

# Oracle Financial Services Scheduler Services User Guide



Release 26B  
G56494-01  
May 2026



Copyright © 2022, 2026, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, MySQL, and NetSuite are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

# Contents

## 1 Scheduler Services

---

Accessing Scheduler Services	1
User Roles and Functions	1
Scheduler Service Dashboard	2
Define Batch	2
Creating a Batch/Batch Group	3
Editing a Batch/Batch Group	5
Copying a Batch/Batch Group	5
Deleting a Batch/Batch Group	6
Pinning/Unpinning a Batch/Batch Group	6
Define Tasks	6
Adding a Task	7
Modifying a Task	8
Define Task Precedence	9
Deleting a Task	9
Schedule Batch	9
Execute Batch/Batch Group	10
Adding Pre-Conditions For Batch Group Execution	10
Edit Dynamic Parameters	11
Scheduling and Automating Batch/Batch Group Execution	12
Re-run Batch/Batch Group	14
Re-start Batch/Batch Group	14
Monitor Batch/Batch Group	15
Scheduler Configuration	16
Batch to User Configuration	16
General Configuration	17
Schedule Rule	19

# 1

## Scheduler Services

Scheduler Services automates behind-the-scenes work that is necessary to sustain various enterprise applications and their operations. Using Scheduler Services, applications can control unattended background jobs program execution.

The Scheduler Services screen provides a one-click navigation for each of the operations, at the bottom of the screen, allowing you to move seamlessly between each operation.

### Scheduler Services Operations

- [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](#) - Schedule batch jobs, to automate tasks that are processed on a regular basis but do not need to occur during the day or require human intervention. Jobs that happen on a regular basis are incorporated into batch schedules. You can also edit pre-conditions for batch group execution and pause scheduled executions.
- [Monitor Batch](#) - Track and 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.

## Accessing Scheduler Services

Using the Scheduler Services, you can create and execute batches and schedules to run various tasks and also monitor them.

To access Scheduler Services:

- Log in to the Service Console and from the left navigation pane in the Service console, click **Operations and Processes > Scheduler**.

## User Roles and Functions

You require specific user roles and functions, to use Scheduler Services, and to create and manage batches and tasks.

**Table 1-1 User Role Codes and Function Codes**

Role Codes	Function Codes
BATCH_READ	BATCH_ADD
BATCH_WRITE	BATCH_DEL
BATCH_ADV	BATCH_MOD

**Table 1-1 (Cont.) User Role Codes and Function Codes**

Role Codes	Function Codes
BATCH_AUTH	BATCH_VIEW
BATCH_OPER	BATCH_SCH
BATCH_MAINT	BATCH_SUMM
	BATCH_AUTH
	BATCH_PURGE
	BATCH_MON
	BATCH_EXEC
	BATCH_COPY
	LOGVIEW

## Scheduler Service Dashboard

View the task executions based on the execution status in 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**.

You can access the following details related to batch/batch group execution from the Dashboard:

- The batches/batch groups are categorized based on their execution status - **Executed Runs, Successful Runs, Failed Runs, Ongoing Runs, Interrupted Runs, and Upcoming Runs** tabs. Click the respective tab to view the details of the batches/batch groups based on their execution status. For example, click **Ongoing Runs** to view the details of the batches that are currently running.
- The run time, schedule name and the MISDATE associated with each batch/batch group.
- The batch execution summary for all the batches executed in the last 7, 30 and 120 days. The summary is displayed in the form of a color-coded bar graph with legend for the various execution statuses.
- To view the list of all task executions associated with a specific batch/batch group, select the required execution status tab, select Batch/Batch Group and select the required batch/batch group.
- To view the task executions within a specific date range, select the required execution status tab, select Batch/Batch Group and select the required batch/batch group. Specify both the start and end dates.

Click the green navigation icon for a batch or batch group to open the Monitor screen and proceed as needed. The execution details are pre-populated for the selected batch/batch group execution.

## Define Batch

You can use batch and batch groups to group a set of background tasks to be executed together.

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 consist of batches that need to be executed together. Batch groups help to process date and time-based background tasks based on a defined period when resources are available for batch processing.

To access the list of existing batches and batch groups click **Batch** or **Batch Group** tab respectively. You can also view following details related to each batch/batch group.

- **Batch ID** - The unique alphanumeric code assigned to a specific batch/batch group.
- **Name** - The unique batch/batch group name.
- **Description** - The brief description of the batch/batch group.
- **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 **Name**, **Code**, and **Description**. You can also sort the batch/batch group list based on **Code**, **Name**, **Created Date**, **Last Modified Date**, and **Pinned**.

On the **Define Batch**, click the green navigation icon next to the batch or batch group for which you want to create a task or schedule batch execution, then select the required option. The relevant UI appears pre-populated with batch or batch group details. Proceed as needed.

Perform one of the following operations, to manage batch/batch group, from the **Scheduler Service (Define Batch)** page.

- [Create New Batch/Batch Group](#)
- [Edit a Batch/Batch Group](#)
- [Copy a Batch/Batch Group](#)
- [Delete a Batch/Batch Group](#)
- [Pin/Unpin a Batch/Batch Group](#)

## Creating a Batch/Batch Group

Create a batch/batch group, to execute a group of background tasks together, on a specific date and time, when the resources are available for batch processing.

To create a batch/batch group from the **Scheduler Service (Define Batch)**:

1. In the **Create Batch** page, enter the following **Batch Details**:
  - **Code** - Enter a unique alphanumeric code for the new batch/batch group. The code must start with alphabets, should not contain any spaces, and must not exceed 60 characters. Special characters are not allowed except **underscore ( \_ )**.
  - **Name** - Enter a unique name for the new batch/batch group. The name should start with alphabets, should not contain any spaces, and must not exceed 60 characters. Special characters are not allowed except **underscore ( \_ )**.
  - **Description** - The description/details for the batch/batch group. The description should start with an alphabet and must not exceed 250 characters.
  - Select **Batch** to create a new batch or **Batch Group** to create a new batch group.
  - For new batch groups,select the **Batches** to be added to the batch group.
  - Select the **Service URL name** from the drop-down list, if it is available. To add a new service URL, enter a name to identify the new Service URL Name and enter the proper Service URL. You can give partial URL here and the complete URL in the Task Service URL.

- Enter the complete **Cleanup URL** and enable the check box, to activate the cleanup URL, before you [initiate a batch/batch group restart](#).  
The complete Cleanup URL : `http://fccm-utility-service:8080//fccm-utility-service/cleanupExecutionWatcher`
- **Pin Batch/Pin Batch Group:** Use this option to pin the batch or batch group to keep it at the top of the list for quick access.  
For information, see [Pinning/Unpinning a Batch/Batch Group](#).
- Select one of the following options, to get an email notification, based on the selected batch execution status.  
Based on the selected option, an email is sent to the email ID of the logged in user, mentioned in the IAM console.
  - **Every Time** : An e-mail is triggered irrespective of the batch execution status.
  - **Never** : No e-mail will be triggered.
  - **On Error only** : (Default). An e-mail is triggered only when the batch execution has failed.
  - **On Interrupt only** : An e-mail is triggered if the batch execution is successfully interrupted.
  - The system automatically sends an email to all users assigned to the BATCH\_NOTIFY\_FUNT function and the BATCH\_NOTIFY\_ROLE role, except for users who have selected the "Never" notification option. If a batch is mapped to a user (and their email ID), the batch email notifications will be sent only to that configured batch user. If no batch user is configured, the system follows the default email notification process.

**Note**

You can perform the batch-to-user configuration on the [Batch to User Configuration](#) page.

2. For new batches, after entering the Batch Details, provide the following batch parameters.

From the **Batch Parameters** pane, click **Add** to add a new batch parameter, in the following format.

- **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, `$paramName$`.

By default, **\$FICMISDATES\$** and **\$BATCHRUNID\$** are added as batch Parameters.

By default, **\$BATCHDATES\$**, **\$BATCHRUNID\$** and **\$RUNSKEY\$** are added as batch Parameters.

**Note**

**\$RUNSKEY\$** parameter is added only if you are creating a new batch or copying from an existing batch. It is not supported for existing batches.

To delete a batch parameter, click **Delete** next 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/batch group is created and displayed in the **Scheduler Services (Define Batch)** page.

To view the dependent tasks and their components, click the **Dependency Check** icon. Upon clicking this icon, the **Object Dependency** window appears and displays the following:

- Higher Order Dependencies – Components/batch group that the selected batch depends on. Example: Batch in a batch group will have Batch group as the higher order dependency.
- Lower Order Dependencies – Any task which is created under a batch and the dependency is established will be shown under this tab.

## Editing a Batch/Batch Group

Edit the batch/batch group details such as **Description** and also add new **Batch Parameters** to a batch, along with adding new **batches** to the batch group.

Seeded batches cannot be edited.

To modify a batch/batch group:

1. In the **Scheduler Services (Define Batch)** page, click the three-dot menu corresponding to the batch/batch group you want to modify and select **Edit Batch/Edit Batch Group**.
2. Modify the required [details](#), in the **Edit Batch** page.
3. Click **Save** to save the edited batch/batch group.

The edited batch will be updated in the **Scheduler Services (Define Batch)** page.

You can pin a particular batch/batch group by selecting the **Pin** option from the three-dot menu of each batch/batch group. For information, see [Pinning/Unpinning a Batch/Batch Group](#). To unpin a batch/batch group, click the three-dot menu corresponding to the pinned batch/batch group and select **Unpin Batch/Unpin Batch Group**.

## Copying a Batch/Batch Group

Copy a batch/batch group that you want to clone to create a new batch/batch group.

To copy a batch/batch group:

1. In the **Scheduler Services (Define Batch)** page, click the three-dot menu corresponding to the batch/batch group that you want to copy and select **Copy Batch/Copy Batch Group**.
2. In the **Copy Batch** page, modify the required [Batch details](#) to create a new batch/batch group.

3. Click **Save** to add the copied batch to the **Scheduler Services (Define Batch)** page.

## Deleting a Batch/Batch Group

Delete a batch/batch group that is no longer required in the system from the Define Batch page.

### Note

You cannot delete seeded batches.

To delete a batch/batch group:

1. From the **Scheduler Services (Define Batch)** page, click the three-dot menu corresponding to the batch/batch group you want to delete and select **Delete Batch/Delete Batch Group**.
2. Click **OK** to confirm deletion.

### Note

After confirmation, any active schedules associated with the batch will also be deleted.

## Pinning/Unpinning a Batch/Batch Group

Use the pinning option to pin a batch/batch group to keep it at the top of the list for quick access, on the **Scheduler Services (Define Batch)** page.

By default, the Batch and Batch Group drop-down lists are sorted such that:

- Pinned objects specific to the logged-in user appear first. Objects pinned by the logged in user appear at the top.
- These are followed by non-pinned objects.
- Within each group (pinned and non-pinned), objects are sorted in ascending alphabetic order.

To pin a batch/batch group:

1. To pin a record: In the **Scheduler Services (Define Batch)** page, click the three-dot menu corresponding to the batch/batch group you want to pin and select **Pin Batch/Pin Batch Group**.
2. To unpin a pinned record: In the **Scheduler Services (Define Batch)** page, click the three-dot menu corresponding to the batch/batch group you want to unpin and select **Unpin Batch/Unpin Batch Group**.

## Define Tasks

The Define Tasks page lists tasks associated with a specific Batch Definition. You can create new tasks, and edit or delete existing tasks.

To access the **Define Task** page:

- Select Batch/Batch Group from the drop-down list and select the particular batch/batch group to access the list of tasks associated with it.

You can view the following details related to each task:

- **Task ID** - The unique identifier for the task.
- **Name** - The name of the task..
- **Parent Task** - The parent task associated with the task.
- **Component** - The seeded/custom component associated with the task.
- **Created Date** - The task creation date.
- **Last Modified** - The last modification date.

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 **Code**, **Name**, **Precedence**, **Component**, **Created Date**, and **Last Modified Date**.

Using the **Preview** option, you can view the complete task execution sequence for a specific batch/batch group.

On the **Define Task** page, select the required batch or batch group and proceed as needed. From the **Actions** menu, you can select **Schedule** to navigate to the **Schedule Batch** screen. The **Schedule Batch** screen appears with pre-populated data related to the selected batch/ batch group.

Perform the following operations to manage a Task, from the **Scheduler Service (Define Task)** page.

- [Add a task](#)
- [Modify a task](#)
- [Define a task precedence](#)
- [Delete a task](#)

## Adding a Task

Add new tasks to a selected Batch Definition.

To add new task:

1. In the **Scheduler Service (Define Task)**, select the Batch for which you want to add a new task from the drop-down list.
2. Click **Actions** on the page and then click **Add** to access the **Add Task** page.
3. Enter the following details:
  - **Task Code** - Enter a unique alphanumeric code for the new task. The code must begin with letters, should not include spaces, and has a maximum limit of 60 characters. Special characters except **underscore ( \_ )** are not allowed.
  - **Task Name** - Enter a unique name for the new task. The name should start with letters, not contain spaces, and have a maximum limit of 60 characters. Special characters except **underscore ( \_ )** are not allowed.
  - **Task Description** - The description/details for the task. The description should begin with a letter and not exceed 250 characters. Avoid using phrases like "Select From" or "Delete From" in the description.
  - **Task Type** - Select the task type from the drop-down list.

- **Component** - Select the custom or the seeded component associated with the task.
4. By default, all Batch Level Parameters are added and enabled as task parameters in the **Task Parameters** pane.

**Note**

You can edit the parameters only for custom components.

- a. Enter the Parameter name in the **Param Name** field.
- b. Enter the Parameter value in the **Param Value** field.
- c. For FTP Propagation or Advanced FTP Propagation components, select the **Execution Mode** from the drop-down list:
  - **Single Query Approach**: Select this option to process small or medium-sized datasets (less than 500,000 records). This mode provides faster execution with minimal overhead and is suitable for manageable data volumes.
  - **Sliced Queries Approach**: Select this option for very large datasets (500,000 records or more) that might cause memory or performance issues if processed in a single query. This mode divides the dataset into smaller slices, improving query execution performance and reducing overall processing time.

To delete a parameter, click on **Delete** next to the respective parameter.

5. Click **Save** to add the new task to task summary in the **Define Task** page.

**Note**

Sync task will remain active if execution time is more than 15 minutes at target service and till acknowledge status is generated from target API after the execution.

## Modifying a Task

Modify details such as Task Description and Task Type in existing tasks.

You can also add a new task parameter and enable or disable existing task parameters.

To modify a task:

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 you want to modify.
3. Modify the required Task Details, in the **Edit Task** page.
4. Click **Save** to update the changes.

The modified task is added to the **Define Task** page.

## 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 lack define precedence and hence will be executed simultaneously during batch execution. However, Task 4 has a precedence value as Task 1, indicating that Task 4 is executed only after the successful completion of Task 1.

You can set Task Precedence between Tasks or define to run a Task after a set of other tasks. While, multiple tasks can be executed simultaneously, cyclical execution is not permitted. Tasks without defined precedence execute immediately upon Batch Execution.

### Note

The **Task Precedence** option is disabled if a batch has only one associated task.

To define task precedence:

1. Click **Add or Remove Precedence** corresponding to the task requiring precedence, to access the **Precedence Mapping** list.
  - a. Select a batch to execute before the current task, from the **Available Tasks** pane and click **Move Selected**.  
To move all the batches, click **Move All**.
  - b. To remove a batch from the task precedence sequence, select the task from the **Selected Tasks** pane and click **Remove**.  
To remove all the selected batches, click **Remove All**.
2. Click **Save** to update Task Precedence in the batches.
3. Click **Preview** to view the precedence information.

## Deleting a Task

Remove any tasks that are no longer required in the system, from a Batch Definition.

To delete a task:

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.

## Schedule Batch

**Schedule Batch** enables users to manage batch/batch group executions.

All the batch/batch group schedules are listed. You can sort this list based on code, name, Pinned, Task Precedence, Components, and dates, to access a specific schedule.

On the **Schedule Batch** page, select the required batch or batch group and proceed as needed. When you execute/restart/rerun a batch/batch group, a dialog box appears providing you an option to navigate to the **Monitor Batch** screen.

From the **Schedule Batch** page, you can perform the following operations related to the execution and scheduling of batches/batch groups

- [Execute batch/batch groups instantaneously](#)
- [Edit dynamic parameters](#)
- [Automate batch/batch group executions using the various scheduling options](#)
- [Re-run a batch/batch group execution](#)
- [Re-start a batch/batch group execution](#)

## Execute Batch/Batch Group

Use the Execute Batch to run a batch/batch group instantaneously.

To execute a Batch/Batch Group:

1. In the **Schedule Batch** page, select **Batch** or **Batch Group** to execute from the drop-down list.
2. Select the **Batch /Batch Group** for execution.
3. Click **Execute** to access the **Execution Schedule** page.
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 Run ID is displayed in the format `<BATCH_CODE>_<MIS_DATE>_<ITERATION-COUNT>`.

You can always click preview to view the PMF process sequence used to execute the selected batch/batchgroup.

## Adding Pre-Conditions For Batch Group Execution

Pre-conditions help to execute batches associated with a batch group, on specific days, based on the set frequency and selected days.

You can set pre-conditions for a batch group, to execute specific batches on selected days based on the set frequency interval. This enables to wisely use the available resources for execution.

To set pre-conditions for batch group execution:

1. Click **Schedule** from the Header panel.
2. In the **Schedule Batch** page, select **Batch Group** and the **Batch Group Name**.
3. Click **Pre-Conditions** to set the pre-conditions for task execution.
4. Select the **Batch** to set the pre-condition.
5. Set the execution frequency to Weekly, Monthly, or specific interval and set one of the following conditions:
  - **Weekly** - Select the weekdays to execute the batch. You can select multiple days.
  - **Monthly** - Select the days of the month to execute the batch. You can select multiple days.
  - **Interval** - Select the recurrence frequency to execute the batch.

6. Click **Add** to add another pre-condition.
7. After adding all the required pre-conditions, Click **Save**.

The pre-conditions are saved and the batch group will be executed based on the set pre-conditions.

#### Note

The batch group is always get executed based on the pre-condition and any schedule associated with the batch group will not be considered for processing.

## Edit Dynamic Parameters

Modify the dynamic parameters set for a batch/batch group.

You can modify the batch parameters, batch header parameters, task parameters, and the task header parameters associated with a batch/batch group.

To edit the dynamic parameters from the **Schedule Batch** page:

1. Select **Batch/Batch group** and then select the specific batch/batch group.
2. Click **Edit Parameters** to access the **Edit Dynamic Params** page.

You can also edit the dynamic parameters while configuring the scheduling options.

3. Click the batch/batch group name to access all the parameters.
4. Set the **\$BatchDate\$** to set the batch execution date: :
  - Set the batch date to SYSDATE (system date). The batch execution date is set to SYSDATE by default.
  - Toggle and select **MISDATE** to select a particular batch execution date.

#### Note

All dates used in scheduling logic, including the MISDATE field, are consistently stored and processed in UTC (Coordinated Universal Time). This design ensures that scheduled batch executions and system date calculations remain standardized across all regions, eliminating discrepancies caused by local time zones. The MISDATE represents the scheduled date of a batch as stored in UTC. It does not adjust based on the user's local time zone. The SYSDATE function always reflects the current date and time in UTC when used for scheduling logic.

**Example:** If a customer in Singapore (UTC+8) schedules a batch for March 16th at 02:00 AM local time, the system automatically converts and stores it as March 15th, 18:00 UTC. When any user views the MISDATE field for this batch, it will display 2024-03-15 (the UTC date stored).

Similarly, the SYSDATE value is based on the current UTC date and time, ensuring all scheduling logic is aligned with the UTC standard. As a result, while the user schedules the batch for March 16th in their local time zone, the system consistently operates on the equivalent UTC date, maintaining uniformity across all locations.

5. Enter **\$BATCHRUNID\$** to set the batch run ID in the format:  
`<BATCH_CODE>_<MIS_DATE>_<ITERATION-COUNT>`.

6. Edit the batch header parameters and the task parameters.
7. Click **Save** to update the batch/batch group parameter values.
8. After updating the changes, execute the batch/batch group or configure the scheduling settings.

## Scheduling and Automating Batch/Batch Group Execution

Automate batch/batch group execution.

Using the various scheduling options, you can automate batch/batch group execution to run based on the specified scheduling parameters.

To automate batch/batch execution:

1. Click **Schedule** from the Header panel.
2. In the **Schedule Batch** page, select from the following options:
  - **Once** - Run only once.
  - **Daily** - Run daily.
  - **Weekly** - Run weekly on selected days and time.
  - **Monthly** - Run monthly on selected days and time.
  - **Quarter** -Run every quarter on selected days and time.
  - **Cron Expression** - A Cron Expression is a string comprising 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.  
To execute a batch/batch group using a Cron expression, enter the Cron Expression for your schedule. For more information about the Cron Expression, click **Information** next to the Cron Expression field.
3. Enter the following generic information and the parameters:
  - **Batch/Batch Group** - Batch/batch group for execution.
  - **Batch/Batch Group Name** - The specific batch/batch group to be executed.
  - **Schedule Name** - The unique schedule name.
4. Provide the following scheduling parameters based on the selected schedule option.

For Cron Expression based scheduling, enter the required Cron expression.

**Table 1-2 Scheduling Options**

Details	Once	Daily	Weekly	Monthly	Quarter
<b>Start Date</b> to begin execution.	Yes	Yes	Yes	Yes	Yes
<b>End Date</b> to stop the execution	No	Yes	Yes	Yes	Yes
<b>Run Time</b> to execute the batch/ batch group	Yes	Yes	Yes	Yes	Yes
<b>Days of the week</b> you want to execute the batch/batch group. You can select multiple days.			Yes	Yes	Yes
<b>Months of the Year</b> you want to execute the batch/batch group. You can select multiple months.				Yes	Yes

Table 1-2 (Cont.) Scheduling Options

Details	Once	Daily	Weekly	Monthly	Quarter
<b>Day of the Month</b> to execute batch/batch group				Yes	Yes
<b>First Months of the Year</b> to calculate the year beginning and each quarter beginning.					Yes
<b>Select Quarters</b> to execute batch/batch group You can select multiple quarters.					Yes
<b>Days of Quarter</b> - Select the days to execute the batch/batch group. You can select first day, mid day, last day, First N days, or last N days					Yes
<b>No. of Days</b> - If you select first N days or last N days, select the number of days to execute the batch/batch group at the beginning or end of the selected quarter					Yes

### Note

All dates used in scheduling logic, including the MISDATE field, are consistently stored and processed in UTC (Coordinated Universal Time). This design ensures that scheduled batch executions and system date calculations remain standardized across all regions, eliminating discrepancies caused by local time zones. The MISDATE represents the scheduled date of a batch as stored in UTC. It does not adjust based on the user's local time zone. The SYSDATE function always reflects the current date and time in UTC when used for scheduling logic.

**Example:** If a customer in Singapore (UTC+8) schedules a batch for March 16th at 02:00 AM local time, the system automatically converts and stores it as March 15th, 18:00 UTC. When any user views the MISDATE field for this batch, it will display 2024-03-15 (the UTC date stored).

Similarly, the SYSDATE value is based on the current UTC date and time, ensuring all scheduling logic is aligned with the UTC standard. As a result, while the user schedules the batch for March 16th in their local time zone, the system consistently operates on the equivalent UTC date, maintaining uniformity across all locations.

5. **Exclude Tasks** to add/remove tasks from the execution list.
6. **Hold Tasks** to pause/release tasks during execution.
7. Click **Edit Dynamic Parameters** to modify the dynamic parameters.
8. Click **Schedule** to add the new schedule for execution.

You can [set pre-conditions](#) to process batch groups. When a batch group has an associated pre-condition, the execution schedule will not be considered for processing.

9. To manage schedules associated with a specific batch:
  - a. In the **Select Batch** page, select **Batch** and select the **Batch Name** to view the associated schedules.

- b. Click **View Schedule** to access the list of all the schedules associated with the batch.

You can perform the following tasks:

- Click **Edit** to modify the schedule.
- Click **Pause** and enter the **Start Date** and **End Date** to pause the schedule from execution. Click **Add** to apply the pause.  
To remove the pause, click **Delete** next to the specific pause.

## Re-run Batch/Batch Group

Re-running a batch/batch group facilitates you to run the batch/batch group irrespective of the previous execution state.

When you re-run a batch/batch group that has been previously executed, a new Run ID is generated, and the batch/batch group is executed as if it were a new run.

To re-run a batch::

1. Click **Schedule Batch** from the Header panel.
2. In the **Schedule Batch** page, select the **Re-run** tab.
3. Select **Batch/Batch Group**.
4. Select the **Batch or Batch group Name** you want to re-run.
5. Select the **Batch Run ID**.
6. Click **Re-run**.

## Re-start Batch/Batch Group

Re-start a batch/batch group that has not executed successfully or has been explicitly interrupted, canceled, or put on hold during the execution process.

Restarting a batch/batch group enables you to continue execution directly from the point of interruption or failure, allowing you to complete executing the remaining tasks.

### Note

Before restarting a batch/batch group, ensure to provide the [complete cleanup URL](#) and also to enable invoking the cleanup URL before restarting the execution.

To re-start a batch/batch group:

1. Click **Schedule Batch** from the Header panel.
2. From the **Schedule Batch** page, select the **Re-start** tab.
3. Select **Batch/Batch Group**.
4. Select the **Batch or Batch group** you want to schedule daily from the drop-down list.
5. Select the **Batch Run ID**.
6. Click **Re-start**.

## Monitor Batch/Batch Group

Using Monitor Batch/Batch Group, you can view the status of executed batches/batch groups, along with the tasks details.

Monitoring enables users to track and identify issues at regular intervals, ensuring smoother batch execution. Both a visual representation and a tabular view of the status of each task in the batch are available.

On the **Monitor Batch** screen, select the required batch or batch group and proceed as needed. From the **Actions** menu, you can select **Restart/Rerun** to navigate to the **Schedule Batch** screen with pre-populated data related to the selected batch/batch group.

To monitor a batch/batch group:

1. Click **Monitor Batch** from the Header panel.
2. Select the **Batch/Batch Group** and the **Batch/Batch Group Name** to monitor the execution.
3. **Set Refresh Frequency Time Interval and duration** in seconds.

By default, the refresh interval is set to **5 seconds** and duration is set to **5 minutes**. This indicates that the monitor progress will be refreshed every 5 seconds for the next 5 minutes.

The refresh interval ranges between 5 to 60 seconds and the duration ranges between 5 to 180 seconds.

4. Select the **MISDATE** to view the list of Batch Run IDs executed on a specific date.
5. Select the **Batch Run ID** you want to monitor.
6. Click **Start Monitor** to view the results in **Visualization** and **List View** tabs.

The **Visualization** tab displays execution status graphically, while the **List View** tab provides the details in a tabular form, including:

- **Status:** Task execution status - **Not-Started**, **On-going**, **Aborted**, **Successful**, **Failed**, **Interrupted**, **Excluded** and **Undefined**.

### Note

When the task execution status is **Aborted**, the batch execution will still be **On-going**. The task status will be set to **Ongoing**, when it is triggered again.

To download the Orchestrator LogViewer PDF:

- a. Click **View Execution Logs**.
  - b. In the page that opens, locate the log you want to download and click the **Log Viewer** icon under **Actions**.
  - c. In the Log Viewer page, click the **Details** tab.
  - d. Click the **Download** icon to download the Orchestrator LogViewer PDF.
- **Start Time:** Task execution start time.
  - **End Time:** Task execution end time.

**Note**

All timestamps displayed in the Log Viewer UI now reflect the timezone configured in the user preferences.

- **Task Details:** Mouse-over the task to display its status and details.
7. At any point, select **Stop Monitor**, to stop monitoring.  
You can download the task execution summary in PDF or Excel, with or without the task logs, from the **Monitor Task** page.

**Note**

You can download the task execution summary only if the **BATCH\_OPER** role is mapped to the **LOGVIEW** function.

8. (Optional). To rerun, restart, or interrupt execution, click **Actions** and select the required option.  
You can also reset the search criteria using **Actions**.
9. (Optional). Click **View Execution Parameters** adjacent to a batch/batch group, to access the list of tasks and task parameters such as **Runskey ID**, **Misdate**, associated with that batch/batch group.

## Scheduler Configuration

Scheduler Configuration UI allows you to manage the scheduler service configuration parameters. It also allows you to map specific user to batch and batch groups for email notifications.

To access the Scheduler Configuration UI in the Scheduler Service page, follow these steps:

1. Go to the Home page of the application.
2. Navigate to **Batch Administration** in the left Navigation pane.
3. Under **Batch Administration**, click on **Scheduler Configuration**.

**Note**

Ensure you have the **BATCH\_ADMIN** function code to access the Scheduler Configuration page.

## Batch to User Configuration

**Batch to User Configuration** menu allows you to map users to specific batch/batch group processes. This assignment ensures that emails are sent only to the specific users associated with each batch.

To access the Batch to User Configuration page, select **Batch to User Configuration** in the Scheduler Configuration UI.

**Note**

Click the **eye** icon on the **Batch to User Configuration** tile to view the page.

To search for a specific batch/batch group, enter the keywords in the Search field and click **Search**. You can search based on Batch Name, Batch Code, and Batch type.

**Note**

The system automatically sends an email to all users mapped to the BATCH\_NOTIFY\_FUNT function and BATCH\_NOTIFY\_ROLE role. If a batch/batch group is mapped to a user (and their email ID), the batch email notifications will be sent only to that configured batch user. If no batch-to-user configuration is provided or updated, email notifications will be sent to users with the above function and role.

Perform the following steps to add specific user(s) to the batch/batch group:

1. In Batch to User Configuration menu, click **Add** to add new batch/batch groups.
2. Select the batch type from the dropdown menu.
3. Select the required batch/batch group from the dropdown menu.
4. Select the required users from the dropdown menu.
5. Click **Create**, the *Batch User mapping is created successfully* message is displayed.

**Action menu**

Batch to user mapping configuration page lists all the batch/batch groups which are mapped to specific user(s).

1. Select the desired batch/batch group from the Batch to user mapping configuration page. Click **Action Menu** to view, modify, or delete batch/batch groups.
  - a. **View**  
Clicking **View** allows users to see detailed information on the batch/batch group user mapping.
  - b. **Edit**  
Edit the batch/batch group to user mapping configuration. You can either update the user details or remove the user.
  - c. **Delete**  
The **Delete** option allows you to remove the user to batch/batch group mapping from the system.

## General Configuration

The **General Configuration menu** allows you to configure the parameters related to a scheduler service.

1. Under **Scheduler Configuration** menu, select **General Configuration**.

**Note**

Click the **eye** icon on the **General Configuration** tile to view the page.

2. In Scheduler Service General Configuration Screen, click **Edit** to modify the configuration settings.
3. Modify the required details, refer to the **General configuration parameters** table below.

**Table 1-3 General configuration parameters**

Parameter	Description	Default Value
Enable/disable general email notification	Enable/disable general email notifications to automatically alert users when a batch job is successful, failed, or is interrupted.	Enable
Enable/disable in-app notification	Enable/disable in-app notifications to alert users within the application when a batch job is successful, failed, or is interrupted.	Enable
Enable/disable notification for threshold email	Enable/disable email notifications triggered when a batch execution exceeds its expected execution time threshold. For example, if a batch typically completes in 1 hour but now takes longer, an email is sent as its taking longer than expected time to complete.	Enable
Threshold email time notification percentage criteria	<p>Defines the additional execution time (in percentage) allowed beyond the last successful batch completion time before sending a threshold notification email.</p> <p>For example: If a batch previously completed successfully in 1 hour and the threshold is set to 20%, a threshold notification will be triggered if the batch exceeds 1 hour and 12 minutes (i.e., 60 minutes + 20%).</p> <p>If multiple notifications are allowed (as per the Threshold email Notify Limit), the time for subsequent notifications will be calculated from the last notification time, adding the same threshold percentage again.</p> <p>For instance, the next notification would be triggered after 20% of 72 minutes (i.e., 86.4 minutes), and so on.</p>	20

**Table 1-3 (Cont.) General configuration parameters**

Parameter	Description	Default Value
Threshold email Notify Limit	Defines the maximum number of email notifications that can be sent when a batch exceeds its execution time threshold during a single run.	5
	<div style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <p><b>Note</b></p> <p>If general email notification is disabled and only if the threshold email notification is enabled, scheduler sends only the threshold email.</p> </div>	
Batch to User mapping upper limit	Specifies the maximum number of users that can be mapped to a batch/batch group. You can configure a maximum of five user mappings per batch or batch group.	10

4. Click **Save** to save the modified configurations.  
OR

Click **Cancel** to discard the changes and revert to the previous settings.

## Schedule Rule

Use the **Schedule Rule** UI to configure rules that trigger batch execution based on defined conditions.

### To schedule a rule

1. Under **Scheduler Configuration** menu, select **Rule Detail**. The **Schedule Rule** UI appears.
2. Click **Create**. The **Create Rule** dialog appears.
3. Provide rule name and description.
4. Select the execution type:
  - a. **Every Day**: Executes the batch every day except holidays. Weekends are by default considered holidays.
  - b. **Specific day/s of the week**: Select the specific day(s) on which the batch should be executed. Also select the recurrence from the **Recur every** drop-down list.
  - c. **Specific day/s of the month**: Select the specific date(s) on which the batch should be executed.
  - d. **Last day of the month**: Executes the batch on the last working day of the month.
5. Click **Save**.

### To edit a rule

1. Under **Scheduler Configuration** menu, select **Rule Detail**. The **Schedule Rule UI** appears displaying a list of scheduled rules.
2. Click the **Action** menu corresponding to the rule you want to edit and select **Edit**. The **Edit Rule** dialog appears.
3. Make the required changes and click **Update**.

**To delete a rule**

1. Under **Scheduler Configuration** menu, select **Rule Detail**. The **Schedule Rule UI** appears displaying a list of scheduled rules.
2. Select the checkbox corresponding to the rule you want to delete and click **Delete**. Alternatively, click the **Action** menu corresponding to the rule you want to delete, select **Delete** and click **Yes** to confirm the deletion.