

Scheduler JAVA JOB Creation  
Oracle FLEXCUBE Investor Servicing  
Release 14.0.0.0.0  
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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 (with an 'Active' checkbox), Ds Name (with 'Logging Required' and 'Veto Blocked Trigger' checkboxes), 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. At the bottom, there is a status bar with fields for Maker, Checker, Date Time, Mod No, Record Status, and Authorization Status, along with 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, Job Details, and Parameter Details, as well as the status bar at the bottom.

## REPORT Job definition

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

The screenshot displays the 'Job Maintenance' application window. At the top, there is a 'Save' button. The window is divided into two main sections: 'Job Description' and 'Job Details'.  
**Job Description:** Includes 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 these fields.  
**Job Details:** Includes 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).  
Below the job details is a 'Parameter Details' section with a table header: 'Parameter Name', 'Data Type', and 'Parameter Value'. The table is currently empty.  
At the bottom of the window, there is a status bar with fields for 'Maker', 'Date Time', 'Mod No', 'Record Status', and 'Authorization Status'. A 'Cancel' button is located on the right side of this bar.

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

Input by	Authorized by	DateTime	DateTime	Mod No	Open	Authorized
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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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