Oracle Fusion Global Payroll

How do I set up payroll flows?

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1 Setup Summary

Scope

Use this playbook to understand payroll flow concepts and to understand how you can use flows to manage your payroll tasks effectively and efficiently.

Payroll flows help streamline and optimize your payroll operations. Use flows to ensure smooth and seamless end-to-end execution of the processes that address all of your payroll business requirements, such as calculating payrolls, running reconciliation reports, and making payroll payments.

Setup Approach

Use the **Payroll Flow Patterns** quick action under **Payroll** in My Client Groups on the Home page to search and use a delivered flow or create your own flow.

For example, to ensure that your payroll cycles are accurate, you can design a flow that includes manual tasks that request validation at each step in the process. In this way, your Financial Director can verify the payroll costing results before the flow transfers the payroll costs to the general ledger.

This table lists the features you can use to create a flow that best meets your requirements.

Payroll Flow Pattern Features

Option	Usage Description
Predefined flow patterns	Automatically available for you to submit all types of payroll processes and reports, such as, the Calculate Payroll flow or the Expedited Payroll Flow, or the various ready-to-use payroll reports, such as the Run Payroll Activity report.
Predefined flow tasks	All predefined payroll processes and reports have a corresponding predefined flow task which you can include in a flow pattern. Predefined tasks are also delivered to support manual steps within your flow, such as the verification of a report.
Task Iterations	The task iterator automates repetitive tasks with a single flow submission. For example, use the task iterator option to generate a report for multiple payroll statutory units within your organization.
Flow Connectors	Use flow connectors to isolate and review off-cycle and on-cycle payroll runs and subsequently combine the run results for downstream processing.
Value Sets as a parameter	Use value sets as a parameter and control and validate the data you use in payroll flow patterns. A value set provides a dynamic list of values for an entry value.
Link Flows	Link a flow to one or more completed flows from the Linked Flows section of the flow submission page. For example, you can link the Payroll Activity Report to the Calculate Payroll flow to verify and validate the run results, before processing the payments.

Option	Usage Description
Consolidation Groups	Use a consolidation group to segregate or combine the results of multiple payroll runs. For example, limit the payroll results included in the payroll costing report by entering a consolidation group parameter when submitting the report.
Add a BI Publisher Report to a Flow	Create a BI Publisher report and run the report using a flow.
Outbound API Notifications	Configure an outbound notification with the payroll flows so that once a task in a flow completes, it sends an automatic completion notification to an external downstream server. It then triggers downstream non-payroll processes.

2 Understanding Payroll Flows

Overview of Payroll Flow Patterns

A payroll flow pattern links together a sequence of automatic payroll processes and reporting tasks, such as Run Gross-to-Net-Report, and manual tasks, such as verification tasks.

When you submit a payroll flow, the flow is based on a predefined or user-defined flow pattern.

Predefined Flows

A flow pattern can consist of a single task such as the Calculate Payroll flow, or multiple tasks, such as the Payroll Cycle flow. The Payroll Cycle flow includes all tasks for a payroll period in a best practice flow.

Predefined flow patterns are automatically available for you to submit all types of payroll processes and reports.

Single Task Predefined Flows

Here are some examples of predefined payroll flow patterns that contain a single task:

- Recalculate Payroll for Retroactive Payroll
- Calculate Payroll
- Run Gross-to-Net-Report
- Generate Check Payments
- Calculate Prepayments

Use this type of flow pattern to create a standalone flow for each process you submit, such as the Payroll Calculation or Prepayments process.

Multiple Tasks Predefined Flows

Here are some examples of predefined payroll flow patterns that contain multiple tasks:

- Expedited Payroll Flow
- Payroll Cycle
- QuickPay and View SOE

For example, use the Expedited Payroll Flow pattern to identify, calculate, and make expedited payments. The Expedited Payroll Flow pattern includes these tasks:

1. Recalculate Payroll for Retroactive Changes
2. Calculate Payroll
3. Calculate Prepayments
4. Archive Periodic Payroll Results
5. Generate Check Payments
6. Make EFT Payments

7. Generate Payslips

Predefined Tasks

A flow pattern consists of one or more tasks. All predefined payroll processes and reports have a corresponding predefined flow task which you can include in a flow pattern. Predefined tasks are also delivered to support manual steps within your flow, such as the verification of a report.

You can rename a predefined task when you include it in a flow pattern. After you submit the flow, this new name appears on the Checklist. For example, when you're creating a flow pattern for the tasks within your weekly payroll cycle, you may choose to rename the Calculate Payroll tasks as 'Weekly Payroll'. You may also choose to rename the manual task, Verify a Calculate Task to 'Verify Gross-to-Net Report'.

Here are some examples of predefined payroll tasks:

- Calculate Payroll
- Recalculate Payroll for Retroactive Payroll
- Calculate Prepayments
- Run Gross-to-Net-Report
- Run Payroll Activity Report
- Generate Check Payments

Run the predefined flows directly, or you can use them as templates to create your own. You can even copy a predefined flow pattern and make these edits to meet your business requirements.

- Determine the tasks included in the flow. The tasks can be automatic tasks, such as a payroll process, or manual tasks, such as a task to verify a report.
- Determine the sequence of tasks you include in the flow.
- Define parameter binding rules so that you can enter parameters that are common across multiple tasks, such as dates, only once on submission. When you submit the flow pattern, the parameter value is constant across all tasks within the generated flow.

Components of a Flow

Before you begin to use flow patterns, let's walk you through a delivered flow pattern to understand flow components.

Use the Payroll Flow Patterns task under **Payroll** in **My Client Groups** to search and select a flow pattern. For example, search for the predefined Calculate Payroll flow and click **Edit**. While creating your own flow pattern, select field options or values as given in this table.

Field	Description
Flow Status	Use this field to define how you can submit the flow. Select one of these options: • Active flow, to submit the flow from the flow submission page or to include the flow in automated flow submissions. • Inactive flow, to submit the flow through automated flow submissions. The flow isn't available for submission on the flow submission page.

Field	Description
	• Hidden flows aren't available for submission.
Connector Status	Use this field to decide what you want to include in the flow results. Select either of these options: • Task Flow, to consolidate results generated from tasks within the current flow and those from other connected flows. • Parameters Only flow, to include results generated from tasks within the flow. It doesn't include results from any additional flows.
Connector Name	Use this field to identify the flow pattern for the purpose of flow connector rules. This field is defaulted to the name of your flow pattern.
LDG Required	Use this field to determine availability of the flow to other legislative data groups (LDGs). Select either of these options: • Yes, to restrict the flow to a single LDG. • No, to indicate that the flow is available to all other LDGs.

Flow Connectors

Use the **Connector** tab to link flows at the flow pattern level and consolidate flow results for downstream processing. Use the **Connected Flows** field to select flows you want to connect to consolidate payroll results. The rules are automatically applied to all instances of the flow and you don't have to manually define connector rules each time you submit the flow.

Tasks

Review the task list, and if necessary, add new tasks to the flow pattern. You can edit the task name, description, and its placement in an activity or task group.

The Activity and Task Group define how the submitted flow instance is viewed hierarchically in the Checklist. In this example, the activity is 'Calculate' and the task group is 'Calculate and Validate Payroll'.

Edit the task to update the task parameters, owner and checklist information, and which notifications to send the task owner.

Process After Error

Optionally, select the **Process after Error** check box against a task, to allow a subsequent task to process, even if an immediately preceding task is in error. This ensures continuation of the flow.

For example if you have a flow with tasks, A ->B -> C, task B can't run if task A is in error, unless you select **Process after Error** for task B. Similarly, task C will run irrespective of the status of task B, if you select **Process after Error** for task C. After you complete the flow, you can view the errors, make corrections, roll back the errors, and resubmit the flow, if required.

Task Sequence

Since there is only one task for this flow, the sequence of the flow tasks is Start Flow > Calculate Payroll > End Flow.

For more complex multi-task flows, use the Task Sequence tab to review the task sequence and reorder, add or delete tasks, as required. Some tasks within the flow use and build upon the results of a previous task.

Flow Parameters

Use the **Parameters** tab to define flow parameters, some of which you manually enter while submitting the flow, and the others are default or derived values. Define the properties of the parameters here. For example, indicate if a parameter is mandatory or optional, display the parameter on the UI or not, display format, and so on.

Flow Notifications

Use the **Outbound Integration** tab to configure an outbound notification with the payroll flows outbound API notifications feature. Once a task in a flow completes, it sends a completion message to an external downstream server. The server gets an automatic notification once the task completes, and it then triggers downstream non-payroll processes.

Review

Use the Review tab to preview how the flow is organized and displayed on the Checklist page.

Sequencing Rules and Locked Tasks

The tasks in a flow use and build upon the results of previous tasks.

To maintain data integrity and prevent deletions, the application determines whether a task should lock the results of previous payroll relationship actions. Locking the results of payroll relationship actions prevents you to take a corrective action, such as retry a process. Before you can initiate a corrective action, you must roll back or mark for retry the process that locks the results.

For example, the Calculate Prepayment process locks the results of the payroll relationship actions calculated in the payroll run. Before you can retry the payroll calculation process, you must roll back or mark for retry the prepayment process.

Similarly, suppose you submit the weekly payroll run, and then submit a flow to calculate QuickPay. The QuickPay submission is for a payroll relationship for the same payroll and payroll period as the regular payroll run. You receive an alert that the payroll relationship record is locked. You can't start the task to calculate QuickPay until the tasks in the payroll run that use the locked results of the calculations for the payroll run is complete.

Reports that Lock Data

Typically, reports temporarily lock results of previous calculations while they run. For example, the payslip report locks the archived payment results. You may also create reports for a particular legislative data group that lock the results of periodic and year-end archive tasks.

Complete these tasks if you have to make corrections to data that is used by reports that lock results:

1. Roll back the report.

2. Roll back the archive task.
3. Correct the data.
4. Resubmit the report.

Common Locking Scenarios

You receive alerts when you submit a task and can't process payroll relationship records because another process has locked the records. For example, suppose you submit the weekly payroll run, and then submit a flow to calculate QuickPay. The submission is for a payroll relationship for the same payroll and payroll period as the regular payroll run. You receive an alert that the payroll relationship record is locked. You can't start the QuickPay task until the tasks in the weekly payroll run that use the locked results of the calculations for the payroll run is complete.

Enable Logging

Augment process diagnostics by enabling logging before you submit a flow. When you enable logging and submit a flow, the application creates files to capture the process parameters.

These files are stored on the server. Subsequently, you can review these files and analyze the data for diagnostic purposes.

A process configuration group monitors various action parameters of the flow including logging levels. Add action parameters to a payroll process configuration group to optimize performance and troubleshoot your payroll processes. To process large volumes of records, use the Threads and Chunk Size parameters. To troubleshoot processes, add the Logging Category or Formula Execution Logging parameters to a configuration group and rerun the process using that configuration group. Using these parameters enables you to investigate formula code problems.

- When you enable logging, the Submit a Flow page displays a message to indicate that logging is enabled. The name of the process configuration group is displayed on the flow submission page. Click on the process configuration group name to access the Process Configuration Group UI and view the details of the action parameters that are enabled for the flow and make changes if required.
- If you don't select a process configuration group, a process configuration group that has logging enabled is defaulted to the flow. In this case, the Submit a Flow page displays logging turned on message, but no process configuration group name is displayed on the flow submission page.
- Absence of the logging message on the UI means that logging is disabled.
- If you don't need logging, before submission of the flow, either disable logging of the defaulted group or select another process configuration group that doesn't have logging enabled.

When logging is enabled, files are created and stored on the server. These files occupy space on the server and impact performance. Hence, it's suggested that you enable logging only for a limited time.

For predefined flows that are automatically available for your use, the process configuration group is available as a flow or task parameter as required. However, for flows defined by you, you can use any parameter and rename it as the Process Configuration Group. Use the key parameter functionality, to mark the parameter as a process configuration group.

UCM File Upload During Flow Submission

Use the UCM File upload facility to upload data onto the Oracle WebCenter Content Server directly from the flow submission page.

For example, you have taken over a new company and you need to upload large volumes of employee information. You can upload the data from a file on your local computer onto the UCM server using the Submit a Flow page. You can then submit a flow to retrieve the information from the WebCenter Content server and upload it onto the Oracle database application tables.

For flows that support upload of files, the upload and transfer of data is as given below.

1. Use the **Upload File** button in the **Parameters** section of the Submit a Flow page to search and select a data file from your local computer, and upload a file to the **UCM** server. The file must be in a format that's compatible with the UCM upload process.
2. After you have uploaded the file, complete the other parameters for your flow and submit the flow as usual.
3. A **UCM Content ID** is automatically generated for the upload and it's displayed on the flow submission page.
4. The flow uses the UCM Content ID to retrieve the information from the WebCenter Content server and upload it onto the Oracle database application tables.

If required, you can upload another file for the flow. For instance, after uploading the file, you realize that you have uploaded the wrong file. Use the **Upload File** button and select the correct file, and resubmit the upload process, to upload the correct file to the server.

Translate Name of a User-Defined Flow

Use the **Translation Editor** icon on the flow setup page to translate the name of a user-defined flow and view the flow in the native language of your choice, irrespective of which language the flow was initially created.

Translate the flow name in each language displayed on the Edit Translations page and save the record. Optionally, also enter the description of the flow in each of the displayed languages.

- If you override a predefined flow in an LDG and select the **Submitting User** check box, the overridden predefined flow thus created can only be found in your native language, that is, the language of the user who created the flow.

  For example, if a US user overrides a predefined flow, and then if another US user signs in, they can search and find the flow. However, a French user can't perform a search and find this overridden predefined flow in the flow setup page.
- If you use the **Translation Editor** and translate the name of the overridden predefined flow to all the listed languages, including French, then a French user can sign in and find the flow.
- If you don’t translate the flow name, a user signing in with his or her native language, which is different from your native language, can't find the flow.
- If you plan to migrate the flow, you must first migrate the flow, and then translate the flow name in the destination environment.

Translate Payroll Reports Based on Submitting User Preference

Submit and generate payroll report output based on the language and regional setting of the person who submits the report.

The report output includes the correct translated format of date, values, time, and all other parameters based on the preference setup of the submitting user. The translated report output includes translated parameter names, parameter values, element entries, headers, messages, and so on.

Follow these steps to enable this feature and submit a report.

1. Navigate to My Client Groups > Payroll > Payroll Flow Patterns.
2. Use the **Translation Editor** icon on the flow setup page to translate the name of a user-defined in all the installed languages.
3. Select the **Legislative Data Group** and search for the archive-based report task, for example, Run Payroll Register Report flow. You can also search for a flow that includes this report task.
4. Click **Edit**.
5. Under the Tasks tab, select the report task, and click the **Edit**.
6. Select the **Submitting User** check box. Click **Save and Close**.

When you submit the flow or report, the translated report output meets all the translation requirements in the standard output formats of the report, such as MS Excel, PDF, and XML. The MS Excel output displays the data as text.

3 Payroll Flow Parameters

Flow Parameters

Flow parameters supply the information required to successfully complete the tasks in a flow pattern.

A flow pattern has both task action parameters and flow parameters.

- Task action parameters control how the application processes a task and how the task relates to other tasks in the flow pattern.
- The flow parameters include those task parameters that the application can't derive without manual entry. Flow parameters are a subset of task action parameters. They supply the information required to successfully complete the tasks in the flow pattern.

A parameter is defined in the application database using a Base Flow Parameter Name. If the parameter name, exposed in the UI at the flow-level, matches the Base Flow Parameter Name, then the list of values are defaulted directly. The Base Flow Parameter Name isn't exposed on the UI.

The values of some task parameters can't be derived or defaulted, and you must make a manual entry. The other parameters are defaulted or are derived. You can add new flow parameters from the list of available task parameters, or update the details of the existing flow parameters.

If required, edit a base flow parameter and rename it. You can see the edited parameter name on the flow submission page when you submit the flow.

Consider the following while reviewing and editing parameters.

Display and Display Formats

This table lists the options to control the format and availability of the flow parameter on the UI.

Flow Parameter Display Factors

Option	Purpose
Display	Use Display to control the availability of the flow parameter on the UI. The options include: • Required - Display the parameter on the UI and it's required for you to enter a value during flow submission. • No - Derive or default the parameter value, the parameter isn't displayed on the UI. • Yes - Display the parameter on the UI, but it's optional for you to enter a value during flow submission.
Display Format	Identifies the type of data displayed on the UI, such as a date or text, or choice list

This table displays the display format options that you can use for the different types of flow parameters.

Display Formats of Flow Parameters

Display Format	Code	Usage
Date	D	Use this format for a Date parameter. Use the date picker to enter an input value.
Choice List	L	Use this option to display a list of values coming from a value object. The values includes a specific code and meaning.
Lookup Choice List	LK	Use this option to display a list of values defined in a lookup.
Number	N	Use this option to enter only numbers, such as 0, 1, -1, 0.5
Positive Number	PN	Use this option to enter only non-decimal, positive numbers, such as 0, 1, 2, 3.
Smart LOV	LOV	Use this option as an advanced version of List Of Values supporting user-defined values based on dependency, view criteria, display, and storage attributes backed by a value object.
Text	T	Use this option to enter any text.
Value Set	ORA_VALUESET	Use this option to display a list of values defined within a value set.
Typed Search	TS	Use this option to display a list of values defined by a value set using lazy loading support.
WebCenter Content File	UCM	Use this option to upload files to the UCM server and pass the UCM ID to the process.
Integer	INT	Use this option to enter only non-decimal numbers, such as -1, 0, 1, 2, 3.
Positive Rational Number	PRN	Use this option to enter positive numbers including decimal, such as 0, 1, 2, 2.5, 3, 3.5.

When defining your flow parameter, use the Display value options to determine if the parameter should be displayed on the UI and if a parameter value is required when you submit the flow.

Sequence

Sequence numbers determine and control the order in which the the application processes and displays the parameters on the UI for you to enter a value.

For example, if you have two lookups and the values of the second lookup depends on the first lookup. You must set the first lookup to a lower sequence number than the second one.

In the case of hidden parameters, they're processed after a required or dependent parameter is processed.

Usage

A parameter can receive information or generate information that subsequent tasks can use. For example, for the Calculate Payroll task, the Payroll Process parameter for the Submit task action generates an output value for the payroll action ID. The Retry task action can use this payroll action ID.

- Receive Information
- Generate information that subsequent tasks can use

For example, for the Calculate Payroll task, the Payroll Process parameter for the Submit task action generates an output value for the Payroll Action ID. The Retry task action can uses this Payroll Action ID.

Positive Number Validation for Check Numbers

When you use the Generate Check Payments task, you can only enter positive, whole numbers for the Start Check Number and End Check Number parameters.

By default the positive number validation is enabled on these two check number parameters and this validation takes place when the parameters are submitted. The validation ensures that these two parameters only take positive numbers without any decimals, alpha characters, special characters, or comma separators. If you enter an alpha-numeric Start Check Number and submit the flow, an error message displays asking you to enter a positive whole number in the Start Check Number or End Check Number field.

For user-defined flows, use the Positive Number display format type for these two parameters to enable positive number validation.

Flow Parameter Basis and Basis Value

The parameter basis controls how the application derives the value for the parameter. The basis value further specifies the value the application uses for the parameter.

This table provides the list of values you can select for parameter basis and basis values when you define payroll flow parameters.

Parameter Basis	What the Parameter Basis Does	Basis Value Available	Example
Constant Bind or Use a Specified Value	Assigns a specific value to the parameter.	Enter the text as a constant or value, when you submit the flow.	Specify a constant if the value is the same for all tasks, such as the payroll statutory unit.
Bind to Context	Derives the value from the context of the current flow instance or the task instance of the flow pattern.	Select flow, task, or the Request. The application automatically generates the parameter value.	If the task includes a Request parameter, bind it to the flow context. Tasks in the flow reference this task using the Request ID generated by the application. Bind the legislative data group parameter to a task parameter that supplies the legislative data group. For example, the legislative data group for prepayments uses the payroll as context, because it's already associated with the legislative data group.

Parameter Basis	What the Parameter Basis Does	Basis Value Available	Example
Bind to Flow Parameter	Derives the value from one of the flow parameter values.	Application automatically derives the parameter value.	Bind a parameter to the flow that several tasks share to avoid multiple occurrences of the same parameter.
Bind to Flow Task Parameter	Binds the value to the output of the previous task.	Select a value from the previous task's parameters.	Bind a parameter to a task, such as Retry corrective action. When the flow owner resubmits the task to retry it, the application uses the output of the Submit task parameter.
Bind to Task Parameter	Resolves the value for the task parameter.	Select a value from the current task's parameters.	Bind a parameter to the task if several tasks share a parameter, such as a start date, but one task requires a different date.
No value specified	Stops the application from generating a parameter value when the task executes.	Application generates a blank value.	Not applicable
Post SQL Bind	Calculates the parameter but doesn't display it on the user interface.	SQL statement calculates the parameter value.	Bind a parameter using the Post SQL bind to generate data. For example, use a post SQL process to use the payroll period and payroll parameters entered by you and generate the process date. The payroll and payroll period are mandatory parameters. They have a higher sequence number than the process date, so that the process date derives its value after you enter their values.
SQL Bind	Calculates and displays value on the user interface, prior to submission.	SQL statement calculates the parameter value and display it on the user interface, before submission.	Bind a parameter using SQL Bind For example use SQL Bind to calculate the payment type parameter for the Generate Check Payment task. The application obtains the payment type ID for the check payment record.

Parameter Basis	What the Parameter Basis Does	Basis Value Available	Example
			Use SQL Bind to prompt the task owner to enter a reason for a corrective action, such as a QuickPay.

4 Payroll Flow Ownership

Assign Multiple Flow Owners

By default, task ownership and access are given to the person who submits the flow.

Granting the task ownership and access only to a single person could be restrictive. Only the person who submits the flow can take corrective action on the task and access the report output.

Granting ownership to more than one person ensures continuity and completion of the task, as given here.

- When you assign group ownership, all members of the group have access to the tasks. Any member of the group can claim ownership of a task and complete the task, even if they haven't submitted the task. For example, if the person who submitted the task is unavailable, and the task is overdue, someone else within the group, can monitor and complete the task.
- Group ownership is based on a data role, for example, a Payroll Administrator can view all flows. All users within the group that have the same data role, have the same privileges.
- Users within the group can request to take ownership of the task, complete it, and also take corrective actions such as roll back and retry.
- Group ownership can be assigned only to user-defined flows and not the predefined flows.
- When the ownership is defined at a flow level, any future flow instance inherits the group information.
- Group ownership can be assigned also to individual tasks within a flow after submission of the flow. Such ownership is only applicable to the particular instance of the flow.

Before You Assign Ownership

Before you assign ownership, consider these points:

1. Use the Data Roles and Security Profiles task to create a data role that you can assign to the users you plan to group together.
2. Associate appropriate job roles and security profiles as required. The values you associate determine which flows a person with this data role can submit or view. The security profiles assigned to the job roles you associate to a flow, determine the security of the tasks within the flow. Assign appropriate responsibilities and functional privileges while defining the different data roles and security profiles.
3. Create users and use Add Role option in the Roles region to provision the newly created data role manually to the user.

Once you have initiated a payroll flow, others within the group can monitor the flow and ensure the tasks within the flow are completed successfully.

Edit a Flow and Create Multiple Owners

In this example, you copy and edit a QuickPay flow pattern and assign tasks to multiple individuals within a group.

Before you begin, complete these tasks.

1. Use the Payroll Flow Pattern task and create a QuickPay flow pattern by copying the predefined QuickPay flow pattern. Enter a name for the copied flow pattern and enter the legislative data group (LDG), to restrict this flow to a single LDG.
2. Use the Owner Type and Owner fields to specify the group or person who can have access to the tasks.
3. Use the Data Roles and Security Profiles task and create a data role for Payroll Supervisor and Payroll Clerk.
4. Set up the right privileges for the data roles you create.

Complete these steps to specify a task owner.

1. Navigate to the **Payroll Flow Patterns** task under **Payroll** in **My Client Groups** on your Home page.
2. Search for the QuickPay flow that you created, and click **Edit**.
3. On the Tasks tab, select the **Verify Payroll Results** task, and click **Edit Task** .
4. On the Edit Task Details: Owner and Checklist page, complete these fields.

Field	Value
Owner Type	User
Owner	Payroll Supervisor

5. Similarly, select the **View Prepayment Results** task and select **Payroll Supervisor** as the task owner.
6. Next, select the **Verify Payment** task and select **Payroll Supervisor** as the task owner.
7. On the Tasks tab, select the **Calculate QuickPay Prepayments** task, and click **Edit Task** .
8. On the Edit Task Details: Owner and Checklist page, complete these fields.

Field	Value
Owner Type	Group
Owner	Payroll Clerk

9. Similarly, select the **Make External Payment** task and select **Payroll Supervisor** as the task owner.
10. In the Notifications region, select the **Flow Task Start Notification** option for each task.
11. Click **Submit**, and return to the Payroll Flow Patterns page.
12. On the Payroll Flow Patterns page, click **Submit**.

    Once a task is assigned to a group, all users within the group receive the notification for the task, once the task is in the 'Started' status in the checklist. You can review the notification sent to you and claim the task. Use the Actions menu to set the status of the task as, 'Mark as Complete', to continue the flow. You can also approve, reject, or reassign the task using the Actions menu in the Notifications region.

5 Value Sets in Payroll Flows

Overview of Using Value Sets in Payroll Flows

A value set provides a dynamic list of values for an entry value. Use value sets to control and validate the data you use in payroll flow parameters.

Use the **Payroll Value Sets** task in the Setup and Maintenance area to create a value set and then use the value set as a parameter to run a payroll flow. The value set uses an SQL statement to filter values from an existing table, such as person name or number, location, legislative data group, or payroll statutory unit. Using value sets help maintain consistency and accuracy in your data.

Consider these points while creating value sets for payroll flows:

- Use the **Module** field to specify the module for which you want to create the value set. For example, you can create a value set for payroll calculations, payroll checklists, payroll flows, and so on.
- Use only the **Table-Based** type of value set for payroll flow parameters. Other value set types, such as Independent or Format Only, aren't supported.
- Use Value Data Type of **Character** only. Value Data Type refers to the data type of the values that are filtered from the existing data tables and displayed on the payroll flow page.
- While creating the value set definition, enter these details to build a query for the value set:
  - The **From Clause** defines the table name used for the query.
  - The **Value Column Name** is the attribute which is visible on the screen.
  - ID Column Name is the attribute used to store the value in the back end. The Column Type and Column Length pertain to the column in the database that stores the entered values.
- Put the respective parameter name as bind value in the Where Clause when creating a value set for a flow parameter which is dependent upon another parameter value. For example, if the location parameter is dependent upon the payroll flow parameter while flow submission, bind the payroll flow ID value to the Where Clause as given here:

  ```
  Pf _flow_ id = {PARAMETER.LOCATION_IP}, where LOCATION_IP is the value name.
  ```

Value sets give you the flexibility to create your own list of values, without depending on other teams.

Use a Value Set in a Payroll Flow

This example demonstrates how you can create a value set to retrieve input values for location name as a parameter for a flow.

Use the location parameter when you run the flow to generate multiple reports in a sequence. Use the search option on the parameter to select an appropriate location value.

Create a Value Set that Returns all Location Names

Let's look at the steps to create a value set that returns all location names.

1. Navigate to the Setup and Maintenance area and select the **Value Sets** task.
2. On the Value Sets page, click **Create**.
3. Enter these values.

Details to Create a Value Set

Field	Value
Value Set Code	LOCATION_VS
Description	Locations
Module	Payroll Flows
Validation Type	Table
Value Data Type	Character
FROM Clause	`pay_ flows_pf`
Value Column Name	`pft.flow_name`
Value Column Type	VARCHAR2
Value Column Length	100
ID Column Name	`pf.base_ flow_id`
ID Column Type	Number
ID Column Length	18
WHERE Clause	`Pf _flow_ id = {PARAMETER. LOCATION_IP}` **Note:** LOCATION_IP is the input value name.

Field	Value
ORDER BY Clause	`pft.flow_name`

4. Optionally, to secure the value set, select the **Data Security** check box and provide the Data Security Resource Name.

   Note: You can enable data security only if the value set is based on a single table or view.
5. Click **Save**.

Add the Value Set Codes to the Payroll Flow

Let's look at the steps to add the value set codes to the Payroll Flow.

1. Use the Payroll Flow Patterns task from **Payroll** in **My Client Groups** on the Home page.
2. Create a flow to meet your requirements, add the required tasks, and arrange them in a sequence.
3. Select the **Parameters** tab, and click **Create**, and create an empty parameter.
4. Select the new parameter and click **Edit** and add these parameter details.

Field	Value
Display Format	Value Set
Lookup	Enter the Value Set Name, LOCATION_VS, in this example.

5. Optionally, enter the Owner and Checklist information, and then click **Next**.
6. Click **Submit**. When you run the flow, the Location parameter renders as a smart list of values. You can use the search option to select a location.

6 BI Publisher Reports in Payroll Flows

Overview of Using BI Reports in Payroll Flows

Oracle Business Intelligence (BI) Publisher delivers a number of reports that you can use directly or configure to suit your business or statutory reporting requirements.

Using BIP reports in payroll flows involves the following:

1. Access these reports from the BI Catalog folder.
2. Copy the report or create your own report or copy if required.
3. Integrate the report into a best practice flow to achieve end-to-end payroll processing.

For example, you may want to edit the predefined payslip report template to include legislative requirements as mandated by your country or territory. You may want to add your company logo to the template or add additional parameters to the data model.

A BI Publisher report consists of these components:

- One or more .rtf layouts that determine what and how data is displayed on the report output. Each report has at least one layout template. Each report may include a style template and a sub template.
- Data model for the report that defines the data source, data structure, and parameters for the report. Multiple reports can use the same data model.

Consider the following while working with BIP reports.

BI Catalog

To create or edit reports, open BI Catalog and find your report or data model in the **Folders** pane. To open the BI Catalog, navigate to **Tools > Reports and Analytics** and click **Browse Catalog**. Navigate to `/Shared Folders/Human Capital Management/Payroll/Regulatory and Tax Reporting` to view the delivered reports. The data sets associated with the report are available in the **Data Models** subfolder within the same folder as the report.

BI Roles and Permissions

This table lists the BI roles and their responsibilities.

BIP Reports Roles and Privileges

Business Intelligence Role	Privileges and Responsibilities
BI Consumer Role	Runs BI reports.
BI Author Role	BI Author Role inherits BI Consumer Role and can also create, edit, and run the reports.
BI Administrator Role	Performs administrative tasks such as creating and editing dashboards and modifying security permissions for reports, folders, and so on.

Business Intelligence Role	Privileges and Responsibilities
BI Publisher Data Model Developer Role	Creates and edits BI Publisher data models. BI Publisher Data Model Developer Role is inherited by the Application Developer role, which is inherited by the Application Implementation Consultant role. Therefore, users with either of these predefined job roles can manage Business Intelligence Publisher data models.

If you have either the BI Administrator or BI Author roles and privileges, the **Permissions** menu is enabled. Click **More > Permissions** for a report in the BI catalog, to verify your permissions for the report. You should have permissions to Read, Traverse, Run Publisher Report, Schedule Publisher Report, View Publisher Output Custom Permissions. If you don't have these privileges, add it manually from the Permissions dialog box.

Create or Copy a Report

You can use any of these options to use BI reports in payroll reports.

- Use the BI Publisher's **Create Report** option from the Data Model editor page. The Create Report option uses the sample data that's saved to the data model. Drag and drop fields from the data model into the report table in a preferred sequence. If sample data isn't attached to the data model, the selected column headings display without data.
- Use the **Customize** function to create an exact copy of the delivered report template.
- Use MS Word which has the BI Publisher plug-in integrated to create an RTF template. If you have chosen to build RTF template yourself in MS Word then use the Upload Spreadsheet option to upload the report layout while creating the report.

It is recommended that you use the Customize function because of these advantages:

- Retains the same privileges as the original report.
- Creates the necessary folder structure and keeps the same name as the original report.
- Ensures that the copied report is placed in the same folder structure under the 'Custom' folder and the BI Publisher automatically chooses to use this modified report.
- Retains the delivery options of the original report and you don't have to add or make any changes. If you choose to copy the template, you must manually add the delivery options.

It is recommended that you save all the user-defined or configured reports in the Custom catalog folder under Shared Folders. Any reports created outside of the Custom folder isn't migrated and is lost during a patch update or upgrade.

Each report has a Report ID that's tied to the BI catalog path:

```
Custom/<Family Name>/<Product Name>/<Report File Name>.xdo.
```

Data Model

A data model defines the source of data for the report. It contains a set of instructions for the BI Publisher to retrieve and structure data for a report. Each report has a data model. Data models reside as separate objects in the catalog.

A simple data model can have a single data set that retrieves data from a single data source, or a complex data model can be a complex set of multiple data sets, sourcing information from multiple data sources.

A Data Set includes predefined list of view objects and parameters associated with the report.

Copy the data model into the Custom folder and edit the copy. Don't edit predefined data models.

BIP Report Parameters and Payroll Flows

A BI Publisher report is shipped with a data model that contains a set of parameters that you must enter when you run the report.

The parameters for the report are either:

- List of values dependent on an SQL query to retrieve information from the application database, or
- List of view objects defaulted directly from the application

The data model includes adequate security and you can edit the data model or a parameter only if you have appropriate privileges.

The parameters in the library are in a predefined order. Don't change the order in the data model. When you copy a delivered BI Publisher report and include it in a flow, the flow parameters map to the BI arguments.

Parameter Dependency

When you submit a report, the report engine executes the SQL query to retrieve the predefined list of values for the report parameters. The report performance gets impacted by these factors.

- The SQL query references from a table that has a large volume of data
- The report is run very frequently
- The report is run concurrently by multiple users

To avoid this, the first parameter in the parameter model is used as a base or dependent parameter, such that the subsequent parameters in the list are dependent or restricted by the value of the previous parameter in the table.

For example, for all payroll reports, the first argument or parameter is the Payroll ID. The SQL query retrieves the list of payroll IDs for the LDG you have selected to submit the report.

The values for the rest of the parameters in the data model is sourced from the view objects defined in the application. The predefined parameter model for each report includes a table that lists the view objects for the report parameters. Each payroll report is shipped with a library of ten predefined list of predefined view objects.

The list of values for a parameter is restricted and filtered by the value you select for a previous parameter on which this parameter is dependent on. For example, the list of values for the Payroll Period parameter is dependent on the Payroll ID parameter. When you first select a value for the Payroll ID parameter, the list of values for the dependent Payroll Period view objects are filtered for the selected Payroll ID. This table illustrates parameter dependency.

Example of Parameter Dependency

Predefined Value Object (PVO)	Dependency	Description
`PayrollStatutoryUnitPVO`	Legislative Data Group (LDG)	The values for the Payroll Statutory Unit (PSU) is filtered based on the LDG you select while running the report.

Predefined Value Object (PVO)	Dependency	Description
`TaxReportingUnitPVO`	Payroll Statutory Unit	The values for the tax reporting unit is filtered based on the LDG and the PSU you select while running the report.

From this table, it's imperative that you must first select a PSU value and based on your selection, the TRU values are filtered. Hence, when you run the report, the PSU parameter must be presented to you before the TRU parameter.

When you edit the data model to configure your report, or add a new parameter to a report, consider the parameter dependency, data source, and order of the parameter.

Base Flow Parameter Name

Flow parameters supply the information required to successfully run the flow. The parameter values are either retrieved from the application database tables using a SQL query or defaulted directly if the parameters are configured correctly.

A parameter is defined in the application database using a Base Flow Parameter Name. If the report parameter name, exposed in the UI at the flow-level, matches the Base Flow Parameter Name, then the list of values are defaulted directly. The Base Flow Parameter Name isn't exposed on the UI.

This table shows how you define a parameter so that the correct value objects are available for you to select, when you run the report.

Base Flow Parameter Names

Report Parameter	Base Flow Parameter Name	Display Format	Lookup Value
Payroll Statutory Unit	PAYROLL_STATUTORY_UNIT	Smart LOV	`PayrollStatutoryUnitPVO`
Tax Reporting Unit	TAX_REPORTING_UNIT	Smart LOV	`TaxReportingUnitPVO`

Create a BI Publisher Report and Add to a Flow

This example demonstrates how you can create a BI Publisher (BIP) report and add the run the report to your copied or user-defined flow pattern.

Include the Run BI Publisher Report task under Statutory activities in the flow pattern. When you submit the flow, the report automatically generates an output file that is based on the template you used to create the BI Publisher report.

You must have BI Publisher Developer or BI Publisher Administrator role to create or edit reports from the BI Publisher.

Complete these tasks to create a user-defined report and include it in a flow.

- Create a Data Model
- Create a report template
- Create a flow to run the BIP report

Create a Data Model

A data model is the source of data for the report and it contains a set of instructions for the BI Publisher to retrieve and structure data for a report. In this example, you create a data model that has a single data set that retrieves data from a single data source, the database tables in the HCM application.

Use an SQL query to reference the application database tables and retrieve the list of values for the report parameters. When you run the report, the report engine executes the query and uses the results to display and populate the parameter list of values.

Follow these steps to create the data model.

1. Navigate to **Reports and Analytics** under **Tools** in **My Client Groups** on the Home page.
2. Click **Browse Catalog** to open BI analytics in a new tab.
3. Navigate to **/Shared Folders/Custom** folder.
4. Click **New** and select **Data Model** under Published Reporting.
5. Click **Add** under Diagram and select SQL Query.
6. Enter this information in the **New Data Set - SQL Query** window.

Field	Value
Name	Enter a name for the new data model.
Data Source	**ApplicationDB_HCM**
Type of SQL	Standard SQL

7. Enter this SQL Query in the Query Builder box.

```
Select pfi. Instance_Name, pfi.Fl_Task_Status, pfi.Status as Task_Status, pci.Status as
Checklist_Status, pci.Owner_ID
from pay_flow_instances pfi, Pay_Flow_Instances pci
where pfi.flow_instance_id = pci.flow_instance_id
and pfi.instance_name = instanceName
and pfi.status = flowStatus
and pci.status = checklistStatus
```

8. Click **OK**.
9. Click **Parameters** under Properties in the left pane.
10. Enter these values for each of the three parameters defined for this model, Flow Instance Name, Flow Status, and Checklist Status.

Field	Value
Name	Enter a name for the parameter.
Data Type	Select **String** from the list.
Default Value	This isn't a mandatory field.

Field	Value
Parameter Type	Select a value from the list. Select text for all three parameters in this example.
Row Placement	Enter a value to show in which row to place each parameter. By default, all parameters are placed in row one.

11. Click the **Save As** icon, enter a Name for the Data Model, and save the Data Model under the path **Shared Folders/Custom/**.
12. To test the Data Model, select the **Data** tab.
13. Click **View** to view the XML. Provide a value for the three parameters.
14. Click **Table View** to view the sample data in a tabular form.
15. Click **Validate**.
16. Click **Export** and save the XML file locally on your computer.
17. Click **View Engine Log** and view the Data Processor log file in XML form. You can save the file to your local directory.

Create the RTF Report Template

To create the RTF Report Template you can use either of these:

- MS Word which has the BI Publisher plug-in integrated to create an RTF template.
- BI publisher's quick **Create Report** option from the Data Model editor page.

In this example, we will use the Create Report option.

Follow these steps to create an RTF report template.

1. Click **Create Report**.
2. Under the Select Data tab, click **Use Data Model** option to create the report using the data model you have already created in the previous task.
3. Click **Next** and under the Select Layout tab, select the report layout to define the page orientation of the report. The available options are either Portrait or Landscape.
4. Click **Next** and under the Create Table tab drag fields from the Data Source and drop them in columns on the table in an appropriate sequence.
   The Create Report process uses the sample data that is saved to the data model. If sample data is not attached to the data model, the selected column headings display without data.
5. Click **Next** and save the report in the **Shared Folders/Custom** folder.
6. Navigate to **/SharedFolders/Custom** and open the report, provide appropriate values for the Instance Name, Flow Status and Checklist Status as an input parameter and click **Apply**.
7. To add additional roles, for example, BI Consumer Role, click **More** and then **Permissions,** and select the appropriate Permissions against a role.
8. Click **OK**.

Create a Flow to Run the BI Publisher Report

Follow these steps to create a flow and add the BI Publisher report to the flow.

1. Use the **Flow Patterns** task under **Payroll** in **My Client Groups**.

2. Click **Create** and enter this information.

Field	Value
Flow Pattern	Enter a name for the flow pattern.
Description	Entering a description for the flow is optional.
LDG Required	Select an LDG to restrict this flow for a specific legislative data group.
Flow Status	Select **Active**.
Connector Status	Task Flow

3. Select **Statutory** in the **Activities to Include** field.
4. In the Tasks section, select **Run BI Publisher Report**.
5. Click **Next**.
6. On the Parameters page, click **Select and Add**, and add the three parameters.

   The flow parameters map to the BI Publisher arguments. For example, if your report is based on a SQL query, the first argument is the first bind variable of a SQL query data model.

   > **Tip:** To easily determine the sequence of arguments, view the list of parameters for the generated report in BI Publisher.

   For example the First Argument is the Instance Name, the Second Argument is the Flow Status and so on.
7. Optionally, rename the parameter to a more meaningful name.
8. On the Task parameters page, in the Parameter Details section, complete these steps:
   a. Confirm that the Parameter Basis for the First Argument value is Bind to Flow.
   b. Select the **Report Path** parameter and enter the parameter Basis as **Constant** and Basis Value as the report path. Enter the path of the XDO.

      For example, if the BI Publisher data model is saved to the Custom folder in Shared Folders you would specify `/Custom/yourBIreport.xdo`.
9. Verify that the first, second and third argument parameters are bound to the flow parameter correctly.
10. Click **Next**, review the flow and save it.
11. Use **Submit a Flow** task from Payroll in My Client Groups on the Home page and submit the flow.
12. Submit the flow and view Checklist. Keep refreshing until flow is completed. Once completed, click on the **Run BI Publisher Report** link and view the report output.

7 Create Payroll Flows

Overview of Creating a Flow

Review predefined flow patterns, and if required, create your own flow pattern. You can create your own flows by adding delivered tasks or processes in a sequential order to build the flow.

You can't directly edit a predefined flow pattern. You can only edit certain components of a delivered flow pattern.

You can use a delivered flow and create a user-defined flow pattern, by first copying the delivered flow pattern, renaming the flow pattern, and then making edits to the renamed flow pattern.

For example, you can use the delivered Expedited Payroll flow pattern to identify, calculate, and make expedited payments. You can copy and rename the flow and add the Run Payments Register task to make a record of the payments made.

This table lists tasks that you must complete to create a flow pattern.

Task	Description
Create or copy a flow pattern	Create or copy a flow pattern and add, delete, or move a task in the flow pattern to create your own user-defined flow.
Add tasks and activities	A flow pattern consists of tasks from one or more activities. You can include all the activities for the entire payroll cycle, such as the predefined flow pattern for the payroll cycle, or manage payroll processing with several flows, and with each flow having fewer activities. For example, you can have a flow pattern to prepare and calculate your weekly payroll, and another flow pattern to manage the payments. If necessary, rename the task and description, and change the activity or task group. For example, place all your reports under Statutory activity and rename each verification task to include the report name.
Define task and flow parameters	On the Parameters page, select the parameters to submit and complete the tasks in the flow pattern. You can add new flow parameters from the list of available task parameters, or update the details of the existing flow parameters.
Sequence the flow tasks	On the Task Sequence page, review the task sequence and reorder, add or delete tasks, as required. All flow patterns begin with a Start task and conclude with an End task. Edit each task, specifying a sequence number on the Edit Task Details: Owners and Checklist page. Tasks are sequential but you can start processing more than one task concurrently. For example you can run reports concurrently along with the process.
Assign task ownership	On the Edit Task Details: Owner and Checklist page, select the task owner. You can also select multiple owners for a flow.
Schedule flow tasks	Define a schedule and select it here. Otherwise use the 'As soon as possible' option to run the flow as soon as you submit it.

Task	Description
Add task notifications	Use notifications to give flow owners adequate time before a task starts, to prepare and address any issues. You can add notifications on the Tasks page. Enable HCM Alerts and use predefined alerts to update you on the status of your flow tasks.
Allow processing even if a prior task errors	Set the value of the **Allow Processing** column as **Yes**for each task in the flow that you want to run, irrespective of the status of a prior task, in the same flow or a cross flow. The tasks in the flow continue to process until it encounters a manual task or a task on the checklist that doesn't have the **Allow Processing** value set to **Yes**. You must then manually set a manual task as complete to enable the flow to resume processing.
Enable Logging	Use the Process Configuration Group parameter and enable logging for the flow, so that you can analyze the flow submission data for diagnostic purposes.
Connect Flows	Use the **Connected Flows** field to select flows that you want to connect to the current flow, to consolidate the run results.
Flow Security	After reviewing and submitting the flow pattern, create the security profile for the flow pattern. The HCM data role security determines which payroll flows you can submit or view.

Create a Flow Pattern

Use the **Create** icon on the Payroll Flow Patterns page and create your own flow pattern. Add delivered tasks or processes in a sequential order to build the flow.

Let's look at the steps to create a flow pattern.

1. Select the **Payroll Flow Patterns** quick action under **Payroll** in **My Client Groups** on the Home page.
2. Either use the **Create** icon to create a flow pattern or search for and select an existing flow pattern to copy.
3. On the Basic Information window, select a legislative data group (LDG) and click **Continue**.

   All flow patterns are built within a legislative data group (LDG). Select an LDG if you want to restrict the flow to a single LDG.
4. Make these selections on the Create Payroll Flow Pattern: Basic Information page.

   a. Enter a name for the flow pattern and provide a description.
   b. Select an option for the **LDG Required** field.
   c. Select a **Flow Status** option. The options you can select are as given in this table.

   Flow Status Options

Flow Status	Description
Active Flow	A flow that you can submit from the flow submission page or include flow in an automated flow submission.

Flow Status	Description
Inactive Flow	A flow you can submit only in an automated flow submission. The flow isn't available for submission on the flow submission page.
Hidden Flow	A flow that isn't available for submission.

5. Select the activities and tasks to include in the flow pattern.
6. Click **Next**. On the Tasks page, complete this information.
    - If necessary, rename the task and description, and change the activity or task group.

      For example, place all your reports in the Statutory activity and rename each verification task to include the report name.
    - Use the **Owner Type** field to select a group or a single user. Create a group of owners before you can select it here.
    - Select the type of notifications that you want the flow or task owner to receive.
    - If required, select the **Process After Error** check box for a task to allow the flow to continue even if a previous task has encountered an error.
7. On the Task Sequence page, review the task sequence and reorder, add or delete tasks, as required.

   All flow patterns begin with a Start task and conclude with an End task. Tasks are sequential but you can also process more than one task concurrently. For example you can run reports concurrently along with the process. To process more than one task concurrently, specify that each concurrent task follows the same previous task.
8. On the Edit Task Details: Owner and Checklist page, specify a sequence value and decide the order in which the tasks display in the checklist.
9. On the Parameters page, select the parameters to submit and complete the tasks in the flow pattern. Alternately, use the parameters as a basis for deriving values to submit the remaining tasks in the flow pattern.
10. On the Task Parameters page, review and if necessary, update the parameters.

    For example, specify a constant if the value is the same for all tasks, such as the Process Configuration Group parameter.
11. Click **Next**. Use the **Connected Flows** field to select the flows you can connect to this flow and consolidate the run results.
12. Click **Next** and review the resulting checklist. Review the task sequence and make corrections if required. You can add or delete tasks and move around tasks to revise the task sequence if required.
13. Click **Submit**.

Create a Smart List of Values for a Flow Parameter

This example shows how you can create a lookup and add the lookup to a flow as a smart list of values for a flow parameter.

This example includes these tasks.

1. Use the Manage Common Lookups task to create a Lookup for Legal Entity parameter.
2. use the Payroll Flow Patterns task to add the lookup to the flow as a smart list of values for the Legal Entity flow parameter.

Create a Lookup for the Legal Entity Parameter

Let's look at the steps to create a lookup that returns all legal entity values as a smart list of values for the Legal Entity parameter.

1. Navigate to the **Setup and Maintenance** area search and select the **Manage Common Lookups** task.
2. On the Manage Common Lookups page search for the Lookup Type **PAY_FLOWPARAMETER_VO**. This lookup type fetches the smart list of values for the flow parameter.
3. Add a row in Lookup Codes and update the row with Lookup Code **P_LEGAL_ENTITY_ID**.
4. Enter the **Start Date** and **End Date**.
5. Enter the **Meaning**. This value is displayed in the smart list of values lookup values in the Flow Parameter setup page.
6. Click **Save and Close**.

Add the Lookup to the Payroll Flow Pattern

Let's look at the steps to add the lookup to the payroll flow pattern.

1. Navigate to the **Payroll Flow Patterns** quick link under **Payroll** in **My Client Groups**.
2. Create or edit the flow you want to add the smart list of values for the Legal Entity parameter.
3. On the Flow Parameters page, add or edit a row where you want to add the smart list of values.
4. Enter the details of the parameter and select **Smart LOV** as the Display Format.
5. In the Lookup column select the meaning of the Lookup Type **P_LEGAL_ENTITY_ID** you entered in Step 5 of the previous task.
6. Save or submit the flow. When you submit the flow, you are presented with a list of values for the Legal Entity parameter for you to select.

8 Edit Payroll Flows

Update Predefined Flows

You can directly edit the predefined payroll flows and make minimal changes to the flow in the context of a specific legislative data group (LDG).

You can only edit a parameter and not add a parameter. For example, you may want to change the name of a parameter in the context of an LDG, or change how a flow task parameter is derived.

The changes take effect only when you submit the flow during runtime. For example, if you have made changes and saved the revised flow for LDG A, you can't submit the flow for LDG B. You can submit the flow only for LDG A. If you submit the flow for some other LDG, the flow runtime ignores the changes.

To configure the flow to your specific requirements, you no longer have to copy a predefined flow, edit, and rename the flow.

Edits Allowed on a Flow

This table lists the changes you can make on delivered flows.

Edits Allowed on a Flow

Component	Edits Allowed
Flow Details	• Flow Description • Flow Status
Flow Parameters	• Flow Parameter Name • Display and Display Format • Lookup • Sequence • Parameter Basis • Basis Value • Description
Flow Task Parameter	• Parameter Basis • Basis Value
Owner and Checklist	• Owner Type • Owner • Sequence
Notifications	• Flow Start Notification • Flow End Notification

Component	Edits Allowed
	• Warning Notification • Error

You can't make any changes to Flow Task Sequence, Review UI, and Submit Related Flows.

Delete the Edits

The changes you make aren't overridden when Oracle delivers a new version of the flow. The changes you make for a given LDG holds good, until you delete or modify them. Delete the changes as given here.

- Select **Edit** and use the **Delete** option at the record level to undo changes you have made to a record. When you delete a revision at the record level, you see a message indicating that the changes to the record are marked for deletion. The revisions are deleted when you save the flow.
- Use the **Remove All Updates** option to undo all the changes you have made to the flow.

Edit Tasks Within Flows

You can create or copy a flow pattern and then add, delete, or move tasks in the flow pattern.

This table lists a few examples of edits you can perform and the probable impact the edits can have on the flow.

Edits	Impact	Examples
Add a task	You can add a task to position it as the last task in the activity or task group. You then update the task sequence. If you repeat a task, rename it to make clear its purpose on the checklist.	You add a manual verification task after each report. You rename each task with the report name.
Delete a task	When you delete a task you may impact subsequent tasks in the flow that depend on its results. Review the subsequent tasks.	When you delete a task, if the Parameter Basis of the next task is Bind to Task and its Basis Value is the value of the deleted task. You must update the Parameter Basis of the subsequent task as required, for example, to Bind to Flow.
Move a task to a different activity	The activity determines the work areas where you can submit the flow patterns you define, and controls how the checklist displays.	You move a task in a payroll flow pattern for a report from the Payments activity to the Statutory activity.
Reorder the list of tasks displayed in a checklist	The sequence specified for the task further determines the task order within an activity on the checklist.	You decide to flatten the checklist sequence to group all the tasks within a single activity. 1. On the Tasks page, you confirm that each task belongs to the same activity and task group.

Edits	Impact	Examples
		2. You edit each task, specifying a value in the Sequence column on the Edit Task Details Owners and Details page. The lowest number is used for the first task in the checklist. For example, you might specify a sequence of 10 for the payroll calculation task and 20 for the prepayments calculation task. On the checklist, the payroll calculation is displayed before the prepayments calculation task .

Perform these edits on the Task Sequence tab of the Payroll Flow Patterns page. For extract flow patterns, use the Refine Extracts task.

User-Defined HCM Extracts in Payroll Flows

Use a report to review and verify the payroll run results of a process before you can use the run results information for further down-stream processing.

To review and verify payroll run results, you can use a predefined HCM Extract Report using any of these options:

- Run as an independent task
- Include in a flow
- Connect to a flow using flow connectors

When you associate a predefined HCM Extract to a flow, the HCM extract definition determines the payroll actions and corresponding run result information that's included in the report.

When you copy a predefined, extract-based report, the copied report creates a new flow task and associated flow pattern. The flow task for the copied report doesn't include details of the payroll actions and run results included in the report in a format that can be used by flow connector rules.

- The copied report creates a new flow task and associated flow pattern.
- The flow task for the copied report doesn't include details of the payroll actions and run results included in the report in a format that can be used by flow connector rules.
- Select the appropriate payroll run results in the flow pattern to get the desired flow connector results for all copied or user-defined HCM extract tasks.

Include Run Results in a User-Defined HCM Extract Report

When you include a HCM extract report in a flow, use the **Report Result Type** field to select the type of payroll results you want to include in your user-defined extract report.

For example, the predefined Gross-to-Net Report generates output based on the results of payroll calculations and QuickPays. If you copy the predefined Gross-to-Net Summary Archive HCM Extract and create a flow pattern, you must select Payroll Calculation Results in the Report Result Type field on the Run Gross-to-Net Report flow task. This ensures that the copied Gross-to-Net report generates an output based on your connector rules.

The **Report Result Type** column is available on the Tasks table of the Payroll Flow Patterns UI.

> **Note:** The Report Result Type column is hidden by default, use the Column menu to display this column on the Tasks table.

When you select the report result type for your user-defined extract, the application consolidates all the relevant payroll run results that have a process date between the Process Start and Process End dates and belong to the associated flow pattern.

Add a New Parameter to a Payroll Flow

This topic explains how you can add a new task parameter to a flow.

For example, the delivered 'Run Mode' parameter helps you to manage the transient data generated by the HCM extract reports. Set the Run Mode parameter to 'Normal' to ensure the following:

- Discard the transient data generated by the report and ensure the application storage isn't loaded unnecessarily.
- Reduce the load on the application storage and enhance the performance of the application.

If you have a flow that includes a report, you can add this new parameter to your flow.

- Retain the original flow, delete the old report, and add back the report with the new parameter manually into the flow. Ensure the task sequence is similar to the original flow.
- If you're using a copy of the delivered flow, make a new copy of the flow and add the new parameter to the flow.

Use these examples to understand how you can add a new task parameter to your flows.

Add the new parameter to an existing flow

Let's say that you have an existing flow pattern that includes the Run Payment Register Report task. Because the new task parameter was delivered after you created the flow pattern, the new parameter isn't automatically available for you to use. Perform these tasks to add the new task parameter to your existing flow:

1. Delete the payroll report from the flow pattern, and save and submit the flow.
2. Add back the report into the flow pattern so that the new task parameter is available for you to use.
3. Add the new task parameter to the flow.

Let's look at the steps to add the new task parameter to an existing flow pattern.

1. Navigate to **Payroll** in **My Client Groups** on the Home page and select the **Payroll Flow Patterns** task from the task pane.
2. Search for the user-defined flow pattern that has the Payroll Register report.
3. Open the Tasks tab of the Payroll Flow Pattern page, and view the tasks.
4. Use the Tasks Sequence tab to view the task sequence. When you delete a task from the flow, the flow sequence changes. After you add the new report to the flow, you must recreate the same flow sequence, hence make a note of the sequence of tasks in this flow.
5. Remove the Run Payroll Register Report task.
6. Click **Save** and then **Submit** to submit the changed flow.
7. Use the Checklist or Views Flows page to search for the same flow pattern.

8. On the Tasks tab Payroll Flow Pattern page, search for and add the Run Payroll Register Report task.
9. On the Tasks Sequence tab of the page, reorder the sequence of tasks to match the flow sequence you noted in step 4 above.
10. On the Parameters tab of the page, click **Select and Add** to add the task parameters to the flow.
11. On the Select and Add: Parameters dialog box, search for and select the **Run Mode** parameter for the Run Payroll Register Report task and click **OK**.
12. Before you submit the flow, review and edit the Run Mode parameter. Select these parameter values.

Field	Value
Display	Yes
Display Format	Lookup Choice List
Parameter Basis	Constant Bind
Basis Value	CLOB

13. Click **Save** and then **Submit** to submit the flow.

Add the new parameter to the copy of a delivered flow

Let's say that you're using a copy of a delivered flow pattern that has the extract report that includes the new parameter. In this case, copy the delivered flow and add the new parameter to the flow.

Let's look at the steps to add the new task parameter to a copy of a delivered flow pattern.

1. Navigate to **Payroll** in **My Client Groups** on the Home page and select the **Payroll Flow Patterns** task from the task pane.
2. Search for the delivered flow pattern that has the report.
3. Use the Copy action to make a copy of the delivered flow and rename the flow.
4. Open the Tasks tab of the Payroll Flow Pattern page, and view the tasks. Ensure that the flow has the Run Payroll Register Report task.
5. On the Parameters tab of the page, click **Select and Add** to add the task parameters to the flow.
6. On the Select and Add: Parameters dialog box, search for and select the **Run Mode** parameter for the Run Payroll Register Report task and click **OK**.
7. Before you submit the flow, review and edit the Run Mode parameter. Select these parameter values.

Field	Value
Display	Yes
Display Format	Lookup Choice List
Parameter Basis	Constant Bind

Field	Value
Basis Value	CLOB

8. Click **Save** and then **Submit** to submit the flow.