

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:** Job Code (IF20142200000210), Job Description (GoConfExtract), Job Group (INTERFACE), Job Type (Java), Max Number Instances (1), Scheduler (SchedulerFactory), Trigger Type (Cron), Scheduler Type (Quartz), Priority (Normal), and Message Queue.
- Job Details:** Cron Expression (20 **** ?), Class or Procedure (com.ofss.scheduler.quartz.fcis.FCISImpExpSchExecutor), Number Of Submissions, Interval In Seconds, Trigger Listner, Ds Name (jdbc/R...), Startup Mode (Auto), and checkboxes for Action, Logging Required, and Veto Blocked Trigger.
- Parameter Details:** A table with columns for Parameter Name, Data Type, and Parameter Value.

Parameter Name	Data Type	Parameter Value
ACTION	Varchar	N
EVENTCODE	Varchar	BE00008
EXECUTIONID	Varchar	
INTERFACEID	Varchar	IF20142200000210
KEYSTRING	Varchar	
MODULEID	Varchar	FMGHKGDISTE

The bottom status bar shows: Input by 412130A03, Authorized 412130A04 by, DateTime 08/04/2015 17:55:48, Mod No 6, Open Open, Authorized Authorized, and an Exit button.

Time Based :

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

The screenshot shows the 'Job Maintenance' window with the following details:

Job Description

- Job Code: *SI_UPLOAD_DISTE
- Job Description: SI Upload Dist TimeBased
- Job Group: INTERFACE
- Job Type: Java
- Max Number Instances: * 2
- Scheduler: SchedulerFactory
- Trigger Type: Cron
- Scheduler Type: Quartz
- Priority: High
- Message Queue:

Job Details

- Cron Expression: 40 **** ?
- Class or Procedure: com.ofss.scheduler.quartz.fcis.FCISimpExpSchExecutor
- Number Of Submissions:
- Interval In Seconds:
- Trigger Listener:
- ☒ Active
- Ds Name: jdbc/R2DISTE
- ☒ Logging Required
- ☐ Veto Blocked Trigger
- Startup Mode: Auto

Parameter Details

1 of 1 Go

Parameter Name	Data Type	Parameter Value
<input checked="" type="checkbox"/> ACTION	Varchar	N
<input type="checkbox"/> EXECUTIONID	Varchar	
<input type="checkbox"/> INTERFACEID	Varchar	IF20150020000005
<input type="checkbox"/> KEYSTRING	Varchar	
<input type="checkbox"/> MODULEID	Varchar	FMGHKGDISTE

Input by 412130A03 DateTime 08/04/2015 17:58:46 Mod No 5 Open Open
Authorized 407204A02 DateTime 08/04/2015 18:06:36 Authorized Authorized **Exit**

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 'Job Details' tab selected. The job is 'ENTITYUPLD_DISTE_HKG' with description 'Entity Upload Dist TimeZone'. It is a Java-based job with a Cron expression '0 0/15 11-23 * * ?'. The scheduler is 'SchedulerFactory' with type 'Quartz' and priority 'High'. The class or procedure is 'com.ofss.scheduler.quartz.fcis.FCISImpExpSchExecutor'. The job is active, with logging required and veto blocked trigger. The startup mode is 'Auto'. The parameter details table shows the following parameters:

Parameter Name	Data Type	Parameter Value
ACTION	Varchar	N
EXECUTIONID	Varchar	
INTERFACEID	Varchar	IF20150020000022
KEYSTRING	Varchar	
MODULEID	Varchar	FMGHKGDISTE
TIMEZONE	Varchar	Asia/Hong_Kong

The bottom status bar shows the user is '412130A03' and the job was last modified on '08/04/2015 18:07:15'.

REPORT Job definition

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

The screenshot shows the 'Job Maintenance' window with the 'Job Details' tab selected. The job is 'EODUHBALSTMTAMC' with description 'Unitholder Balance Statement AMCB'. It is a Java-based job with a Cron expression '0 0/5 * * * ?'. The scheduler is 'SchedulerFactory' with type 'Quartz' and priority 'High'. The class or procedure is 'com.ofss.scheduler.quartz.fcis.FCISReportSpoolExecutor'. The job is active, with logging required and veto blocked trigger. The startup mode is 'Auto'. The parameter details table shows the following parameters:

Parameter Name	Data Type	Parameter Value
ACTION	Varchar	N
EVENTCODE	Varchar	BE00003
EXECUTIONID	Varchar	BE00003
KEYSTRING	Varchar	
MAKER_ID	Varchar	222248A02
MODULEID	Varchar	FMGRSAAMCB
TASKID	Varchar	EODUHBALSTMT

The bottom status bar shows the user is '412130A03' and the job was last modified on '08/04/2015 18:09:10'.

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

Task Maintenance Detail

Close Unlock Print Enter Query

Task Details

Task ID: EODUHBALSTMT Description: Unitholder Balance Statement

Report Burst Details

Table Name: Condition: Burst Field: Burst Parameter:

Parameters

Input by: SUPER Date Time: 02/29/2000 Mod No: 0 Open: Open
 Authorized by: SYSTEM Date Time: 12/30/1999 Authorized: Authorized

OK Exit

Task Parameters

1 of 1 Go

Parameter Number	Parameter Name	Standard	Parameter Type	Parameter Value	In or Out
1	SecurityContext	Yes	7		IN
2	ReportName	No	51	UHAccBalanceStmnt	IN
3	JobID	Yes	17		IN
4	ExecutionID	Yes	18		IN
5	LanguageCode	No	51	ENG	IN
6	FundID	No	51	(ALL)	IN
7	FundIdentificationNumber	No	51		IN

OK Exit

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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