

Oracle Fusion Cloud Global Payroll

**How do I configure HCM Extracts
for payroll balance reporting?**

FA Latest



Oracle Fusion Cloud Global Payroll
How do I configure HCM Extracts for payroll balance reporting?

FA Latest

G30454-02

Copyright © 2025, Oracle and/or its affiliates.

Author: Susan Saha

Contents

Get Help	i
<hr/>	
1 Setup Summary	1
Scope	1
Setup Approach	1
2 Understanding HCM Extracts for Reporting Employee Balances	3
Overview of HCM Extracts	3
Employee Payroll Balances and Run Results Extract Template	3
User-Defined Extract Definition	4
3 Create Extract Definitions	7
Create a Balance Group and Balance Group Usage for Employee Balances Reporting	7
Create an Extract Definition Using the Delivered Extract Template	8
Create Extract Data Groups and Records for Payroll Balance Reporting	10
Balance Dimensions and Attribute Contexts for an Extract Record	14
Create an User-Defined Extract Definition	17
Troubleshoot HCM Extracts for Payroll Balance Reporting	20

Get Help

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

Get Help in the Applications

Some application pages have help icons  to give you access to contextual help. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons. If the page has contextual help, help icons will appear.

Get Training

Increase your knowledge of Oracle Cloud by taking courses at [Oracle University](#).

Join Our Community

Use [Cloud Customer Connect](#) to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, suggest [ideas](#) for product enhancements, and watch events.

Share Your Feedback

We welcome your feedback about Oracle Applications user assistance. If you need clarification, find an error, or just want to tell us what you found helpful, we'd like to hear from you.

You can email your feedback to oracle_fusion_applications_help_ww_grp@oracle.com.

Thanks for helping us improve our user assistance!

1 Setup Summary

Scope

Use this playbook to understand how you can use HCM Extracts for extracting and reporting employee balances.

HCM Extracts is a flexible tool for generating data files and reports. This playbook covers how you can use the extract components to define information you want the application to extract and report on.

It includes steps on how you can use the delivered, ready-to-use extract template or create an user-defined extract definition to extract and report employee balances.

Setup Approach

Use HCM extracts to extract, archive, transform, report, and deliver high volumes of HCM data from the Oracle Fusion HCM database.

For large volumes of data, HCM Extracts is the recommended process to retrieve data in bulk from the Oracle HCM Cloud application for generating reports.

This table details the options available for reporting employee balances. Use any of these options to extract and report employee balances.

Options for Reporting Employee Balances

Reporting Option	Description
Delivered Payroll Calculation and Balance Reports	Use any of the delivered payroll calculation and balance reports, for example, the Run Statutory Deduction Register for the Latest Process report to extract the year-to-date (YTD) payroll balances for large volumes of data. Use the Submit a Flow task under Payroll and search for a report that suits your requirement. Use the Flow Submission page to define parameters you can use to extract the requisite balance information.
Delivered Employee Payroll Balances and Run Results Extract Template	Use the delivered, ready-to-use Employee Payroll Balances and Run Results Extract template to create your own extract definition. Use the template to create an extract definition by selecting the records and attributes from an available set of data elements.
Create an Extract Definition	Use the Extract Definitions task in the Data Exchange area to create your own extract definition to generate balance reports as per your business requirements. Select an Extract Type of Other Payroll Archive so that the extract uses the archived payroll information to generate the report.

2 Understanding HCM Extracts for Reporting Employee Balances

Overview of HCM Extracts

For large volumes of data, HCM Extracts is the recommended process for extracting and reporting employee balances.

For large volumes of data, HCM Extracts is the recommended process for extracting and reporting employee balances.

Before you create an extract definition, you should understand the following details:

- Information that you want to extract.
- Structure in which the data must be extracted.
- How you want to deliver this data (including file format, delivery mechanism, and frequency information).

An extract definition consists of:

- One or more extract data groups, depending on how many logical entities you want to extract.
- One or more extract records depending on how many groups of information you want to collect.
- One or more attributes depending on how many individual fields of data you want to collect.

Extract **Data Groups** represent a business area or logical entity, for example person, assignment, or benefits. The application uses this information to retrieve the database item groups. You define one data group as the primary or root data group and this data group is the starting point of the data extraction.

Extract **Records** represent a grouping of related data or a physical collection of all fields required in the extract. For example, the Employee data group can have records such as Basic Details, Pay Details, Location Details, and Primary Contact. An extract record is a collection of attributes which you can organize in a required sequence. For example, if a data group has 3 records, then you can specify the sequence in which the application processes the records. You can also select the next data group to identify which data group the application processes next.

Attributes are the individual fields inside the extract record. An attribute is the lowest attribute level of a HCM extract and represents a piece of information, for example, person first name, person last name or person date of birth.

The **Type of Extract** you select decide the purpose of the extract. It also decide the parameters that are automatically generated.

Employee Payroll Balances and Run Results Extract Template

The Employee Payroll Balances and Run Results Extract template is a ready-to-use extract template that you can use to create your own user-defined extract definition for reporting employee payroll balances.

Use the **Extract Definitions** task in the Data Exchange area and select **Create from Template** to use the ready-to-use extract template **Employee Payroll Balances and Run Results Extract** under Other Payroll Archive.

Use the template to create an extract definition by selecting the records and attributes from an available set of data elements.

Select the list of attributes for your extract definition in these areas:

- Payroll Relationship Actions
- Assignments
- Balances
- Run Results

Select only the attributes you want to display in your extract. Selecting more attributes will overload the extract and impact the time taken to process the extract.

Use the pre-defined filter criteria for the various data elements to further refine your extract definition.

For example, use the Filter Criteria option on Balances and select an appropriate Balance Group Usage for your extract definition. If you don't select a Balance Group Usage, the process uses a dummy Balance Group Usage and the process may not give you the expected output.

Once you define and save your extract definition, the application creates a flow in the same name as your extract definition. Search for the flow in the flow submission page and submit the flow to extract the data and generate the report. To get the desired results, run the extract for a valid payroll.

User-Defined Extract Definition

Use the **Extract Definitions** task in the Data Exchange area to create your own extract definition to generate balance reports.

Consider the following when you define an extract definition for payroll balances reporting:

- Select an Extract Type of **Other Payroll Archive** so that the extract uses the archived payroll information to generate the report. The type of extract you select determines the purpose of the extract. It also determines the parameters that are automatically generated.
- For extracts based on Other Payroll Archive, Legislative Data Group (LDG) is a required field. Select the same LDG you have used to create the Balance Group and the Balance Group Usage for balances reporting.
- Add a user entity that has **PAYROLL_REL_ACTION_ID** set as the context for the Root Data Group. Include a user entity with a payroll relationship action because you are reporting employee payroll balance calculations from the payroll run results. A payroll run result is identified by the payroll relationship action. If the value of Valid for Root Data Group is **Yes**, the user entity can be used as a root data group.
- Extract records represent a grouping of related data, or a physical collection of all fields required in the extract. Consider the following when you create an extract record to retrieve and report on the balance calculations:
 - Select **Detail Record** as the record type.
 - Select the name of the Balance Group you have created for the report as the **Process Type**.
 - Select the Balance Group Usage you have created for the selected Balance Group.

- Ensure that PAYROLL_REL_ACTION_ID is set in the current or parent data group so that the context is derived.
- To retrieve the balance dimension values, add the attributes in the record as procedure elements.
- Create an attribute for each context within the balance group usage. The created attributes should have a name and a short code. For example, if the name of the attribute is Payroll Action ID, the corresponding short code is **PAYROLL_ACTION_ID**. It's important that you enter the correct short code, or your extract will error and not give you the expected output results.
- Define a Run Dimension in the Balance Group Usage you are using. It can be any run dimension, for example, Assignment Tax Unit Run.

Once you define and save your extract definition, the application creates a flow in the same name as your extract definition. Search for the flow in the flow submission page and submit the flow to extract the data and generate the report. To get the desired results, run the extract for a valid payroll.

3 Create Extract Definitions

Create a Balance Group and Balance Group Usage for Employee Balances Reporting

Before you create an extract definition for extracting and reporting employee balances, you must create these payroll objects.

1. Balance Group to include the balance definitions and dimensions you can use to retrieve balances for the employee.
2. Balance Group Usage to represent how the balance group is used.

Create a Balance Group

Complete these steps to create a Balance Group.

1. Navigate to the **Balance Groups** quick action under the **My Client Groups** tab. on your Home page.
2. Click **Create** to open the Create Balance Group dialog box.
3. Select a legislative data group and enter a name for the balance group, for example, Employee Balance ABC.
4. Click **Continue**.
5. On Balance Group Details page select **Employee** as the balance group level.
6. Click **Save**.
7. Select the **Balance Definitions** folder under the Balance Group Overview list.
8. Click **Select and Add**.
9. In the Select and Add: Balance Definitions dialog box, enter **Gross Earnings** in the Name field.
10. Select **All** in the Match field and click **Search**.
11. In the Results section, select the row that has, for example, the following values.
 - Dimension Name: Assignment Tax Unit Run
 - Category: Total Standard Earnings
12. Click **Apply** and **OK**.

Create a Balance Group Usage

Complete these steps to create a Balance Group Usage.

1. Navigate to the **Balance Group Usage** quick action under the **My Client Groups** tab. on your Home page.
2. Click **Create** to open the Create Balance Group Usage dialog box.
3. Select a legislative data group and enter a name for the balance group usage, for example, Employee Balance Usage ABC.

Note: Enter the same LDG as the balance group for which you're creating the usage.
4. Select a **Balance Group**. Select the group you created in the previous task, for example Employee Balance ABC.
5. Select **Matrix** in the Format Type field.
6. Click **Continue**. You're returned to the Balance Group Usage Details page.
7. In the Report Type field, select **Statement of Earnings**.
8. Select the **Matrix Items** folder under the Balance Group Usage Overview list and add balance dimensions that you want.

Note: Matrix Item node is enabled only for Matrix format type. Use this node to specify the display position of the balance value for a particular balance dimension. If you put several dimensions in the same position their values are summarized together in the group.

9. Complete the fields as given here:
 - Select **Balance Dimensions** as the Matrix Item Type.
 - Search and select the Name as **Assignment Tax Unit Run**.
 - Enter **1** in the Position field.
10. Click **Save**.
11. Select the **Sorting** folder under the Balance Group Usage Overview list. Sorting determines the order in which the balance values in a balance group are displayed.
12. Click **Actions > Create**.
13. Complete the fields as per your requirement. Sort Items table defines the static sort order in which the balance values in a balance group are displayed and it's enabled only for sort method of Static Order. It might be sort by either Balance Type or Defined Balance.
14. Click **Save** and then **Submit**.

Create an Extract Definition Using the Delivered Extract Template

This topic demonstrates how you can use the delivered, ready-to-use **Employee Payroll Balances and Run Results Extract** template to create your own extract definition to report employee payroll balances.

Before You Begin

Before you create the extract definition, create these payroll objects:

- Use the **Balance Groups** quick action under the **My Client Groups** tab to create a Balance Group to include the balance definitions and dimensions you can use to retrieve and report employee balances.
- Use the **Balance Group Usages** task to create a Balance Group Usage to represent how the balance group is used.

Create an Extract Definition from Delivered Template

Complete these steps to create an extract definition using the delivered template.

1. Navigate to the Data Exchange area under My Clients Group and select the **Extract Definitions** task.
2. Click the **Plus** icon and select **Create from Template**.
3. Select **Employee Payroll Balances and Run Results Extract** under Other Payroll Archive. Use this ready-to-use template to create an extract for employee payroll balance reporting.

4. Complete the fields as given in this table.

Field	Description
Name	Enter a name for the extract. When you submit the extract, the application creates a flow with the same name you enter here. Hence, note the name of the extract.
Start Date	Enter a start date for the extract.
Consumer	Select Report .
Changes Only	Select No .
Legislative Data Group	Select an appropriate LDG for which you are reporting the balances.

5. Click **OK**.
6. Expand the **Pay Relationship Actions** folder under Business Objects.

Select each of the subfolders and select the attributes you want included in the extract output. When you select a subfolder, by default all the attributes related to that subfolder are shown as selected. Deselect the attributes you don't want to display in your extract.

Note: Select only the attributes you want to display in your extract. Selecting more attributes will overload the extract and impact the time taken to process the extract.

7. Select the **Assignments** check box, all the attributes related to assignments are shown selected by default. Deselect the attributes you don't want to display in your extract.
8. Similarly select the **Balances** check box and deselect the attributes you don't want to report in the extract.
9. Click **Filter Criteria** and use the drop down to select the **Balance Group** you have predefined and want to use for your balance reporting.
10. Click **Review** to review the data group and attributes. Click **Save**.
11. After the status is Ready, click **Cancel**.

Define the Extract Output Delivery Option

The Extract output is now available in the standard XML format. Complete these steps to define a delivery option for the data.

1. Go back to the **Extract Definitions** page and enter the name of the extract and click the search icon.
2. Click **Show Filters**. Enter name of the extract in the **Name** field, select the **Legislative Data Group**, and click **Search**.
3. Click on the extract definition name. By default, the Delivery Option is **None** and the Output Type is **Data**. You cannot deliver the extract output.
4. Click **Define** and deselect the **Lock Definition Description** check box.
5. Enter appropriate reasons in the **Unlock Comments** box and click **Save**.
6. Click **Cancel**.
7. On the Extract Definitions page, use the **Actions** menu and open the extract in the **Advanced Edit** mode.
8. Select **Extract Delivery Option** and click **Add** to add a row for the delivery option you're about to create.

For more information on adding a delivery option, refer the *Guidelines for Delivering Extracts* topic on the Oracle Help Center.

Submit the Extract

You can now submit the extract and view the extract output in the delivery option you have defined.

1. Go back to the Data Exchange page and click the **Submit Extracts** task.
2. Select the same **Legislative Data Group** you used to create the extract and search for the extract you created. The extract process creates a flow with the same name as the extract you created.
3. On the Submit a Payroll Flow page, enter the required information as given in this table.

Submit the Extract Info

Field	Description
Payroll Flow	Enter a flow instance name for the flow you are currently submitting.
Effective Date	Enter a date.
Payroll ID	Select the ID of the payroll you are using to extract and report the balances.
Payroll Period	Select the payroll period for which you are extracting and reporting the balances.

4. Click **Submit**.
5. Click the flow link on the Checklists page and monitor the progress of the flow.
6. Once the flow is complete, click on the flow name and view the output in the Output and Logs section. You can also view the log messages for the flow.

Create Extract Data Groups and Records for Payroll Balance Reporting

Extract data groups represent a business area or logical entity, for example person, assignment, or benefits. The application uses this information to retrieve the database item groups.

I. Create the Work Relationships Data Group

1. Click **Design** to create the data groups and records.
2. Create the root data group with the following information.

Field	Description
Name	Work Relationships
Tag Name	Work_Relationships
User Entity	PER_EXT_WORK_RELATIONSHIP_ALL_UE
Threading Database Item	Extract Relationship Period Of Service Id
Threading Action Type	Relationship Action

3. Click **Save**.
4. Right-click the Work Relationships data group in the Object Name table and select **Add Record**.
5. Enter this information to create a record.

Field	Description
Name	Person Details
Tag Name	Person_Details
Type	Header Record
Process Type	Fast Formula

6. Click **Save and Close**.

2. Create the Pay Relationship Actions Data Group

1. Right-click the Work Relationships data group and select **Add Child Data Group** to create another data group.
2. Enter this information to create the data group.

Field	Description
Name	Pay Relationship Actions
Tag Name	Pay_Relationship_Actions
User Entity	PAYROLL REL ACTIONS RANGE UE
Threading Database Item	Fast Formula
Threading Action Type	Relationship Action

Include a user entity with a payroll relationship action because you are reporting employee payroll balance calculations from the payroll run results. A payroll run result is identified by the payroll relationship action. The User Entity has a context set to PAYROLL_REL_ACTION_ID.

3. Click **Save**.
4. Click the Pay Relationship Actions data group under the Object Name list and select the **Connect Data Groups** tab.
5. Select **Add** to add a connection. Complete this information to create a data group connection.

Field	Value
Parent Data Group	Pay Relationship Actions
Parent Data Group Database Item	Extract Relationship Person Id
Data Group Database Item	PAYROLL REL ACTION PERSON IDENTIFIER

6. Click **Save**.
7. Right-click the **Pay Relationship Actions** data group in the Object Name table and select **Add Record**.

8. Enter this information to create a record.

Field	Value
Name	Rel Action Details
Tag Name	Rel_Action_Details
Type	Detail Record
Process Type	Fast Formula

9. Click **Save and Close**.

3. Create the Balances Data Group

1. Right-click the Pay Relationship Actions data group and select **Add Child Data Group** and enter this information create a data group.

Field	Value
Name	Balances
Tag Name	Balances_Data
User Entity	ORA_HRY_BALANCE_GROUP_USAGE_UE

2. Click **Save**.
3. Right-click the **Balances** data group in the Object Name table and select **Add Record**.
4. Enter this information to create a record.

Field	Value
Name	Balance Details
Tag Name	Balance_Details
Type	Detail Record
Process Type	Balance Group
Balance Group Usage	Enter Name of Balance Group Usage you created for this report.

5. Click **Save and Close**.

4. Create the Run Results Data Group

1. Right-click the Pay Relationship Actions data group and select **Add Child Data Group** and enter this information to create a data group.

Field	Value
Name	Run Results
Tag Name	Payroll_Run Results
User Entity	PAY_EXTRACT_RUN_RESULT_VALUES_UE

2. Click **Save**.
3. Right-click the **Run Results** data group in the Object Name table and select **Add Record**.
4. Enter this information to create a record.

Field	Value
Name	Run Results Details
Tag Name	Run_Results_Details
Type	Header Record
Process Type	Fast Formula

5. Click **Save and Close**.
6. Click the Run Results data group under the Object Name list and select the **Connect Data Groups** tab.
7. Select **Add** to add a connection.
8. Enter this information to create a data group connection.

Field	Value
Parent Data Group	Run Results
Parent Data Group Database Item	PAYROLL_REL ACTION IDENTIFIER
Data Group Database Item	Run Result Payroll Relationship Action Id

9. Click **Save and Close**.

5. Create the Assignments Data Group

1. Right-click the **Pay Relationship Actions** data group and select **Add Child Data Group** and enter this information create a data group.

Field	Value
Name	Assignment

Field	Value
Tag Name	Employee_Assignment_Data
User Entity	PER_EXT_PAY_EMPLOYEES_V2_UE

2. Click **Save**.
3. Click the **Assignments** data group under the Object Name list and select the **Connect Data Groups** tab.
4. Select **Add** to add a connection.
5. Enter this information to create a data group connection.

Field	Value
Parent Data Group	Assignments
Parent Data Group Database Item	PAYROLL REL ACTION RELATIONSHIP IDENTIFIER
Data Group Database Item	Extract Employee V2 Payroll Relationship ID

6. Right-click the **Assignments** data group in the Object Name table and select **Add Record**.
7. Enter this information to create a record.

Field	Value
Name	Assignment Details
Tag Name	Assignment_Details
Type	Header Record
Process Type	Fast Formula

8. Click **Save and Close**.

Balance Dimensions and Attribute Contexts for an Extract Record

When you create an HCM Extract Definition for payroll balance reporting, create extract attribute records that extract the correct balance dimensions.

Attributes are the individual fields inside the extract record. To retrieve the balance dimension values, select **Procedure element**

as the attribute **Type** in the record.

Define a Run Dimension in the Balance Group Usage you're using. It can be any Run Dimension, for example, Assignment Tax Unit Run.

When balance group usage is of matrix type all dimensions are included in the same Data Group. However, if you have period-to-date (PTD) dimensions, they're included in a separate XML data group. You must include this data group in the extract definition and use short codes for the different periods, such as, run, month, quarter, year, and so on.

Short Code Details

Create an attribute for each context within the balance group usage. The created attributes should have a name and a short code. For example, Name of Attribute is Payroll Action ID and the corresponding short code is PAYROLL_ACTION_ID.

This table lists all the attribute or data elements which are valid for a balance group record and the short codes for all the attribute records you can create.

Name of Attribute	Short Code
Payroll Relationship Action Identifier	PAYROLL_REL_ACTION_ID
Calculation Breakdown Identifier	CALC_BREAKDOWN_ID
Base Balance Name	BASE_BALANCE_NAME
Run	RUN
Reporting Name	REPORTING_NAME
Base Category Name	BASE_CATEGORY_NAME
Tax Unit Identifier	TAX_UNIT_ID
Balance Type Identifier	BALANCE_TYPE_ID
Year	YEAR
Location	LOCATION
Department	DEPARTMENT
Dimension Level	DIMENSION_LEVEL
GUID	GUID
Balance Category Identifier	BALANCE_CATEGORY_ID
Month	MONTH
Balance Value	BALANCE_VALUE
Base DB Item Suffix	BASE_DB_ITEM_SUFFIX
Base Dimension Name	BASE_DIMENSION_NAME
Period	PERIOD
Payroll Assignment Identifier	PAYROLL_ASSIGNMENT_ID
Reference Code	REFERENCE_CODE
Quarter	QUARTER
Payroll Term Identifier	PAYROLL_TERM_ID
Other	OTHER

Name of Attribute	Short Code
Fiscal Quarter	FQUARTER
Fiscal Year	FYEAR
Half Year	HYEAR
Lifetime	LIFETIME
Payment	PAYMENT
Rolling 12 Months	R12MTH
Balance T2MTD	T2MONTHS
Balance T2WTD	T2WEEKS
Balance THYTD	THYEAR
Balance T4WTD	T4WEEKS
Balance TMTD	TMONTH
Balance TQTD	TQUARTER
Balance TWTD	TWEEK
Balance TYTD	TYEAR
Balance Unit Year to Date	UYEAR
Area1	AREA1
Area2	AREA2
Area3	AREA3
Area4	AREA4
Balance Date	BALANCE DATE
Date Earned	DATE_EARNED
Deduction Type	DEDUCTION_TYPE
Element Entry Identifier	ELEMENT_ENTRY_ID
Deduction Card Identifier	DEDUCTION_CARD_ID
Insurance Type	INSURANCE_TYPE
Pension Type	PENSION_TYPE
Process Type	PROCESS_TYPE
Rate Type	RATE_TYPE
Reference Code2	REFERENCE_CODE2
Reference Number	REFERENCE_NUMBER
Reporting Time Period Identifier	REPORTING_TIME_PERIOD_ID
Resident Area1	RESIDENT_AREA1

Name of Attribute	Short Code
Resident Area2	RESIDENT_AREA2
Resident Area3	RESIDENT_AREA3
Statutory Report Code	STATUTORY_REPORT_CODE
Statutory Report Type	STATUTORY_REPORT_TYPE
Third Party Payee Identifier	THIRD_PARTY_PAYEE_ID
Time Definition Identifier	TIME_DEFINITION_ID
HR Assignment Identifier	HR_ASSIGNMENT_ID
Assignment Number	ASSIGNMENT_NUMBER

Contexts for a Balance Group Usage

Use this SQL query to know the contexts required for a particular balance group usage and create attribute for each context. Attributes created should have attribute name and short code as BASE_CONTEXT_NAME in this query output. `SELECT DISTINCT ctx.base_context_name, pbgu.base_group_usage_name FROM pay_bal_grp_usages pbgu pay_bal_grp_inclusions pbgi pay_balance_attributes pba, pay_defined_balances pdb, pay_balance_dimensions pbd, pay_dim_context_usages pdcu, ff_contexts_b ctx WHERE pbgu.balance_group_id = pbgi.balance_group_id AND pbgi.attribute_id = pba.attribute_id AND pba.defined_balance_id = pdb.defined_balance_id AND pdb.balance_dimension_id = pbd.balance_dimension_id AND pbd.balance_dimension_id = pdcu.balance_dimension_id AND pdcu.context_id = ctx.context_id AND pbgu.base_group_usage_name = <base balance group usage name>;`

Create an User-Defined Extract Definition

This topic demonstrates how you can create an extract definition to extract and report employee balances.

Use the **Extract Definitions** task in the Data Exchange area to create your own extract definition to generate balance reports as per your business requirements.

Before You Begin

Before you create the extract definition you must create these payroll objects:

- Balance Group
- Balance Group Usage

Follow the steps given in the previous section to create these two objects.

Summary of Requisite Tasks

Complete these tasks to create the extract definition and run the extract.

1. Create an Extract Definition
 - a. Create Extract Data Groups and Records
 - b. Create Attributes

2. Define the Delivery Options
3. Submit the Extract

Create the Extract Definition

Use the **Extract Definitions** task in the Data Exchange area under My Clients Group to create your own extract definition to extract and report employee payroll balances.

Before you create the extract definition, consider the following:

- Create one extract definition because you are creating only one report.
- Search for and select a User Entity that has context to a Payroll Rel Action ID so that you can extract the balance results for the employee. If the value of Valid for Root Data Group is **Yes**, the user entity can be used as a root data group.

Complete these steps to create an extract definition.

1. Navigate to the Data Exchange area under My Clients Group and select the **Extract Definitions** task.
2. On the Extract Definitions page, click **Add > Create New** to open the Create Extract Definition page.
3. Select **Other Payroll Archive** and enter the information given in this table to create the Extract Definition.

a.

Field	Description
Name	Employee Balances Report The application uses this name to generate the XML output file.
Start Date	Enter an appropriate date.
Consumer	Select Report since the extract is used for reporting.
Additional Details	This field is left blank for reports.
Legislative Data Group	Select an appropriate LDG. Select the same LDG you have used to create the Balance Group and the Balance Group Usage. Note: For extracts based on Other Payroll Archive, the LDG is a required field.

4. Click **OK**.

Create Extract Data Groups and Records

Create the following data groups.

- Work Relationships
- Pay Relationship Actions
- Balances
- Run Results
- Assignment

When you create the Data Groups, the formulas are auto-generated every time you validate or compile the extract. The generated formula is specific to the user and the extract being validated or submitted. Hence leave the Formula field blank, it gets populated with the details of the auto-generated formula after you have submitted the extract definition.

For detailed step-by-step instructions on how to create the data groups, refer to 'Create Extract Data Groups and Records for Payroll Balance Reporting' within this playbook.

Create Attributes

To retrieve the balance dimension values in the report, create attributes for each record as required. Consider the following while creating the attributes:

- Add a RUN dimension in the Balance Group Usage to make sure that the RUN attribute works. It can be any RUN dimension. For example, Assignment Tax Unit Run in the Balance Group Usage that we have created for this use case.
- Add the attributes (data elements) in the Balances record as procedure elements.
- When you create the attributes, enter 61 in the Output Column field for the first attribute. The value of the Output Column field of the subsequent attributes increases by 1. The Output Column values shouldn't be duplicated.

For detailed step-by-step instructions on how to create the attributes, refer to 'Balance Dimensions and Attribute Contexts for an Extract Record' within this playbook.

Define the Delivery Options

Follow these steps to define a delivery option.

1. Select the **Deliver** icon and then select **Add** to add a row for the delivery option you're about to create.
2. Enter these details:
 - A value in the **Delivery Option Name** field. For example, Employee Balances Report in Excel.
 - A value in the **Delivery Type** field.
3. Click **OK** and enter this information.

Field	Value
Output Type	Select a value, for example, Excel.
Report	Enter the location of the report output.
Template Name	Enter the name of the report template for this output type.
Output Name	Enter Name of the report output, for example, Employee Balances Report.
Required	Select this check box if this delivery option is a required option.

4. Ensure you enter the additional information such as, the server, username, and password for the FTP delivery type.
5. View the extract definition details and ensure the structure is valid in the Validate page by selecting the **Validate** button. Check the validation messages at the top of the page to refine your extract definition.
6. Select **Export XML Schema** to download the XML Schema Definition (.XSD) file for this extract setup. This exported file contains the structure of the extract definition: the data groups, records, and attributes.

7. Click **Save**. When you save the extract definition, the application generates a flow with the same name as your extract definition.

Submit an Extract

Use any of these options to submit the extract:

- **Submit Extracts** task from the Data Exchange area. Use the View Extract Results task to view the results of the extract run.
- **Submit a Flow** task under Payroll. Search for the flow with the same name as your extract definition and enter the requisite data and submit the flow. Use the process results pages to view the run results.

Monitor the flow status on the Checklists page. After completion of the flow, click on the flow name to view the run results on the the process results page.

Troubleshoot HCM Extracts for Payroll Balance Reporting

Review the extract run results and if you find that the results aren't as expected, follow these suggestions to troubleshoot the issue.

- To check if balances are processed for a particular employee, use the View Person Process Results task to search for an employee and view the Balance Results.
- To check if the payroll you used to submit the extract includes processed balances, complete these steps to know which payroll runs have processed the payroll.
 - a. Navigate to the Checklists page, select the LDG you have used for the extract definition, and check the latest runs of Calculate Gross Earnings.
 - b. Select the flow with the payroll name you used to submit the flow.
 - c. Use the Flow Details tab to view the flow tasks, click **Go to Task** icon for the Calculate Gross Earnings task and check if balances are processed.