

**Oracle® Retail Process Orchestration and
Monitoring**

Implementation Guide

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Contents

Send Us Your Comments	vii
Preface	ix
Audience	ix
Documentation Accessibility	ix
Customer Support	ix
Improved Process for Oracle Retail Documentation Corrections	x
Oracle Retail Documentation on the Oracle Help Center (docs.oracle.com)	x
Conventions	x
1 Introduction	
2 Batch Concepts	
Batch Hierarchy	2-1
Cycle	2-1
Flow	2-2
Process	2-2
Job	2-2
Internal Dependencies	2-2
Inter-Schedule Dependencies	2-2
External Dependencies	2-2
3 Integration	
Invoking Cycles in POM	3-1
Execution Request Creation	3-1
Execution Request Status Tracking	3-3
External Status Update	3-4
Schedule Configuration	3-5
Job Configuration	3-6
Payload Specification	3-7
Payload Examples	3-7
External Dependency	3-8
Configuration	3-8
Releasing Dependency	3-9

4 Schedule Customization

5 Notifications

6 User Roles

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Oracle® Retail Process Orchestration and Monitoring Implementation Guide, Release 19.1

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Preface

This Implementation Guide describes the requirements and procedures to install this Oracle Retail Product release.

Audience

This Implementation Guide is for the following audiences:

- System administrators and operations personnel
- Database administrators
- System analysts and programmers
- Integrators and implementation staff personnel

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- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

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<https://docs.oracle.com/en/industries/retail/index.html>

(Data Model documents can be obtained through My Oracle Support.)

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

The Process Orchestration and Monitoring (POM) application provides comprehensive batch scheduling and monitoring capabilities for Oracle Retail SaaS Applications.

POM's key features are:

- Support for Cyclical (or Hourly)/Ad-hoc (or Standalone)/End of Day (or Nightly) scheduling modes
- Configurable Schedule Invocation - Time/Externally triggered
- Configurable Schedule - Configure schedule specific to customer needs
- Hooks to integrate with external (customer) systems - for dependency management and job status updates
- Configurable notifications

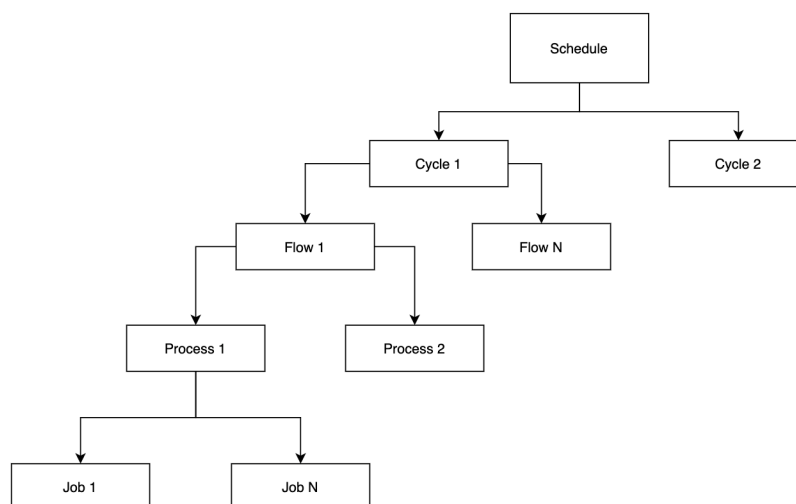
Batch Concepts

This chapter describes the Process Orchestration and Monitoring (POM) concepts that are key to configure and implement the product successfully.

Batch Hierarchy

POM logically groups batch jobs in a schedule into a hierarchy of Processes, Flows and Cycles based on functionality and expected execution frequency.

Figure 2–1 *Batch Hierarchy Diagram*



Cycle

A Batch Cycle is a logical collection of flows. Cycles are categorized into 3 groups,

1. Ad hoc/Standalone

The jobs that can run multiple times a day on an as-needed basis are classified as Ad hoc cycles. Such processes are allowed to run independent of other processes in a Flow/Cycle

2. Recurring/Hourly

Recurring or Hourly jobs are a special group of jobs which run multiple times a day at scheduled intervals.

Example: The sales processing jobs in RMS support trickle processing by running every 30 minutes during the store trading hours. The schedule is pre-loaded with 24 cycles. Each cycle can have one or more flows where each flow is a set of jobs. The recurring cycles are time triggered from the Scheduler. Based on the client's business operations, the individual flows of each cycle will need to be scheduled. If any flow/cycle is not used then it has to be disabled as the nightly cycle will not start until the enabled cycles are all complete.

3. End of Day/Nightly

This contains the set of jobs that are executed at end of the business day. The nightly cycle is time triggered from Scheduler. The nightly cycle will start only when all the loaded recurring flows are complete.

Flow

A batch flow is a logical collection of batch processes that run together. The batch flow always starts and ends with a single process, but it can run parallel processes in the middle of the batch flow.

Process

A batch process is a logical collection of batch jobs that always run in sequential order.

Job

A batch job is smallest entity in POM that can be scheduled. A job represents an actual application script.

Internal Dependencies

Internal dependencies are the dependencies between the process/job of the same schedule.

Inter-Schedule Dependencies

Inter-Schedule dependencies are the dependencies between jobs of the different schedules running on the same POM instance.

External Dependencies

External dependencies are the dependencies between the jobs running on external systems, such as a customer's system and jobs running on the POM schedule.

Integration

This chapter describes the various scenarios which involve configuring & integrating the Process Orchestration and Monitoring (POM) application to connect with external systems.

Invoking Cycles in POM

Generally, the Oracle support team configures the time and frequency for running the batch cycles in POM on behalf of customers based on their requirement.

However, the capability exists in POM for customers if they so desire to control the time and frequency of batch executions by invoking the following ReST service.

Execution Request Creation

The specification of the ReST service to start the POM cycle execution is shown below:

HTTP Method	POST
Path	<p>http://<pom-server-host>/ProcessServices/services/private/executionEngine/schedules/<Schedule_Name>/execution</p> <p>Note: <pom-server-host> and <Schedule_Name> variables need to be changed according to the target environment and schedule.</p>
HTTP Headers	Content-Type = application/json Accept-Version = 16.0
Request Body	<pre>{ "cycleName": "<Cycle Name>", "flowName": "<Flow Name>", "processName": "<Process Name>", "requestParameters": "<Comma Separated Key Value Pairs>" }</pre> <p>Notes:</p> <ul style="list-style-type: none"> ▪ processName attribute required only for Ad hoc cycles ▪ requestParameters attribute is optional. This is useful if external systems would like to provide custom identifiers to POM and expect them to be returned on callbacks sent from POM.

Response Body	<pre>{ "value": "171" -Execution Request ID, "cycleName": "CycleName", "flowName": "FlowName", "processName": "ProcessName", "jobName": "JobName", "requestType": "requestType", "requestParameters": ":"<Comma Separated Key Value Pairs>" "executionEngineInfo": "STARTED", "hyperMediaContent": {} }</pre>
----------------------	--

Invocation	Request Payload
Nightly Cycle invocation	<pre>{ "cycleName" : "Nightly", "flowName" : "Nightly", "requestParameters" : "callerId=XXX,correlationId=123" }</pre> <p>Note: The Nightly Cycle contains a single flow hence a single invocation will suffice to start the Nightly Flow.</p>
Hourly Cycle invocation	<pre>{ "cycleName" : "Hourly_Cycle_<N>", "flowName" : "<FLOW_NAME>", "requestParameters" : "callerId=XXX,correlationId=456" }</pre> <p><N> is the cycle number (1 to 24) <FLOW_NAME> is name of the flow (Process Group) to invoke. For example, SALESPROCESS_CYCLE.</p> <pre>{ "cycleName" : "Hourly_Cycle_1", "flowName" : "SALESPROCESS_CYCLE", "requestParameters": "callerId=Sys_ Name,correlationId=456" }</pre> <p>Note: The Hourly Cycles comprise of many distinct flows and for each flow a separate invocation would be required.</p>

Invocation	Request Payload
Ad hoc Cycle invocation	<pre>{ "cycleName" : "Adhoc", "flowName" : "Adhoc", "processName" : "<ADHOC_PROCESS_NAME>", "requestParameters" : "callerId=xxx,correlationId=789" }</pre> <p>Example:</p> <pre>{ "cycleName": "Adhoc", "flowName": "Adhoc", "processName": "RPM_NEW_ITEM_LOCATION_PROCESS_ADHOC", "requestParameters": "callerId=Ext_System_Name, correlationId= 789" }</pre> <p>Note: Ad hoc Cycles are composed of many discrete individual Processes. For each Process, a separate invocation is required.</p>

Execution Request Status Tracking

The following endpoints provide the ability to check the status of an execution request in POM:

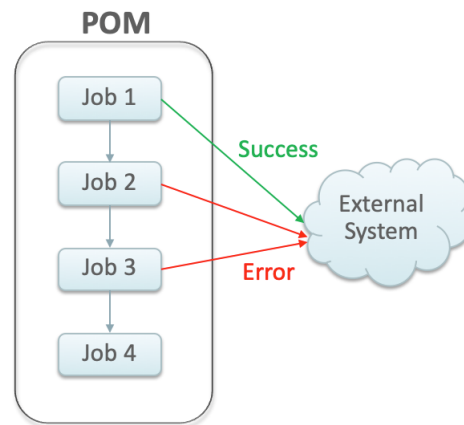
HTTP Method	GET
Path	<p>http://<pom-server-host>/ProcessServices/services/private/executionEngine/schedules/<scheduleName>/requests/{executionId}</p> <p>Note: Replace <pom-server-host> according to the target environment.</p> <p><scheduleName>: Name of the schedule. For MOM apps, the schedule name is "MERCH". For RDE, the schedule name is "RDE".</p> <p><executionId>: ID of the execution request returned by POM when execution request was submitted.</p>
HTTP Headers	<p>Content-Type = application/json</p> <p>Accept-Version = 16.0</p>

Response Body	<ul style="list-style-type: none"> ■ executionId - ID of the execution request ■ scheduleName - Name of the schedule for which this execution request was created. Sample values: MERCH, RDE, and so on. ■ cycleName - Name of the Cycle for which this execution request was created. Sample values: Nightly, Hourly, or Adhoc. ■ flowName - Name of the Flow for which the execution request was created Sample Values: For Ad hoc Cycle: Adhoc For Nightly Cycle: Nightly For Hourly Cycle: Name of the flow such as DEAL_PURGE_CYCLE, and so on. ■ processName - Name of the Process for which the execution request was created. Sample Values: For Ad hoc: Name of the process such as POINDBATCH_PROCESS_ADHOC, and so on. For Nightly/Hourly: Always set to "ALL". ■ requestParameters - Parameters associated with the execution request. ■ status - Status of the execution request. Possible Values: QUEUED: Request is queued up for execution. RUNNING: Jobs from this request are being executed ERROR: One of the job in this request has failed. Note that a failed job would be restarted by POM Admin; there is no need to re-submit the execution request. COMPLETED: All jobs from this request were executed successfully.
----------------------	--

External Status Update

The External Status Update feature provides the ability for external systems to register with POM to receive the Job status notifications as a callback to their ReST interface.

Figure 3-1 External Dependency



Schedule Configuration

This section details the steps to configure the External Status Updates feature at the schedule level:

1. Navigate to the System Configuration screen.
2. Click the Edit icon on the External Configuration Panel to open the External Configuration window.

3. Enter the configuration values:
 - **External Status URL** - External system's URL that needs to be called for status updates.

Note: In addition to this configuration, you must work with Oracle support to get the External Status URL allowlist.

- **External Status Update Mode** - Choose one of the options below:
 - **ALL** - POM will send a status update to the external system for each job's execution in the schedule regardless of success or failure.
 - **FAILED** - POM will notify only for failed jobs.
 - **NONE** - No status updates will be sent by POM.

Note: The External Status Update Mode defined on this screen applies to all the jobs in a schedule. If status update is desired only for specific jobs then set the mode on the above screen to NONE and follow the steps defined in the Job Configuration section below.

- Click **Update Credentials** and provide the credentials for the external system.

Job Configuration

This section describes the steps to configure the External Status Update Mode at job level.

- Navigate to the Batch Administration screen and select the schedule to update with the external status.

The screenshot shows the 'Batch Administration' interface. At the top, there are four schedule summary cards: RSP 18.0.002 (Nightly: 432, Recurring: 1488, Standalone: 32), MERCH 19.0.001 (Nightly: 405, Recurring: 3096, Standalone: 289), RI 18.0.002.6.1 (Nightly: 726, Recurring: 0, Standalone: 0), and RDE 18.0.002.3 (Nightly: 206, Recurring: 0, Standalone: 4). Below these, the 'RSP Standalone' schedule is selected. A table lists various jobs with columns for Enabled, Job, Process Name, Application, Module, Parameters, Active Parameter, External Status Update, Skip On Error, and Time. The table contains 16 rows of job entries.

Enabled	Job	Process Name	Application	Module	Parameters	Active Parameter	External Status Update	Skip On Error	Time
<input checked="" type="radio"/>	AC_PROD_ATTR_LOC_SHARE_PROCESS_A	AC_PROD_ATTR_LOC_SHARE_ADHOC	RSP	CS_Attr_S...	null	null	None	<input checked="" type="checkbox"/>	0
<input type="radio"/>	AC_PROD_ATTR_LOC_SHARE_SETUP_ADH	AC_PROD_ATTR_LOC_SHARE_ADHOC	RSP	CS_Attr_S...	-YYYYMMDD-eYYYYMMDD-fY	-YYYYMM...	None	<input type="checkbox"/>	0
<input type="radio"/>	DT_LOC_RANGE_PROCESS_ADHOC_JOB	DT_LOC_RANGE_ADHOC	RSP	DT_Required	null	null	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	DT_LOC_RANGE_SETUP_ADHOC_JOB	DT_LOC_RANGE_ADHOC	RSP	DT_Required	-YYYYMMDD-eYYYYMMDD-fY	-YYYYMM...	None	<input checked="" type="checkbox"/>	0
<input type="radio"/>	DT_PROD_LOC_RANGE_PROCESS_ADHOC	DT_PROD_LOC_RANGE_ADHOC	RSP	DT_Required	null	null	None	<input type="checkbox"/>	0
<input checked="" type="radio"/>	DT_PROD_LOC_RANGE_SETUP_ADHOC_JC	DT_PROD_LOC_RANGE_ADHOC	RSP	DT_Required	-YYYYMMDD-eYYYYMMDD-fY	-YYYYMM...	None	<input type="checkbox"/>	0
<input type="radio"/>	RSE_BATCH_DISABLE_ADHOC_JOB	RSE_BATCH_DISABLE_ADHOC	RSP	MBA_Batc...	null	null	Failed	<input checked="" type="checkbox"/>	2
<input checked="" type="radio"/>	RSE_BATCH_ENABLE_ADHOC_JOB	RSE_BATCH_ENABLE_ADHOC	RSP	MBA_Batc...	null	null	Failed	<input type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ATTR_LOY_PROCESS_ADHOC	RSE_CUST_ATTR_LOY_ADHOC	RSP	CS_CustM...	null	null	None	<input type="checkbox"/>	0
<input type="radio"/>	RSE_CUST_ATTR_LOY_SETUP_ADHOC_JOI	RSE_CUST_ATTR_LOY_ADHOC	RSP	CS_CustM...	-YYYYMMDD-eYYYYMMDD-fY	-YYYYMM...	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ENG_METRIC_BASE_PROCESS	RSE_CUST_ENG_METRIC_BASE_ADHOC	RSP	CS_CustM...	null	null	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ENG_METRIC_BASE_SETUP_AC	RSE_CUST_ENG_METRIC_BASE_ADHOC	RSP	CS_CustM...	-YYYYMMDD-eYYYYMMDD-fY	-YYYYMM...	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ENG_METRIC_CALC_PROCESS	RSE_CUST_ENG_METRIC_CALC_ADHOC	RSP	CS_CustM...	null	null	None	<input type="checkbox"/>	0
<input type="radio"/>	RSE_CUST_ENG_METRIC_CALC_SETUP_AC	RSE_CUST_ENG_METRIC_CALC_ADHOC	RSP	CS_CustM...	-YYYYMMDD-eYYYYMMDD-fY	-YYYYMM...	None	<input type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_FAKE_CUST_PROCESS_ADHOC_JOB	RSE_FAKE_CUST_ADHOC	RSP	DT_TXN_C...	null	null	None	<input type="checkbox"/>	0

- Select one of the Cycle - Nightly/Recurring/Standalone
- Select the **Process/Job** combination and click Edit from table action menu to open the popup below.

The screenshot shows the 'Edit IVTSFILDSDE_INITIAL_JOB' configuration window. It includes the following fields and options:

- Enable Job:** Enabled
- Parameters:** ivtsfildsde_initial.ksh #SysOpt.MMHOME
- External Status Update:** None
- Skip On Error:** Disabled
- * Threshold Run Time (Sec):** 0
- Notes:** (Empty text area)
- * Days of the Week:**
 - Sunday
 - Monday
 - Tuesday
 - Wednesday
 - Thursday
 - Friday
 - Saturday

Buttons: Cancel, Ok

4. Set the **External Status Update Mode** one of the following values:
- **ALL** - POM will send a status update to the external system for each job's execution regardless of success or failure.
 - **FAILED** - POM will notify only for when this job fails.
 - **NONE** - No status update will be sent by POM for this job.

Payload Specification

Attribute	Description
processName	Name of the root process in a given cycle/flow Note: Process names in the callback response are prefixed with the name of the schedule. For instance, a callback response sent for Process "P1" would have processName attribute as MERCH_P1 on return.
processExecutionId	Unique identifier generated by POM to track the process executions.
activityName	Name of the job for which the callback/status update is sent.
activityExecutionId	Unique identifier generated by POM to track the job run instance.
callerId	Identifier provided by the caller to POM when submitting the invocation/execution request. POM returns the same ID back to caller.
correlationId	Identifier provided by the caller to POM when submitting the invocation/execution request. POM returns the same ID back to caller.
callBackServiceDataDetail.<KeyName>	Key value pairs supplied to POM when submitting the invocation/execution request. Those are returned back to the caller.
failedActivity	In the case where the callback is for a failed job, this field is populated with the details of the failed Job.
status	Status of the job execution - COMPLETED"SKIPPED, ERROR SKIPPED_ON_ERROR
activityStatus	Status of the job, and the derived activity state: <ul style="list-style-type: none"> ■ ERROR - ACTIVITY_FAILED ■ COMPLETED - ACTIVITY_COMPLETED ■ SKIPPED - ACTIVITY_COMPLETED ■ SKIPPED_ON_ERROR - ACTIVITY_COMPLETED

Payload Examples

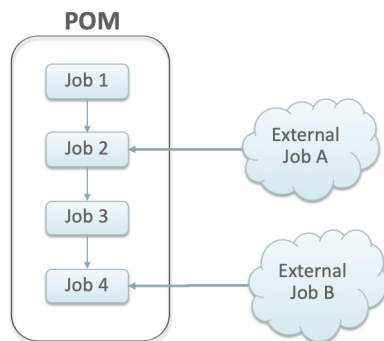
Below are sample external status update payloads for the MERCH schedule.

Description	Payload
Hourly Job Callback	<pre data-bbox="630 241 1362 579"> { " callerId " : "XXX", " correlationId " : "37", " processName " : "MERCH_BATCH_PROCESS_01", " processExecutionId " : "MERCH_BATCH_PROCESS_01 ~asfasfdasdfas", " activityName " : " MERCH_BATCH_JOB", " activityExecutionId " : "123456", " status " : "COMPLETED", " activityStatus " : "ACTIVITY_COMPLETED", " failedActivity " : null } </pre>
Nightly Job Callback	<pre data-bbox="630 609 1362 938"> { " callerId " : "XXX", " correlationId " : "37", " processName " : "MERCH_START_NIGHT_BATCH_PROCESS ", " processExecutionId " : "MERCH_START_NIGHT_BATCH_ PROCESS ~asfasfdasdfas", " activityName " : " MERCH_START_NIGHT_BATCH_JOB", " activityExecutionId " : "123456", " status " : "COMPLETED", " activityStatus " : "ACTIVITY_COMPLETED", " failedActivity " : null } </pre>

External Dependency

This feature allows customers to control the execution of a schedule running in POM by defining custom pre-dependencies. POM pauses the schedule execution on encountering these external pre-dependencies and resumes the execution once they are released by customer.

Figure 3–2 External Dependency



Configuration

This section details the steps involved in setting up the external dependency.

1. Navigate to the Batch Administration screen and select the schedule to which the external dependency will be added.

Batch Administration

RSP 18 0.002 MERCH 19 0.001 RI 18 0.002 6.1 RDE 18 0.002 3

Nightly: 432 Recurring: 1488 Standalone: 32 Nightly: 405 Recurring: 5096 Standalone: 289 Nightly: 726 Recurring: 0 Standalone: 0 Nightly: 206 Recurring: 0 Standalone: 4

Nightly (432) Recurring (1488) Standalone (32) Export Config Import Config

RSP Standalone

Actions View Detach Enable All Disable All

Enabled	Job	Process Name	Application	Module	Parameters	Active Parameter	External Status Update	Skip On Error	Time
<input checked="" type="radio"/>	AC_PROD_ATTR_LOC_SHARE_PROCESS_A	AC_PROD_ATTR_LOC_SHARE_ADHOC	RSP	CS_Attr_S...	null	null	None	<input checked="" type="checkbox"/>	0
<input type="radio"/>	AC_PROD_ATTR_LOC_SHARE_SETUP_ADH	AC_PROD_ATTR_LOC_SHARE_ADHOC	RSP	CS_Attr_S...	-YYYYMMDD-eYYYYMMDD-1Y	-YYYYMM...	None	<input checked="" type="checkbox"/>	0
<input type="radio"/>	DT_LOC_RANGE_PROCESS_ADHOC_JOB	DT_LOC_RANGE_ADHOC	RSP	DT_Required	null	null	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	DT_LOC_RANGE_SETUP_ADHOC_JOB	DT_LOC_RANGE_ADHOC	RSP	DT_Required	-YYYYMMDD-eYYYYMMDD-1Y	-YYYYMM...	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	DT_PROD_LOC_RANGE_PROCESS_ADHOC	DT_PROD_LOC_RANGE_ADHOC	RSP	DT_Required	null	null	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	DT_PROD_LOC_RANGE_SETUP_ADHOC_J	DT_PROD_LOC_RANGE_ADHOC	RSP	DT_Required	-YYYYMMDD-eYYYYMMDD-1Y	-YYYYMM...	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_BATCH_DISABLE_ADHOC_JOB	RSE_BATCH_DISABLE_ADHOC	RSP	MBA_Batc...	null	null	Failed	<input checked="" type="checkbox"/>	2
<input checked="" type="radio"/>	RSE_BATCH_ENABLE_ADHOC_JOB	RSE_BATCH_ENABLE_ADHOC	RSP	MBA_Batc...	null	null	Failed	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ATTR_LOY_PROCESS_ADHOC	RSE_CUST_ATTR_LOY_ADHOC	RSP	CS_CustM...	null	null	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ATTR_LOY_SETUP_ADHOC_J	RSE_CUST_ATTR_LOY_ADHOC	RSP	CS_CustM...	-YYYYMMDD-eYYYYMMDD-1Y	-YYYYMM...	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ENG_METRIC_BASE_PROCESS	RSE_CUST_ENG_METRIC_BASE_ADHOC	RSP	CS_CustM...	null	null	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ENG_METRIC_BASE_SETUP_A	RSE_CUST_ENG_METRIC_BASE_ADHOC	RSP	CS_CustM...	-YYYYMMDD-eYYYYMMDD-1Y	-YYYYMM...	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ENG_METRIC_CALC_PROCESS	RSE_CUST_ENG_METRIC_CALC_ADHOC	RSP	CS_CustM...	null	null	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_CUST_ENG_METRIC_CALC_SETUP_A	RSE_CUST_ENG_METRIC_CALC_ADHOC	RSP	CS_CustM...	-YYYYMMDD-eYYYYMMDD-1Y	-YYYYMM...	None	<input checked="" type="checkbox"/>	0
<input checked="" type="radio"/>	RSE_FAKE_CUST_PROCESS_ADHOC_JOB	RSE_FAKE_CUST_ADHOC	RSP	DT_TXN, C...	null	null	None	<input checked="" type="checkbox"/>	0

2. Select a Cycle - Nightly/Recurring/Standalone.
3. Find the **Process/Job** combination to which dependency needs to be added.
4. Click on the **Job** name to open the Batch Job Details panel.

Batch Job Details

Job AUCDETALESDM_JOB

Pre Dependencies

Enabled	Job	Process
<input checked="" type="radio"/>	DISCIPSE_JOB	DISCIPSE_PROCESS

Post Dependencies

Enabled	Job	Process
<input checked="" type="radio"/>	DOMANMENKUPSE_JOB	DOMANMENKUPSE_PROCESS

External Dependencies

+ Add

Enabled	Job	Process
<input checked="" type="radio"/>	Edemaisib	

Inter-Schedule Dependencies

+ Add

Enabled	Job	Process	Schedule
<input checked="" type="radio"/>	W_RTL_CURR_MCALS_JOB	ADVANCE_DATE_PROCESS	RI

Schedule Links

+ Add

Enabled	Job	Process	Schedule
<input checked="" type="radio"/>	GENERIC_BATCH_MILE_MARKER_JOB	BATCH_INITIAL_START_PROCESS	RI

Open F42 Done

5. On the External Dependency section of the screen, click the **Add** button to create the external dependency.
6. Provide the external job name.

Add External Dependency

External Job

Cancel Ok Ok and add another

7. Click **Ok** to save and exit or **Ok and add another** to create another dependency.

Releasing Dependency

External systems need to invoke the following POM ReST service to release/fulfill the external dependencies.

HTTP Method	POST
URL	<code>http://<pom-server-host>/ProcessServices/services/private/schedules/<Schedule_Name>/external/jobs/<Ext_Dependency_Name>/status/COMPLETED</code> Note: <pom-server-host>, <Schedule_Name> and <Ext_Dependency_Name> variables need to be changed according to the target environment and schedule.
HTTP Headers	Content-Type = application/json Accept-Version = 16.0
Request Body	None
Response Body	<pre>{ "value": "true", "links": [], "hyperMediaContent" : { "linkRDO": []} }</pre> <p>The true/false in the value attribute shown above indicates the success/failure of releasing the external dependency respectively.</p>

Schedule Customization

All applications that run batch cycles in POM maintain a standard batch schedule with full list of jobs, pre-defined dependencies, job parameters, and so on.

As a part of the implementation, customers collaborate with the Oracle support and/or development teams to determine the necessary schedule customizations and configuration according to the customer's needs.

POM supports modifying the following attributes of a schedule:

- Enable/Disable a job based on the functional use-case
- Modify the job parameters
- Modify the job dependencies
- Enable/Disable the hourly cycles

Notifications

This section provides the list of notifications sent by POM to alert users about events that occur throughout the batch execution.

By default, all notifications are shown on the POM application. It is an option to configure notifications to also send e-mails. This is accomplished through the Oracle Retail Application Admin Console (ORAAC).

1. **Error:** This notification is sent whenever a running batch fails for some reason. This notification is for Oracle internal users.
2. **Warning type:** This notification is sent when application/user is trying to run an already running job.
3. **InformationNotification:** This notification is for System information. This notification is for Oracle internal users.
4. **SystemErrorNotification:** This notification is to notify of all unexpected system exceptions. This notification is for Oracle internal users.
5. **New scheduler day failure:** This notification is sent when there is an issue while setting up the new scheduler day, e.g. previous scheduler day has not yet been completed.
6. **Intraday cycle completed:** This is a low priority notification that is sent whenever an intraday cycle is completed.
7. **Intraday Cycle Skipped:** This is a low priority notification that is sent whenever an intraday cycle is skipped.
8. **NightlyStart:** This notification is sent when the Nightly cycle is kicked off.
9. **Nightly cycle completed:** This notification is sent when the nightly batch completes for the scheduler day.
10. **Long running job:** This notification is sent whenever a job is taking more than the configured threshold time for getting completed.
11. **NightlySummaryReport:** This notification sends out a batch summary report to the configured mail addresses when the nightly cycle is completed. This notification is for Oracle internal users.
12. **IntradayCycleSummaryReport:** This notification sends out a batch summary report to the configured mail addresses when an intraday cycle is completed for each flow.
13. **JosSyncFailed:** This notification is sent out when there is an issue in publishing disabled jobs from POM to JOS.

Note: Disabled jobs are published to JOS as a part of the New Scheduler Day process. If the previous day's nightly cycle is still running at the time of New Scheduler Day creation, then publishing of the disabled jobs to JOS is done when the last job of the nightly cycle completes.

14. **ScheduleChangesSummaryReport:** This notification sends out the Delta Summary Changes Report to the configured mail address. Delta changes include the Jobs added to the current Schedule or Jobs removed or Jobs Status changed from the previous schedule. The External Dependency changes are also shown on the report. If there are no changes between the previous and current schedules, the notification is not sent out.
15. **ExternalDepPending:** This notification is sent when a Job is waiting for and External Dependency.
16. **InterSchedDepPending:** This notification is sent when a Job is waiting for an Inter-Schedule Dependency.
17. **InterSchedDepIssue:** This notification is sent when:
 - The business date between the interdependent Schedules vary by more than a day.
 - The External Schedule is day ahead of the current Schedule and previous day data is not available.
 - The inter-schedule dependencies are not valid and disabled.
 - A schedule includes inter-schedule dependencies or execution links that are not valid.
18. **ApplicationModuleDisabled:** This notification is sent when applications or modules are disabled during MDF synchronization.
19. **ErrorNotificationExternal:** This notification is sent whenever a running batch failed for some reason. This notification is for external customers.
20. **NightlySummaryReportExternal:** This notification sends out a batch summary report to the configured mail addresses when nightly cycle is completed. This notification is for external customers.
21. **ExternalDepComplete:** This notification is sent when an external dependency is completed.
22. **ExecutionLinkIssue:** This notification is sent if there is a failure/warning in the Execution Link invocation.
23. **ApplicationModuleEnabled:** This notification is sent when applications or modules are enabled during MDF synchronization.
24. **ExecutionEngineIssue:** This notification is sent when there are important/critical events/failures with the Execution Engine. For example:
 - When the Job Admin invocation fails or
 - When the request is stuck in SUBMITTING state and not able to auto recover or
 - When the request is stuck in SUBMITTING state with auto reconcile or
 - When the Job is stuck in STARTING state in Job Admin
25. **BatchScheduleImport:** This notification is sent as an update on progress/errors encountered during the schedule import process.

User Roles

This section lists the pre-loaded user roles in POM.

Roles	Description
BATCH_ MONITORING_JOB	One of the classic user interface roles. Users within this role are typically retailer administrators responsible for monitoring and executing batch. They can perform select activities on the Batch Monitor screen to move the schedule along.
BATCH_BUSINESS_ JOB	Another one of the classic user interface roles. Users within this role are typically retailer business users responsible for just monitoring batch and configuring POM to enable callbacks into the Company's systems.
BATCH_ ADMINISTRATOR_ JOB	Another one of the classic user interface roles. Users within this role are typically Oracle AMS administrators who monitor, maintain and configure the batch schedules. They also maintain POM application configurations for efficient operations. They troubleshoot batch issues and work with other Oracle development and support personnel to address those issues. Finally they apply POM and batch schedule patches and upgrades. In the new POM user interface, they have additionally been given access to the new AMS Utilities screen.
BATCH_VIEWER_ JOB	Users within this role are retailer business users responsible for just monitoring batch. They have view access to all POM screens except AMS Utilities.
BATCH_SCHEDULE_ CONFIGURATION_ MANAGER_JOB	Users within this role are typically retailer administrators responsible for just monitoring batch and configuring external dependencies and callbacks into the Company's systems. They have view access to all POM screens except AMS Utilities.
BATCH_SCHEDULE_ ADMINISTRATOR_ JOB	Users within this role are typically retailer administrators responsible for maintaining monitoring and executing batch. They have view access to all POM screens except AMS Utilities. They can perform select activities on the Batch Monitor screen to move the schedule along. They also have update access to the Batch Administration screen.
BATCH_ORACLE_ AMS_ ADMINISTRATOR_ JOB	Users within this role are typically Oracle AMS administrators who monitor, maintain and configure the batch schedules. They also maintain POM application configurations for efficient operations. They troubleshoot batch issues and work with other Oracle development and support personnel to address those issues. Finally they apply POM and batch schedule patches and upgrades.

Note: The first three roles mentioned in the above table are associated with POM's classic user interface. They are being deprecated along with the classic user interface. Customers need to migrate to the other four roles before those classic roles are removed.

These roles have been given similar access in the new user interface as the access they had in the classic user interface.

For more information regarding functional access of each POM role, refer to the *Oracle® Retail Process Orchestration and Monitoring Cloud Services Security Guide*.
