Oracle Financial Services Data File Specification

User Guide

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Oracle Financial Services Data File Specification User Guide

Document Control

Version Number	Revision Date	Change Log
1.0	June 2022	Created and released the Oracle Financial Services Data File Specification User Guide.

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1 Get Help

Topics:

1.1 Get Help in the Applications

Use help icons to access help in the application.

Note that not all pages have help icons. You can also access the Oracle Help Center to find guides and videos.

1.1.1 Additional Resources

- Community: Use Oracle Cloud Customer Connect to get information from experts at Oracle, the partner community, and other users.
- Training: Take courses on Oracle Cloud from Oracle University.

1.2 Learn About Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program. Videos included in this guide are provided as a media alternative for text-based topics, and are also available in this guide.

1.3 Get Support

You can get support at My Oracle Support.

For accessible support, visit Oracle Accessibility Learning and Support.

1.4 Get Training

Increase your knowledge of Oracle Cloud by taking courses at Oracle University.

1.5 Join Our Community

Use Cloud Customer Connect to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, and watch events.

1.6 Share Your Feedback

We welcome your feedback about Oracle Applications user assistance. If you need clarification, find an error, or just want to tell us what you found helpful, we'd like to hear from you.

You can email your feedback to My Oracle Support.

Thanks for helping us improve our user assistance!

1.7 Before You Begin

See the following Documents:

- See What's New
- Getting started with Profitability and Balance Sheet Management Cloud Service

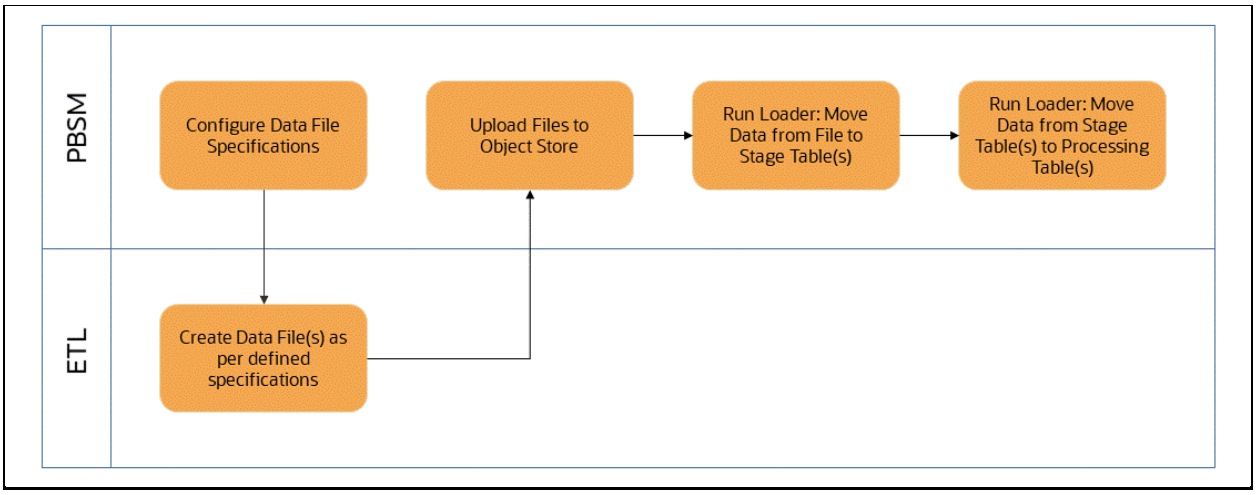
2 Loading External Data into PBSM Cloud Services

The PBSM (Profitability and Balance Sheet Management) 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 PBSM Cloud Services:

Figure 1: Loading External Data into PBSM Cloud Services



PBSM 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 PBSM 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.

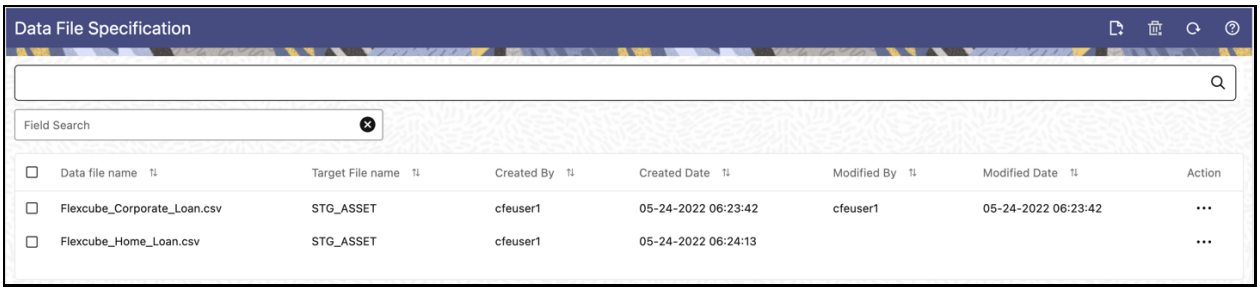
2.1 Data File Specification

PBSM Cloud Services support three formats of Data Files, namely 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: Data File Specification Summary Screen



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

2.1.1 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.

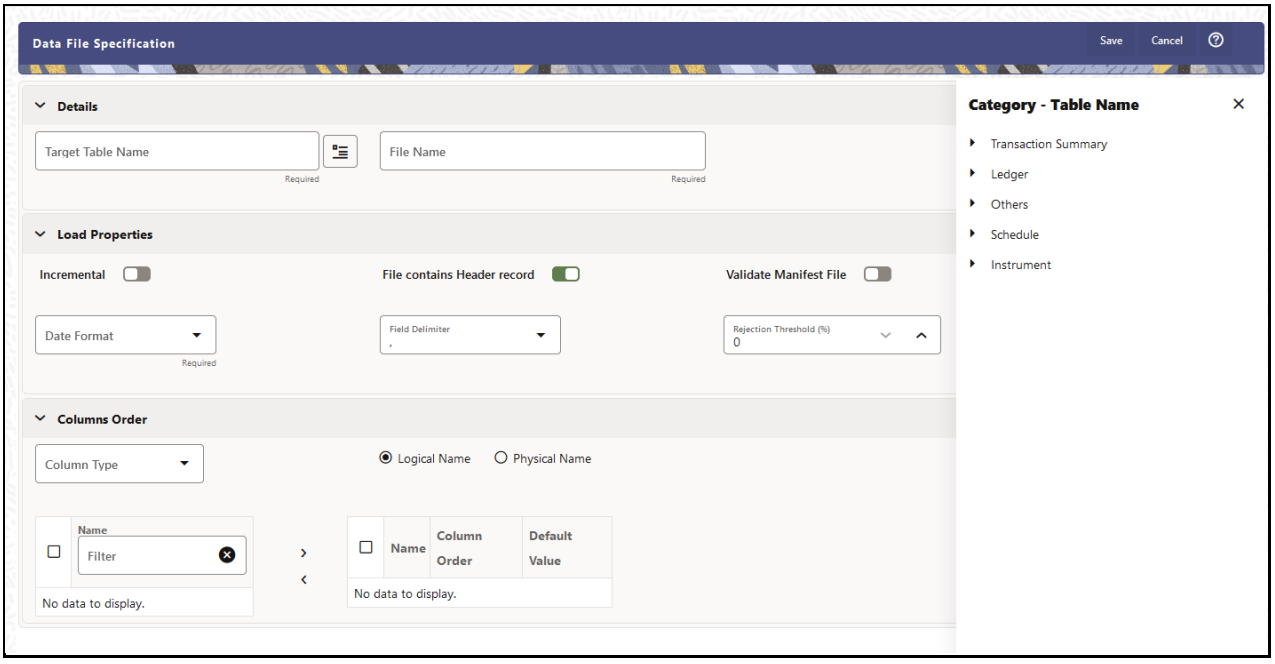
2.2 Creating a Data File Specification

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: 2879433.1.

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 3: 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
      - 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 PBSM 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 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 1: MANIFEST File Details

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

Property Name	Notes
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.
- **Dimension Columns**: If you select the Dimension Columns, all the Key Processing Dimensions for the selected Target Table are displayed in the drop-down list. This list displays the Placeholder Key Dimensions that are defined as part of the Data Model Extension Process. For more details, see the Data Model Extension User Guide. Select the applicable Dimension Columns and click the **Move** button to display them in the table on the right-hand side.
- **Other Columns**: If you select the Other Columns, all remaining columns (simple dimension, 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.

The Column Names in the table can be re-ordered by dragging and dropping. 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 Data File Upload and Download User Guide.

2.3 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"
- 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.

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 Doc ID: 2879433.1.

3 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.

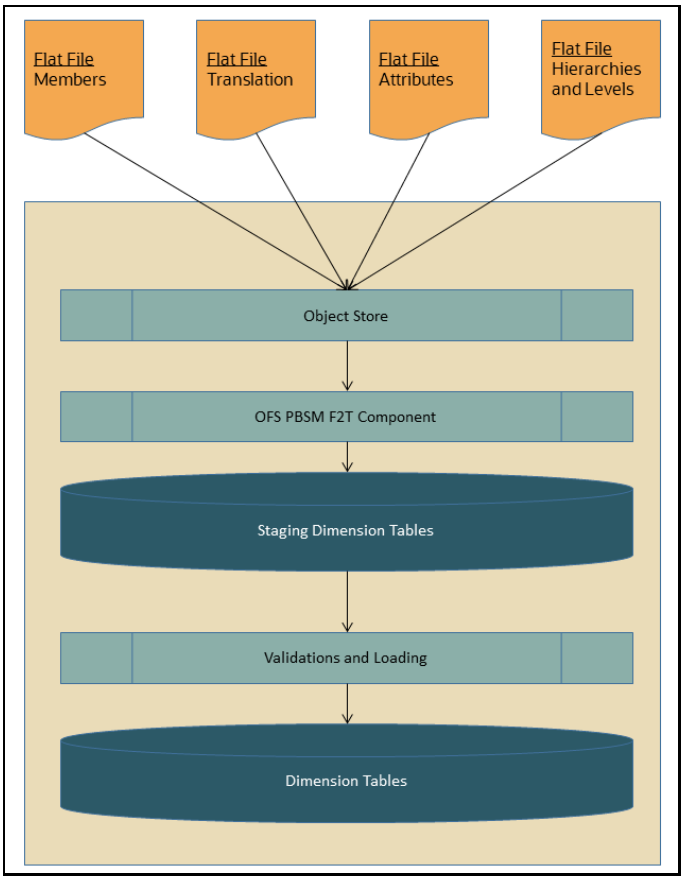
3.1 Dimension Data Loader

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 though 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 4: 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 PBSM Cloud Service framework.
- Create Hierarchies in PBSM Cloud Service.
- Load Hierarchical relationships between Members within the Hierarchies from the Staging area into PBSM Cloud Service.

The following are the features of Dimension Loader:

- Multiple Hierarchies can be loaded from Staging Tables.
- Validations of Members and Hierarchies are similar to that of being performed within the PBSM Screens.

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

3. Execute the Batch.

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

3.2 Instrument Data Loader

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

3.2.1 File to Stage

To load the Instrument Data to Staging Tables, perform the following steps:

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

Table 3: Instrument Data Loader – File to Stage Data

Task Code	Task Name	Component	Parameters
1 *	Stage Assets *	Stage Data Loader	Table Name: select the stage table name from the available list. File Name: select the Data File Specification name from the available list.

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

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

3.2.2 Stage to Processing

To load the Instrument Data from Staging Tables to Processing, perform the following steps:

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

Table 4: Intrument Data Loader – Stage to Processing Data

Task Code	Task Name	Component	Parameters
1 *	Proc Assets *	Instrument Data Loader	Stage Table: select the stage table name from the available list. Data File Specification: select the Data File Specification name from the available list.

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

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

3.3 Management Ledger Data Loader

After the Data Files are uploaded to the Object Store, 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.

3.3.1 File to Stage

To load the Management Ledger Data to Staging Tables, perform the following steps:

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

Table 5: Management Ledger Data Loader – File to Stage Data

Task Code	Task Name	Component	Parameters
1 *	Stage Management Ledger *	Stage Data Loader	Table Name: select the stage table name from the available list. File Name: select the Data File Specification name from the available list.

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

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

3.3.2 Stage to Processing

To load the Management Ledger Data from Staging Tables to Processing, perform the following steps:

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

Table 6: Management Ledger Data Loader – Stage to Processing Data

Task Code	Task Name	Component	Parameters
1 *	Proc Management Ledger *	Ledger Data Loader	Stage Table: select the stage table name from the available list. Data File Specification: select the Data File Specification name from the available list.

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

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

3.4 Transaction Summary Data Loader

After the Data Files are uploaded to the Object Store, 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.

3.4.1 File to Stage

To load the Transaction Summary Data to Staging Tables, perform the following steps:

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

Table 7: Transaction Summary Data Loader – File to Stage Data

Task Code	Task Name	Component	Parameters
1 *	Stage Asset Transaction Summary *	Stage Data Loader	Table Name: select the stage table name from the available list. File Name: select the Data File Specification name from the available list.

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

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

3.4.2 Stage to Processing

To load the Transaction Summary Data from Staging Tables to Processing, perform the following steps:

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

Table 8: Transaction Summary Data Loader – Stage to Processing Data

Task Code	Task Name	Component	Parameters
1 *	Proc Asset Transaction Summary *	Transaction Summary Loader	Stage Table: select the stage table name from the available list. Data File Specification: select the Data File Specification name from the available list.

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

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

4 Data File History

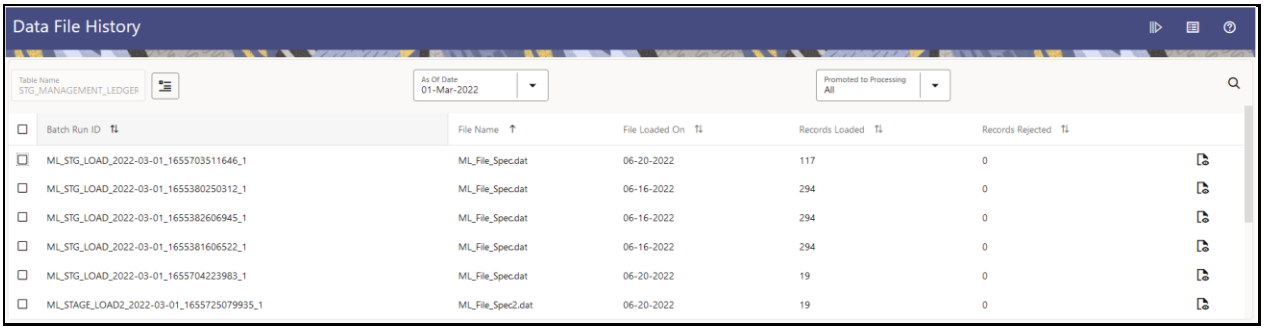
The Data File History Screen in the Profitability and Balance Sheet Management (PBSM) Cloud Service allows you to see the Data Files that are uploaded to the Staging Tables and their status. The Data File History UI allows you to do the following:

- 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 5: Data File History Summary Screen



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 6: File Details

- **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** icon is displayed. You can select the Delete Data icon to delete the File.
- **Help** (Button): Click the Help icon to view the Data File History help.

4.1.1 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 PBSM 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 of 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.

4.1.2 Reloading a Data File

For the detailed instructions on Reloading the Data File, see the Batch and Scheduler Services User Guide.

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

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