

Oracle Fusion Cloud Human Resources

Administering Payroll Flows

24D

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G12537-01

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There are a number of ways to learn more about your product and interact with Oracle and other users.

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1 Let's Get Started

About the Payroll Flows Guide

The Payroll Flows guide is designed to give you an understanding of the payroll flow concepts and how you can use flows to manage your payroll tasks effectively and efficiently.

Use payroll flows to streamline and optimize your payroll operations. Flows help you ensure smooth and seamless end-to-end execution of the processes that address all of your payroll business requirements.

Use payroll flows to manage, effectively and efficiently, all of your payroll tasks, such as calculating payrolls, running reconciliation reports, and making payroll payments.

For example, to ensure 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.

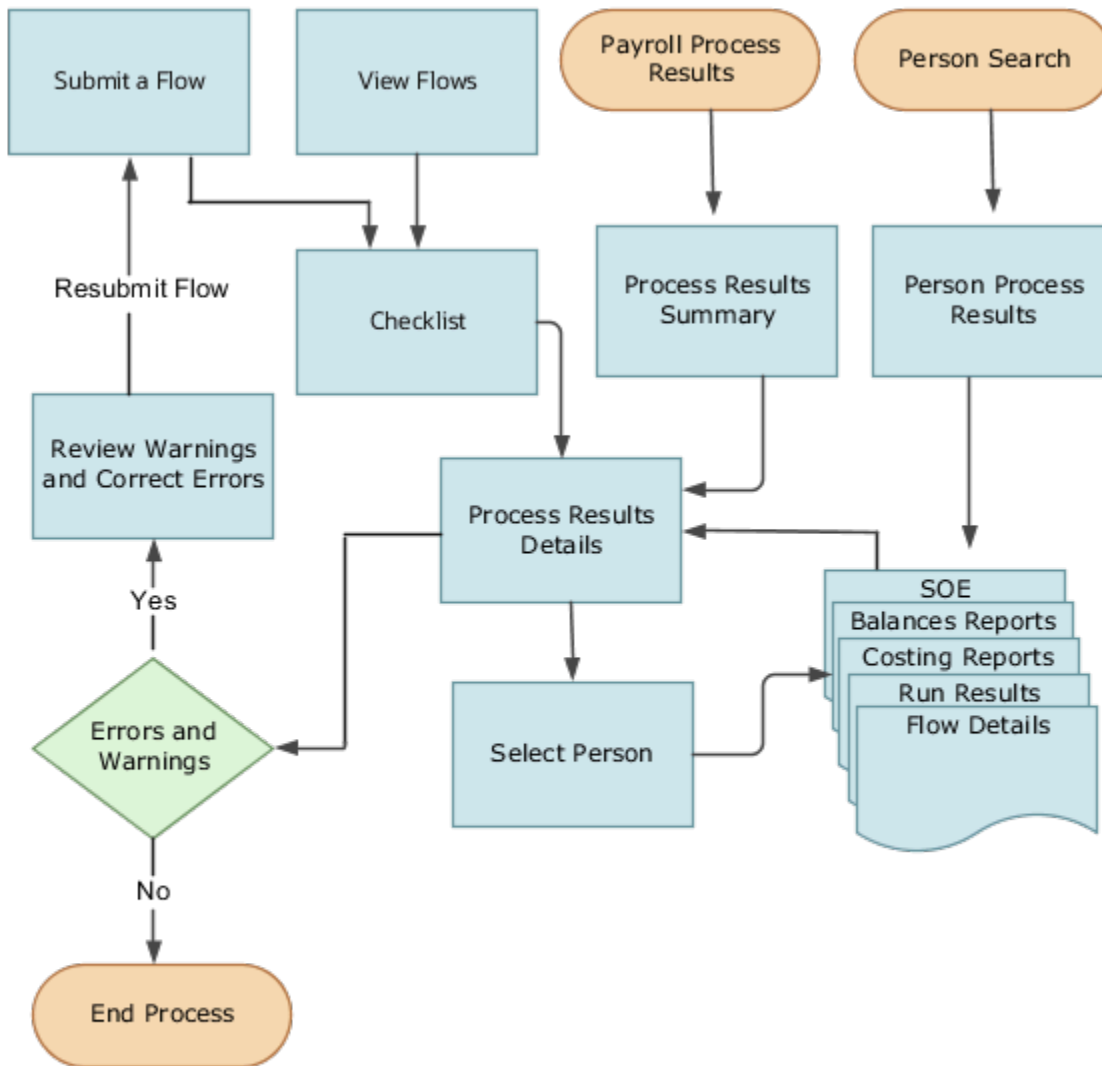
Predefined flow patterns are automatically available for you to submit all types of payroll processes and reports. A flow pattern can consist of a single task such as the Calculate Payroll flow, or multiple tasks, such as the Payroll Cycle flow. The Payroll Cycle flow includes all tasks for a payroll period in a best practice flow.

You can 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 edit it to meet your business requirements, such as adding, deleting, or moving a task in the schedule.

There are also features to help you to design flows that address other complex business requirements, such as the task iterator, that 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.

Similarly, use the flow connectors feature to isolate and review off-cycle and on-cycle payroll runs and subsequently combine the run results for downstream processing.

This workflow diagram gives you an understanding of how payroll flows work. It shows the navigation path from the pages that provide high-level flows information, such as the View Flows page, to the pages that provide detailed employee-level information, such as the Checklist and Process Results Details pages.



This table gives you a list of the payroll flow pages and a high-level description of the ongoing tasks you can perform to submit and monitor your flows.

Page Name	Tasks You Can Do On the Page
Submit a Flow	<p>After you have created the flow pattern, use the Submit a Flow page to submit the flow. Navigate to Submit a Flow task from Quick Actions or under Payroll in My Client Groups.</p> <p>Use the filter options and search for the flow you want to submit. Enter a unique name for the flow and use the appropriate sections on the page to enter flow parameters, schedule your flow, and link flows if required.</p>

Page Name	Tasks You Can Do On the Page
Checklist	<p>A Checklist is generated for each submitted flow. The Checklist page provides a central point to monitor and manage all tasks within the flow. Use the Checklist to easily identify areas that require your attention, such as any tasks within your flow that have error messages.</p> <p>Perform actions on the Checklist page, such as roll back a task or mark a manual task as complete. To view further information for a specific task, select the task and navigate to the Process Results Details page.</p>
Process Results Details	Use the Process Results Details page to view more detailed information for a flow task, such as errors and warning messages, report output, and log files.
Errors and Warnings	<p>Use the Errors and Warnings page to view messages pertaining to persons or processes. You can also access this page from the Process Results Summary.</p> <p>Once you resolve all issues, navigate back to the Checklist page to continue processing any remaining tasks within your flow.</p>
View Flows	<p>Use the View Flows page to get an overall status of all submitted flows. Use the filter options on the page to identify flows that require your attention, such as a flow that includes tasks with error messages. Drill down on a flow to go to the Checklist page, to get more detailed information for the tasks within the flow.</p> <p>Navigate to View Flows task from Quick Actions or under Payroll in My Client Groups.</p>

Responsive User Experience Setup

Deep Links

You can use deep links to provide easy navigation directly to a page in the HCM Cloud application.

You can also use deep links for mobile responsive pages on your intranet, custom and third-party applications, or in a document. This helps people run transactions in the HCM cloud and provides quick access to their HR information.

To access deep links:

1. Open the main menu.
2. Go to **Tools > Deep Links**.
3. Copy the URL for a deep link.
4. Paste the URL in the appropriate location.

When you open Deep Links, you find a list of all available deep links.

Search Logic Profile Options for Client List of Values

You can use the logic `<codeph>CONTAINS</codeph>` to create the client list of values. This returns results containing the characters you enter.

Optionally, for individual list of values, you could change this logic to `<codeph>STARTS WITH</codeph>`, to return results that start with the search characters you enter.

For example, when you search for a person with the name John Smith while using the logic `CONTAINS`, you can search by `'jo'` or `'sm'` or `'th'`. When you use the logic `STARTS WITH`, your search must start with `'j'`.

Use the logic `STARTS WITH` when your list contains thousands of values (more than 15,000 records) to improve the search performance. Or, if you don't partition your data by set ID.

Note: If you change the search logic for a client list of values, the logic changes in all pages where the list of values is used.

Related Topics

- [Search Logic Profile Options for Client List of Values in Global Human Resources](#)

Use Transaction Design Studio to Configure Field Displays

Use the Transaction Design Studio (TDS) to configure transactions and pages for responsive applications. TDS is available within the HCM Experience Design Studio.

You can control the visibility of attributes that are displayed either as **Delivered** or **Enabled**, and the availability of fields and sections of a transaction based on the user's role, person's business unit, or legal employer.

By default, the responsive pages display the often used attributes and hide the less often used attributes. Use Page Composer to personalize the responsive pages and display the attributes and tabs delivered within the feature.

Here's how you start HCM Experience Design Studio:

1. Sign in to the application as Human Capital Management Application Administrator with Access HCM Page Configurator (HRC_ACCESS_HCM_TRANSACTION_CONFIGURATOR_PRIV) privilege. This privilege provides you access to TDS in HCM Experience Design Studio.
2. Enable a sandbox to compose data for configuring business objects. On the Home page, click the **HCM Experience Design Studio** quick action under the **My Client Groups** tab.
3. Under **Settings and Actions**, click **Edit Pages**.
4. Select the site layer and click **OK**.

Related Topics

- [Overview of Page Modification](#)

2 Payroll Flow Patterns

Introduction to Payroll Flow Patterns

A payroll flow pattern links together a sequence of automatic payroll processes and reporting tasks, 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.

When you create your own flow pattern, you have the option to copy a predefined flow and make these edits to meet your company's 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.

When you submit a flow pattern, provide a unique name for the flow, such as 'Semimonthly Payroll_15-Sept-2019'. This instance of a flow pattern is referred to as a flow. Use the Checklist to monitor the status of all tasks within the flow.

Predefined Flow Patterns

Predefined flows are automatically available for you to use. 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
- Run Payroll Activity 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.

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

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

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:

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

Flow Pattern Components

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 based on the information in this table.

Field	Description
Flow Status	Use this field to define how you can submit the flow. Select one of these options: <ul style="list-style-type: none"> • 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. • 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:

Field	Description
	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> Yes, to restrict the flow to a single LDG. No, to indicate that the flow is available to all other LDGs.

Use these tabs on the Payroll Flow Patterns page to define more flow components and tasks within the flow.

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.

For more information, refer to Considerations to Configure Flow Connectors topic in the Help Center.

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.

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.

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.

For more information, refer to Flow Pattern Parameters topic in the Help Center.

Outbound Integration

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.

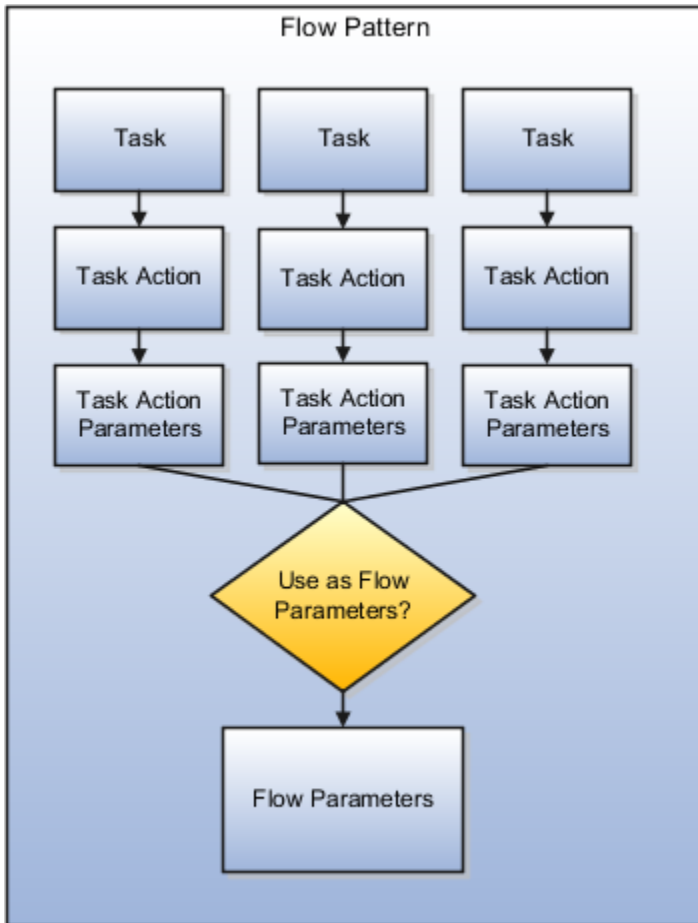
Related Topics

- [Considerations to Configure Flow Connectors](#)
- [Flow Pattern Parameters](#)
- [Sequencing Rules for Flows and Locked Tasks](#)

Flow Pattern Parameters

Each task in a flow pattern supports task actions, such as submit, roll back, mark for retry, retry, and view. Task action parameters control how the application processes a task and how the task relates to other tasks in the flow pattern.

Flow parameters are a subset of task action parameters. They supply the information required to successfully complete the tasks in the flow pattern.



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.

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.

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. The base flow parameter name isn't displayed on the UI.

- When you create a flow pattern, review and edit the task parameters for the Submit task actions.
- Before you submit a flow, review and edit the task action parameters and the flow parameters for each task within the flow. Task action parameters control task interactions.

These are the parameter details you can edit.

Display and Display Formats

Use the Display parameters to control the format and availability of the flow parameter on the UI.

Parameters	Purpose
Display	Determines whether the parameter displays on the page when you submit the flow.
Display Format	Identifies the type of data displayed, such as a date or text, or choice list

Display parameters work with other parameters, such as Parameter Basis and Basis Value. For example, most task action parameters don't display the Request parameter because the application obtains the value for this parameter from the context.

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.

Option	Used to
Mandatory	Display the parameter on the UI and it's mandatory 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.

Lookups and Value Sets

Use lookups and value sets for descriptive flexfields to control and validate the data used in the payroll flow pattern. Select from a list of predefined application lookup values or value sets or ones that you have defined.

This table lists how the lookup values are derived and the corresponding parameter basis you can use.

Lookup Value	Parameter Basis to Use
Entered when submitting a flow	Bind to Flow
The application derives the value during flow submission and presents it. The value is derived from existing tables, such as the value for the payroll statutory unit. During flow submission, you can either use the derived value presented to you or override it.	SQL Bind or Bind to Flow Task or Context Binding
The application derives the value from a Post SQL process	Post SQL Bind

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.

For output usage parameters the parameter isn't displayed and its value is derived using the parameter basis.

Parameter Option	Setting
Display	No
Parameter Basis	<ul style="list-style-type: none"> Bind to Flow, the application derives the value from the flow parameter and then updates the flow parameters table with the output value If you select no value, the output value results from the task's output

Sequence

Sequence indicates the order in which the parameter is available on the UI for you to enter a value. Sequence numbers control the order in which the application processes and displays the parameters. In the case of hidden parameters, they're processed after a required or dependent parameter is processed.

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.

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 list of values to select parameter basis and basis values when you define payroll flows. Also view examples of when you can select them and how the values are assigned.

Parameter Basis	What the Parameter Basis Does	Basis Value Available	Example
Constant Bind or Use 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.	<p>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.</p> <p>Bind the legislative data group parameter to a task parameter that supplies the legislative data group.</p> <p>For example, the legislative data group for prepayments uses the payroll as context, because</p>

Parameter Basis	What the Parameter Basis Does	Basis Value Available	Example
			it's already associated with the legislative data group.
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. Use SQL Bind to prompt the task owner to enter a reason for a corrective action, such as a QuickPay.

The Basis Value is related to the Parameter Basis. For example, when the Parameter Basis is Post SQL Bind the Basis Value contains the SQL used for the Post SQL Bind.

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 the two check number parameters of the delivered Generate Check Payments task. The validation ensures that these two parameters only take positive numbers without any decimals, alpha characters, special characters, or comma separators. This validation takes place when the parameters are submitted.

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 Submission Support for UCM File Upload

Upload data onto the Oracle WebCenter Content Server directly from the Flow Submission page.

For example, if you need to upload large volumes of employee information because of a new company that you have taken over, you can upload the data from the Submit a Flow page. Use the UCM File upload facility only for flows that upload data, example, Import Record of Employee Data.

For flows that support upload of files, use the **Upload File** button in the **Parameters** section of the Submit a Flow page to upload a file to the **UCM** server.

Use the **Upload File** button to search and select a data file from your local computer. The file must be in a format that's compatible with the UCM upload process.

A **UCM Content ID** is automatically generated for the upload and it's displayed on the flow submission page.

After you have uploaded the file, complete the other parameters for your flow and submit the flow as usual.

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.

Sequencing Rules for Flows 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 prevent processing corrective actions, such as retrying a process. 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.

Reports that Create Locks

Typically, reports temporarily lock results of previous calculations while they run. Some reports do lock results. For example, the payslip report locks 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.

To correct data for 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 task to calculate QuickPay until the tasks in the weekly payroll run that use the locked results of the calculations for the payroll run is complete.

Translate Payroll Flow Names

Search and view a user-defined flow in the native language of your choice, irrespective of which language the flow was initially created.

Use the **Translation Editor** icon on the Flow Pattern setup page to translate the name of a user-defined flow. Translate the flow name in each language displayed on the Edit Translations page and save the record. Optionally, you can also enter the description of the flow in each of the displayed languages.

Note: The Translation Editor is available only for user-defined flows.

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.

However, 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.

Note: If you plan to migrate the flow, you must first migrate the flow, and then translate the flow name in the destination environment.

Complete these steps to ensure that a user can search and find a user-defined flow in their native language.

1. Use the Translation Editor icon on the flow setup page to translate the name of a user-defined in all the installed languages.
2. Navigate to My Client Groups > Payroll > Payroll Flow Patterns.
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.

HCM Data Loader User Access Security Support in Payroll Flows

Use the Load HCM Data File and Load HCM Data Spreadsheet tasks to load a file or spreadsheet using a payroll flow.

The tasks enforce these HCM Data Loader security features when you load a file or spreadsheet using a payroll flow:

- Controls the job roles that have access to bulk-load security related data by restricting access to HCM Data Loader business objects.
- Controls the business objects and product areas a user role can use for bulk loading data using the HCM Data Loader.

You can either create a new flow pattern, or update an existing flow pattern to include the Load HCM Data File and Load HCM Data Spreadsheet tasks.

For example, create a new flow that includes the 'Load Batch from File' and Load HCM Data File tasks. The Load Batch from File transforms your data into a format that's supported by the HCM Data Loader. The Load HCM Data File task loads the file and enforces the user access security rules that are defined for HDL.

Note: It's recommended you use the Load HCM Data File and Load HCM Data Spreadsheet tasks. These tasks are the secure versions of the Initiate Data Loader and Load Spreadsheet from File tasks.

Flow Security and Flow Owners

How HCM Data Roles and Flow Security Work Together

Your HCM data role security determines which flows you can submit or view. This topic explains how the HCM data roles and flow security work together.

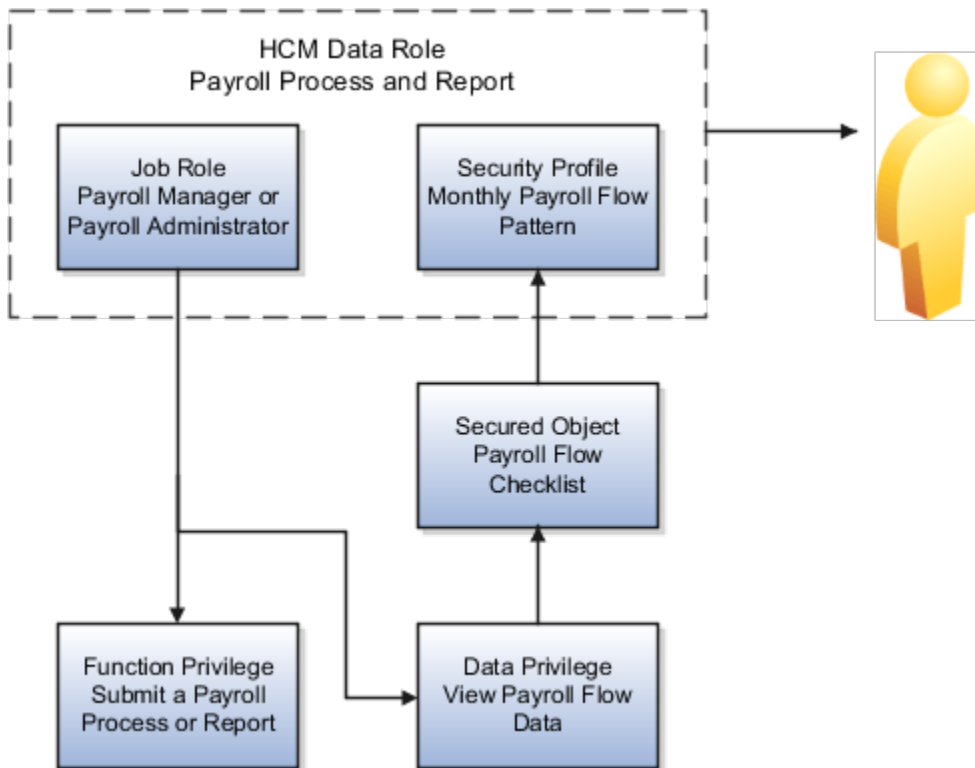
Use the Payroll Flow Security Profile task in the Setup and Maintenance work area to define security for payroll flow patterns.

Payroll Flow Security and HCM Data Roles

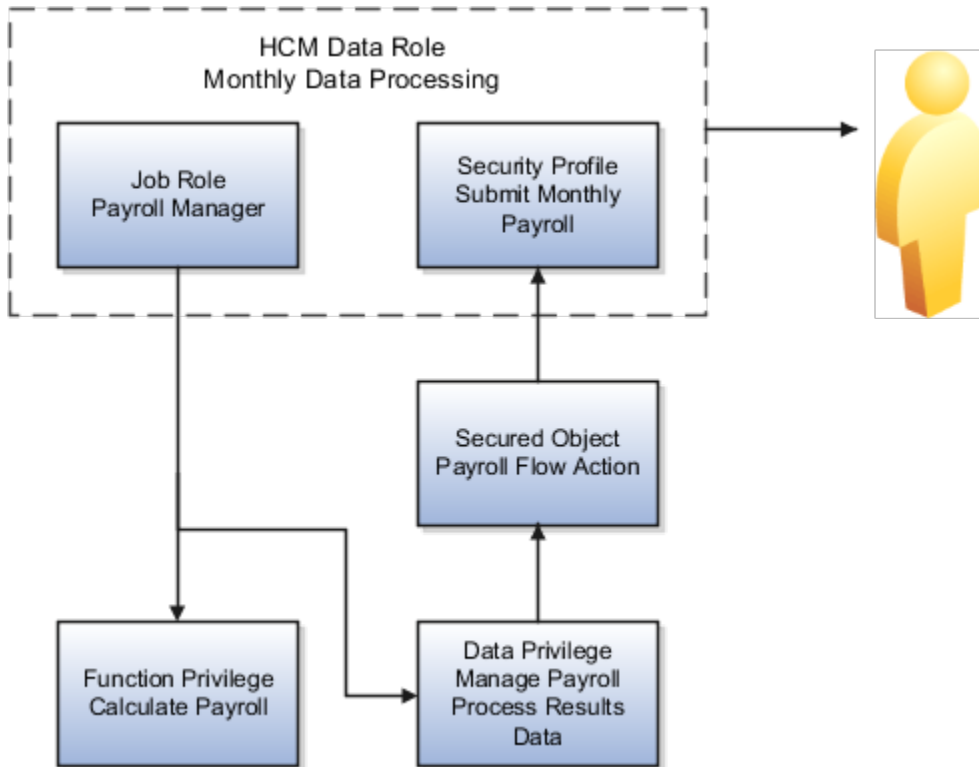
HCM data roles secure the access to flows through data privileges and to the tasks on a checklist through functional privileges.

- When you submit a flow pattern, it generates a checklist of the included tasks.
- You become the owner of the flow and its tasks. If a flow pattern designates tasks to different owners, you remain the flow owner.
- Either you or the owner of a task can reassign the task to someone else. For example, to cover situations where the task is overdue and the task owner is on leave.

This figure illustrates how the payroll manager and payroll administrator can submit a process or report and can view the results of the monthly payroll flow.



The payroll manager or the payroll administrator can submit the flow and perform its tasks or have the tasks reassigned to them. The payroll manager and the payroll administrator can perform the same tasks because both of them have the same functional privileges. They can both submit and view the payroll flow data. This figure illustrates how only the payroll manager can calculate the payroll. The payroll manager can't reassign this task to a payroll administrator, because the administrator doesn't have the necessary functional privileges to submit the monthly payroll flow action.



View Flow Security

When you submit a flow, you're taken to the Checklist page so that you can manage and monitor the tasks included in the flow.

You can also use the View Flows page, and navigate to these pages:

- Click on a flow to go to the Checklist page of the selected flow. The checklist page shows the list of tasks in the flow as well as their completion status.
- Click on a task to drill down to the Process Results Summary, it shows the employees processed within that task.
- Click on the employee's name to drill down to the Person Process Results page.
- Navigate from the Person Process Results page to view the detailed process results for the employee. For example, view the Statement of Earnings, Messages, Balances, and Run Results for the Calculate Payroll task.

This table shows the function privilege that secure access to the View Flow Quick Action.

View Flow Security and Privileges

Page	Aggregate Privileges	Job Roles
View Flow	Access Payroll Flow (PAY_ACCESS_PAYROLL_FLOWS)	Payroll Manager, Payroll Administrator

Access Payroll Flow aggregate privilege includes all the necessary function and data privileges to access the Checklist, Process Results Summary, and Person Results pages.

Including View Flow in Your User-Defined Role

You might have a requirement to provide access to View Flow to other job roles, to allow them to view results of specific processes. To include View Flow in a user-defined role, complete these steps.

1. Create a role by either copying a predefined job role or creating a new one.
2. Add the aggregate privilege: Access Payroll Flow.
3. Depending on the type of flow the role should have access to, you might need to provide additional function privileges such as:
 - o Verify Statement of Earnings (PAY_VERIFY_STATEMENT_OF_EARNING)
 - o View Employee Level Messages (PAY_VIEW_EMPLOYEE_LEVEL_MESSAGES)
 - o View Payroll Balance (PAY_VIEW_PAYROLL_BALANCE)
 - o View Payroll Run Results (PAY_VIEW_PAYROLL_RUN_RESULTS)
4. Create a Payroll Flow security profile to include the flows your new role should have access to.
5. Create a data role and associate the Payroll Flow security profile to it.

These aren't included in the Access Payroll Flow privileges:

- QuickPay Results: If you want to use View Flow to access the QuickPay Results, you must grant access to the QuickPay Quick Action.
- Import and Load Data: If you want to use View Flow to view results of HDL uploads, additional privileges are required.
- Ability to take action on the tasks: Actions such as Retry or Rollback aren't available.

Note: If the flow-level messages aren't displayed, ensure that your data role includes this data security profile: Search Person Live Data.

Troubleshooting

If you have problems submitting or completing a task in a flow, these are the actions you can take.

Problem	Solution
Can't submit or view a flow	Confirm that the data role assigned to you includes a security profile for the payroll flow pattern.
Can't perform a task, such as a process or report	Confirm that your data role is based on a job or abstract role that includes functional privileges to perform that task.

Problem	Solution
Can't view or take action on a flow task submitted by another user.	Update the flow pattern to add a group to the specific task.

Include Submit Flow Security in Your User-Defined Role

You might have a requirement to provide the ability to submit a restricted set of flows, view the flow results, and be able to take corrective actions such as roll back and retry.

To include Submit Flow in a user-defined role, complete these steps.

1. Create a role by either copying a predefined job role or creating a new one.
2. Add the aggregate privilege: Access Payroll Flow Submission.
3. To provide ability to view the flow results, also add the aggregate privilege: Access Payroll Flow.
4. Create a Payroll Flow security profile to include the flows your new role should have access to.
5. Create a data role and associate the Payroll Flow security profile to it.

Examples of Flow Pattern Security Profiles

You can use different methods to organize payroll flows into appropriate security profiles. Use the Assign Security Profiles to Role task in the Setup and Maintenance work area to grant workers access to those profiles by data role.

Scenario

Here are a few examples of payroll security profiles and data roles.

Example	Data Role	Security Profile
Payroll Processing and QuickPay Flows	Payroll Administrator	Payroll Cycle flow and the QuickPay flow
End-of -Year Reporting	Payroll Administrator	End-of -Year flow and the Archive End-of-Year Payroll Results flow
Hiring and Terminations	HR Administrator or HR Specialist	New Hire flow and the Termination flow

Multiple Owners for a Flow

When you create a flow, use the Owner Type and Owner fields on the Edit Task Details: Owner and Checklist page, to assign individual tasks within a flow to individuals or a group of individuals.

Task ownership and access are given by default 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 has the same data role, will be able to view the task even if they haven't submitted the task.
- 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.
- You can assign group ownership 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.
- You can also assign group ownership to individual tasks within a flow, after submission of the flow. Such ownership is only applicable to the particular instance of the flow.

Create Data Roles and Security

Before you assign ownership, consider these points:

1. Create a data role that you can assign to the users you plan to group together. Use the Data Roles and Security Profiles task to create the data role. The grouping of users is through the data role you create.
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.

Create Users and Add the Data Role

After you create the data role, use the Users task to create users. Use Add Role in the Roles region to provision the newly created data role manually to the user.

Select the Task Owners

The HCM data role security determines who can submit or view the tasks within the flow pattern. You must be a payroll supervisor or administrator to process payroll and review payroll report outputs and extracts. 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. You can assign appropriate responsibilities and functional privileges while defining the different data roles and security profiles.

How Do I Edit a Flow Pattern and Create Multiple Owners

In this example, you copy a QuickPay flow pattern and change the task owners and assign tasks to multiple individuals within a group.

You can also claim a task within the flow, review notifications, and set the status of the flow task as 'Completed', so that the flow continues.

Consider these key decisions for this scenario.

Decisions to Consider	In this Example
Who is the task owner for the Verify Payroll Results task?	Payroll Supervisor
Who is the task owner for the Calculate QuickPay Prepayments task?	Any person who has the Payroll Clerk data role and privileges.
Who is the task owner for the View Prepayments Results task?	Payroll Supervisor
Who is the task owner for the Make External Payment task?	Any person who has the Payroll Clerk data role and privileges.
Who is the task owner for the Verify Payment task?	Payroll Supervisor

Before You Start

Before you begin, complete the following.

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. Use the Owner Type and Owner fields to specify the group or person who can have access to the tasks.
2. Use the Data Roles and Security Profiles task and create a data role for Payroll Supervisor and Payroll Clerk.
3. Set up the right privileges for the data roles you create.

Specify a Task Owner

The HCM data role security determines who can submit or view the tasks within the flow pattern. To specify a task owner:

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

Value Sets in Payroll Flows

Introduction

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.

Use the Payroll Value Sets task in the Setup and Maintenance area to create a value set. Once you create a value set, it uses a SQL statement to filter values from an existing table, such as person name or number, location, legislative data group, or payroll statutory unit. You can then use the value set as a parameter to run a payroll flow. You don't have to create and maintain a lookup type. 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 and displayed on the payroll flow page.
- Enter these details while creating the value set definition, 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 below:

- `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.

How Do I Use a Value Set in a Payroll Flow

In this example you create a value set and use the input values for location name as an entry value for a flow.

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

Use the Value Sets task to create a value set. After you create a value set, use the Payroll Flow Patterns task to link the value set with a flow.

How to Create a Value Set that Returns all Locations

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

- Select the Value Sets task in the Setup and Maintenance area.
- On the Value Sets page, click **Create**.
- Enter these values.

Field	Value
Value Set Code	LOCATION_VS
Description	Locations
Module	Payroll Flows
Validation Type	Table
Value Data Type	Character
FROM Clause	<code>pay_flows_pf</code>
Value Column Name	<code>pft.flow_name</code>
Value Column Type	VARCHAR2

Field	Value
Value Column Length	100
ID Column Name	<code>pf.base_flow_id</code>
ID Column Type	Number
ID Column Length	18
WHERE Clause	<pre>Pf_flow_id = {PARAMETER. LOCATION_IP}</pre> <p>Note: LOCATION_IP is the input value name.</p>
ORDER BY Clause	<code>pft.flow_name</code>

- 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.

- Click **Save**.

How to Add the Value Set Codes to the Payroll Flow Patterns Page

Let's look at the steps to add the value set codes to the Payroll Flow Patterns page:

- Use the Payroll Flow Patterns task from **Payroll** in **My Client Groups** on the Home page.
- Create a flow to meet your requirements, add the required tasks, and arrange them in a sequence.

Use the flow parameters to submit and complete the tasks in the flow pattern, or as a basis for deriving values to submit the remaining tasks in the flow pattern.

- Select the **Parameters** tab, and click **Create**, and create an empty parameter.
- 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.

- Optionally, enter the Owner and Checklist information, and then click **Next**.
- 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.

Create a Flow Pattern

Considerations to Create a Flow Patterns

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.

Optionally, you can copy a delivered flow pattern and add or delete tasks from the flow pattern as required. For example, use the delivered Expedited Payroll flow pattern to identify, calculate, and make expedited payments. You can add the Run Payments Register task to the delivered flow, to make a record of the payments made.

Review predefined flow patterns and flow patterns you have created. You can't edit predefined flow patterns, but you can edit your patterns, including adding and removing tasks, rearranging the task sequence, and editing the flow parameters, and task parameters.

Note: You can only edit certain components of a delivered flow pattern. To create a user-defined flow pattern, you must first copy the delivered flow pattern, rename the flow pattern, and then make edits to the renamed flow pattern.

For more details, refer to the topic, 'How Do I Copy and Edit a Flow Pattern' in the Help Center.

These are the list of 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. All flow patterns are built within a legislative data group (LDG). When you create a flow pattern select an LDG. For more information, refer to 'How Do I Copy and Edit a Flow Pattern' and 'Examples of Editing Flow Patterns' topics in the Help Center.
Add tasks and activities	A flow pattern consists of 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 select fewer activities to manage payroll processing with several flows, such as a flow pattern to prepare and calculate your weekly payroll, and a 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	Task action parameters control how the application processes a task and how the task relates to other tasks in the flow pattern. On the Task Parameters page, review and if necessary, update the parameters. 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.

Task	Description
	<p>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.</p> <p>For more information refer, to 'Flow Pattern Parameters' topic in the Help Center.</p>
Sequence the flow tasks	<p>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.</p> <p>For more information refer, to 'Sequencing Rules for Flows and Locked Tasks' topic in the Help Center.</p> <p>Tasks are sequential but you can start processing more than one task concurrently. For example you can run reports concurrently along with the process. For more information on how you can run tasks concurrently, refer to 'How can I run tasks concurrently in a flow?' in the Help Center.</p>
Assign task ownership	<p>On the Edit Task Details: Owner and Checklist page, select the task owner. You can also select multiple owners for a flow.</p> <p>For more information, refer to 'Multiple Owners for a Flow' and 'How Do I Edit a Flow Pattern and Create Multiple Owners' topics in the Help Center.</p>
Schedule flow tasks	<p>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.</p>
Add task notifications	<p>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.</p> <p>Enable HCM Alerts and use predefined alerts to update you on status of your flow tasks.</p>
Allow processing even if a prior task errors	<p>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.</p> <p>You must then manually set a manual task as complete to enable the flow to resume processing.</p>
Connect Flows	<p>Use the Connected Flows field to select flows that you want to connect to the current flow, to consolidate the run results.</p>
Flow Security	<p>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.</p> <p>For more information, refer to 'How HCM Data Roles and Flow Security Work Together' topic in the Help Center.</p>

Related Topics

- [Flow Pattern Parameters](#)
- [Flow Security and Flow Owners](#)
- [Flow Pattern Components](#)
- [Considerations to Assign Multiple Owners for a Flow](#)

How Do I Create a Flow Pattern

Use the delivered flow patterns to copy and create flows and complete your payroll tasks. Add the delivered tasks, such as processes, reports, or task flows in a sequential order and build the flow.

For example, use the delivered Expedited Payroll flow pattern to identify, calculate, and make expedited payments. Add the delivered reports to review payroll calculation results and prepayments before making the payments.

Optionally you can create your own flow pattern.

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

1. Search and select **Payroll Flow Patterns** 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**.
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.
5. Select the activities and tasks to include in the flow pattern.
6. Click **Next**. On the Tasks page, complete this information.
 - o 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.
 - o Select a task owner. Use the **Owner Type** field to select a group or a single user.
 - o Select the type of notifications that you want the flow or task owner to receive.
 - o 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.
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**.

Use the Manage Payroll Flow Security Profile task In the Setup and Maintenance work area, to define a security profile for the flow pattern.

The HCM data role security controls who can submit the flow pattern or view the resulting flow from the Checklist or View Flows pages.

Related Topics

- [Flow Pattern Parameters](#)
- [Flow Security and Flow Owners](#)
- [Flow Pattern Components](#)
- [Considerations to Create a Flow Pattern](#)
- [Considerations to Assign Multiple Owners for a Flow](#)

How Do I Bind a Rollback Action to a Task In a Payroll Flow

This topic explains how you can define flow task parameters, so that a rollback action on the flow tasks work correctly. If you don't bind the parameters for the rollback action correctly, the rollback isn't successful.

Use the Execution Mode option to define the action for a task within a flow. The actions you can select include:

- Mark for Retry
- Rerun
- Roll Back
- Submit

The parameter basis you select for the task parameter controls how the application derives the value for the parameter. The basis value further specifies the value the application uses for the parameter when it executes the action.

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 then uses this Payroll Action ID.

Follow these steps to define flow task parameters for a Rollback action.

1. Use the Payroll Flow Patterns task under Payroll from My Client Groups > Show More on the Home page.
2. Search for and open, in Edit mode, the flow pattern for which you want to define a Rollback action.
3. Under the Tasks tab, click **Go to Task** for the task you want to roll back. By default the task parameters are all in **Submit** mode.
4. To change the execution mode, use the **Execution Mode** field and select **Roll Back** execution mode from the drop down list.
5. Choose the Parameter Basis for the parameter as **Bind to Flow Task** and the Basis Value as **Action ID**.

The Parameter Basis binds the parameter to a flow task, such as Rollback corrective action. When you roll back the task, the application uses the output of the Submit task action, which is the Payroll Action ID. The application uses the Action ID as the input parameter for the roll back action.

Evaluate each of the flow tasks and flow task parameters and select the correct Parameter Basis and Basis Value, to avoid interlocks or incorrect parameter bindings.

Related Topics

- [Flow Pattern Parameters](#)
- [Task Actions and Notifications](#)

Task Iterations

Multiple Task Iterations in a Flow

Use the 'Submit Another Task' task to automatically repeat a task multiple times with a single submission of the flow.

You can define rules to control the task iteration. For example, define a rule to automatically submit a report task for each TRU within your organization.

The rule-based nature of the 'Submit Another Task' task enables you to support submission rules based on fluid parameter details. For example, before calculating your regular payroll run, you can automatically roll back all QuickPay runs you have created for payroll validation purpose. In this instance, the rollback task is automatically resubmitted for all the QuickPay runs in the payroll period.

Note: You can't iterate a manual task. For example, you can't use the Submit Another Task option to iterate a QuickPay task and submit multiple QuickPay runs.

If you need to correct a task, such as rerun a report task, this action will be applied to all task iterations submitted using the 'Submit Another Task' task.

After you initiate and submit the 'Submit Another Task' task, the task iterator dynamically identifies the multiple transaction IDs of the task already processed and automates the task iteration for each subsequent transaction ID. The number of iterations you specify, determines the number of times the task repeats itself.

Note: There are no predefined flows that you can use directly for task iterations. To iterate a task, you must create a flow and include the 'Submit Another Task' task in the flow.

Note: Consider using a standard flow pattern when your task submission rules are based on a static parameter such as TRU and you have a requirement to manage each task individually.

Consider these points before you create a flow and include Submit Another Task, to initiate task iterations.

Task Name

Submit Another Task takes the task name as the input parameter and uses the repeat formula to execute multiple iterations of a task.

Task Repeat Formula

The Task Repeat Formula is a prerequisite for the flow and it decides the repetition logic and drives the iteration. When you create the repeat formula, use the 'Task Repeat' formula type. The input parameters are predefined for an input task. You can add them as flow parameters during flow creation. The formula return values are used to validate the task parameters.

Parameters

Task parameters submit the information required for the task submissions to complete successfully. The flow has these two sets of parameters:

- Parameters for Submit Another Task
- Parameters for the repeat submission task that's submitted multiple times

Use any of these options as input values for the repeat submission task:

- Task parameters from the flow parameters defined while creating the flow
- Return parameters from the repeat formula

Use any of these options as flow parameter values:

- If the task parameter name, exposed in the UI at the flow-level, matches the Base Flow Parameter Name, then the values are used directly.
- If the task parameter names don't match the Base Flow Parameter Name, the application uses a fast formula function to pass the flow parameter values as the task parameters. This formula function is built into the repeat formula.

For example, assume that you have defined the flow parameter as 'Effective Date', and the corresponding Base Flow Parameter Name is 'EFFECTIVE DATE'. The application uses formula function `GET_FLOW_PARAM_VALUE ()` and stores the return value of this formula function in the task parameter 'EFFECTIVE DATE'. The formula function is:

- `*EFFECTIVE DATE=GET_FLOW_PARAM_VALUE ('Effective Date')`

Provide the correct parameter basis when you define the task parameters. Some of the static parameters like the Effective Date or the Start Date can have a parameter basis value of 'Bind to Flow'. The dynamic parameters like the Payroll Statutory Unit ID are derived from the database tables. Hence you can have a parameter basis value of 'Bind to Flow Task' or 'Context Binding'. If you have defined specific names for the flow task parameters, you must ensure that the same names are used in the repeat formula.

Alternately, use the return parameters from the repeat formula as the task parameters. In this case the input parameters for the repeat formula are only the Base Task Name and the Repeat Counter. While calling the formula, the application uses these two parameters to get the context of the job submission. You create the Repeat formula to return input values for the submission task.

The formula output Repeat Flow decides if another job submission has to be done.

These parameters can be static or dynamic parameters. For example, for the Archive End-of-Year Payroll Results process the following parameters are defined as static parameters:

- Effective Date
- Start Date

- Tax Year Date
- Repeat Counter

The Repeat Counter is a static variable and is maintained by the application. During the iteration process this parameter increments by '1' after every submission.

In this example, these are the dynamic parameters for each submission:

- Payroll Statutory Unit ID
- Repeat Flow

However, you can also define the Tax Year as a dynamic parameter, so that you can generate the report for various years.

Maximum Repeat Counter

Specify a threshold limit for the maximum number of instances that can be executed for a single submission of the task. If the iteration runs into an error, this parameter prevents the process from getting into an infinite loop. A repeat counter N indicates one parent and N-1 child submissions.

Repeat Flow Parameter

The repeat flow parameter indicates when the task iteration should stop. A repeat flow instance is submitted only if the repeat flow parameter is set to 'Y'.

Execute in Parallel

Execute the submissions in parallel or serial. For parallel submissions, the number of threads is taken into consideration. A number of submissions equivalent to the number of threads is submitted in parallel. For serial submissions, number of submissions equivalent to the Repeat Counter is executed one after the other.

If you have set the Execute in Parallel parameter to 'Yes', you must specify a value for the Maximum Parallel Threads. This parameter is taken into consideration for a parallel submission.

For example, if you specify a value of X, during a submission, the application processes X instances of the task initially. The parent task waits for X child submissions to complete, evaluates the fast formula and executes another set of X child submissions to complete. This cycle continues till the Maximum Repeat Counter submissions are completed or the Repeat Flow value is 'N'.

Note: It is recommended to execute the flow with parallel threads, especially for large volumes of data.

Parent Log File

After completion of the flow, use the Task Iterations page from the Process Results Summary and view the ESS Log file to view the details of the input parameters for each job submission. The Output and Log Files section displays one set of flow instance details and parameter values for the parent submission and similar set of values for each subsequent child submission.

1. Click on the Process ID on the first row to view the log output details of the flow.
2. Click on the Process ID on the second row or any other row below to view the log output of a task iteration or child submission.

Task Iterations UI

Use the Task Iterations page to review the Submit Another Task flow iterations. You can access this page from the Checklist and from the Process Results Summary UI.

After you submit the flow, click on the task in the Checklist to review the progress of the multiple iterations of the Submit Another Task on the Task Iterations page. The page lists the multiple instances of the task iterations submitted by the Task Repeat Formula used in the flow.

The Maximum Repeat Counter value determines the number of iterations for a single submission of the flow. A repeat counter N displays one parent flow and N-1 child submissions on this page.

Click on a task iteration name to view the details of the task iteration.

Use the Refresh button to refresh and view the latest number of task iterations. The page has no task-level actions. It only has a page-level action of Roll Back to roll back all of the task iterations.

Task Iteration Name

To differentiate the multiple iterations and easily identify an iteration counter, in the Task Iterations UI, it's recommended that the formula you use for the iterations include a meaningful label name for each iteration. Use the Task Repeat formula to return an iteration label that includes the task iteration name appended with the parameter on which the iterations are executed. For example for a flow iteration to roll back Calculate Payroll processed for different payroll relationship groups, you can use the formula to return the iteration names as Roll Back Payroll Relationship Group A, Roll Back Payroll Relationship Group B, and so on. The task name is constant for the task iterations, but the parameter on which the iterations are executed is dynamic.

Click on the task iteration name to view the details of the specific task iteration. You can view the task iteration parameters, and the process output and log files of the specific task iteration from this page.

How Can I view Task Iteration Results

Navigate to **Process Results Summary** under **Payroll** in **My Client Groups** and search for the submitted **Global Submit Another Task** flow. Click on the flow name to open the Task Iterations page. Click on a task iteration name and view the process results details of the flow in the Output and Log Files section.

Roll Back Task Iterations

You can't roll back a single iteration of the task. Use the Roll Back All option at the task level to roll back all the iterations of the task. Instead of rolling back all the iterations, it's recommended that you use the Mark for Retry option at the task level and then Retry the task.

Use Task Iterations to Run the Archive EOY Payroll Results Report for Multiple PSUs

In this example you create a flow pattern and use the Submit Another Task task to automatically generate the Archive End-of-Year (EOY) report for multiple payroll statutory units (PSUs) within your organization.

The task iteration process uses the task repeat formula to dynamically identify the PSU IDs and generate the report for the multiple PSUs with a single submission of the flow. The Archive EOY Payroll Results task retrieves employee and employer information and employee balances in a given year for year-end reporting.

Before You Start

Review and validate the year-end data and complete balance adjustments and balance feeds for year-end reporting.

Here are the key decisions for this example.

- The static flow parameters used in this example include Effective Date, Start Date, Tax Year Date, Repeat Counter.
- The dynamic flow parameters used in this example include Payroll Statutory Unit ID and the Repeat Flow.

The input parameters for the repeat submissions are obtained from the values returned by the task repeat formula. Perform these tasks to use Submit Another Task and generate the Archive End-of-Year (EOY) report for multiple PSUs.

1. Create a task repeat formula
2. Create a flow pattern
3. Submit the flow
4. View the results and log file

How to Create a Task Repeat Formula

Use the text editor to create a fast formula and return the values required to run the Archive EOY Results for a PSU. This formula isn't specific to any legislative data group (LDG) and the formula type you use for this formula is Task Repeat.

Complete these steps to create a task repeat formula.

1. Use the Fast Formulas task.
2. On the Fast Formulas page, click **Create** to create a formula.
3. On the Create Fast Formula, complete these fields.

Field	Value
Formula Name	Sample Formula
Formula Type	Task Repeat
Description	Archive EOY Results for each PSU
Effective Start Date	Enter a date, for example, January 01, 2011

4. Click **Continue**.
5. Enter this formula text details in the Formula Text Section.

```

FORMULA NAME: Sample Formula
FORMULA TYPE: Task Repeat
DESCRIPTION: Formula to iterate the EOY Archiver
Formula Results: Iterates the EOY and generates the report
    
```

```

/* Inputs */
INPUTS ARE REPEAT_COUNTER, BASE_TASK_NAME (text)
REPEATFLAG = 'N'
START_DATE = '2011-01-01'
EFFECTIVE_DATE = '2012-01-01'
TAX_YEAR_DATE = '2011-01-01'

/* FORMULA BODY */
IF REPEAT_COUNTER= 1
THEN(PAYROLL_STATUTORY_UNIT = 300100001794785
REPEATFLAG = 'Y')
IF REPEAT_COUNTER= 2
THEN(PAYROLL_STATUTORY_UNIT = 300100002950763
REPEATFLAG = 'Y')
IF REPEAT_COUNTER= 3
THEN(PAYROLL_STATUTORY_UNIT = 300100013071724
REPEATFLAG = 'Y')
IF REPEAT_COUNTER= 4
THEN(PAYROLL_STATUTORY_UNIT = 300100007796226
REPEATFLAG = 'N')

/*Results*/
RETURN START_DATE, EFFECTIVE_DATE, TAX_YEAR_DATE, PAYROLL_STATUTORY_UNIT, REPEAT_COUNTER, REPEATFLAG
/* End Formula Text */

```

6. Click **Compile**.
7. Click **Save**.

How to Create a Flow Pattern

Complete these steps to create a flow pattern.

1. Select the Payroll Flow Patterns task and click **Create** to create a flow pattern. You can also search for and select an existing flow pattern to copy.
2. Leave the Legislative Data Group field blank and click **Continue**.
3. On the Basic Information page, complete these basic flow information fields.

Field	Value
Flow Pattern Name	EOY Results Flow
Description	Enter a description for the flow.
LDG Required	No
Activities to Include	Select two options, Statutory and Calculate.

4. Select **Submit Another Task** to include it in the flow pattern.
5. On the Task Sequence page, reorder, add, or delete tasks as required.
6. Specify the order in which the tasks display in the checklist. You can specify a value for the sequence on the Edit Task Details Owners and Checklist page.
7. On the Parameters page, select **Create**.
8. On the Select and Add: Parameters page, add these parameters to complete the flow pattern.

Name	Description	Task	Display
Task Name	Name of the task	Submit Another Task	Required
Task Repeat Formula	Name of the formula	Submit Another Task	Required
Maximum Repeat Counter	Maximum number of submissions	Submit Another Task	Required
Execute in Parallel	Decides if the submissions are in parallel or sequential	Submit Another Task	Yes
Maximum Parallel Threads	Maximum number of submissions executed in parallel	Submit Another Task	Yes

The flow parameters are used to submit and complete the tasks in the flow pattern, or as a basis for deriving values to submit the remaining tasks in the flow pattern.

9. After you have completed the requisite parameters, click **OK**.
10. On the Task Parameters page, review the parameters, and if necessary update the parameters.
11. Review the resulting checklist for the flow pattern before submitting the flow pattern.
12. Click **Submit**.

How to Submit the Flow

Complete these steps to submit the newly created flow pattern.

1. Select the **Submit a Flow** task from Quick Actions or under **Payroll** in **My Client Groups**.
2. Search for EOY Results Flow and click **Next**.
3. Enter these parameters.

Field	Value
Payroll Flow	Enter a payroll flow name.
Task Name	Archive End-of-Year Payroll Results
Task Repeat Formula	Archive EOY Results Repeat Formula
Maximum Repeat Counter	Maximum number of iterations by the flow. In this example, it's the number of PSUs.

Field	Value
	<p>Note: A repeat counter N indicates one parent and N-1 child submissions to iterate the task.</p>
Execute in Parallel	<p>Decides if the submissions are in parallel or sequential. Select Yes, if you want to run the flow instances in parallel.</p> <p>Note: For large volumes of data, it's recommended to run the threads in parallel.</p>
Maximum Parallel Threads	Enter the number of threads executed in parallel.

Note: The Maximum Repeat Counter is maximum number of iterations that can be executed for a single submission of the task. It's the number of PSUs in the organization that you want to run the EOY Archiver. If the iteration runs into an error, this parameter prevents the process from getting into an infinite loop.

4. Click **Next**. Check the flow interaction.
5. Click **Next** and select the schedule. You can select 'As Soon As Possible' to execute the task immediately.
6. Click **Review** to review the parameters.
7. Click **Submit**.
8. Click **Done**.

How to View and Monitor the Task Iterations

When you submit a flow, you're taken to the Checklist page so that you can manage and monitor the tasks and other parameters within the flow.

1. On the Checklist page, search for and click on the Submit Another Task flow you just submitted. You're taken to the Task Iterations page.
2. To view further information for a specific task iteration, click on the task iteration name.
3. Click **Refresh** to refresh the page and view the latest number of task iterations.
4. Click **Actions > Roll Back** to roll back all the task iterations.

How to View the Results and Log File

To access the archive results after the process is submitted:

1. Navigate to the **Process Results Summary** page from **Payroll** in **My Client Groups** and search for the submitted Submit Another Task flow. Click on the flow name to open the Task Iterations page..
2. Use the filter options to view the flow you have just submitted.
3. To view further information for a specific task, click on the task iteration name and view the process results details of the task iterations. Highlight a process row to view the results of a specific process.
4. Use the Person Process Results section to view the person process results..
5. Click the **Output and Log Files** section to view the output of the process.

How to Use the Task Iterator to Automate Roll Back of Multiple QuickPay Runs

In this example, you use the Submit Another Task option to automatically roll back multiple QuickPay runs with a single flow submission.

For example, your company doesn't process payments for the QuickPay runs, and hence, before you run the payroll, you must roll back all the QuickPay runs within the payroll period. If you don't roll back the QuickPay runs, those persons processed by the QuickPay runs aren't picked up in the payroll run and hence, don't receive their payments.

Rather than manually roll back the individual QuickPay runs, use the task iterator to dynamically identify the transaction IDs of the QuickPay runs within the specified period and automate the roll back of the QuickPay runs.

Before you begin to automate the rollback of the QuickPay runs, complete these tasks:

1. Create a value set to derive the transaction ID of the QuickPays already processed. The flow iterator uses the transaction IDs for the multiple iterations.
2. Create the task iterator fast formula of type 'Task Repeat'.
3. Create a user-defined flow and include the 'Submit Another Task' option for iterating the task.

How to Create a Value Set

Let's look at the steps to create a value set that returns all the QuickPay transaction IDs.

1. Select the **Payroll Value Sets** task in the Setup and Maintenance work area.
2. On the Value Sets page, click **Create** and enter these values.

Field	Value
Value Set Code	ROLLBACKQPAY_VS
Description	QuickPay Rollback
Module	Payroll Flows
Validation Type	Table
Value Data Type	Number
FROM Clause	pay_payroll_actions pa, pay_requests pr
Value Column Name	pa.payroll_action_id
Value Column Type	VARCHAR2

Field	Value
Value Column Length	200
ID Column Name	pa.PAYROLL_ACTION_ID
ID Column Type	Number
ID Column Length	18
WHERE Clause	<pre> pa.pay_request_id(+) = pr.pay_request_id and pr.pay_request_id =(select pay_request_id from (select t1.pay_request_id,rownum cnt from(select pr.pay_request_id,pfi.instance_name ,nvl(pa.payroll_action_id,-1) payroll_action_id from pay_flow_instances pfi, pay_flows pf, pay_requests pr, pay_payroll_actions pa where pfi.base_flow_id =pf.base_flow_id and pf.base_flow_name IN ('QUICK_PAY', 'QUICK_PAY_ONLY', 'QUICK_PAY_SIMPLIFIED') AND pr.flow_instance_id=pfi.flow_instance_id AND pa.pay_request_id(+) = pr.pay_request_id and pfi.instance_name like 'QuickPay_XXXX,' and pr.call_type='FLOW_TASK_INSTANCE' order by pr.pay_request_id desc) t1) where cnt=: {PARAMETER.COUNT}) </pre>
ORDER BY Clause	

Note:

- The SQL in this table is a sample to demonstrate how you can use a value set to retrieve transactions for the QuickPay rollback iterations.
- The Where Clause below the SQL is to restrict the rollback iterations to process only those flow instances beginning with the specified name. For example, 'QuickPay_XXXX' is used as the flow name in this example. 'XXXX' could represent day and month when the QuickPay runs are processed.

- 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.

- Click **Save**.

After you create the value set, perform these actions to check if the value set query is correct and working as expected:

- Set up a flow with just this value set.
- Verify that the flow generates the list of transaction IDs of the processed QuickPays.
- Verify that the QuickPay IDs are captured as a flow parameter value on the flow submission page.

How to Create the Task Repeat Formula

The Task Repeat Formula calls the value set you previously defined to retrieve the list of QuickPay transaction IDs for the QuickPays already processed. The formula return values are used to validate the task parameters for the Rollback Process in order to roll back in each iteration the current QuickPay in the iteration logic.

Use the text editor to create a fast formula and return the values required to run the Roll Back QuickPay process.

Complete these steps to create a repeat formula.

- Use the **Fast Formulas** task in the Setup and Maintenance work area.
- On the Fast Formulas page, click **Create** to create a formula.
- On the Create Fast Formula page, complete these fields.

Field	Value
Formula Name	QP_Rollback
Formula Type	Task Repeat
Description	Formula to roll back QuickPay
Effective Start Date	Don't enter a value. It is derived by the task repeat formula.
Legislative Data Group	This formula isn't specific to any legislative data group (LDG) and hence you can leave this field blank.
Type of Editor	Text

- Click **Continue**.
- Enter this formula text details in the Formula Text Section.

- FORMULA NAME:** QP_ROLLBACK
- FORMULA TYPE:** Task Repeat
- DESCRIPTION:** Formula to roll back the QuickPays

```

4. Formula Results: Iterates the Roll Back QuickPay process
5. /* Inputs */
6. INPUTS ARE FLOW_INSTANCE_ID, REPEAT_COUNTER, BASE_TASK_NAME (text)
7. DEFAULT FOR REPEAT_COUNTER IS 1
8. DEFAULT FOR FLOW_INSTANCE_ID IS 1
9. DEFAULT FOR PAYROLL_PROCESS IS 1
10. COUNTER = to_char(REPEAT_COUNTER)
11. PAYACTION_ID = GET_VALUE_SET ('ROLLBACKPAY_VS' , '|=COUNT=' || COUNTER)
12. BASE_TASK_NAME = 'JAVA_API_ROLLBACK'
13. EXECUTION_MODE = 'SUBMIT'
14. EFFECTIVE_DATE = trunc(to_date(GLOBAL_PAY_INTERFACE_EXTRACTION_DATE,'YYYY-MM-DD'))
15. PAYROLL_PROCESS = PAY_ACTION_ID
16. REPEATFLAG = 'Y'
17. /*Results*/
18. RETURN REPEAT_COUNTER, REPEAT_FLAG, BASE_TASK_NAME, EXECUTION_MODE, EFFECTIVE_DATE, PAYACTION_ID,
    PAYROLL_PROCESS
19. /* End Formula Text */

```

6. Click **Compile**.
7. Click **Save**.

How to Create a User-Defined Flow Pattern

Complete these steps to create a flow pattern.

1. On the Home page, navigate to **Payroll** in **My Client Groups** and select the **Payroll Flow Patterns** task.
2. Click **Create** to create a flow pattern. You can also search for and select an existing flow pattern to copy.
3. Leave the Legislative Data Group field blank and click **Continue**.
4. On the Basic Information page, complete these basic flow information fields.

Field	Value
Flow Pattern Name	Roll Back QuickPay
Description	Enter a description for the flow.
LDG Required	No
Activities to Include	Select Calculate.

5. Select **Submit Another Task** to include it in the flow pattern.
6. Select an **Owner Type** and **Owner** for the flow.
7. On the Task Sequence page, the sequence should appear as given here.

Task	Following Task
Start Task	Submit Another Task
Submit Another Task	End Task

8. On the Parameters page, use the **Add** icon and add the requisite flow parameters to complete the flow pattern.
9. Before you add the parameters, click **Next** and review the task parameters. The parameters associated with Submit Another Task are automatically available. Ensure that the parameters are defined as given in this table.

Name	Execution Mode	Data Type	Parameter Basis	Basis Value
Execute in Parallel	Submit	Text	Bind to Flow	Execute in Parallel
Legislative Data group	Submit	Long	Context Binding	Legislative Data group
Task Name	Submit	Text	Bind to Flow	Task Name
Task Repeat Formula	Submit	Text	Bind to Flow	Task Repeat Formula
Maximum Repeat Counter	Submit	Long	Bind to Flow	Maximum Repeat Counter
Request	Submit	Long	Context Binding	Request
Maximum Parallel Threads	Submit	Number	Bind to Flow	Maximum Parallel Threads

The flow parameters are used to submit and complete the tasks in the flow pattern, or as a basis for deriving values to submit the remaining tasks in the flow pattern.

10. If necessary update the parameters. After you have completed the requisite flow parameters, click **Next**.
11. Review the resulting checklist for the flow pattern.
12. Click **Submit**.

How to Submit the Flow

Complete these steps to submit the newly created flow pattern.

1. Select the **Submit a Flow** task from Quick Actions or under **Payroll** in **My Client Groups** on the Home page.
2. Search for **Roll Back QuickPay** flow and click **Next**.
3. Enter these parameters.

Field	Value
Flow pattern	Roll Back QuickPay
Payroll Flow	Enter a suitable name for the flow instance, for example Roll Back QuickPay_0105.
Task Name	Roll Back Process

Field	Value
Task Repeat Formula	QP_Rollback
Maximum Repeat Counter	<p>Maximum number of submissions or the number of iterations by the flow.</p> <p>Note: A repeat counter N indicates one parent and N-1 child submissions.</p>
Execute in Parallel	<p>Decides if the submissions are in parallel or sequential. Select Yes, if you want to run the flow instances in parallel.</p> <p>Note: It's recommended to run the threads in parallel for large volumes of data.</p>
Maximum Parallel Threads	Maximum number of submissions executed in parallel.

Note: The **Maximum Repeat Counter** is the maximum number of instances that can be executed for a single submission of the task. It's the number of QuickPays processed in the payroll period and you intend to roll back using this flow. If the iteration runs into an error, this parameter prevents the process from getting into an infinite loop.

4. Click **Next**. Check the flow interaction.
5. Click **Next** and select the schedule. You can select **As Soon As Possible** to execute the task immediately.
6. Click **Review** and then **Submit**.

How to View and Monitor the Task Iterations

When you submit a flow, you're taken to the Checklist page so that you can manage and monitor the tasks and other parameters within the flow.

1. On the Checklist page, search for and click on the **Submit Another Task** flow you just submitted. You're taken to the Task Iterations page.
2. To view further information for a specific task iteration, click on the task iteration name. You can view the task iteration parameters, and the process output and log files of the specific task iteration from this page.
3. Click **Refresh** to refresh the page and view the latest number of task iterations.
4. Click **Actions > Roll Back** to roll back all the task iterations.

How to View the Results and Log File

Complete these steps to view the corresponding results and log file output of the submitted flow.

1. Navigate to the Process Results Summary page and search for the submitted Submit Another Task flow. Click on the flow name to open the Task Iterations page.
2. Click on the task iteration name and view the process results details of the task iterations.
3. Use the Person Process Results section to view the person process results.

4. Click the **Output and Log Files** section to view the output of the process.
5. Click on the **Process ID** on the first row to view the log output details of the flow.
6. Click on the **Process ID** on the second row or any other row below to view the log output of a task iteration or child submission.

Related Topics

- [Multiple Task Iterations in a Flow](#)
- [Task Iterations UI](#)
- [Value Sets in Payroll Flows](#)

Logging in Payroll Flows

Enable Logging in Payroll Flows

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.

Before you submit a flow:

- Check if logging is enabled for the flow you're submitting.
- Access the process configuration group of the flow and make amendments if required.

A process configuration group monitors various action parameters of the flow including logging levels. Add 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 UI. Click on the process configuration group name to access the Process Configuration Group UI and view the details of the parameter and make changes if required. Absence of the logging message on the UI means that logging is disabled.

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. 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.

User-Defined Flows

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.

Related Topics

- [Logging Processing Parameters](#)
- [Payroll Process Configuration Groups](#)
- [Payroll Process Configuration Parameters](#)

FAQs

What's the difference between a flow pattern and a flow?

A flow pattern can consist of a single task such as Calculate Payroll or a series of tasks such as the Global Simplified Payroll Cycle.

Flow patterns can be predefined or configured as part of the implementation cycle. The flow pattern includes all the definitions such as task sequence and parameter details and parameter binding rules.

Provide a unique name for the flow pattern and submit the flow pattern, using the Submit a Flow page. This instance of a flow pattern is referred to as a flow.

What's the difference between an active, , hidden, or inactive flow pattern?

Active flow patterns are those that are listed on the Submit a Flow page. You can submit these flows from this page or you can automate the submission using a flow service.

Some flow patterns, such as flow patterns used for system integration purposes, are only be available for submission through a service. The hidden option ensures these aren't displayed in the Submit Flow page.

Inactive flows are disabled and are no longer available for submission on the Submit a Flow page or through a service.

What's a task flow?

A flow can be categorized as either a data load, report, process or task flow. Task flow indicates the flow includes two or more tasks.

For example, submit an instance of the Global Simplified Payroll Cycle flow pattern and the resulting flow is classified as a task flow.

What's the difference between a flow pattern and a flow task?

All predefined payroll processes and reports are delivered with both a flow pattern and a corresponding flow task. You can use the flow pattern to submit a process or report.

For example, you can use the Calculate Payroll flow pattern on the Submit a Flow page to submit the payroll calculation process. The Calculate Payroll flow pattern includes a task of the same name.

You can also use the Calculate Payroll flow task to submit the payroll calculation process as part of a task flow. For example, you can define a flow pattern and include the Calculate Payroll flow task and the Run Calculate Gross-to-Net flow task.

Can I skip the flow parameters for a single-task payroll flow pattern?

No, you must specify flow parameters required to successfully complete the task. Typically, these parameters include the mandatory task action parameters. You can also specify optional parameters that serve to restrict the results of the flow.

How can I improve performance and troubleshoot flows?

Add 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.

What happens if I don't enter a task owner in a flow pattern?

The person who submits the flow becomes the flow owner and the task owner. The person's security privileges determine whether the person can submit the flow.

Why can't I act on a task on a checklist?

Confirm whether your data role is based on a job role or abstract role that includes the functional privileges required to perform the task. Before reassigning this task to another person, ensure the data role for the new task owner also includes these privileges.

How can I identify the payroll flow that includes a specific element for an employee?

Submit the Element Results Register report, which displays the name of the payroll flow. The report shows details for the element and the value paid to the employee.

If you don't know the person's assigned payroll, query the person's payroll details on the Payroll Relationships page.

3 Copy and Edit Flow Patterns

Examples of Editing Flow Patterns

Review these scenarios to understand how you can edit flow patterns to meet the requirements of your enterprise. Use the Payroll Flow Pattern task or the Refine Extracts task to edit these scenarios.

Update a Parameter to Use a Specified Value

Your payroll uses a single process configuration group named InFusion Consolidation Group A. You want to specify a constant for the configuration group task action parameter and hide the parameter to avoid data entry mistakes. Perform these steps.

1. Query the flow pattern you defined for the payroll cycle.
2. On the Parameters tab of the Payroll Flow Pattern page, edit the Process Configuration Group parameter.

Enter these values to maintain a constant value for the Process Configuration Group task action parameter and avoid data entry mistakes.

Parameter Detail	Value
Display	No
Display Format	Text
Lookup	No value
Usage	Input Parameter
Parameter Basis	Constant Bind
Basis Value	InFusion Configuration Group A

Supply a Reason for a Corrective Action

Your enterprise typically issues electronic funds transfer payments. You defined a flow pattern to issue check payments and you want to verify and track the reason managers issue checks. You can add a flow parameter to capture that information.

1. Query the payments flow pattern you defined.

- On the Parameters tab of the Payroll Flow Pattern page, Select and Add the Reason parameter to include the parameter as a flow submission parameter. Enter these details.

Parameter Detail	Value
Display	Yes
Display Format	Text
Lookup	No value
Usage	Input Parameter
Parameter Basis	Context Binding
Basis Value	Payroll Flow

Add Tasks and Reorder the Task Sequence

Your flow pattern includes the Calculate Gross Earnings process and the Element Results Register Report. Perform these steps to run the two extract reports concurrently, and add a verification task, to simplify the checklist to a single list.

- From the Data Exchange area, select the **Refine Extracts** task.
- On the Refine HCM Extracts page, query the flow pattern.
- On the Tasks tab of the Payroll Flow Patterns page:
 - Add the first extract report, specifying the same Activity and Task Group as the Calculate Gross Earnings.
 - Add the second extract report, specifying the same Activity and Task Group as the Calculate Cross Earnings.
 - Add a manual verification task, specifying the same Activity and Task Group as the Calculate Cross Earnings.
- Edit each task, specifying a sequence number on the Edit Task Details: Owners and Checklist 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 Calculate Gross Earnings task
- 20 for the first extract report
- 30 for the second extract report
- 40 for the manual verification task

- On the Tasks Sequence tab, reorder the sequence of reporting tasks in this order to run the two reports concurrently.

Task	Following Task
Start Flow	Calculate Gross Earnings
Calculate Gross Earnings	First extract report
Calculate Gross Earnings	Second extract report
First extract report	Manual verification task
Second extract report	Manual verification task
Manual verification task	End Flow

Automatically Increment Dates in the Scheduled Extract

You create a flow pattern to extract weekly payroll data that requires the user to enter a process date parameter. You schedule the extract to run weekly. The application evaluates the flow parameters at the time of submission, and the task parameters at the beginning of task execution. You edit the task parameters to automatically increment the date field. The date values are derived from the default date parameter values.

You use the Refine Extracts task or the Payroll Flow Patterns task. Perform these actions to edit the task parameters on the task's Basic Information page.

- Select the **Process Date** parameter.
- Select **Context** binding from the Parameter Basis field.
- Select **System Date** from the Basis Value field.

How Do I Edit Tasks Within Flow Patterns

You can create or copy a flow pattern and then add, delete, or move tasks in the flow pattern. This topic provides examples of edits you can perform to tasks in a flow pattern.

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

Edit Tasks

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	<p>You add a task to position it as the last task in the activity or task group. Update the task sequence.</p> <p>If you repeat a task, rename it to make clear its purpose on the checklist.</p>	<p>You add a manual verification task after each report. You rename each task with the report name.</p>
Delete a task	<p>When you delete a task you may impact subsequent tasks in the flow that depend on its results. Review the subsequent tasks.</p>	<p>You delete a task. The Parameter Basis of the next task is Bind to Task and its Basis Value is the value of the deleted task. The you must update the Parameter Basis of the subsequent task as required, for example, to Bind to Flow.</p>
Move a task to a different activity	<p>The activity determines the work areas where you can submit the flow patterns you define, and controls how the checklist displays.</p>	<p>You move a task in a payroll flow pattern for a report from the Payments activity to the Statutory activity.</p>
Reorder the list of tasks displayed in a checklist	<p>The sequence specified for the task further determines the task order within an activity on the checklist.</p>	<p>You decide to flatten the checklist sequence to group all the tasks within a single activity.</p> <ol style="list-style-type: none"> 1. On the Tasks page, you confirm that each task belongs to the same activity and task group. 2. You edit each task, specifying a value in the Sequence column on the Edit Task Details Owners and Details page. <p>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 .</p>

How Do I Update Delivered Flow Patterns

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).

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

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.

If you want to make more detailed changes, copy, rename, and edit the flow.

Edits Allowed on a Flow

You can make changes to only these components in a flow.

- *Flow Details*
 - Flow Description
 - Flow Status
- *Flow Parameters*
 - Flow Parameter Name
 - Display
 - 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
 - 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.

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.

At the flow level, you can use the **Remove All Updates** option to undo all the changes you have made to the flow.

Examples of Adding a New Parameter to a Payroll Flow

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

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 discard the transient data generated by the report and to ensure that the application storage isn't loaded unnecessarily. It also enhances 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. Since 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**.

- 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

- Click **Save** and the **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.

- Navigate to **Payroll** in **My Client Groups** on the Home page and select the **Payroll Flow Patterns** task from the task pane.
- Search for the delivered flow pattern that has the report.
- Use the Copy action to make a copy of the delivered flow and rename the flow.
- 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.
- On the Parameters tab of the page, click **Select and Add** to add the task parameters to the flow.
- 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**.
- 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

- Click **Save** and the **Submit**, to submit the flow.

How to Create a Smart List of Values for a Flow Parameter

In this example you create a Lookup of type "PAY_FLOWPARAMETER_VO" and use the Lookup to provide a list of values for a flow parameter. For example, you create a smart list of values for the Legal Entity flow parameter.

You define a list of values as a lookup type consisting of a set of lookup codes,

Use the Manage Common Lookups task to create a Lookup for Legal Entity parameter. After you create a lookup, 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.

How to Create a Lookup that Returns all the Value Objects for the Legal Entity Parameter

Let's look at the steps to create a lookup that returns all legal entities.

1. Navigate to the **Setup and Maintenance** area under the **Others** tab on the Home page.
2. Click the **Tasks** icon on the right and click **Search**.
3. Search and select the **Manage Common Lookups** task.
4. 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.
5. Add a row in Lookup Codes and update the row with Lookup Code, **P_LEGAL_ENTITY_ID**.
6. Enter the **Start Date** and **End Date**.
7. Enter the **Meaning**. This value is displayed in the smart list of values lookup values in the Flow Parameter setup page.
8. Click **Save and Close**.

How to 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 the smart list of values for Legal Entity added.
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 7.
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.

Related Topics

- [Flow Pattern Parameters](#)
- [Overview of Lookups](#)

Considerations for 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 and initiate further down-stream processing.

For example, use the predefined Run Payroll Activity Report to verify, validate, and audit run results before you process any payments.

Predefined HCM extract payroll reports are available for you to:

- Run as an independent task
- Include within a flow pattern
- Connect to a flow pattern 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.

Copied HCM Extracts

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.

You must 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.

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

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.

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.

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

For more information on the type of run results to include in a copied report, refer to Combined Payroll Run Results topic in the Help Center.

4 BI Publisher Reports in Payroll Flows

Considerations for Using BI Publisher 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.

You can access these reports from the BI Catalog folder, create a report or copy if required, and integrate them 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.

You can also create your own report and add it to a flow.

A BI Publisher report consists of these components:

- One or more .rtf layouts that determines 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. Each report has a data model. Multiple reports can use the same data model.

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 is 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.

Business Intelligence Role	Description
BI Consumer Role	Runs BI reports.
BI Author Role	BI Author Role inherits BI Consumer Role and hence can 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.
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.

Business Intelligence Role	Description
	Therefore, users with either of these predefined job roles can manage Business Intelligence Publisher data models.

If you have the BI Administrator or BI Author privileges, the Permissions menu is enabled. Click **More > Permissions** for a report in the BL 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 either use MS Word which already has the BI Publisher plug-in integrated to create an RTF template or 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.

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 create a report rather than copy a delivered report. Use the **Customize** function to create an exact copy of the delivered report template. 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.

For more information on how to copy a delivered report and configure it for a specific requirement, refer the How to Configure the Payslip Report Template topic on the Help Center.

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 patching 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

Each report has a 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. 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.

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

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

Parameters

Typically 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 and 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. If the SQL query references from a table that has a large volume of data, or if the report is run very frequently, or run concurrently by multiple users, the report performance can get impacted. 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. Each payroll report is shipped with a library of ten predefined list of predefined view objects.

The predefined parameter model for each report includes a table that lists the view objects for the report parameters. 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.

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

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

Related Topics

- [Add a BI Publisher Report to a Flow](#)

Edit a Flow and Add a BI Publisher Report to a Flow

This example demonstrates how you can create a BI Publisher report and run the report using a flow. Add single or multiple BI Publisher reports to your copied or user-defined flow pattern.

When you submit the flow, the report automatically generates an output file that you can view. The output file is based on the template used for the BI Publisher report, Use the Run BI Publisher Report task to include the task in the flow pattern. The Run BI Publisher Report task belongs to the Statutory activities in the flow pattern.

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 user-defined flow to run the new report

Create a Data Model

The first step in creating a report is to define the source of data for the report. A data model 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.

You 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.

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

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.
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

You can either use MS Word which already has the BI Publisher plug-in integrated to create an RTF template or use 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 User-Defined Flow to Run the BI Publisher Report

Follow these steps to add the BI Publisher report to a user-defined 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.

Field	Value
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.

5 Schedule Flows

Introduction to Payroll Flow Schedules

Schedule a flow to automatically submit the flow at a date, frequency, and time span that suits your business practices.

Here's what you can do with flow schedules:

- Create a schedule
- Submit the next occurrence of the flow
- Connect active flows
- Monitor the status of scheduled flows
- Troubleshoot issues with flow schedules or individual tasks
- Cancel scheduled flows

Use predefined frequencies or formulas to schedule a flow to run once or on a recurring basis.

For example, schedule a process to run on weekdays but not on weekends. Or, schedule a flow to submit an extract that reports extract update details on a daily basis.

Create Schedules for Flows

Here are some examples of scheduling options and parameters you can set while creating schedules for flows.

Scheduling Options	Parameters to Set	Examples
Submit the current flow only	<ul style="list-style-type: none"> • Date • Optionally, time 	Schedule a process that transfers time card entries for a weekly payroll.
Submit the current flow and future occurrences	<ul style="list-style-type: none"> • Frequency details or formula • Start date and time 	To optimize processing, schedule an archive process to start after normal working hours. However, the processing must end before the start of the nightly process to back up the enterprise's servers.
Restrict the period during which the flow recurs	End Date	Specify an end date for a scheduled statutory report that the government no longer requires you to submit.

Submit the Next Flow Occurrence

When the application submits the next occurrence of a flow at the scheduled time, it performs these tasks:

- Uses the parameters specified in the original flow
- Resets the dates appropriately, using the system date for the submission date

- Increments parameters derived from the date parameter for predefined flows

For example, if you schedule a gross-to-net report to run monthly for a monthly payroll, the application uses these parameters and increments the process end date.

- Payroll Name
- Payroll Statutory Unit
- Consolidation Group

The submitted report covers the payroll period that corresponds to the incremented end date.

For user-defined flows, to automatically increment the date, specify these parameters for the effective date parameter in the flow pattern.

Parameter	Value
Basis	Context Binding
Basis Value	System Date

The flow pattern can be for the process, extract, or report.

For example, define a flow pattern to extract weekly payroll data that requires you to enter a process date parameter. Use the Refine Extracts task and edit these task parameters on the task's Basic Information page:

1. Select the Process Date parameter.
2. Select Context Binding for the parameter basis.
3. Select System Date for the basis value.

These settings ensure that the dates increment appropriately.

Connect Active Flows

When you submit a scheduled flow, you can connect it to other active flows. The scheduled flow interacts with the active flow, but only for the first occurrence, not future occurrences.

Monitor the Status of Scheduled Flows

Use the View Flows and Checklist pages to monitor the status of scheduled flows. For example, if you schedule a report to verify payroll calculations, the scheduled flow displays in the Checklist and View Flows page with a status of Pending.

Troubleshoot Scheduled Flows

When there is an application server failure, the flow instance ends. You must resubmit the flow once the server resumes. You don't have to reschedule the recurring flows scheduled to run at a later date.

Cancel Scheduled Flows

You can cancel a scheduled flow depending on the frequency and status of the flow, as given here.

Frequency	Status	Available Actions
Once	Started	Skip
Once	Not Started	Cancel flow
Recurring	Not Started	Cancel the current flow, cancel the recurring flow, or cancel the current and recurring flows

Flow Schedule Formula Type

Use Flow Schedule formulas to control when to submit the current flow and how often to submit future instances of the flow. You create scheduling formulas on the Manage Fast Formulas page when the predefined formulas don't meet your requirements.

Let's say you create a formula that loads time card batches daily, and increases to four times a day at the end of a payroll period when workers typically submit their time cards. You can create a formula that schedules the frequency with which an extract process checks for new starter details.

Here are a few points to consider when creating or updating a scheduling formula:

- Specify a meaningful name to assist the person selecting the formula.
- Review the formula to ensure it doesn't contain negative numbers that might produce an error condition, such as running a process continually.
- After updating the formula, cancel any scheduled flows that use the formula. Resubmit the flow to apply the updated definition.

The SCHEDULED_DATE (scheduled date) context is available to formula of this type.

Here's the list of database items that are available to Flow Schedule formulas.

Database Item	Data Type	Description
FF_ADD_DAYS	Date	Function to add days to a date.
FF_ADD_MONTHS	Date	Function to add months to a date.
NEXT_SCHEDULED_DATE	Date	Calculated value for the date to schedule the next flow.
SCHEDULED_DATE	Date	Date used to schedule the flow.

These are the input variables available to Flow Schedule formulas.

Input Variables	Data Type	Required	Description
SCHEDULED_DATE (DATE)	Date	Y	Date on which to schedule the flow. The date is passed to the formula when it calculates the next date to schedule the flow.

Use predefined names for return variables. These are the return values available to Flow Schedule formulas.

Return Values	Data Type	Required	Description
NEXT_SCHEDULED_DATE	Date	Y	The date calculated by the formula to schedule the next flow.

This predefined formula schedules a flow so that it's submitted weekly from the date the flow owner initially submitted it.

```

/*****
FORMULA NAME: Weekly
FORMULA TYPE: Flow Schedule
DESCRIPTION: Formula to return a date time.
Returns NEXT_SCHEDULED_DATE;
Formula Results :
NEXT_SCHEDULED_DATE This is a date time value with yyyy-MM-dd HH:mm:ss format.
*****/
/* Inputs */
INPUTS ARE SUBMISSION_DATE (DATE), SCHEDULED_DATE (DATE)
/* Calculations */
NEXT_SCHEDULED_DATE = ADD_DAYS (SCHEDULED_DATE,7)
/* Returns */
RETURN NEXT_SCHEDULED_DATE
/* End Formula Text */

```

You can calculate units smaller than a day by replacing the calculation portion of the formula text using a decimal or a fraction. Let's look at some examples of submitting a flow several times a day.

Flow Submission	Formula Text for Calculation
Twice a day	<pre>NEXT_SCHEDULED_DATE =ADD_DAYS (SCHEDULED_DATE,0.5)</pre> <p>Note: For accuracy, enter a value with at least ten decimal places. The formula text supports a maximum of 14 decimal places.</p>
Hourly	<pre>NEXT_SCHEDULED_DATE =ADD_DAYS (SCHEDULED_DATE,1/24)</pre>

FAQs

How can I run tasks concurrently in a flow?

Use the Manage Payroll Flow Patterns task in the Payroll Checklist. Search for and open your flow pattern. Click the Task Sequence tab. Specify that each concurrent task follows the same previous task.

For example, you create a flow pattern with a payroll calculation task and two reports. The flow ends when both reports complete. You can use these actions to run the payroll calculation task and the two reports run concurrently.

1. For the first row, specify the Start Flow task with the Calculate Payroll as the following task.
2. For the second row, specify Calculate Payroll as the task, and the first report as the following task.
3. For the third row, specify Calculate Payroll as the task, and the second report as the following task.
4. For the fourth row, specify the first report as the task and End Flow as the following task.
5. For the last row, specify the second report as the task and End Flow as the following task.

6 Submit and Monitor Flows

Submit Flows

Submit a Flow



Use the Submit a Flow page to submit a flow. You can submit these flow types from the flow submission page:

- Process, such as Calculate Payroll. This type of flow has a single task.
- Report, such as the Run Payroll Activity Report. This type of flow has a single task.
- Data Load, such as a task that loads payroll setup objects into the Oracle HCM Cloud application stage tables.
- Task Flow, such as the Payroll Cycle, which lists the payroll tasks to complete for a payroll period in a best practice flow.

Navigate to **My Client Groups > Payroll** from your Home page and click **Submit a Flow** under the Flow Submission and Results section. The Submit a Flow page opens.

What You Can Do on the Submit a Flow Page

Use the context switcher on the page header to select a Legislative Data Group (LDG) and view flows for the selected LDG.

Use the **Recently Submitted** option to view the flows recently submitted by you. If multiple flow patterns have the same number of submissions, they are sorted alphabetically.

Use the **Search** option to search for a specific flow that you want to submit.

View the list of flows by flow pattern and flow type. The flow pattern includes a process, report, data load, and task flow.

Select a flow to open the flow submission page and view or enter flow parameters.

Follow these steps to submit the flow from this page:

1. Enter a name for the instance of the flow that you're about to submit. For example, if you're submitting the Calculate Payroll flow pattern for a weekly payroll run, enter a flow name that uniquely identifies the payroll run, such as 'Weekly Payroll 10/10/19'.

Note: It's best practice to enter a name that includes the payroll period, so that it's easier to identify later.

2. Use the Parameters section to view all parameters, and enter values as required before the final submission of the flow. The flow pattern controls which parameters are available on the page. For example, when you submit the calculate payroll process the process date and date earned parameters are defaulted based on the payroll period.

View all required parameters that are grouped together for quicker submission. Similarly, optional parameters are grouped together for easy submissions.

3. Use the Schedule section to schedule the flow. You can use a predefined schedule if available or select 'As soon as possible' to run the flow as soon as you submit the flow. The default schedule is to submit a flow as soon as possible.
4. Use the Linked Flows section to link another flow to your current flow, or link your current flow to another flow. Your data security access controls which flows you can view and submit, and therefore, which flows you can connect. For more information, refer to the 'Examples of Linking Flows' topic in the Help Center.
5. Select the **Process After Error** check box to allow the flows to continue irrespective of the status of a prior task, in the same flow or a linked flow.
6. If you have enabled logging, a message appears on the page to indicate that logging is enabled. Before submission of the flow, either disable logging of the default group or select another process configuration group that doesn't have logging enabled. For more information, refer to 'Enable Logging for Payroll Flows' topic in the Help Center.
7. Use the **Upload Parameter Files** option to drag and drop files that include flow parameter details. This option displays on the flow submission page only if you have defined the flow to allow upload of a file. Use this option for select flows that require files to be uploaded. You can upload multiple files using this UCM upload option.

When you submit the flow, you're taken to the Checklist page. Monitor and manage the tasks within the flow from the Checklist page.

For more information, refer to the 'Checklist and Flow Tasks' topic in the Help Center.

Submit a Related Flow

Use the Submit Related Flows task action on the Checklist page to submit additional tasks within an existing flow. For example, suppose you have a flow that has these three tasks:

- Calculate Payroll
- Prepayments
- Generate Check Payments

After you submit the flow, you want to add the Run Payroll Activity Report to review and validate the run results before generating the payments.

Select the Submit Related Flow task on the Checklist page, for the Prepayments task and you're redirected to the Select a Flow page from where you can select the additional flow you want to submit. Select a flow and enter these details:

- Flow instance name
- Parameters
- Process After Error option

Select the **Process After Error** check box if you want the related flow to run even if the parent flow is in error.

The Submit Related Flow action is available for all tasks and statuses. The Legislative Data Group (LDG) for the related flow is by default the LDG of the parent flow, and hence you don't have to select the LDG for the related flow. After you submit the flow, you're directed to the related flow checklist, and not the parent flow checklist.

Combine Payroll Flows

Overview of Combining Payroll Flows

Use flow pattern connectors, consolidation groups, and link flow options to consolidate the results of more than one payroll or QuickPay into a single flow. You combine flows to consolidate payroll results for your business activities, such as reporting.

Recollect that you can use flows for monitoring and managing payroll tasks, such as calculating payrolls, running reconciliation reports, and for making payroll payments.

Let's consider this scenario where the Payroll Manager wants to consolidate some of their payroll flows. Each payroll period, Vision Corp completes all payroll tasks within the regular weekly payroll cycle. And the payroll flow ensures that all weekly paid employees receive their payments on the payment date. Every day, the Payroll Manager runs multiple off-cycle payroll runs to handle exceptions, such as late payments or final payments for terminated employees. The manager might decide to make these types of off-cycle payments on any day within the same payroll period.

Note: Segregate the regular and off-cycle payroll run results even when payment dates fall on the same day.

As shown in this table, you can use these options to combine both your regular and off-cycle payroll flows.

Task and Option	Page Where You Can Configure the Option	Used To
Flow Pattern Connectors	Payroll Flow Patterns	<p>Segregate and combine flows using the connector rules that you define on the flow patterns page. For example, segregate QuickPay results from calculate payroll results in your daily payroll reporting flows, and combine QuickPay results and calculate payroll results in your weekly transfer to subledger accounting flow.</p> <p>Note: When defining flow pattern connector rules, use the same consolidation group for all calculations within the payroll cycle, such as all regular and on-cycle flows.</p>
Consolidation Groups	<p>Consolidation Groups</p> <p>Note: Assign the consolidation group to a payroll definition.</p>	<p>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.</p>
Linked Flows	Flow Submission	Link a flow to another completed flow.

Task and Option	Page Where You Can Configure the Option	Used To

Related Topics

- [Overview of Link Flows](#)
- [Considerations to Configure Flow Connectors](#)
- [Consolidation Groups for the US](#)

Combined Payroll Run Results

You can consolidate the run results of more than one payroll or QuickPay into a single flow. Use the information in this table to understand which type of run results you can combine in a flow task.

For example, use flow connectors, consolidation groups, or the link flows option to consolidate the results of multiple payroll runs in reports such as the Payroll Activity Report and

Payroll Costing Report.

Type of Payroll Run Results	Combined in Flow Task
Retroactive Pay Results	Run Retroactive Entries Report
Payroll and QuickPay Results	Run Gross-to-Net Report Run Payroll Activity Report Run Element Results Register Report Run Payroll Costing Results Report Run Payroll Deduction Report Run Payroll Balance Report Run Employee Active Payroll Balance Report Prepayment Results
Prepayment Results	Archive Periodic Payroll Results Run Payment Register Report
Archive Results	Run Payroll Register Report Generate Check Payments Generate Check Payments for Employees and Third Parties Make EFT Payments

Type of Payroll Run Results	Combined in Flow Task
Archive Results and Check and EFT Results	Generate Payslips
Payment Results	Run Third-party Payment Register Report
Check and EFT Results	Transfer to SLA

Consolidation Group Support for the Gross-to-Net Report

Use the Consolidation Group parameter to restrict the summary balances shown on the Gross-to-Net report to only those run results produced by payroll processes that are run with the same consolidation group as the report.

For example, you may run multiple off-cycle payroll runs or QuickPay runs to accommodate exceptions, such as late payments or final payments for terminated employees. You can now run the Gross-to-Net report to capture the gross-to-net summary balances of the off-cycle runs by using the same consolidation group to run the off-cycle runs and the Gross-to-Net report.

Similarly, you can use flow connectors with the Gross-to-Net Summary report to combine data from different flows together in the report.

You may have a requirement to generate separate payments and reports for the regular on-cycle payroll runs and the off-cycle payroll run results. Include the Gross-to-Net report in your flow pattern and define flow connector rules to segregate and consolidate separately the multiple off-cycle run results and the regular on-cycle run results. The defined flow connector rules consolidate and capture automatically the gross to net totals for the off-cycle and on-cycle run results separately, on flow submission.

Related Topics

- [Consolidation Groups](#)

Flow Connectors

Considerations to Configure Flow Connectors

To consolidate one or more payroll flows using flow pattern connectors, you configure flow connector options, such as connector status and connected flows.

Connector Status

Indicate whether you want the flow pattern to include payroll results generated by tasks in other flows or by tasks in the same flow.

This table lists the values you can select in the **Connector Status** field.

Connector Type	Used to Include Payroll Results	Best Practice
Task Flow	<p>When a flow is marked as a task flow, it includes results from the tasks within the flow.</p> <ul style="list-style-type: none"> If flow connector rules aren't defined, all tasks within the flow pattern uses the process parameters, flow task sequence and flow interactions to identify the results to be included. If flow connector rules are defined, the flow includes results from tasks within the flow plus results from any connected flows. 	<p>Select this option if you're using any of the options to combine flows, such as the flow connector.</p>
Parameters Only	<p>The flow automatically includes all results that meet the task parameters. Therefore, the flow connection feature can not add additional results.</p>	<p>Don't select this option if you're using any of the options to combine flows, such as the flow connector.</p> <p>Note: If you add connector rules to a Parameters Only flow it essentially changes it's behavior to a task flow and it limits the results based on the connected flow rules.</p>

Connector Name

Indicates the name used to identify the flow pattern for the purpose of flow connector rules. This field is defaulted to the name of your flow pattern.

Connected Flows

Select the connector name of each flow pattern you want to connect to your flow pattern. These connector rules are automatically applied each time you submit the flow.

Let's assume that your flow pattern includes all payment related tasks, such as prepayments and the EFT process. Use the connected flows option to identify the flow pattern you want to include in this payment flow, such as your QuickPay flow.

When you submit a flow task, the application automatically evaluates the connected flow rules. For example, each time you submit your payment flow, the application automatically includes all QuickPay run results from the connected flows. The payroll results from other flow patterns, such as your regular payroll flow, isn't included in your payment flow unless connector rules are defined.

Let's assume that you want your costing flow pattern to include all QuickPay and calculate payroll results. Use the connected flows option to connect your QuickPay flow pattern and your regular payroll run flow pattern to your costing flow. Each time you submit your costing flow, the application automatically includes the results from all QuickPay and calculate payroll run results from the connected flows.

You can connect the following types of flow patterns:

- Predefined flow patterns, which are within the same LDG as your flow pattern.
- User-defined flow patterns, which you have added to the lookup values.

- Flow patterns, which have a status of active and hidden.

Security

You can edit a flow pattern and the connected flows only if you have the required functional security to perform the tasks.

For example, to connect the QuickPay and Off-Cycle Payment flows, you must have security access for both flows. When submitting a flow, you need security access to the flow pattern that you're submitting.

Where Can I view My Flow Connector and Linked Flows

You can view your flow connector details on these pages.

- Flow Submission Page

The Connected Flows region on the Submit a Flow page displays the connector names associated with your flow pattern. Perform any updates to these rules on the Flow Pattern page. When submitting your flow, you can't add, delete, or edit the connector rules.

- Checklist Page

The Checklist page displays any linked flows that you have defined when you submitted the flow.

This page displays flow connector values if the flow has actually consumed results at run time. You can use this information to troubleshoot any flow connector issues.

Related Topics

- [Flow Pattern Components](#)

Examples of Flow Pattern Connectors and Rules

Use the Flow Pattern Connector options to consolidate the results of one or more payroll or QuickPay into a single flow. The application runs the flow connector rules each time you submit a payroll flow.



Scenario

Vision Corp runs daily off-cycle runs for making early payments to terminated employees. The company consolidates the results of such off-cycle runs for the purpose of reporting and for processing payments. However, any on-cycle runs that are processed on the same day should be excluded from the off-cycle reports and payments. Also, for the monthly costing processes, the company wants to consolidate the results of all on-cycle and off-cycle runs.

Best Practice Configuration

On the Payroll Flow Patterns page, create flow pattern connectors to consolidate the payroll run results. Specifically, create and consolidate these flows.

1. Set the Connector Status to Task Flow for all flows. This is the default value.

2. Use the Regular Weekly Payroll flow to segregate the results of your regular on-cycle flow. This flow pattern includes all tasks required for your regular payroll including the payroll calculation, reconciliation, and payment tasks.
3. A Connector Name is required for all flows. This will default to the flow pattern name, Regular Weekly Payroll flow.
4. Use the Quick Pay flow to identify off-cycle payroll runs and to calculate daily QuickPay details.
5. Use the Off-Cycle Payment flow to consolidate the results of all daily QuickPays. This flow pattern includes all tasks required to reconcile and pay the daily off-cycle runs. Use connector rules to ensure this flow pattern includes the payroll results of all daily QuickPay flows.
6. Use the Monthly Costing flow to consolidate all on-cycle and off-cycle payroll results. This flow pattern includes all tasks for costing reconciliation and for transferring payroll costs to the general ledger. Use connector rules to ensure that this flow pattern includes payroll results of both the Regular Weekly Payroll and QuickPay flows.
7. Add the Connector Names region information. For example, the connector names region of the 'Off-Cycle Payment' flow should include 'Quick Pay' connector name. And, the connector names region of the 'Monthly Costing' flow should include 'Regular Weekly Payroll' and 'Off-Cycle Payment' connector names.

Flow Connector Rules

This example illustrates how you could use connector rules to ensure that your reconciliation reports include the relevant payroll results.

Your payroll department is notified of a late hire, Joe Smith, who requires immediate payment. The payroll team has already processed multiple off-cycle QuickPays for the day and has generated all reconciliation reports as part of their Off-Cycle Payment flow.

To account for the additional new hire and late payment in the latest reports for the day, the Payroll Manager performs these tasks:

- Submits an additional QuickPay flow for Joe Smith.
- Reruns the reconciliation reports, for example, the Gross-to-Net report, using the Off-Cycle Payroll flow. This action ensures that the QuickPay results for Joe are included in the latest reconciliation reports.

The manager can now continue with all remaining tasks in the daily Off-Cycle Payment flow.

Note: When you copy a flow within the same LDG, the application copies the connector rules to the new flow pattern.

Link Flows

Overview of Linking Flows

When you submit a flow, you can link it 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.

If you link the flow to active flows, the Linked Flows section of the active flows list the newly submitted flow. You can't combine flows that are in progress, but you can submit a flow and link it to an active or completed flow.

Since you're linking the flows on the flow submission page, you can link the individual runs only at the flow instance level.

Note: If you frequently link a flow to another flow, such as an extract to a weekly payroll run flow, add that flow to the payroll flow pattern for your weekly payroll run. The next time you submit the flow, the checklist includes the task.

Your data security permissions control which flows you can view and submit, and therefore, which flows you can link.

You can view the linked flows on the Checklist page. You can view details such as name of the flow linked to the current flow, when the linked flow was submitted, status of the linked flow, and so on.

Examples of Linking Flows

When you submit a flow, you can link it to one or more completed flows from the Linked Flows section of the flow submission page.

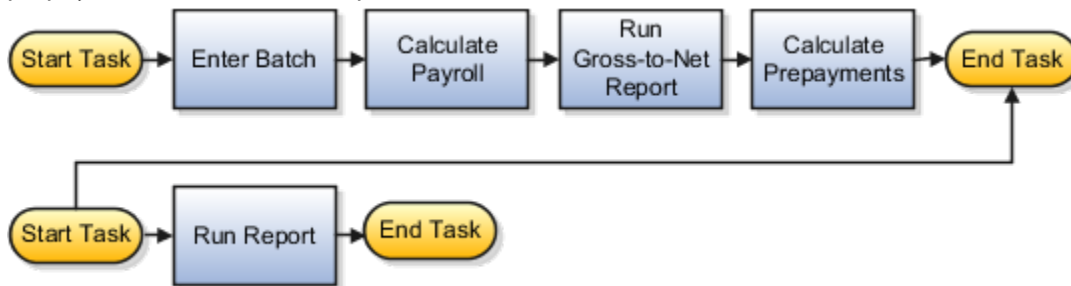
Your data security access controls which flows you can view and submit, and therefore, which flows you can link.

This topic explains how you can link flows. You can link them at the beginning or end of a flow, or within an active flow, as explained here. Each of these options include several examples of linking flows.

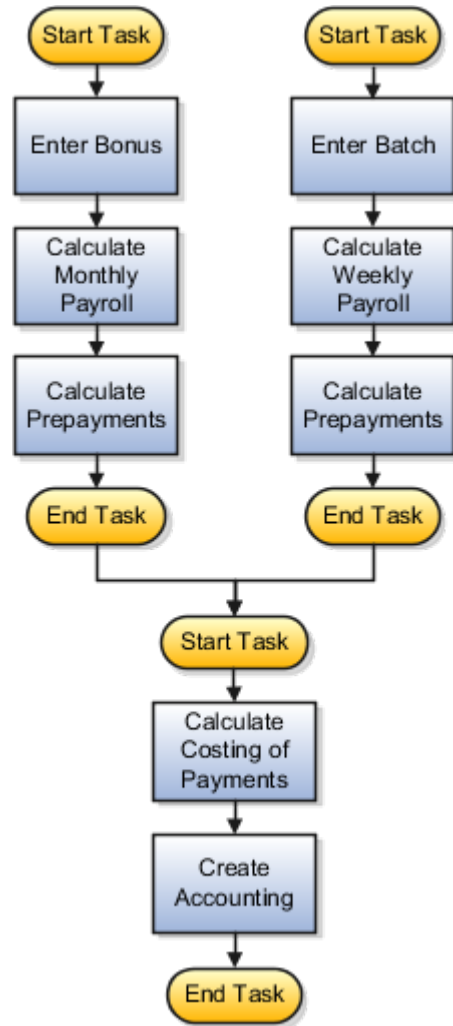
Link a Flow at the Beginning or End of Another Flow

Submit a flow and link it to the beginning of a flow that you haven't started or to the end of a completed flow. For example, submit the costing of payments flow and link it to the end of a completed QuickPay and payments distribution flow to cost the payments for both flows.

Here's an example of submitting a report flow and linking it to the end of the prepayments flow to view the prepayments results in the report.



This example illustrates submitting a flow to cost payments and linking it to a monthly and weekly payroll flow to



process the combined results.

Link a Flow Within an Active Flow

You can't combine two flows that are in progress, but you can insert a new flow into an active flow.

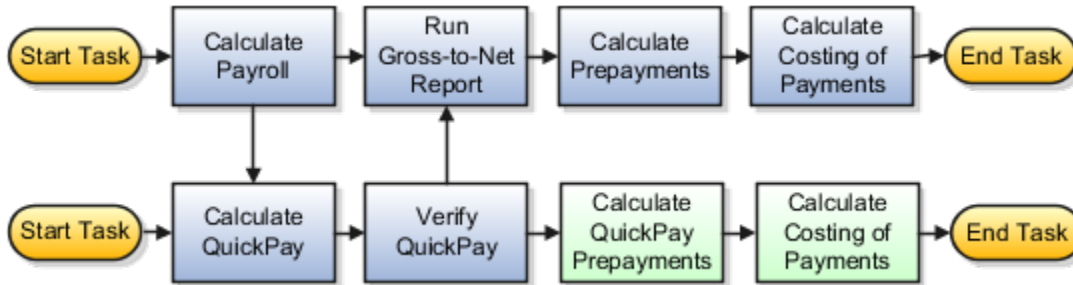
- You can do this to perform tasks in an activity, such as the payments or accounting activity.
- You can link flows to process two sets of records in a single prepayments process. For example, if you remove records for correction from the regular payroll run flow, and then process them with several QuickPay flows, you can merge them to calculate the QuickPay payments.

When you link flows, consider whether the submitted flow includes the same tasks as the active flow after the insertion point as given here.

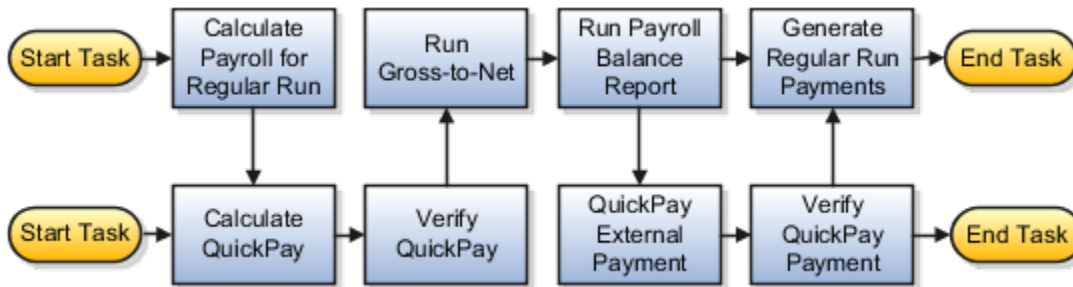
Tasks After Insertion Point	Action
Same tasks	Select the Use to Calculate Results option to process the results of both flows in the remaining tasks
Different tasks	Specify where to stop the active flow and complete tasks in the submitted flow before returning to the active flow

Tasks After Insertion Point	Action

This figure shows the sequence of tasks processed if you submit a QuickPay flow and link it to the payroll run flow for the same payroll and payroll period to process the payments tasks together. After the payroll calculation in the payroll run flow completes, the QuickPay calculation starts. The application waits to run the Gross-to-Net task until the task to verify the QuickPay results complete. The application skips the remaining tasks of the QuickPay flow, which are the same as the payroll run flow, and uses the results of the QuickPay flow in the payroll run flow.



This figure shows the sequence of tasks processed if you submit a QuickPay flow and select the option to use the results of the QuickPay calculation in the reports generated for the payroll run flow. In this example, the flows don't include the same tasks. After the payroll calculation in the regular run completes, the QuickPay calculation starts. After the QuickPay verification task completes, the application processes the two reports that include the results of the QuickPay flow. The application returns to the QuickPay flow to process the external payment. After the QuickPay payment verification task completes, the application processes the payments for the regular run.



How Do I Link a Flow to a Current Flow

In this example, you link the Calculate Prepayment Flow to the monthly payroll cycle to process prepayments using the payroll run results.

You can manually run both of these tasks as standalone tasks, however, by linking the two tasks, you automate the tasks, so that the Calculate Prepayments task runs immediately after completion of the Calculate Payroll run. The Calculate Prepayments task uses the payroll run results from the Calculate Payroll task to process the payments.

In this example, the payroll manager submits the Calculate Prepayments flow to view the payments for the current and previous monthly payroll runs. Rather than run the standalone Calculate Prepayments task, the manager links this task after the Calculate Payroll task so as to process the prepayments using the monthly payroll run results.

Before you begin, complete these tasks:

1. Create a payroll flow pattern to process a biweekly payroll.
2. Submit the monthly Calculate Payroll January 2020 flow for the payroll period that ends January 31, 2020.

Submit the Calculate Payroll Flow

1. Navigate to **Payroll** in **My Client Groups**, and click **Submit a Flow**.
2. Select the legislative data group.
3. From the Select a Flow section, search for and select **Calculate Payroll**. Click **Next**.
4. In the General Information section, enter the payroll flow name as **Calculate Payroll January 2020**.
5. On the Enter Parameters section, complete these fields.

This table lists field names and their respective values to run the Calculate Payroll flow.

Field	Value
Payroll Flow	Calculate Payroll January 2020
Payroll	Monthly Payroll
Payroll Period	01 2020 Calendar Month
Run Type	Regular

6. In the Schedule section, chose to either run the flow as soon as possible or enter the schedule details.
7. In the Linked Flow section, click **Add**.
8. Enter these details in the row.

This table lists field names and their respective values to link flows.

Field	Value
From Payroll Flow	Calculate Payroll January 2020
From Task	Calculate Payroll
To Payroll Flow	Current Flow
To Task	Calculate Prepayments
Used to Calculate Results	Select this check box to enable prepayments calculations.

9. Select the **Process After Error** check box.

This allows the tasks in the flow to continue processing, irrespective of a previous task, in the current flow or a cross flow that you have linked, encountering errors. You can later run a warnings or error report to review and analyze the errors and take

10. Click **OK**.
11. Click **Submit**.

Go to the Checklist page to view and monitor the progress of the tasks.

FAQs for Combine Payroll Flows

Can I use flow pattern connectors and consolidations groups together?

Yes, you can use consolidation groups in conjunction with the connected flow feature. However, when defining flow pattern connector rules, use the same consolidation group for all calculations within the payroll cycle, such as all regular and on-cycle flows.

What's the difference between using flow pattern connectors and consolidation groups for flow combination requirements?

Flow pattern connectors provide the flexibility to combine and segregate payroll results for downstream processes and reports. For example, flow connectors enable you to segregate payroll results for reporting purposes but combine the results for payroll costing purposes.

Consolidation groups support more basic requirements such as the combination of payroll results for reporting and payroll costing purposes.

If you choose to define flow connector rules, use the same consolidation group for all calculations within the payroll cycle.

What happens if I enter a consolidation group parameter, does it override my flow pattern connector rules?

When you define flow pattern connector rules, use the same consolidation group for all calculations within the payroll cycle.

For example, use the same consolidation group parameter for Calculate Payroll and Make EFT Payments tasks, within the payroll cycle, so that the process executes the flow connector rules. If you enter a consolidation group parameter to limit the results included in a process and you have also defined flow connector rules, the flow connector rules take precedence and the consolidation group parameter may not be applied.

What type of payroll results are supported by the flow pattern connector feature ?

The results of all payroll calculations and QuickPays (including payroll costing), and optionally balance adjustments are supported. Use connected flow rules to segregate or combine these results in downstream payroll tasks such as reconciliation reports, payment tasks, and transfer to subledger accounting.

Can I use the link flow feature if I have defined connected flow rules on the flow pattern?

No, if you have defined connected flow rules for a flow pattern, the link flow feature is disabled for use on the Submit a Flow page.

Monitor Flows

Checklist and Flow Tasks

When you submit a flow pattern it creates an instance of the flow. For every submitted flow, the application generates a checklist by default.

Use the Checklist page to manage and monitor the the status of a submitted flow and take corrective action to resolve issues.

You can also use the View Flows page, and click on a single task or task flow to go to the Checklist page of the selected flow.

Here's what the checklist might include, depending on the flow pattern.

- Automatic tasks, such as extracts, reports, and processes
- Manual tasks, such as the Verify Payroll Process verification task, required to complete a flow

Here's what you can do with checklists.

- Monitor the status of the flow tasks
- Manage the flow tasks, such as reassigning tasks, marking tasks as completed, and performing corrective actions
- View task details, such as a list of records processed by the flow

While working on a task in the flow, you can remain on the Checklist page or go to a related page that includes tasks in the flow. For example, while reviewing the results for the Calculate Payroll task, you can go to the related pages to review the person's calculation card or element entries.

What You Can Do on the Checklist Page

Perform these tasks to manage and monitor flows from the Checklist page.

- View the flow statistics displayed at the top of the page. It displays the number of overall activities included in the flow. You define the activity information when you create the flow.
- Review the flow analytics to check the number of Connected Flows, Linked Flows, and Related Flows. Click on any of them to further drill down and view the details.
- Drill down to each individual task and view the task status and take an action specific to the individual task. The actions available to you when working with a task depends on its status and the status of the tasks that precede or follow it. For example, if a task has completed with alerts, it indicates that the process has completed with one or more records in error status, the process has been rolled back, or marked for retry. Click on the task to view the process results and drill down to the records that have errors and need correction. After making the corrections, you can come back to the Checklist page and resubmit the task to process the records that were in error.
- Validate a manual task within the flow and mark as complete, so that downstream tasks within the flow can begin. For example, a payroll manager may review and validate the details of the generated payments register and make corrections if any, before enabling the payments processing task to proceed. The payroll manager must manually set the status of the Run Payments Register task to complete, so that other downstream tasks can be initiated.
- Reassign a task to a different owner. Drill down to a task and select the Change Owner task action to change the owner of the task.
- Drill down to the Parameters section to view the flow parameter details.
- Drill down to the Linked Flows section to view flows and tasks linked to the current flow. Click on the flow to view the details of the flow linked to the current flow. Use the Back arrow to return to the current flow page.
- Drill down to the Process Results page to view all messages and errors for a task. Once you have identified the records that have errors, click on the person name to see what the error is, and take corrective action on them. You may have to return to the person's record to correct the errors.
- Drill down to the Process Results page to access output information for a task such as reports and log files.
- Use the Roll Back All option from the Actions menu on the checklist page to roll back multiple tasks within a flow. You don't have to manually select each task to roll back the tasks within the flow.

Submit a Report

Use the **Submit a Report** action to submit a report that's not included in your flow. This feature enables you to perform ad-hoc reporting for the processes in your flow directly from the Checklist page. The Submit a Report action supports the following:

- The parameters of the task from where you added the report is defaulted automatically to the report.
- The report gets added after the task you used to submit the report.
- When you submit the report, the report runs only after the previous task in the flow has completed.
- The results of the report are based on the previous task that we are running this report on.
- In the case of any issues with the process, you can take corrective actions and resubmit the report without rolling back the report.

- You can view the report output directly from the Checklist page and without you navigating to the process results page.

Use the **Resubmit** option and resubmit the report with the same parameters and the report output replaces the previous version of the report output.

If the same report is resubmitted multiple times, you can use the **View History** action to view the submission history.

Roll Back and Payroll Relationship Groups

Use the **Roll Back Errors** option to roll back records that have errors. The application includes the rolled back records in a payroll relationship group. You can select either an existing payroll relationship group or create a new payroll relationship group. The existing group can be a group already created for this flow, or for another flow, or one that's manually created. You can now use a single payroll relationship group for the whole flow across multiple tasks within the flow.

You can also roll back employees who may not be in an error state. For example, the payroll administrator who runs the regular payroll may be notified of an employee who is terminated during a payroll period. If the employee record isn't rolled back and removed from the payroll process, the company may end up overpaying the terminated employee. The payroll administrator can roll back this employee and add the record to a new or existing PR group.

After you have rolled back results for a process, navigate to the Payroll Relationship Group page and open the PR Group to view and correct the rolled back records.

View Flows

Use the View Flows page to view high level information of submitted and scheduled flows. You can view submitted flows that are in progress and require your attention.

Use the standalone **View Flows** task from Quick Actions or from **My Client Group > Payroll** to access this page.

You can also navigate to this page from the **Payroll Activity Center**. When you navigate from the Payroll Activity Center you view the flows in the context of a particular LDG, payroll, and payroll period.

When you use the Data Exchange work area from My Client Groups and navigate to View Flows, the page displays flows that aren't payroll specific. It doesn't display payroll-specific data, such as payroll, period name, or process date filters or columns.

The View Flows page displays the overall status of a flow, and each task within the flow can have a different status.

For this reason, the View Flows page displays the flow status based on the flow hierarchy. The flow hierarchy is used to display a flow status based on the task within the flow that has the most critical status.

What You Can Do on the View Flows Page

View scheduled or submitted flows sorted by the date they were created. By default, flows created in the last seven days are shown.

Search on the flow pattern name or use the filters on this page to select the flow pattern you want to submit.

Use the **Filters** option to view flows as per your choice and for a wide range of filter choices such as Legislative Data Group, payroll, process date, flow pattern name, individual flow status, and so on.

Use the **Columns** option to add to the page Submission Date, Submitted By, Scheduled Date, Process Date, Period Name, Records, or flow Type. These columns are hidden by default.

The flow dates that the page displays when you chose to show flows by the different dates are as explained here.

- Scheduled Date displays the scheduled date for scheduled flows and no date for unscheduled flows.
- Submission Date displays submission date for unscheduled flows and the creation date for scheduled flows.

Use the Submission Date to filter and view at a glance active flows submitted:

- On the same day
- In the last seven days
- Within a date range

Use the **Submitted By** field to filter on the person who has submitted a process. The Submitted By field is a free text field and you can only use the 'contains' filter option, you can't use any other filter option for this field.

Use the **My Submissions** filter to view flows submitted by the signed-in user.

Use the **Sort By** option to sort the flows displayed on the page by Process Date, Submission Date, or Flow Name in alphabetical order.

Use the two In-App Navigations available at the bottom of the View Flows page to navigate between the Payroll Activity Center and View Flows page.

Flow Statuses

The View Flows page includes the Status Group column that displays a high-level status per flow. Each high-level status is a set of sub-statuses grouped together. The Status column displays the status of the flow as given here.

- For a task flow that has multiple tasks, this column shows the completion status of the tasks. It displays the number of tasks completed within the flow.
- For a report or a single task flow, this column shows the actual sub-status of the flow.

After you search and select the flow, the actions that you can take on a flow is dependent on the flow status and the flow ownership. You can perform these tasks on the View Flows page:

- Monitor and track all tasks within the flow.
- Monitor issues with the flow such as processes in error, and review processes that are running slower than average.
- Select a task to go to the Checklist page or Process Results page.
- When there are no actions available for you to take, the **Actions** menu displays a message to indicate the reason. This is either because there are no available actions when the flow is in that status, or that you can't take actions because you aren't the owner of the flow.

Activity Center Flows and All Flows

Use the **Activity Center Flows** or **All Flows** options on the page to view flows as given here.

- If you select **All Flows**, the View Flows page displays all submitted and scheduled flows, with no filters applied, irrespective of the entered flow parameters.
However, if you select and apply a filter, for example, a specific payroll, the page displays flows that use the selected payroll as a flow parameter when the flow was submitted.
Subsequently, if you select the Activity Center Flows option, the View Flows page displays flows for one of the Payroll Activity Center processes and flows where the selected payroll was entered as a flow parameter.
- If you select **Activity Center Flows**, the View Flows page displays all flows that consume results of one of the Payroll Activity Center processes. No filters are applied on the flows.

How Do I Monitor Payroll Flows from the Payroll Dashboard

From the payroll dashboard, view the status of submitted flows that are in progress and require your attention. You can also drill down to the payroll checklist and view details of a specific flow.

This topic explains how you can monitor the status of the flows and take corrective action if required. The payroll dashboard has separate sections to view the items requiring your attention and view details of flows that are in progress.

View Items Requiring My Attention

The Items Requiring My Attention region monitors notifications that you receive about the flows. You can view:

- The number of error notifications and warning messages about flows that need your attention.
- The reminders about tasks that are overdue and require an action from you.

To view items requiring my attention:

1. Click the **Payroll Dashboard** link from the Navigator.
2. On the Items Requiring My Attention toolbar, click **Errors**. You can see the list of errors that you must fix.
3. Click a specific error to drill down further and investigate the error.
4. On the Items Requiring My Attention toolbar, click **Warnings**. You can see the list of warnings that needs your attention.
5. On the Items Requiring My Attention toolbar, click **Tasks**. You can see the list of tasks errors that needs your attention.

You can use the Refresh button to view an updated status of your notifications.

View Flows in Progress

From **Flows in Progress**, monitor the status of submitted flows, either by graph or by listing.

1. Click an item on the analytic graphic, for example, the US Simplified Payroll Cycle, to view the details of the flows that are in progress. The submitted flows are all listed in the payroll flows section.
2. Highlight a flow and click the name to open the specific payroll checklist. The checklist organizes the tasks within the flow by payroll activity and task groups.

3. If you don't find a specific payroll flow, click **Query by Example** and search for a flow.

The Task Type column identifies tasks as either manual or automatic. Manual tasks are identified by a person icon with a check mark. Automatic tasks are shown with spoke wheel icons. Automatic tasks begin automatically when the task before it's complete.

Manual tasks work like stop points in the flow where you can verify results and perform any corrections required before continuing with the next task. They generally involve tasks that require validating results, for example generating reports and validating report results.

View the Task Details

To view the status of a task, you may have to drill into the task group. For example, you may want to view the details of the records processed for the Calculate Payroll task.

1. Expand the **Calculate** activity within the specific payroll flow.
2. Expand the **Calculate and Validate Payroll** task group.
3. Click the **Go to Task** icon for the completed Calculate Payroll task.

The View Person Process Results: Calculate Payroll page lists the records (persons) processed in the flow. The Action Status column shows the status of the records. It shows the records that are processed successfully and those that have errors and require further action.

Take Corrective Action

Once you have identified the records that have errors, you must take corrective action on them. Click the person name to see what the error is. You may have to return to the person's record to correct the errors.

Use the Actions menu to take any of these actions on a record:

- Mark for Retry
- Rollback
- Reversal

After you have viewed the error and taken appropriate corrective action, you can go back and use the Actions menu and mark the record for retry.

View the Payroll Run Results

After a task is completed, you can verify the run results and view a report. For example, you may want to view the Gross-to-Net report.

1. Click the **Go to Task** icon of the completed task, for example the Run Gross-to-Net Report task.
2. Click the **Task Results** (glasses) icon to view the PDF output of the report.

Optimize Performance of the Payroll Background Process

The payroll background process is a daemon process that runs continuously to handle periodic requests for processing. It's used to submit processes such as the QuickPay for Anytime Pay process and Event Action Notifications.

Enable automatic multi-threading for the payroll background process to enhance performance of the submitted payroll processes and run multiple processes concurrently.

Use the **Payroll Process Configuration** task under Payroll to search for the delivered **Pay Daemon Group** process configuration group. Edit and enable the **Pay Daemon Group** configuration group to optimize the performance of the payroll background process by automatically identifying and assigning the correct number of threads to the process. The payroll background process can then execute large number of processing requests and handle multiple processes concurrently. For example, multiple runs of QuickPay for Anytime Pay can be processed concurrently.

Use the **Maximum Number of Threads** action parameter to enable automatic multi-threading for the payroll background process. This parameter indicates the maximum, total number of sub-processes dynamically created for a process. Perform these steps to enable the **Pay Daemon Group**.

1. On the Payroll Process Configuration page search for the default group and under Parameter Name search for the Maximum Number of Threads parameter and note the value.
2. Search for the delivered **Pay Daemon Group** and click **Add** under Parameter Name. Search for the Maximum Number of Threads parameter and enter an Override Value.

Set this parameter to approximately 10% of the Maximum Number of Threads on your default group for the process.

For example, if the **Maximum Number of Threads** action parameter is set to 30 on the default group, set it to 3 on the **Pay Daemon Group** process configuration group.

Note:

When you don't enter a value for the **Maximum Number of Threads** action parameter, the payroll background process runs using a single thread process.

The process sets the threads depending on the number of processing requests or pay daemon actions in the queue at a given time. A new thread is submitted for each 5,000 processes in the queue for the payroll background process until the **Maximum Number of Threads** is reached.

Enable Logging

Use the **Pay Daemon Group** process configuration group to control other parameters for the payroll background process, such as logging. If you want the processes running on the daemon to generate a log output, enable logging in the Pay Daemon Group.

Note: It's recommended that you enable logging on the Pay Daemon Group process configuration group and not on the default group for the process.

Logging and Monitoring the Payroll Background Process

Use the **Payroll Background Logging and Monitoring** flow to identify and resolve payroll queries for features that use the payroll background process.

This flow is useful for those who manage customer environments, test payroll processes, and troubleshoot issues with payroll processes. For example, your system administrator can use this flow to generate log files for features that uses the payroll background flow such as Anytime Pay.

Note: Payroll features that use the payroll background flow include Anytime Pay and Event Notification Processing that has rate events enabled. The payroll background process is an ESS process that runs continuously in the background to improve the performance of payroll features. Since it runs continuously, it's not required for the ESS server to start or stop whenever you submit a process such as the submission of the QuickPay process for Anytime Pay.

Note: Leave the Legislative Data Group field blank when you submit the Payroll Background Logging and Monitoring flow.

Considerations for Using the Payroll Background Logging and Monitoring flow

Consider these points when you use the Payroll Background Logging and Monitoring flow.

- Leave the Legislative Data Group field blank when you submit the Payroll Background Logging and Monitoring flow.
- Use the **Actions** field to perform any of the actions given in this table on the payroll background ESS process.

Action	Description
Start Process	When called by a feature, the payroll background ESS process starts automatically and will continue to run. You can use this option to override this default behavior and manually start the process.
Stop Process	Use this option to stop the background payroll ESS process. Any process that's already running using the payroll background process will complete, but the next process in queue will not start.
Report	Use this option to report on the status of the background payroll ESS process.
Resubmit Process	Use this option to resubmit a process submitted using the payroll background ESS process and is in error.

- Use the **Job Identifier** field to identify the process submitted using the payroll background process. Each background process has a job ID number, similar to an ESS job number.
- Use the **Report Type** field to select the type of report you want to generate using this flow. These reports are intended for users who are trying to identify the root cause of an issue. This table lists the type of reports you can generate.

Type of Report	Description
Processing Report	This report displays all processes that are currently running or are in the payroll background queue for today. For example, a QuickPay has been submitted for Anytime Pay but no results are generated for the employee. Use this report to check if the QuickPay is stuck in a queue of processes waiting to be completed by the payroll background process.
Scheduled Report	This report identifies all pending processes in the payroll background queue for the specified date range.

Type of Report	Description
Error Report	This report identifies all error messages for the payroll background process. For example, a QuickPay has been submitted for Anytime Pay but no results are generated for the employee. Use this report to check if the payroll background process has hit an error that stopped the submission.
Log File	Use this option to enable detailed logging information for a process submitted using the payroll background process.

Note: Use the predefined PAY DAEMON GROUP payroll process configuration group for processes submitted using the payroll background process.

Flow Statuses, Task Actions, and Notifications

Flow Statuses

Use the View Flows and Checklist pages to view the status of the tasks within a flow.

This topic covers:

- Flows Statuses and Sub-Statuses
- Flow Status Hierarchy

Flows Statuses and Sub-Statuses

Use the flow status information to do the following:

- Monitor issues with the flow such as processes in error, reconciliation issues, and processes running slower than average.
- Manage and track all tasks within the flow. Monitor the progress of a task by reviewing the percentage completion of the task. The **Action** menu displays the actions available for a task based on its status.

Each high-level status has a set of sub-statuses grouped together as shown in this table.

Status Group	Sub-Status	Sub-Status Description	Displayed on View Flows	Displayed on Checklist	Displayed on Process Results Summary
Critical Alerts	Critical Errors	Indicates that the payroll process isn't processed due to critical errors, such as a power outage.	Yes	Yes	Yes
Critical Alerts	Stopped	Indicates that the payroll process has	Yes	Yes	Yes

Status Group	Sub-Status	Sub-Status Description	Displayed on View Flows	Displayed on Checklist	Displayed on Process Results Summary
		stopped processing due to a critical ESS error.			
Completed with Alerts	Errors	Indicates that the payroll process has completed but one or more records are in error status.	Yes	Yes	Yes
Completed with Alerts	Rolled Back Records	Indicates that the payroll process has completed but one or more records have been rolled back. You can process these records once you have corrected them.	Yes	Yes	Yes
Completed with Alerts	Marked for Retry	Indicates that the payroll process is marked for recalculation or retry. You can run the retry process for these records once you have corrected them.	Yes	Yes	No
Corrected Processes	Skipped	Indicates that the payroll process is skipped and not processed.	Yes	Yes	No
Corrected Processes	Full Roll Back	Indicates that the process is rolled back for all records and results are removed.	Yes	Yes	No
Pending	Not Started	Indicates that the payroll process hasn't started.	Yes	Yes	No
Pending	Scheduled	Indicates that a payroll process or report is scheduled for processing.	Yes	Yes	No
In Progress	Processing	Indicates that the payroll process is currently running.	Yes	Yes	No
Completed	Complete	Indicates that the payroll process	Yes	Yes	Yes

Status Group	Sub-Status	Sub-Status Description	Displayed on View Flows	Displayed on Checklist	Displayed on Process Results Summary
		has completed successfully (for all records).			

As indicated in this table, the process page displays only submitted processes. For example, it doesn't include pending processes because the flow has been scheduled to run at a later date. And, it doesn't include processes that have been corrected such as rolled-back.

Flow Status Hierarchy

A task flow indicates any flow that contains two or more tasks. For example, a flow that contains all the tasks your company completes for a specified payroll cycle is classified as a task flow

The Checklist displays the status of each task within the payroll cycle flow. However, the View Flows page displays the overall status of a flow, and each task within a task flow can have a different status.

For this reason, the View Flows page displays the flow status based on the flow hierarchy as given in this table. The flow hierarchy is used to display a flow status based on the task within the flow that has the most critical status.

Hierarchy Level	Status Group
1	Critical Alerts
2	Completed with Alerts
3	In Progress
4	Corrected Processes
5	Pending
6	Completed

Task Actions and Notifications

Submit a flow and monitor the status of the tasks within it and take actions from the generated checklist. You can also perform certain tasks from the View Flows and Process Results pages.

Review the status of a flow by checking the status icons and notifications.

This topic covers:

- Task Actions
- Available Task Actions Based on Task Status

- Actions Available on a Page
- Notifications

Task Actions

This table lists the actions you can take and how it impacts a flow.

Action	Description
Skip	Skip a task and set the status of the task to complete. The process skips the task and continues with the remaining tasks within the flow.
Roll Back Errors	Roll back a task, all records in error are rolled back and a payroll relationship group created for the employees in error status. You can correct data before resubmitting the process.
Roll Back All	All tasks within a task flow, except skipped tasks, are rolled back. The status of the task flow is set to 'In Progress' with the number of completed tasks set to zero. Note: You can't use this option for skipped tasks within a flow. For example, if you skip the first task in a flow and you use the Roll Back All option in the second task, then the first task won't be included in this action.
Roll Back	Available only for single tasks. Once the task is rolled back, the Status for this task is "Full Roll Back" .
Mark for Retry	Available only for single tasks. Once the task is marked for retry, the status for this task is set to "Completed with Alerts".
Retry	Resubmit records marked for retry or in error. Retry a process that has completed with alerts to rerun any incomplete records. For example, if a process completes but has 5 errors, you can correct the data for the 5 errors and retry the task for the 5 records.
Force Resubmit	Force resubmit a task if a process is stuck due to a system issue. The task status is then set to 'In Progress'.
Submit	You can only use this action when a task has been fully rolled back.
Cancel Current and Recurring Schedule	Cancel the process due to run currently and also all processes scheduled for a future date. This action can't be supported in process results because the process has completed.
Cancel Recurring Schedule	Cancels the processes planned as part of the schedule plan for a future date, but doesn't cancel the running of the current process. This action can't be supported in process results because the process has completed.
Cancel	Cancels all ESS threads of a flow task that are in In Progress status. This action is available in the Checklist and Results Summary UIs.

Only owners of the flow task, and the user who submitted the flow, can take this action. Actions aren't available to other types of users.

Available Task Actions Based on Task Status

The Action menu displays the actions available for a task based on its status. Here's a list of actions you can perform based on the status of a task.

Action	Stopped with Critical Alerts	Completed with Alerts	In Progress	Corrected Processes	Pending	Completed
Skip	Yes	Yes	No	Yes	Yes	No
Roll Back Errors	No	Yes	No	No	No	No
Roll Back All	Yes	Yes	No	Yes	No	Yes
Roll Back	Yes	Yes	No	No	No	Yes
Mark for Retry	Yes	Yes	No	Yes	No	Yes
Retry	No	Yes	No	No	No	No
Force Resubmit	Yes	No	No	No	No	No
Submit	No	No	No	Yes	No	No
Cancel Current and Recurring Schedule	No	No	No	No	Yes	No
Cancel Recurring Schedule	No	No	No	No	Yes	No
Cancel	No	No	Yes	No	No	No

The actions available to you when working with a task depend on its status and the status of the tasks that precede or follow it, as given here.

Action on Current Task	Status of Current Task	Status of Previous or Subsequent Tasks in the Flow
Roll Back or Retry	Completed	All subsequent task must have a status of Rolled Back or Completed.
Submit	One of the following:	All previous tasks must have a status of Completed.

Action on Current Task	Status of Current Task	Status of Previous or Subsequent Tasks in the Flow
	<ul style="list-style-type: none"> Roll Back On Hold Mark for Retry 	

Note: Only owners of the flow task, and the user who submitted the flow, can take this action. Actions aren't available to other types of users.

Actions Available on a Page

This table lists the actions available to you and from where you can use them.

Action	Task or Task Flow	Available in View Flows	Available in Payroll Checklist	Available in Process Results Summary
Skip	Both	Yes	Yes	No
Roll Back Errors	Task	No	Yes	No
Roll Back All	Task Flow	No	Yes	No
Roll Back	Task	No	Yes	Yes
Mark for Retry	Task	No	Yes	Yes
Retry	Task	No	Yes	Yes
Force Resubmit	Task	No	Yes	No
Submit	Task	No	Yes	Yes
Cancel Current and Recurring Schedule	Both	Yes	No	No
Cancel Recurring Schedule	Both	Yes	No	No
Cancel	No	No	Yes	Yes

Apart from the above actions that you can perform using the Actions menu, you can also perform the following actions on the respective pages as given here.

Action	Task or Task Flow	Available in View Flows	Available in Payroll Checklist	Available in Process Results Summary
View Results	Task	No	No	Yes
View Process Details	Both	No	Yes	Yes
Single Task Parameters	Both	Yes	Yes	Yes
Task Flow Parameters	Task Flow	Yes	Yes	No
View Log Files		Yes	Yes	Yes
View Error and Warning Messages		No	No	Yes
Display Linked flows	Task	No	Yes	No

Flow Notifications

Update the flow pattern to have flow notifications sent to you to remind you of upcoming tasks or to warn you of tasks that are overdue. Completing a task removes its notifications. The setup of notifications include specifying the type of notifications and when to send them on the flow pattern. Only flow owners receive the notifications.

Specifying the number of days before the application automatically deletes a notification for the Notification Expiration Offset parameter on the Payroll Process Configurations page. To open this page, use the Payroll Process Configuration task from Quick Actions on the Home page.

Note: You receive notifications when you resubmit a task but not when you select Force Resubmit from the Actions menu.

Cancel Action

Use the **Cancel** action in the Checklist and Results Summary UIs to cancel all ESS threads of a flow task that are in **In Progress** status. A process can get stuck and have

In Progress status due to various reasons. For example, it could be due to process time lapse, an infrastructure issue such as a network failure, or an ESS failure due to patching, and so on. You can then cancel the jobs that are stuck, take corrective action, and resubmit the process.

When you cancel a process from the Checklist page, the process displays either of these statuses:

- **Completed with alerts** if some relationship actions have errored or are unprocessed.
- **Critical Alerts** if after cancellation none of the relationship actions are processed.

Only users who have the **ORA_PAY_SCHEDULED_PROCESSES_ADMINISTRATION_DUTY** duty role can access and cancel ESS jobs for flows that they didn't submit.

Note: With this duty role, you can cancel ESS jobs for all types of flows. For example, with this duty role you can cancel ESS jobs for the Calculate Payroll flow, even if you don't have access to the Calculate Payroll flow and you haven't submitted the Calculate Payroll flow.

You can also cancel a specific ESS job from the Oracle Enterprise Scheduler Service (ESS) page. However, as a best practice we don't recommend you cancel ESS jobs from the ESS page because using the ESS page doesn't trigger the display of the banner message for the specific task being cancelled.

HCM Alerts for Payroll Flows

The HCM Alerts functionality for payroll flows enables you to configure and send worklist FYI notifications or emails to alert flow owners of the status of flows that they own. These alerts are triggered from an event or from a REST resource.

You can configure the format of the alerts and send notifications to multiple owners of a flow.

The HCM Alerts functionality replaces the existing flow notification solution and offers the following advantages:

- Define your own notification content using your own templates.
- Compose notification content to include status of the flow.
- Send notifications to multiple flow owners within a group.
- Define language or country-specific email templates.

Note: The predefined HCM flow alerts apply only for the automatic flow tasks and it's not available for manual flow tasks.

Predefined Alerts

Predefined alerts are available for you to use directly. They notify a flow owner when a flow task has started or ended. The ended notification includes the status of the task such as complete or error.

The following alerts are predefined in the application.

Predefined HCM Alerts for Payroll Flows

Alert Name	Description
Start Flow Task Alert	Notification to inform the payroll task owners when a task within a flow becomes active.
End Flow Task Alert	Notification to inform the payroll task owners when a task within a flow finished processing and is marked as complete.
Completed with Alerts	Notification to inform the payroll task owners when a task within a flow finished processing with a status grouped by Completed with Alerts.
Critical Alerts	Notification to inform the payroll task owners when a task within a flow has completed with a status grouped by Critical Alerts.
Corrected Processes	Notification to inform the payroll task owners when a task within a flow finished processing with a status grouped by Corrected Processes.

The flow notification includes the {FLOW_NAME} token that you can click to navigate to the checklist of the flow and review the task.

Use the delivered FLOW_PATTERN_ALERT templates or deactivate the delivered template and create new templates to create your own alerts. Use the Alerts Composer tool to enable and configure your email notifications. You can change the logic for notification generation, email content, font size, font style, graphics and links, to meet your own requirements.

The template supports tokens for parameters such as Person ID of the person receiving a notification, flow instance name that you have submitted and is processing, base task name, and so on.

Enable HCM Flow Alerts

By default, the SOA flow notifications are enabled.

Use the **ORA_PAY_TASK_NOTIFICATION_SWITCH** profile option to enable the predefined HCM flow alerts. Use the Manage Administrator Profile Options task in the Setup and Maintenance area to set the profile option to **Y**.

You can then verify that the HCM flow alerts are displayed in the Notifications section of the flow pattern.

Related Topics

- [Use Alerts Composer for Worklist and Email Notifications](#)
- [Overview](#)
- [Notifications in Alerts Composer](#)
- [Define Templates](#)

Payroll Flows Outbound API Notifications

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.

The flows outbound API notification solution utilizes the industry standard client credentials flow, OAuth 2.0. This standard allows for secure communication between servers based on a token authentication approach. This solution is automatically called once the task completes.

Use the Outbound Integration tab on the flow setup page and enter this information required by OAuth 2.0 to allow for an outbound confirmation notification to be sent.

Use the Payroll Flow Patterns task under Payroll in My Client Groups to search for a flow and click **Edit**. Under the Outbound Integration tab enter this information required by OAuth 2.0 to allow for an outbound confirmation notification to be sent.

- Client ID
- Client Secret
- Authorization Service URL
- Resource Service URL

You must also select the **Enable Outbound** check box on the flow setup page.

The configuration level for this feature is at flow pattern level. However, a notification is sent for each task in the flow.

The Notification text includes the following information:

- Flow Instance Name
- Checklist Name
- Flow Task Group Status
- Owner Type
- Owner
- Completion Time

Retry Notifications

An automatic and manual retry option for the notification is available if a response isn't received from the customer application. The number of automatic retries is set to 5 and the wait time between each retry is 1, 2, 4, 8, 16 seconds respectively.

For a task that is in **Complete** status, you can use the manual retry option available in the Actions menu on the Checklist page. This option isn't available for tasks in **Not Started** or **In Progress** status. You can view the notification and retry notification messages in the View Messages page. Navigate to the View Messages page using the Actions menu on the Checklist page.

Enable Outbound API Notifications

Use the **ORA_PAY_SEC_UI_FLO** profile option to enable the Outbound API Notifications feature. Before you enable the profile option, log an SR with Oracle Support so they can generate a key and run the upgrade process so as to enable the profile option.

Complete, Skip, or Correct Flows

When you submit an extract report or process or a flow, a checklist is generated. The checklist lists tasks sequentially; the sequence in which you perform to complete the flow.

This topic covers these aspects of working with flows:

- Complete flows
- Delete and skip flows
- Correct tasks in a flow

Complete Flows

The Tasks Details tab of the checklist lists the manual and automatic tasks required to complete the flow. Review status icons to monitor the progress of tasks.

An automatic task is complete when the application finishes it successfully and marks it complete. A manual task is complete when you mark it complete or update its progress to 100 percent. With the exception of skipped tasks, you must complete a task before you can update the status as complete.

Delete and Skip Flows

Use the Payroll Flow Patterns task to delete a flow you copied or created, if you haven't yet submitted it. You can skip an entire flow or a task in a flow if you have submitted it.

Skip tasks, if you don't require the results when processing later tasks. If you submit a flow in error, skip the entire flow.

The details of when and who can control a flow or a flow task is given here.

Object	Who Can Skip It	Condition
Task in a flow	Flow or task owner	The task isn't in progress.
An entire flow	Flow owner	None of the tasks are in progress. Skip the flow from the Checklist page

Correct Tasks in a Flow

To correct records for a task, such as records in error or missing information, the actions you take in the checklist depend on whether the correction involves the current task in the checklist or a previous one.

For a current task:

1. Mark the records for retry.
2. Correct the records.
3. Resubmit the task.

Tip: If records require more investigation, avoid delaying the start of the next task by rolling back the records and processing them separately. Resubmit the task to change its status to Complete.

If you discover you must correct an earlier task, you can undo the intervening tasks, correct the data and then resubmit the tasks.

For a previous task:

1. Start with the last manual task in progress, even if it occurs in the next activity or task group.
2. Set the status of the manual task to incomplete.
 - o Roll back all the records processed by the task.
 - o Retry to change the status to Paused to correct and retry records processed by the task.
3. Repeat this process for each intervening task.
4. Correct the records for the task in error.
5. Resubmit the task.

If you submit separate flows, roll back or mark for retry the flows that lock the records in the current flow before you can process the correction.

For example, you have a user-defined flow that has the Calculate Payroll task after which you run the payroll and audit reports tasks. You have submitted the flow and all the tasks in the flow have completed successfully. You then discover

that you have to correct some employee records for the Calculate Payroll task and resubmit the flow. Follow these steps to correct the records from the earlier run and resubmit the flow:

1. Open the Calculate Payroll task from the checklist, use the Actions menu to set some records as 'Mark for Retry'. The status of the task changes to 'In Progress with Error'.
2. Set the status of each sequential task in the flow as 'Mark for Retry'.
3. Edit the records and then set the status of the Calculate Payroll task to 'Mark as Complete'.
4. Resubmit the flow. The subsequent tasks run automatically.

Note: If you don't complete Step 2 above, you may not see the 'Mark as Complete' status for the Calculate Payroll task.

Options for Taking Corrective Tasks in a Payroll Flow Pattern

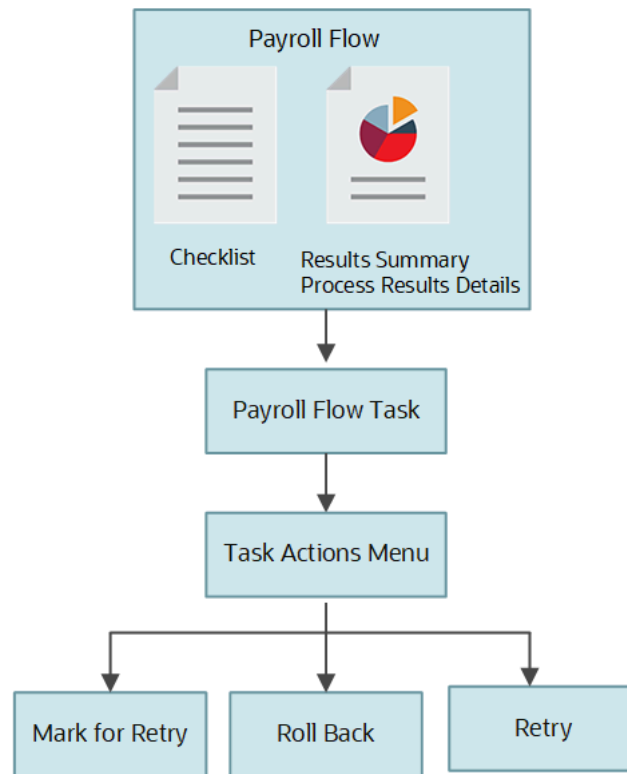
Before initiating corrective actions on payroll runs or payment results, consider whether the flow owners can correct individual records or tasks by using any of these options:

- Task actions
- Predefined stand-alone corrective processes
- Predefined flows, such as the Cancel Payments flow

Use Task Actions

Most tasks support corrective task actions at the task level or individual record level. The type of task and its status determine which corrective actions the flow owner can select from the **Actions** menu when viewing results.

This figure shows the task actions available from the **Actions** menu on the Checklist, the Results Summary, or the



Process Results Details pages.

Here's how you can confirm whether the task includes the task actions:

1. Edit your flow pattern on the Payroll Flow Pattern page.
2. Select the task on the Tasks tab, and edit it.
3. Review the Execution Mode column on the Edit Task Details: Basic Information page to confirm that the task supports the Mark for Retry, Retry, and Roll Back task actions.

Use Predefined Stand-Alone Corrective Processes

Flow owners can use the Submit a Flow task to submit these predefined stand-alone corrective processes:

- Roll Back Process
- Retry Payroll Process
- Mark for Retry

The flow owner can use these processes to roll back or retry a flow that includes a single process and that's in progress with errors.

The predefined stand-alone corrective flows don't support task level actions in the Checklist, Results Summary, and Process Results Details pages. For example, if you submit the stand-alone Rollback Process from the Flow Submission page, and navigate to the Checklist UI, you will not see any task level corrective actions for the stand-alone process in the task level Actions menu.

Hence, it's recommended that you perform corrective actions using the Actions menu on the checklist or process result pages. For example, to roll back a process, say the Calculate Payroll task, navigate to the Checklist or Results Summary page, and select the Roll Back action from the Actions menu. This approach ensures the process results pages always display the current status of a process.

In this example, you could have also performed the rollback corrective action by submitting the separate, stand-alone Roll Back Process flow. For example, navigate to the Flow Submission page, select the Roll Back Process flow, and submit the rollback for the Calculate Payroll process. This alternate approach isn't recommended.

Use Flow Patterns

If your enterprise performs several tasks to correct problems, flow owners can use any of these.

- A predefined flow pattern, such as the Cancel Payment flow.

The Cancel Payment flow pattern includes tasks to view the person process results, void the payment, process an external payment to prevent reissue of the original payment, and reverse the original prepayment and payroll run calculations.

- A flow pattern you create, such as a flow pattern to reissue a lost check.

This flow pattern might include tasks to void the payment, issue an external payment, and view the person process results.

Manually Recover the Status of a Corrected Flow

When you submit a flow, the status of the flow changes to **In Progress**. Subsequently when you cancel a flow task, the **Cancel** action changes the flow task status.

The flow task status changes to either

Completed with Alerts or **Critical Alerts**, depending on whether the task is partially completed, or the job didn't produce any results.

Sometimes the **Cancel** action doesn't cancel the flow task and the flow continues to remain in the

In Progress status. The flow doesn't progress and doesn't allow you to take any action.

In such a scenario, a task owner can manually recover the correct status of the flow on the Checklist page. The status of the flow changes to either **Completed with Alerts** or **Critical Alerts** based on the results of the task. You can then change the flow status to **Mark for Retry**

or **Roll Back**.

If you don't manually update the status of the flow, the flow continues to remain in **In Progress** status, even though the flow is cancelled.

Submit a Related Flow

Use the Submit Related Flow task action from the Actions menu on the Checklists page to submit additional tasks within an existing flow that's 'In Process'.

You can submit a task that's initially not included in the checklist. For instance, you're analyzing the payroll run and require additional information about pay elements included in the run. You can run an additional deduction report that's not in the initial flow.

When you select the Submit Related Flow task on the Checklist page, you're redirected to the Select a Flow page from where you can select an additional flow you can submit. Select a flow and enter these details:

- Flow Instance Name
- Parameters
- Process After Error

The **Process After Error** check box indicates whether the related flow should still be run if the parent flow is in error.

The Submit Related Flow action is available for all tasks and statuses. There's no need to select a Legislative Data Group (LDG) for the related flow, because the LDG is by default the LDG of the parent flow.

Once you submit the flow, you're directed to the related flow checklist, and not the parent flow checklist.

Note: It's recommended that you don't use the Task Iteration (Submit Another Task) feature in the context of Submit Related Flow option.

How Do I Bind a Rollback Action to a Task In a Payroll Flow

This topic explains how you can define flow task parameters, so that a rollback action on the flow tasks work correctly. If you don't bind the parameters for the rollback action correctly, the rollback isn't successful.

Use the Execution Mode option to define the action for a task within a flow. The actions you can select include:

- Mark for Retry
- Rerun
- Roll Back
- Submit

The parameter basis you select for the task parameter controls how the application derives the value for the parameter. The basis value further specifies the value the application uses for the parameter when it executes the action.

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 then uses this Payroll Action ID.

Follow these steps to define flow task parameters for a Rollback action.

1. Use the Payroll Flow Patterns task under Payroll from My Client Groups > Show More on the Home page.
2. Search for and open, in Edit mode, the flow pattern for which you want to define a Rollback action.
3. Under the Tasks tab, click **Go to Task** for the task you want to roll back. By default the task parameters are all in **Submit** mode.
4. To change the execution mode, use the **Execution Mode** field and select **Roll Back** execution mode from the drop down list.
5. Choose the Parameter Basis for the parameter as **Bind to Flow Task** and the Basis Value as **Action ID**.

The Parameter Basis binds the parameter to a flow task, such as Rollback corrective action. When you roll back the task, the application uses the output of the Submit task action, which is the Payroll Action ID. The application uses the Action ID as the input parameter for the roll back action.

Evaluate each of the flow tasks and flow task parameters and select the correct Parameter Basis and Basis Value, to avoid interlocks or incorrect parameter bindings.

Related Topics

- [Flow Pattern Parameters](#)
- [Task Actions and Notifications](#)

Roll Back Errors Rule for Payroll Flows

When there are partial errors in a payroll flow, the process goes into an error state, and you can't move ahead. You can continue with the flow only after you take corrective action on the tasks that are in error.

Use the Roll Back Errors option from the Actions menu within the checklist to roll back a process that has errors so that it proceeds to completion. The application automatically creates a payroll relationship group for the employees having errors and removes them from the process, so that the payroll proceeds to completion.

After reviewing and correcting the errors, you can use cross-flow interactions to bring back the employees into the parent flow or process them separately in a subsequent process.

Monitor the status of tasks within a flow from the checklist generated when you submit the flow. Let's look at the steps to roll back the errors generated in a payroll process:

1. Within the checklist, select the task that has errors.
2. Select the **Roll Back Errors** option from the Actions menu within the checklist. The application displays a message that the rollback action has started. The status of the process changes from 'Error' to 'Processing'.
3. Click the **Corrective Actions** icon to open the Rollback Relationship Group window to view all the rollback actions that are initiated for your process.

You can view these details on the Rollback Relationship Group window.

Field	Description
Name	The name of the payroll relationship group that's created.
Creation date	The date of the Rollback Action and the creation of the payroll relationship group.
Created by	The person who submitted the Rollback Errors action.
Rollback Count	The number of employees that are rolled back and created in the payroll relationship group.

4. Click the payroll relationship group **Name** to open the Object Groups page and view the details of the created payroll relationship group.
5. Click **Next** to view the details of employees who are rolled back.
6. Click **Cancel** to return back to the Checklists page.
7. Use the Refresh button to refresh the page.

You notice that the status of the task that was in error changes to completed. You can perform the Roll Back Action any number of times and for each rollback action, the application creates a new payroll relation group. You can't use the Roll Back Errors option for a completed task.

Run a Report After a Process Errors

You can use the Allow Processing option in the Payroll Flow Patterns UI on the Tasks tab to run a report or process after a prior process has errors.

When there are partial errors in a payroll flow, the process goes into an error state, and you can't move ahead. You can continue with the flow only after you take corrective action on the tasks that have 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**.

For example, if the Calculate Payroll flow has a few records that have errors, you may want to run a report to study and understand the generated errors. Reports can be run either as:

- A separate task in a single flow. For example, the Calculate Payroll Flow may have a separate task to run all the reports after completion of the Calculate Payroll task. In this case, the Reports task can't run if the Calculate Payroll task errors.
- A separate flow. For example you can have a separate flow for all the reports and you can have cross flow interaction to link this flow to the Calculate Payroll flow. Once the Calculate Payroll flow completes, it initiates the Reports flow. You can't run the Reports flow if the Calculate Payroll flow errors.

In both of the above cases, set the **Allow Processing** option on the Reports task to **Yes**, so that the reports are generated, even if the Calculate Payroll task has errors. You can view the report to understand the errors and take corrective actions.

Roll Back Multiple Tasks within a Flow

Use the Roll Back All option from the Actions menu within the checklist to roll back multiple tasks within a flow. You don't have to manually select each task to roll back the tasks within the flow.

Let's say that you want to run a flow that has these five tasks:

Task A, Task B, Task C, Task D, and Task E

If you have performed tasks A, B, and C, and want to roll back all the tasks, you can use the Roll Back All option from the Actions menu and roll back all the three completed tasks. You can then reprocess the tasks within the checklist.

Once the bulk roll back action is in progress, the roll back icon displays to indicate that the task is being rolled back. If the checklist has a large number of tasks and a roll back all action is in progress, only the activity that has tasks that are being rolled back are open, so that you know that a roll back action is in progress.

The **Last Updated** field reflects the person who took the roll back action for each of the tasks. You can't roll back tasks, if::

- You don't have access to those tasks within the flow.
- Any of the flow task instance has the **IN_PROGRESS** status.
- A roll back is in progress for the current flow instance.

In all of the above cases, the **Actions** menu doesn't display the Roll Back All action.

When you perform a Roll Back All action from the Actions menu at the flow level, you cannot rollback all skipped tasks within the flow. For example, if the first task in a flow is skipped and you use the Roll Back All action in the second task, then the first task won't be included in this action.

Monitor the status of tasks within a flow from the checklist generated when you submit the flow. Complete these steps to initiate a roll back all action in a payroll process:

1. Within the checklist, select the task that you want to roll back.
2. Select the **Roll Back All** option from the **Actions** menu within the checklist. The application displays a message that the roll back action has started. The status of the process changes to 'Processing'.
3. Click **Next** to view the details of employees who are rolled back.
4. Click **Cancel** to return back to the **Checklists** page.
5. Use the **Refresh** button to refresh the page.

You will notice that the status of the task that was rolled back changes to completed. You can perform the **Roll Back All** action any number of times.

FAQs

How can I regenerate a report that uses archived data ?

After submitting a report that uses archived data, you can use the Redeliver Output action from the Payroll Checklist page to regenerate the report. If the report supports additional delivery types, you can optionally change delivery options before you resubmit the report.

How can I access a log file for a payroll flow, extract, or report?

Locate and open the flow you submitted that includes the process, report, or extract. On the flow's Process and Reports tab, click the Process link, which is listed below the task.

On the Oracle Enterprise Scheduler Output page, click the ViewLog button for the process. In the log window, select an option to view or save the log.

Related Topics

- [Status of Flow Tasks](#)

Why is the task name on checklist different from the predefined task name?

All predefined payroll processes and reports are delivered with a corresponding flow task. For example, the Payroll Calculation process is delivered with a predefined Calculate Payroll task and the Calculate Payroll flow pattern.

When you create a user-defined flow pattern and include a predefined task, you can rename the task to reflect the context of the user-defined flow pattern. For example, if you're defining a payroll cycle for your company's weekly payroll cycle, you can add the Payroll Calculation task and rename it as 'Weekly Payroll'.

After you submit the user-defined flow, the checklist displays this user-defined task name.

How can I cancel a scheduled flow?

Cancel current and recurring scheduled flows that you own from the flow's checklist. Select the appropriate menu command from the Actions menu to cancel the current flow and the recurring schedule, or the recurring schedule only.

If you can't cancel the scheduled flow from the checklist, your help desk can stop the job. If you based the schedule on a formula, review the formula to ensure that it contains no negative numbers. Negative numbers produce a continuous recurring schedule.

How can I delete a flow?

You can delete a flow that you copied or created if you haven't submitted it. Use the Payroll Flow Patterns task to delete the flow. If you submitted a flow, you can skip the entire flow or tasks in the flow.

Payroll flow owners can also mark an entire flow as skipped from the Payroll Flow Checklist page. Marking the entire flow as skipped marks any remaining uncompleted tasks as complete.

Why can't I find the flow I want to submit?

Confirm that your role grants you security access to the flow pattern, for example to an extract report or process.

For payroll, confirm your role grants you security access to the payroll definition. Finally, determine whether the task or flow owner specified in the flow pattern is for your role or user name.

7 View Flow Results

Process Results Pages

For completed tasks, you can view the process results in these pages:

- Process Results Summary page
- Process Results Details page
- Person Process Results page

Process Results Summary Page

The Process Results Summary page displays by default processes that are submitted and completed in the last seven days. It displays processes with these statuses:

- Critical Alerts
- Completed
- Completed With Alerts
- In progress

The page doesn't display processes that are pending, scheduled, corrected, such as rolled-back. The default view displays all processes submitted in the last seven days. Use the filters to expand the date range.

Navigate to **Payroll** in **My Client Groups** from your Home page and click **Process Results Summary** under the Flow Submission and Results section. The Process Results Summary page opens.

Here's the list of tasks you can do on the Process Results Summary page:

- Check the status of recently submitted processes.

For example, before processing payments, as a payroll manager, you may want to review and ensure that all the payroll processes and reports have completed without any errors. If any of the person records have errors, use the Process Results page and search for a person record to see what the error is. You can return to the person's record to correct the errors, before resubmitting the payroll process.

- Use the filter option to view flows as per your choice and for a wide range of filter choices such as LDG, payroll, submission date, submitted by, flow type, flow patterns, flow status, and so on.
- Monitor the status of all processes and reports submitted across Legislative Data Groups.
- Drill down to the Process Results Details page to access a specific process and view detailed information such as messages, output reports, and log files.
- View single task parameters.
- Take corrective action on records that have errors and submit the task.
- Use the **Submitted By** field to filter on the person who has submitted a process. The Submitted By field is a free text field and you can only use the 'contains' filter option, you can't use any other filter option for this field.

Process Results Details Page

The Process Results Details page is accessible from a task in the Checklist or Process Results Summary pages. View further details of the selected task in these four sections on this page:

- Person Process Results
- Output and Log Files
- Parameters
- Linked Flows

Since this page is in the context of a process, you can view these details of a specific process and take corrective actions as required.

- View error details for an employee by drilling down to the messages and reviewing the cause for the errors.
- Identify employees with rolled-back records and ensure that the employee records are processed before moving onto the next downstream task in the process.
- Identify employees marked for retry so that they're not left out. For example, after you have started the payroll run, you come to know that a few employees are eligible for a bonus or an extra raise. You identify these employee records and mark them for retry. After the process is completed, check the run results to ensure that the records marked for retry are processed. The employee reports should reflect receipt of the extra bonus or pay raise.
- Drill down to the Output and Log Files section and view the employee-level output, such as the employee's statement of earnings or the payslip, to check if the corrections you made in their records reflect correctly.
- Use the View Log column in the Output and Log Files section of the Process Results Details page to view the number of log files generated by a submitted process. Click on the log file name to view and download the log file and the attachments. You can only view and download log files returned by the processes that you have submitted or have permission to view.

Record Counts

View at a glance the number of records by status for a given process in the Process Results Details page. The number of records for each status is shown at the top of the page.

This table lists the status tiles of the records and their respective meaning.

Status	Meaning
Total	Sum of all the other statuses and also indicates the total number of records.
Failed	Total number of records in error. Use this tile to navigate to the Errors and Warnings page and view the details of the failed records.
Pending	Total number of records that are pending and have a status of 'Marked for Retry' or 'Not Started'.
Ignored	Total number of records that are skipped or retroactively added to the process.
Success	Total number of records processed successfully.

Status	Meaning

Note: In some cases, the Status Tiles aren't displayed. This depends on the type of processes and their statuses. Messages are displayed to inform you about this.

Use the **Refresh** button to refresh the number of records displayed for each status tile while the flow is in process.

Multiple Log Files

The Output and Log Files section of the Process Results Details page displays the log files generated for the process. The View Log column displays the log file name.

The process results page displays any sub-processes generated by the process such as child process results. Each sub-process result has a numeric, process identifier. The View Log column also displays the number of log files generated for each sub-process. Click on the log file name to view and download the log file and the attachments. In case the process generates multiple log files, the log file name displays a number with the name. Click on the number against the log file name to view the individual log files.

If the log file name doesn't display a number, it means that only a single log file is generated for the process.

You can only view and download log files returned by the processes that you have submitted or have permission to view.

Person Process Results

The Person Results page provides details of all the processes run for an employee. Use this page to view the reports of an employee, such as Statement of Earnings, or employee's payslip.

Navigate to **Payroll** in **My Client Groups** from your Home page and click **Person Results** under the Flow Submission and Results section. The Person Results page opens.

All payroll results are captured at the payroll relationship level. Search for a person and select an assignment number. The Person Results page displays the results for the payroll relationship associated with the selected assignment.

The page displays results of all completed processes, details of pending and rolled-back processes aren't shown.

The type of report output is dependent on the process run for the employee and the process you select to view the details. For example, select Calculate Payroll or QuickPay to view the details of the employee's Statement of Earnings. Similarly, select Archive Results to view the archived payslips or other personal details of the employee.

Use the **View By** field on the Person Results page to filter and view process results by:

- Process, to view the process results for a person by a process, such as payroll run, prepayments, or retroactive pay results. You can also drill down to the person record and view the Statement of Earnings of the person.

- Report, to view the person results by a report, such as the payment summary report, to view the payments made for the person. You can view the process results by payroll objects, for example, view the results by the PAYROLL_REL_ACTION_ID in the Payroll Activity Report.

Search for a person and use the **Process Date** field to filter and view the results of the selected person for a specific date range. You can now drill down to a detailed process, for example, the person's Statement of Earnings, and then navigate back to the Person Results page. When you navigate back to the page, the process date range you used for filtering the results, remains unchanged. However, if you now use the switcher at the top of the page to view the person results by report and then navigate back to the Person Results page to view results by process, the process date displays the default value. The date range you selected isn't retained and you have to reset the date range again.

Note: The Process Date displays by default last 30 days period. You can also review the messages report to identify and correct errors. You can then roll back or mark for retry a process or reverse the process.

Process Date

Search for a person and use the **Process Date** field to filter and view the results of the selected person for a specific date range. Drill down to a detailed process, for example, the person's Statement of Earnings, and then navigate back to the Person Results page. When you navigate back to the page, the process date range you used for filtering the results, remains unchanged. However, if you use the switcher at the top of the page to view the person results by report and then navigate back to the Person Results page to view results by process, the process date displays the default value. The date range you selected isn't retained and you have to reset the date range again.

Note: The Process Date displays by default process results for the last 30 days period.

You can also review the messages report to identify and correct errors. You can then roll back or mark for retry a process or reverse the process.

Payroll Activities

Use the filter option on the Person Process Results page to filter and view the process result details by payroll activities. The filter option helps you to quickly access and view results of a specific process you are interested in, thereby saving time and improving efficiency. This table lists the payroll activities you can filter on to view the process results.

Payroll Activities on Person Process Results

Payroll Activities	Processes it Includes
Calculation	All payroll run results, such as QuickPay, Payroll Runs, Reverse Payroll Runs and so on.
Accounting	Costing results.
Payments	All payment results, such as prepayments and so on.

Note: HCM Extracts processes are not listed on the Person Process Results page.

All the three payroll action type filter options are selected by default. To view all the results, deselect all the three filter options. Other process results such as statutory activities, for example, the End Of Year Archive, are then displayed.

The Person Process Results page lists processes that are 30 days prior to and 30 days after the process date.

Errors and Warning Messages

Use the Errors and Warnings Messages page to view messages pertaining to persons or processes. You can access this page from the Process Results Summary, Process Results Details, or the Checklists pages.

Access this page by clicking on the number of errors displayed on the top of the Process Results Details page. You can also access this by clicking on the Messages task action against a person record on a page. Use the person messages to analyze person errors and make corrections on person records.

The page displays these two type of messages:

- Person level messages specific to a person.
- Process level messages specific to a process such as process failure messages.

A message is displayed only on one of these views. For example, a message can't be displayed on the person message page and also on the process message page. You can sort the messages by the message code and person name or process name as applicable.

Payroll Messages Report

Run the Payroll Messages Report to view error, warning, and information messages from payroll processes. Generate the report for a specific flow or for all processes within a specific period.

For example, run the payroll messages report to view errors and warnings for all QuickPay runs for the last month.

The report can be run by a Payroll Administrator or Manager who has security access to the payroll flow pattern for which the report is generated.

Report Parameters

The parameter values determine which records to include in the report. The following parameters have special meaning in the context of this report.

Process Start Date

Use this field to specify the first effective date of the payroll process to include in the report. All processes with an effective date same or greater than the Process Start Date are reported.

Process End Date

Use this field to specify the last effective date of the payroll process to include in the report. For Payroll Runs this is the 'Payroll Run Date'. All processes with an effective date equal to or prior to the Process End Date are reported.

Task Name

Select a task, such as Payroll Activity Report, to view the messages generated for a specific task.

Process Type

Select a specific process type such as Payroll Run to limit your report for a specific process type.

Source Flow Name

Select the name of the flow for which you want to generate the messages report.

Payroll

The name of the payroll flow you use to run this report.

Payroll Relationship Group

Select the payroll relationship group name, if you have defined one. A payroll relationship group limits the persons included in this report.

Person

Select the name of the person for whom you want to generate the messages report.

Include Information Messages

Select **Yes** to include information messages. Since the volume of information messages is high, it's recommended that if you want to view information messages, you generate the report for a specific person or process. The default value for this field is **No**.

Person Process Status

Select a value to include only those persons with a specific processing status, such as persons **In Error**, or persons **Marked for Retry**.

Process Configuration Group

Use this field to run the report for a specific process configuration group, instead of the default one. A process configuration group is used to set rules for payroll processes, such as passwords or number of threads. You can select a value only if you have a predefined process configuration group.

Note: Use the Payroll Process Configuration task to define a Process Configuration Group, before you can use it here.

Run Mode

Use this parameter to decide if the extract-based report must retain or discard the transient data created during the report execution. The default value is **Normal**, the temporary transient data produced during report execution is discarded.

Report Results

The report is generated in Excel format with separate worksheets for these two types of messages:

- Person level messages, such as error messages generated when reporting or processing a person.
- Process level messages, such as messages generated for process failures or execution errors.

After addressing the root causes, you can rerun the payroll process and regenerate the report to ensure all issues are resolved.

As a good practice, it's recommended that you use the Sort By (Z to A) option on the Messages page to sort and quickly view at a glance specific messages as per your requirement.

Sort the report using the Line Sequence field to view the order in which the messages are generated. This helps you to track when in the process the message was generated. You can then investigate and resolve issues effectively.

Similarly, use the Filters option to filter and view messages as per your requirement.

Each message has a message name and message text. Samples of messages are:

- Error Message: Formula Salary can't be executed because the formula isn't compiled.
- Warning Message: Net pay exceeds 10,000.

The report for person level messages also includes the payroll relationship number and assignment number of the person for whom the report is generated.

- A person can have multiple payroll relationships, but each payroll process is associated with a single payroll relationship and hence the messages for a payroll process is identified with the specific payroll relationship number.
- Some messages can be specific to an assignment such as a formula issue for a salary element entry and hence is identified by the assignment number.

Errors and Warnings Report for Calculate Payroll Process

Submit the Calculate Payroll flow and access the automatically generated Errors and Warnings messages CSV file from the Output and Log Files section of the Process Results Details page.

After you submit the Calculate Payroll flow, navigate to the Process Results Details page from the Checklist or Summary Results page and access the CSV file from the Output and Log Files section. You can view the errors and warnings messages CSV file and take corrective action for the flow.

Use the **Auto Generate Errors and Warnings File** action parameter to choose whether you want to generate an errors and warning messages file. Create this parameter in the default group and set it to **Y**, so that the errors and warnings messages file is generated automatically after you submit the Calculate Payroll flow.

The format of the CSV file name is

FLOWINSTANCE_TASKNAME_Error_Warning_PROCESSID.csv.

The file has these columns:

- Message Level: The type of message; Error (Failure) or Warning message.
- Message ID: The ID of the warning or error message.
- Source Type: The object that triggered the message.
- Line Text: The text of the error or warning message.
- Person Number: The ID of the person included in the report.

This table lists the objects that can trigger a message and the relevant code in the file.

Object Name	Code
Assignment Action	A

Object Name	Code
Batch Control Level	C
Batch Header Level	H
Batch Line Level	L
Payroll Action	P
Flow Task Exception	R
Element Template Exception	T

The file is generated only if the flow has error or warning messages. It doesn't include information messages.

After you review the error and warning messages, take corrective action, and resubmit the flow, a new output file is generated if errors still persist. If there are no errors, no output is generated.

Import and Load Data Page

After you submit a Data Loader type of flow pattern, for example, Load Batch from File or Initiate Spreadsheet Loader flow, you can view the loader process results on the Import and Load Data page in the Data Exchange area.

Submit the data loader flow from the Flow Submission page and drill down from the Checklist or Process Results Summary page to view the process results details on the Import and Load Data page. This is a View Only page and you can use the return arrow to navigate back to the Checklist or Process Results Summary page.

Use the View HCM Import and Load Results security privilege, so that you can access the Import and Load Data page in the Data Exchange area. With this new privilege you can view on the Import and Load Data page, the process results details of a flow that contains one or more tasks of the Data Loader or Reports type. You can only view the results for the data sets that you have submitted.

If you don't have access to the Data Exchange area, an error message is displayed when you click on the Data Loader process in the Process Results Summary page.

8 Flow Migrations

Considerations for Flow Migrations

Use the Export Setup Data and Import Setup Data processes to migrate payroll flows and the related setup data from one environment to the other.

For example, you have a unique payroll process requirement for which you want to configure a payroll flow pattern. Configure the flow pattern and set up the dependent payroll objects in the source environment first. Confirm that the flow runs successfully and meets the requirements, before you deploy it onto the target environment.

When you use the Export and Import Data Setup processes to migrate flows from one environment to another, both the source and target environments must be at the same release levels. The process includes these two steps:

1. Export a configuration package from a source environment to your local computer.
2. Import the configuration package from your local computer to the target environment.

Subsequent to the migration, if you make further changes to the original flow, you must repeat the process of migration. Incorporate the changes to the original flow in the source environment, verify that the changes work successfully, and then migrate the flow into the target environment.

Implementation Project

Create an implementation project, and create the setup objects required for your flow. For example, if you include a payroll report in the flow, you need to set up the balances, balance groups, and so on to run the report successfully within the flow. You may also need other related components for the flow, such as, formulas, parameters, value sets, and so on.

The tasks in your implementation project and their sequence determine the list of setup business objects whose data is exported and imported, and in which order.

Configuration Package

After you create the implementation project, you create a configuration package to generate the ordered list of business objects for export and import.

A configuration package is the medium used to move setup data from one environment to another. You create the flow pattern in a source environment, which is generally a test environment. The payroll flow you set up on the test environment includes several payroll tasks and you require the business objects associated with those tasks to successfully run the flow.

Along with the flow, you may want to export any dependencies such as formulas, reports, value sets, lookups, flow parameters, flow setup tasks, and so on. You create a configuration package to include all of these dependent components in the configuration package and export it simultaneously on to your local computer.

The configuration package also migrates any predefined roles and privileges. However, it doesn't support the migration of flow owner type and flow owner details at the flow level. You will have to update this flow information in the target environment after the migration is completed.

After you export the configuration package, download the package as a Zip file to your local computer, and then import the same Zip file into the target environment. Use the same setup data to run the flow in the target environment.

Offerings and Functional Area

When you create the configuration package, select the Offerings and Functional area as given here:

- Offerings: Workforce Deployment
- Functional Area: Payroll

Use this selection to limit the setup tasks and setup business data to a specific offering and functional area. Use the same values when you export and import the configuration package.

Scope

When you create the configuration package and select the Objects for Export, select the Payroll Flow Definition and select the created flow pattern name as the scope for the export process. The configuration package you create contains only the setup data that matches the Scope criteria you select. This limits the setup data you export.

User Role

You must have an Implementor role to create the setup business objects and an Administrator role to migrate flows.

For more detailed information on data migration refer to the Using Functional Setup Manager guide on the Oracle Help Center.

Related Topics

- [Migrate a Payroll Flow Pattern between Environments](#)

Migrate a Payroll Flow Pattern between Environments

This topic explains how you can migrate a flow from a source environment to a target environment.

For example, you have a unique payroll process requirement for which you want to configure a payroll flow pattern. Configure the flow pattern and setup the dependent payroll objects in a source environment first. Confirm that the flow runs successfully and meets therequirements, before you deploy it onto the target environment.

Perform these tasks to migrate flows between environments:

1. Create an implementation project
2. Setup requisite payroll objects to run the payroll flow pattern
3. Create the payroll flow pattern
4. Create the configuration package
5. Export the configuration package from the source environment to a local computer
6. Import the configuration package from the local computer to a target environment

Before you begin the migration, ensure that these tasks are complete:

1. Setup requisite payroll objects to run the payroll flow pattern
2. Create the payroll flow pattern

For more information on setting up payroll objects, refer to the Oracle Help Center and search for topics related to the specific payroll objects.

For more information on payroll flows, refer to the Administering Payroll Flows guide on the Help Center.

Create and Export the configuration package

Complete these steps to create a configuration package and export it to a local computer.

1. Sign In to the source environment.
2. Select **Setup and Maintenance** under the **Others** tab on the Home Page.
3. From the tasks list, select **Manage Implementation Projects**.
4. Click **Create** to create an implementation project, and enter the basic information.
5. Click **Next**.
6. Select **Workforce Deployment** as the Offerings to Implement and **Payroll** within Workforce Deployment to include in your implementation project.
7. Click **Save and Close**.
8. Navigate to **Setup and Maintenance**.
9. From the tasks list, select **Manage Configuration Packages** and click **Create**.
10. In the **Name** field, select the name of the implementation project you created in the previous task. This is the name of the source implementation project.
11. Select the **Setup task list and setup data** Export option. This allows you to export the flow pattern along with the related components used for the flow, such as, formulas, parameters, value sets, and so on.
12. Enter a **Name** and **Code** for the configuration package and click **Next**.
13. Select the **Objects for Export**. Ensure that you include all the dependencies for the flow such as payroll lookups, flow parameters, formulas, value sets, and so on.
14. Click the **Payroll Flow Definition** row.
15. Use the **Add** button to select and add a flow pattern **Scope** to the flow.

Select the flow pattern name you created previously as the scope for the export process. The configuration package you create contains only the setup data that matches the Scope criteria you select. This limits the setup data you export.

16. Click **Apply**, and then **Save and Close**.
17. Click **Submit**.
18. On the Manage Configuration Packages page, search for the configuration package you just created.
19. Click **Export Setup Data** and wait till the export process completes successfully.
20. To download the exported flow, click **Download** and select **Download Configuration Package** to save the Zip file for the exported flow to your local computer.

Import the Configuration Package to the Target Environment

You import the configuration from your local machine to the target environment.

1. Navigate to the **Setup and Maintenance** area under the **Others** tab on the Home Page.
2. From the tasks list, select **Manage Configuration Packages** and click **Upload**.
3. Click **Browse** to search and select the Zip file previously exported onto your local computer.
4. Click **Get Details** and then **Submit**.
5. Click **Import Setup Data** at the bottom of the page and wait till the import process completes successfully.

You can then use the Payroll Flow Patterns task and search for the imported flow pattern. Use the Submit a Flow task under Payroll to submit the flow.

Related Topics

- [Considerations for Flow Migrations](#)

9 QuickPay

Overview of QuickPay

Use the Calculate QuickPay task to submit a flow that calculates the run results for a person without waiting for the standard payroll run.

For example, use the QuickPay task to:

- Process new-hire or termination payments
- Pay people whose records you removed from the standard run for further processing
- Perform special payments
- Resolve localized problems with a payroll run that requires reprocessing

Navigate to **My Client Groups > Payroll** and use the **Calculate QuickPay** task to run the QuickPay for a person.

To use the single Calculate QuickPay task enable the ORA_UNIFIED_QUICKPAY_ENABLED profile option. For more details, refer 'How Can I Enable the Single Calculate QuickPay Flow' topic on the Oracle Help Center.

The single Calculate QuickPay task defaults to the QuickPay Simplified flow and takes you to the QuickPay Submission page.

You can also create a QuickPay flow as per your requirement and tag the flow as a QuickPay flow. If you wish to use this flow always, set this flow as the default. When you use the Calculate QuickPay task, you are defaulted to this QuickPay flow.

To use an alternate, delivered QuickPay flow, use the **Actions** menu on the QuickPay Submission page and select any of the listed flows. The flows you can select are as given in this table.

QuickPay Flows

Task Name	What it Does	When to Use
Simplified QuickPay	<p>Runs the QuickPay process and displays the Statement of Earnings. It includes tasks for calculating payroll run results.</p> <p>The Calculate QuickPay task defaults to this flow.</p>	Process all QuickPay actions from a single page.
QuickPay Payments	<p>Processes QuickPay and prepayments before displaying the Statement of Earnings. Tasks include:</p> <ul style="list-style-type: none"> • Calculate QuickPay • Calculate QuickPay Prepayments • View Statement of Earning 	Process all QuickPay actions and prepayments from a single page using a single flow.

Task Name	What it Does	When to Use
User-defined QuickPay flow	<p>Replace the default seeded QuickPay flow with a user-defined QuickPay flow pattern by adding your own user-defined QuickPay flow pattern. Include tasks as per your requirement.</p> <p>Note: For the flow to list within the Actions menu, you must tag the flow as a QuickPay or QuickPay with Parameter flow on the flow setup page.</p>	Schedule the QuickPay flow as per your requirement.

The Calculate QuickPay task defaults to the QuickPay Simplified flow. To change the default flow to any other flow, use the ORA_PAY_DEFAULT_QUICKPAY_FLOW profile option. For more details, refer 'How Can I Configure the Default QuickPay Flow' topic on the Oracle Help Center.

The Calculate QuickPay task takes you to the Person Search page. Use the single-search option on the Person Search page and search for the person for whom you want to process the QuickPay.

The Effective As-of Date defaults to the current date. If you want to process the QuickPay for a specific payroll period, enter a specific **Effective As-of Date** on the Person Search page. Based on the person you select and the effective date used for the search, the QuickPay process displays a single page with the person's payroll, the date earned, process name, and process date defaulted automatically.

Before you submit the QuickPay flow, you can review the person's element entries on the QuickPay Submission page and include or exclude the element entries as required. You can use the filter options to narrow your search to a specific element. Time and absence entries are in read-only mode and you can't update the details.

After you submit the QuickPay successfully, you can view the employee's Statement of Earnings.

Examples of the QuickPay Process

Let's look at some examples to understand when you can run the QuickPay flow.

The first three examples uses QuickPay to make payments outside the regular payroll run, and the last example verifies payments before the actual payroll run.

Pay Separate Check for Employee Bonus

You want to pay an employee special incentive bonus separately from the regular pay. The employee doesn't want any voluntary deductions, such as charitable donations or retirement fund contributions, taken from the bonus pay. Use the Element Entries task and add the bonus to the employee's element entries. Select Calculate QuickPay from the Actions menu, and specify these settings:

- In the Details section, select **Supplemental** as the Run Type.
- In the Element Entries section, deselect element entries for all voluntary deductions.

Pay New Hire After Payroll Cutoff Date

A new hire joins the company on the 25th of the month, but the new hire process doesn't complete until the 28th. By that time, you have processed the monthly payroll and issued payments. To avoid delaying the person's pay until the

next month, use the QuickPay Payments task, submit a QuickPay calculation, and make an external payment. Normal processing of the employee's pay resumes with the next payroll cycle.

Pay Terminated Employee

HR terminates an employee in the middle of a payroll period. HR requests that you process and pay the person immediately. Update the employee's payroll information. Use the QuickPay Payments task to submit a QuickPay calculation, and make an external payment for the employee's final pay.

Verify Bonus Payment Amounts Before Running the Main Payroll

Before processing bonus payments in the next payroll run, you want to verify the run results. Submit a QuickPay process for a few employees and review the results, then roll back the QuickPay calculation.

1. Submit the QuickPay process.
2. When the QuickPay calculation completes, verify the results to confirm that the bonus amount and deductions are calculated correctly. Don't click **Mark as Complete**.
3. Select the verification task in the checklist. Select **Roll Back** from the Action menu.
4. Select the QuickPay task in the checklist. Select **Roll Back** from the Action menu.
5. Submit the regular payroll to recalculate this person's run results and to generate payments.

Use this scenario if you change an employee's payroll information, such as adding a new deduction or updating the tax code, and want to validate the change before the next payroll run.

How Can I Enable the Single Calculate QuickPay Flow

To use the single Calculate QuickPay task, enable the `ORA_UNIFIED_QUICKPAY_ENABLED` profile option at the Site or User level. Use the Manage Administrator Profile Options task in the Setup and Maintenance area to enable the profile option.

1. Navigate to the Setup and Maintenance area and search for the **Manage Administrator Profile Options** task.
2. On the Manage Administrator Profile Values page, search for and select the **ORA_UNIFIED_QUICKPAY_ENABLED** profile option.
3. In the Profile Values section, click **Add**.
4. Specify the level at which you want to set the profile value. You can select either Site or User.
 - o If you select **User** as the profile level, select the **User Name** and select **Yes** in the associated **Profile Value** field.
 - o If you select **Site** as the profile level, select **Yes** in the **Profile Value** field if you want to enable the profile option for the entire site of deployment.
5. Click **Save and Close**.

Sign out and sign in again for the changes to take effect. If you do not enable this profile option you will see the QuickPay Simplified and QuickPay Payments tasks and you can't access the single Calculate QuickPay task.

How Can I Configure the Default QuickPay Flow

The Calculate QuickPay task defaults to the QuickPay Simplified flow. Use the `ORA_PAY_DEFAULT_QUICKPAY_FLOW` profile option to set an alternate QuickPay flow as the default. Select either a seeded QuickPay flow or your own user-defined QuickPay flow as the default flow.

Use the Manage Administrator Profile Options task in the Setup and Maintenance area to enable the profile option. Enter the `ORA_PAY_DEFAULT_QUICKPAY_FLOW` profile option and choose the QuickPay flow you want to set as the default flow. If you don't enable this profile, the QuickPay Simplified flow is shown by default. Define the profile option at the Site or User level.

1. Navigate to the Setup and Maintenance area and search for the **Manage Administrator Profile Options** task.
2. On the Manage Administrator Profile Values page, search for and select the **ORA_PAY_DEFAULT_QUICKPAY_FLOW** profile option.
3. In the Profile Values section, click **Add**.
4. Select **Site** as the profile level to enable the profile option for the entire site of deployment.
5. Use the drop-down list in the **Profile Value** field to select the flow you want to set as the default flow.
6. Click **Save and Close**.

Sign out and sign in again for the changes to take effect. Now when you use the Calculate QuickPay task, you are defaulted to the QuickPay flow you have enabled as the default flow.

QuickPay Flows

Working with QuickPay Flows

Create a QuickPay flow to include additional tasks as per your requirement. For example, create a QuickPay to Payslip flow to process QuickPay and prepayments, and then generate the payslip to make payments.

Use the Payroll Flow Patterns quick action under Payroll from My Client Groups on your Home page, to create a flow and add the requisite tasks to the flow as per your requirement.

Flow Pattern Type

When you create your own QuickPay flow, use the **Flow Pattern Type** field on the flow setup page to set the flow as either of these:

- QuickPay
- QuickPay with Parameters

Note: These options are available only for user-defined flows you set up at the enterprise level. You don't select an LDG for the flow at the time of creation of the flow.

Select the QuickPay with Parameters option if you include tasks that have additional parameters other than those available on the delivered QuickPay Submission page.

The parameters available to you is dependent on the tasks you include in the QuickPay flow. For example, you must include the payment-related tasks of prepayments, check payments, or EFT payments for the QuickPay Submission page to display payment-related parameters of payment methods, payment source, and so on.

Actions Menu

When you select QuickPay or QuickPay with Parameters option as the Flow Pattern Type for a flow, the flow is available for you to set as the default flow.

The Calculate QuickPay task defaults to the QuickPay Simplified flow. Use the **Actions** menu on the QuickPay Submission page to select and submit an alternate QuickPay flow to the one defaulted by the Calculate QuickPay task. Select a flow that you want to submit without navigating away from the QuickPay Submission page.

Note: For a flow to list within the Actions menu, you must tag the flow as a QuickPay or QuickPay with Parameter flow on the flow setup page.

Parameter Input Page

If any of the added tasks in your QuickPay flow have additional parameters other than that included on the QuickPay Submission page, select the **QuickPay with Parameters** option on the flow setup page.

When you set this user-defined flow as your default flow and submit the flow, the application automatically displays the Parameter Input page first for you to define the additional task parameters. The QuickPay Submission page displays subsequently.

Note: If you don't select the **QuickPay with Parameters** option on the flow setup page, the Parameter Input page doesn't display when you submit the flow.

Key Parameters

When you set up a user-defined flow as a QuickPay flow, set these two parameters as the key parameters for the flow:

- Effective Date
- Payroll Relationship

If you don't set these two parameters as the key parameters, the flow setup fails and generates an error.

Flow Status

Set the flow as **Active**. Flows that are inactive, hidden, or created at an LDG-level aren't listed on the QuickPay submission page for you to select. You can only select and submit enterprise-level flows.

Process Configuration Group

Use the **Process Configuration Group** parameter to select a process configuration group of your choice when submitting a QuickPay.

- If you don't make a selection, the process configuration group value defaults to what you have set using the ACTION_PARAMETER_GROUPS profile option.
- However, if you haven't set the profile option and the field is left blank, then it defaults to the default group for the QuickPay process.

Enable Payroll Background Process

The payroll background process runs continuously to handle periodic requests for processing. To enable the payroll background process for QuickPay, edit the **Pay Daemon Group** action parameter group and set the 'Enable QuickPay Daemon' to **Y**.

Enable Logging

To facilitate process diagnostics of the QuickPay process, submit the QuickPay with the **Upload logs for Payroll Background Process to the UCM server** action parameter set to **Y**. When you enable logging and submit the QuickPay flow, the application creates files to capture additional payroll processing information. These files are stored on the server.

Subsequently, you can review these files and analyze the data for diagnostic purposes.

For more information on enabling logging, refer the 'Enable Logging in Payroll Flows' topic on the Oracle Help Center.

Note: For an existing user-defined flow that includes the QuickPay task, remove the task and add the task back into flow. This ensures that the QuickPay flow submission page displays the **Process Configuration Group** parameter.

How Do I Create a User-Defined QuickPay Flow Pattern

This example demonstrates how to create a user-defined QuickPay flow to process the QuickPay for a person and generate the payslip and check payments.

Use the Payroll Flow Patterns quick action under Payroll from My Client Groups on your Home page, to create a QuickPay to Payslip flow and add these tasks to the flow.

1. Calculate QuickPay
2. Calculate Quickpay Prepayments
3. Verify Payments
4. Archive Periodic Payroll Results
5. Generate Payslips
6. View Payslips
7. Generate Check Payments

Follow these steps to create a user-defined QuickPay flow pattern.

1. Use the **Payroll Flow Patterns** quick action under Payroll from My Client Groups on your Home page.
2. Click **Add** and select **Continue**.
3. Enter these details on the Create Payroll Flow Pattern: Basic Information page.

Fields for creating a QuickPay flow pattern

Field	Value
Flow Pattern	Enter a meaningful flow pattern name.
LDG Required	No
Flow Status	Active

Field	Value
Connector Status	Task Flow
Flow Pattern Type	QuickPay with Parameters

Select QuickPay with Parameters as the Flow Pattern Type because the Generate Check Payments task requires the additional payment sources information which is not part of the QuickPay Submission page.

4. Select **Activities to Include**. Select **Payments and Payroll Calculation**.
5. Select the tasks sequentially, based on the order in which they should be run.
6. Click **Next**.
7. Select each task and define the owner and notifications.

Note: Select the 'Process After Error' check box for the Generate Check Payments task so that the QuickPay flow is not stalled and it completes to generate the payments and the payslip.

8. Click **Next**. Review the tasks sequence and make changes if required.
9. Click **Next**. Select parameters that apply when submitting the flow. Set these two parameters as the key parameters for the flow:
 - o Effective Date
 - o Payroll Relationship
10. Click **Next**. Specify the task parameter details. The application references the parameter basis when determining the parameter's default value.
11. Click **Next**. Review the flow and use the **Back** button if you want to make changes to any of the previous sections.
12. Click **Submit** and submit the flow.

After you submit the QuickPay successfully, you can see the employee's Statement of Earnings.

How QuickPay Is Processed



Watch video

Follow these steps to run a simplified QuickPay, add a referral bonus, and verify payment calculations.

1. Navigate to **My Client Groups > Payroll** on the Home page, and select the **Calculate QuickPay** task.
2. Use the single-search option on the Person Search page and search for the person for whom you want to process the QuickPay. Based on the person you select and effective date used for the search, the QuickPay process displays a single page that populates parameters, such as the person's payroll, date earned, and flow name.
3. The Effective As-of Date defaults to the current date. Enter a specific **Effective As-of Date** if you want to process the QuickPay for a specific payroll period. The payroll period defaults from the date you use for person search.
4. By default, the delivered QuickPay flow uses the default consolidation group that's assigned to the payroll. To change this value, use the **Consolidation Group** parameter.

The payroll and period name is derived from the effective date, and based on the effective date the date earned, and process date are automatically defaulted.

5. Select the **Select All** checkbox if you want to process all the elements for the selected employee. Optionally, you can select elements you want to process by selecting the specific element checkbox.
6. Click **Show Filters** and then **Expand All** to view and select any of the filter options to narrow down your search and select the elements.
7. Follow these steps to add a referral bonus.
 - a. Click **Search** on the **Element Name** field.
 - b. In the Element Name field, enter **Referral**.
 - c. Click **Search**.
 - d. In the Search Results, click **Referral Bonus HC**.
 - e. Click **OK**. You can now see the details of the assignment the element is assigned to.
8. Click **Continue**.
9. Enter the referral bonus amount in the **Amount** field.
10. Enter an **Effective End Date** only if it's a recurring element. Since this is a nonrecurring element, the Effective End Date is automatically populated because it only runs for this one pay period.
11. Click **Submit** to submit the QuickPay.

After you submit the QuickPay successfully, you can see the employee's Statement of Earnings, which shows the period the referral bonus was processed, the start and end date, and the payroll that it was run for.

12. Click **Show Details** to view the earnings breakdown of the employee, including the referral bonus you just entered.

You can now run additional processes such as the calculate QuickPay Prepayments, Archive, Payslip, and if I wanted to pay the employee by check, the Check Writer process.

How Do I Submit a QuickPay Flow to Correct a Payroll Calculation Error

This example demonstrates how to submit a QuickPay flow for an employee to correct a calculation error that occurs in the main payroll run.

In this scenario, you complete the payroll calculation but not the prepayments calculation for the weekly payroll run. HR informs you that an employee took unpaid leave earlier in the month. You roll back the employee's payroll calculation to remove the person from the payroll run, and continue processing the weekly payroll and issue the payments. When you receive details about the leave from HR, you update the employee's records. You submit a QuickPay process to calculate the payroll run and prepayments for the employee, and to process an external payment.

Use a QuickPay flow that has these tasks:

1. Calculate QuickPay
2. Verify Payroll Results
3. Calculate QuickPay Prepayments
4. View Prepayments Results
5. Make External Payments
6. Verify Payments

Here's the list of tasks to submit a QuickPay flow for an employee to correct a calculation error in the main payroll run.

- Roll back the employee's payroll run results.
- Submit a QuickPay process.

- Calculate and verify payroll run results.
- Calculate and verify prepayments.
- Make an external payment and verify the payment results.

Roll Back and Correct Data

1. Before calculating payments for the main payroll run, roll back the employee's run results.
2. Complete the weekly payroll run.
3. Make the necessary corrections in the employee's payroll or HR data.

Submit the QuickPay Flow

1. Select the **Calculate QuickPay** task on the Payroll page.
2. On the Person page, search for and select the employee.
3. On the QuickPay Submission page, optionally, override the payroll flow name with a more meaningful one. Verify the remaining information.

The Element Entries section refreshes to display all element entries that the QuickPay flow processes. Ensure that the process includes all element entries.

4. Click **Submit**.
5. Click **Refresh** until the Calculate QuickPay task is complete.
6. Click the **Verify Payroll Results** task in the checklist.
7. On the View Person Process Results page, click the person's name in the Search Results.
8. In the Statement of Earnings section, verify the information in each of the Quick Reference Summary tabs.
9. Click **Done** to return to the QuickPay process.
10. Click **Mark as Complete**.

Calculate and Verify Prepayments

1. Click the **Calculate QuickPay Prepayments** task in the checklist.
2. In the Prepayments section, optionally, select an organization payment method and payment source.
3. Click **Submit**.
4. Click **Refresh** until the Calculate QuickPay Prepayments task completes.
5. Click the **View Prepayments Results** task in the checklist.
6. On the View Person Process Results page, click the person's name in the Search Results.
7. Verify the prepayment results, including the payee, payment method, payment source, and payment amount.
8. Click **Done** to return to the QuickPay process.
9. Click **Mark as Complete**.

Make External Payment and Verify Payment Results

1. Click the **Make External Payment** task from the checklist.
2. In the External Payments section, select the payment and then select **Make Payment** from the Action menu.
3. Enter a check number and the reason you are generating the check externally. Click **OK**.

The application marks the payment as Paid. This status prevents a payment process that would normally pick up this payment from processing it again.

4. Click **Mark as Complete**.
5. Click the **Verify Payment** task in the checklist.

6. On the View Person Process Results page, click the person's name in the Search Results.
7. Verify the payment results. Click **Done** to return to the checklist.

The payment results shown here should match the prepayment results you verified earlier.

8. Click **Mark as Complete**.

Consolidate QuickPay Results

Use the consolidation group parameter to consolidate multiple QuickPay runs and QuickPay Prepayment runs to meet these requirements.

- Combine the results of multiple QuickPay runs into a single post processing task to generate payslips, payments, and reports.
- Combine the results of payroll and QuickPay runs into a single post processing task to generate payslips, payments, and reports.
- Ensure separate post processing for the payroll and QuickPay runs.

Note: The payroll, QuickPay, and QuickPay Prepayment runs must be run for the same payroll.

By default, the delivered QuickPay, QuickPay Prepayments, and the Simplified QuickPay flow uses the default consolidation group that's assigned to the payroll. To change this value, use the Consolidation Group parameter while defining parameters for the QuickPay flow.

Related Topics

- [Consolidation Groups for the US](#)

Disable Notifications for QuickPay Flows

Use the **ORA_PAY_QP_ALLOW_WORKFLOW_NOTIFICATION** profile option to disable automatic flow notifications for the seeded QuickPay flows.

Use the Manage Administrator Profile Options task in the Setup and Maintenance area to set the profile option to **No**. By default the profile option is set to **Yes** and automatic flow notifications are enabled for the seeded QuickPay flows.

Note: You can manage flow notifications only for the seeded QuickPay flows. You can't use this option on user-defined QuickPay flows.

Navigate to the Setup and Maintenance area and search for the Manage Administrator Profile Options task.

1. On the Manage Administrator Profile Values page, search for and select the **ORA_PAY_QP_ALLOW_WORKFLOW_NOTIFICATION** profile option.
2. In the Profile Values section, click **Add**.
3. Select **Site** as the profile level to enable the profile option for the entire site of deployment.
4. Use the drop-down list in the Profile Value field and select **No** to disable the QuickPay notifications.
5. Click **Save and Close**.

Sign out and sign in again for the changes to take effect. Now when you use the Calculate QuickPay task, you don't see nor receive any notifications for the QuickPay flow.

Troubleshoot QuickPay Flows

Here's a list of likely issues when using QuickPay flows and their possible solutions.

Troubleshoot QuickPay

Problem	Solution
<p>Error when you select a flow using the Actions menu on the QuickPay Submission page.</p>	<p>Verify the following:</p> <ul style="list-style-type: none"> • If you have set up the user-defined QuickPay flow as the default. • If you have access to the QuickPay flow. • If the QuickPay flow is inactive.
<p>Can't find the user-defined flow in the Actions list on the QuickPay Submission page.</p>	<p>Verify the following:</p> <ul style="list-style-type: none"> • If you have selected either QuickPay or QuickPay with Parameters option in the Flow Pattern Type field on the flow setup page. • The flow isn't inactive or hidden. • The flow is an LDG-level flow. <p>Only flows created at the enterprise-level can be set up as a QP flow.</p>
<p>You can't switch to another flow.</p>	<ul style="list-style-type: none"> • An automatic task within a flow is in progress; wait for the flow to complete. • Check if the flow is in completed status.
<p>Parameter Input page doesn't display.</p>	<ul style="list-style-type: none"> • Select the QuickPay with Parameters Flow Pattern Type on the flow setup page. • Set the QuickPay flow as the default flow.

