

Scheduler JAVA JOB Creation  
Oracle FLEXCUBE Investor  
Servicing Release 14.7.2.0.0  
[May][2023]



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# 1. Introduction

This document introduces the reader to the procedure to be followed for Scheduler JAVA JOB Creation for Oracle FLEXCUBE Investor Servicing.

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## 2. Background

This document is based on the requirement of creating JAVA Jobs to be executed by Quartz Scheduler.

This document describes the procedure to be followed to accomplish the above.

## 3. Example

This section describes job creation:

1. Launch the job maintenance screen STDJOBMT for creation of a Job. User can maintain Interface, Reports and PL SQL Jobs.

### Interface Job definition

#### Event Based:

For Interface Job maintenance, user has to maintain `com.ofss.scheduler.quartz.fcis.FCISImpExpSchExecutor` class.

For Event Based Job Scheduling, EVENTCODE need to be maintained in Parameters. Valid Event Codes are available in Eventstbl.

The screenshot displays the 'Job Maintenance' application window. It is divided into several sections:

- Save**: A button at the top left.
- Job Description**: Fields for Job Code (required), Job Description, Job Group, Job Type (dropdown), Max Number Instances (required), Scheduler (SchedulerFactory), Trigger Type (dropdown), Scheduler Type (dropdown), Priority (dropdown), and Message Queue. A 'Validate' button is located below these fields.
- Job Details**: Fields for Cron Expression, Class Or Procedure, No of Submissions, Interval In Seconds, Trigger Listener, Active checkbox, Ds Name, Logging Required checkbox, Veto Blocked Trigger checkbox, and Startup Mode (dropdown).
- Parameter Details**: A table with columns for Parameter Name, Data Type, and Parameter Value. The table is currently empty.
- Footer**: Fields for Maker, Checker, Date Time, Mod No, Record Status, Authorization Status, and a 'Cancel' button.

## Time Based:

To maintain time based job, we have to maintain cron expression.

The screenshot shows the 'Job Maintenance' application window. The 'Job Description' section includes fields for Job Code, Job Description, Job Group, Job Type, Max Number Instances, Scheduler (SchedulerFactory), Trigger Type, Scheduler Type, Priority, and Message Queue. The 'Job Details' section includes Cron Expression, Class Or Procedure, No of Submissions, Interval In Seconds, Trigger Listener (Active checkbox), Ds Name, Logging Required checkbox, Veto Blocked Trigger checkbox, and Startup Mode. A 'Validate' button is located below the Message Queue field. Below the main form is a 'Parameter Details' table with columns for Parameter Name, Data Type, and Parameter Value. The bottom status bar shows Maker, Checker, Date Time, Mod No, Record Status, Authorization Status, and a 'Cancel' button.

## TimeZone Based

For Timezone based job scheduling, valid timezone need to be maintained in parameters. Timezone parameter should have standard Quartz supported timezone value.

This screenshot is identical to the one above, showing the 'Job Maintenance' application window. It displays the same configuration fields for Job Description and Job Details, the 'Validate' button, the 'Parameter Details' table, and the bottom status bar with Maker, Checker, Date Time, Mod No, Record Status, Authorization Status, and a 'Cancel' button.

## REPORT Job definition

To schedule BIP report generation, user has to maintain `com.ofss.scheduler.quartz.fcis.FCISReportSpollExecutor` class

The screenshot shows the 'Job Maintenance' application window. It is divided into several sections:

- Job Description:** Fields for Job Code, Job Description, Job Group, Job Type (dropdown), Max Number Instances, Scheduler (SchedulerFactory), Trigger Type (dropdown), Scheduler Type (dropdown), Priority (dropdown), and Message Queue. A 'Validate' button is located below the Message Queue field.
- Job Details:** Fields for Cron Expression, Class Or Procedure, No of Submissions, Interval In Seconds, Trigger Listener (with an 'Active' checkbox), Ds Name, Logging Required (checkbox), Veto Blocked Trigger (checkbox), and Startup Mode (dropdown).
- Parameter Details:** A table with columns for Parameter Name, Data Type, and Parameter Value. The table is currently empty.
- Footer:** Fields for Maker, Date Time, Mod No, Record Status, Authorization, and Status. A 'Cancel' button is on the right.

User has to maintain TASKID parameter to specify the Report Parameters. UTDTASK is the screen to maintain Report Parameters.

The screenshot shows a web application window titled "Task Maintenance Detail". It features a header "Execute Query" and three main sections: "Task Details", "Report Burst Details", and "Parameters". The "Task Details" section includes a "Task ID \*" field with a search icon and a "Description" field. The "Report Burst Details" section includes "Table Name", "Condition" (with a "Condition" button), "Burst Field", and "Burst Parameter" fields. The "Parameters" section is a table with columns: "Input by", "Authorized by", "DateTime", "Mod No", "Open", and "Authorized". At the bottom right, there are "Ok" and "Cancel" buttons.

A Java job can be stateful or stateless.

### Stateful Job

If the job is configured to be STATEFUL then missed instances will be queued up so that scheduler would start executing once the long running job ends. It means, there will be no parallel execution of the java class.

To make a class as Stateful, please add two annotations to the job class.

- @PersistJobDataAfterExecution
- @DisallowConcurrentExecution

### Stateless Job

If the job is configured as STATELESS, threads can be run in parallel and can execute the same java class.

If the job is configured as stateless, the value of field **Max Number Instances** will denote the number of threads that can be executed in parallel .If the job is configured as stateful, then the above value will denote the number of missed instances that will be queued up so that Quartz Scheduler would start executing them once a long running job ends. This field specifies the number of such job instances that needs to be queued up.

The class defined in the class field has to be provided a fully qualified name.



Job params can be added to a particular java job in this screen as shown above.



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