

Oracle® Financial Services Crime and Compliance Management

PMF Orchestration Guide



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The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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Oracle Financial Services Crime and Compliance Management PMF Orchestration Guide, Release 24.08.01

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License Information

Oracle and third-party license details for installing and configuring OFSAA.

Third-party software tools - [OFSAA Licensing Information User Manual Release 8.1.2.0.0](#).

Revision History

This log lists significant documentation updates:

| Revision Date | Details |
|----------------------|--|
| May 2024 | Updated the guide based on the latest version of PMF services. |
| May 2022 | Created document with information about Service name and associated service IDs, to create a process pipeline. |

About This Guide

Refer to Oracle Financial Services Crime and Compliance Management Process Modelling Framework User Guide, to understand the PMF services and use the same.

Audience

This guide is intended for process pipeline developers implementing process pipelines developed by business analysts.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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Related Resources

See these Oracle resources:

- [Oracle FCCM User Documentation](#)

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. |

1

Introduction

The Process Modelling Framework (PMF) is a design and execution framework that enables process pipeline developers to implement various pipelines modeled by business analysts.

The Process Modelling Framework consists of process modelling components for modelling Pipelines and process monitor components to monitor instantiated pipelines of Oracle Financial Services (OFS) Cloud services.

The Process Modeller aids in representing the various artifacts required for modelling and provides implementation details of the OFS Cloud services process artifacts.

Key Features of Process Modelling Framework

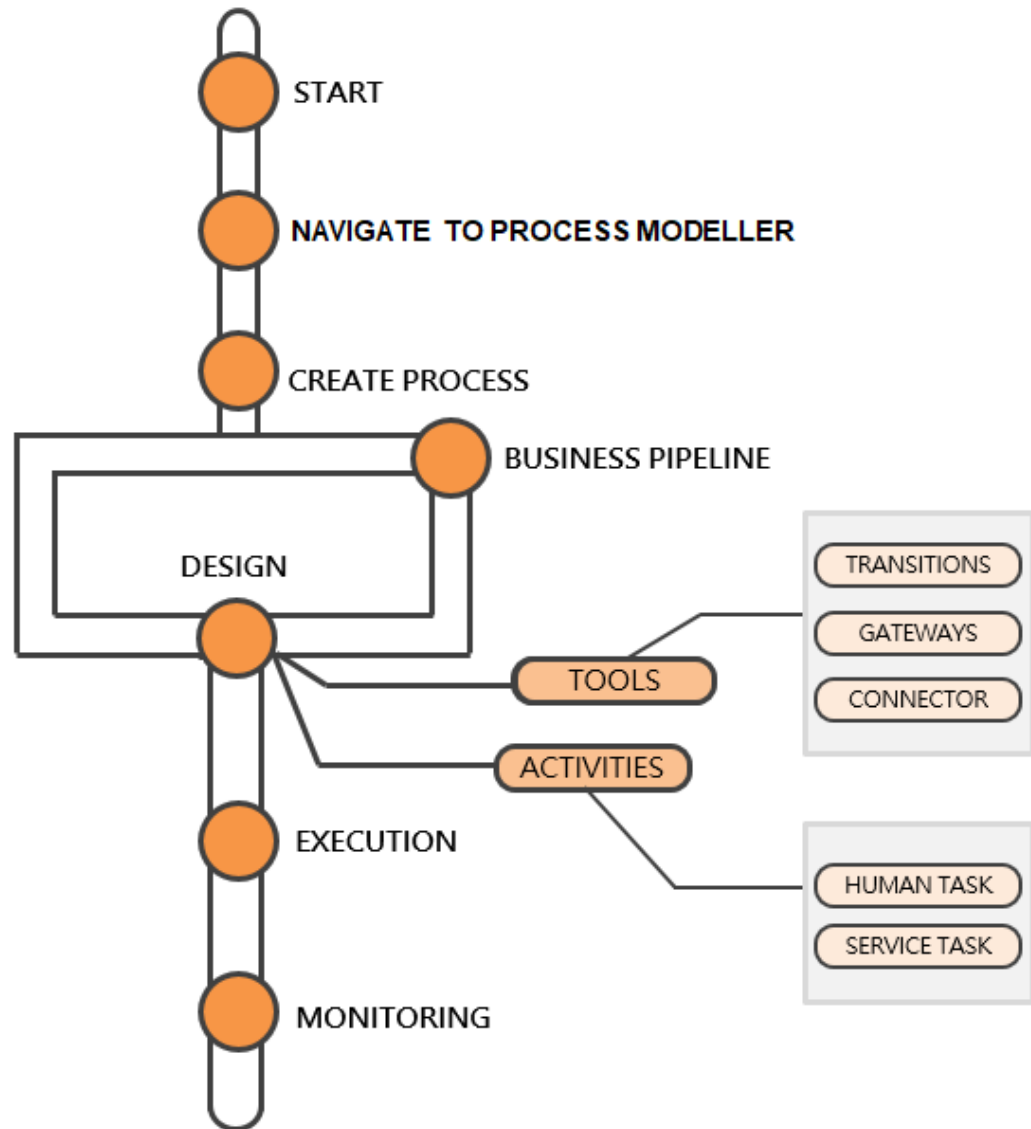
Process Pipeline developers use Process Modelling Framework to orchestrate the business pipelines within services, and also to design the artifacts that participate in the Pipelines, in order to complete their implementation.

The key features of PMF services are:

- Support for visual modelling of the pipelines.
- Support for registration of Process, Activity, and Transition Logic implementation, separated from the modelling itself.
- Published interface for the abstraction of task implementation.
- Reminder, escalation, and expiry of tasks.
- Process Monitoring Admin Tool to view the execution of process instances.

Process Pipeline Flow

Figure 1-1 Process Pipeline flow



PMF Service Components

PMF Service Components.

PMF services comprises of 2 main components

- [Process Modeller](#) - helps to create and manage process pipelines.
- [Process Monitor](#) - monitors the current stage of the process for different instances.

Accessing PMF Services

Process Pipeline developers can utilize PMF Services to orchestrate the Business Pipelines, and also to design the artifacts that participate in the Pipelines, in order to complete their implementation.

Before accessing PMF services, ensure that you have the following access rights:

- **WFCRUD_EXT** - to access Workflow CRUD API
- **WFEXEC_EXT** - to access Workflow Execute API
- **WFREAD_EXT** - to access Workflow Read API

Also refer to the [user role mapping and access rights](#), for more information.

To access the Process Modelling Framework:

1. From the **OFS Cloud Applications** window, click **Navigation**, to access the **Navigation tree**.
2. Select one of the following from the **Navigation Tree**.
 - Transaction Monitoring Administration
 - Compliance Regulatory Reporting Administration
3. Select **Process Modelling Framework** from the menu to access the following options:
 - **Process Modeller** - to view the summary of available processes and to create and manage process pipelines.
 - **Process Monitor** - to monitor the currently running processes.

2

Using Process Modeller

Process Modeller helps to create and manage Process Pipelines. You can also use the Process Modeling components on a canvas to create model pipelines.

In the **Process Modeller**, you can view the existing business process pipelines. You can also view the following details related to each pipeline:

- Process ID
- Process Name
- Process Description
- Version
- Instance
- Application
- Last Modified date

Perform the following tasks from the Process Modeller page:

- [Create a process pipeline](#)
- [Edit a process pipeline](#)
- Delete a process pipeline

Note:

Pipeline processes cannot be deleted for the records that are pre-configured in the service. Similarly, pipeline processes which have instances under them cannot be deleted.

- From the Options menu, you can
 - View the process flow in the canvas.
 - Copy an existing pipeline, to create a new pipeline with the same process flow.
 - Monitor the process flow of the pipeline.
 - Test or check whether the Business Pipeline you designed works as expected.

To access a particular pipeline, enter specific terms (keywords from Process ID, Process Name, or Process Description) in the **Search** field. You can sort the pipelines based on Process ID, Process Name, or Application.

To switch to **Process Monitor**, click **Switch Window**.

Creating a Process Pipeline

You can create a process pipeline, from the Process Modeller.

To create a process pipeline:

1. Click **Add** to view the **Process Details context** window.
2. Enter the following details:
 - **Process ID**
 - **Process Name**
 - **Process Description**
3. Select the required **App Package ID** of the required service package.
4. Select the required process pipeline **Type**.

 **Note:**

The **Registered Topics** and the **Spark DB** are provided for future enhancements and are not functional in this release.

5. Enter any required **Tags**.
6. Select the required workspace from the **Service ID_Workspace** drop-down list.
Refer to the following table for Service Names and the associated Service IDs.

Table 2-1 Service Names and Service IDs

| Service Name | Associated Service ID |
|--|---|
| <ul style="list-style-type: none"> • Oracle Financial Services Crime and Compliant Management Transaction Cloud Service • Oracle Financial Services Crime and Compliant Management Customer Screening Cloud Service • Oracle Financial Services Crime and Compliant Management Know Your Customer Cloud Service | Common Service_WS001 |
| Oracle Financial Services Crime and Compliant Management Regulatory Reporting Cloud Service | Oracle Financial Services CRR Cloud Service_WS001 |

7. Click **Save And Close** to save the process pipeline and close the context window.
You can also click **Save And Launch** to save the process pipeline and open the Process Flow window in the canvas.
Click **X** to cancel and return to the context window.

Editing a Process Pipeline

You can edit an existing process pipeline, from the Process Modeller.

- To edit a Process Pipeline, click the required active link in a Process ID record to open the [Process Flow](#) window in the canvas.

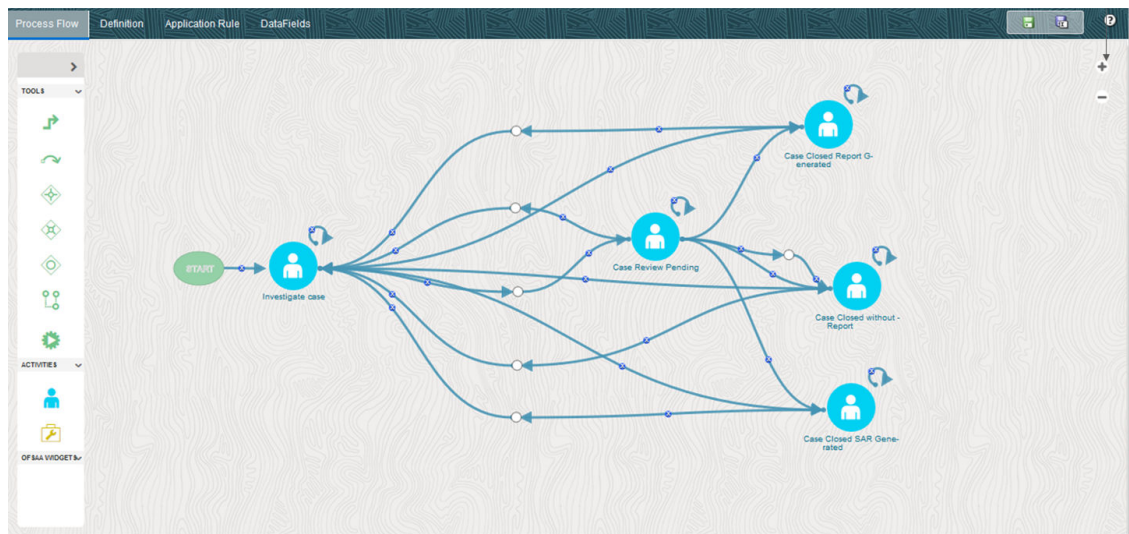
3

About PMF Canvas

The PMF Canvas is built on user-configured data fields and application rules that form the building blocks for the tools and activities in the process flow.

You can create process flows on the canvas. The drawing canvas is accessible when you [edit an existing Process ID](#) or when you [save and launch a new process pipeline](#) from the **Process Details context** window.

Figure 3-1 PMF Canvas



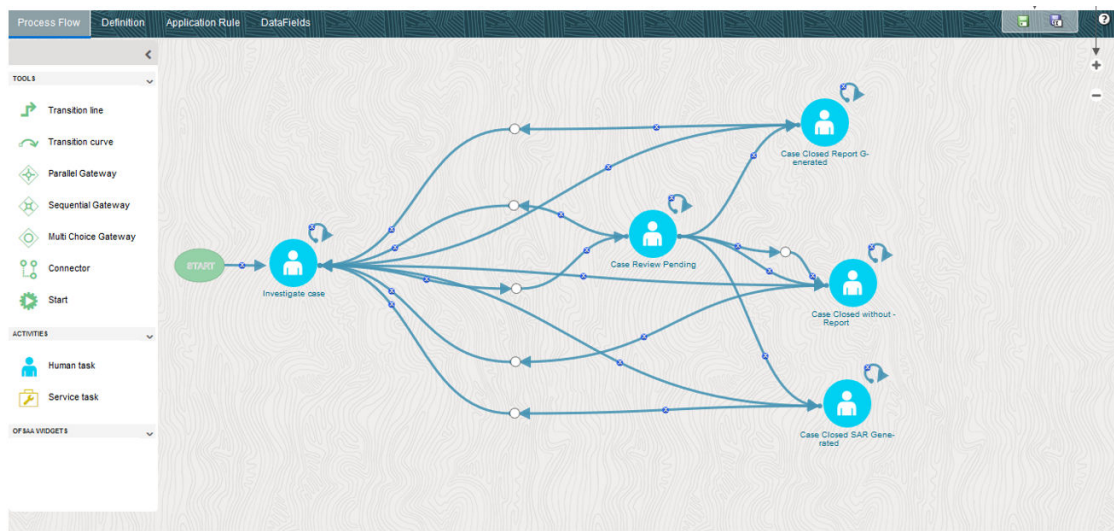
The PMF Canvas consists of the following tabs:

- [Process Flow](#) - create Process Pipelines.
- [Application Rule](#) - Set parameters
- [Data Fields](#) - configure access and storage from external applications.

Process Flow

The Process Flow tab present in the PMF canvas helps to create Process Pipelines. It has a dockable toolbar and a drawing canvas.

Figure 3-2 Drawing Canvas



The drawing canvas helps to design the Process flow with the Tools and Activities available in the dockable toolbar. You can access the following features in the drawing canvas:

- **Transitions** - controls the flow between various components in the Process flow. It connects two activities and the flow is configured based on a conditional expression or a decision rule.
To connect the activities using a straight line, use **Transition Lines** and to connect them using curved lines, use **Transition Curves**.
- **Gateways** - assists to split an incoming transition is split into multiple transitions or merge multiple incoming transitions into a single transition. You can use the following gateways, based on the requirement.
 - **Parallel Gateway**- When multiple transitions or flows are executed in parallel.
 - **Sequential Gateway** - When multiple transitions or flows are run in sequence.
 - **Multi Choice Gateway** - When multiple transitions or flows are executed based on decision rules.

 **Note:**

While using Parallel or Multi Choice gateways in your pipeline, ensure that after all the activities are added to these gateways, it is merged or closed again with a Parallel or Multi Choice gateway, respectively. If there is no other activity to be performed after the Parallel or Multi Choice gateway, it is mandatory to add an empty service task activity. Otherwise, the status will not be updated correctly and the next activity execution will not happen.

- **Connector** - helps connect two activities with a different path (other than the default), in case the default path is overlapping with some existing flow.
- **Start** - refers to the starting point in the Process Flow.
- **Human Task** - requires human intervention to move to the next activity. For more information on stitching human tasks in your Process flow, see [Human Tasks](#).

- **Service Task** - calls a service component (for example, activity to call a business rule to calculate a certain threshold). For more information on stitching service tasks in your Process flow, see [Service Tasks](#).

Human Tasks

Use a human task component, when an activity requires a human intervention to go to the next activity.

To add an human task:

Using Human Tasks

1. From the Process Flow tab, click **Human Task** from the **Activities** pane in the floating toolbar and click on the **Drawing canvas**, at the required position.
2. Double click **Human Task** in the drawing canvas, to access the **Activity Drawer** window.
3. Enter the **Activity Name** and the **Description**.
An unique **Activity ID** is auto-generated for the newly added human task.
4. Select the activity **Status** .

Creating Tasks and Notifications Using Action Tab

An Action or Task is used to inform the assigned user about an action to be completed in the current stage of the Workflow. You can add multiple tasks for an activity. You can assign a task to a user, user group, users with a particular role, or users selected by an application rule. The task is sent to the **Application Inbox** of the assigned users.

5. Click **Define Actions** to define new actions.
6. Click **Add** from the **Action** tab, to create a new task. You can add any of the following tasks:

-
- [Expiry](#)
 - [Escalation](#)
 - [E-mail](#)
 - [Reminders](#)

Expiry

You can set the expiry date for a specific task. The task will not be executed after the set expiry date. Select the required option from the **Expiry** drop-down list:

- **Global Expiry Setting**- To set the task expiry based on a global setting. The global setting can be set from the back end.
- **Never Expire**- If the task should not expire.
- **Expire After**- If you want to set the task expiry after some days and (or) hours. Enter the number of days and (or) hours after which the task should expire.
- **Dynamic Value** – If you want the user assigned to this task to set the task expiry date and time dynamically. This value needs to be entered in the code.

Escalation

Note:

Escalation should be set after the expiry of the task. If you have selected the Never Expire option for Expiry, you cannot set escalation.

Enter/select the following details:

- Select the **Escalation** criteria :
 - * **Global Escalation Setting**- To set the task escalation based on a global setting. The global setting can be set from the backend.
 - * **Never Escalate** - If an escalation is not required for the task.
 - * **Escalate After** - If you want to escalate when the task is not addressed after pre-configured days and (or) hours. Enter the number of days and (or) hours after which the escalation should be triggered.
 - * **Dynamic Value** – If you want the user assigned to this task to set the task expiry date and time dynamically. This value needs to be entered in the code.
- **Maximum number of escalation levels** - Select 1 to escalate to the immediate manager, 2 to the next higher authority and so on.
- **Escalation Path** - Default, People Hierarchy, and Custom Rule.
- **Notification Message Type** - The type of notification message.

E-mail

You can activate the email notification and also set the email template for sending emails after task completion.

Note:

Ensure to configure the email settings before setting email notification for your tasks.

Reminders

You can set a reminder to execute a task. The reminders will be sent to the assigned user as an open task to their Inbox. Enter/select the following details:

- **Recurrencee** – The number of times set for a recurring reminder.
- **Task Start Date** – Send a reminder after a defined number of days and (or) hours, from the start date of the task.
- **Task Expiration Date** – Send a reminder before a defined number of days and (or) hours from the end date or expiry date of the task.
- **Relative Date** – Number of days and (or) hours from the Relative Date after or before which you want to set the reminder.
- **Notification Message** – The notification message to be sent as the reminder.

7. After entering the required criteria, click **OK** to create a new human task.

Using Service Tasks

A Service Task is an automatic task that gets triggered in the Process flow.

Service tasks help to execute the business logic which is defined through an [Application Rule](#) of Execution Rule type. They are typically used to call External Model Service through REST APIs, External Java APIs, stored procedures, and functions.

To add a service task:

1. From the Process Flow tab, click **Service Task** from the **Activities** pane in the floating toolbar and click on the **Drawing canvas**, at the required position.
2. Double click **Service Task** in the drawing canvas, to access the **Activity Drawer** window.
3. Enter the **Activity Name** and the **Description**.

An unique **Activity ID** is auto-generated for the newly added human task.

4. Click **Task Implementation**, to access the **Implementation** tab.
5. Select the information domain where the **Execution Rule** you want to execute is available, from the **Infodom** drop-down list. The list displays all the Infodoms mapped to the services configured in your OFS Cloud services instance.
6. Select the **Execution Rule** to be executed for this activity.
 - a. Click **Open Details** to view the Participant Details with all Application Rules of Execution Rule types available in your process.
 - b. Click an application rule to view the details.
 - c. Select the required rule and click **OK**.
7. Add the Parameters you want to pass to the Execution Rule using Data Fields. You can pass Static values or Dynamic Values. In the case of Dynamic, the value needs to be entered during the execution of the workflow.
 - a. Click **Add** under **Parameters**, to access the Binding Details.
 - b. Select the **Data Field** to which you want to pass the value. The list displays all Data Fields for the current process or package.
 - c. Select **Static** from the **Parameter Type** list to pass a static value to the selected data field in the **Value** field or Dynamic to pass the value during execution of the workflow.

 **Note:**

The added parameters are displayed under the **Parameters** pane. Click **Edit Parameter** corresponding to a parameter to edit it or click Delete, to delete the parameter.

8. Select an application rule which you want to execute before executing the Execution Rule. Click **Open Details** corresponding to the **Pre-Rule** and select the required application rule.
9. Select an application rule which you want to execute after executing the execution rule. Click **Open Details** corresponding to the **Post-Rule** and select the required application rule.

Managing Design Pipelines

Business pipelines are defined in OFS Cloud services to design and execute the sequence of tasks, to derive a well-defined outcome.

Using the designer, you can design the entire business flows consisting of various types of tasks or another business pipeline.

Designing a Pipeline

Business pipelines are defined in OFS Cloud services to design and execute the sequence of tasks which are either OFS Cloud services tasks or external tasks, to derive a well-defined outcome.

Business Pipeline is used to design a Business Process that consists of a sequence of tasks either internal or external tasks through well-defined interfaces. Using the designer, you can design the entire business flows consisting of various types of tasks or another business pipeline. This flow is defined by using various OFS Cloud services artifacts from the component toolbar and the execution can be defined to be in serial or parallel. Using the Process Modeller, we can Orchestrate a Business pipeline.

To create a Business Pipeline:

1. Click **Add Process Pipeline** open the Process Details context window, in the Process Modeller window.
2. Enter a unique **Process ID**, **Process Name**, and the **Description**.
3. Select the appropriate App package in which you want to create the process. For more information, see the Application Package section.
4. Select Business Process Pipeline from the **Type** drop-down list.
5. Select the information domain in which you want to create the Business Pipeline, from the **Service ID_Workspace** drop-down list. The list displays all the workspaces mapped to the services configured in your OFS Cloud services instance.
6. Click **Save & Launch**. The Process Flow canvas is displayed.
7. Click **Start Process** and from the Tools pane in the floating toolbar and click on the drawing canvas where you want to place it. This Start activity indicates the beginning of the Process.
8. Design your Process with various components available in the Process Flow tab.

Modifying a Pipeline

Modify a process pipeline.

You can modify the process flow, application rules and the data fields associated with a process pipeline.

1. From the Process Modeller window, search for the Pipeline (Business) and click the Pipeline name. The Process Flow tab is displayed.
2. Modify the process flow, definition, application rules, and data fields, as required and click **OK**.

Testing a Process Pipeline

Verify and validate if the Process flow you designed works as expected.

To test the process flow:

1. From the Process Modeller window, click **Options** and select Test Process Flow, to access the **Execute Workflow** window is displayed.
2. Enter the required **Object ID** to identify the Process flow. This will be displayed as Entity ID in the Process Monitor window.
3. (Optional). Enter the Application Parameters that are required in the Process flow you are testing. Specify parameters in JSON format.

Example: {"WF_RUNSK": "15", "WF_MISDATE": "12/31/1999"}

4. Click **OK**.

Viewing a Pipeline

View the workflow of an existing process pipeline.

To view the workflow:

1. From the Process Modeller window, click Options and access the sub-menu.
2. Click **View** to view the process flow of the pipeline.

Copying a Pipeline

Copy an existing business process and create a new Business Process based on the copied process, by updating the Process flow or other required details.

To copy an existing business process:

1. From the Process Modeller window, click **Options** and access the sub-menu.
2. Click **Copy** to copy the process flow of the pipeline.
3. Enter a unique Process ID, Process Name, and Process Description. If you select the same App Package ID, then Data Fields and Application Rules also will be copied.
4. Select the newly created **Process** and click the Process Name. Modify the Process flow and other details if required.

Deleting a Pipeline

Delete a Business Pipeline.



Note:

Processes cannot be deleted for the records that are preconfigured in the service. Similarly, processes which have instances under them cannot be deleted.

To delete an existing business process:

1. From the Process Modeller window, click **Delete Row** corresponding to the Pipeline you want to delete.
2. Click **OK** to confirm the deletion.
3. Click **Delete Anyway** to delete the Pipeline or click Cancel to cancel the delete operation

Application Rules

The Application or API Rule is the interface between the process engine and the service, including any parameter to be passed.

Based on their usage the application rules are categorized into three types:

- **Execution Rule:** These are Business Logic executed as Task by an Activity.
- **Decision Rule:** This rule returns a Boolean value “True/False”, used in decision making during split or branching of transition.
- **Selection Rule:** This rule fetches some value, useful to get value dynamically from a table or other source.

To create an application rule, click **Add** in the Application tab, to view the **Application Rules** menu. Currently, the available application rules are:

- Attribute Expression Application Rule
- Advanced Attribute Expression Application Rule

Note:

The following Application Rules displayed in the menu are not yet functional and will be available in future releases:

- Stored Procedure Application Rule
- Function Application Rule
- JSON Read From DB Application Rule
- JSON Write To DB Application Rule

Attribute Expression Application Rule

This Application Rule uses attribute expressions in your Process Flow. Enter the following details to create a new attribute expression application rule:

- **Name** - Enter a unique name for the Application Rule.
- **Rule Type** - Select the rule type as **DecisionRule**. This Rule Execution type supports only the **DecisionRule** type.
- **Execution Type** - Select the Application Execution Type as **Attribute Expression**.
- **Attribute** - Select the attribute for which you want to define the application rule, from the drop-down list. The list displays the attributes configured for the selected service and component. For more information, see [Configuring Application Object Model \(AOM\)](#) . Click **Add** to add values to the selected attributes. A row is added in the Attribute Values pane. Click the **Value** column to select the values for the attribute from the drop-down. You can select one or more values. You can select multiple attributes and click Add to assign values to those attributes.

Click **Delete** to remove a row.

Advanced Attribute Expression Application Rule

This is an advanced version of the Attribute Expression Application Rule with additional logical conditions and assignment operators. The expression can be dynamically built and will return True or False values after evaluation. This is used as a DecisionRule in transitions. You can define this application rule with multiple conditions and nested groups.

- **Rule Name** - Enter a unique name for the Application Rule.
- **AND or OR** - Select the logical operator to be used for the conditions in a group.
- **Add Condition** - When you click **Add Condition**, a new row gets added. To define a condition, select the attribute, the operator, and the value from the drop-down lists. Multiple values can be selected for each attribute. Click **Remove Condition** to delete an already added condition.
 - **Attribute**- The drop-down list displays the attributes configured for the selected service and component. For more information, see [Configuring Application Object Model \(AOM\)](#).
 - **Operator**- Available options are in,=,<>, <, <=, >, >=.
 - **Value**- Displays the values configured for the selected attributes. Select the required value.
 - **Attribute** - Select the attribute for which you want to define the application rule, from the drop-down list. The list displays the attributes configured for the selected service and component. For more information, see [Configuring Application Object Model \(AOM\)](#) .
Click **Add** to add values to the selected attributes. A row is added in the Attribute Values pane. Click the **Value** column to select the values for the attribute from the drop-down. You can select one or more values. You can select multiple attributes and click Add to assign values to those attributes.

Click **Delete** to remove a row.
- **Add Group** - Click **Add Group** to include nested conditions. For each group, select the required logical operator as AND or OR.
Click **Remove Group** to delete a group of conditions.

Configuring Application Object Model (AOM)

This module helps in creating a set of attributes for a given service abstractly so that frameworks like PMF and other modules can leverage retrieving service attributes and their values. Each service is identified using a service package ID.

The attribute values are fetched based on the attribute types.

Table 3-1 Attribute Types and IDs

| Attribute Type ID | Description |
|-------------------|--|
| 1001 (Static) | Store attribute values in the AAI_AOM_STATIC table as V_STATIC_ID and V_STATIC_VAL. |
| 1002 (Query) | Enter the SQL query in V_ATTRIBUTE_VALUE1 in the AAI_AOM_APP_COMP_ATTR_MAPPING table, which has to be fired to fetch the attribute values. |

Table 3-1 (Cont.) Attribute Types and IDs

| Attribute Type ID | Description |
|-------------------------------|---|
| 1003 (JavaAPI) | Enter the method that is configured for V_ATTRIBUTE_VALUE1 for the required attribute. The configured method in the classpath is called to get the attribute values in this case. |
| 1004 (Hierarchy) | Specify the Hierarchy code to be fetched in V_ATTRIBUTE_VALUE1 in the AAI_AOM_APP_COMP_ATTR_MAPPING table. |
| 1005 (Multi Select Hierarchy) | Specify the Multi Select Hierarchy entries in the AAI_AOM_APP_COMP_ATTR_TL table. |
| 103 (DATE) | This is used for configuring FIC_MIS_DATE. The V_ATTR_CONTROL_TYPE value should be 11. |
| 102 (Text Box) | This is used for the Description field. The V_ATTR_CONTROL_TYPE value should be 7. |

**Note:**

Only Attribute Type Ids 1001 and 1002 are functional in this release. The other Attribute Types in the table are for future use.

Data Fields

Data Field, which is also known as Process Variable, helps Process Pipelines to access and store information from external applications. Often the process flow is based on the value of this information. In other cases, this information is the result of running the tasks in the Pipeline

System Data Fields

Some data are tracked internally by the System using a predefined set of Data Fields such as Status of Process. You can access these activity instance attributes in the same way you access regular data objects, but you cannot assign new values to them.

Adding a Data Field

1. From the Process Modeller window, click the required process name record link for which you want to add a Data Field. The Process Flow tab is displayed.
2. Select the **Data Fields** tab.
3. Click **Add**. The Data Field Details window is displayed.
4. Enter the following details:
 - **Data field Code** - Enter the Variable Name or Code, which needs to be used by the service to read or write into this variable. This field is non-translatable.
 - **Data field Description** - Enter a brief description of the Data field.
 - **Data field Type** - Enter the Data Field type. The supported types are String, Integer, Float, and Boolean.
 - **Initial Value** - Enter the default value for the Data.
 - **Scope** - Select the scope of the Data Field from the drop-down list. The options are:

- **Process:** Select Process if you want to use the Data Field only in the current process.
 - **Package:** Select Package if you want to use the Data Field across all the processes in the package.
5. Click **OK**.

 **Note:**

Processes cannot be deleted for the records that are pre-configured in the service. Similarly, processes which have instances under them cannot be deleted.

4

About Process Monitor

The Process Monitor is used to monitor the current stage of the Process for different instances.

After integration with an Application, the workflow can be called. After calling it goes through all the stages defined. Process Monitor shows all the stages finished, current stage, and stages to come if any. Your user group should be mapped to the function role WFMACC (Workflow Monitor Access) to access the Process Monitor window.

Enter specific terms (keywords from Process ID, Process Name, or Process Description) in the **Search** field to search for matching Pipelines. You can sort the Processes displayed in the Process Monitor window based on Entity Id, Entity Name, Process ID, or Process Name. Click **Switch Windows** to go to the [Process Modeller](#) window.

The records table consists of all the workflows which are called from the Application with details such as Entity Name, Entity ID, Process Name, Process Description, Execution Start Time, Last Execution Time, Last Updated By, and Status.

Click **Options** to perform the following actions:

- Click **Re-Run** to run the process again.
- Click **Abort** to stop a process that is running.
- Click **Resume** to restart a process run.

Monitoring a Business Process

Monitor a business process using the process monitor window.

1. From the Process Monitor window, click the **Entity ID** link corresponding to the process you want to monitor.

In the Process Monitor window, the status of the activity is represented as given:

- **Figure 4-1 Successful Run**



- indicates that the execution of the activity is successful.

- **Figure 4-2 Activity execution in progress**



- indicates that the activity is currently running or waiting for the user's input to proceed.

- **Figure 4-3 Activity execution failed**



- indicates that the execution of the activity has failed.

- **Figure 4-4 Activity execution pending**



- indicates that the activity is yet to be executed.

2. Refresh the pane and click **View** to access the **Process Logs** pane.

The Process Logs pane lists all the execution stages of the process. Click the **Process Monitor** pane to close the Process Logs pane.

Viewing Activity Logs

View logs of each activity from the Process Monitor window

1. Double-click on the activity icon whose logs you want to view. The Activity Definition details are displayed.
2. Click **View Activity Logs**, to see the activity logs.

All the execution stages of the selected activity if it is already executed, are displayed in the log. Otherwise, it will be blank.

5

Calling a PMF Pipeline

Call a PMF pipeline to test the process flow or execute the process flow.

From Application UI

You can call a PMF pipeline using the REST Service in an external application.

Example

REST Service

```
URL: <contextPath>/PMFService/startWorkflowProcess
Method: POST
Consumes ("application/json")
Produces ("text/plain")
Sample Input Params:
"{\"SummaryPayload\":{\"objectid\":\"123\",\"objecttype\"
: \"QTNR\",\"infodom\":\"OFSAAIINFO\",\"segment\":\"OFSAAIINFO\",\"userid\"
: \"AAAIUSER\",\"locale\":\"en_US\",\"securitymap\"
: {},\"applicationparams\"
: {\"testparam\":\"value1\",\"testparam2\":\"value2\"}}";
```

From Process Modeller Window

You can call a PMF pipeline using the Test Process Flow function from the Process Modeller window as shown in the following.

The Test Process Flow option is used to check whether the Process flow you designed works as expected.

To call a PMF pipeline:

1. From the Process Modeller window, click **Options** corresponding to the pipeline you want to test. The submenu is displayed.
2. Click **Test Process Flow**. The Execute Process Flow window is displayed.
3. Enter an **Object ID** to identify the Process flow. This will be displayed as Entity ID in the Process Monitor window.
4. Enter the **Application Parameters** which are required in the Process flow that you are testing. Specify parameters in JSON format. This is an optional field.

Example : {"WF_RUNSK":"15", "WF_MISDATE":"12/31/1999"}

5. Click **OK**.

6

Frequently Asked Questions

Frequently asked queries.

What is Process Modeller?

Use a Process Modeller to view and edit existing workflows and create new workflows.

What is Process Monitor?

Use a Process Monitor to view the path (of the workflow) that a case has already traversed, its current status, and the next possible paths in that workflow. Since there can be several versions of each workflow that are being used by a CM at the same time, the Process monitor displays a workflow diagram of the version that the case is using.

Can I associate a workflow with multiple case types?

Yes, one workflow can be associated with any number of case types. However, one case type can be associated with only one workflow.

Can I edit default workflows?

Since default workflows will be overwritten during an upgrade, we do not recommend using default workflows in production. If a workflow is overwritten during an upgrade, it may impact all the inflight and closed cases using that workflow. You can copy default workflows or create a new version of the workflow.

If I modify a workflow, what impact does that have on cases already using the workflow?

PMF provides the ability to modify a workflow and either save the changes directly on that workflow or create a new version of the workflow. This is achieved using the following buttons on the PMF Process Modeller Canvas (page on which you draw the workflow):

- **Save** overwrites the workflow being edited. As a result, all cases (in-flight and closed) using that workflow will follow the modified workflow as soon as the changes are saved in PMF. New cases (of the Case Type(s) using this workflow) will also use this modified workflow.
- **Save as New Version** saves the modifications as a new version of the workflow. When this happens the version number assigned to this new version = parent workflow's version number + 1. For example: If the parent workflow had a version number 4, this new workflow will have a version number 5. But just saving a new version of a workflow does not have any impact on any case unless this new version is mapped to a Case Type in Case Designer.

Example

1. Jan 1, a user creates a new AML workflow and maps it to Case Type = AML. Then, Process ID = 1, Process Name = AML, Version = 0, mapped to Case Type = AML
2. Jan 2, cases with type = AML start coming in and use the AML workflow Version 0.
3. Jan 5, the user creates a version of this AML workflow. Hence, Process ID = 2, Process Name = AML, Version = 1

4. The user creates this new version on Jan 5 but does not update the Case Type - Workflow mapping. So in Case Designer Case Type = AML is still mapped to Workflow = AML Version 0.
5. Jan 6 new cases with type = AML come in and are still going to use the AML workflow Version 0. Old cases (Jan 2 – 6) are also going to continue using AML workflow Version 0. If the user had modified the Case Type - Workflow mapping to map to the AML workflow Version 1, new cases arriving on Jan 6 would have used the AML workflow Version 1.
6. Jan 7, the user creates another version of this AML workflow and this time also changes the Case Type-workflow mapping to use this latest version. Hence, Process ID = 3, Process Name = AML, Version = 2, mapped to Case Type = AML.
7. Jan 7 (after the change in step 6), new cases with type = AML come in and are now going to use the AML workflow Version 2. Old cases (Jan 2 – Jan 7 before the change in Case Designer) are going to continue using the AML workflow Version 0.

If I create a new version of a workflow in PMF and want to have someone review it before it goes into production, how do the reviewers ensure that the new version is not active until they want it to be?

If this workflow is linked to a Case Type in Case Designer, and the user saves the modifications using the Save feature, changes are reflected immediately in production. If the user saves the modifications using the Save as a New Version feature, they have to associate it with the case type for it to be enabled.

Can I copy workflows?

Yes, workflows can be copied in Process Modeller. Copying a workflow copies the workflow design (states and transitions diagram) but none of the metadata associated with the workflow is copied. Therefore, after copying a workflow, clients will have to fill in several details to make the workflow functional.

Can I deactivate a workflow in PMF? What impact does that have on cases already using the workflow?

Yes, workflows can be copied in Process Modeller. Copying a workflow copies the workflow design (states and transitions diagram) but none of the metadata associated with the workflow is copied. Therefore, after copying a workflow, clients will have to fill in several details to make the workflow functional.

Can I delete a workflow in PMF? What impact does that have on cases already using the workflow?

Yes, you can delete any version of a workflow through Process Modeller but we recommend that users set an end date instead so that the workflow remains available for future use. If the workflow is being used by one or more case types, clients should be advised to update the Case Type definition (Case Management UI) to use a different workflow before deleting a workflow. If a case type is associated with a deleted workflow, the service will receive an error message when it tries to call this workflow.

How is the case assignment done?

PMF does not perform a case assignment.

Can PMF update the status of a case automatically when the Due Date on a case passes?

No, at this time, PMF requires all status changes to be manually completed. This functionality may be provided in the future.