Object Selection** page.
  - **Fail on Error** - Select an option to proceed with the definition creation in case of an error. You can edit this option if required, in the **Object Selection** page.
    - **Yes** - Stops the creation process, if error is generated.
    - **No** - Creates the import definition even when error is generated. The object with the error is not included in the object creation.

- **Overwrite** - Select an option to overwrite the existing definition. You can edit this option if required, in the **Object Selection** page.
  - **Yes** - Replaces the existing Import definition.
  - **No** - Creates a new Import definition.
- 3. Click **Apply** to save the details.

The Import definition is created and **Object Selection** Page is displayed. You can add objects to this import definition.
- 4. Click **Add** to include objects to the definition.
- 5. Select the required **Object Type** from the Object Types drop-down list.

Objects that are defined in the environment with respect to the selected object type are listed. For example, if Schedule is selected as the Object Type, all the Objects defined with respect to Schedule, in the environment are only listed.

You can also enter the first few letters of the object name in the Search Field, to narrow down the search.
- 6. Click the check box adjacent to each object, to include the objects associated with a specific object type, to the import definition.
- 7. Repeat steps 4, 5 and 6, to include objects associated with various object types.
- 8. After adding all the required objects, click **Save**.

The import definition is saved successfully and a confirmation message is displayed. The new definition is listed in the Object Import Summary Page and the status is set to **Saved**.
- 9. If you want to Save and Export the Definition, click **Import**.

## 5.2.4.2 Editing Import Definitions

You can edit the import definitions that are not imported and their status is **Saved** or **Failed**.

If the definitions is already imported and the status is set to **Success**, you cannot edit that definition.

To edit an import definition, follow these steps.

1. In the Object Import Summary Page, highlight the definition and click **Menu**, and select **Edit**.

The **Object Selection** page is displayed.
2. Edit the following details, if required, and click **Save** to changes.
  - Select the required **Object Type** from the Object Types drop-down list.
  - Select the objects to be added to/deleted from the definition.
3. After adding/deleting all the required objects, click **Save**.

The import definition is saved successfully and a confirmation message is displayed. The new definition is listed in the Object Import Summary Page and the status is set to **Saved**.
4. Click **Save** to update the changes.
5. If you want to Save and import the Definition, click **Import**.

### 5.2.4.3 Importing Object Definitions

After creating the object definitions, you can export them for migrating between environments, using Object Migration (Import) feature.

You can import object definitions in **Edited** state from the object Summary page. Refer to the following steps to import Object definitions.

1. In the Object Summary Page, mouseover the definition and click **Menu**.
2. Select **Import** from the drop-down menu.

After you import, the following Import status types are displayed:

- **Success** - Indicates that the definition is imported successfully.
- **Failed** - Indicates that the definition was not imported. Right-click and select **Import**, to reinitiate the import process.
- **In Progress** - Indicates that the import is in progress. Once the import is completed, the status will change to Success/Failed.

In case the migration fails, refer to [Troubleshooting Object Migration](#).

### 5.2.4.4 Viewing Import Object Details

Using the **View** option, you can view the list of objects and the dependancies added to an Object definition. You can also view the object details.

1. Mouseover the migration definition and click **Menu**.
2. Select **View**. The object types, list of objects and the dependent objects added to the export definition are listed in the left pane.
3. Double-click an object to view the object attribute details.

### 5.2.4.5 Viewing Object Import Log Details

View log facilitates you to view the log information of the object definition with the migration status.

**Note:**

The View Log page for a definition with migration status **Saved** will be empty.

To view the log details of definition with migration status **Success** or **Failed**, follow these steps.

1. In the Object Import Summary window, mouseover the migration definition and click **Menu**.
2. Select **View Log** from the drop-down menu, to access the **View Log** page.

The migration status with following details is displayed.

- **Object Migration ID** - The migration ID associated with the import object.
- **Object Type** - The object type of the import object.

- **Object Code** - The object code associated with the import object.
  - **Creation Date** - The date of creation of the import object.
  - **Created By** - The User Id of the User who created the import object.
  - **Status** - The import status of the specific object.
    - **Success** - Indicates that the specific object was imported successfully.
    - **Failed** - Indicates that the specific object was not imported.
3. Click **OK** to close the page, after viewing the log details.

### 5.2.4.6 Deleting Import Definition

You can delete only definitions that are set to **Saved** or **Failed** status.

To delete an import definition, follow these steps.

1. In the Object Import Summary page, mouseover the definition to be deleted and click **Delete** .
2. Click **Yes** to confirm and proceed with the deletion.

# 6

## Technical Documents

This chapter covers the following topics:

1. **Download Specifications:** A download specification provides an efficient way to manage the sourcing of data into the staging area. This is done by mapping the staging model at a column level to use cases.
2. **Reference Guide:** The Reference Guide emphasizes business analysis and provides definitions, analytical concepts, processes, and calculations used in the Oracle Financial Services Cash Flow Engine (CFE). The information provided includes data requirements, payment and repricing event logic, calculation formulas, and various methodologies used to produce cash flows.
3. **Data Dictionary Guide:** This guide contains detailed information necessary for correct data population, including field definitions, and recommended default values for the cash flow processing fields. For more information, see This guide contains detailed information necessary for correct data population, including field definitions, and recommended default values for the cash flow processing fields.