Oracle Fusion Cloud Global Payroll

How do I submit and monitor payroll flows?

FA Latest

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1 Introduction

Scope

Use this playbook to understand how you can schedule and submit payroll flows. After you submit a flow, understand how you can monitor the status of the flow and take corrective actions if required.

Before you use this playbook, refer the 'How do I set up payroll flows' playbook on the Oracle Help Center to understand the basic concepts of payroll flows and how you can create flows to suit your business requirements.

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	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**. 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.
Checklist	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. Use the **Actions** menu on the Checklist page, to take an action on a flow, 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.
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	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. Once you resolve all issues, navigate back to the Checklist page to continue processing any remaining tasks within your flow.
View Flows	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. Navigate to View Flows task from Quick Actions or under **Payroll** in **My Client Groups**.
Payroll Dashboard	Use the payroll dashboard to view and monitor the status of submitted flows that are in progress. The payroll dashboard has separate sections to view the items requiring your attention and view details of flows that are in progress. You can also drill down to the payroll checklist and view details of a specific flow.

Page Name	Tasks You Can Do On the Page
Payroll Activity Center	Use this page to view flows in the context of a particular LDG, payroll, and payroll period. It displays the status of all flows that include one or more of the milestone payroll processes.

2 Schedule Flows

Understanding Flow Schedules

Use the **Schedule** option on the flow submission page to run the flow at your defined time and frequency. The default schedule is to submit a flow as soon as possible.

You can create a schedule to run the flow once or on a recurring basis at a predefined date, frequency, and time span that suits your business practices. Once scheduled, here's what you can do with flow schedules:

- Monitor status of scheduled flows
- Troubleshoot flow schedules
- Cancel scheduled flows

Monitor Status of Scheduled Flows

Use the **View Flows** and **Checklist** pages to monitor the status of scheduled flows. For example, if you have scheduled and submitted a flow, the scheduled flow displays in the **View Flows** and **Checklist** pages with a status of **Pending**. The flow displays the flow submission date as evaluated by the flow parameters, and not the actual dates that the flow is run.

This is because when a flow is scheduled, an instance of the flow is created and the application evaluates flow parameters, whereas, just before task execution, the aplication considers the task parameters.

Therefore, if you need to define a date parameter , for example, the flow submission date, to be set based on a defined value, you must define the value at the flow task level.

The status of the flow changes to **In Progress** only after the flow gets executed on a date as defined at the flow task parameter level.

Troubleshoot Flow Schedules

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

Cancel a scheduled flow depending on the frequency and status of the flow, as given in this table.

Frequency	Status	Available Actions
Once	Started	Skip
Once	Not Started	Cancel flow

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

Flow Scheduled Date

If you want the flow to run on the scheduled date, as specificed in the flow schedule, you must define the flow task date parameter as given here:

- Parameter Basis: Context
- Basis Value: System Date

  This ensures that the task considers the scheduled date as the task date parameter.

If you require an offset for the date, then define the task flow date as given here:

- Parameter Basis: Post SQL Bind
- Basis Value: Use an SQL to define the date

For example, if you want to set the Process End Date to 30 days after the Process Start Date, you must use an SQL to derive the Process End Date task level parameter. For example, define the Process End Date as follows:

- Parameter Basis: Post SQL Bind
- Parameter Value: `select PROCESS END DATE+30 from dual`

Submission of Scheduled Flows

If you plan to use the same flow pattern for a scheduled flow and also for adhoc submissions, the recommended practice is as follows:

- Use the original flow for adhoc submissions, where you can enter a date parameter value instead of using the schedule, and default the date defined at the task flow level.
- Use a copy of the flow if you wish to use the schedule and the date defaulting at flow task parameter level as per how you have defined the date.

Examples of Flow Schedules

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

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

Scheduling Options	Parameters to Set	Examples
Submit the current flow only	• Date • Optionally, time	Schedule a process that transfers time card entries for a weekly payroll.
Submit the current flow and future occurrences	• 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

You use a delivered report to extract monthly payroll data that requires you to enter a process date parameter. You schedule the extract to run monthly. The application evaluates the flow parameters at the time of submission, and the task parameters at the beginning of task execution.

For example, if you schedule a Gross-to-Net report to run monthly for a monthly payroll, you must complete the following tasks.

- Use the Schedule option to define a schedule and specify the flow frequency as monthly. Select the schedule Start Date and End Date. These dates indicate the timeline of the schedule. No submissions will be effected beyond the schedule End Date.
- Go to the task's Basic Information page and define the process date parameter for the report as given here.

Parameter	Value
Basis	Context Binding
Basis Value	System Date

These settings ensure that the dates increment appropriately.

Use Flow Schedule Formulas

Use the Fast Formulas page to create a scheduling formula to define a schedule to submit the flow at a predefined date, frequency, and time to suit your requirements.

Consider the following when you are creating or updating a schedule formula.

- Specify a meaningful name for the schedule formula so that the person using the formula can easily identify and select it.

- Review the formula to avoid negative numbers that can lead to an error condition, such as running a process continually.
- After you update the formula, cancel any scheduled flows that use the formula and then resubmit the flow to apply the updated schedule formula.

This table lists the database items 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.

This table provides details of the input variable 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. This table provides details of return value 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	`NEXT_SCHEDULED_DATE =ADD_DAYS(SCHEDULED_DATE,0.5)` **Note:** For accuracy, enter a value with at least ten decimal places. The formula text supports a maximum of 14 decimal places.
Hourly	`NEXT_SCHEDULED_DATE =ADD_DAYS(SCHEDULED_DATE,1/24)`

3 Flow Statuses

Understanding Flow Statuses

Use the Checklist or View Flows pages to monitor the status of flows or individual tasks within a flow. The actions available for a flow or flow task is dependent on the status of the flow.

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.

This table lists the available flow statuses and sub-statuses under each 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 stopped processing due to a critical ESS error.	Yes	Yes	Yes
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

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

A 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.

Flow Status Hierarchy

A task flow indicates a 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

Hierarchy Level	Status Group
3	In Progress
4	Corrected Processes
5	Pending
6	Completed

Task Actions

After you submit a flow, you can monitor the status of the flow from any of these three pages:

- Checklist
- View Flows
- Results Pages

For every submitted flow, the application generates a checklist by default. Use the Checklist page to monitor the status of tasks within the flow and take a task action.

Use the View Flows page to view the status of submitted flows that are in progress and require your attention.

Task Actions

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

Action	Description and Flow Impact
Skip	The process skips the task and continues with the remaining tasks within the flow.
Roll Back Errors	All records in error are rolled back and a payroll relationship group is created for the employees in error status. You can view the payroll relationship group to access employee records that have errors, correct data, and then resubmit the flow.
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".

Action	Description and Flow Impact
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 the owners of the flow task, and the user who submitted the flow, can take an action on a flow or flow task. Actions aren't available to other types of users.

Available Task Actions Based on Task Status

Use the **Actions** menu to view the actions available for a task based on its status. This table lists the 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	Yes	Yes	No	No	No	No
Force Resubmit	Yes	No	No	No	No	No

Action	Stopped with Critical Alerts	Completed with Alerts	In Progress	Corrected Processes	Pending	Completed
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.

- You can **Roll Back** or **Retry** a **Completed** task provided all the subsequent tasks in the flow have a status of Rolled Back or Completed.
- You can **Submit** a task that has any of the following status provided all previous tasks in the flow have a status of Completed.
    - On Hold
    - Mark for Retry
    - Roll Back

Task Actions Available on a Page

After you submit a flow, monitor the status of the flow from any of these pages:

- Payroll Checklist
- View Flows
- Process Results Summary

This table lists the actions available to you to monitor and take action on a flow from a page. Use the **Actions** menu to take any of these actions.

Task Actions on a Page

Action	Task or Task Flow	View Flows	Payroll Checklist	Process Results Summary
Skip	Both	Yes	Yes	No
Roll Back Errors	Task	No	Yes	No
Roll Back All	Task Flow	No	Yes	No

Action	Task or Task Flow	View Flows	Payroll Checklist	Process Results Summary
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

You can also perform the following actions on the pages as given in this table.

Actions on a page

Action	Task or Task Flow	View Flows	Payroll Checklist	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

Cancel Action

A process can get stuck and have an **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.

Use the **Cancel** action in the Checklist and Results Summary pages to cancel all the ESS threads of a flow task that are in **In Progress** status.

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

- **Completed with alerts** if some relationship actions have errors or are unprocessed.

- **Critical Alerts** if after cancellation none of the relationship actions are processed.

Only if you have the **ORA_PAY_SCHEDULED_PROCESSES_ADMINISTRATION_DUTY** duty role you can access and cancel ESS jobs for flows that you haven't submitted.

> **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 canceled.

4 Task Notification and Alerts

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.

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.

5 Submit and Monitor Flows

Considerations for Submitting a Flow

Use the Submit a Flow task to submit a flow, process, data load, or report from this single page. You can search for a flow pattern, enter flow parameters, and schedule the flow to run at your defined time and frequency.

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.

Consider the following when you use the flow submission page and submit a flow.

- Use the context switcher on the top of the page and select a Legislative Data Group (LDG) to view and submit flows for a specific LDG. If you leave this field blank the flow doesn't belong to any specific 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.
    - You can view all parameters, and enter values as required before the final submission of the flow.
    - View default parameters for a flow. For example, when you submit the calculate payroll process the process date and date earned parameters are defaulted based on the payroll period.
    - The parameters are grouped as **Required Parameters** and **Optional Parameters** for quicker and easy submissions.
- 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.
- 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.
- Use the **Schedule** option 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.
- If you have enabled logging, a message appears on the page 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. Before submission of the flow, either disable logging of the default group or select another process configuration group that doesn't have logging enabled.
- 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.

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.

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

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.

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.

Verify a Process

Use the Verify option on the Tasks tab of the Payroll Flow Pattern pageand enable the Verify option on a flow task so thatthe flow doesn't move onto the next task in the flow sequence, until this task is verified. For example, enable verify on the Calculate Payroll task to enable the payroll team to verify the payroll results before the flow automatically submits the payroll reports.

When this option is enabled, the flow considers the task as active until it's verified by a flow owner.

Once enabled, the Verify action is available for the task on the Checklists page. This option is available only on the Checklists page and only for completed tasks. The Checklists page displays a verification status message and for verified tasks, the details of the person who verified the task.

Note: This option is available for all processes only. This option isn't available for manual tasks.

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

The View Flows page lets you view and manage payroll flows, either within the context of the selected payroll period, or for all payroll periods.

In a result row, click the **horizontal 3 dots icon > View Flows** to navigate to the View Flows page that lets you view and manage payroll flows, within the context of the selected payroll period.

The Activity Center Flows page displays all flows that have generated results for one or more milestone processes, for the selected payroll period. You can drill-down to the Payroll Checklist page for further details on the individual processes within the flow, including accessing the process details.

Click the **View Flows** navigation tab at the bottom of the page to navigate to the View Flows page that lets you view and manage the payroll flows for all payroll periods.

Submit a Flow

Click the **Submit a Flow** button to navigate to the Flow Submissions page that lets you submit a payroll flow task.

Verify a Flow Task

Use the Verify option on the Tasks tab of the Payroll Flow Pattern page to ensure that a completed flow task is verified before the flow proceeds to the next task in the flow sequence.

The features of the Verify option is as given here.

- The Verify option isn't available for manual tasks. It is available only for completed tasks.
- Once enabled, the Verify action is available for the task on the Checklists page only. This option isn’t available on the Process Summary and Process Details pages.
- When this option is enabled, the flow considers the task as active until it’s verified by a flow owner.
- The verification status of a task doesn't impact the status of a process or report. For example, a task can have a status of 'Completed' and it can either be verified or pending for verification. The status of the task remains 'Completed' across all pages irrespective of the task being verified or not.
- The Checklists page displays a verification status message and for verified tasks, the details of the person who verified the task.

6 View Flow Results

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 identify 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 before 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've 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. Because the volume of information messages is high, it's recommended that 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.

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 high-level process statistics displayed at the top of the page. It displays the number of records included in the process and their status.
- Review the process analytics to check the total number of records processed, number of records that are processed successfully, records pending, records that have failed, records marked for retry, and so on.
- View list of all employees included in the process, if applicable.
- Use the **Parameters and Process History** tab to view the details of the parameters used to submit the process and view the process history. The process history details are used for audit purposes and to troubleshoot issues. It includes actions such as submit, rollback, mark for retry, retry, and so on.
- Use the **Logs** tab to view details of the processes and sub-processes included in the process. Use this data to troubleshoot processing errors.
- Use the **Attachments** tab to access all attachments for the process such as reports.
- Use the **Messages** tab to view messages related to the process or any of the sub processes.
- Use the **Payroll Checklist** option to navigate to the checklist page that this process was submitted by.
- Use the **Roll Back Errors** action at the process level to remove the results of all employees with an error status. You can use any of the options, as shown in this image, to include the rolled back employees in a payroll relationship group.
  When you roll back records that have errors, the application segregates and includes the rolled back records in a payroll relationship group. The application gives you the option to select either an existing payroll relationship group or create a new payroll relationship group or opt for the application to generate a group automatically. 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.
  After you have rolled back results for a process, navigate to the Payroll Relationship Group page and open the PR Group to view the rolled back records.
- Review the status of each individual employee record and perform actions as required.

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 prepaymentsand 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.

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
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.

7 Corrective Actions on Payroll Flows

Manage Corrective Actions in Payroll Flows

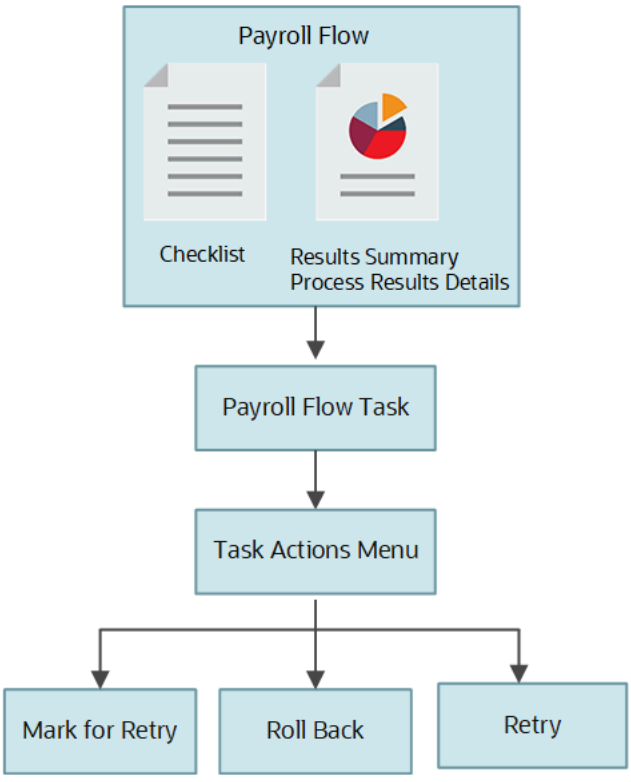
Before initiating corrective actions on payroll runs or payment results, consider whether the flow owners can correct individual records or tasks by using any of these options:

- 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.

The standalone corrective flows are being disabled or phased out so that users can only use the Actions menu at the task level to take a corrective action on a flow task or flow pattern.

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.

Payroll Flow Corrective Actions Using Security

Use the aggregate privilege, **Allow Corrective Actions on All Tasks Within Payroll Flows**, to give a user the ability to take actions on payroll flows they didn't initiate. This reduces the need to configure group ownership on each individual task when they need groups of users to manage flows, they didn't start.

This aggregate privilege is not granted to any predefined job role. Make a copy of the predefined job role and add the new aggregate privilege to the copied job role as required. When you use this aggregate privilege, the following applies:

- If both group ownership and security are defined for the same flow, both will apply.

- Group ownership already defined on flow tasks will not be impacted and will work as before.
- When granting access for corrective actions, restrict payroll flow security profiles to only the flows the users should manage, for example, separate calculation and payment flows, to limit scope.

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 canceled.

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 **Roll Back All** action in the checklist page is enabled only when the signed-in user can roll back at least one of the eligible tasks in the flow.

If a flow contains tasks owned by multiple owners some tasks might not be rolled back by the user performing the Roll Back All action. A message is displayed advising that not all tasks might be rolled back as there are multiple owners of the tasks within the flow.

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 roll back 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.

Roll Back Errors in a Payroll Flow

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.

Field	Description
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.

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.

Run a Report after the Process has 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.

8 Payroll Background Process

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 multithreading 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 multithreading for the payroll background process. This parameter indicates the maximum, total number of subprocesses 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 about 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.

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.

Dynamic Parameters

The flow parameters for the Payroll Background Logging and Monitoring flow are enabled as dynamic parameters. When you select the value for one parameter on the redesigned Redwood flow submission page, depending on the input value, the values for the other parameters on the page are automatically enabled or disabled.

The required or optional parameters for the flow are grouped together in a single section on the flow submission page, irrespective of whether they are required or optional. Depending on the value you select or enter for a parameter on the flow submission page, the other parameters on the page can change as either required or optional.

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 administer 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. 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.

Action	Description
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.
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.

9 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. Combine flows to consolidate payroll results for your business activities, such as reporting.

You 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 makes these 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	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. **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.
Consolidation Groups	Consolidation Groups **Note:** Assign the consolidation group to a payroll definition.	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.
Linked Flows	Flow Submission	Link a flow to another completed flow.

Points to Consider

This table lists the points to consider while combining flows.

Combining Payroll Flows

Question	Answer
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.

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
Archive Results and Check and EFT Results	Generate Payslips
Payment Results	Run Third-party Payment Register Report
Check and EFT Results	Transfer to SLA

10 Link Flows

Overview of Link 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.

Options to Link 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.

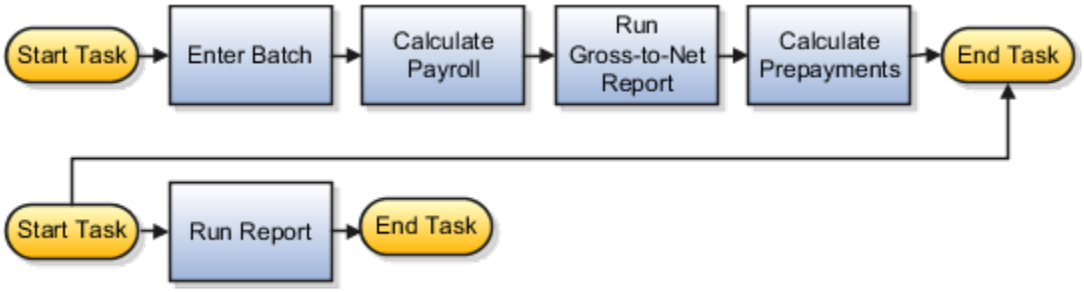
Your data security access controls which flows you can view and submit, and therefore, which flows you can link.

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.

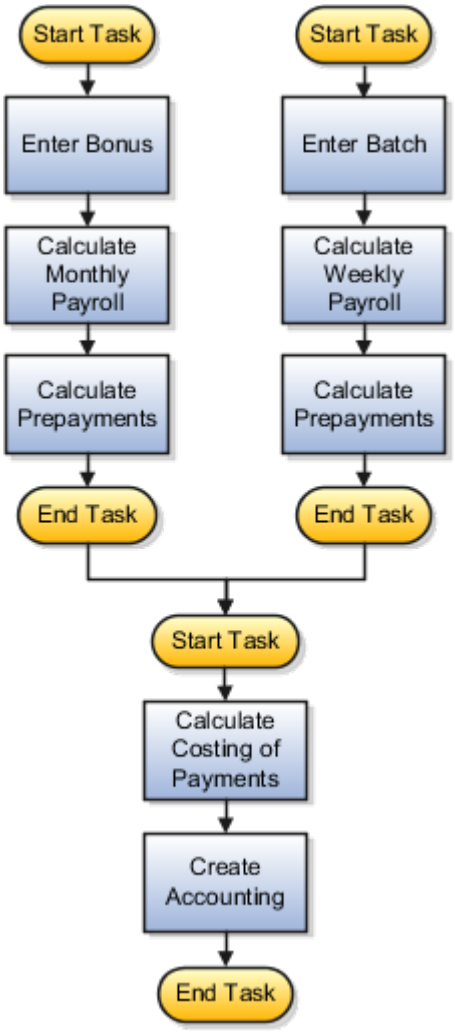
Link a Flow at the Beginning or End of Another Flow

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.

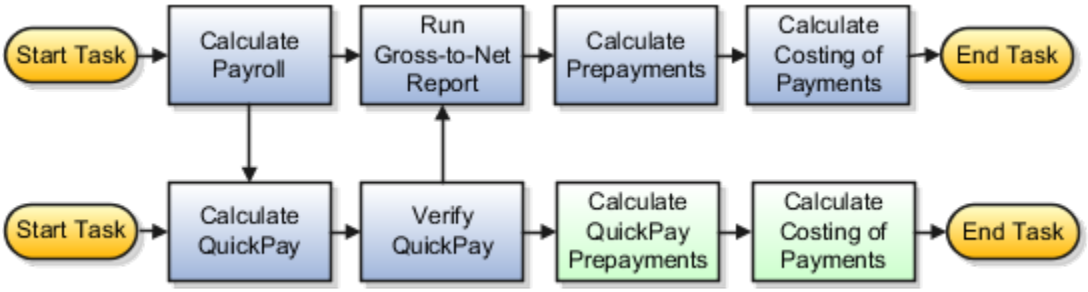
- You can do this to perform tasks in an activity, such as the payments or accounting activity.

- 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.

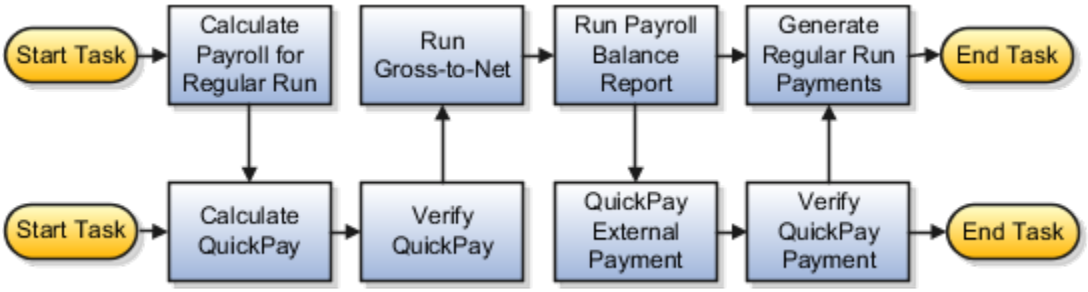
When you link flows, consider whether the submitted flow includes the same tasks as the active flow after the insertion point as given here.

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

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 to 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

Field	Value
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.

11 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	When a flow is marked as a task flow, it includes results from the tasks within the flow. • 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.	Select this option if you're using any of the options to combine flows, such as the flow connector.
Parameters Only	The flow automatically includes all results that meet the task parameters. Therefore, the flow connection feature can not add additional results.	Don't select this option if you're using any of the options to combine flows, such as the flow connector. **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.

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.

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.

Watch video

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.

12 Migrate Flows

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.

Migrate a Payroll Flow 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 the requirements, 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, see the Oracle Help Center and search for topics related to the specific payroll objects.

For more information on payroll flows, see 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 lets you 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.