Informatica

Informatica® Cloud Data Integration

# Oracle HCM Cloud V1 Connector

Informatica Cloud Data Integration Oracle HCM Cloud V1 Connector
November 2023

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# Preface

Use *Oracle HCM Cloud V1 Connector* to learn how to read from or write to Oracle HCM Cloud application by using Cloud Data Integration. Learn to create an Oracle HCM Cloud V1 connection, develop and run mappings and mapping tasks in Cloud Data Integration.

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https://network.informatica.com/community/informatica-network/products/cloud-integration

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## Data Integration connector documentation

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The telephone numbers for Informatica Global Customer Support are available from the Informatica web site at https://www.informatica.com/services-and-training/support-services/contact-us.html.

CHAPTER 1

# Introduction to Oracle HCM Cloud V1 Connector

You can use Oracle HCM Cloud V1 Connector to connect to Oracle HCM Cloud application from Data Integration. Use Oracle HCM Cloud V1 Connector to read data from or write data to an Oracle HCM Cloud application.

To read data from an Oracle HCM Cloud V1 source, use the XML schema data of the HCM extract definitions as sources in mappings and mapping tasks. When you run a mapping or mapping task, the Secure Agent downloads the HCM extract definitions instance from the WebCenter Content Server, decrypts the data if encrypted, and writes the data to the target.

To write data to an Oracle HCM Cloud V1 target, use the XLSX schema files as targets in mappings and mapping tasks. When you run a mapping or mapping task, the Secure Agent encrypts the data based on the encryption mode you specify in the connection property. Then, the Secure Agent uploads the data to the WebCenter Content Server from where the Secure Agent loads the data in the HCM Application Server.

You can use Oracle HCM Cloud V1 Connector in a Source and Target transformation. You can also use Oracle HCM Cloud V1 Connector midstream in a mapping through a Web Services transformation to call an Oracle HCM Cloud business service.

You can switch mappings to advanced mode to include transformations and functions that enable advanced functionality.

## Oracle HCM Cloud V1 Connector assets

Create assets in Data Integration to integrate data using Oracle HCM Cloud V1 Connector.

When you use Oracle HCM Cloud V1 Connector, you can include the following Data Integration assets:

- Mapping
- Mapping task

For more information about configuring assets and transformations, see *Mappings*, *Transformations*, and *Tasks* in the Data Integration documentation.

# Oracle HCM Cloud V1 Connector example

You are a human resources administrator and you want to synchronize data between the core human resources application and other applications such as payroll, learning, and time management. As a human resources administrator, you also want to integrate with other ERP applications such as Workday, PeopleSoft, SAP, or Enterprise Data Warehouses.

You can use Oracle HCM Cloud V1 Connector to read data from an Oracle HCM Cloud application and write or integrate data with the target applications. You can also use Oracle HCM Cloud V1 Connector to read data from any source application and write to an Oracle HCM Cloud application.

CHAPTER 2

# Oracle HCM Cloud V1 Connections

Create an Oracle HCM Cloud V1 connection to connect to Oracle HCM Cloud application. Use Oracle HCM Cloud V1 connection to read data from and write data to Oracle HCM Cloud application. You can use Oracle HCM Cloud V1 connections to specify sources or targets in mappings and mapping tasks.

You can create Oracle HCM Cloud V1 connection in the **Connections** page.

## Prerequisites

Before you create an Oracle HCM Cloud V1 connection to read from or write to Oracle HCM Cloud V1, be sure to complete the prerequisites.

### Get the WebCenter content URL

To read data from an Oracle HCM Cloud source, get the WebCenter content URL where Oracle HCM Cloud uploads the output XML data.

1. From the **Service Details** section in the cloud environments provisioning email from Oracle, get the URL for Oracle HCM Cloud Setup and Maintenance.
   The following example shows a sample URL: `https://fs-<domain_name>.oracleoutsourcing.com/setup/faces/TaskListManagerTop`
2. Edit the URL by removing the following path: `/setup/faces/TaskListManagerTop`
   The following URL is a sample of the WebCenter Content URL: `https://fs-<domain_name>.oracleoutsourcing.com`

### Verify roles

Verify that you are assigned the following roles:

| Role | Role Code |
|---|---|
| Application Administrator | ORA_FND_APPLICATION_ADMINISTRATOR_JOB |
| Application Developer | ORA_FND_APPLICATION_DEVELOPER_JOB |

| Role | Role Code |
|---|---|
| Application Diagnostics Administrator | ORA_FND_DIAG_ADMINISTRATOR_JOB |
| Application Implementation Administrator | ORA_ASM_APPLICATION_IMPLEMENTATION_ADMIN_ABSTRACT |
| Application Implementation Consultant | ORA_ASM_APPLICATION_IMPLEMENTATION_CONSULTANT_JOB |
| Application Implementation Manager | ORA_ASM_APPLICATION_IMPLEMENTATION_MANAGER_JOB |
| Human Capital Management Application Administrator | ORA_HRC_HUMAN_CAPITAL_MANAGEMENT_APPLICATION_ADMINISTRATOR_JOB |
| Human Capital Management Integration Specialist | ORA_HRC_HUMAN_CAPITAL_MANAGEMENT_INTEGRATION_SPECIALIST_JOB |
| IT Security Manager | ORA_FND_IT_SECURITY_MANAGER_JOB |
| Integration Specialist | ORA_FND_INTEGRATION_SPECIALIST_JOB |

# Connect to Oracle HCM

Let's configure the Oracle HCM Cloud V1 connection properties to connect to Oracle HCM Cloud.

## Before you begin

Before you configure a connection, get the WebCenter Content URL where Oracle HCM Cloud uploads the output XML data and ensure that the required roles are assigned to you.

Check out "Prerequisites" on page 9 to learn more about these tasks.

## Connection details

The following table describes the basic connection properties:

| Property | Description |
|---|---|
| Connection Name | Name of the connection.<br>Each connection name must be unique within the organization. Connection names can contain alphanumeric characters, spaces, and the following special characters: _ . + -,<br>Maximum length is 255 characters. |
| Description | Description of the connection. Maximum length is 4000 characters. |
| Type | Oracle HCM Cloud V1 |

| Property | Description |
|---|---|
| Runtime Environment | The name of the runtime environment where you want to run tasks.<br>Select a Secure Agent, Hosted Agent, or serverless runtime environment. |
| WebCenter Content URL | The URL of WebCenter Content Server where Oracle HCM Cloud uploads the output XML data.<br>**Note:** To validate the WebCenter Content URL, type the following URL in the web browser:<br>`<Webcenter Content URL>/idcws/GenericSoapPort?WSDL`<br>If the URL opens a WSDL file, then the WebCenter Content URL is valid. |
| HCM URL | The URL of the HCM Application Server that contains newly created data after the Secure Agent loads the XML data from the WebServer Content Server to the HCM Application Server.<br>The following URL shows a sample HCM URL: `https://adc-xxx-hcm.oracledemo.com/`<br>To validate the HCM URL, type the following URL in the web browser:<br>`<HCM URL>/hcmProcFlowCoreController/FlowActionsService?WSDL`<br>If the URL opens a WSDL file, then the HCM URL is valid.<br>**Note:** This property applies when you create an Oracle HCM Cloud V1 connection to write data to the Oracle HCM Cloud application or when you select **Submit Extract** in the advanced connection properties. |
| Authentication Type | The type of user authentication to connect to the Oracle HCM Cloud application.<br>Select **Basic Authentication** type. |
| Username | User name of the Oracle HCM Cloud account. |
| Password | Password for the Oracle HCM Cloud account. |
| Schema Directory | The directory path where HCM extract definitions XSD and XLSX are stored on the Secure Agent machine.<br>Click the **Test** button after you create an Oracle HCM Cloud V1 connection.<br>The Secure Agent creates following directories under the schema directory:<br>**Reader**<br>The reader directory contains the XSD files. Place all the XSD files after you generate them under the reader directory.<br>**Writer**<br>The writer directory contains the XLSX files. Place all the XLSX files after you download them under the writer directory.<br>**Temp**<br>The temp directory contains the staging files before loading. |

# Advanced settings

The following table describes the advanced connection properties:

| Property | Description |
|---|---|
| Submit Extract | Submits HCM extract definitions with the parameter values that you specify in the request message.<br>Default is disabled.<br>When you enable the **Submit Extract** option, the Secure Agent submits the instance of the HCM extract definition that you specify and downloads the latest output data file corresponding to the HCM extract definition from the WebCenter Content Server.<br>You can also submit HCM extract definitions from the Oracle HCM Cloud application directly.<br>**Note:** This property applies when you read data from the Oracle HCM Cloud application. |

# Encryption mode

You can configure PGPUNSIGNED and PGPSIGNED encryption mode to access Oracle HCM Cloud. Default is None.

Select the required encryption mode to encrypt or decrypt the data when you run a mapping to write data to a target.

## PGPSIGNED

Encrypts and signs the data using the PGP encryption method.

The following table describes the basic connection properties for PGP encryption method:

| Property | Description |
|---|---|
| Private Key Passphrase | The passphrase to encrypt the private key.<br>For more information about the private key passphrase, see the Oracle documentation. |
| Private Key Path | The file path of the private key.<br>Store the private key on the Secure Agent machine.<br>**Note:** Specify the private key corresponding to the public key that you uploaded in the Oracle HCM Cloud application. |
| Fusion Public Key Path | The file path of the fusion public key.<br>Store the fusion public key on the Secure Agent machine.<br>**Note:** Raise a service request with Oracle HCM Cloud to retrieve the fusion public key.<br>For more information about the fusion public key, see the Oracle documentation. |

## PGPUNSIGNED

Encrypts data using the PGP encryption method. Use the same encryption key that you configured in the Oracle HCM Cloud application.

The following table describes the basic connection properties for PGP encryption method to read from Oracle HCM Cloud:

| Property | Description |
|---|---|
| Private Key Passphrase | The passphrase to encrypt the private key.<br>For more information about the private key passphrase, see Oracle documentation. |
| Fusion Public Key Path | The file path of the fusion public key.<br>Store the fusion public key on the Secure Agent machine.<br>**Note:** Raise a service request with Oracle HCM Cloud to retrieve the fusion public key.<br>For more information about the fusion public key, see Oracle documentation. |

The following table describes the basic connection properties for PGP encryption method to write to Oracle HCM Cloud:

| Property | Description |
|---|---|
| Private Key Passphrase | The passphrase to encrypt the private key.<br>For more information about the private key passphrase, see the Oracle documentation. |
| Private Key Path | The file path of the private key.<br>Store the private key on the Secure Agent machine.<br>**Note:** Specify the private key corresponding to the public key that you uploaded in the Oracle HCM Cloud application. |

## Related links

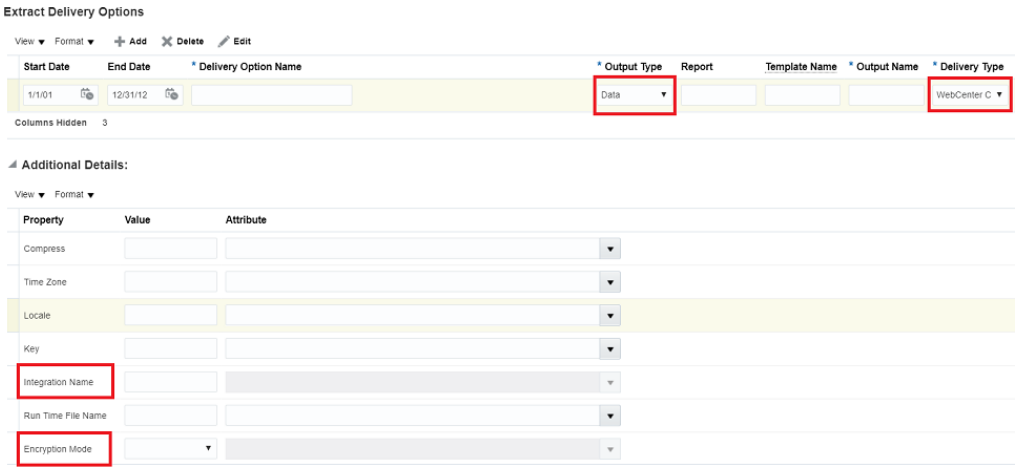
- Create extract definitions
- Download the excel templates
- Download and install ADF desktop integration tool
- Set up the excel templates
- Proxy server settings

# Extract definition

To read data from an Oracle HCM Cloud source, create HCM extract definitions for the data that you want to extract from the Oracle HCM Cloud application.

1. When you create HCM extract definitions, configure the following properties on the Oracle HCM Cloud application:
   a. In the **Extract Deliver Options** page under the **Manage Extract Definitions** tab, set the value of the **Output Type** field as **Data** and **Delivery Type** field as **WebCenter Content**.

b. Specify the values of the **Integration Name** and **Encryption Mode** fields.
The following image shows the **Extract Deliver Options** page where you can set the value of the **Output Type**, **Delivery Type**, **Integration Name**, and **Encryption Mode** fields.




2. Submit the HCM extract definitions to the Oracle WebCenter Content Server from the Oracle HCM Cloud application. You can also use the **Submit Extract** connection property to submit the HCM extract definitions to the Oracle WebCenter Content Server.
3. Generate the XML schema in the XSD file format for all the HCM extract definitions and store the XSD files on the machine where the Secure Agent is installed.
Store all the XSD files in the following directory that you specify in the **Schema Directory** connection property: `Schema Directory\Reader`

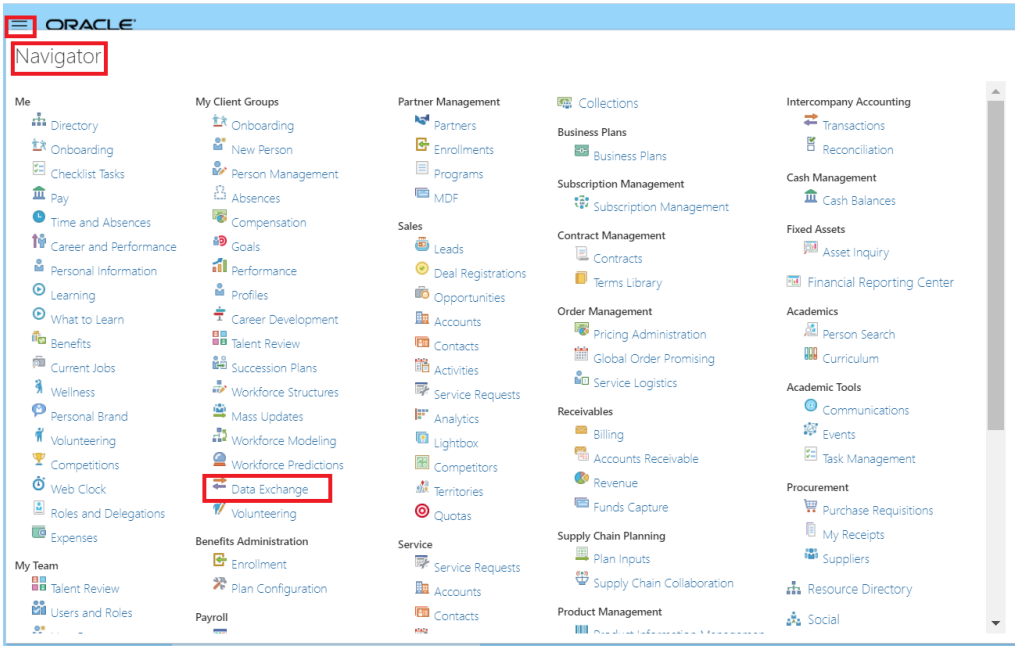
   Oracle HCM Cloud V1 Connector supports the XSD files with a `DATA_DS` single root element.

   **Note:** Use a third-party tool to generate the XML schema from the output XML data. Provide the XSD files that are compatible with the output XML data and name in the `<TemplateName>.xsd` format.

# Download the excel templates

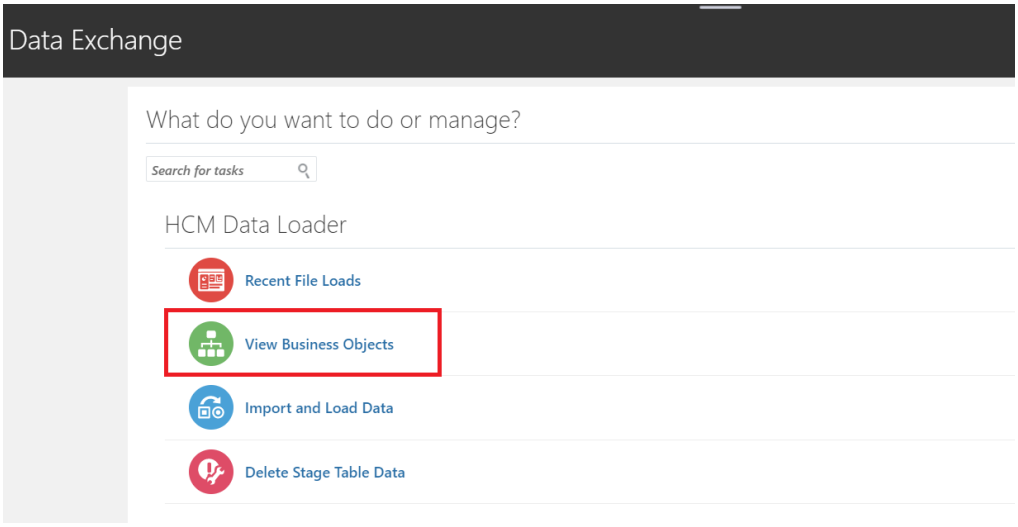
Download the excel templates that relates to the object that you want to write data to.

1. Log in to the Oracle HCM Cloud Application.
2. Click **Navigator** > **Data Exchange.**

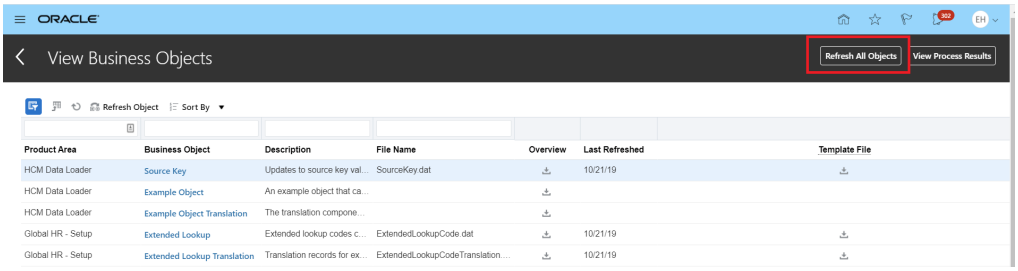



The **Data Exchange** page is displayed.

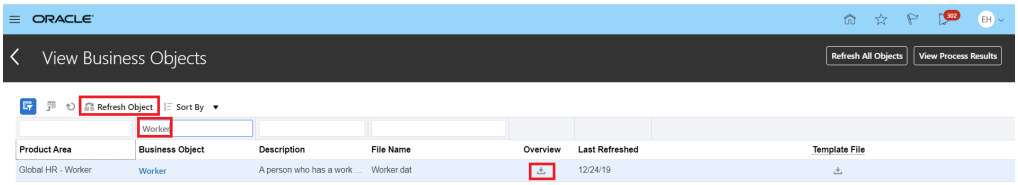
3. Click **View Business Objects** in the HCM Data Loader section.




4. Click **Refresh All Objects**.



5. You can filter a particular business object and refresh that specific object. Click the download icon on the **View Business Objects** page, under the **Overview** column.



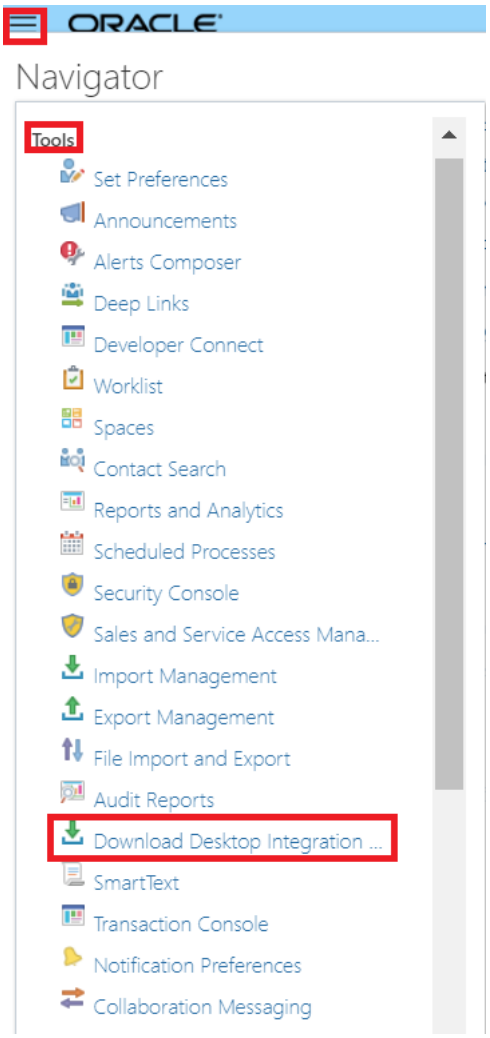

The **GenericBusObjDetails.xlsx** template is downloaded.

**Note:** All Excel templates are downloaded with the same name, **GenericBusObjDetails.xlsx**. Rename the Excel templates as required.

# Download and install ADF desktop integration tool

After you download the Excel templates, install the tool to connect to the endpoint through the Excel templates. The tool downloads data from the endpoint and autopopulates the excel templates.

1. Log in to the Oracle HCM Cloud Application.
2. Click **Navigator** > **Tools** > **Download Desktop Integration Installer**.




The application is downloaded to the desktop.

3. Run the installer, `adfdi-excel-addin-installer.exe`.

   **Note:** For the Excel configuration to work with the ADF Desktop Integration, see the following Oracle documentation:
   https://docs.oracle.com/middleware/11119/adf/develop-desktop-integration/adf-desktop-config-env.htm

# Set up the excel templates

To enable the write operation, set up the excel templates.

1. Open the downloaded excel templates.
2. To generate the metadata for a particular object, click **Yes** in the **Connect** dialog box.
   If you haven't already logged in to the Oracle HCM Cloud V1 application, you are prompted to log in.
3. To ensure that you populate the template with complete metadata, navigate to the Hierarchy Details, Attributes, and Flexfield Attribute sheets and save the excel template.

**Note:** If the data isn't populated in the excel template, verify that you have followed the steps accurately or contact **Oracle Support**.

4. Place all the excel templates in the **Writer** subdirectory under the **schema** directory.

   **Note:** Consider using excel templates corresponding to the latest release version of Oracle Cloud.

# Proxy server settings

If your organization uses an outgoing proxy server to connect to the Internet, the Secure Agent connects to Informatica Intelligent Cloud Services through the proxy server.

You can configure the Secure Agent to use the proxy server on Windows and Linux. You can use only an unauthenticated proxy server. The proxy settings applies to connections used in mappings and in mappings in advanced mode.

To configure the proxy settings for the Secure Agent, use one of the following methods:

- Configure the Secure Agent through the Secure Agent Manager on Windows or shell command on Linux.

  For instructions, see "Configure the proxy settings on Windows" or "Configure the proxy settings on Linux" in *Getting Started* in the Data Integration help .

- Configure the JVM options for the DTM in the Secure Agent properties. For instructions, see the Proxy server settings Knowledge Base article.

To configure proxy settings for the serverless runtime environment, see "Using a proxy server" in *Runtime Environments* in the Administrator help.

CHAPTER 3

# Mappings and Mapping Tasks with Oracle HCM Cloud V1 Connector

Use the Data Integration Mapping Designer to create a mapping. In advanced mode, the Mapping Designer updates the mapping canvas to include transformations and functions that enable advanced functionality.

## Oracle HCM Cloud V1 Source transformation in Mappings

When you configure a Source transformation, select the Oracle HCM Cloud V1 connection and choose an Oracle HCM operation to represent an Oracle HCM Cloud V1 source.

Configure the advanced source properties to set the tracing level and the cache size for the web service response.

You can view the response structure in the field mapping. When you map the elements from the response structure to the output fields, the Secure Agent creates the output groups, along with the keys for the field names. When you use the mapping in a mapping task and run the task, the Secure Agent reads the data from the Oracle HCM Cloud application.

**Note:** When you run a mapping to read data that contains a Unicode character from the Oracle HCM Cloud application, the Secure Agent does not read the data correctly.

### Source Transformation Properties

You can use one or more Source transformations in a mapping.

When you select a source transformation, the **Properties** panel displays the following sections:

**General**

Use to configure the name and a description for the source.

**Source**

Use to select the connection and the operation. You can configure the request options, and advanced source properties.

**Field Mapping**

Use to map elements of the response structure with the output fields.

**Fields**

Use to edit the metadata source field metadata that you want to use in the mapping.

## Oracle HCM Cloud V1 Advanced Source Properties in Mappings

In a mapping, you can configure or create a Source transformation and configure the advanced properties in the **Source** page of the Mapping Task wizard.

The following table describes the advanced properties that you can configure in a Source transformation:

| Property | Description |
|---|---|
| Tracing Level | Amount of detail that appears in the log for the Source transformation. Use the following tracing levels:<br>- Terse<br>- Normal<br>- Verbose Initialization<br>- Verbose<br>Default is normal. |
| Cache Size for Web Service Response (KB) | Not Applicable.<br>**Note:** Do not change the value of this property unless Informatica Global Customer Support instructs you to do so. |

## Source Transformation Mapping Example

You can map an Oracle HCM Cloud V1 source to a target and use the mapping to perform a mapping task.

To read data from an Oracle HCM Cloud and write to a flat file, perform the following tasks:

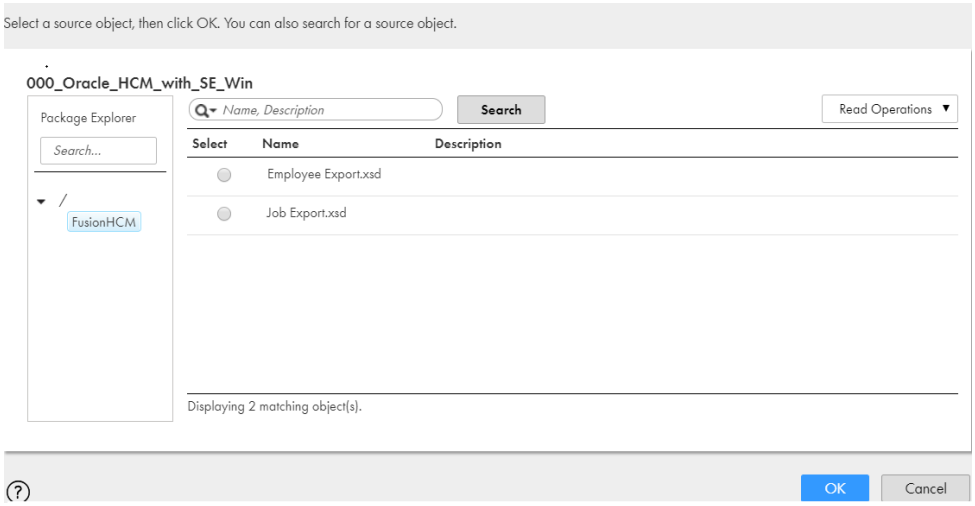
1. In Data Integration, click **New** > **Mapping** > **Create**.

   The **New Mapping** dialog box appears.
2. Enter a name and description for the mapping.
3. On the Source transformation, specify a name and description in the general properties.

   The following image shows a simple Oracle HCM Cloud V1 reader mapping:

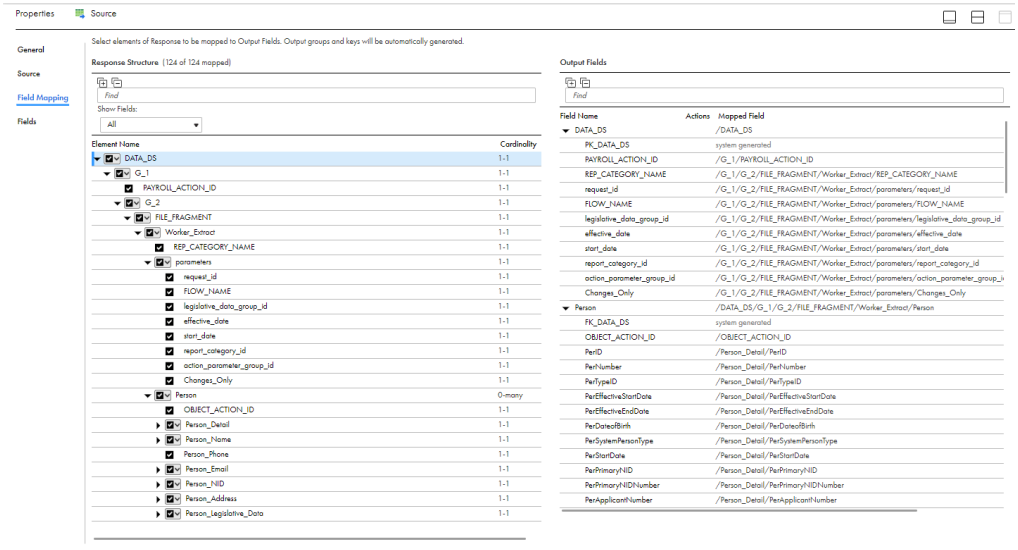


4. On the **Source** tab, perform the following steps to configure the source properties:
    1. In the **Connection** field, select the configured Oracle HCM Cloud V1 connection to connect to Oracle HCM Cloud application.
    2. In the **Operation** field, select the required object in the **Package Explorer** section and select the required operation.
    The following image shows the list of the read operations:




    3. In the **Request Options** section, click **Configure** to configure the request message. For more information about configuring the request message, see "Configuring Request Message" on page 22.
    4. In the **Advanced Properties** section, set the tracing level to normal, and use the default cache size of 1024.
5. On the **Field Mapping** tab, select the elements in the response structure that you want to map to the output fields.

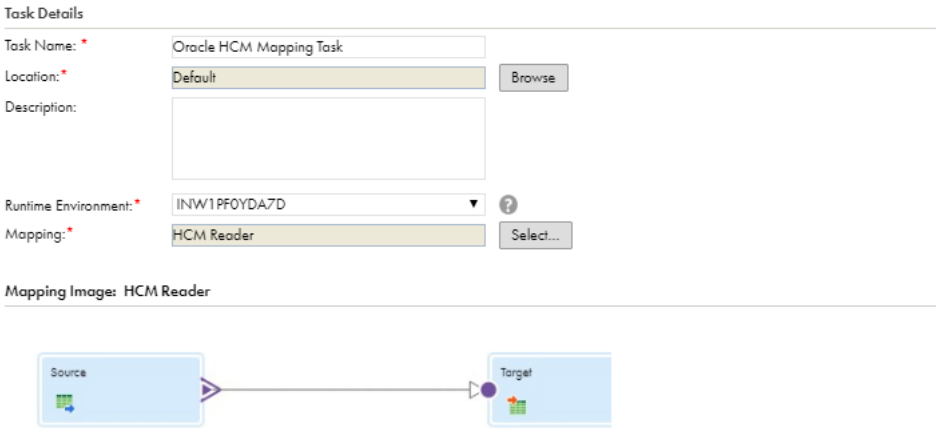
    The following image shows the response structure on the left pane in a hierarchical format and the output groups on the right pane in a relational format:




6. On the Target transformations, specify the target connection, target type, object, and operation for the target transformations.

7. Map the source and target.
8. Click **Save and Run** the mapping.
9. In Data Integration, click **New** > **Task**.
10. Click **Mapping Task** > **Create** and select the mapping for the task.

    The following image shows the Mapping Task wizard with the applied mapping:




In **Monitor**, you can monitor the status of the logs after you run the task.

## Configuring Request Message

You can configure the request message based on how you submit the HCM extract definitions to the Oracle HCM Cloud application when you create a mapping.

You can either submit the HCM extract definitions from the Oracle HCM Cloud application directly or use the **Submit Extract** connection property. On the Source transformation, click **Configure** in the **Request Options** section to configure the request message.

When you submit the HCM extract definitions from the Oracle HCM Cloud application directly, specify the request message and attributes in the following XML format and validate the message:

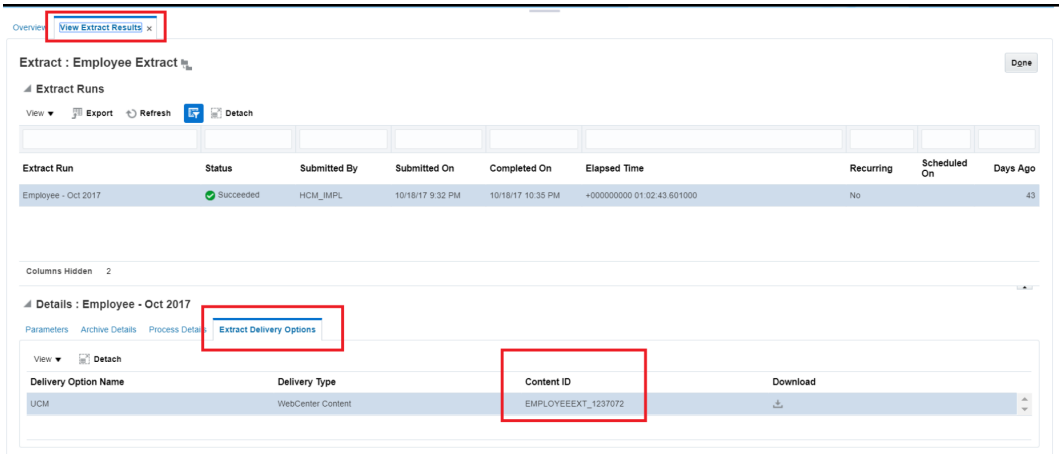
```
<!--1 or more repetitions:-->
<proc:requestMessage_INPUT xmlns:proc="http://xml.schemas/infa/procedure/">
  <!--1 or more repetitions:-->
  <integrationName>
    <!--STRING-->
  </integrationName>
  <!--Optional:-->
  <contentID>
    <!--STRING-->
  </contentID>
  <!--Optional:-->
  <advancedQuery>
    <!--STRING-->
  </advancedQuery>
</proc:requestMessage_INPUT>
```

The **Integration Name** parameter is mandatory. You must specify the same value of the **Integration Name** property that you specified in the Oracle HCM Cloud application when you create the HCM extract definition.

The **advancedQuery** parameter is optional. If you want to process multiple XML files based on the filter query options or between date range, you must provide the **advancedQuery** parameter. When you add the QueryText syntax in the **advancedQuery** parameter, ensure that the QueryText syntax is based on the Verity Query language.

By default, Oracle HCM Cloud V1 Connector processes the XML data of the latest submitted HCM extract definition instance. Specify the **Content ID** parameter if you want to process the XML data corresponding to a different instance of the submitted HCM extract definition.

**Note:** You can obtain the **Content ID** of the submitted HCM extract definition instance from the Oracle HCM Cloud application. Navigate to the **Extract Delivery Options** tab under the **View Extract Results** page to obtain the **Content ID**. The following image shows the **View Extract Results** page where you can obtain the value of the **Content ID**:




When you submit the HCM extract definitions using the **Submit Extract** connection property, specify the request message and attributes in the following XML format and validate the message:

```
<!--1 or more repetitions:-->
<proc:requestMessage_INPUT xmlns:proc="http://xml.schemas/infa/procedure/">
    <!--1 or more repetitions:-->
     <flowName>
        <!--STRING-->
     </flowName>
<!--1 or more repetitions:-->
     <flowInstanceName>
        <!--STRING-->
     </flowInstanceName>
    <!--Optional:-->
<legislativeDataGroupName>
     <!--STRING-->
</legislativeDataGroupName>
<!--Zero or more repetitions:-->
  <parameterValues>
<!--1 or more repetitions:-->
  <ParameterName>
  <!--STRING-->
  </ParameterName>
<!--1 or more repetitions:-->
  <ParameterValue>
  <!--STRING-->
  </ParameterValue>
 </parameterValues>
<!--1 or more repetitions:-->
  <integrationName>
  <!--STRING-->
  </integrationName>
</proc:requestMessage_INPUT>
```

The **flowName** parameter is mandatory. You must specify the name of the HCM extract definition as **flowName**.

The **flowInstanceName** parameter is optional. If you provide a value for the **flowInstanceName** parameter, it must be unique for each mapping task. If you do not provide a value for **flowInstanceName** or the **flowInstanceName** tag is missing in the request message, the connector generates a unique value based on

the flow name and has the syntax `flowInstanceName = flowName_currentTimeStamp` (timestamp in epoch). For example, if you provide flow name as `Taleo Job` then the flow instance name generated by the connector is `Taleo Job_1565028486`.

Specify the **legislativeDataGroupName** parameter to provide a name for the legislative data group in which you created the HCM extract definition.

Specify the **ParameterValue** parameter to provide parameters that are defined for the HCM extract definition.

The **Integration Name** parameter is mandatory. You must specify the same value of the **Integration Name** property that you specified in the Oracle HCM Cloud application when you created the HCM extract definition.

**Note:** If you submit multiple instances for the same HCM extract definition in parallel, Informatica recommends that you provide a unique **Integration Name** for each of the HCM extract definitions in the request message.

# Oracle HCM Cloud V1 Target transformation in Mappings

When you configure a Target transformation, select the Oracle HCM Cloud V1 connection and choose an Oracle HCM operation to represent an Oracle HCM Cloud V1 target.

## Target Transformation Properties

You can use one or more Target transformations in a mapping.

When you select a target transformation, the **Properties** panel displays the following sections:

**General**

Use to configure the name and a description for the target.

**Incoming Fields**

Includes the field rules that define the data written to the target. Allows a preview of the target fields.

**Target**

Use to select the connection and the operation, and to configure the advanced target properties.

**Target Fields**

Not applicable for Oracle HCM Cloud V1 targets.

**Field Mapping**

Use to define the field mappings from the upstream transformation to the target.

## Prerequisite Tasks for Person Number Auto Generation

After you perform the pre-requisite tasks for the Write operation, copy the standard Excel templates and perform the modifications mentioned below.

Perform the following steps to automatically generate the Person Number for Worker objects:

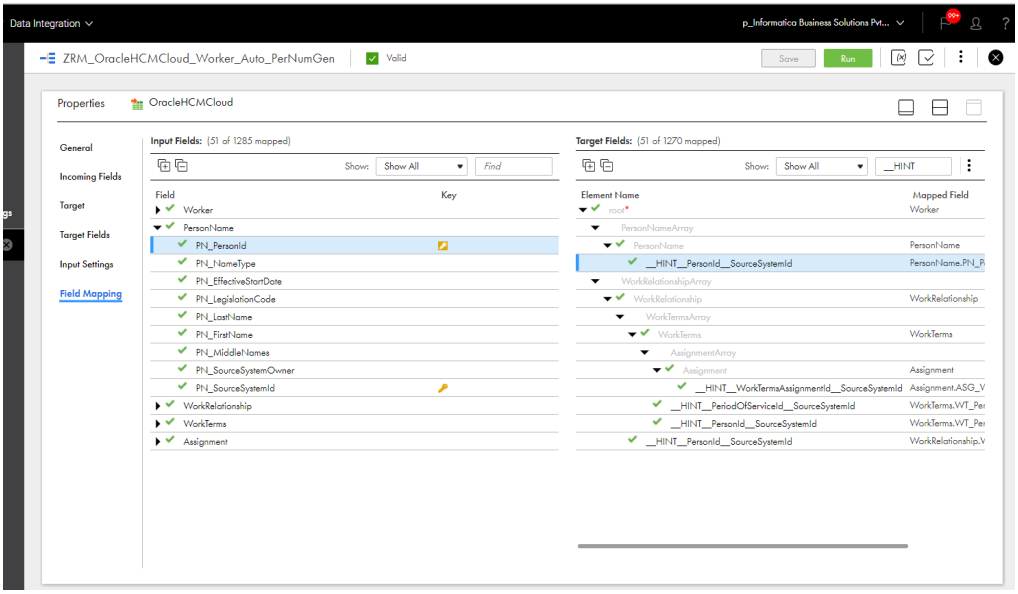
1. Change the **AttributeName** to **AttributeName(HintAtrributeName)** as required. For example,
   - **PersonId** to **PersonId(SourceSystemId)**

- **JobId** to **JobId(GUID)**

2. Change the Attribute data type to **HINT** Attribute data type. For example, change the data type of the **PersonId(SourceSystemId)** attribute from **Number** to **String** as the **Hint** Attribute **SourceSystemId** data type is String.
3. Save the Excel template with the modifications and copy it to the **Writer** folder within the **Schema Directory**.

   **Note:** To avoid the loss of all modifications, do not connect to the respective Oracle HCM Cloud instance after you modify the standard Excel template.

   The following image shows the Field Mapping tab, with the **Hint** attribute in this format: **__HINT__ AtributeName __ HintAttributeName**. For Example: **__HINT__PersonId__SourceSystemId**.




# Oracle HCM Cloud V1 Advanced Target Properties in Mappings

In a mapping, you can configure or create a Target transformation and configure the advanced properties in the **Target** page of the Mapping Task wizard.

The following table describes the advanced properties that you can configure in a Target transformation:

| Property | Description |
|---|---|
| Cache Size for Web Service Request (KB) | Not Applicable.<br>**Note:** Do not change the value of this property unless Informatica Global Customer Support instructs you to do so. |

# Input settings properties

You can enable **Sorted Input** under **Input Settings**. Sorted Input indicates that input data is presorted. Default is disabled.

Enable sorted input for better performance.

**Note:** When **Sorted Input** is enabled and the input is not sorted, the Secure Agent does not process input and the mapping fails.

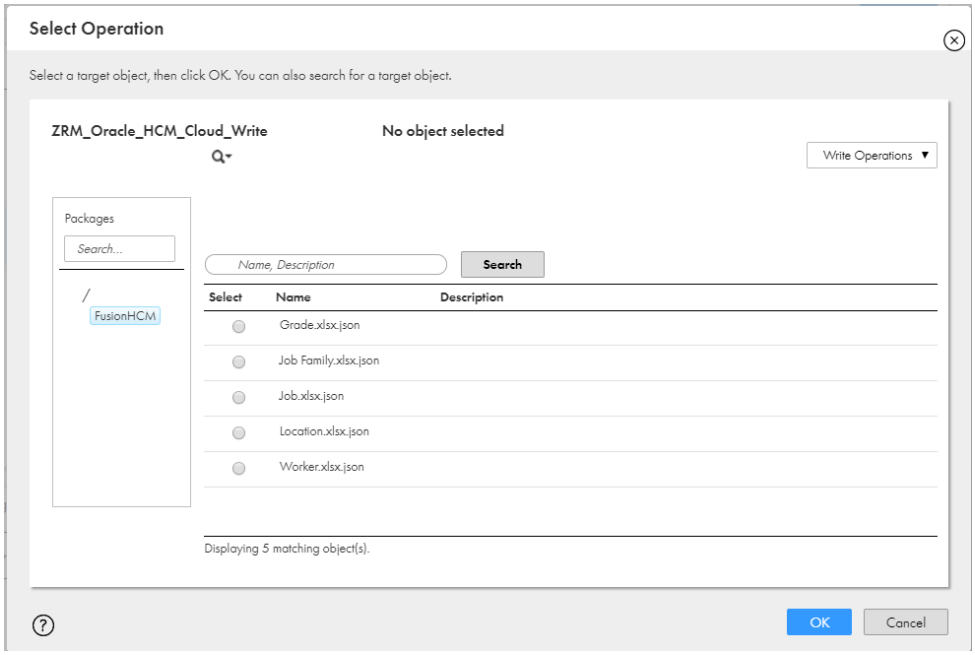
## Target Transformation Mapping Example

You can map a source to an Oracle HCM Cloud V1 target and use the mapping to perform a mapping task.

To read data from a source and write to an Oracle HCM Cloud V1 target, perform the following tasks:

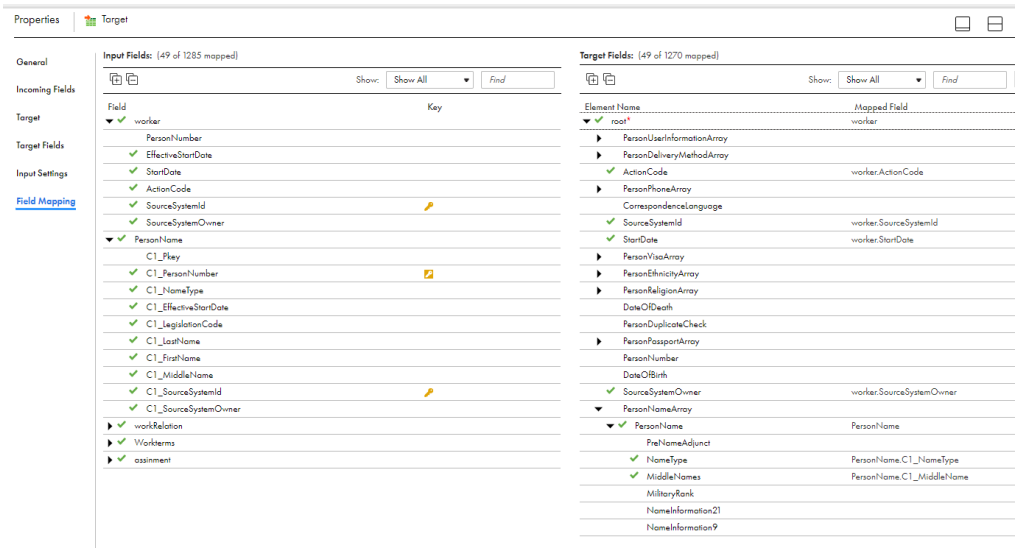
1. In Data Integration, click **New** > **Mapping** > **Create**.

   The **New Mapping** dialog box appears.
2. Enter a name and description for the mapping.
3. On the Source transformation, specify a name and description in the general properties.
4. On the Target transformation, specify a name and description in the general properties. Perform the following tasks on the **Target** tab:
   1. In the **Connection** field, select the Oracle HCM Cloud V1 connection to connect to Oracle HCM Cloud application.
   2. In the **Operation** field, select the required object in the **Package Explorer** section and select the required operation.
      The following image shows the list of the write operations:




   3. In the **Advanced Properties** section, set the cache size.
5. On the **Field Mapping** tab, select the input elements to map to the target fields.

The following image shows all the mapped fields between the input file and the Oracle HCM Cloud V1 target:




6. Map the source and target.
7. Click **Save and Run** the mapping.
8. In Data Integration, click **New** > **Task**.
9. Click **Mapping Task** > **Create** and select the mapping for the task.

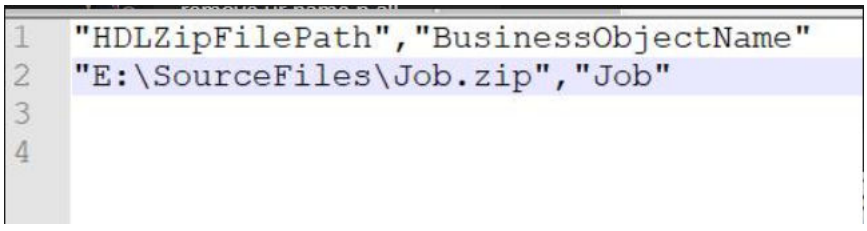
In **Monitor**, you can monitor the status of the logs after you run the task.

## Target transformation mapping example for Import and Load Data object

You can use a pre-configured DAT file in zip format to directly upload HDL files to Oracle Cloud. Create a flat file and specify the details of the HDL ZIP file path and the business object name. To upload the HDL files to Oracle Cloud, select the Import and Load data object for the write operation.

Pre-requisites:

- Before you begin, create a flat file and specify the details of the **HDLZipFilePath** and the **BusinessObjectName**. The sample file shows the configured details in the flat file:

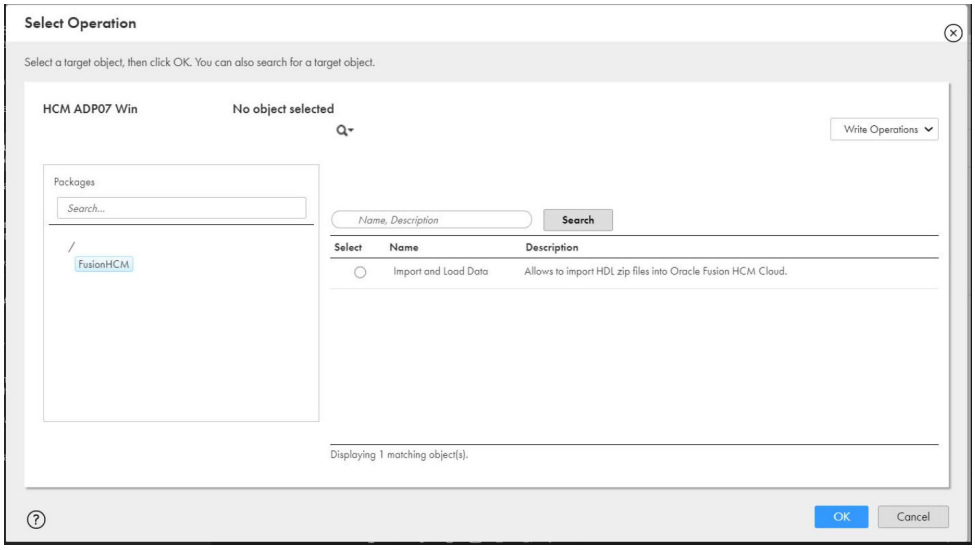



**Note:** The **HDLZipFilePath** specifies the path to the zip file that encloses the DAT file and **BusinessObjectName** specifies the name of the Oracle HCM target object.

1. In Data Integration, click **New** > **Mapping** > **Create**.

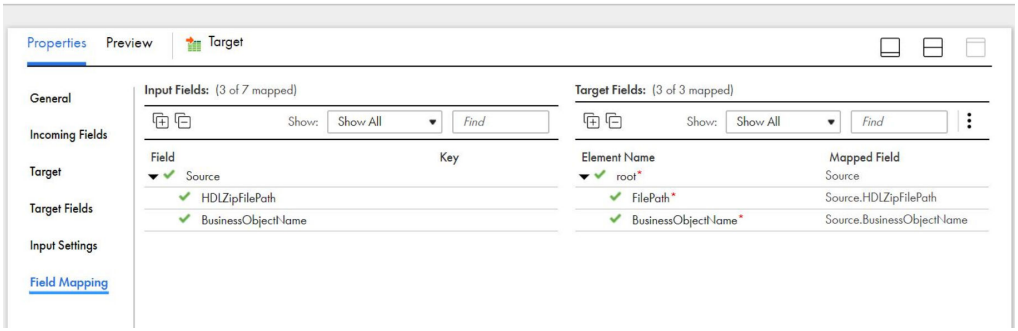
   The **New Mapping** dialog box appears.
2. Enter a name and description for the mapping.
3. In the Source transformation, specify a name and description in the general properties.

4. In the Connection field, select the flat file connection to connect to the configured flat file that contains the DAT file details.
5. In the Target transformation, specify a name and description in the general properties. Perform the following tasks on the **Target** tab:
    1. In the **Connection** field, select the Oracle HCM Cloud V1 connection to connect to Oracle HCM Cloud application.
    2. In the **Operation** field, select the **Import and Load data** object in the **Package Explorer** section. The following image shows the list of the write operations:




6. On the **Field Mapping** tab, map the source fields to the target fields.

    The following image shows all the mapped fields between the input file and the Oracle HCM Cloud V1 target:




7. Click **Save and Run** the mapping.
8. In Data Integration, click **New** > **Task**.
9. Click **Mapping Task** > **Create** and select the mapping for the task.

In **Monitor**, you can monitor the status of the logs after you run the task.

# Oracle HCM Cloud V1 Midstream transformation in Mappings

Before you configure a midstream transformation, you must create a business service. Select an Oracle HCM Cloud V1 connection and choose an Oracle HCM operation when you create a business service.

## Midstream Transformation Properties

When you configure the midstream transformation, select the business service and the operation on the **Web Service** tab.

When you select a midstream transformation, the **Properties** panel displays the following areas and information:

**General**

Use to configure the name and a description for the transformation.

**Incoming Fields**

Includes the field rules that define the data that you read from the source. Allows a preview of the source fields.

**Web Service**

Specifies the business service and the operation that you want to perform in an Oracle HCM Cloud application.

**Request Mapping**

Maps the incoming fields from source file to elements in request structure.

**Response Mapping**

Maps the selected elements from the response structure with the output fields. You can view the response structure on the **Response Mapping** tab. When you map the elements from the response structure to the output fields, the Secure Agent creates the output groups, along with the primary and foreign keys for the field names.

**Output Fields**

Displays the fields included in the mapping.

**Advanced**

The properties required to configure a midstream transformation.

## Oracle HCM Cloud V1 Advanced Midstream Properties in Mappings

The following table describes the advanced properties that you can configure for a midstream transformation:

| Property | Description |
|---|---|
| Cache Size for Web Service Request (KB) | Memory available for the web service request. If the request is more than 100 KB, you can increase the cache size.<br>Default is 100 KB. |
| Cache Size for Web Service Response (KB) | Memory available for the web service response. If the web service response contains many rows or columns, you might want to increase the cache size.<br>Default is 100 KB. |
| Allow Input Flush | Not applicable. |
| Transaction Commit Control | Not applicable. |

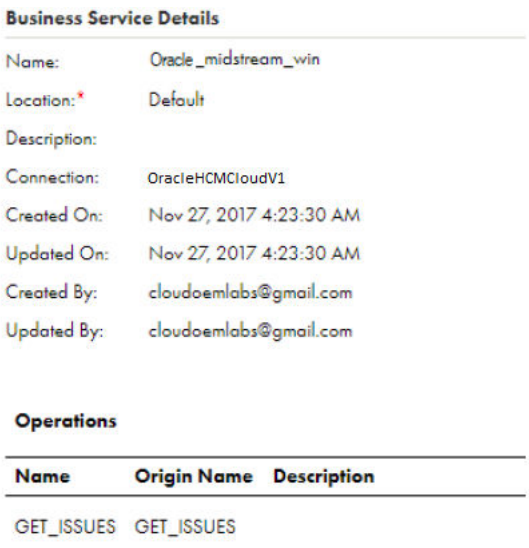
## Midstream Transformation Mapping Example

To read data from an Oracle HCM Cloud V1 source and to write the data to a flat file, perform the following tasks:

1. Create an Oracle HCM Cloud V1 connection to read data from an Oracle HCM Cloud V1 source.
2. In Data Integration, click **New** > **Components** > **Business Sevice**.

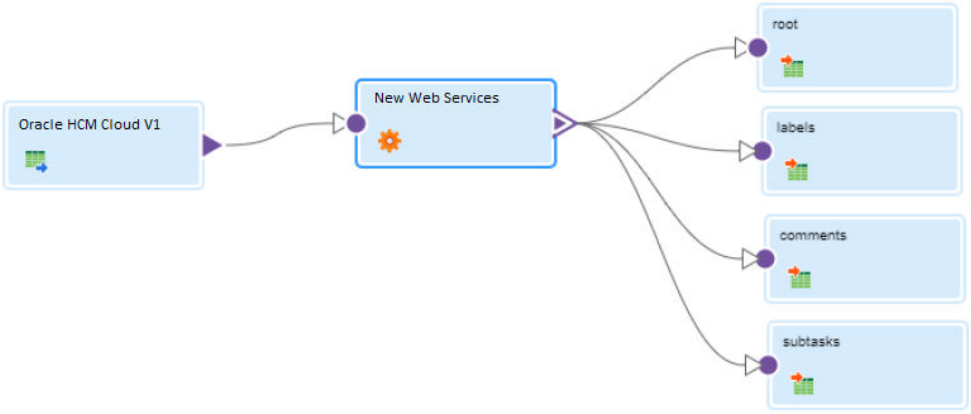
   The **Business Sevice Details** dialog box appears.

   The following image shows the configured business service that associates an Oracle HCM Cloud V1 connection and an operation:



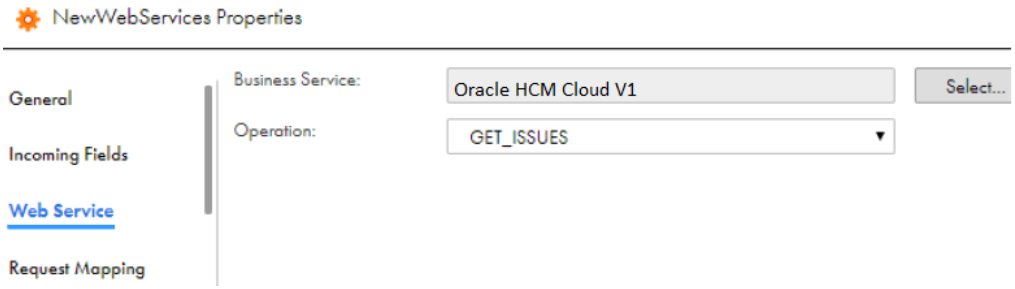

3. Add a Web Services transformation. Specify a name and description in the general properties.

The following image shows the source, web service, and target in the Oracle HCM Cloud V1 mapping:




4. On the **Web Service** tab, select the business service and the operation that you configured.

   The following image shows the configured web service:




5. On the **Request Mapping** tab, map the incoming fields from the source to the elements of Request Structure to form a web service request:

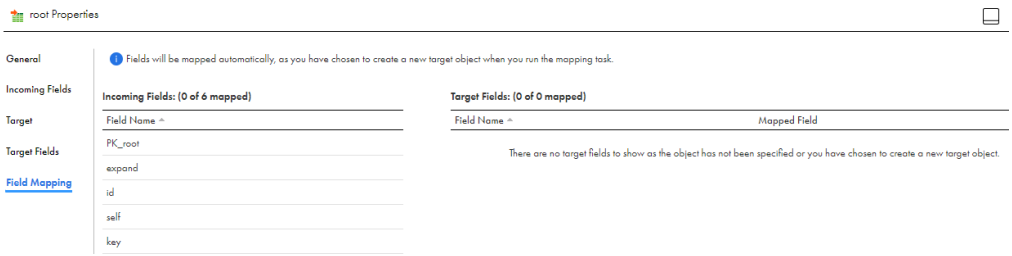
   The following image shows the fields that you map:




6. On the **Response Mapping** tab, select the source details fields that you want to write to the target file on the **Response Structure**.
7. On the **Advanced** tab, specify the cache size details.

   The fields that you select from the **Response Structure** of the Web Service transformation appear as incoming fields for the target object.

8. If required, map the incoming fields to the flat file fields.




9. Click **Task Wizards** > **Mapping Task**, and select the mapping for the task.
10. When you save and run the mapping, the Secure Agent reads the data that you map on the **Request Mapping** tab from Oracle HCM Cloud application and writes the data to the corresponding flat files.

# Parameterization

You can parameterize the Oracle HCM Cloud V1 source connection, target connection, the request message in the Source transformation, and the field mapping in the Source transformation.

**Note:** Parameterization using a parameter file at runtime is not supported for Oracle HCM Cloud V1 Connector.

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