

Scheduler JAVA JOB Creation
Oracle FLEXCUBE Investor Servicing
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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.

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' window with the following sections:

- Job Description:** Includes fields for Job Code (marked with a red asterisk), Job Description, Job Group, Job Type (dropdown), Max Number Instances (marked with a red asterisk), 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, 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:** Contains 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' window with the 'Time Based' scheduling type selected. 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. The 'Parameter Details' section is empty. 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.

The screenshot shows the 'Job Maintenance' window with the 'TimeZone Based' scheduling type selected. 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. The 'Parameter Details' section is empty. The bottom status bar shows 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 a 'Job Maintenance' window with a 'Save' button at the top left. The form is divided into two main sections: 'Job Description' and 'Job Details'.

Job Description:

- Job Code ***: Text input field.
- Job Description**: Text input field.
- Job Group**: Text input field.
- Job Type**: Dropdown menu.
- Max Number Instances ***: Text input field.
- Scheduler**: Text input field.
- SchedulerFactory**: Text input field.
- Trigger Type**: Dropdown menu.
- Scheduler Type**: Dropdown menu.
- Priority**: Dropdown menu.
- Message Queue**: Text input field.
- Validate**: Button.

Job Details:

- Cron Expression**: Text input field.
- Class Or Procedure**: Text input field.
- No of Submissions**: Text input field.
- Interval In Seconds**: Text input field.
- Trigger Listener**: Text input field.
- Active**: Check box.
- Ds Name**: Text input field.
- Logging Required**: Check box.
- Veto Blocked Trigger**: Check box.
- Startup Mode**: Dropdown menu.

Parameter Details:

A table with columns: Parameter Name, Data Type, Parameter Value. The table is currently empty.

Footer:

Maker	Date Time:	Mod No	Record Status
Checker	Date Time:		Authorization Status

Cancel: Button.

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

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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