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Workday Simple Integrations

Course Manual and Activity Guide

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CONTENTS

WORKDAY SIMPLE INTEGRATIONS FOR WORKDAY 30

DESCRIPTION

This three day Workday simple integrations virtual instructor-led course focuses on mechanisms for using custom report results in integrations and loading data though generated template models. Through a series of presentations, demonstrations and activities, you will learn how to build and launch an integration that extracts data out of Workday and sends it to an external system, learn about the different template models with the different functional areas and how to generate, customize and populate those templates for inbound transactions. You will also learn how to use a business process to trigger an outbound integration and custom XSLT to transform report data. This class will stress the importance of business processes, Reference IDs, and data structure when you are working with both inbound and outbound data. This course is designed for business analysts and developers who will be using generated templates to import data into workday and using Workday Reports as a Service (RaaS) for outbound data.

GOAL & OBJECTIVES

In this course, you will learn how to use Enterprise Interface Builder (EIB) to create outbound and inbound integration systems to extract and load data.

By the end of this course, you will be able to:

- Explain the three step pattern of EIBs
- Create a Web Service Enabled Report
- Understand the xml structure of a RaaS Report's output
- Create an Outbound EIB that uses a RaaS Report or a Workday Web Service as a data source
- Setup EIB specific security.
- Use the correct tool to launch an EIB
- Apply alternate output formats, Custom Report Transformation and Custom Transformation to an outbound EIB
- Select and configure the appropriate outbound delivery method
- Create an inbound EIB and apply a Custom Transformation on the input data
- Enable bulk data upload using inbound EIBs with Spreadsheet Templates
- Troubleshoot data upload with inbound EIBs
- Modify the Template Model and generate the Spreadsheet Template
- Generate a Spreadsheet Template with data
- Explain the difference between input and import web services

AGENDA

- Integration Architecture Review
- EIB Overview
    - Enterprise Interface Builder (EIB)
    - The three-step EIB design pattern
- Outbound Integration Systems
    - Using Reports as a Service (RaaS) and Workday Web Services to extract data
    - Setup EIB and RaaS report security
    - Integration as a step in a Business Process
    - Scheduling integrations
    - Using Custom Report Transformations and XSLT for Outbound EIBs
    - Configuring notifications and external file delivery
- Inbound Integration Systems
    - Using Custom XSLT for Inbound EIBs
    - Generating and customizing templates
    - Reviewing the Business Process associated with an Inbound EIB
    - Troubleshooting Inbound EIBs
    - Loading bulk transactions
    - Viewing Integration System results

COURSE STRUCTURE

You will use this course manual throughout the course. There are various interactive elements throughout this course, including:

Demos: Demos show concepts, configuration, and functionality within a Workday training environment.

Activities: You will use your individual training tenant to perform activities in the Workday system. These activities reinforce concepts discussed in the videos, demos, and course manual.

CHAPTER 1 – ENTERPRISE INTERFACE BUILDER (EIB) OVERVIEW

OVERVIEW

The Enterprise Interface Builder (EIB) allows users to perform simple and secure integrations with Workday. The purpose of the EIB, which uses no third-party software or hardware, is to allow customers to build their own integrations according to their unique business scenarios.

OBJECTIVES

By the end of this chapter, you will be able to:

- Define EIB's purpose within Workday's integration architecture.
- Identify the components of the EIB three-step design pattern.
- Discuss the limitations of EIB.

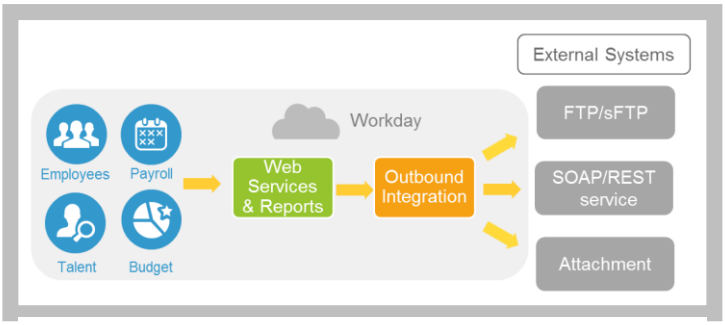
INTEGRATION ARCHITECURE REVIEW

All Workday customer data is stored as objects within a persistent, in-memory store. Originally, a suite of business services called the **Object Management Service (OMS)** maintained the relationships and integrity of these objects. Over time, the OMS has evolved to become a set of microservices that scale based on transaction and reporting demand. The only way to access Workday object data is via web service requests. This is an important aspect of how Workday addresses issues such as security and performance.

All communication with the Workday services is via HTTPS requests. Users generally access Workday through web browsers. The User Interface Server (UI Server) handles these requests, presenting HTML forms for user interaction, while communicating with the Workday platform using XML messages. Developers also connect via the UI Server to make use of the browser-based tools, for example, when configuring Integration Systems or building integrations using Enterprise Interface Builder (EIB).

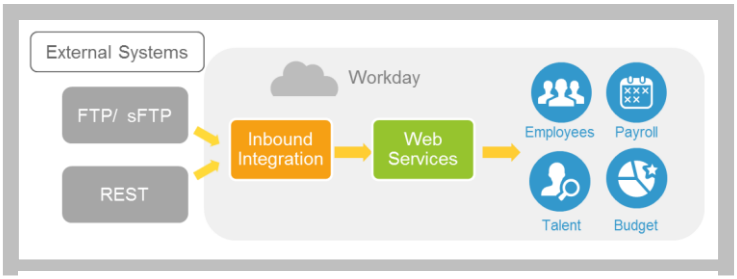
Workday has application programming interfaces (APIs) that support both inbound and outbound requests for mobile applications and data-driven integrations that do not use the Workday UI.

- **Outbound**
  - Data is provided by Workday
  - Outgoing data may be transformed
  - Schedule
  - Encryption



1 - **Outbound integration schema**

- **Inbound**
  - Data is fed to Workday
  - Incoming data is transformed into Workday Web Service (WWS) compliant format
  - Schedule
  - Encryption



2 - **Inbound integration schema**

EIB OVERVIEW

The Enterprise Interface Builder (EIB) tool provides an easy-to-use graphical and guided interface to define outbound and inbound integrations with little to no programming. Both IT users and business experts can leverage EIB to address simple integration needs.

3 - EIB 3 step pattern: Get Data, Transform, Deliver

EIB can be used for both exporting and importing data.

Direction of Integration	Description	Example
Outbound	Export data from Workday in various formats, such as: • CSV • Google Data (GData) • JavaScript Object Notation (JSON) • Really Simple Syndication (RSS) • Workday XML Send the data to an external endpoint by using various protocols, such as: • AS2 • Email • SFTP, FTP/SSL, or FTP • HTTP/SSL	Export all active Workday employees in an Excel spreadsheet to E*Trade® Equity Edge® via SFTP.

Inbound	Upload data into Workday by using: • A template attachment • A REST-based URL • A file transferred from an external SFTP, FTP/SSL, or FTP endpoint	Import Employee Bonus data into Workday from an Excel spreadsheet that you provide to Workday in an attachment.

EIB DESIGN PATTERN

There are three components to the EIB design pattern.

4 - EIB 3 step pattern: Data Source, Transformation, Delivery Protocol

Data Source: There are a number of options for retrieving data:

- Outbound
  - Workday Custom Report
  - Workday Web Service API
- Inbound
  - Attachment
  - (S)FTP(s)-based file
  - REST URL

Transformation: There are also multiple options for transforming data using the EIB:

- Alternate Output Format
- Custom Report Transformation
- Custom XSLT

Deliver Data: Workday also provides a number of different transport protocols:

- Outbound
  - Workday Attachment
  - (S)FTP(s)

    - HTTP(s)
    - Email
    - AS2
- Inbound
    - Workday Web Service API
    - Custom Object API

WHEN TO CONSIDER EIB

You know EIB is the right tool for your integration if you can answer ‘yes’ to these questions.

- Can one Custom Report or Web Service call handle all the related data?
- Can one transformation manage all the data?
- Does the integration need only one input/output?

SECURITY TO BUILD AND LAUNCH INTEGRATIONS

You need access to the appropriate domains to build, configure, debug, and access integration events and reports.

Security Domain	Allows
Integration Build	• Create or edit an EIB. • Create or edit an integration system. • Deploy a Workday Studio integration. • View an integration system or EIB.
Integration Configure	• Configure an EIB. • Configure one or more integration services.
Integration Event	• Launch an integration. • Schedule an integration. • View resulting integration events, including integration output documents.
Integration Process	• View details of those processes that are commonly executed as part of an integration.
Integration Reports	• View integration reports, including reports for integration events, exception audits, messages, and integration IDs.
Integration Subscriptions	• Edit integration subscriptions. • View integration subscriptions.
Integrations: EIBs	• Set up EIB-specific options (e.g. dynamic filenames, template model actions, custom report transformation, XSLT transformation, transport protocols, Web Service data source).

All access to Workday data is done through web service operations and Reports-as-a-Service. These web service operations, report data sources, class report fields are secured by various security domains.

Integration systems (and external systems that access Workday) must have the appropriate Get and/or Put access to the domains that include web service operations or the appropriate View access to domains for report data sources and class report fields.

Outbound EIBs also require access to the custom report that they use as a data source.

CHAPTER 2 – OUTBOUND EIB

OVERVIEW

Outbound EIBs are used to extract information from the Workday system, and either attach it back to the customer's tenant for future use or reference or send it somewhere for further processing.

OBJECTIVES

By the end of this chapter, you will be able to:

- Create and launch an outbound EIB using Reports-as-a-Service (RaaS).
- Setup EIB and RaaS report security
- Launch an outbound EIB from a business process.
- Schedule an outbound EIB.

REPORTS-AS-A-SERVICE (RAAS)

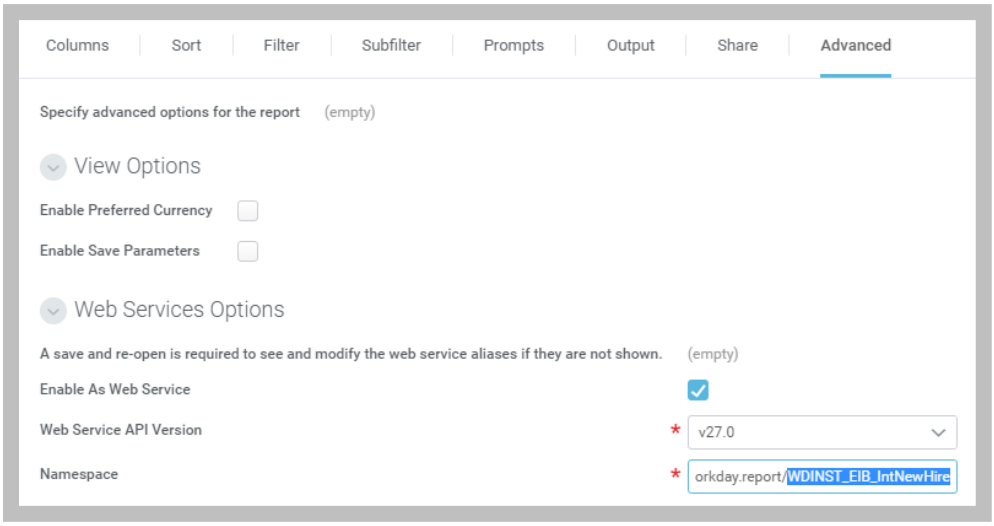
Workday enables you to build your own web services through our Report Writer / Custom Reports functionality. When custom reports are web service-enabled, they become **Reports-as-a-Service (RaaS)** and are exposed as both SOAP- and REST-based web services for integration scenarios. Only Advanced reports can be enabled for web services.

95% of outbound EIB integrations use a RaaS data source.

Important: When you enable web services for an advanced custom report and expose the report for integration scenarios, the maximum size of the response that can be returned is 2 GB.

NAMESPACE

When you enable a custom report as a web service, Workday generates a unique RaaS **namespace** for the report, using the following format: *urn:com.workday.report/Report_Name* (where *Report_Name* is the name of the report with underscores replacing spaces).



5 - RaaS Report Namespace

The RaaS namespace remains fixed even if the report owner changes due to transfers of ownership or if the report name changes. This prevents integrations that rely on the report's output from being unable to retrieve data if the report owner changes.

You can edit the namespace for a custom report. However, you should consider the following:

- Workday does not verify that a changed RaaS namespace is unique.
- If you have any integration that uses the report, you will have to update them to use the new RaaS namespace.

COLUMN HEADING OVERRIDE XML ALIAS

Reports that are enabled for web services must have XML aliases defined for all columns, prompts, and related business objects.

OUTPUT FORMATS:

Workday Report XML

The Workday XML option outputs the literal, and somewhat advanced, XML code used internally within Workday. This option might be useful in cases where REST (representational state transfer) or SOAP (simple object access protocol) is used to leverage Workday's sophisticated use of the XML language.

ALTERNATE OUTPUT FORMATS:

- **Simple XML**: The Simple XML format is particularly useful for basic desktop integrations, in which a knowledgeable user wants to integrate with other reporting tools such as Microsoft Excel or Crystal Reports. With Simple XML, the complexity of Workday XML is distilled into basic XML elements that are simple to understand and can be processed by many desktop applications.
- **CSV:** The CSV (comma separated values) output option is likely to be used by a user wanting to import data into a spreadsheet as simply and quickly as possible. No knowledge of XML or schemas is required.
- **RSS:** RSS stands for Really Simple Syndication. It is an XML standard for publishing frequently updated content over the Internet. Common examples of such content are news headlines and blog postings.
- **GData:** The GData output option is useful for integrations with Google gadgets and other cases where it is desirable to allow programmatic access to this data format.
- **JSON:** The JSON (JavaScript Object Notation) output is the most common alternative to XML for data interchange between browser-based applications and web servers.

DEMO 2.A – REVIEW RAAS REPORT OUTPUTS

Introduction: We will create a RaaS report that outputs Worker data.
We will show you the different output types that a RaaS report can generate.
This report will be the data source for upcoming EIB demos.

TASK #1: CREATE A CUSTOM RAAS REPORT

1. Sign in as Logan McNeil (lmcneil).
2. Search and select the **Copy Standard Report to Custom Report** task
3. Provide **Workers by Organizations – indexed** for the Standard Report Name and click **OK**.
4. Name the new report **WICT EIB Demo Report** and click **OK**.
5. On the **Columns** tab, after the Worker field, add the following fields:
    - Full Legal Name
    - Hire Date
    - Company
    - Business Title
    - Total Base Pay Annualized in USD – Amount
    - Social Security Number
6. On the **Prompts** tab, add the following labels for the prompts:

Field	***Label for Prompt***
Organizations by Type	Orgs
Include Subordinate Organizations	Include Sub

7. On the **Advanced** tab, check **Enable As Web Service**. The Web Service API Version and Namespace populate automatically.
8. Click **OK** to save. Notice the **Column Heading Override XML Alias** populates automatically for each field on the **Columns** tab.
9. Select the **Prompts** tab. Notice the **Label For Prompt XML Alias** populated automatically using the Label for Prompt, or the Field.

TASK #2: VIEW THE REPORT'S OUTPUT IN THE U.I.

1. From the report's **Related Actions** select **Custom Report** > **Run**. Right Click and select See in New Tab (or a similar label displayed by your browser)
2. Enter the following values for the Report Parameters:

Field	***Value***
Orgs	Payroll Department
Include Sub	Unchecked

3. Click **OK**. Notice the number of items and the data shown.

TASK #3: VIEW THE RAAS REPORT OUTPUTS

1. Return to the report definition's browser tab.
2. From the report's **Related Actions** select **Web Services** > **View URLs**.
3. Enter the following values for the Report Parameters:

Field	***Value***
Orgs	Payroll Department
Include Sub	Unchecked

4. Click **OK**
5. In the View URLS Web Service page hoover over the **Rest Workday XML** url.
6. Click on the "view in new tab" icon.
7. In the pop up dialog box, provide Logan Mcneil's username and password.
8. Repeat the steps for the Simple XML and CSV urls.

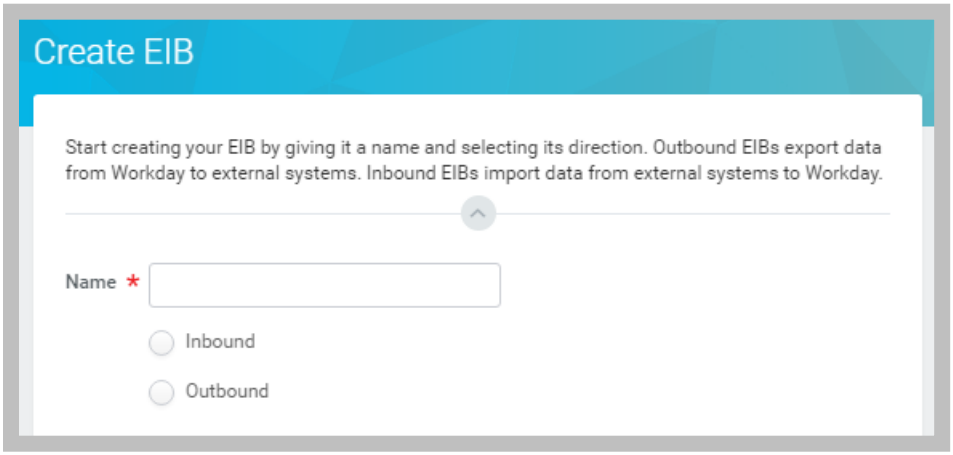
   Note: Keep the 3 outputs open for reference in upcoming demos.

CREATE OUTBOUND ENTERPRISE INTERFACE

Use the Enterprise Interface Builder to create, configure and launch simple interfaces as background processes.

CREATE EIB

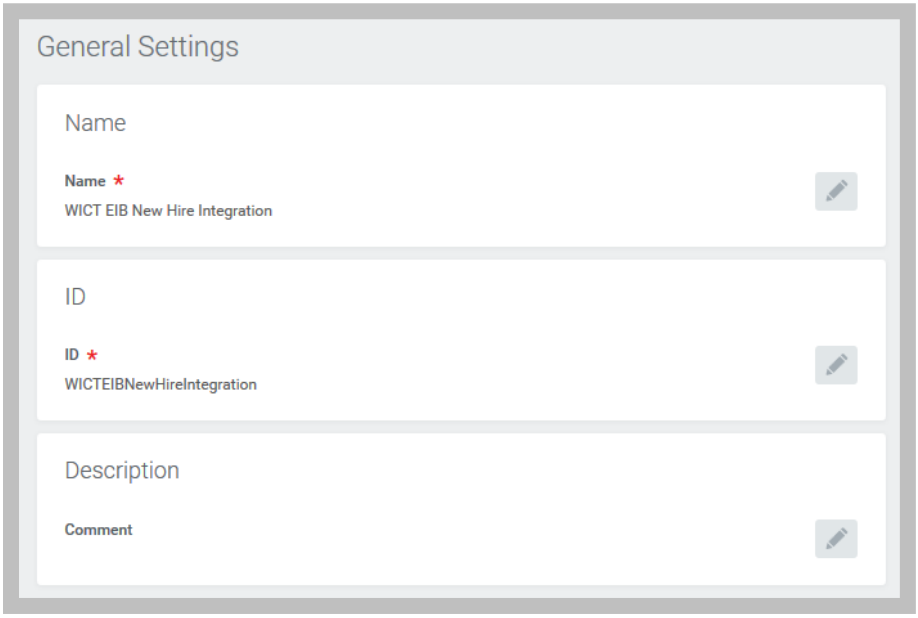
Locate the *Create EIB* task. Enter the integration system name and direction, and click OK to launch the guided editor.



6 - Create EIB task

GENERAL SETTINGS

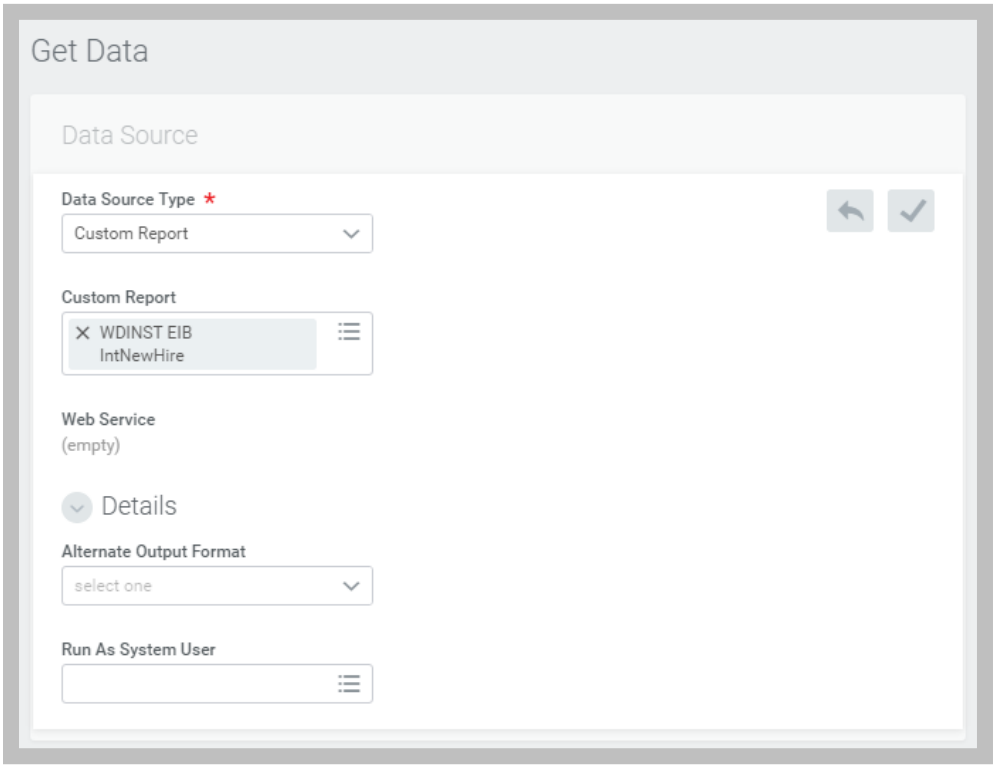
The General Settings include the name and description of the interface.



7 - General Settings

GET DATA

For an outbound EIB, the *Data Source* is either a *Custom Report* or a *Workday Web Service* (WWS) operation. For custom reports, you can select an *Alternate Output Format* instead of the default Workday XML.



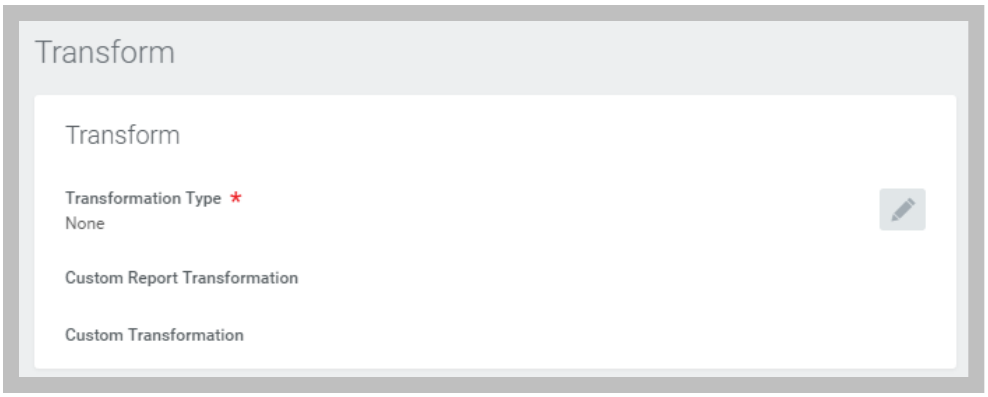
8 - Get Data

Important: The maximum processing time for outbound EIBs retrieving custom report or web service data is 30 hours.

Any pause in processing doesn't count toward the 30-hour limit.

TRANSFORM

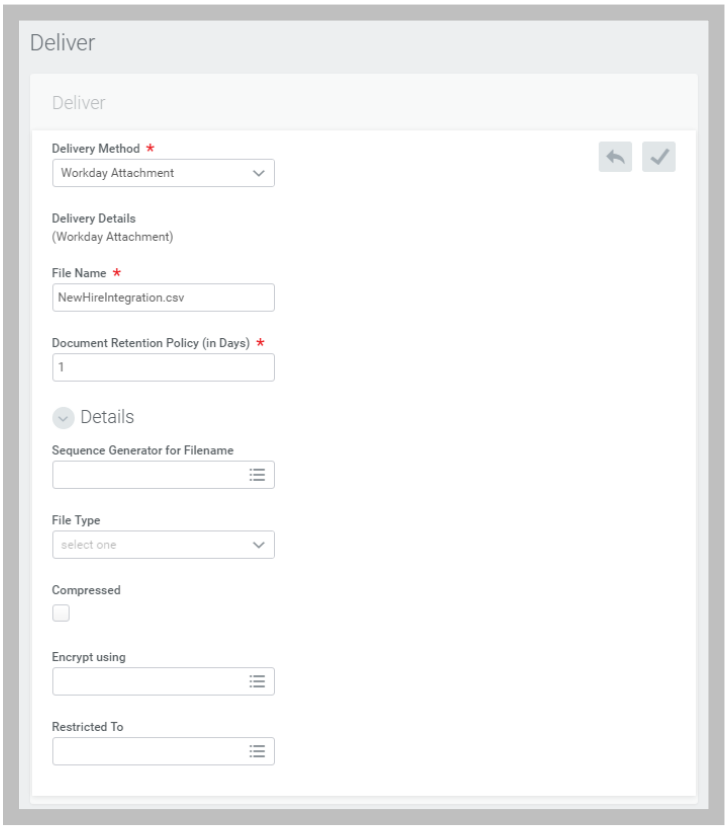
EIB supports *Custom Report Transformation* (for Reports-as-a-Service data sources, only) and *Custom Transformation* (XSLT).



9 - Transform

DELIVER

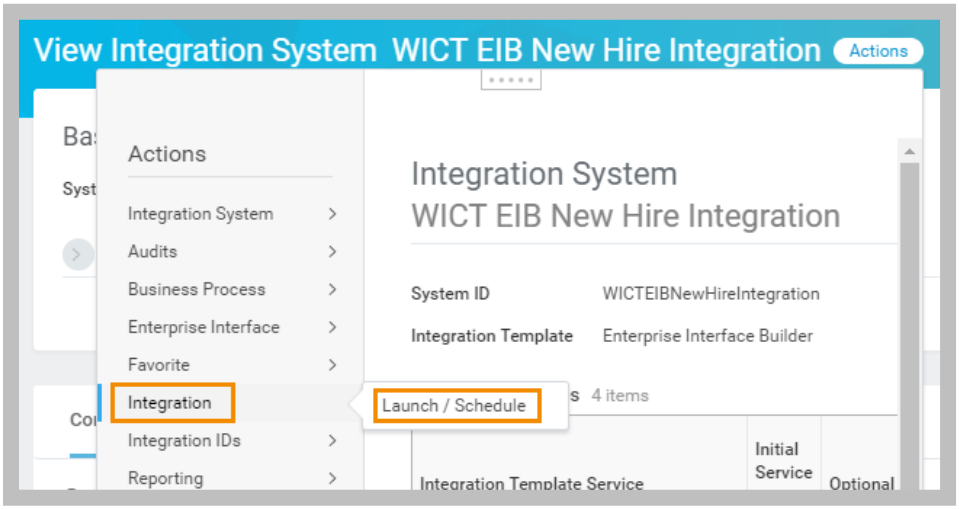
Outbound EIBs support several *Delivery Methods*, as well as file compression and encryption options. The default method, *Workday Attachment*, stores the data in the Workday cloud.



10 - Deliver

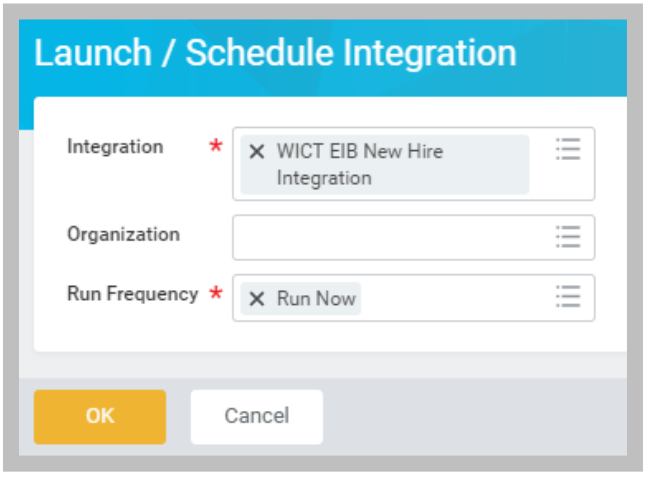
LAUNCHING AN INTEGRATION SYSTEM

From an integration system's Related Actions, select **Integration > Launch/Schedule**.



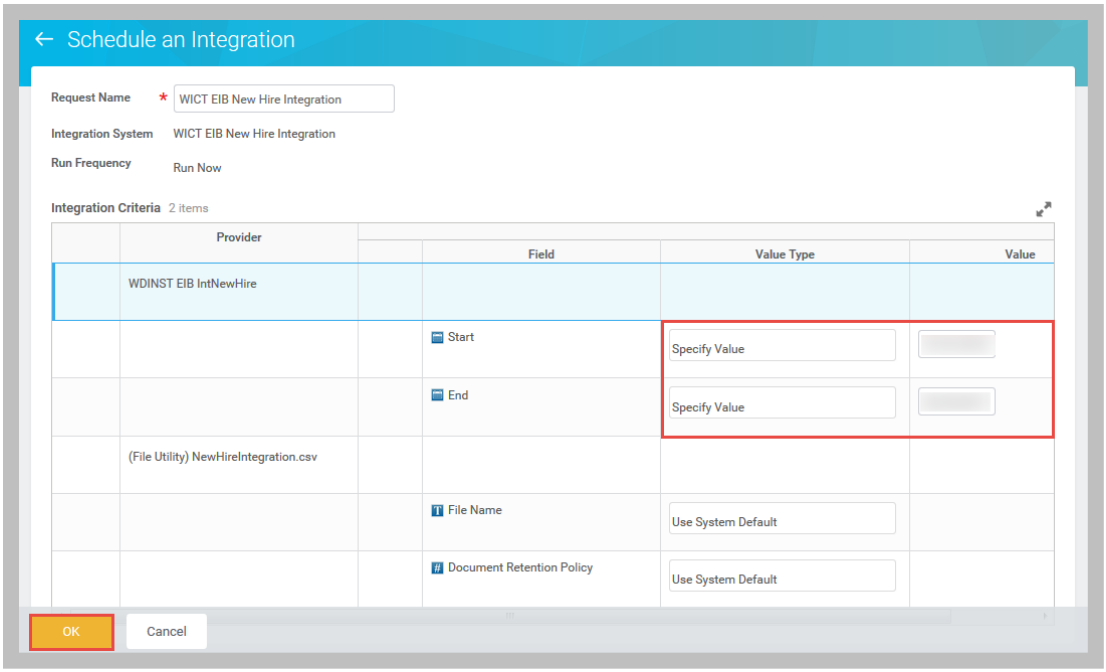
1 - Launching an Integration System by related action

It is possible to restrict processing by Organization and choosing a Run Frequency.



2 - Launch / Schedule Integration task with Run Frequency options

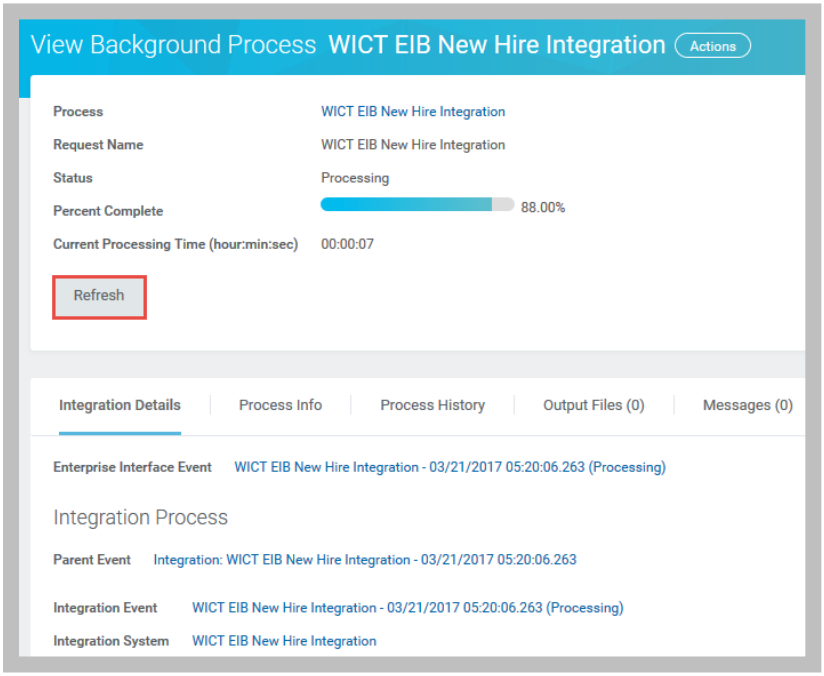
You must populate any required launch parameters, which could include prompts from a custom report data source.



3 - Entering Integration Criteria

VIEW BACKGROUND PROCESS EVENT

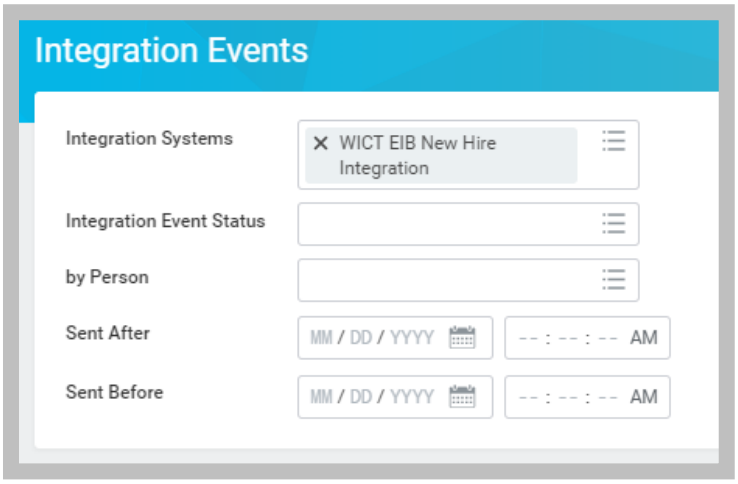
When an integration is set to Run Now, the View Background Process page is displayed immediately. Click the **Refresh** button until you see the Status change. If there are no errors, the Status will change to **Completed** once the integration event has finished processing.



4 - View Background Process Page for an Integration Event

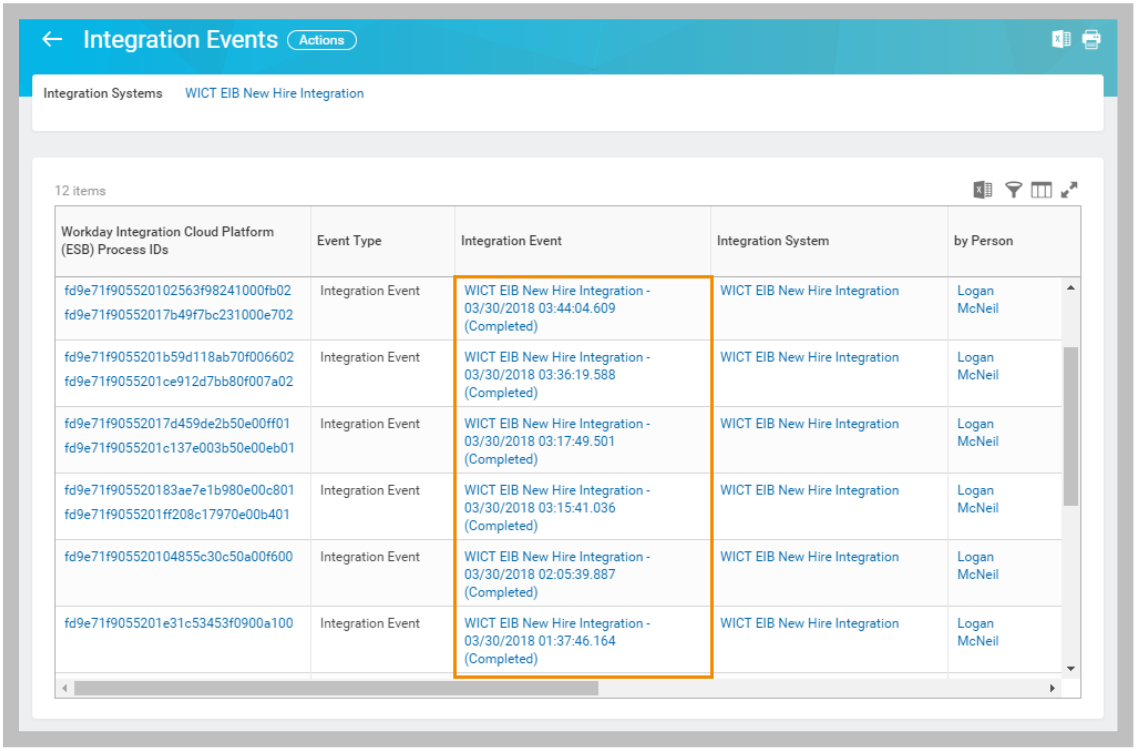
INTEGRATION EVENT

You can access the background process page via the **Integration Events** report.



5 - Integration Events report search criteria

Tip: Since each launch of an integration produces a new event, you should enter some criteria, such as the Integration System name.



6 - Integration Events report results

Clicking a link in the **Integration Event** column opens the View Background Process page for that launch.

DEMO 2.B – CREATE AN OUTBOUND EIB

Introduction: We will create an Outbound EIB using the report we created in the previous dem (WICT EIB Demo Report) as the data source and with the alternate output format of CSV

TASK #1: CREATE AND CONFIGURE THE EIB

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select the **Create EIB** task.
3. Name the EIB **WICT EIB Demo Integration**.
4. Select the **Outbound** radio button and click **OK**.
5. Review the *General Settings* and add a Comment to the Description section.
6. Click **Next** to access the *Get Data* page.
7. **Edit** the *Data Source*.
8. Enter **WICT EIB Demo Report** for the **Custom Report**.
9. Expand *Details.*
10. Select **CSV** as **Alternate Output Format**.
11. Save your changes
12. Click **Next** to access the *Transform* page.
13. Click **Next** again to accept the default *Transformation Type* of *None* and access the *Deliver* page.
14. **Edit** the *Deliver* section.
15. For **File Name**, enter **DemoIntegrationOutput.csv**.
16. Save your changes
17. Click **Next** to review the *Summary* page.
18. Click **OK** to view the integration system definition.

TASK #2: LAUNCH INTEGRATION SYSTEM

1. From the WICT EIB Demo Integration's **Related Actions,** select **Integration > Launch / Schedule.**
2. Accept the default *Run Frequency* value of *Run Now* and click **OK**.
3. Enter the following values for the Report Parameters:

Field	***Value***
Orgs	Payroll Department
Include Sub	Not checked

4. Click **OK** to launch the integration.
5. On the *View Background Process* page, click **Refresh** until the event completes.
6. On the **Integration Details** tab, scroll to check the RaaS Report's parameter values.
7. Select the **Output Files** tab.
8. Click the link to download the **DemoIntegrationOutput.csv** file, and open it in a text editor.
9. Confirm that the EIB output is an exact match of the CSV output from the previous demo.

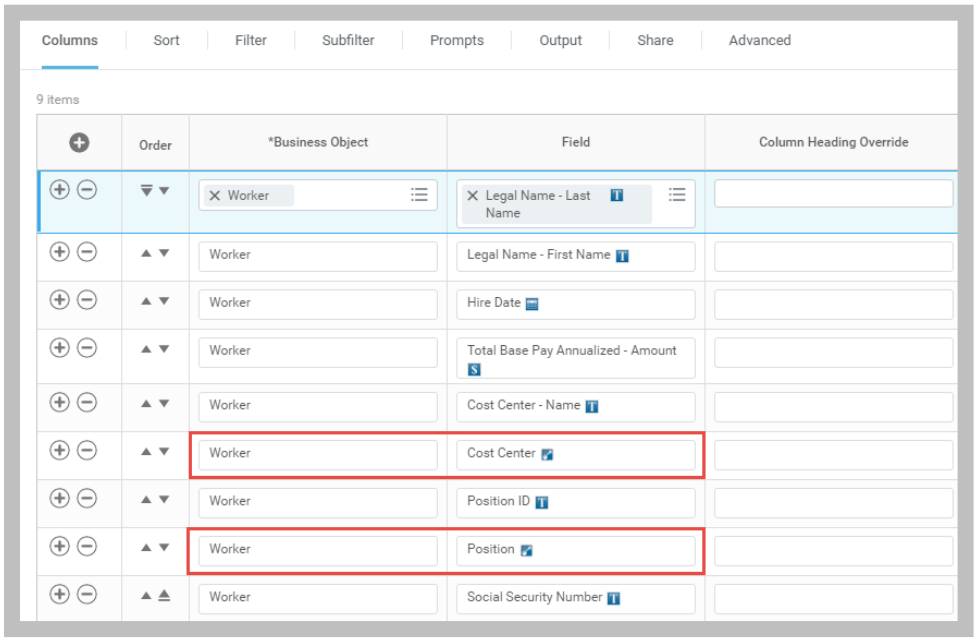
ACTIVITY 2.1 – CREATE AN OUTBOUND EIB

Business Case: Logan has been asked to use the **WDINST EIB IntNewHire** Custom Report in a simple integration.

- The report needs to be modified to remove some fields and include others.
- The HR department has requested a comma separated file of all hires within a given date range.

TASK #1: EDIT CUSTOM REPORT

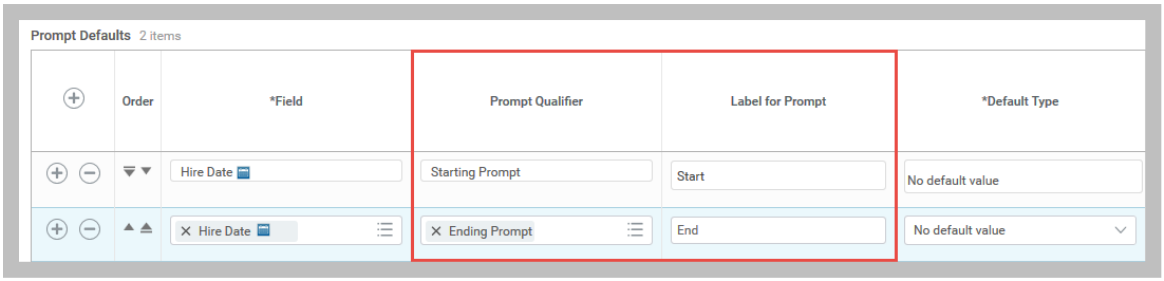
1. Sign in as Logan McNeil (lmcneil).
2. Search for the **WDINST EIB IntNewHire** report.
3. From the report's **Related Actions**, select **Custom Report > Edit**.
4. On the **Columns** tab, delete the following fields: **Worker** and **Employee ID**.
5. Add the following fields: **Cost Center** and **Position**.



11 - Updated column list

6. Add the following labels for the Hire Date prompts:

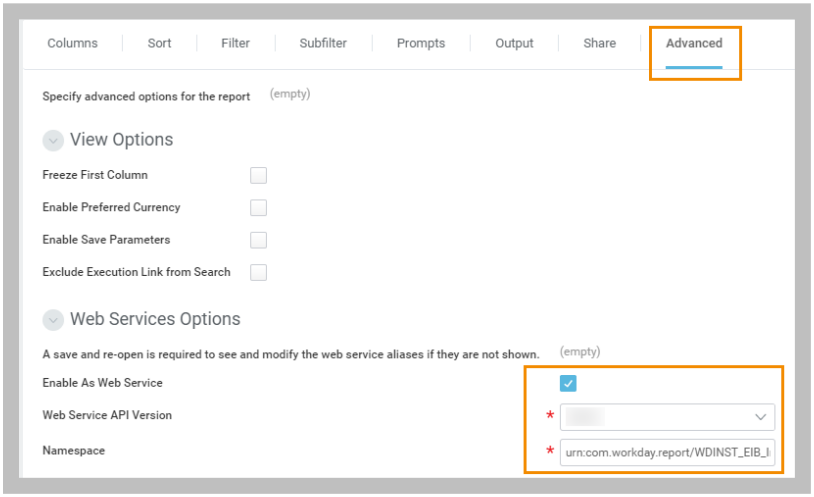
Field	*Prompt Qualifier*	*Label for Prompt*
Hire Date	Starting Prompt	Start
Hire Date	Ending Prompt	End



12 - Labeled Prompts

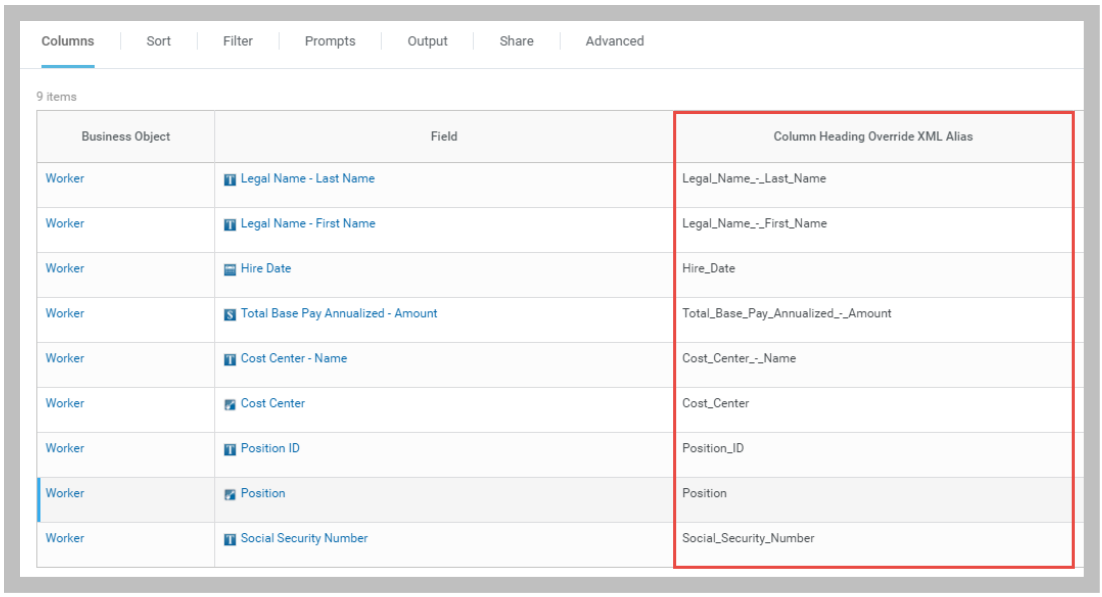
Important: If you do not have unique labels for prompts against the same field names, you will not be able to save your report after enabling it for web services.

7. On the **Advanced** tab, check **Enable As Web Service**. The Web Service API Version and Namespace populate automatically.



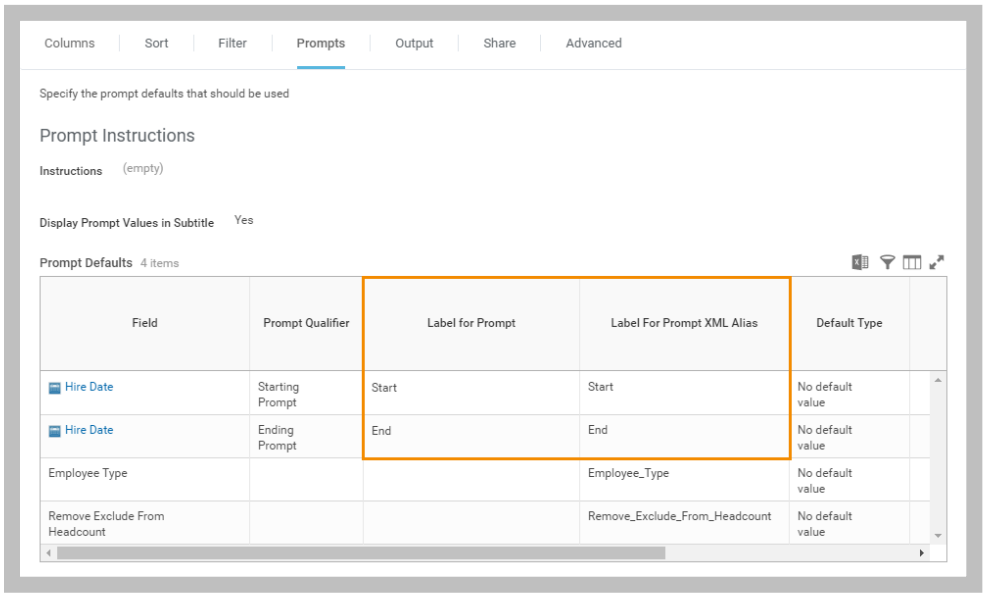
13 - Enable As Web Service

8. Click **OK** to save. Notice the **Column Heading Override XML Alias** populates automatically for each field on the **Columns** tab.



14 - Column Heading Override XML Alias

9. Select the Prompt tab. Notice the **Label For Prompt XML Alias** populated automatically using the Label for Prompt, or the Field.

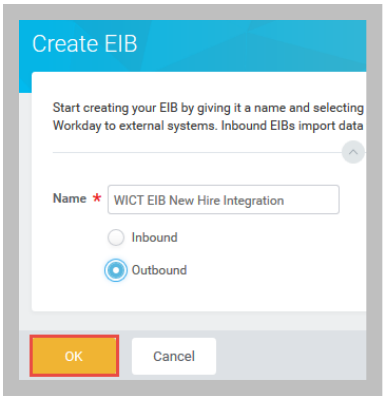


15 - Label For Prompt XML Alias

10. Click **Done**.

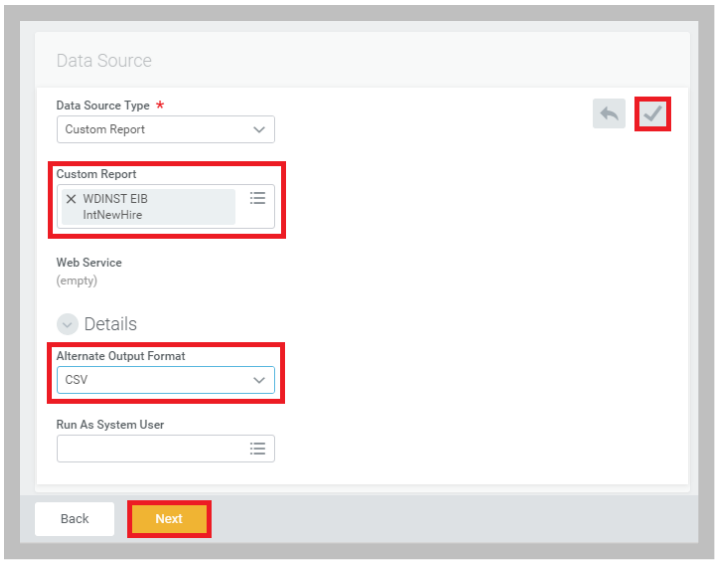
TASK #2: CREATE AND CONFIGURE THE EIB

1. Search for and select the **Create EIB** task.



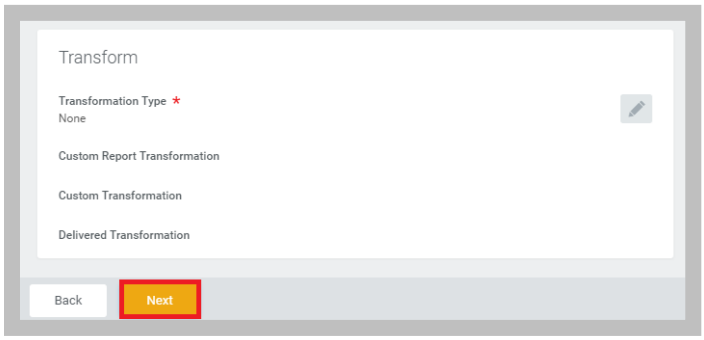
16 - Create EIB task

2. Name the EIB **WICT EIB New Hire Integration**.
3. Select the **Outbound** radio button and click **OK**.
4. Review the *General Settings* and add a Comment to the Description section if desired.
5. Click **Next** to access the *Get Data* page.
6. **Edit** the *Data Source*.
7. Enter **WDINST EIB IntNewHire** for the **Custom Report**.
8. Expand *Details.*
9. Select **CSV** as **Alternate Output Format**.
10. Save your changes.
11. Click **Next** to access the *Transform* page.



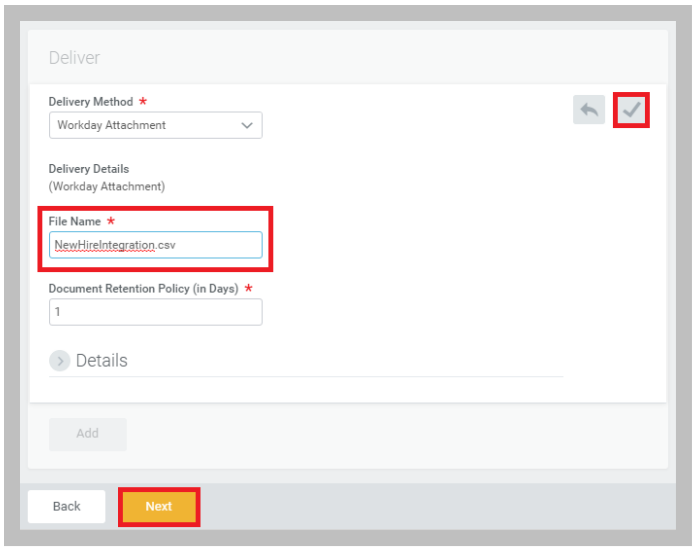
17 - Get Data

12. Click **Next** again to accept the default *Transformation Type* of *None* and access the *Deliver* page.



18 - Transform

13. Edit the Deliver section.
14. For **File Name**, enter **NewHireIntegration.csv**.
15. Save your changes.
16. Click **Next** to review the *Summary* page.



19 - Deliver

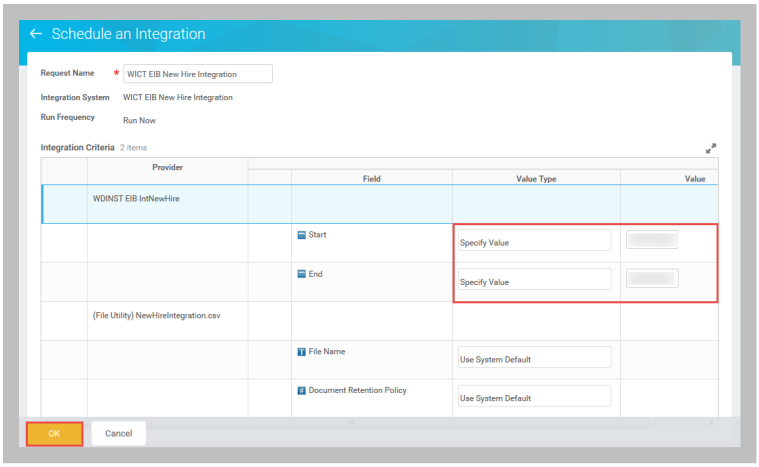
17. Click **OK** to view the integration system definition.

TASK #3: LAUNCH INTEGRATION SYSTEM

1. From the WICT EIB New Hire Integration's **Related Actions,** select **Integration > Launch / Schedule.**
2. Accept the default Run Frequency value of Run Now and click the **OK** button.
3. Enter the following values for the Report Parameters:

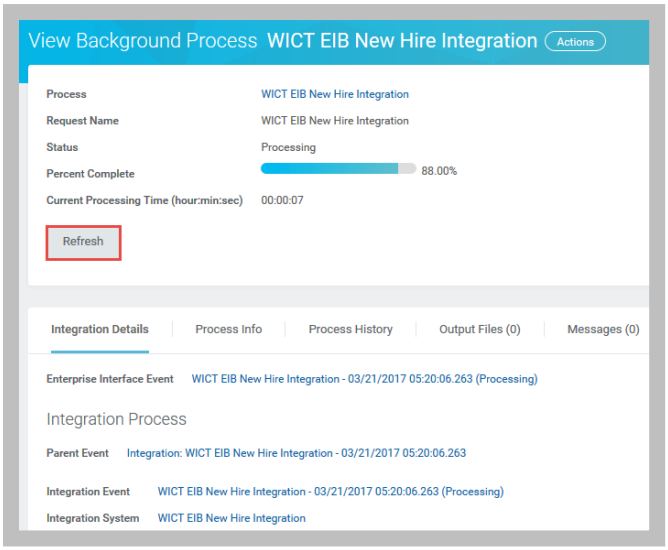
Field	***Value***
Start	01/01/2017
End	{Today's date}

4. Click **OK** to launch the integration.



20 - Schedule an Integration

5. On the *View Background Process* page, click **Refresh** until the event completes.

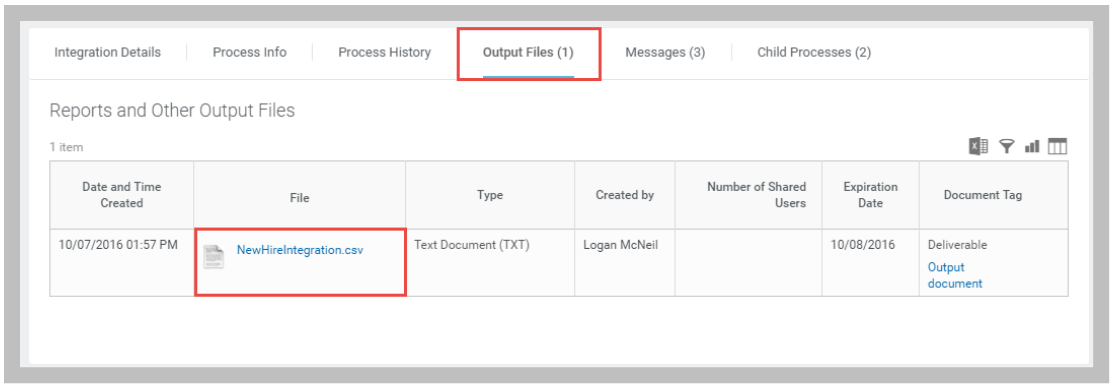


21 - View Background Process

6. On the **Integration Details** tab, check the RaaS Report's parameter values.

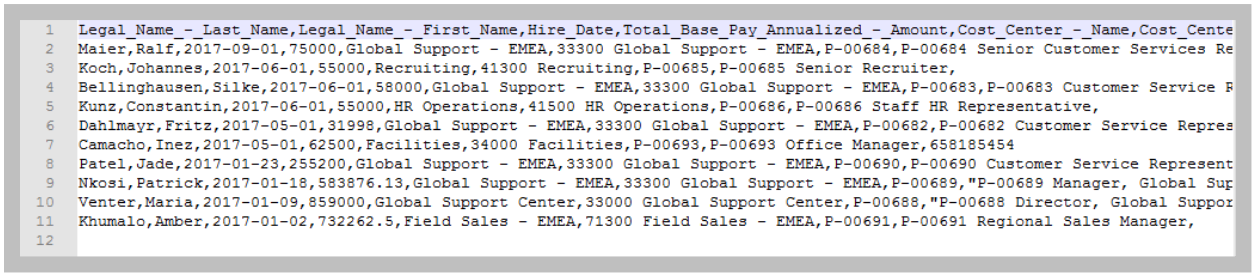
7. Select the **Output Files** tab.

8. Click the link to download the **NewHireIntegration.csv** file.



22 - Output Files tab

9. Open it in a text editor.



```
Legal_Name_-_Last_Name,Legal_Name_-_First_Name,Hire_Date,Total_Base_Pay_Annualized_-_Amount,Cost_Center_-_Name,Cost_Cente
Maier,Ralf,2017-09-01,75000,Global Support - EMEA,33300 Global Support - EMEA,P-00684,P-00684 Senior Customer Services Re
Koch,Johannes,2017-06-01,55000,Recruiting,41300 Recruiting,P-00685,P-00685 Senior Recruiter,
Bellinghausen,Silke,2017-06-01,58000,Global Support - EMEA,33300 Global Support - EMEA,P-00683,P-00683 Customer Service R
Kunz,Constantin,2017-06-01,55000,HR Operations,41500 HR Operations,P-00686,P-00686 Staff HR Representative,
Dahlmayr,Fritz,2017-05-01,31998,Global Support - EMEA,33300 Global Support - EMEA,P-00682,P-00682 Customer Service Repres
Camacho,Inez,2017-05-01,62500,Facilities,34000 Facilities,P-00693,P-00693 Office Manager,658185454
Patel,Jade,2017-01-23,255200,Global Support - EMEA,33300 Global Support - EMEA,P-00690,P-00690 Customer Service Represent
Nkosi,Patrick,2017-01-18,583876.13,Global Support - EMEA,33300 Global Support - EMEA,P-00689,"P-00689 Manager, Global Sup
Venter,Maria,2017-01-09,859000,Global Support Center,33000 Global Support Center,P-00688,"P-00688 Director, Global Suppor
Khumalo,Amber,2017-01-02,732262.5,Field Sales - EMEA,71300 Field Sales - EMEA,P-00691,P-00691 Regional Sales Manager,

```

23 - NewHireIntegration.csv file

SECURITY SETUP FOR EIBS

Although not required, all EIBs should have an Integration System User. This allows the EIB to execute with the ISU's security profile.

This is very useful in the following situations:

- When the user that launches the EIB does not have security privileges to run the report or access the Workday Web Service that is configured as the data source
- When the EIB is scheduled to run recurrently. The EIB will run regardless of the security profile of the schedule owner.
- When a functional Business Process launches the EIB. The EIB's security will not be related to the users involved in the process.

INTEGRATION EVENT DOMAIN ACCESS

The Integration System User will need a Modify access to the Integration Event domain. This domain allows launching and scheduling of integrations.

EIB USING A WORKDAY WEB SERVICE.

If the EIB you are securing uses a Workday Web Service, the Integration System User needs Get (for outbound EIBs) or Put (for inbound EIBs) access to the web service

EIB USING A RAAS REPORT

When the outbound EIB uses a RaaS Report as the Data source the Integration System User should be the owner of the RaaS Report. To do so, the ISU needs:

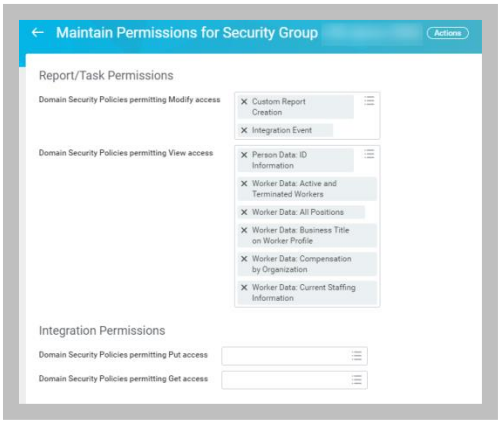
- View access to the domain that secures the Report's Data Source.
- View access to the domains that secure the Report's fields
- Modify (and View) access to the Custom Report Creation domain. This is needed to transfer the ownership of the report.

SETUP INTEGRATION SYSTEM USER SECURITY

1. Create the ISU
    - Access the **Create Integration System User** task.
    - Configure the Workday user account providing a **User Name** and **password**.
    - Keep the **Session Timeout Minutes** default value of zero to prevent session expiration.
    - Select the **Do Not Allow UI Sessions** check box to prevent the integration system user from signing in to Workday through the UI.
2. Create the Security Group
    - Access the **Create Security Group** task.
    - Create an **Integration System Security Group**. This security group can be Constrained or Unconstrained.
    - Provide the group name

- Link your group to the previously created Integration System User

3. Update Domain Security Policies
    - Access the **Maintain Permissions for Security Group** task.
    - Add the appropriate domains to the Modify, View, Put or Get access
    - Run the **Activate Pending Security Policy Changes** task



7 - Sample security setup for Outbound EIB + RaaS

4. Link the ISU to the EIB and the report
    - Access the **Transfer Ownership of Custom Reports** task.
    - Provide the report name and set the ISU as the new Owner
    - From the EIB's Related Actions select **Workday Account > Edit**.
    - Set the Integration System User ans the Workday Account

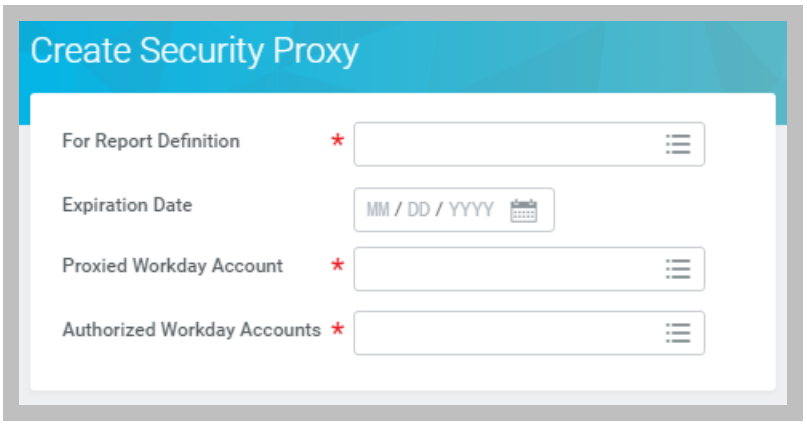
USING SECURITY PROXY

Even if all EIBs should have an Integration System Users, it is possible to create a security proxy to grant access to the report only for executing the integration. This ensures the integration user can access only the report, and no other items.

Security Note: Security Proxies only allow for outbound EIBs with a custom report as a data source to be launched by users who are not the report owner. Unlike a Proxy Access Policy, this does not provide any other access to Workday data or functions, not even the ability to run the report outside of an EIB.

The *Create Security Proxy* task has the following settings:

- **For Report Definition:** The RaaS report to be authorized.
- **Expiration Date (optional):** The end date for the proxy.
    - If left blank, the security proxy will continue to work until deleted.
- **Proxied Workday Account:** The account that already has permission to run the report.
- **Authorized Workday Accounts:** One or more accounts authorized to access the report using the proxied account's permissions.



24 - Create Security Proxy task

Once the security proxy is created, the EIB must have the *Run As User* set to the Proxied Workday Account. Now the Authorized Workday Account will be able to launch the EIB.

Note: To dig deeper in security proxy, optional Demo 2.C and optional Activity 2.2 are available in appendix D.

LAUNCHING AN EIB INTEGRATION BY BUSINESS PROCESS

It is also possible to trigger an integration directly through the execution of a business process. Using the Hire Business Process as an example, each time an employee is hired an EIB integration could be launched as a background process to deliver the new employee's information to an outside system.

Launching an EIB via a Business Process is not a good use of resources as that integration may be triggered many times per day, but it is useful when using an EIB to send event-specific changes to an external system that needs to be updated immediately.

Steps to link a business process with an Integration:

Create and configure Integration System: The design of the integration system must match up with the available object model of the corresponding business process. If an EIB is using a custom report as the data source, modify the report so that it can accept the passing of a variable from the business process to the report prompt.

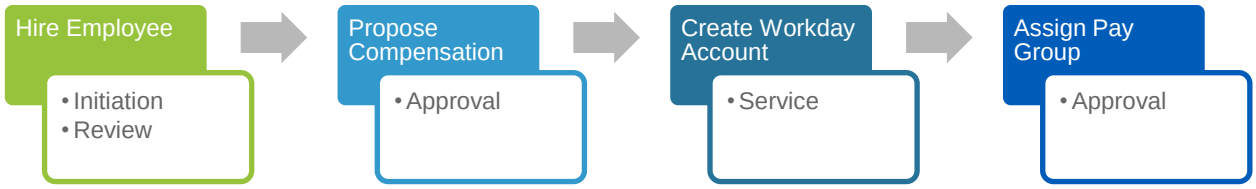
Modify Business Process/Add Integration Step: Add a new *Integration* step in the business process.

Configure Integration Step on Business Process Definition: Configure the Integration step by specifying the integration system to be launched, and mapping any business process fields to launch parameters/report prompts

The Run as User field allows to provide the user account under which the Integration System will run, independently from the user that started the business process.

MODIFY THE BUSINESS PROCESS

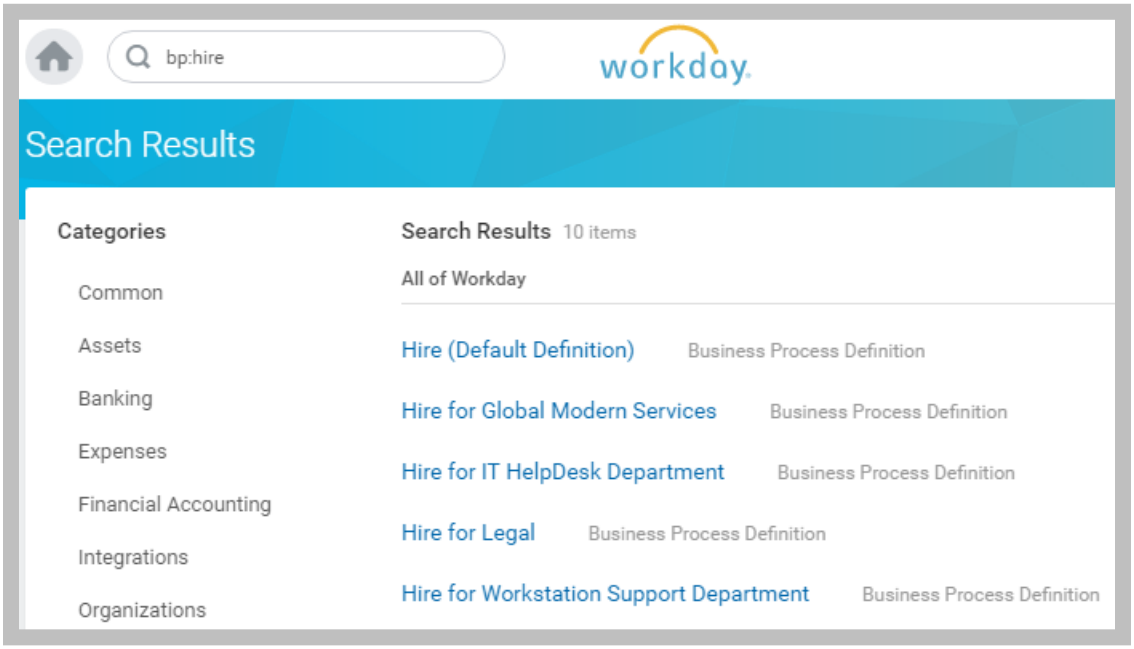
A business process is the definition of tasks that need to be done in order for an event to occur, the order in which they must be completed, and who must do them. The business process definition specifies the security group responsible for each step in the process, notifies the workers in these groups, and gets feedback on when each step is complete so it can move on to the next step. Steps can also be conditional.



25 - Hire Business Process example

Workday includes several predefined business processes that are identified in the system as factory defaults. These default business processes are available to any organization and are editable. You also have the option of configuring context-specific business processes (e.g., by supervisory organization).

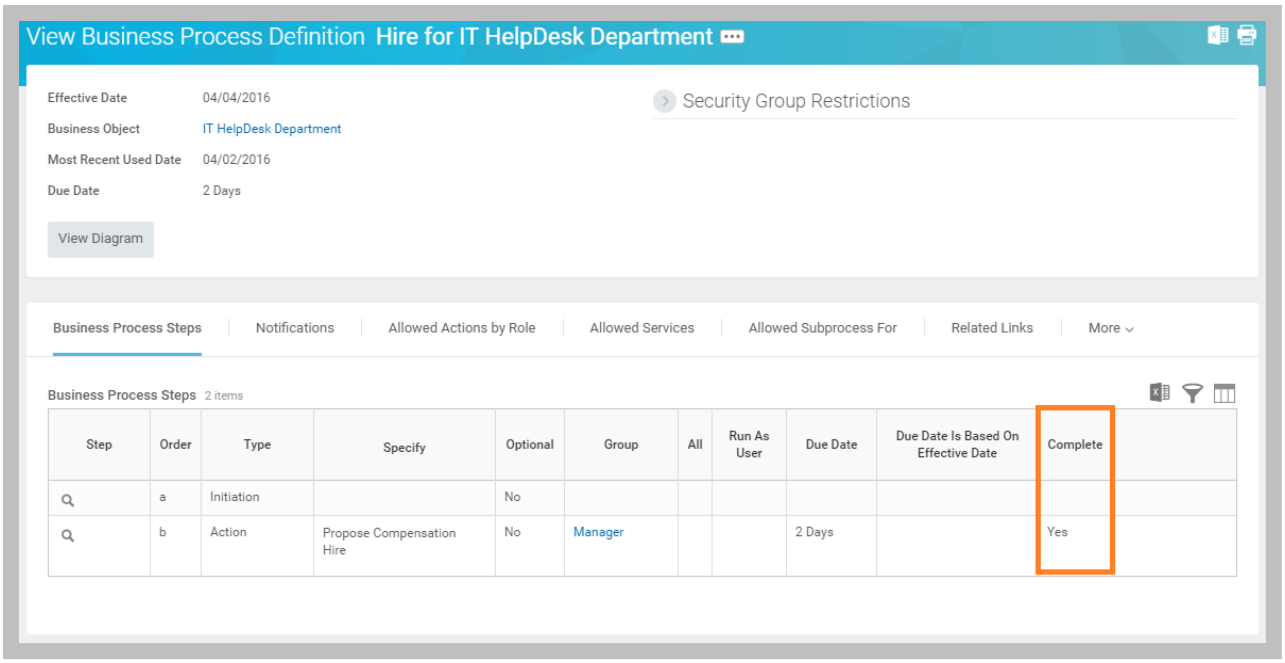
Search for a business process by prefixing your search term with 'bp:'.



26 - Business Process search results

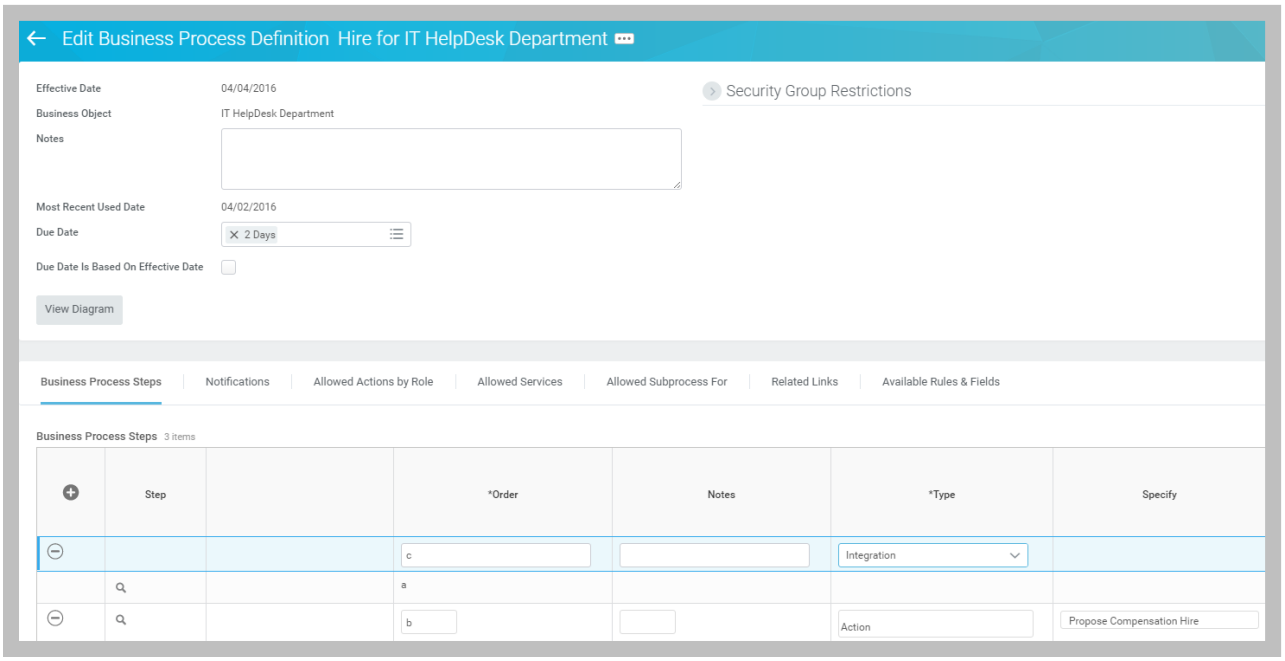
Once you select your business process, you can view the steps.

A step marked as *'Yes'* under the *Complete* column indicates the step that completes the business process event. Additional steps may follow the completion step but the main event will already be finished and any data entered by the initiating user is saved to Workday. If no step is marked as ‘complete’, it is the last step defined in the business process.



27 - Business Process steps including a completion step

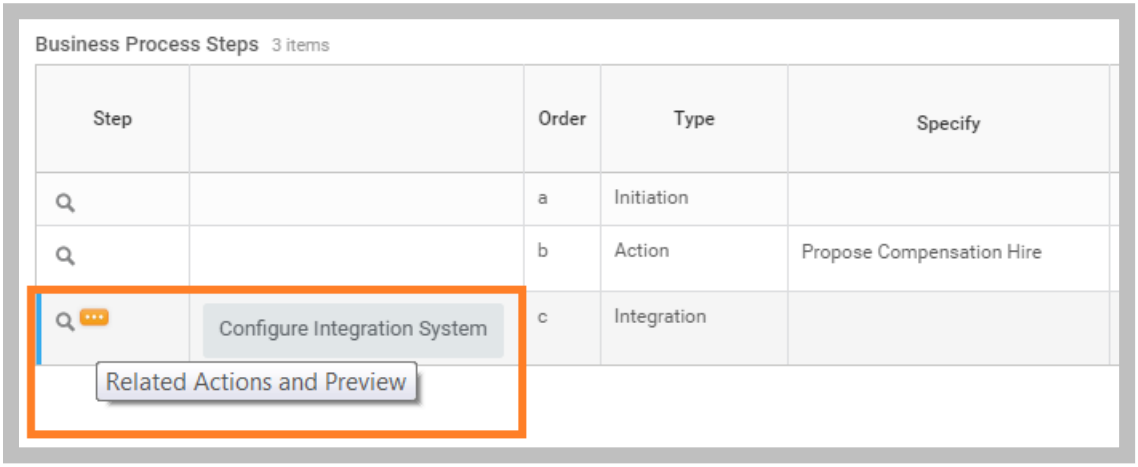
To edit the steps of a business process, use the Related Actions to select **Business Process > Edit Definition.**



28 - Integration Business Process step added

Once an Integration step is added to the business process, click the **Configure Integration System** button to define the system to be launched and to set the values/objects that will be

passed (if the integration system requires parameters). The Related Actions of the step also allow setting *Enter Criteria* to limit the circumstances under which the integration runs.



29 - Configure Integration System button

DEMO 2.D – LAUNCH AN EIB FROM A BUSINESS PROCESS

Introduction: We will demo how a Business Title change will trigger an EIB that will output the new titles for the worker as well as the titles for other workers in the same organization. Additional data will also be output as we use the WICT EIB Demo Report as the data source.

To ensure that the EIB can run successfully regardless of the user who triggers the business process step, we will link an Integration System User to the EIB with the appropriate security setup. We will also transfer the ownership of the report to the ISU.

TASK #1: CONFIGURE SECURITY

1. Sign in as Logan McNeil (lmcneil).
2. Search and run the **View Security Group** report.
3. Enter **WDINST EIB ISSG** for the **Security Group**.
4. Show the 3 Integration System Users members of this security group.
5. Show the Modify (and View) access to the Custom Report Creation and Integration Event domains.
6. Show the View access to the domains securing the report output fields.
7. Search for and select the **Transfer Ownership of Custom Reports** task.
8. Enter **WICT EIB Demo Report** for **Report Name(s)**.
9. Enter **WDINST EIB Demo ISU** for **New Owner**.
10. Click **OK** to save and click **Done**.
11. Search for and select the **WICT EIB Demo Integration** integration system.
12. From the EIB's **Related Actions,** select **Workday Account > Edit**.
13. Enter **WDINST EIB Demo ISU** for **Workday Account**.
14. Click **OK** twice to save.

TASK #2: CONFIGURE INTEGRATION STEP FOR BUSINESS PROCESS

1. Search for bp:title to find the **Title Change for Global Modern Services** Business Process.
2. Click the link to view the **Title Change for Global Modern Services** Business Process.
3. Show that *Step b* (Approval) is assigned to the *HR Partner* Group.
4. Use the *Title Change for Global Modern Services'* **Related Actions**, select **Business Process > Edit Definition**.
5. Click **OK**, accepting the default Effective Date of today.
6. Add a new Step to the business process definition.
7. Enter the following:

Field Name	***Value***
Order	c
Type	Integration

8. Click the **OK** button to save the changes and note the Error.
9. Click the **Configure Integration System** button next to the 'c' in the Order column.
10. Select **WICT EIB Demo Integration** as the Integration System and click **OK**.
11. Configure the **Integration Criteria** as follows:

Field	***Value Type***	***Value***
Request Name	Static Text	WICT EIB Demo Integration BP
Orgs	Determine Value at Runtime	Supervisory Organization for Worker
Include Sub	Specify Value	Unchecked

Note: The Supervisory Organization for Worker field returns the Organization for the worker who triggered the event not the ISU's.

12. Click **OK.**

TASK #3: CHANGE AN EMPLOYEE'S BUSINESS TITLE TO TEST INTEGRATION

1. Sign in as **Betty Liu** (bliu).
2. Search and select the **Change Business Title** task.
3. Search for Worker **Julie Boyer,** and click **OK**.
4. Enter *Payroll Operation Director* as the Proposed Business Title.
5. Click the **Submit** button to initiate the Title Change process.
6. Confirm that the Approval step goes to the HR Partner
7. Click **Done** on the confirmation page.

TASK #4: APPROVE THE TITLE CHANGE

1. Sign in as Logan McNeil (lmcneil).
2. Click on **Logan McNeil**, then on **Inbox**.
3. Click **Approve** to validate the business title change for Julie Boyer

TASK #5: VERIFY INTEGRATION LAUNCH, SECURITY AND OUTPUT

1. Search for and select the **Process Monitor** report**.**
2. Select **Integration** as the Process Type.
3. Under the *Request* column, click on the **WICT EIB Demo Integration BP** link.
4. Confirm that the process has been initiated by Logan McNeil and ran as WDINST EIB Demo ISU.
5. Select the **Output Files** tab.
6. Click the link to download the **DemoIntegrationOutput.csv** file, and open it in a text editor.
7. Verify Julie Boyer is listed with her new business title.

ACTIVITY 2.3 – LAUNCH AN EIB FROM A BUSINESS PROCESS

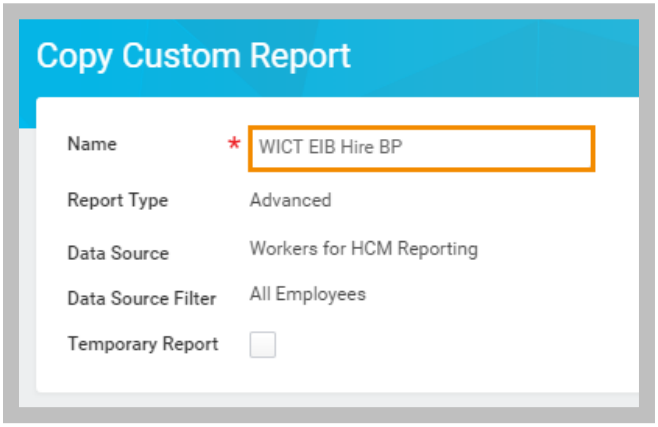
Business Case: Logan received a request from IT to launch the WICT EIB New Hire Integration EIB Integration System whenever an employee is hired into the IT HelpDesk Department.

- The custom report that is the data source for the EIB needs to prompt for Worker.
- The configuration will pass the Worker from the business process to the EIB.

To ensure that the EIB can run successfully regardless of the user who triggers the business process step, we will link an Integration System User to the EIB with the appropriate security setup. We will also transfer the ownership of the report to the ISU.

TASK #1: COPY AND EDIT THE NEW HIRE CUSTOM REPORT

1. Sign in as Logan McNeil (lmcneil).
2. Search for *WDINST EIB*.
3. From the *WDINST EIB IntNewHire* report's **Related Actions**, select **Custom Report > Copy**.
4. Change the name of the new report to **WICT EIB Hire BP**.

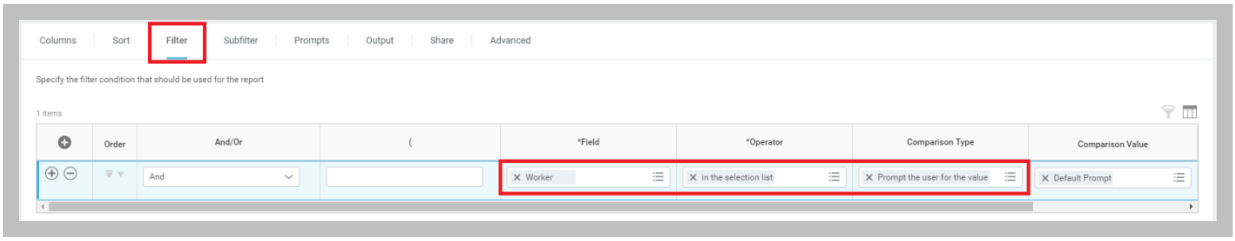


30 - Copy Custom Report

5. Click **OK**.
6. Modify the report filters:
   A. Delete ⊖ the two existing filters on the **Filter** tab.

B. Add a new filter:

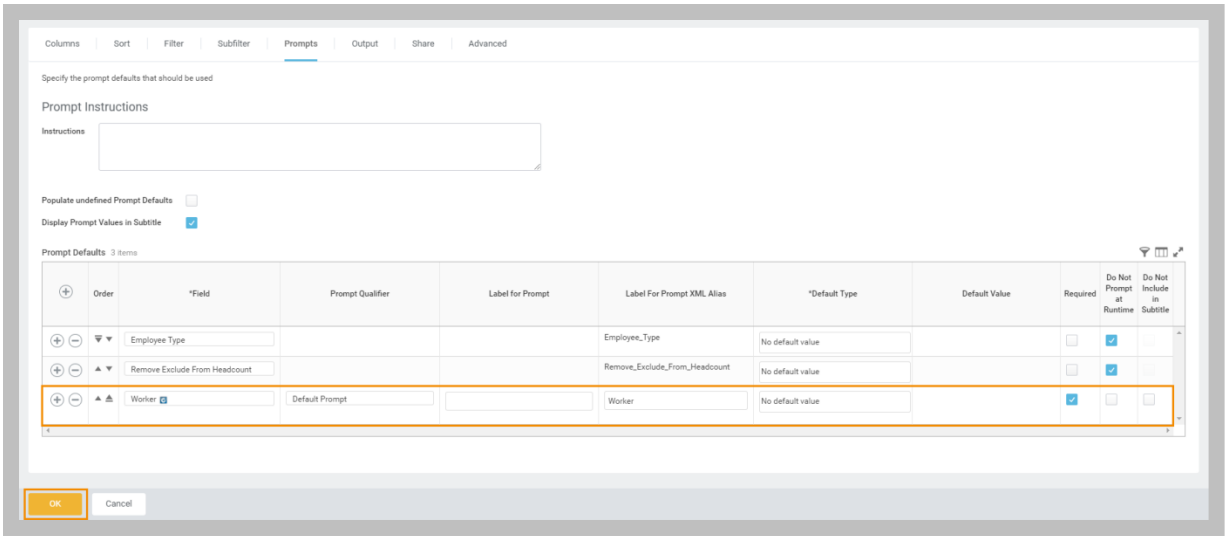
Field Name	*Value*
Field	Worker (self reference)
Operator	in the selection list
Comparison Type	Prompt the user for the value
Comparison Value	Default Prompt



31 - Filter tab

7. On the **Prompts** tab, delete the two **Hire Date** prompts.
8. Check the Populate Undefined Prompt Defaults check box.

   Note: The check box won't stay checked. It will populate the list, adding a row row for the **Worker** prompt and reset itself.
9. Mark the new prompt as **Required**.
10. Click **OK** to save the report.

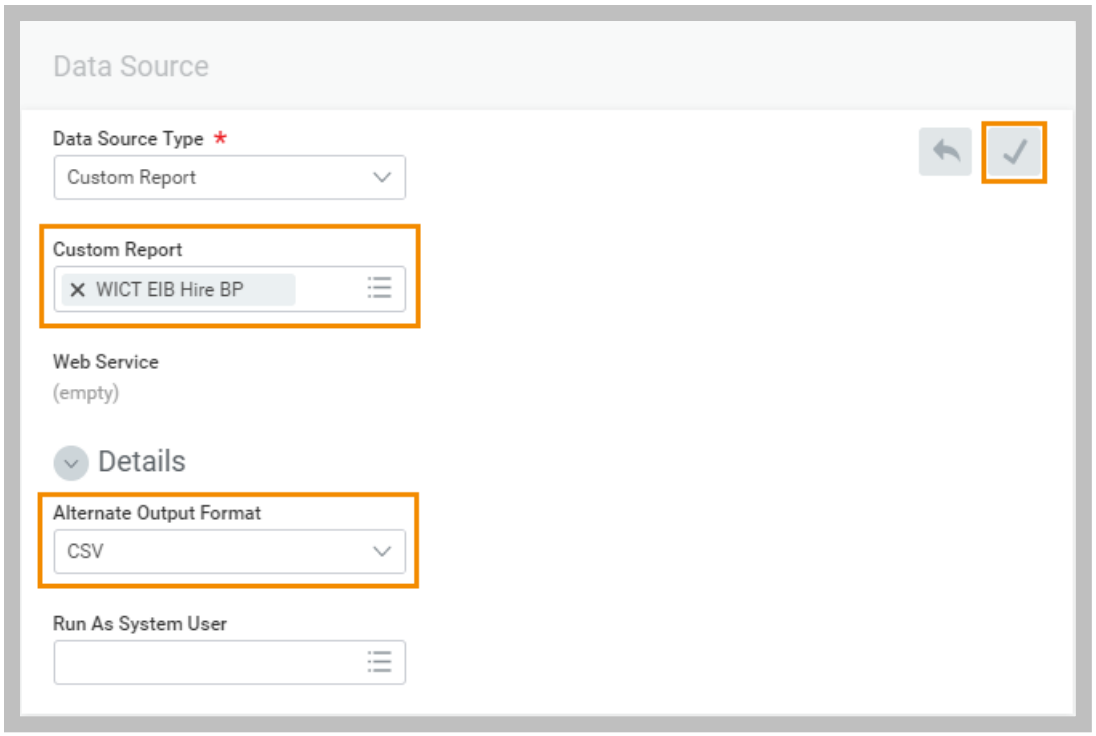


32 - Prompts tab

11. Click **Run** to test the report with *Logan McNeil* (or another worker) as input.

TASK #2: CREATE A NEW EIB

1. Search for and select the **Create EIB** task.
2. Enter **WICT EIB Hire BP Integration** as the name of the EIB.
3. Choose **Outbound** and click **OK**.
4. Click **Next** to access the **Get Data** page.
5. Click to edit the *Data Source* section.
6. Enter **WICT EIB Hire BP** for the *Custom Report*.
7. Expand *Details*.
8. In the **Alternate Output Format** dropdown, select **CSV**.

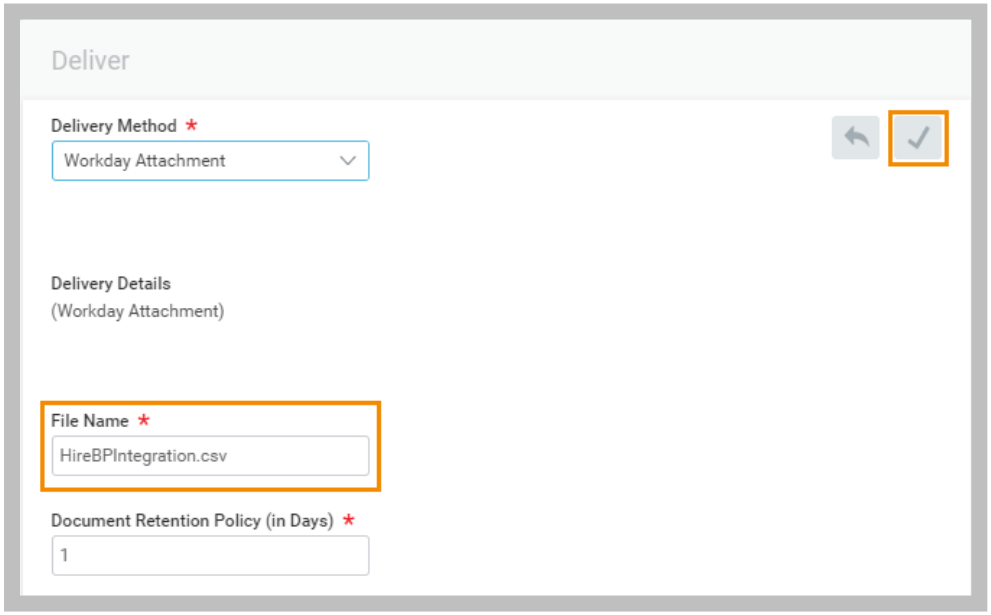


33 - Data Source section

9. Click **Next** twice or simply click on the progress map to access the *Deliver* page.

10. Provide a *File Name* of **HireBPIntegration.csv**.

11. Save the section



34 - Deliver page

12. Click **Next** to review the *Summary* page
13. Click **OK**.

TASK #3: CONFIGURE SECURITY

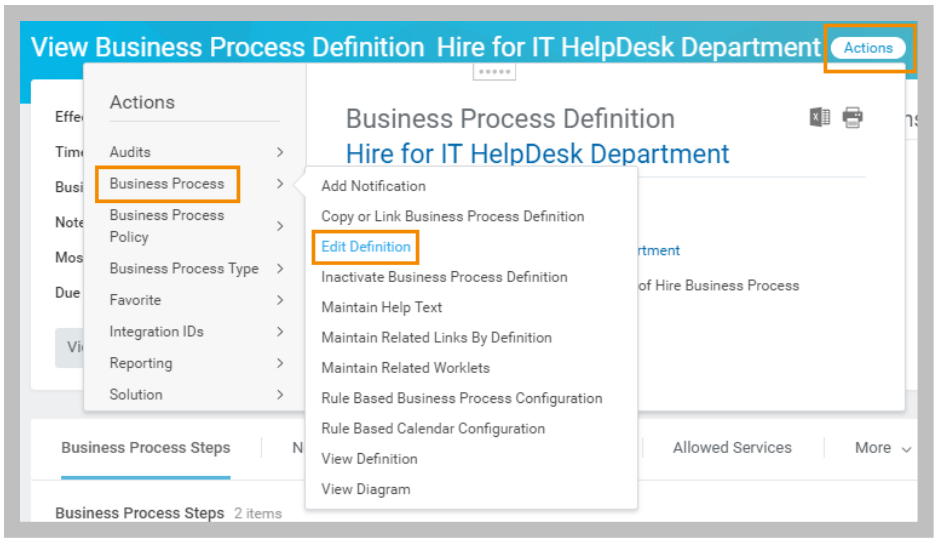
1. Search for and select the **Transfer Ownership of Custom Reports** task.
2. Enter **WICT EIB Hire BP** for **Report Name(s)**.
3. Enter **WDINST EIB Hire BP ISU** for **New Owner**.
4. Click **OK** to save and click **Done**.
5. Search for and select the **WICT EIB Hire BP Integration** integration system.
6. From the EIB's **Related Actions,** select **Workday Account > Edit**.
7. Enter **WDINST EIB Hire BP ISU** for **Workday Account**.
8. Click **OK** twice to save.

TASK #4: CONFIGURE INTEGRATION STEP FOR BUSINESS PROCESS

1. Search for bp:hire to find the **Hire for IT HelpDesk Department** Business Process.
2. Click the link to view the **Hire for IT HelpDesk Department** Business Process.
3. Verify that *Step b* is marked as the *Complete* step.

35 - Business Process steps

4. From *Hire for IT HelpDesk Department's* **Related Actions**, select **Business Process > Edit Definition**.



36 - Business Process, Edit Definition related action

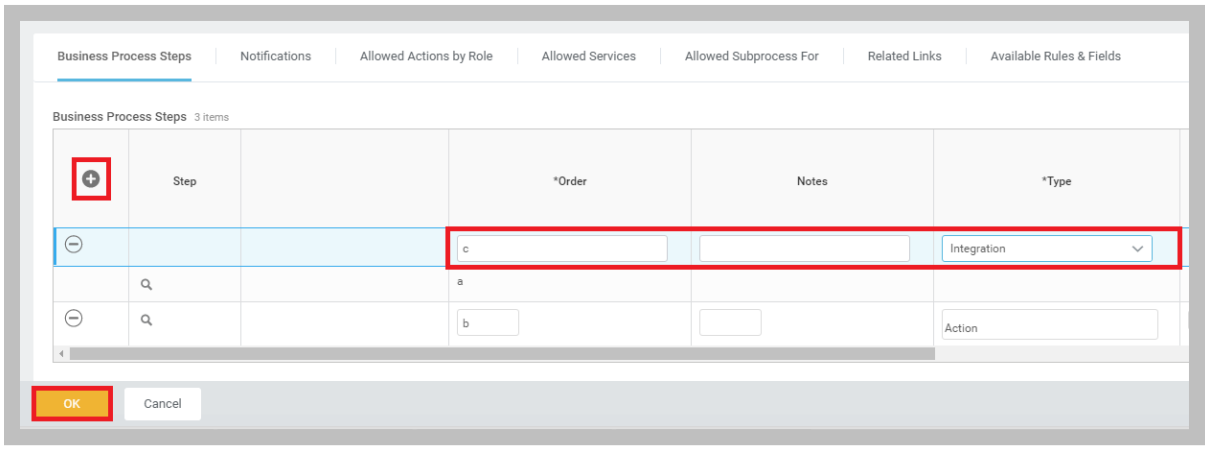
5. Click **OK**, accepting the default Effective Date of today.

6. Add a new Step to the business process definition.

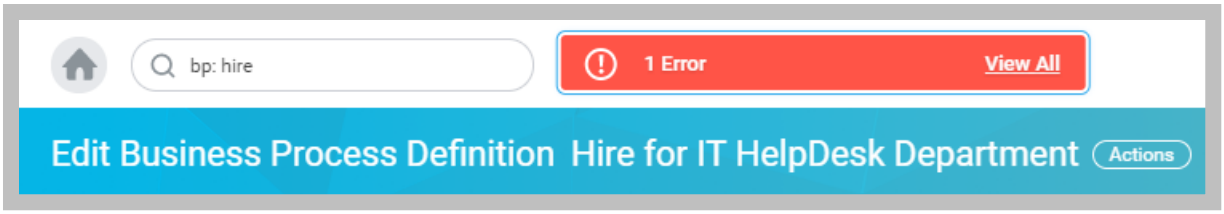
7. Enter the following:

Field Name	*Value*
Order	c
Type	Integration

8. Click the **OK** button to save the changes.



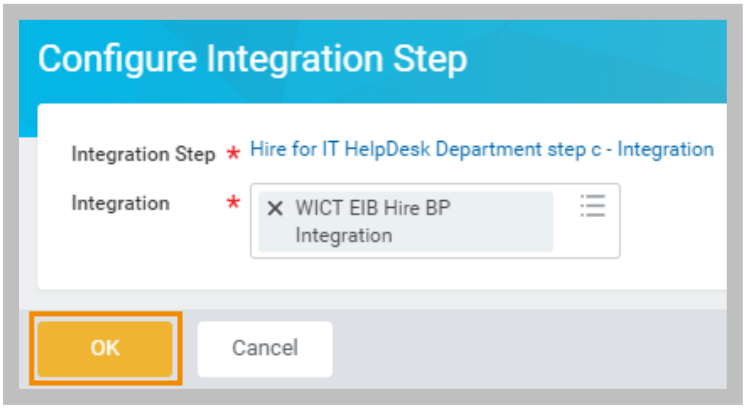
37 - - Integration Business Process step added



38 - Error box

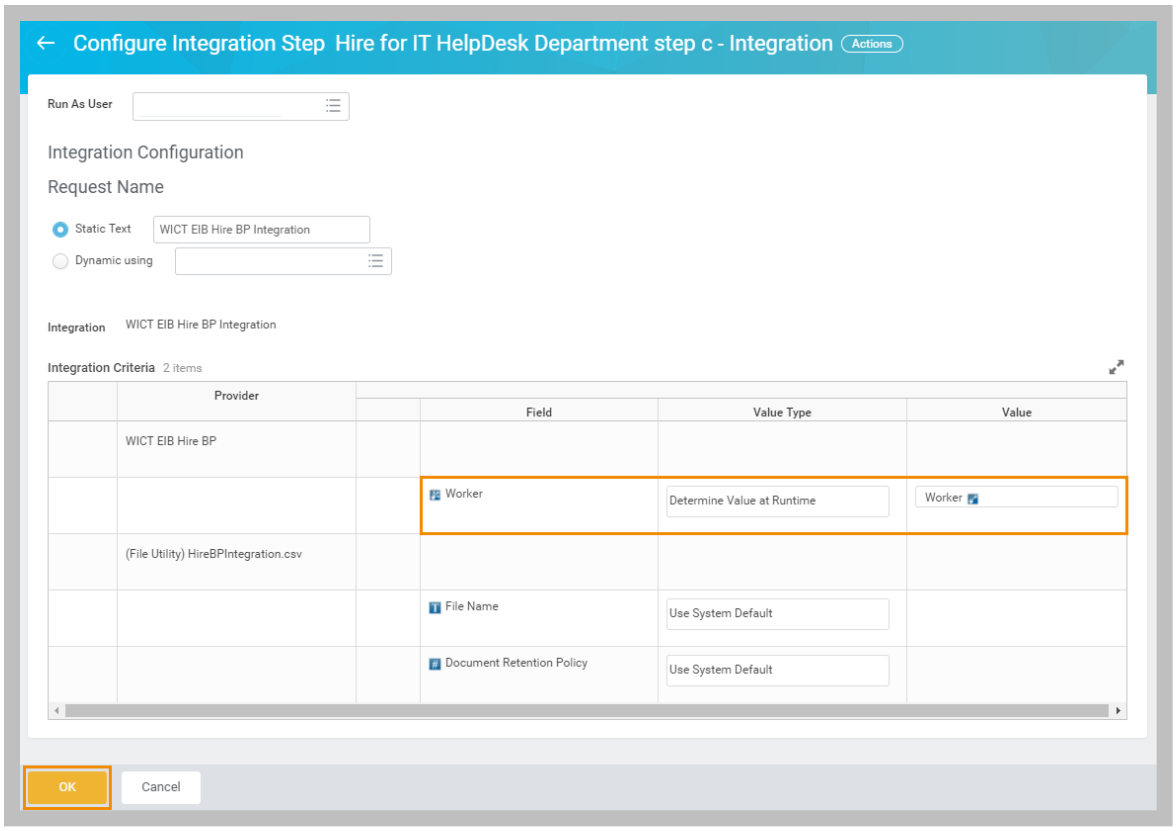
9. Click the **Configure Integration System** button next to the ‘c’ in the Order column.

10. Select **WICT EIB Hire BP Integration** as the Integration System and click **OK**.



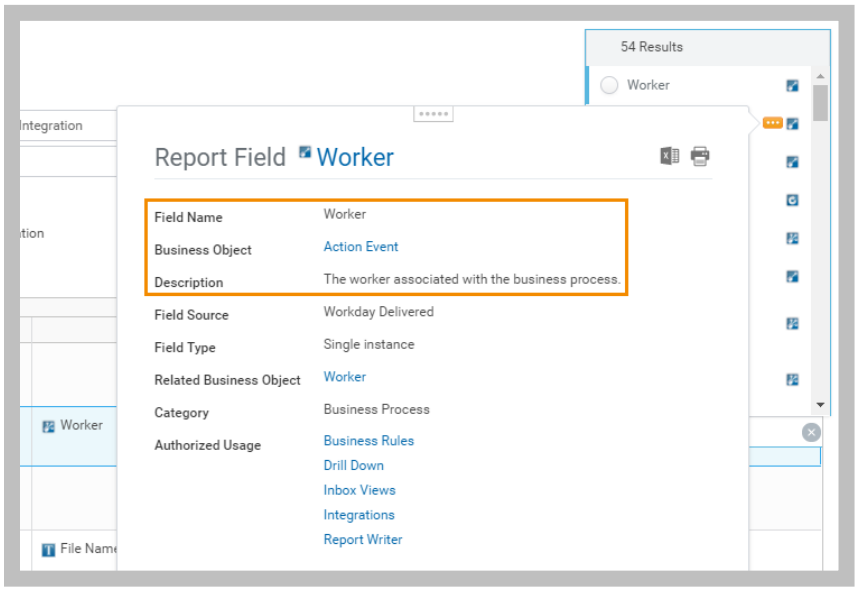
39 - Configure Integration Step, prompt page

11. For the *Worker* Parameter, select **Determine Value at Runtime** for the Value Type, and enter **Worker** for the Value



40 - Configure Integration Step, entry page

12. Search for “Worker” and use the preview icons to identify the Worker object associated with the **Action Event**. (usually the second in the list)

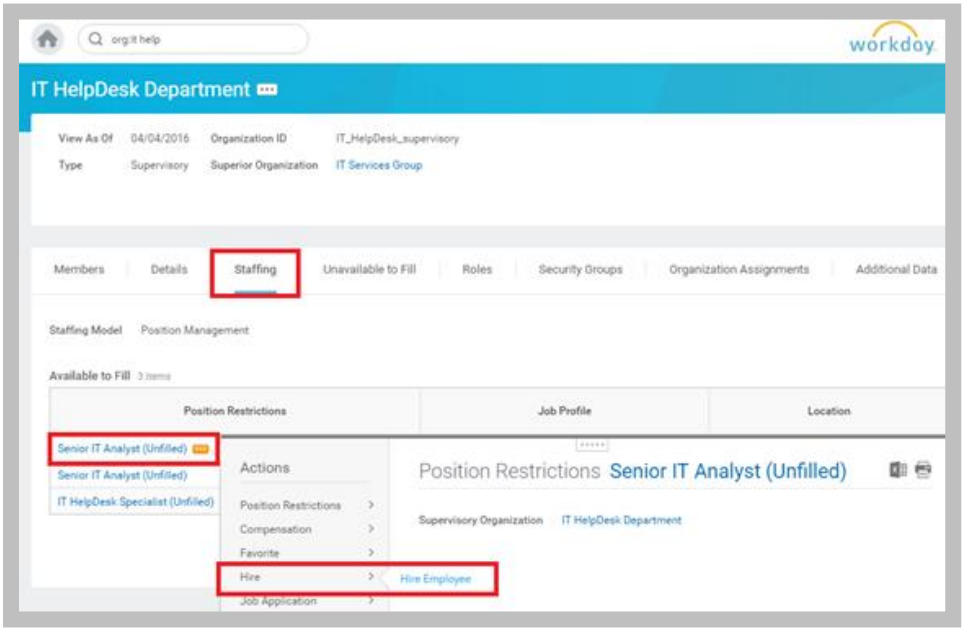


41 - Worker field preview

13. Click **OK.**

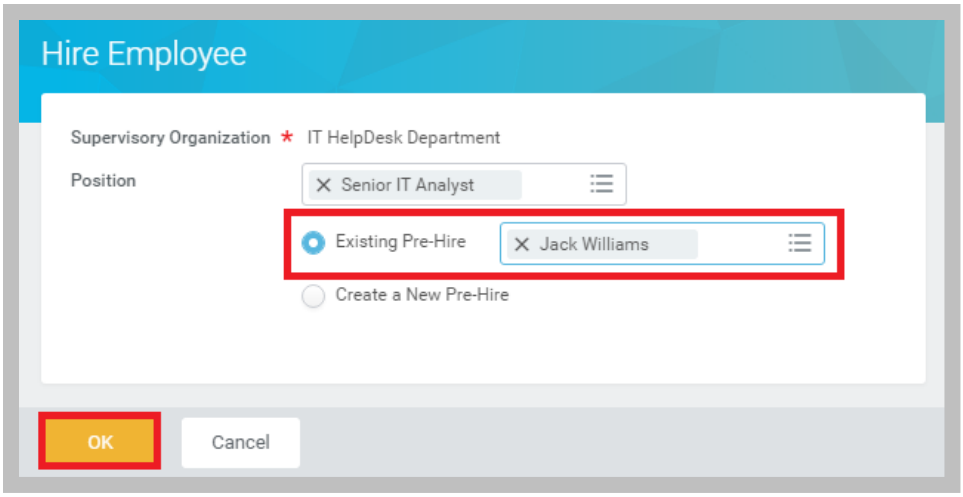
TASK #5: HIRE AN EMPLOYEE TO TEST INTEGRATION

1. Sign in as **Jack Taylor** (jtaylor).
2. Search for ***org: it help*** and open the **IT HelpDesk Department** organization.
3. Click the **Staffing** tab.
4. From the first **Senior IT Analyst (Unfilled)** position's **Related Actions**, select **Hire > Hire Employee**.



42 - IT Helpdesk Department, Staffing tab

5. For **Existing Pre-Hire**, enter **Jack Williams**, then click **OK**.

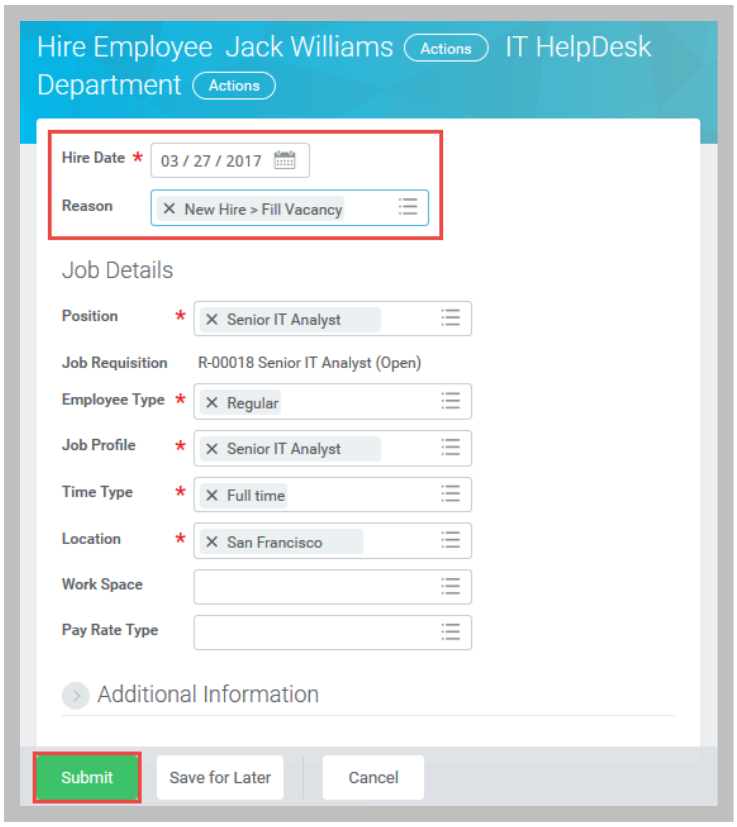


43 - Hire Employee

6. Complete the hire information as follows:

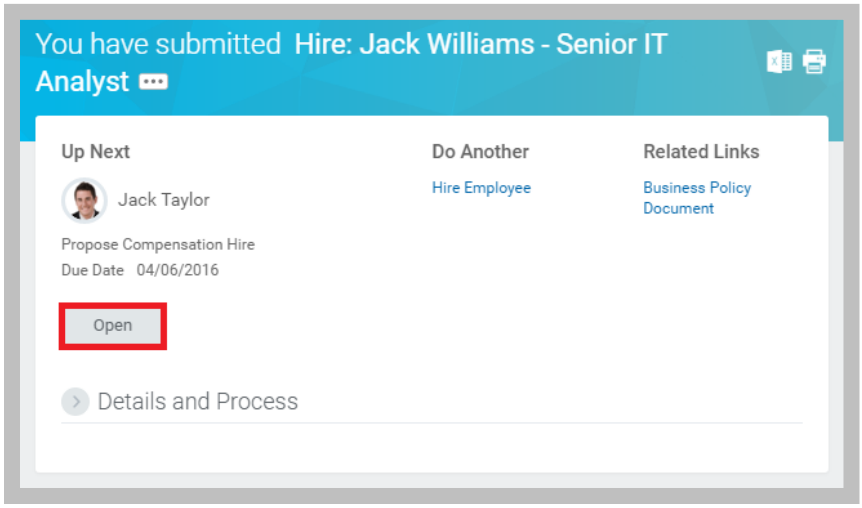
Field Name	***Value***
Hire Date	**{Select today's date}**
Reason	**New Hire > Fill Vacancy**

7. Click the **Submit** button to initiate the Hire process.



44 - Hire Employee step

8. As the Manager, Jack Taylor is responsible for the next step in the business process. Click the **Open** button to **Propose Compensation**.



45 - Hire Employee submitted

9. All needed values are defaulted. Click **Submit**.

10. Click **Done** on the confirmation page.

TASK #6: VERIFY INTEGRATION LAUNCH, SECURITY AND OUTPUT

1. Sign in as **Logan McNeil** (lmcneil).
2. Search for and select the **Process Monitor** report**.**
3. Select **Integration** as the Process Type.
4. Under the *Request* column, click on the **WICT EIB Hire BP Integration** link.
5. Confirm that the process has been initiated by Jack Taylor and ran as WDINST EIB Hire BP ISU.
6. Select the **Output Files** tab.
7. Click the link to download the **HireBPIntegration.csv** file, and open it in a text editor.
8. Verify Jack Williams appears in the resulting .csv file.

SCHEDULE AN INTEGRATION

The Integration Scheduler can launch an integration background process immediately or on a schedule.

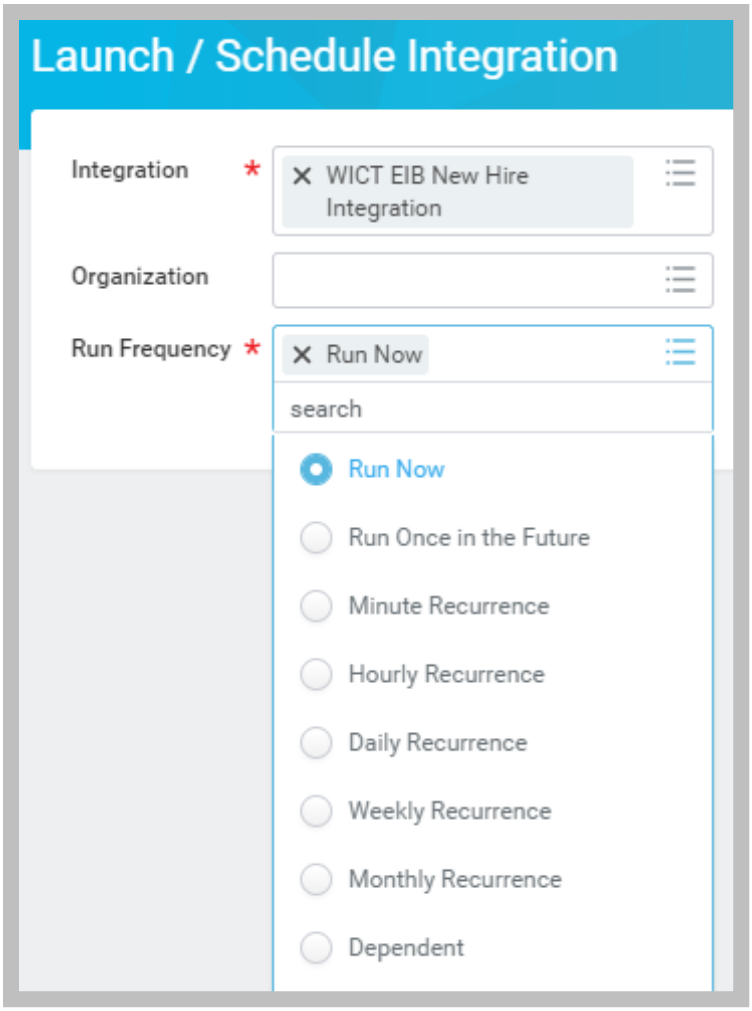
To schedule an integration, use the *Integration* > *Launch/Schedule* Related Action from the EIB integration system, or initiate the *Launch/Schedule Integration* task.

SELECTION CRITERIA AND SCHEDULING PARAMETERS

There are three parts to scheduling an integration. The user that schedules the integration background process must do the following:

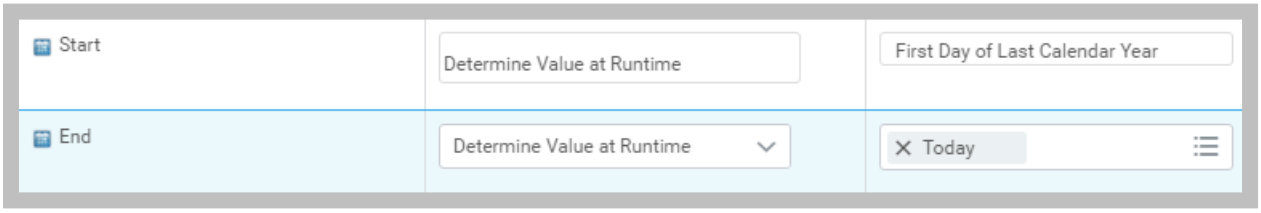
Determine the **Run Frequency**:

- **Run Now**: As you have already seen, this runs the integration immediately
- **Run Once in the Future**: The integration is scheduled to run once at a future date/time (for example, 8pm tonight)
- **Minute Recurrence**: The integration is scheduled to run every 5, 15, 30 or 45 minutes, between starting and ending dates.
- **Hourly Recurrence**: The integration is scheduled to run every *x* hours (from 1 to 12), between starting and ending dates.
- **Daily Recurrence**: The integration is scheduled to run daily, at a specific time, between starting and ending dates.
- **Weekly Recurrence**: Similar to the Daily Recurrence option, but run weekly or on selected days of the week.
- **Monthly Recurrence**: Similar to the Weekly Recurrence option, but run monthly or on specified days of the month.
- **Dependent**: The integration will trigger once the specified Schedule Future Proces reaches one of the selected Statuses



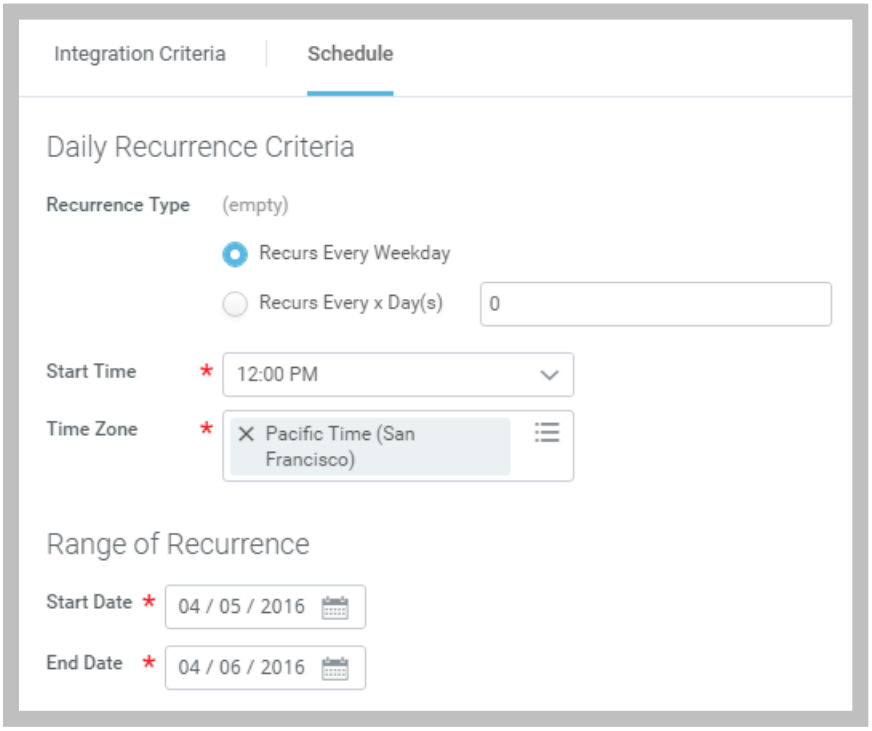
46 - Launch / Schedule Integration

Enter the **Integration Criteria:** The integration selection criteria are set on the *Integration Criteria* tab. For each selection criteria field, you can either enter the value or have the system determine the value at run time. For recurring integrations, when you specify the integration criteria value explicitly in the scheduled process request, that value will be used each time the integration is launched. If you select to determine the value at run time, the selection criteria field value will be calculated each time the integration is launched at the time the integration is launched. Unless you desire unique filenames, typically only date fields are determined at run time, since they are the only fields that vary over time for a recurring process.



47 - Integration Criteria tab

Enter the **Scheduling Parameters:** The user must enter the *Recurrence Type, Start Time, Time Zone* and the *Range of Recurrence*. For the Range of Recurrence, the Start Date cannot be before the current moment (taking into account the Start Time), and the End Date cannot be beyond 5 runs after December 31st of the next year. Other parameters will vary, based on the chosen Run Frequency.

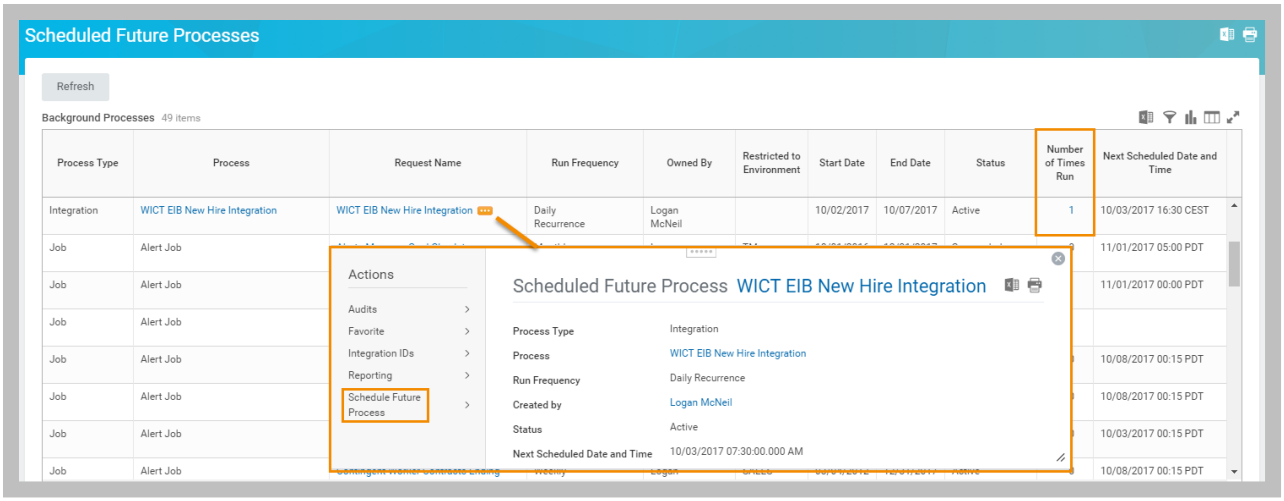


48 - Schedule tab

SCHEDULED FUTURE PROCESSES REPORT

Once an integration has been initiated, you can view the status of the background process (such as scheduled, running, completed, success, and so on) on the *Process Monitor* or *Integration Event* reports. From the process instance displayed in these reports, you can also view any integration errors that occurred.

The **Scheduled Future Processes** report enables you to view the integration requests that are scheduled, but not yet run. This includes both recurring integrations and one-time integrations scheduled to run at a future date or time. Through the Integration Requests report, you can view the details of the integration request by clicking on the Integration Process description associated with integration request.



49 - Scheduled Future Processes report

You can also suspend or activate a scheduled integration by selecting the appropriate Related Action on the Integration Process Description field associated with the integration request. Suspending an integration request causes the system to continue to increment the recurrence at the appropriate time, but does not initiate the integration background process. Activating a suspended integration request causes the system to resume launching an integration background process at the next appropriate time based on the scheduled recurrence. The Status column on the Scheduled Future Processes report indicates whether an integration request is currently active or suspended.

Security Note: The Related Actions of the scheduled request also include **Transfer Ownership**. This option allows for the transfer of a recurring process if the original requesting user is no longer active or responsible for the process. Some customers also use this feature to associate scheduled EIBs with generic or dedicated system accounts, in much the same way that integration system users run Connector and Studio integrations.

DEMO 2.E – SCHEDULE EIB

Introduction: We will show you how to schedule the WICT EIB Demo Integration to run at a regular interval.

Since the EIB already has an ISU account and the report is own buy the same ISU, the scheduled EIB will trigger using the ISU security and will not be affected by Logan's potiential security profile changes.

TASK #1: CREATE THE SCHEDULED PROCESS

1. Sign in as **Logan McNeil** (lmcneil).
2. Search for and select the **WICT EIB Demo Integration** integration system.
3. From the EIB's **Related Actions,** select **Integration > Launch/Schedule**.
4. Select **Monthly Recurrence** from the **Run Frequency** dropdown.
5. Click **OK**.
6. Configure the **Integration Criteria** as follows:

Field	***Value Type***	***Value***
Orgs	Determine Value at Runtime	Top Level Supervisory Organization for Current Worker (GMS)
Include Sub	Specify Value	Checked

Note: There are two Top Level Supervisory Organization for Current Worker (GMS) fields in our tenant. Both will return the same value.

7. Select the **Schedule** tab and enter the following:

Field Name	***Value***
Every Month	Select (default)
Day(s) of the Month	{current day}

Start Time	{Pick a time within next 15 min (note AM/PM)}
Time Zone	{Choose based on your region }
Start Date	{Today's date}
End Date	12/31/2019

8. Click **OK** to schedule the integration.

TASK #2: ACCESS THE SCHEDULED PROCESS

1. Search for and run the **Scheduled Future Processes** report.
2. Filter by the Process Type column with the value of "Integration" and view the schedule for the WICT EIB Demo Integration.
3. Show the request's Related Actions, capabilities

ACTIVITY 2.4 – SCHEDULE EIB

Business Case: Now that the Employee New Hire Integration has been developed and tested, it is time to move it to production. To accomplish this task Logan will setup the integration's security and schedule the integration system to run Monday – Friday.

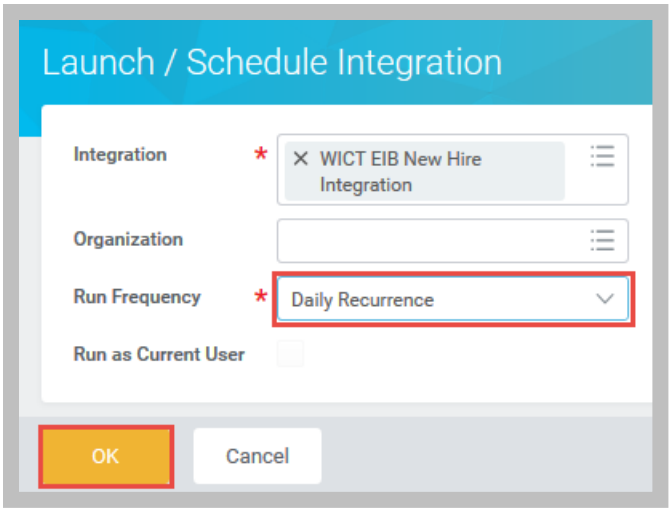
- Setup the security.
- Schedule the integration to run within the next 15 minutes for the first time.
- It should then run every day at the same time.

TASK #1: CONFIGURE SECURITY

1. Sign in as **Logan McNeil** (lmcneil).
2. Search for and select the **Transfer Ownership of Custom Reports** task.
3. Enter **WDINST EIB IntNewHire** for **Report Name(s)**.
4. Enter **WDINST EIB New Hire ISU** for **New Owner**.
5. Click **OK** to save and click **Done**.
6. Search for and select the **WICT EIB New Hire Integration** integration system.
7. From the EIB's **Related Actions,** select **Workday Account > Edit**.
8. Enter **WDINST EIB New Hire ISU** for **Workday Account**.
9. Click **OK** twice to save.

TASK #2: CREATE THE SCHEDULED PROCESS

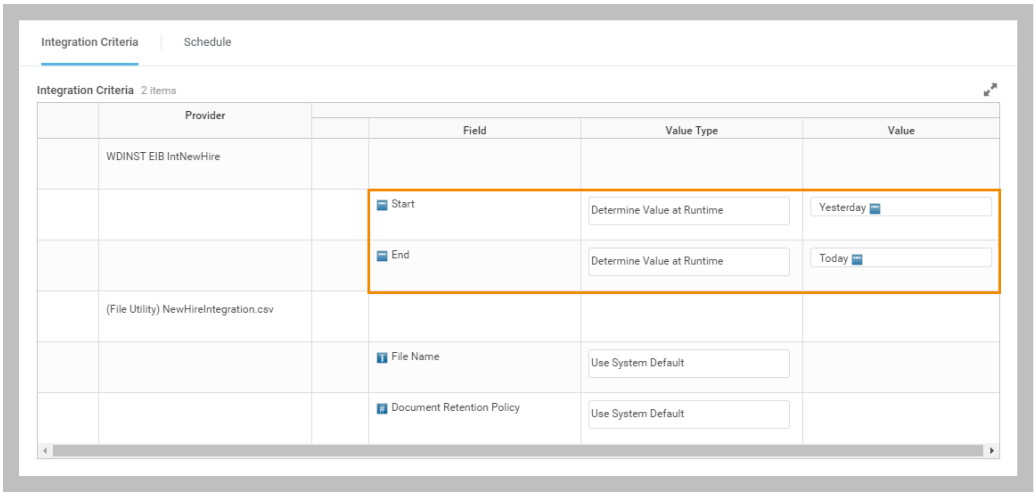
1. From the EIB's **Related Actions,** select **Integration > Launch/Schedule**.
2. Select **Daily Recurrence** from the **Run Frequency** dropdown.
3. Click the **OK** button.



50 - Launch / Schedule Integration

4. Configure the **Integration Criteria** as follows:

Field	*Value Type*	*Value*
Start	Determine Value at Runtime	Yesterday
End	Determine Value at Runtime	Today



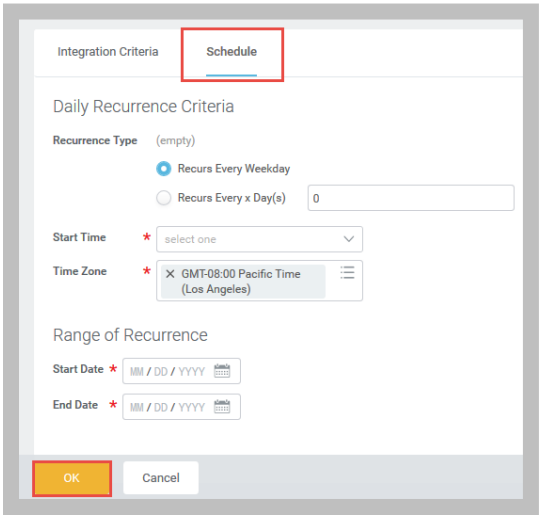
51 - Integration Criteria tab

5. Select the **Schedule** tab.

6. Enter the following:

Field Name	*Value*
Recurrence Type	Recurs Every Weekday (default)
Start Time	{Pick a time within next 15 min (note AM/PM)}
Time Zone	{Choose based on your region }
Start Date	{Today's date}
End Date	{End of the week}

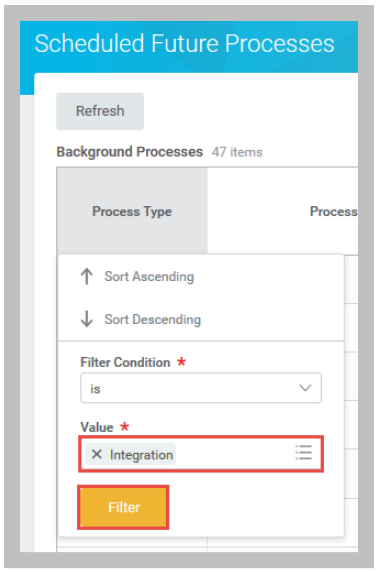
7. Click **OK** to schedule the integration.



52 - Schedule tab

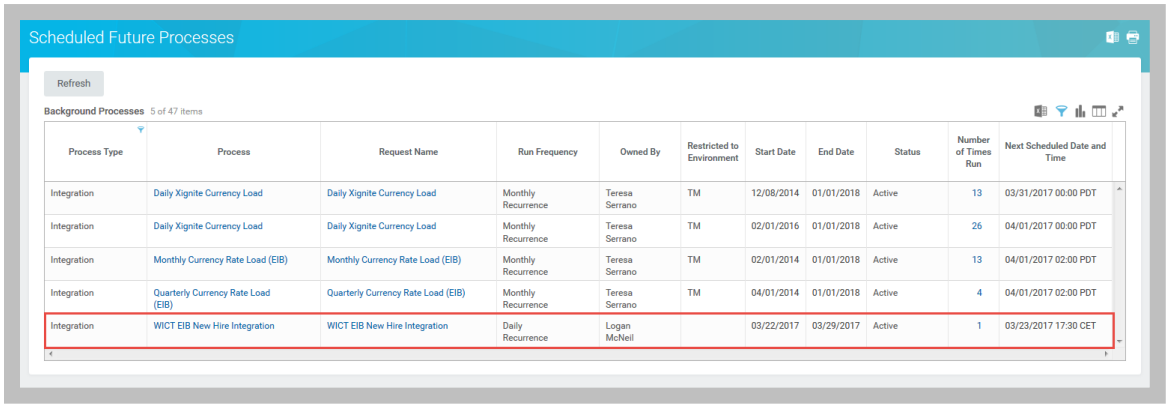
TASK #3: ACCESS THE SCHEDULED PROCESS

1. Search for and run the **Scheduled Future Processes** report.
2. Filter by the Process Type column with the value of "Integration"



53 - Scheduled Future Processes report, prompt page

3. Confirm the presence of your Schedule.



54 - Scheduled Future Processes report, result page

DEMO 2.F – VERIFY THE SCHEDULED RUN'S SECURITY AND OUTPUT

Introduction: Now that the first scheduled run has occurred, we will access the background request page to confirm that the EIB did run under the ISU's security.

TASK #1: CONTROL SECURITY

1. Search for and run the **Scheduled Future Processes** report.

   Note: If you already are on the report's page, just use the Refresh button to get the latest state.

2. Find the schedule for the **WICT EIB Demo Integration**.

3. In the **Number of Times Run** column, click on the number **1**.

4. In the pop up window click on **WICT EIB Demo Integration** in the **Request** column.

5. Confirm that the process has been initiated by Logan McNeil and ran as WDINST EIB Demo ISU.

6. Select the **Output Files** tab.

7. Click the link to download the **DemoIntegrationOutput.csv** file, and open it in a text editor.

8. Confirm that the EIB's security setup is correct as the output contains all the data fields.

CHAPTER 3 – TRANSFORMATION

OVERVIEW

In addition to delivered transformations, such as the alternate output formats for RaaS reports, EIB supports custom methods to transform data to meet external system needs.

OBJECTIVES

By the end of this chapter, you will be able to:

- Apply a Custom Report Transformation to a RaaS-based outbound EIB.
- Add an XSLT transformation to an outbound EIB.
- Edit XSLT attachments.

CUSTOM REPORT TRANSFORMATION

Workday provides the ability to configure custom report transformation as an alternative to developing a custom XSLT file to produce fixed format and csv files. To use this feature you must have created an outbound EIB that uses a web service-enabled custom report as its data source (RaaS) and is configured with **Custom Report Transformation** for the Transform step.

55 - Custom Report Transformation

Important: Currently, Custom Report Transformations cannot be migrated between Workday tenants. Their use should be reserved for in-production, power users who want a quick way to create non-XML files from EIB output without having to develop an XSLT transformation.

When configuring the Custom Report Transformation:

- Configure as much as you can in the custom report, rather than the transformation.
- Use a custom report that already has the fields you want, in the order that you want.
- If you add report fields to, or remove report fields from the custom report definition, Workday automatically adds or removes the corresponding columns in the transformation when you select **Enterprise Interface > Configure Transformation.**
- If you make other changes to the custom report after creating the transformation, you may need to edit the transformation to accommodate these changes. When you change a custom report, you should test any EIBs or Studio integrations that are dependent on it.

CONFIGURE CUSTOM REPORT TRANSFORMATION

1. Access the EIB that includes the Custom Report Transformation.

2. From the Related Actions of the EIB, select **Enterprise Interface > Configure Transformation**.

3. Select the type of output *Uses Delimited* or, *Uses Fix Width*. If appropriate, specify the **Delimiter** character such as (,) or (;) that should separate each column in the output file. You can enter \t for tab characters or \s for space.

4. Click on any **Source Column** and specify its formatting options.

5. (Optional) Select the **Header** tab and format an output file header.

6. (Optional) Select the **Footer** tab and format an output file footer.

Note: If you need to delete your Custom Report Transformation, select **Custom Report Transformation > Delete** from the Related Actions of the transformation (not the EIB). If you then run the EIB, Workday does not transform the output file.

DEMO 3.A – APPLY A CUSTOM REPORT TRANSFORMATION

Introduction: We will demo how to apply a Custom Report Transformation to an existing EIB.

TASK #1: CONFIGURE EIB CUSTOM REPORT TRANSFORMATION

1. Sign in as **Logan McNeil** (lmcneil).
2. Search for and select **WICT EIB Demo Integration**
3. From the **Related Actions**, select **Enterprise Interface > Edit**.
4. In the **Get Data** step, Edit the *Data Source* section.
5. EIBs can only have one transformation type, including an *Alternate Output Format*. Expand **Details** to remove the previously configured **Alternate Output Format** (CSV). Choose '**select one'**.
6. Save your changes to the section.
7. View the error message. The WICT EIB Demo Report cannot be used anymore because Logan McNeil has no access to the report. We can share the report with Logan or transfer it back to her.
8. Cancel your changes.
9. Search for and select the **Transfer Ownership of Custom Reports** task.
10. Enter **WICT EIB Demo Report** for **Report Name(s)**.
11. Enter **Logan McNeil** for **New Owner**.
12. Click **OK** to save and click **Done**.
13. Repeat steps 2 to 6 to remove alternate output format.
14. In the **Transform** step, edit the *Transform* section.
15. Select the **New Custom Report Transformation** option for the **Transformation Type**
16. Save your changes to the section.
17. Click **OK**, Save for Later, or the link to view the integration system.

18. From the integration system's **Related Actions**, select **Enterprise Interface > Configure Transformation**.

19. Select **Use Delimited**.

20. Apply the following **Column** formats:

Column	***Format(s)***
Full Legal Name	Column Heading Override: **Name** Remove Prefix and Suffix Characters Column Width: **40** Padding Character: **\s** (spaces) **Right Padding**
Total Base Pay Annualized in USD – Amount	Column Heading Override: **Total Base Pay** Column Width: **10** Padding Character: **\s** (spaces) **Left Padding**

21. Click the **Header** tab

22. Keep *Include Default Header* checked to display the column headings in the output and, enter **EIB Output** followed by a single space, as the *Optional Report Header*.

23. Click the insert Tag and select **File Name**

24. Click **OK** and **Done**.

TASK #2: LAUNCH INTEGRATION SYSTEM AND REVIEW OUTPUT FILE

1. Search for **WICT EIB Demo Integration**.

2. From the EIB's **Related Actions**, select **Integration > Launch/Schedule**.

3. Confirm that the Launch related action is not available.

Note: The EIB cannot be launched as the ISU does not have access to the data source – the RaaS Report. For simplicity, we are going to remove the ISU from the EIB

4. From the EIB's **Related Actions,** select **Workday Account > Edit**.

5. Delete **WDINST EIB Demo ISU** from the **Workday Account**.

6. Click **OK** to save.

7. From the EIB's **Related Actions**, select **Integration > Launch/Schedule**.
8. Click **OK** on the launch screen.
9. Configure the **Integration Criteria** as follows:

Field	***Value***
Orgs	Payroll Department
Include Sub	Not checked

10. Click **OK** and **Refresh** until completion.
11. Download the output file and open in a text application, like Notepad. Note the following:
    A. The overall file header.
    B. The Full Legal Name and Total Base Pay headers.
    C. The field length for Name and Total Base pay along with the padding.
    D. The Name field not enclosed in double quotes.

ACTIVITY 3.1 – APPLY A CUSTOM REPORT TRANSFORMATION

Business Case: Logan has been asked to change the output from this integration to be a pipe-delimited file with custom heading and footer.

To simplify the EIB and the RaaS report updates we are going to remove the security we have setup in the previous activity

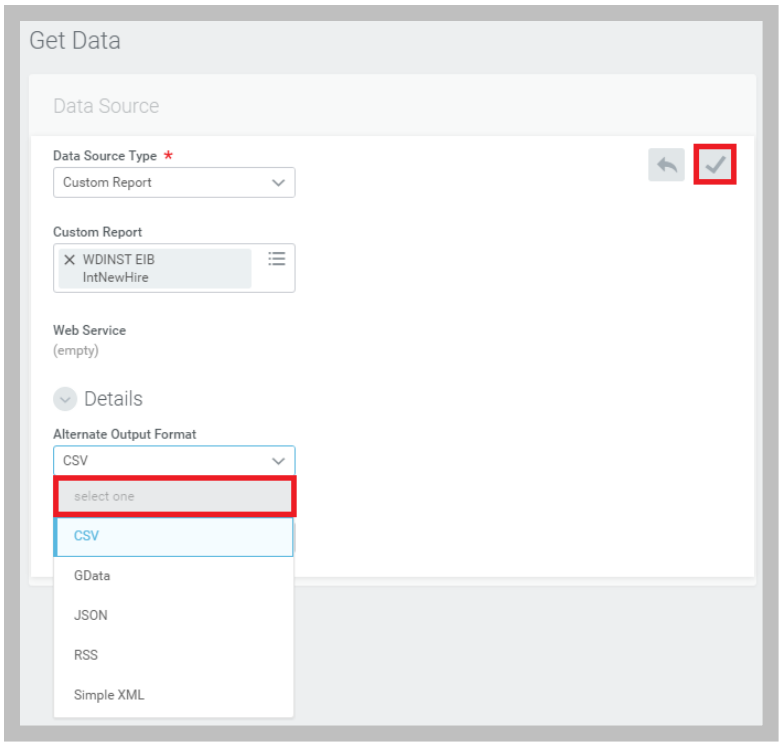
Note:This Custom Report Transformation will not be used later; feel free to apply your own formats.

TASK #1: RESET SECURITY

1. Sign in as **Logan McNeil** (lmcneil).
2. Search for and run the **Transfer Ownership of Custom Reports** task.
3. Enter **WDINST EIB IntNewHire** for **Report Name(s)**.
4. Enter **Logan McNeil** for **New Owner**.
5. Click **OK** to save and click **Done**.
6. Search for and select **WICT EIB New Hire Integration** integration system.
7. From the EIB's **Related Actions,** select **Workday Account > Edit**.
8. Delete **WDINST EIB New Hire ISU** from the **Workday Account**.
9. Click **OK** to save.

TASK #2: CONFIGURE EIB CUSTOM REPORT TRANSFORMATION

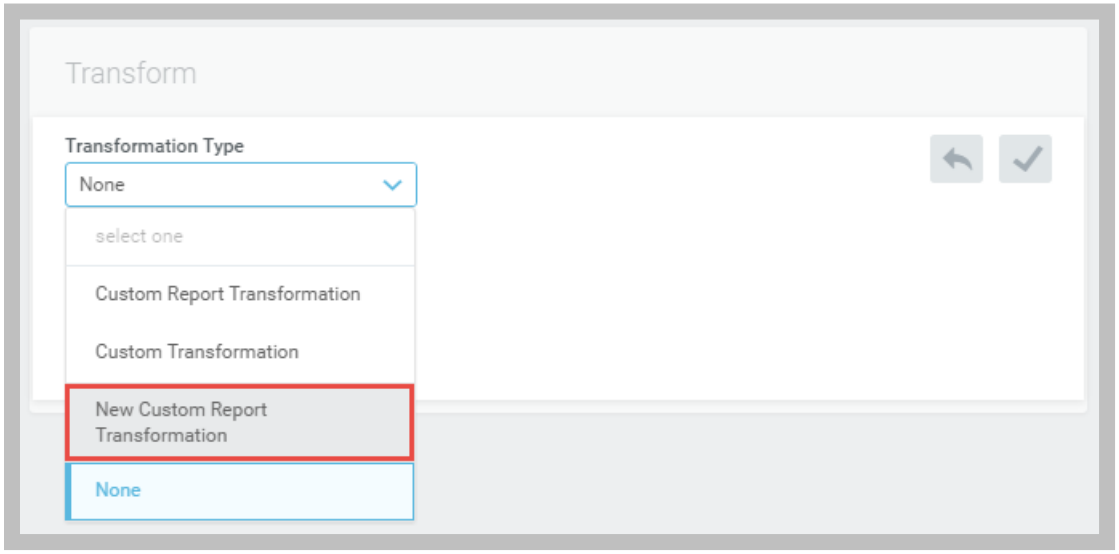
1. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
2. In the **Get Data** step, Edit the *Data Source* section.
3. EIBs can only have one transformation type, including an *Alternate Output Format*. Expand **Details** to remove the previously configured **Alternate Output Format** (CSV). Choose '**select one'** and save .



56 - Get Data step, Data Source section

4. In the **Transform** step, edit the *Transform* section.

5. Select the **New Custom Report Transformation** option for the **Transformation Type** and save .

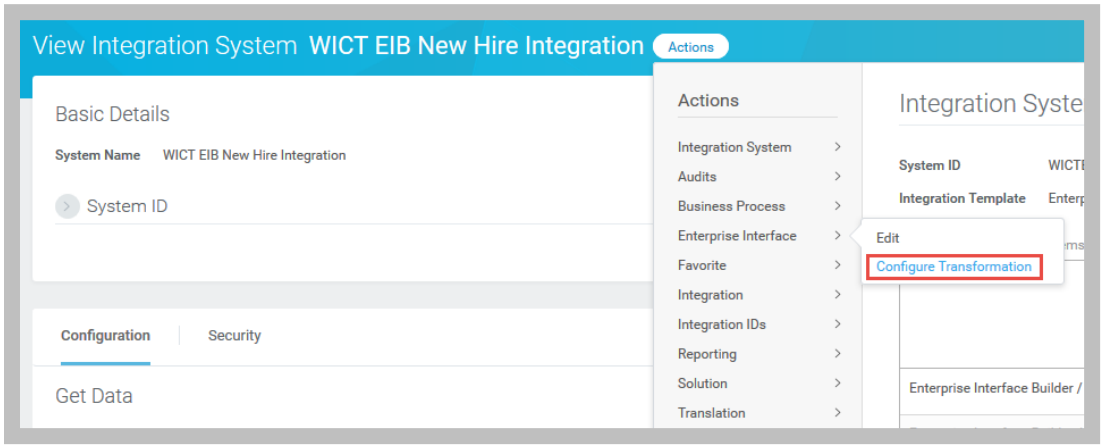


57 - Transform

6. Click **OK**, Save for Later, or the link to view the integration system.

7. From the integration system's **Related Actions**, select **Enterprise Interface > Configure Transformation**.

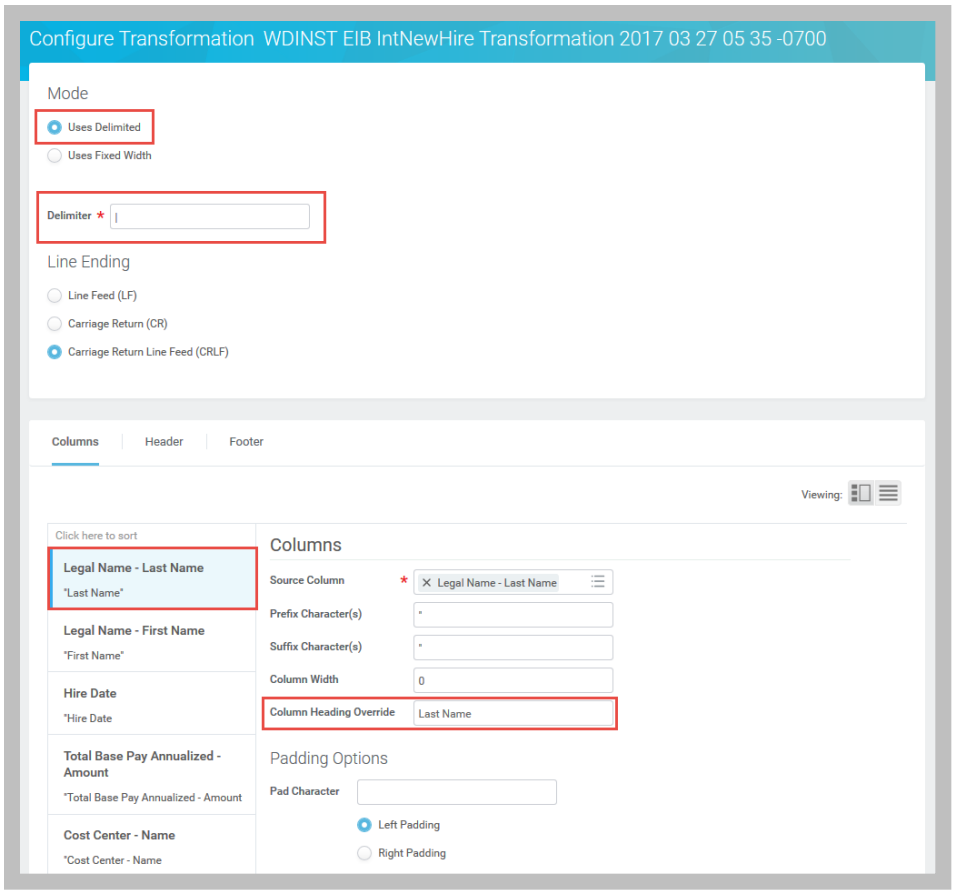
Note:This Custom Report Transformation will not be used later; feel free to apply your own formats.



58 - Configure Transformation related action

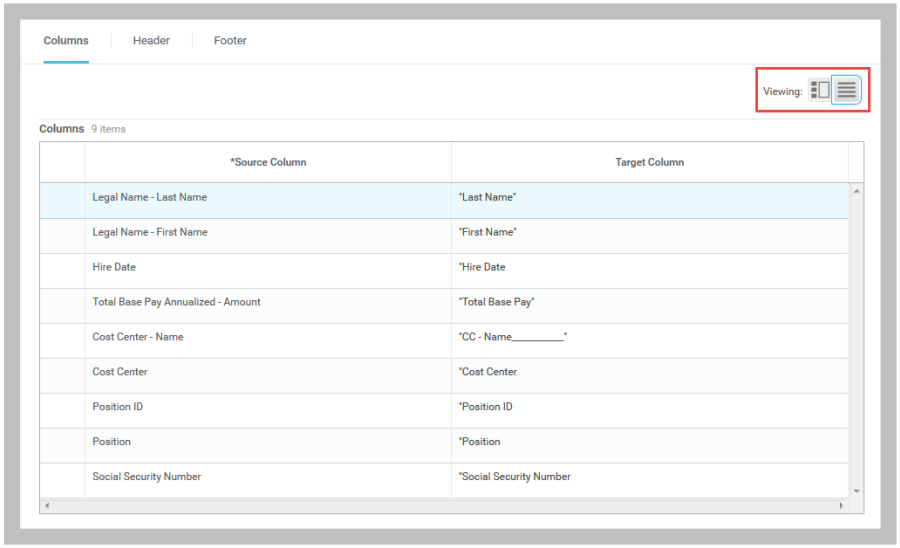
8. Select **Use Delimited**.
9. Enter "|" (pipe) in the **Delimiter** field.
10. Select **Carriage Return Line Feed (CRLF)**.
11. Apply the following **Column** formats (or any format of your choice):

Column	*Format(s)*
Legal Name – Last Name	Column Heading Override: **Last Name**
Legal Name – First Name	Column Heading Override: **First Name**
Total Base Pay Annualized – Amount	Column Heading Override: **Total Base Pay** Column Width: **10** Padding Character: **\s** (spaces) **Left Padding**
Cost Center – Name	Column Heading Override: **CC – Name** Column Width: **20** Padding Character: **\s** (spaces) **Right Padding**



59 - Configure Transformation

12. Use the grid  **Viewing** option to preview your column formats, including prefix/suffix and padding characters.

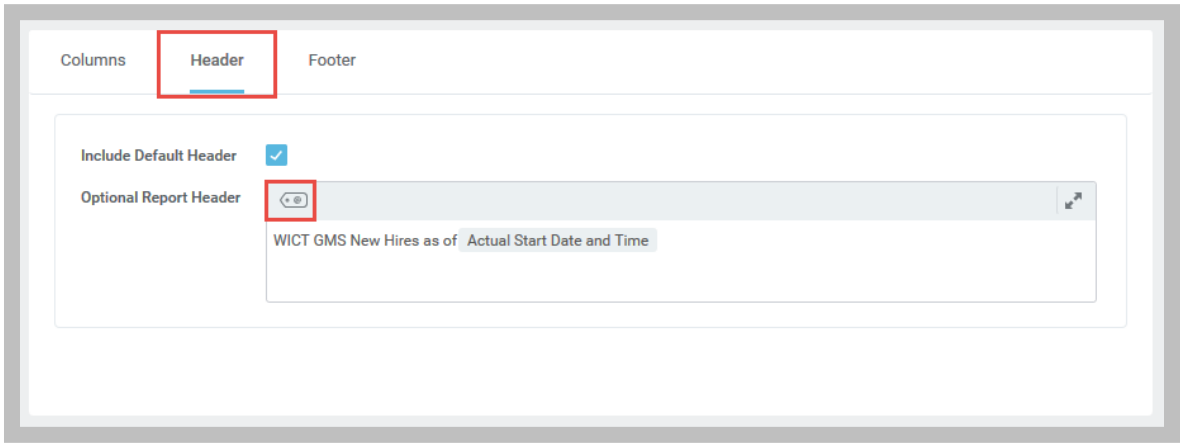


60 - Grid viewing

13. Click the **Header** tab

14. Keep *Include Default Header* checked to display the column headings in the output. and enter “WICT GMS New Hires as of ” as the *Optional Report Header*.

15. Click the insert Tag and select **Actual Start Date and Time**



61 - Header tab

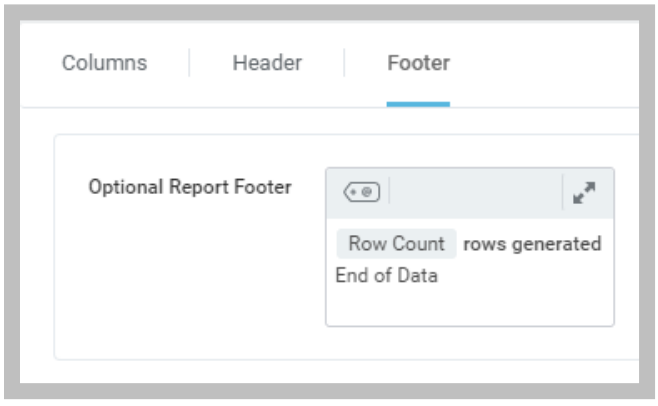
16. Click the **Footer** tab

17. Click the insert Tag and select **Row Count**

18. enter “ rows generated” and press **Enter**

19. Enter “End of Data.” in the *Optional Report Footer*.

    Note: Multi-line is supported for both Header and Footer



62 - Footer tab

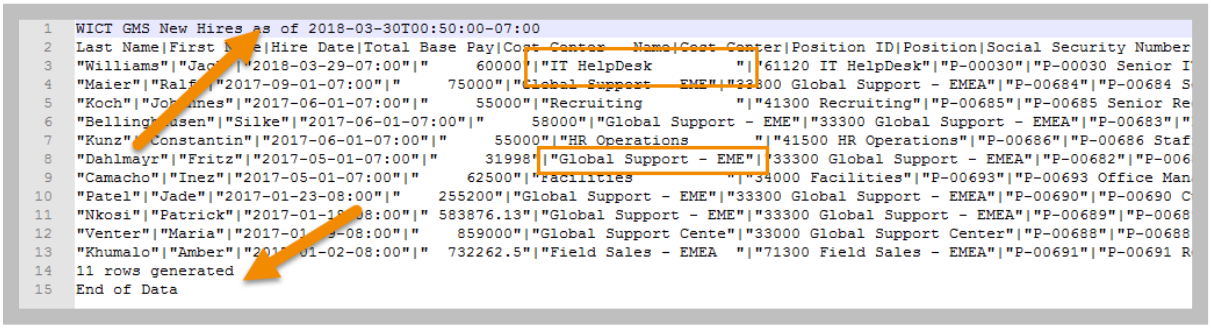
20. Click **OK** and **Done**.

TASK #3: LAUNCH INTEGRATION SYSTEM AND REVIEW OUTPUT FILE

1. Search for the **WICT EIB New Hire Integration** integration system.
2. From the **Related Actions**, select **Integration > Launch / Schedule**.
3. Click OK to accept the Now, Run Frequency
4. Enter the report parameters:

Field	***Value***
Start	01/01/2017
End	{Today's date}

5. Click **OK** and **Refresh** until completion.
6. Download the output file and open in a text editor. Note the following:
   A. The file is pipe delimited and contains the headers and footer that you configured.
   B. The Cost Center Names are truncated when they exceed the length you defined, and padded with spaces when shorter.



63 - Output file

Activity Complete

CUSTOM TRANSFORMATION (XSLT)

There are times when Workday does not present output in the desired format for simple integration tasks. For example, The external system may not need all the data output by the RaaS report or, a special formatting is needed for a field.. Another system could require that the social security number be passed but, only the last 4 digits. In this case an *Extensible Stylesheet Language Transformation (XSLT)* could be implemented with the EIB.

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet exclude-result-prefixes="xsl" xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="2.0"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wd="urn:com.workday.report/WDINST_EIB_IntNewHire">
    <xsl:output method="text"/>
    <xsl:variable name="linefeed" select="'&#xd;&#xa;'"></xsl:variable>
    <xsl:template match="/">
        <xsl:text>Last Name,First Name,Hire Date,Base Pay,Cost Center Name,Position ID,SSN</xsl:text>
        <xsl:value-of select="$linefeed"/>

        <xsl:for-each select="/wd:Report_Data/wd:Report_Entry">
            <xsl:text>"</xsl:text>
            <xsl:value-of select="wd:Last"/>
            <xsl:text>","</xsl:text>
            <xsl:value-of select="wd:First"/>
            <xsl:text>","</xsl:text>
            <xsl:value-of select="wd:HireDt"/>
            <xsl:text>","</xsl:text>
            <xsl:value-of select="wd:BasePay"/>
            <xsl:text>","</xsl:text>
            <xsl:value-of select="wd:CostCenterName"/>
            <xsl:text>","</xsl:text>
            <xsl:value-of select="wd:PositionID"/>
            <xsl:text>","</xsl:text>
            <xsl:value-of select="substring(wd:SSN,6,4)"/> <!-- substring the SSN -->
            <xsl:text>"</xsl:text>
            <xsl:value-of select="$linefeed"/>
        </xsl:for-each>
<!--
These 3 lines are a comment (as is above after the substring of SSN)
-->
    </xsl:template>
</xsl:stylesheet>
```

64 - Sample XSLT file

Note: Workday does not generate or validate XSLT. You must build these documents outside of Workday using non-Workday technologies and applications. However, XSLT is an industry standard, and there are many resources available to guide you.
Note: Custom XSLT transformations that spend more than 2 hours processing are terminated automatically.

Formatting: If Workday output is incompatible with the external system, XSLT can transform the data. Some common examples are date fields. Many external systems require a different date format from Workday. XSLT can reformat the data to suit the endpoint's needs.

Conditional Logic: The standard EIB transformations do not allow for conditional logic. There are times when the output format should be different based upon the value of a particular data element. Using if/then logic, the output can be tailored to which type of worker the XSLT is attempting to transform.

Performance: Finally, XSLT processing can be more recursive and efficient than Workday's delivered options (e.g., calculated fields).

XML ELEMENTS AND ATTRIBUTES

Elements have start and end tags: **<wd:Last>** and **</wd:Last>**. Elements can contain other elements, attributes, and text (data). (Empty XML tags can be self-closed, e.g. **<wd:Last />**)

All Workday XML produced by a RaaS report always has a single **wd:Report_Data** element, which contains a child **wd:Report_Entry** element for each data record produced by the report.

Each **wd:Report_Entry** contains other elements, corresponding to report fields. For example, **wd:Last** contains the text "**Williams**".

Some elements--object data, in particular--have *attributes.* These are "name=value" pairs within the opening tag itself. For example, **wd:Position** contains a **wd:Descriptor** attribute with a value of "**Senior IT Analyst**".

```
<?xml version="1.0" encoding="UTF-8"?>
- <wd:Report_Data xmlns:wd="urn:com.workday.report/WDINST_EIB_IntNewHire">
  - <wd:Report_Entry>
      <wd:Last>Williams</wd:Last>
      <wd:First>Jack</wd:First>
      <wd:HireDt>2017-03-27-07:00</wd:HireDt>
      <wd:BasePay>65000</wd:BasePay>
      <wd:CostCenterName>IT HelpDesk</wd:CostCenterName>
    - <wd:CostCenter wd:Descriptor="61120 IT HelpDesk">
        <wd:ID wd:type="WID">1579eeb103e34798b2a4c2126d948dae</wd:ID>
        <wd:ID wd:type="Organization_Reference_ID">61120</wd:ID>
        <wd:ID wd:type="Cost_Center_Reference_ID">61120</wd:ID>
      </wd:CostCenter>
      <wd:PositionID>P-00030</wd:PositionID>
    - <wd:Position wd:Descriptor="Senior IT Analyst">
        <wd:ID wd:type="WID">b436d8644f9310000c486d2cde4a0164</wd:ID>
      </wd:Position>
    </wd:Report_Entry>
```

65 - Sample RaaS Report Workday XML output

RAAS REPORT AND XSLT CONSTRUCT

The XSLT stylesheet must match the XML elements from the RaaS report's output. In the RaaS Report's definition you provide a value to the following fields that may be referenced in the XSLT:

- Namespace
- Column Heading Override XML Alias
- Group Column Heading Override XML Alias

XPATH

XPath is the XSLT-related protocol that selects and iterates through XML data in a stylesheet. It uses directory-like notation to refer to elements in the input XML and supports simple functions.

For example, in the last activity, this XSLT statement retrieved and output the substring of the last 4 characthers value of the SSN field from the above file (everything in “**quotes**” is an XPath expression):

```
<xsl:value-of select="substring(wd:SSN,6,4)"/>
```

The “@” symbol directs XPath to select the value of an attribute as a child of its element:

```
<xsl:value-of select="wd:Position/@wd:Descriptor"/>
```

RUNTIME BOUNDARIES ON EIBS WITH CUSTOM XSLT TRANSFORMATIONS

When you transform large amounts of data, EIBs with custom XSLT transformations can consume several times the amount of memory that the source data requires. Although EIBs that transform a large amount of data have a high risk of malfunctioning, Workday still attempts to complete all EIBs.
The maximum amount of memory that is allocated to an EIB transformation is 27 gigabytes (GB).
The maximum amount of time allocated to EIB data transformation is 2 hours.

Try the following steps if your EIB does not perform as expected.

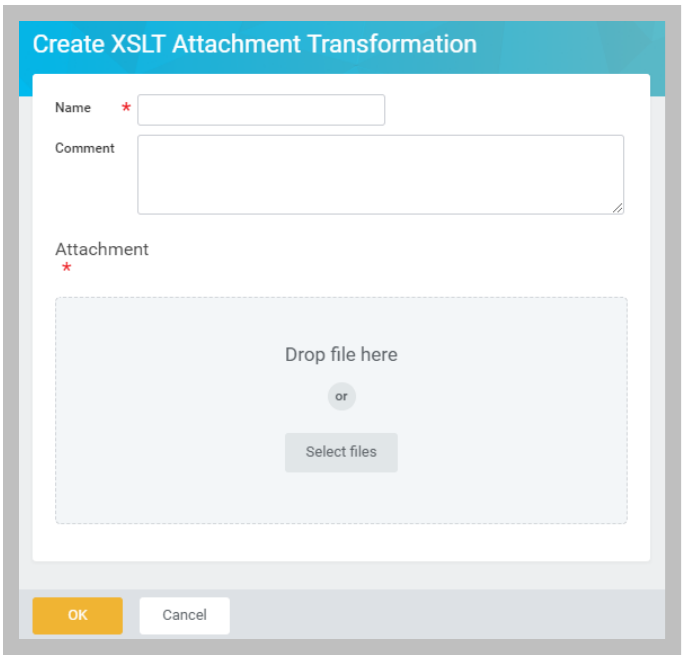
- Filter the data source to reduce its size, run the EIB with different filters. Use either custom report filters or maintain launch parameters for the web service data source.
- Review your custom XSLT for possible processing inefficiencies.
- Consider converting your EIB to a Workday Studio integration. The Workday Studio client installation has a sample of how to convert an EIB to a Studio integration.

If you are in the process of designing or developing Workday integrations, consider the future growth of your data when deciding whether to use EIB or Workday Studio.

CREATE XSLT ATTACHMENT

XSLT Attachment Transformations are custom XSLT stylesheets that you create and upload to Workday.

Use the **Create XSLT Attachment Transformation** task to upload a transformation stylesheet to use with an EIB. Simply name the XSLT Attachment Transformation and provide any necessary comments. Browse for your file and attach it to the Workday system.

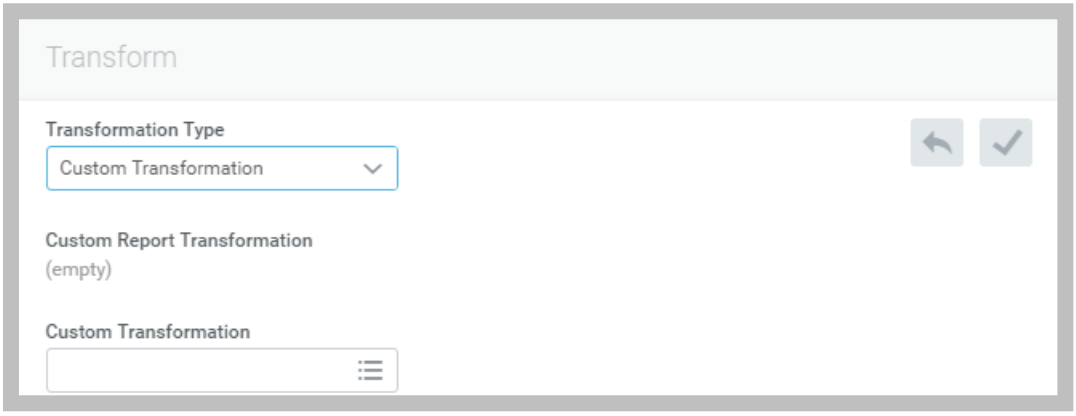


66 - Create XSLT Attachment Transformation task

Once the file has been uploaded using the Create XSLT Attachment task, it is available to select in the Enterprise Interface configuration wizard.

CONFIGURE TRANSFORM

When using an XSLT attachment, set the Transformation Type of the EIB to **Custom Transformation**. Enter your uploaded XSLT Attachment Transformation name in the Custom Transformation field.



67 - Custom Transformation

DEMO 3.B – APPLY A CUSTOM TRANSFORMATION (XSLT)

Introduction: We will delete the previously created CRT and use a Custom Transformation to modify the output of an existing EIB.
The XSLT processing:

- Removes the time offset of the Hire Date field using substring function.
- Reorders the output data
- Only outputs a subset of the RaaS report output fields

TASK #1: VERIFY THE CONSITENCY BETWEEN THE RAAS REPORT OUTPUT AND THE XSLT (.XSL FILE)

1. Open the **3.Bdemo.xsl** file in a text editor.
2. Use the Workday XML output generated in Demo 2.A to Review the XSL file.
    A. Verify that the Custom Report Name in the namespace is **WICT_EIB_Demo_Report** (spaces in the custom report name are changed to underscores)
    B. Confirm that the detail sections of the XSLT do not match with the XML being output from Workday.
3. Sign in as Logan McNeil (lmcneil).
4. Search for and select **WICT EIB Demo Report** report.
5. From the **Related Actions**, select **Custom Report > Edit**.
6. Partially simplify the *Column Heading Override XML Alias* setting for use with the XSLT document as follows:

Field	***Column Heading Override XML Alias***
Full Legal Name	**Emp.Name**
Hire Date	**Day1**
Business Title	**Bus.Title**
Total Base Pay Annualized in USD – Amount	**Total.Pay**

Social Security Number	**SSN**

7. Click **OK** to save, then click **Done**.

Note: The XSLT will only output a subset of the RaaS' output. It also changes the output order of the data.

8. Locate the Workday XML output from Demo 2.A and refresh the page to see the impact of the XML alias changes in the XML output.

TASK #2: CREATE XSLT ATTACHMENT

1. Search for *create xslt* and run the **Create XSLT Attachment Transformation** task.
2. Name the XSLT Attachment Transformation **WICT EIB Demo Transform**.
3. Click the **Select Files** button or drop the **3.Bdemo.xsl** file.
4. Click **OK** to save your XSLT attachment.
5. Click **Done**.

TASK #3: CONFIGURE EIB

1. Search for and select the **WICT EIB Demo Integration** integration system.
2. You need to remove the existing Custom Report Transformation in order to apply an XSLT Attachment.
    A. From the **Related Actions** of the *Transformation* to select **Custom Report Transformation > Delete**.
    B. Click **OK**, then **Done**.
3. From the *WICT EIB Demo Integration's* **Related Actions**, select **Enterprise Interface > Edit**.
4. Click the **Edit** icon to configure the *Transform* section.
5. Select **Custom Transformation** from the *Transformation Type* drop-down menu.
6. Enter **WICT EIB Demo Transform** in the *Custom Transformation* field to select the XSLT attachment you created earlier.
7. Save the section.

8. Click **Ok**.

TASK #4: LAUNCH INTEGRATION AND VIEW OUTPUT

1. From the integration system's **Related Actions**, select **Integration > Launch/Schedule**.
2. Accept the default of *Run Now* and click **OK**.
3. Configure the **Integration Criteria** as follows:

Field	***Value***
Orgs	Payroll Department
Include Sub	Not checked

4. Click **OK** and **Refresh** until completion.
5. When the request is completed, open and review the output. Only selected values are in the output. The date does not have the time offset.

ACTIVITY 3.2 – APPLY A CUSTOM TRANSFORMATION (XSLT)

Business Case: Logan has a request by IT to modify the WICT EIB New Hire Integration that you created earlier. The new requirement has two parts:

- A CSV File is required.
- Only the last four (4) digits of the Social Security Number should be output.
- Not all columns from the custom report are needed.

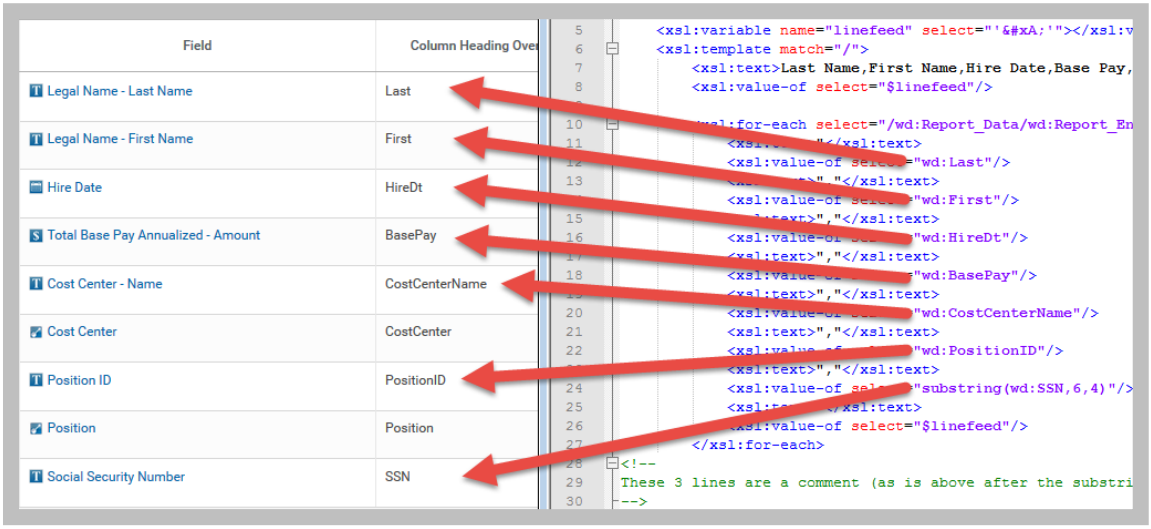
TASK #1: VERIFY THE CONSITENCY BETWEEN THE RAAS REPORT OUTPUT AND THE XSLT (.XSL FILE)

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select the **WDINST EIB IntNewHire** report.
3. From the **Related Actions**, select **Custom Report > Edit**.
4. In your unzipped class files folder, find the **3.2activity.xsl** file. Right-click and select **Open With** to open it with a text editor,such as Notepad, Wordpad, or Notepad++. (IMPORTANT: Do *not* open the .xsl file with a browser such as IE.)
5. Review the XSL file.
   A. Verify that the Custom Report Name in the namespace is **WDINST_EIB_IntNewHire**. (spaces in the custom report name are changed to underscores)
   B. Verify that the detail sections of the XSLT do not match with the XML being output from Workday. (**Hint:** Compare the *Column Heading Override XML Alias.* We will edit the report to match these values*.)*
6. In your tenant, simplify the *Column Heading Override XML Alias* setting for use with the XSLT document as follows:

Field	***Column Heading Override XML Alias***
Legal Name – Last Name	**Last**
Legal Name – First Name	**First**
Hire Date	**HireDt**

Total Base Pay Annualized - Amount	**BasePay**
Cost Center - Name	**CostCenterName**
Cost Center	**CostCenter** (will be used in next activity)
Position ID	**PositionID**
Position	**Position** (No Changes -will be used in next activity)
Social Security Number	**SSN**

Important: XML element names are case-sensitive.



68 - Column Heading Override XML Alias matching XSLT

7. Click **OK** to save, then click **Done**.

   Note: The output of the RaaS Report includes the Cost Center and Position CRFs. The XSLT will not retrieve these CRF's values and they will not be in the transformed output.

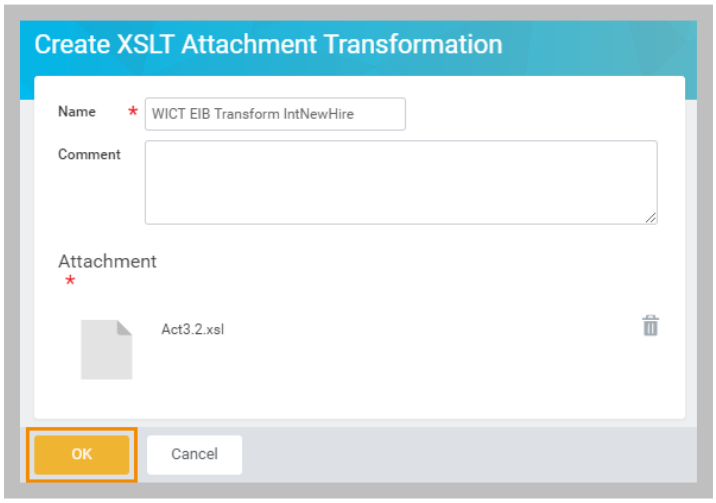
TASK #2: CREATE XSLT ATTACHMENT

1. Search for *create xslt* and select the **Create XSLT Attachment Transformation** task.

2. Name the XSLT Attachment Transformation **WICT EIB Transform IntNewHire**.

3. Click the **Select Files** button or drop the **3.2activity.xsl** file.

4. Click **OK** to save your XSLT attachment.



69 - Create XSLT Attachment Transformation task

5. Click **Done**.

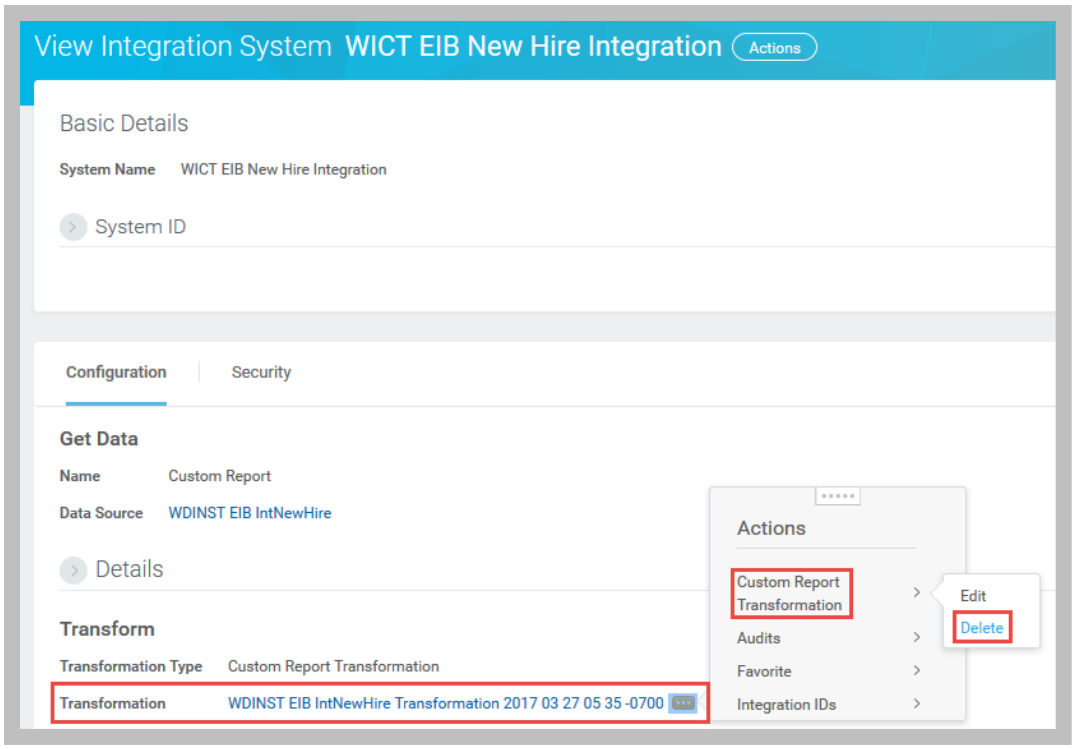
TASK #3: CONFIGURE EIB

1. Search for and select the **WICT EIB New Hire Integration** integration system.

2. You need to remove the existing Custom Report Transformation in order to apply an XSLT Attachment.

    A. From the *Transformation*'s **Related Actions**, select **Custom Report Transformation > Delete**.

    B. Click **OK**, then **Done**.



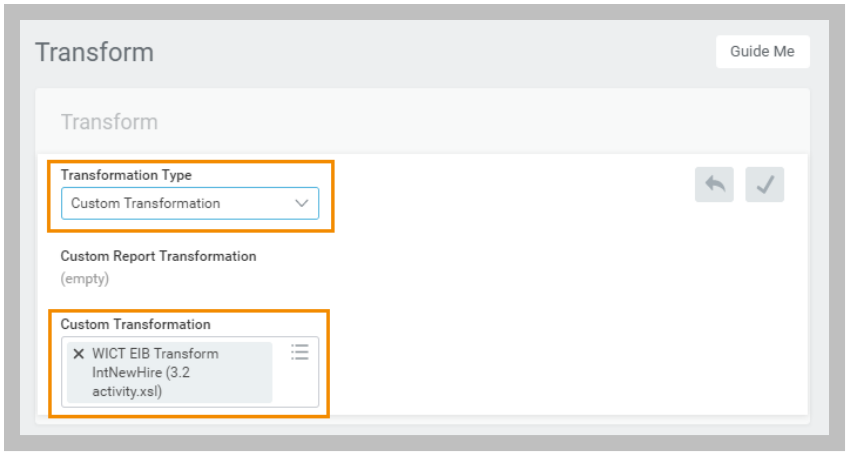
70 - Delete Custom Report Transformation

3. From the *WICT EIB New Hire Integration's* **Related Actions**, select **Enterprise Interface > Edit**.

4. Click the Edit icon to configure the *Transform* section.

5. Select **Custom Transformation** from the *Transformation Type* drop-down menu.

6. Enter **WICT EIB Transform IntNewHire** in the *Custom Transformation* field to select the XSLT attachment you created earlier.



71 - Transform

7. Save the section.
8. Click **OK**.

TASK #4: LAUNCH INTEGRATION AND VIEW OUTPUT

1. From the integration system's **Related Actions**, select **Integration > Launch/Schedule**.
2. Accept the default of *Run Now* and click **OK**.
3. Enter the report parameters:

Field	***Value***
Start	01/01/2017
End	{Today's date}

4. Click the **OK** button to launch the integration.
5. When the request is completed, open and review the output, verifying that the Cost Center and the Position are not in the output and only the final four digits of the Social Security Number appear in the output for employee(s) who have SSNs entered in the tenant.

```
1  Last Name,First Name,Hire Date,Base Pay,Cost Center Name,Position ID,SSN
2  "Williams","Jack","2018-03-29-07:00","60000","IT HelpDesk","P-00030",""
3  "Maier","Ralf","2017-09-01-07:00","75000","Global Support - EMEA","P-00684",""
4  "Koch","Johannes","2017-06-01-07:00","55000","Recruiting","P-00685",""
5  "Bellinghausen","Silke","2017-06-01-07:00","58000","Global Support - EMEA","P-00683",""
6  "Kunz","Constantin","2017-06-01-07:00","55000","HR Operations","P-00686",""
7  "Dahlmayr","Fritz","2017-05-01-07:00","31998","Global Support - EMEA","P-00682",""
8  "Camacho","Inez","2017-05-01-07:00","62500","Facilities","P-00693","5454"
9  "Patel","Jade","2017-01-23-08:00","255200","Global Support - EMEA","P-00690",""
10 "Nkosi","Patrick","2017-01-18-08:00","583876.13","Global Support - EMEA","P-00689",""
11 "Venter","Maria","2017-01-09-08:00","859000","Global Support Center","P-00688",""
12 "Khumalo","Amber","2017-01-02-08:00","732262.5","Field Sales - EMEA","P-00691",""
13
```

72 - Output file

REPORTS-AS-A-SERVICE (RAAS) AND CUSTOM TRANSFORMATIONS

SIMPLE TYPES VS. BUSINESS OBJECTS

In the User Interface, the report's output displays "Simple Type" CRFs in black whereas "Object type" CRFs usually display as blue hyperlinks and have Related Actions.

Total Base Pay Annualized - Amount	Cost Center - Name	Cost Center	Position ID	Position
65,000.00	IT HelpDesk	61120 IT HelpDesk	P-00030	Senior IT Analyst
10,500,000	HR Operations	41500 HR Operations	P-00654	HR Manager
605,000.00	Financial Planning & Analysis	51220 Financial Planning & Analysis	P-00651	Regional Finance Manager
90,000.00	Inside Sales	71100 Inside Sales	P-00626	Inside Sales Representative
300,000.00	Office of CHRO	40000 Office of CHRO	P-00650	Chief Human Resources Officer

73 - Report Output

Compare icons below—**Position ID** (Text) vs. **Position** (1:1).

Business Object	Field	Column Heading Override XML Alias
Worker	Legal Name - Last Name	Last
Worker	Legal Name - First Name	First
Worker	Hire Date	HireDt
Worker	Total Base Pay Annualized - Amount	BasePay
Worker	Cost Center - Name	CostCenterName
Worker	Cost Center	CostCenter
Worker	Position ID	PositionID
Worker	Position	Position
Worker	Social Security Number	SSN

74 - Report Fields

All Workday Business Objects (BOs) have Workday IDs (WIDs) and may have Reference IDs. These are known as Integration IDs.

WORKDAY XML

The Workday XML contains Integration IDs associated with the business object instance.

Review the following example of a report in Workday XML. Notice that the related business objects have more data than simple types. The Workday ID (WID) and the Reference IDs are also included for each of the business objects.

In the screenshot below, wd:Position contains the wd:Descriptor attribute (which is set to Senior IT Analyst)

```
<?xml version="1.0" encoding="UTF-8"?>
- <wd:Report_Data xmlns:wd="urn:com.workday.report/WDINST_EIB_IntNewHire">
  - <wd:Report_Entry>
      <wd:Last>Williams</wd:Last>
      <wd:First>Jack</wd:First>
      <wd:HireDt>2017-03-27-07:00</wd:HireDt>
      <wd:BasePay>65000</wd:BasePay>
      <wd:CostCenterName>IT HelpDesk</wd:CostCenterName>
    - <wd:CostCenter wd:Descriptor="61120 IT HelpDesk">
        <wd:ID wd:type="WID">1579eeb103e34798b2a4c2126d948dae</wd:ID>
        <wd:ID wd:type="Organization_Reference_ID">61120</wd:ID>
        <wd:ID wd:type="Cost_Center_Reference_ID">61120</wd:ID>
      </wd:CostCenter>
      <wd:PositionID>P-00030</wd:PositionID>
    - <wd:Position wd:Descriptor="Senior IT Analyst">
        <wd:ID wd:type="WID">b436d8644f9310000c486d2cde4a0164</wd:ID>
      </wd:Position>
    </wd:Report_Entry>
  - <wd:Report_Entry>
      <wd:Last>Endo</wd:Last>
      <wd:First>Fumi</wd:First>
      <wd:HireDt>2016-11-01-07:00</wd:HireDt>
      <wd:BasePay>10500000</wd:BasePay>
      <wd:CostCenterName>HR Operations</wd:CostCenterName>
    - <wd:CostCenter wd:Descriptor="41500 HR Operations">
        <wd:ID wd:type="WID">6cd968bffb1d4a44a70350f87f73093e</wd:ID>
        <wd:ID wd:type="Organization_Reference_ID">41500</wd:ID>
        <wd:ID wd:type="Cost_Center_Reference_ID">41500</wd:ID>
      </wd:CostCenter>
      <wd:PositionID>P-00654</wd:PositionID>
    - <wd:Position wd:Descriptor="HR Manager">
        <wd:ID wd:type="WID">e002de05784910126df1eaedfc3b404c</wd:ID>
      </wd:Position>
    </wd:Report_Entry>
```

75 - Workday XML output

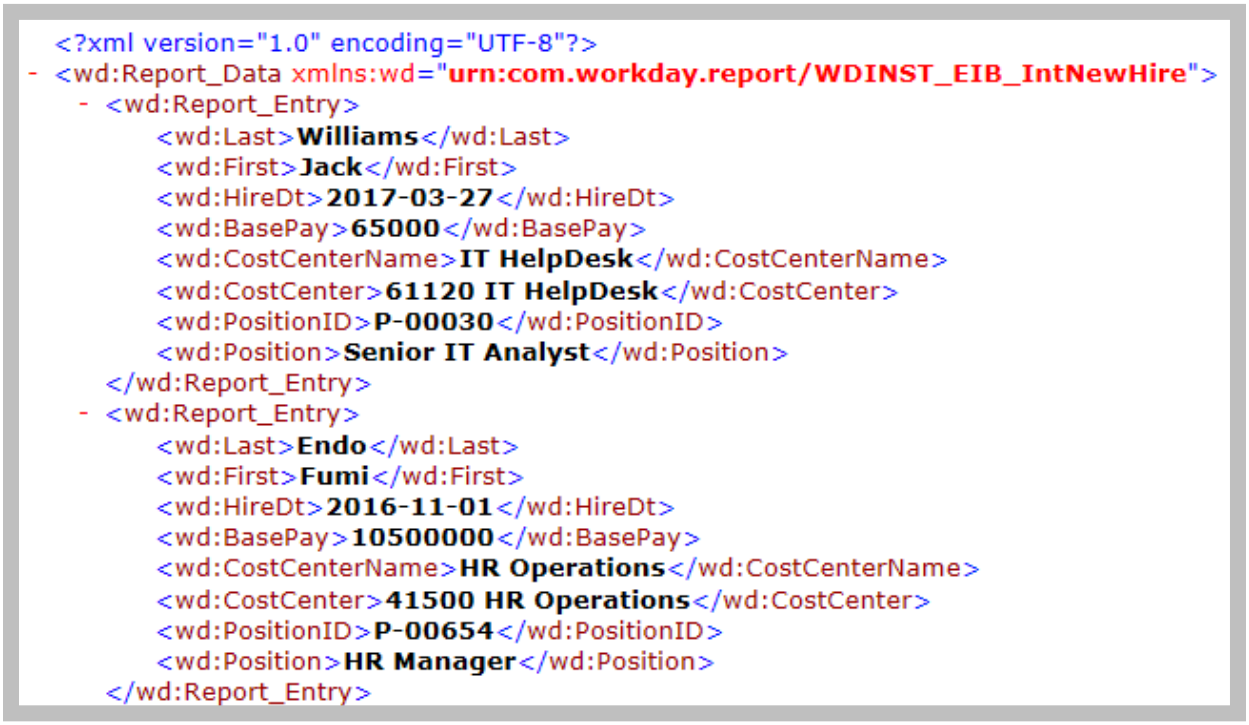
Workday XML may be too complex for many integration needs, such as quickly creating a refreshable report with Microsoft Excel. In such cases, the Simple XML option may be more appropriate.

SIMPLE XML

Simple XML results in XML that is easier to read and understand than Workday XML. Here are a couple of key examples of how it is different:

- Single-instance fields are changed to simple string-type elements.
- Multi-instance fields are changed to simple string-type elements.
- Multi-instance fields within the primary business object are changed to simple string-type elements, with a semi-colon separating each value.
- Data fields that only contain dates (that is, they do not contain times) output dates only, with no times or offset from GMT.

The following screen shot is a Simple XML output from the same RaaS report.

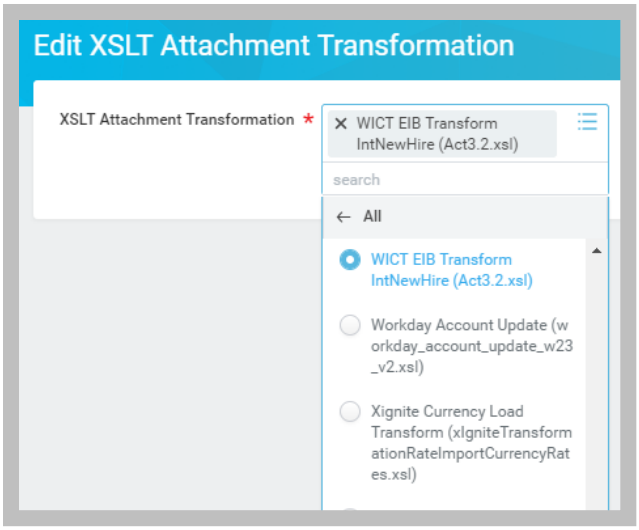


76 - Simple XML output

Note: Workday XML and Simple XML are both supported when applying a Custom (XSLT) Transformation in an EIB.

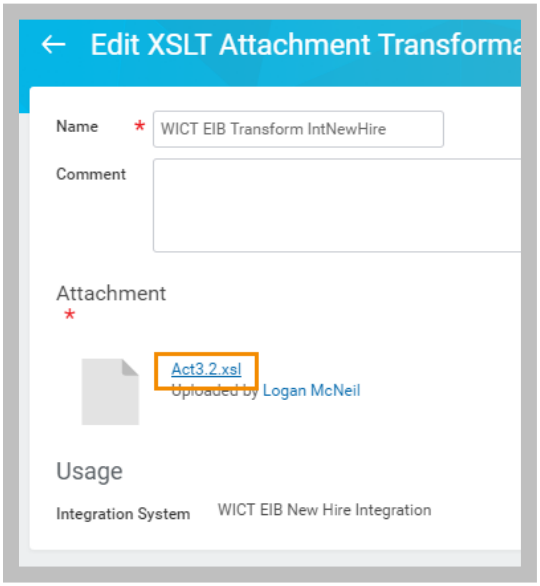
EDIT XSLT ATTACHMENT TRANSFORMATION

Once you have uploaded an XSLT file, it is stored as an object in Workday. If you make changes to the file outside of Workday, you must replace the existing file stored. Execute the **Edit XSLT Attachment Transformation** task to upload the new version without creating a new object. You do not need to edit the integration system itself.



77 - Edit XSLT Attachment Transformation task

Note: Workday does not provide any XSLT editing capability through the UI. However, you can download the current version of an XSLT attachment for editing on your desktop before re-attaching it into Workday. Click the linked **Attachment** description to download the stored XSLT file.



78 - Linked Attachment

DEMO 3.C – EDIT XSLT ATTACHMENTS

Introduction: We will attached an updated XSLT file and see how the changes in the stylesheet will impact the output of the EIB.

TASK #1: VIEW THE MODIFIED XSL TRANSFORMATION

1. Open the **3.Cdemo.xsl** XSLT with a text editor. Do not open in a browser.
2. Review the change in the code:
   A. It outputs the Employee ID and Company.
   B. It partially masks existing Social Security Numbers.
   C. It changes from a comma separator "," with quotes to a colon separator ":" without quotes.

TASK #2: EDIT XSLT ATTACHMENT

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select the **Edit XSLT Attachment Transformation** task.
3. In the prompt search for **WICT EIB Demo Transform** and click **OK**.
4. Click the Delete icon.
5. Click the **Select Files** button or drop the **3.Cdemo.xsl** file.
6. Click **OK** to save your XSLT Attachment Transformation.
7. Click **Done**.

TASK #3: LAUNCH INTEGRATION AND MONITOR PROCESS

1. Search for the **WICT EIB Demo Integration** Integration System.
2. From the integration system's **Related Actions**, select **Integration > Launch/Schedule**.
3. Accept the default of *Run Now* and click **OK**.
4. Configure the **Integration Criteria** as follows:

Field	*Value*
Orgs	Payroll Department
Include Sub	Not checked

5. Click **OK** and **Refresh** until completion.
6. Open and review the output.
    A. Verify that the Employee ID and Company Name are displayed.
    B. Verify that the SSN is partially masked.
    C. Verify that the separator is a colon.

Note: The partially masked SSN is for demo purposes only. There is a SSN CRF that already provides this functionality

ACTIVITY 3.3 – EDIT XSLT ATTACHMENTS

Business Case: Logan needs to complete the transformation. The new XSLT has to provide the following changes to the output:

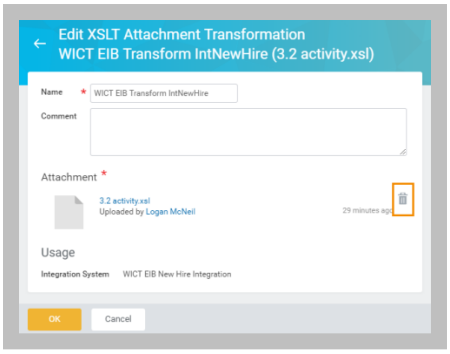
- The Last Name needs to be all UPPER-CASE.
- Replace the Position ID and Cost Center – Name information with data from the Position and Cost Center objects.
- Change the output format from comma separated to pipe "|" delimited.

TASK #1: VIEW THE EDITED XSL TRANSFORMATION SCRIPT

1. Open the **3.3activity.xsl** XSLT with a text editor. Do not open in a browser.
2. Review the XSLT to change from a comma separator "," with quotes to a pipe separator "|" without quotes.
3. Review the XPath **upper-case()** function to change the case of the last name.
4. Review the change in the code so that instead of outputting the Cost Center Name and Position ID, it outputs the **Descriptor** of the Cost Center and Position elements.
5. Review the **substring** function used on the SSN field.

TASK #2: EDIT XSLT ATTACHMENT

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select the **Edit XSLT Attachment Transformation** task.
3. In the prompt search for **WICT EIB Transform IntNewHire** and click OK
4. Click the Delete icon.



79 - Edit XSLT Attachment Transformation

5. Click the **Select Files** button or drop the **3.3activity.xsl** file.
6. Click **OK** to save your XSLT Attachment Transformation.
7. Click **Done**.

TASK #3: LAUNCH INTEGRATION AND MONITOR PROCESS

1. Search for the **WICT EIB New Hire Integration** integration system.
2. From the **Related Actions,** select **Integration > Launch / Schedule**.
3. Click OK to accept the Now, Run Frequency.
4. Enter the report parameters:

Field	***Value***
Start	01/01/2017
End	{Today's date}

5. Click **OK** and **Refresh** until completion.
6. Open and review the output.
    A. Verify that the Last Name appears in UPPER-CASE
    B. Verify that the Cost Center and Position now show the object descriptors.
    C. Verify that the SSN is substring to its last 4 digits
    D. Verify that the separator is a pipe with no quotes

```
Last Name|First Name|Hire Date|Cost Center|Position|SSN
WILLIAMS|Jack|2018-03-29-07:00|61120 IT HelpDesk|P-00030 Senior IT Analyst|
MAIER|Ralf|2017-09-01-07:00|33300 Global Support - EMEA|P-00684 Senior Customer Services Representative|
KOCH|Johannes|2017-06-01-07:00|41300 Recruiting|P-00685 Senior Recruiter|
BELLINGHAUSEN|Silke|2017-06-01-07:00|33300 Global Support - EMEA|P-00683 Customer Service Representative|
KUNZ|Constantin|2017-06-01-07:00|41500 HR Operations|P-00686 Staff HR Representative|
DAHLMAYR|Fritz|2017-05-01-07:00|33300 Global Support - EMEA|P-00682 Customer Service Representative|
CAMACHO|Inez|2017-05-01-07:00|34000 Facilities|P-00693 Office Manager|5454
PATEL|Jade|2017-01-23-08:00|33300 Global Support - EMEA|P-00690 Customer Service Representative|
NKOSI|Patrick|2017-01-18-08:00|33300 Global Support - EMEA|P-00689 Manager, Global Support|
VENTER|Maria|2017-01-09-08:00|33000 Global Support Center|P-00688 Director, Global Support|
KHUMALO|Amber|2017-01-02-08:00|71300 Field Sales - EMEA|P-00691 Regional Sales Manager|
```

80 - Output file

CHAPTER 4 – DELIVERY

OVERVIEW

Typically, the results of an outbound integration do not remain in the Workday cloud as an attachment, but are delivered to another application.

Integrations also support automated notifications, keeping users informed of integration event status and possibly including output and log file attachments.

OBJECTIVES

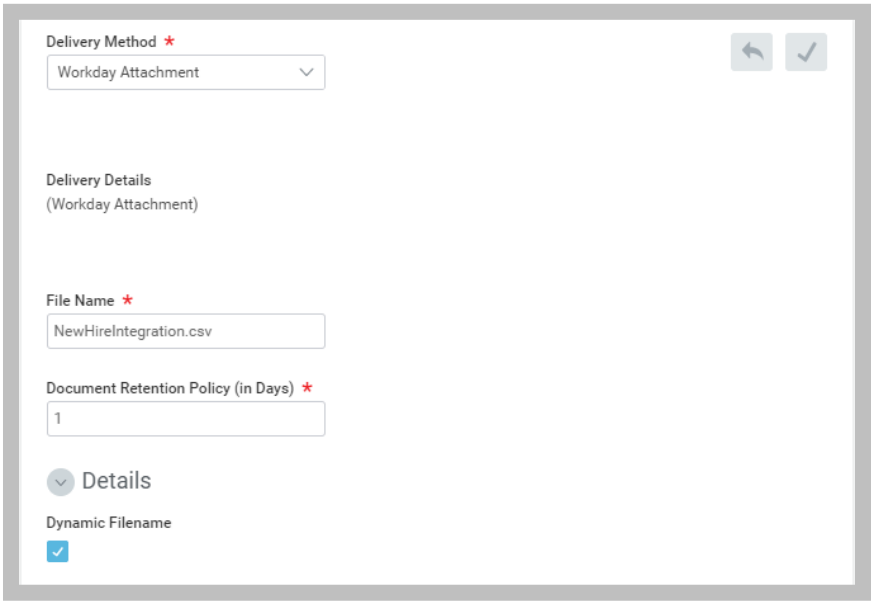
By the end of this chapter, you will be able to:

- Create a Dynamic Filename for outbound EIB using RaaS
- Configure a sequence generator to send unique files to an SFTP server.
- Apply encryption to sensitive data delivered via email.
- Trigger inbox and email notifications upon the completion of an integration event.

DYNAMIC FILENAMES

A static filename may sometime limit the ability to reflect the content of the output file.
Create a dynamic filename for the EIB integration allows to include report prompts and external field values into the filename

Select "Dynamic Filename" check box on the deliver step of the EIB.

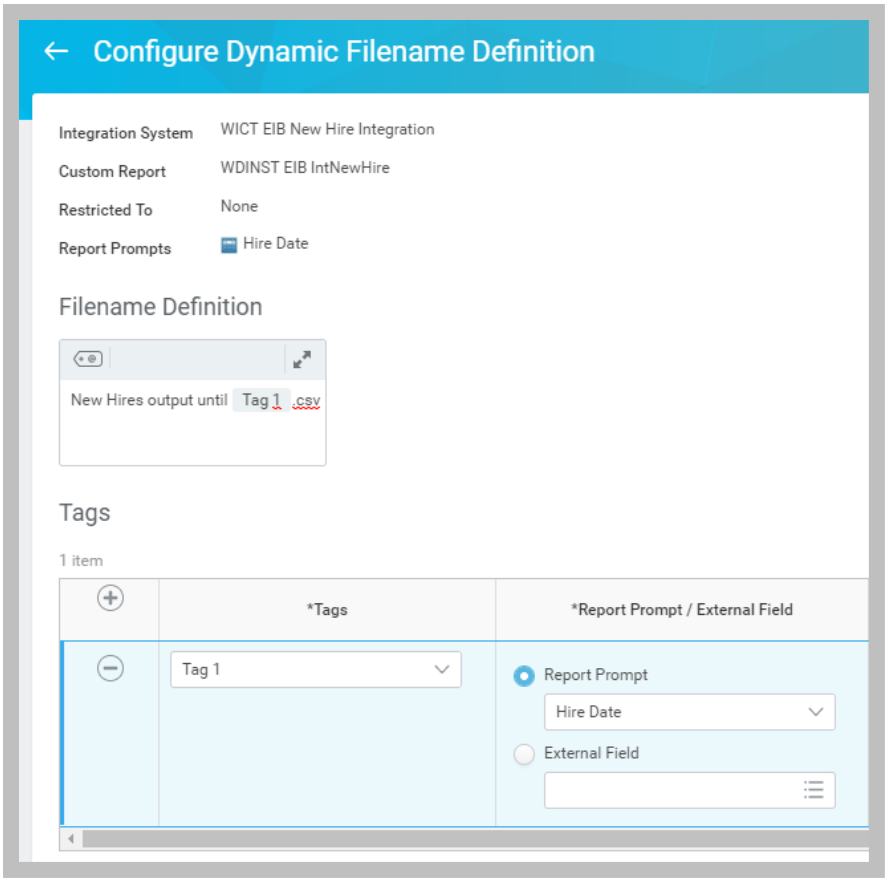


81 - Dynamic Filename

After saving the EIB, select "Enterprise Interface", "Configure Dynamic Filename Definition" from the Related Actions. The file name can consists of a maximum of five tags. Each tag is associated with a report prompt or a field.

Assign report prompts or external report fields to 1 to 5 Tags, then insert the tags into the Filename Definition.

Note: Dynamic Filenames can only be used in outbound EIBs using RaaS reports as the data source



82 - Configure Dynamic Filename Definition

Workday supports required report prompts only. Workday doesn't support optional prompts or prompts configured with Do Not Prompt at Runtime. You can configure tags only if you use them in the filename definition, or the other way around. If you change or delete the report prompts used in tags, you must re-edit the filename definition before the integration can run. Filenames can be no more than 255 characters, can be at least 1 character, and can't be more than 1 line.

When running the EIB, accept the filename default of Use System Default to use the configured dynamic filename definition. When the EIB runs, Workday converts report prompts and external report fields into the filename with the following pattern:

- Boolean: 0 or 1
- Currency: Display ID
- Date: Display ID
- Instance: Display ID
- Numeric: the number value
- Multi-instance: Comma-separated display IDs

DEMO 4.A – CREATE DYNAMIC FILENAMES

Introduction: We will configure a dynamic filename to provide info on the content of the file.

TASK #1: CREATE THE DYNAMIC FILENAME

1. Sign in as Logan McNeil (lmcneil).
2. Search for the **WICT EIB Demo Integration** integration system.
3. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
4. **Edit** the **Deliver** section.
5. Expand the **Details** section.
6. Select the **Dynamic Filename** checkbox.
7. Click **OK**. This will automatically save the section.
8. From the EIB's **Related Actions**, select **Enterprise Interface > Configure Dynamic Filename Definition**.
9. Accept the default Delivery Restricted To option and click **OK**.
10. In the Filename Definition, enter the following:

	Value
Text	Output generated by
Tag	Tag 1
Text	with data from org
Tag	Tag 2
Text	.csv

11. In the Tag list, add 1 row and enter the following:

Tags		*Value*
Tag 1	External Field	Current User
Tag 2	Report Prompt	Organizations by Type

12. Click **OK** to save, then **Done**.

TASK #2: LAUNCH THE INTEGRATION SYSTEM

1. Search for the **WICT EIB Demo Integration** integration system.
2. From the **Related Actions**, select **Integration > Launch / Schedule**.
3. Click OK to accept the Now, Run Frequency.
4. Configure the **Integration Criteria** as follows:

Field	*Value*
Orgs	Payroll Department
Include Sub	Not checked

5. Click **OK** and **Refresh** until completion.
6. Select the Output file tab, and verify the generated filename.

ACTIVITY 4.1 – CREATE DYNAMIC FILENAMES

Business Case: To help with file keeping, Logan needs to include the Name of the new hire in the output file name of the EIB triggered by the Hire for IT Helpdesk business process.

- Create a dynamic filename for the output.

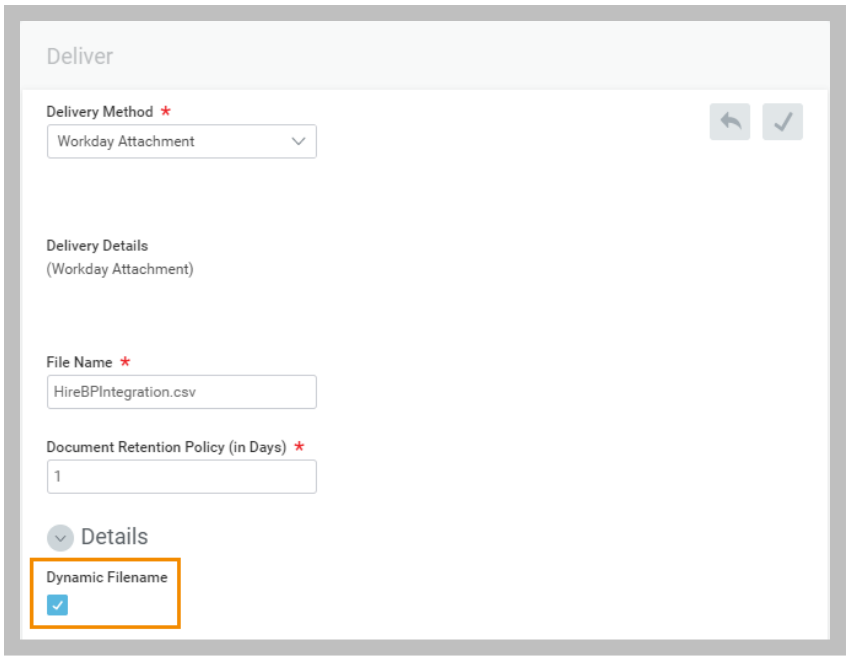
To simplify the EIB updates we are going to remove the security we have setup in the previous activity

TASK #1: RESET SECURITY

1. Sign in as **Logan McNeil** (lmcneil).
2. Search for and run the **Transfer Ownership of Custom Reports** task.
3. Enter **WICT EIB Hire BP** for **Report Name(s)**.
4. Enter **Logan McNeil** for **New Owner**.
5. Click **OK** to save and click **Done**.
6. Search for the **WICT EIB Hire BP Integration** integration system.
7. From the EIB's **Related Actions,** select **Workday Account > Edit**.
8. Delete **WDINST EIB Hire BP ISU** from the **Workday Account**.
9. Click **OK** to save.

TASK #2: CREATE THE DYNAMIC FILENAME

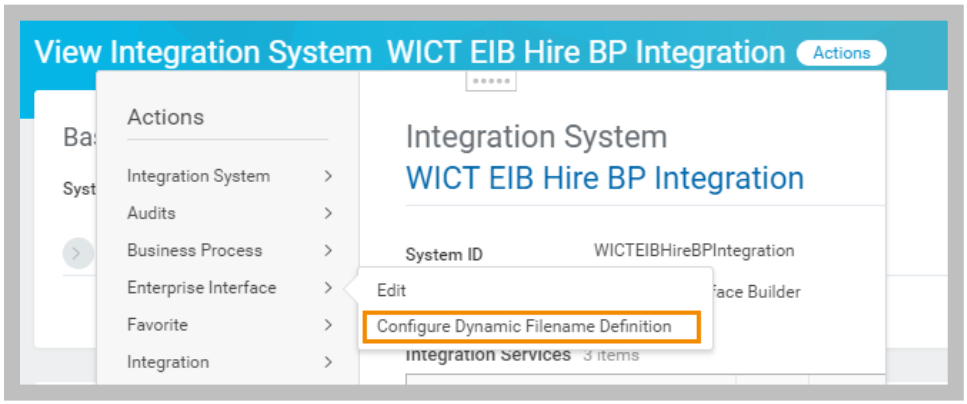
1. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
2. **Edit** the **Deliver** section.
3. Expand the **Details** section.
4. Select the **Dynamic Filename** checkbox.



83 - Dynamic Filename checkbox

5. Click **OK**. This will automatically save the section.

6. From the EIB's **Related Actions**, select **Enterprise Interface > Configure Dynamic Filename Definition**.



84 - Configure Dynamic Filename Definition related action

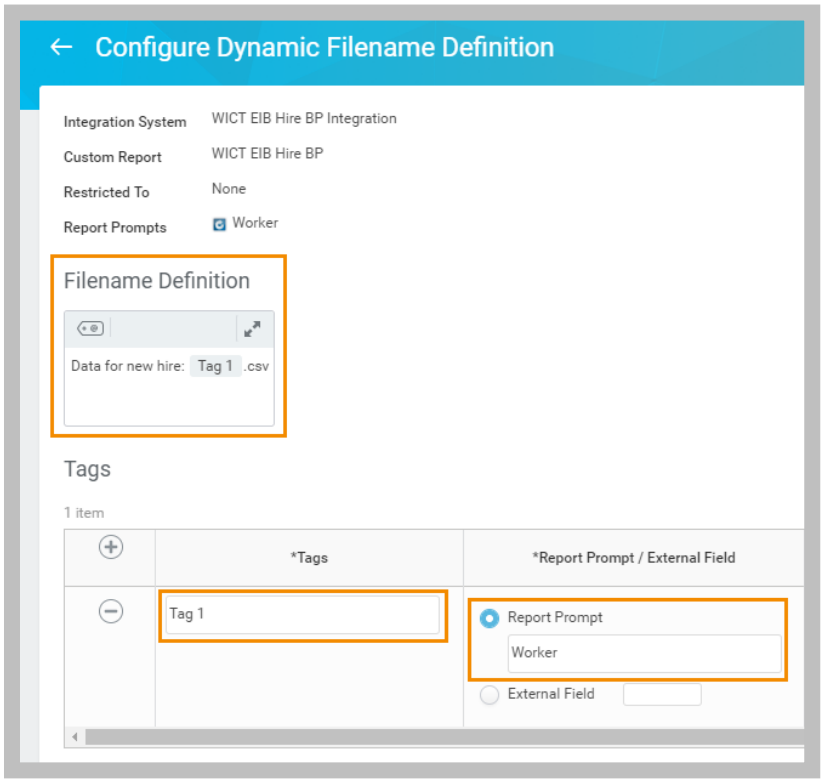
7. Accept the default Delivery Restricted To option and click **OK**.

8. In the Filename Definition, enter the following:

	Value
Text	Data for new hire:
Tag	Tag 1
Text	.csv

9. In the Tag list, enter the following:

Tags	***Value***	
Tag 1	Report Prompt	Worker



85 - Configure Dynamic Filename Definition

10. Click **OK** to save, then **Done**.

TASK #3: LAUNCH THE INTEGRATION SYSTEM

Note: For testing purpose we will not trigger the EIB from the Hire business process but rather launch it and manually pass the parameter value.

1. Search for the **WICT EIB Hire BP Integration** integration system.
2. From the **Related Actions**, select **Integration > Launch / Schedule**.
3. Click OK to accept the Now, Run Frequency.
4. Enter the report parameter:

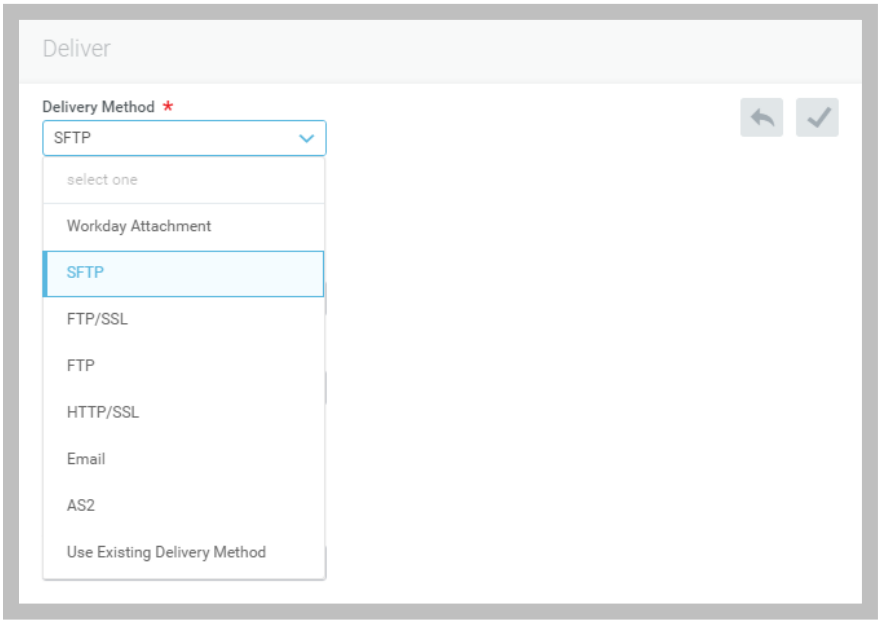
Field	***Value***
Worker	Jack Williams

5. Click **OK** and **Refresh** until completion.
6. Select the Output file tab, and control the generated filename.

EXTERNAL FILE DELIVERY

The *Deliver* step of EIB supports the following transport protocols:

- SFTP/FTP/FTPS: File transfer to a server.
- HTTPS: HTTP POST to a web service.
- Email: Output sent as an email attachment.
- AS2: Secure transport standard using digital certificates and encryption.



86 - Delivery Method

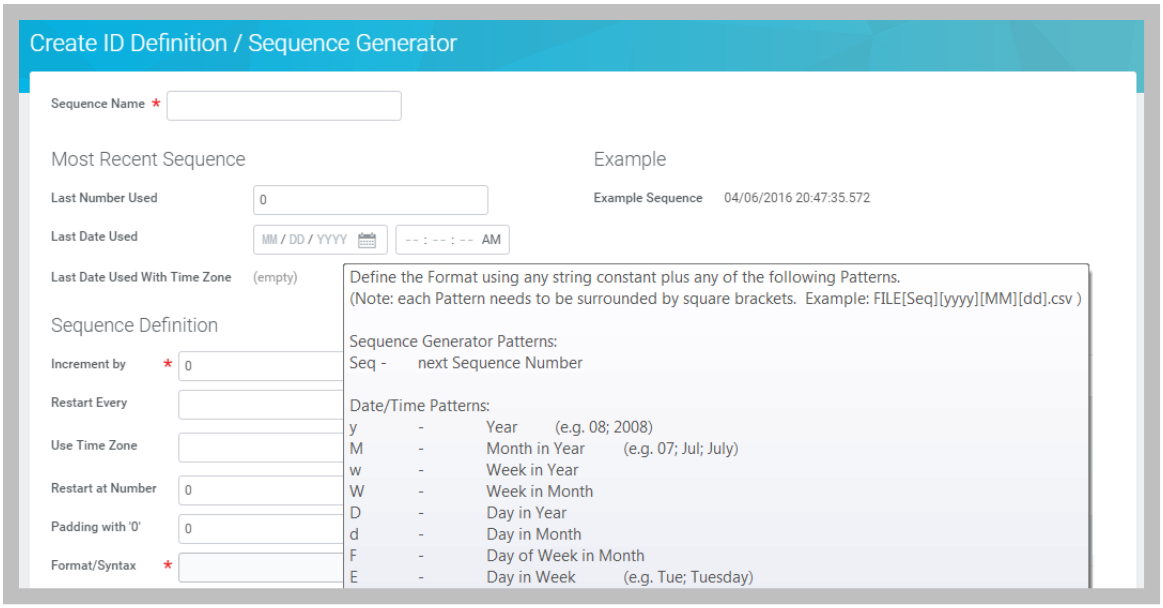
Depending on the requirements of the protocol and endpoint, EIB delivery also supports compression, encryption, user- or certificate-based authentication, and unique filename generation.

SEQUENCE GENERATOR

To prevent external files being overwritten, you can configure your integration system to generate a unique, sequenced file name each time it runs. Unlike other integration systems, you need to create an **ID Definition / Sequence Generator** as a separate task before it can be used by an EIB's transport service.

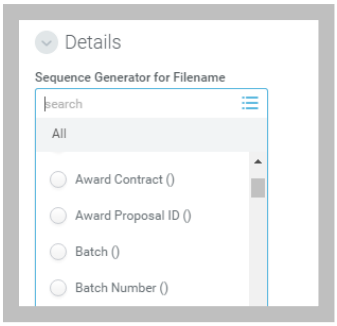
To create an ID definition, search for the **Create ID Definition/Sequence Generator** task.

You can use the pop-up help text to construct a *Format/Syntax* pattern using tokens to make each filename unique by date/time and/or incremented sequence number.



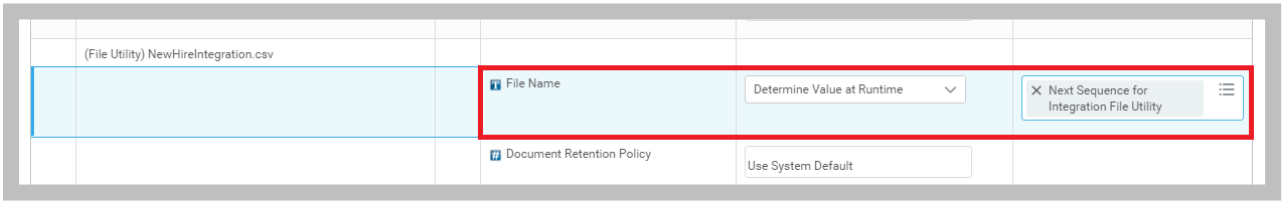
87 - Create ID Definition/Sequence Generator task

Edit your integration system and use Deliver Details to select a Sequence ID definition.



88 - Deliver Details, Sequence Generator for Filename

When you launch the integration system, instead of using the File Name defined as the System Default on the integration system, change the Value Type of Filename to *Determine Value at Runtime*. For the Value, select *Next Sequence for Integration File Utility* under the Integration category.



89 - Next Sequence for Integration File Utility

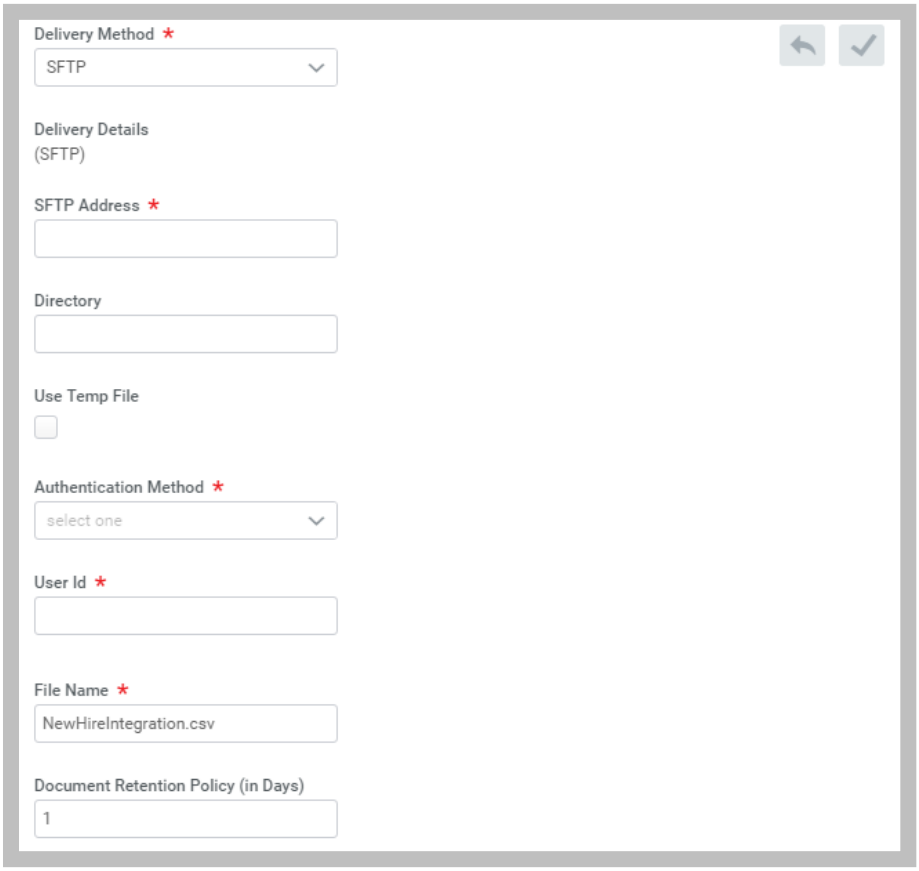
SFTP DELIVERY

For high-volume, regular delivery of integration output, Workday supports the use of a file server, such as an SFTP server, as an intermediary to stage data for external use.

For SFTP, the *Authentication Method* can be based on Secure Shell (SSH) or a Username/Password combination.

Important: Outbound documents are always stored in the Workday cloud before the delivery. The document will be retained as defined by the Document Retention Policy

The maximum value for Document Retention is 180 Days



90 - sFTP Delivery Method

Security Note: While SFTP *transport* is secure, the data is not encrypted once delivered to the file server unless encryption has been additionally configured in the Details section.

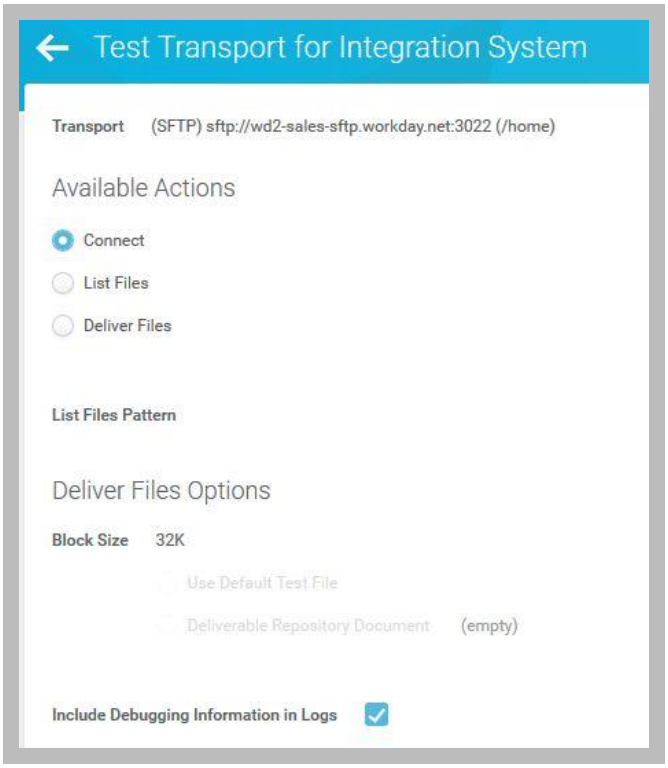
Note: If the delivery does not complete, you have the ability to resend the file, without extracting the data again. Go to the Integration Event's Related Actions, Integration Event > Redeliver documents. You cannot change the delivery parameters at this time and this action will not update the overall status of the Integration Event.

TEST TRANSPORT

Use the Test Transport task to test, verify and troubleshoot the connectivity to the external endpoint configured in the Deliver step of EIB. When testing your integration system's configured transport in Deliver Files mode, you can either use a 10KB test file, or select a file from a previous integration event.

Navigate to **Integration > Test Transport** as a related action on the integration system. Select a Transport to test and then one of the following available actions:

- Connect
- List Files
- Deliver Files
- Retrieve Files



8 - Test Transport

DEMO 4.B – CREATE UNIQUE FILENAMES AND CONFIGURE SFTP DELIVERY

Introduction: We will deliver the output of the integration to an SFTP server directory.
To prevent file override we need to generate a unique file name for each integration run.

TASK #1: CREATE ID DEFINITION / SEQUENCE GENERATOR

1. Sign in as Logan McNeil (lmcneil).
2. Search for '*create sequence'* and select the **Create ID Definition / Sequence Generator** task.
3. Enter the following:

Field Name	***Value***
Sequence Name	WICT EIB Demo Unique Names
Increment by	1
Padding with '0'	3
Format/Syntax	WICTdemo[yyyy][seq].csv

4. Click **OK** to save, then **Done**.

TASK #2: CONFIGURE DELIVERY AND LAUNCH EIB

1. Search for the **WICT EIB Demo Integration** integration system.
2. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
3. **Edit** the **Deliver** section.
4. Enter the following:

Field	*Value*
Delivery Method	SFTP
SFTP Address	{provided by instructor}
Directory	/home/{your name}
Authentication Method	User Name / Password
User Id	{provided by instructor – NOT your tenant username}
New Password / Verify Password	{provided by instructor – NOT your tenant password}

5. Expand the **Details** section.
6. Clear the **Dynamic Filename** checkbox.
7. In the *Sequence Generator for Filename* prompt, select **WICT EIB Demo Unique Names.**
8. Click **OK**. This will automatically save the section.
9. From the EIB's **Related Actions**, select **Integration > Test Transport**.
10. Click **OK** to accept the default.
11. Select **List Files**.
12. In the *File Name / Pattern,* enter **WICTdemo.***.
13. Click **OK** and control the output. It should be Completed with no files found.
14. Search for the **WICT EIB Demo Integration** integration system.
15. From the EIB's **Related Actions**, select **Integration > Launch / Schedule**.
16. Click **OK** to accept the Now, Run Frequency.

17. Configure the **Integration Criteria** as follows:

Field	***Value***
Orgs	Payroll Department
Include Sub	Not checked
File Name	Determine Value at Runtime Next Sequence for Integration File Utility

18. Click **OK** and **Refresh** until completion.
19. From the EIB's **Related Actions**, select **Integration > Test Transport**.
20. Click **OK** to accept the default.
21. Select **List Files**.
22. In the *File Name / Pattern,* enter **WICTdemo.***.
23. Click **OK** and control the output

ACTIVITY 4.2 – CREATE UNIQUE FILENAMES AND CONFIGURE SFTP DELIVERY

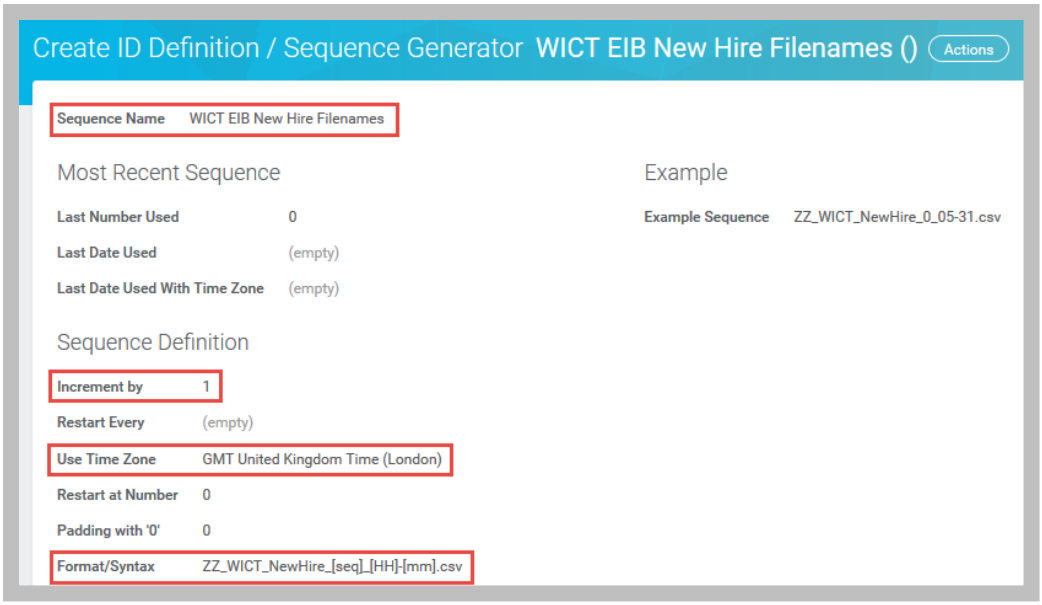
Business Case: Logan needs to deliver the output of the WICT EIB New Hire Integration to an SFTP location.

- Create a sequence generator to avoid overwriting the same file at each integration run.
- Use a sub directory with your name to ensure your generated files don't overwrite other students'.

TASK #1: CREATE ID DEFINITION / SEQUENCE GENERATOR

1. Sign in as Logan McNeil (lmcneil).
2. Search for '*create sequence'* and select the **Create ID Definition / Sequence Generator** task.
3. Enter the following:

Field Name	***Value***
Sequence Name	WICT EIB New Hire Filenames
Increment by	1
Use Time Zone	Select your time zone from the list
Format/Syntax	WICTnewHire[seq][HH][mm][ss].csv



91 - Create ID Definition/Sequence Generator task

4. Click **OK** to save, then **Done**.

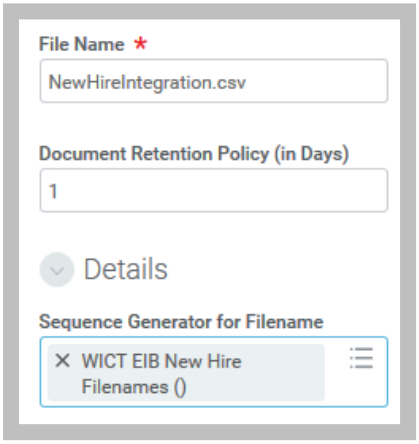
TASK #2: CONFIGURE DELIVERY AND LAUNCH EIB

1. Search for and select **WICT EIB New Hire Integration**.
2. From the **Related Actions**, select **Enterprise Interface > Edit**.
3. **Edit** the **Deliver** section.
4. Enter the following:

Field	***Value***
Delivery Method	SFTP
SFTP Address	{provided by instructor}
Directory	/home/{your name}
Authentication Method	User Name / Password

User Id	{provided by instructor – NOT your tenant username}
New Password / Verify Password	{provided by instructor – NOT your tenant password}

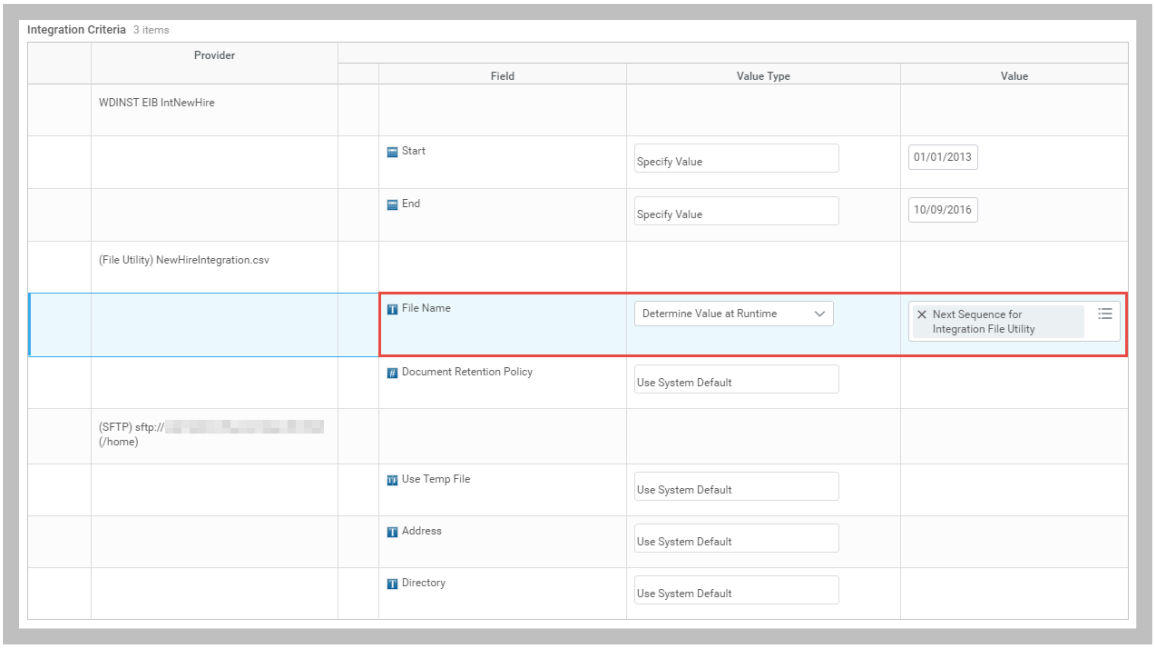
5. Expand **Details**.
6. In the *Sequence Generator for Filename* prompt, select **WICT EIB New Hire Filenames.**



92 - Sequence Generator for Filename

7. Click **OK**. This will automatically save the section.
8. From the EIB's **Related Actions**, select **Integration > Test Transport**.
9. Click **OK** to accept the default
10. Select **List Files**.
11. In the *File Name / Pattern,* enter **WICTnewHire.***.
12. Click **OK** and control the output. It should be Completed with no files found.
13. Search for the **WICT EIB New Hire Integration** integration system.
14. From the **Related Actions**, select **Integration > Launch / Schedule**.
15. Click **OK** to accept the Now, Run Frequency
16. Enter the report parameters:

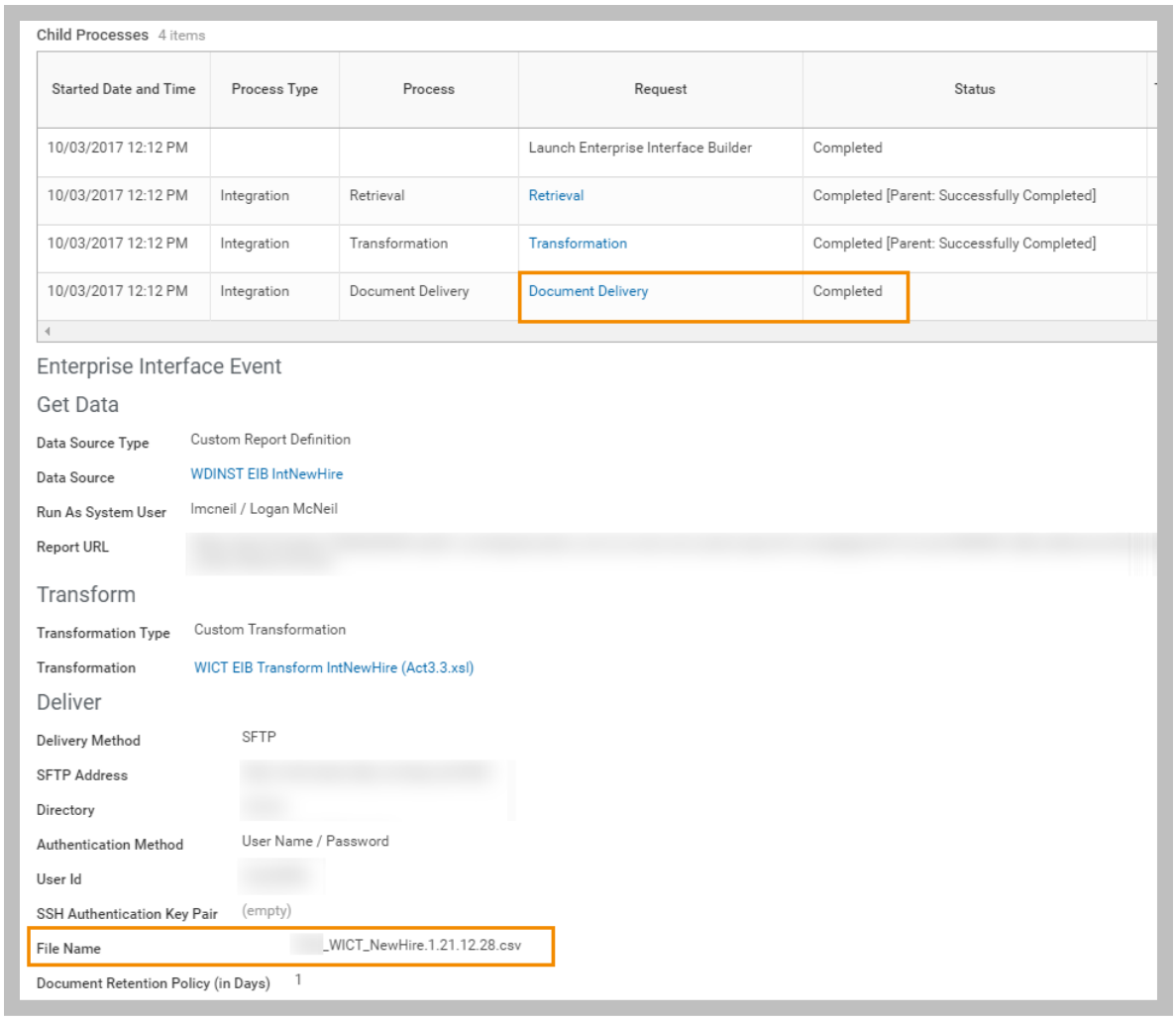
Field	*Value*
Start	01/01/2017
End	{Today's date}
File Name	Determine Value at Runtime Next Sequence for Integration File Utility



93 - Next Sequence for Integration File Utility

17. Click **OK** and **Refresh** until completion.

18. Monitor the integration event to verify that the output is named based on the sequence generator format and that the file was delivered to the SFTP location.



94 - Output file name

19. From the EIB's **Related Actions**, select **Integration > Test Transport**.

20. Click **OK** to accept the default

21. Select **List Files**.

22. In the *File Name / Pattern,* enter **WICTnewHire.***.

23. Click **OK** and control the output.

EMAIL AS A DESTINATION

You can export data from Workday by using email. It can deliver data to multiple email addresses, including carbon copy (cc) and blind carbon copy (bcc) recipients, and supports custom messages for the email body.

This transport protocol by default requires you to encrypt the outbound file using PGP. If you choose not to encrypt the output, you can save the EIB, but you cannot run it until your Security Administrator approves the exception. Once your Security Administrator overrides this requirement by viewing the EIB or integration system in the Integration Exception Audit report and selects Toggle Approve Unencrypted Transport from the Related Actions, the EIB can be run an unlimited number of times. However, if you edit the EIB later, your Security Administrator must re-approve the override.

PGP ENCRYPTION

For data encryption and signing, Workday supports PGP (Pretty Good Privacy), a public key encryption standard. PGP provides an asymmetric key encryption scheme; each entity has a key pair, and each pair consists of one public key and one private key. The public key is used to encrypt data and verify digital signatures, and the corresponding private key is used to sign files and decrypt data. The public key is intended to be provided to entities that will encrypt data only for you, so distributing your public key is not a security concern. Data encrypted with your public key can be decrypted only with your private key.

Workday can encrypt outbound and decrypt inbound Cloud Connect, Studio, and EIB integration files using PGP; Workday can also digitally sign outbound integration files. This ensures that only you and your trading partners can read the data that you exchange, and allows your trading partner to confirm that an outbound integration file came from you. You store all PGP keys in your tenant; this enables (and requires) that you maintain your own encryption keys to ensure that you and your trading partners can secure your integration traffic.

PGP Keys can be created in Workday.

- **For inbound integrations**: If the file is to be opened by the Workday tenant, we need to create the key (store the private key) in Workday and give the public key to anyone who needs to encrypt for Workday. An example is Benefits, 401K loan payments data that is inbound.
- **For outbound integrations**: If Workday is sending the encrypted file, we need to get the public key and use that to encrypt files. The destination system will then use their private key to decrypt it, open and read the file. An example is Payroll Sync to ADP.

DEMO 4.C – EMAIL PGP ENCRYPTED FILES

Introduction: We will deliver the output of the integration to an email address.
Because the SMTP protocol is not secured Workday requests that the attached data is encrypted.

TASK #1: CONFIGURE EMAIL DELIVERY AND LAUNCH EIB

1. Sign in as Logan McNeil (lmcneil).
2. Search for the **WICT EIB Demo Integration** integration system.
3. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
4. Edit the *Deliver* section and change the *Delivery Method* to **Email.**
5. Enter the following:

Field	***Value***
To Email Address	{Your email address}
From Email Address	donotuse@workday.com
Email Subject	Employee Data
Email Text (Optional)	PFA the output of the last run.

6. Save the section and click **OK**.

Note: an error message pops up asking to encrypt the content or request exception.

7. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
8. Edit the *Deliver* section.
9. Scroll down and expand **Details**.
10. In the *Encrypt Using* field, select **PGP Certificate**.

11. Click **OK**. This will automatically save the section.
12. From the EIB's **Related Actions**, select **Integration > Launch / Schedule**.
13. Click **OK** to accept the Now, Run Frequency.
14. Configure the **Integration Criteria** as follows:

Field	***Value***
Orgs	Payroll Department
Include Sub	Not checked
File Name	Determine Value at Runtime Next Sequence for Integration File Utility

15. Click **OK** and **Refresh** until completion.
16. Check your email for the encrypted file.

ACTIVITY 4.3 – EMAIL PGP ENCRYPTED FILES

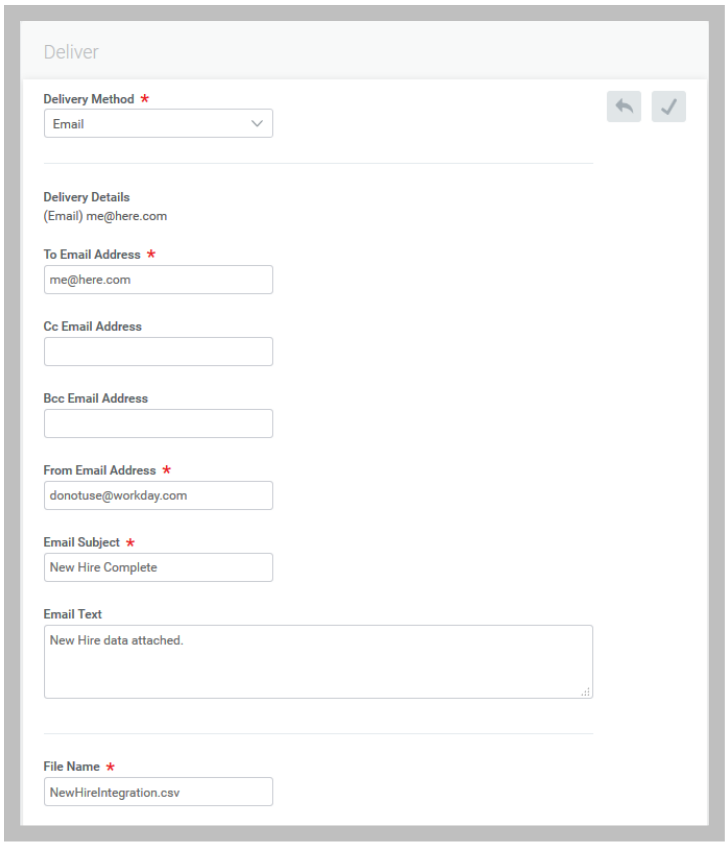
Business Case: Logan is asked to modify the WICT EIB New Hire Integration Outbound EIB so it PGP encrypts and emails the resulting file.

- You will be encrypting the output using the PGP Certificate already in the tenant.
- You will only be able to view the encrypted output, as you don't have the private key needed to decrypt the document.

TASK #1: CONFIGURE EMAIL DELIVERY AND LAUNCH EIB

1. Sign in as Logan McNeil (lmcneil).
2. Search for the **WICT EIB New Hire Integration** integration system.
3. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
4. Edit the *Deliver* section and change the *Delivery Method* to **Email.**
5. Enter the following:

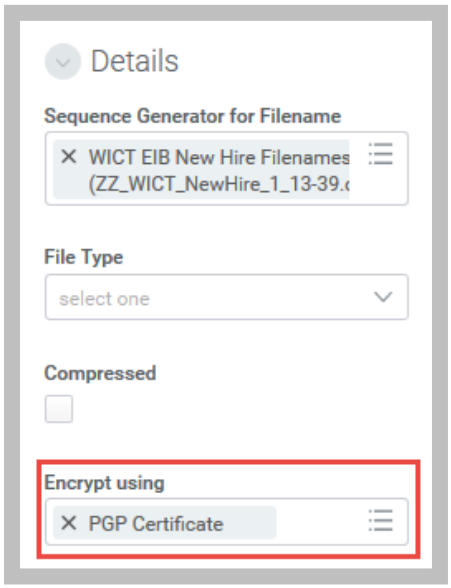
Field	***Value***
To Email Address	{Your email address}
From Email Address	donotuse@workday.com
Email Subject	New Hire Integration Completed
Email Text (Optional)	New Hire data attached.



95 - Email Delivery Method

6. Scroll down and expand **Details**.

7. In the *Encrypt Using* field, select **PGP Certificate**.



96 - Encrypt Using

8. Click **OK**. This will automatically save the section.
9. From the **related actions**, select **Integration > Launch / Schedule**.
10. Click **OK** to accept the Now, Run Frequency.
11. Enter the report parameters:

Field	*Value*
Start	01/01/2017
End	{Today's date}
File Name	Determine Value at Runtime Next Sequence for Integration File Utility

12. Check your email for the encrypted file (shown here opened in Notepad++):

```
-----BEGIN PGP MESSAGE-----
Version: BCPG v1.47

hQEMA6lOhfLI/pyXAQf8Cd2JqtOcIjvPRpoSVCObYE3/05fNnPvPQwHcMd3U1riW
E2VVYRu6svSRZvVCosGYYfPDcREqg6TdYjEgSubIZDjQMsruWsX1pVCqTpExkiId
BJ0kUHflug6Y72hvB51O7lyIMbh97+OjLcH/fIsrKedHrvu9hScyKpyNgB/ZZlRZ
j0PYglcJs1oscNALhEJO7sKUWQ/Bxcvm/UbkTnZg85uOIY9rAVwdFWAs33m2VoNt
tVDVd66i3mL/CSqG7swkH4MXkC5V/GBZdaMPvBjTHC2DOcBTWc+bhf9BaAR0RnqH
7ipygbOti52/89levZQCUMcj1ZQKA9RIJXhcAwuOZsnBFTrSmc+D62TzTzdYPmiX
oK/6hKZZNzRzvohlf5SLsV1peeIT2cP2zzfp+J1HpRRDl/69GgdsexsAg3JPRqEH
A3v/f2rQ9gY+W6GCsXt/GHUkT8XHaKX+jwTLifreoNCT32uZKRBw7rRTDn+YLMOh
t/NXBM1W/gBAC80U7OTwTe+5LX/pcs2TiyMEKaxotboWk0ybDyvDrgjWKfpfpM3a
dOpR3ZBWFhN7D8hUAcO1Ee9CTI85PwdqeQHz+NllF2gAteiZHyic1VerMGvyAilz
YOVdtGkLyeF5EGDUpBESfeOqRlZsT0i0IbCzWAQ5L3ZP43dpghVUUY7vMziWkP1f
O1hU1eJxLJ1QoA2rxxngY0e5AFqEH9fKF0G0ObvDviqC6CA95ZJtP1dOMKxREAH7
k+QMmOG01d2eVX/ruRI7qQysI7UWwB0rhK00dAxXRb3Zz+cDw1O9wE6cPPvfL5ls
obc17/IF9W75msvgwmKzq4lbJhDj18zqTG5fMObv9jetPD6BKXVnGBMj5SxC6If1
RbusQZDpTGqS/LNFM13QBTiP3fXw9oMHua76Jg1EU7MVhd1yM833wx9z2oBiwqio
o/QtliQdzERD6671um2KTI9S3ejCcUg=
=9MZI
-----END PGP MESSAGE-----
```

97 - Encrypted Output file

Activity Complete

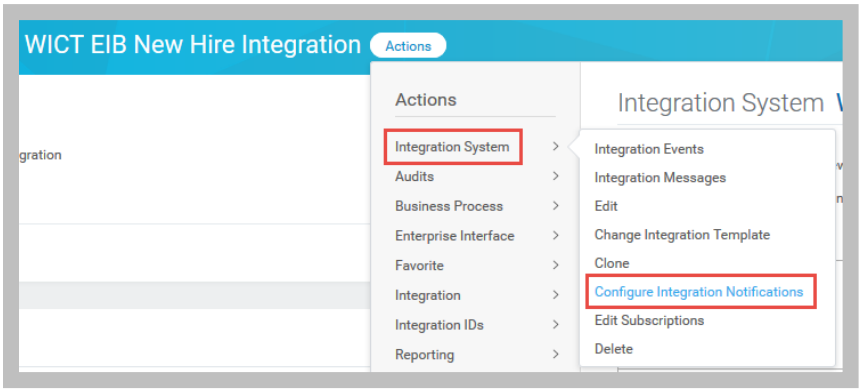
NOTIFICATIONS

To help monitor integration events, you can create one or more notification messages to send to groups of people based on integration event status. The notifications can be sent to a Workday Inbox, email address, or both.

The default integration notification can include text and content from external fields, as well as a link to the integration process event.

The maximum size of a Workday email notification is 20 MB. Workday does not process email notifications larger than 20 MB and does not display error messages in this situation.

To configure a notification for an EIB, used its Related Actions to select **Integration System > Configure Integration Notifications**.



98 - Configure Integration Notifications related action

Integration notifications can be triggered based on launch, change of status (e.g., from Initiated to Processing), or on custom conditions.

Recipients can be Workday users and/or external email addresses.

You configure Message content (subject and body) by adding static text and dynamic field elements that Workday will build into a message when the notification is triggered.

You can create multiple notifications for an integration system. These notifications can use different statuses or rules, or be restricted to specific environments

Note: The default notification template for integrations includes a link to the integration event and any included documents. Users clicking a link need to sign in to Workday to view the event or document(s). While you can also attach documents produced in the event right to the email, this is not recommended for security reasons.

DEMO 4.D – CONFIGURE NOTIFICATIONS

Introduction: We will activate a notification triggered by the launch of the Integration System.

TASK #1: CONFIGURE EIB NOTIFICATION

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select **WICT EIB Demo Integration.**
3. From the integration system's **Related Actions**, select **Integration System > Configure Integration Notifications**.
4. Select the **Trigger on Launch** radio button.
5. In the Recipients area, enter **Submitted by** for the **Recipients** field
6. Add one rows in the Subject area and enter the following:

Option	***Value***
Text	You've submitted this integration

7. Click **OK** and **Done**.
8. From the integration system's **Related Actions**, select **Integration > Launch/Schedule**.
9. Accept the default of *Run Now* and click **OK**.
10. Configure the **Integration Criteria** as follows:

Field	***Value***
Orgs	Payroll Department
Include Sub	Not checked

11. Click **OK** and **Refresh** until completion.
12. Check the notification tab.

13. Access Logan's notification inbox to see the new notification.

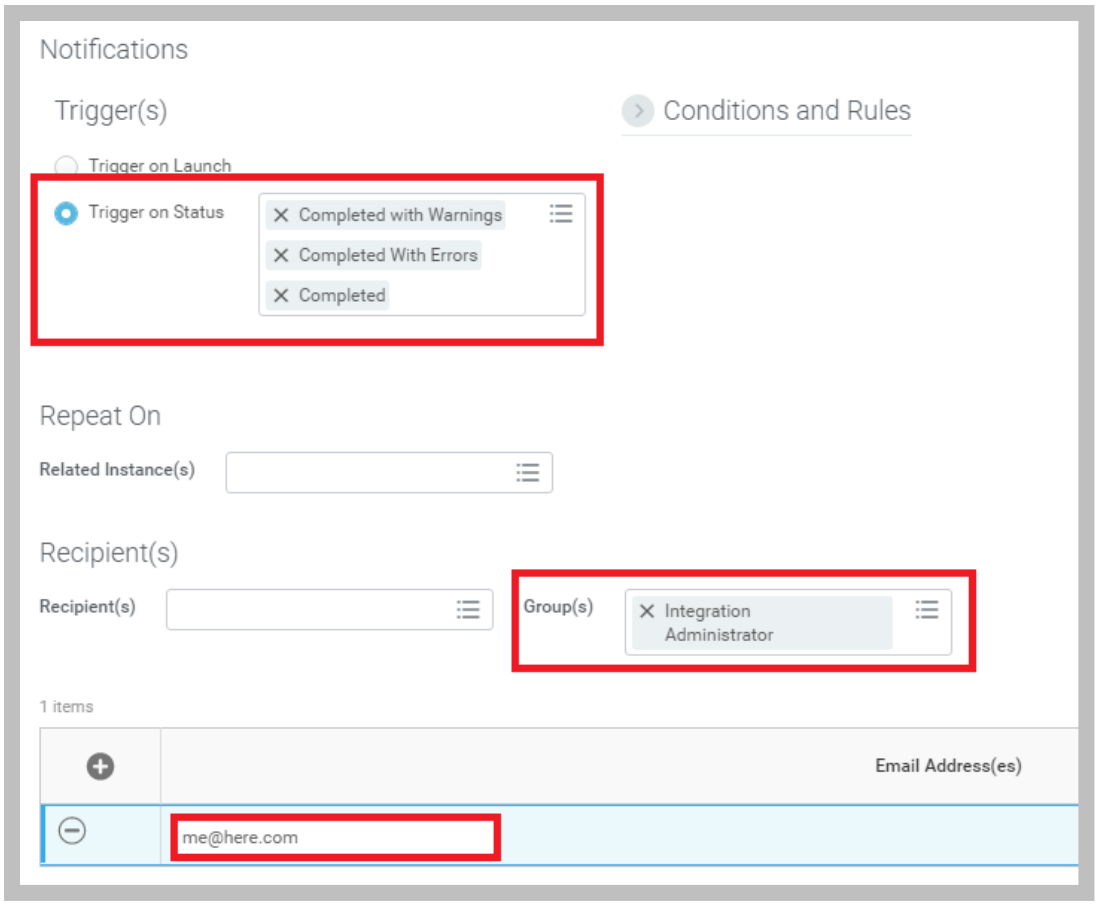
ACTIVITY 4.4 – CONFIGURE NOTIFICATIONS

Business Case: You have been asked to create a notification to Integration Administrators when the integration completes successfully.

- The notification should trigger if the integration completes, regardless of errors or warnings.
- The message will be sent to administrator inboxes as well as your own email.

TASK #1: CONFIGURE EIB NOTIFICATION

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select **WICT EIB New Hire Integration**.
3. From the **Related Actions**, select **Integration System > Configure Integration Notifications**.
4. Select the **Trigger on Status** radio button.
5. In the prompt, select **Completed**, **Completed With Errors**, and **Completed with Warnings**.
6. In the Recipients area, enter **Integration Administrator** for the **Groups** field.
7. In the Email Address(es) field, enter *your email address*. Note that some email servers may block the receipt of this message. Workday administrators may need to configure the tenant and/or email server to accept messages generated from Workday.



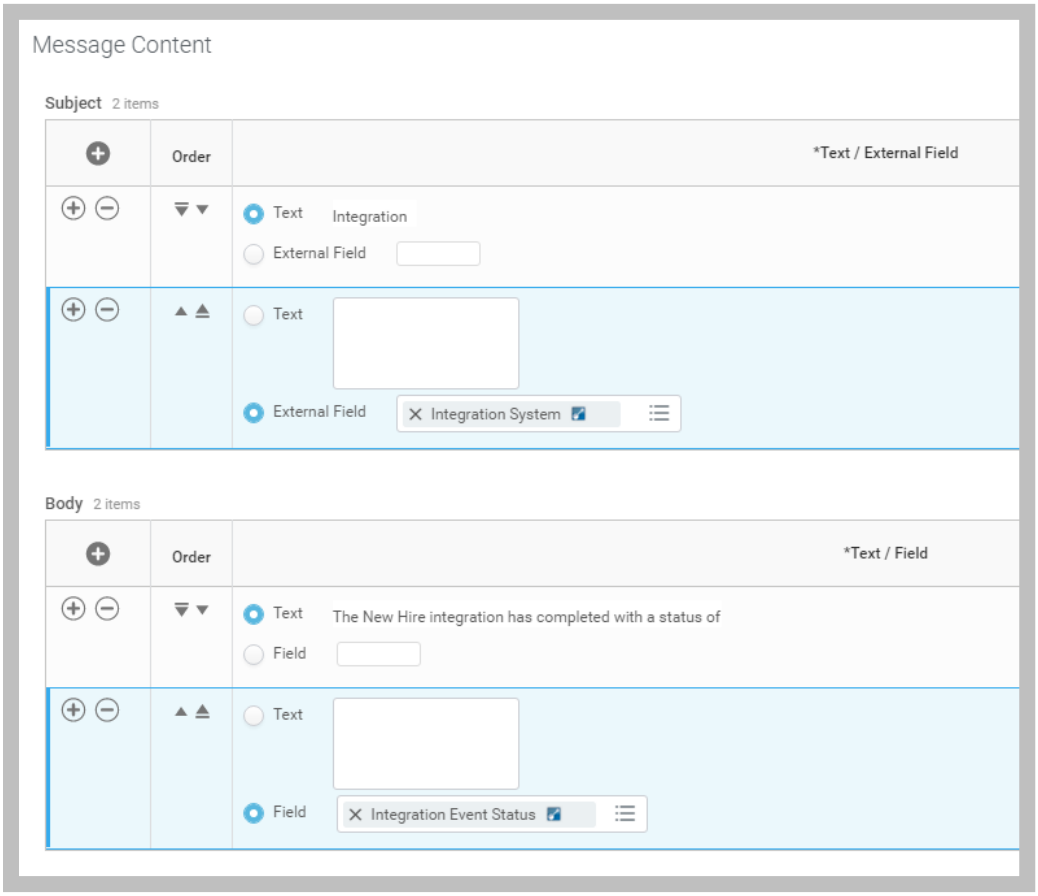
99 - Notification configuration, triggers and receipients

8. Add two rows in the Subject area and enter the following:

Option	*Value*
Text	Integration
External Field	Integration System

9. Add two rows in the Body area and enter the following:

Option	*Value*
Text	The integration has completed with a status of
External Field	Integration Event Status



100 - Notification configuration, message content

10. Click **OK** and **Done**.

11. From the **related actions**, select **Integration > Launch / Schedule**.

12. Click **OK** to accept the Now, Run Frequency.

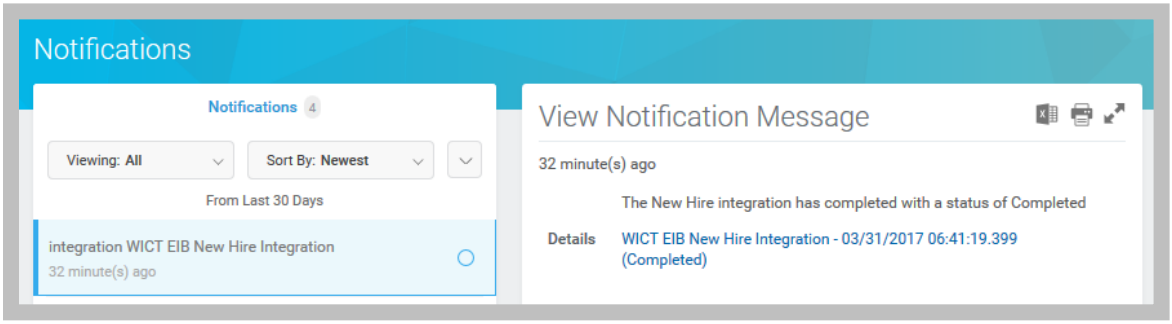
13. Enter the report parameters:

Field	*Value*
Start	01/01/2017
End	{Today's date}

14. Click **OK** and **Refresh** until completion.

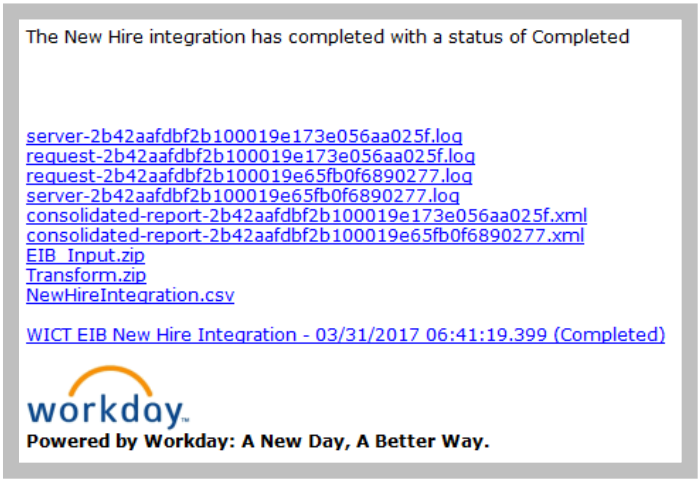
15. Check the notification tab of the event to see the list of recipients.

16. Access Logan's notification inbox to verify that Logan received a Notification.



101 - Notification Inbox

17. Confirm that the email was sent to you.



102 - Notification Email

CHAPTER 5 – EIB AND WORKDAY WEB SERVICES

OVERVIEW

EIB also supports Workday Public Web Service operations as data sources (outbound) and targets for integration (inbound).

For outbound purposes, this is useful when you want to build a simple integration around a known service operation or when it is difficult to create a report that contains all of the data you need. Furthermore, as delivered integration points, Workday Web Services (WWS) are better supported by Workday than custom reports that you are responsible for maintaining.

For inbound operations, EIBs provide a simpler option than Studio to update Workday when data volume and complexity are low.

OBJECTIVES

By the end of this chapter, you will be able to:

- Build a web service data source to support an outbound EIB.
- Configure an EIB using WWS to accept launch parameters.
- Create an inbound EIB that updates Workday using WWS and XSLT.

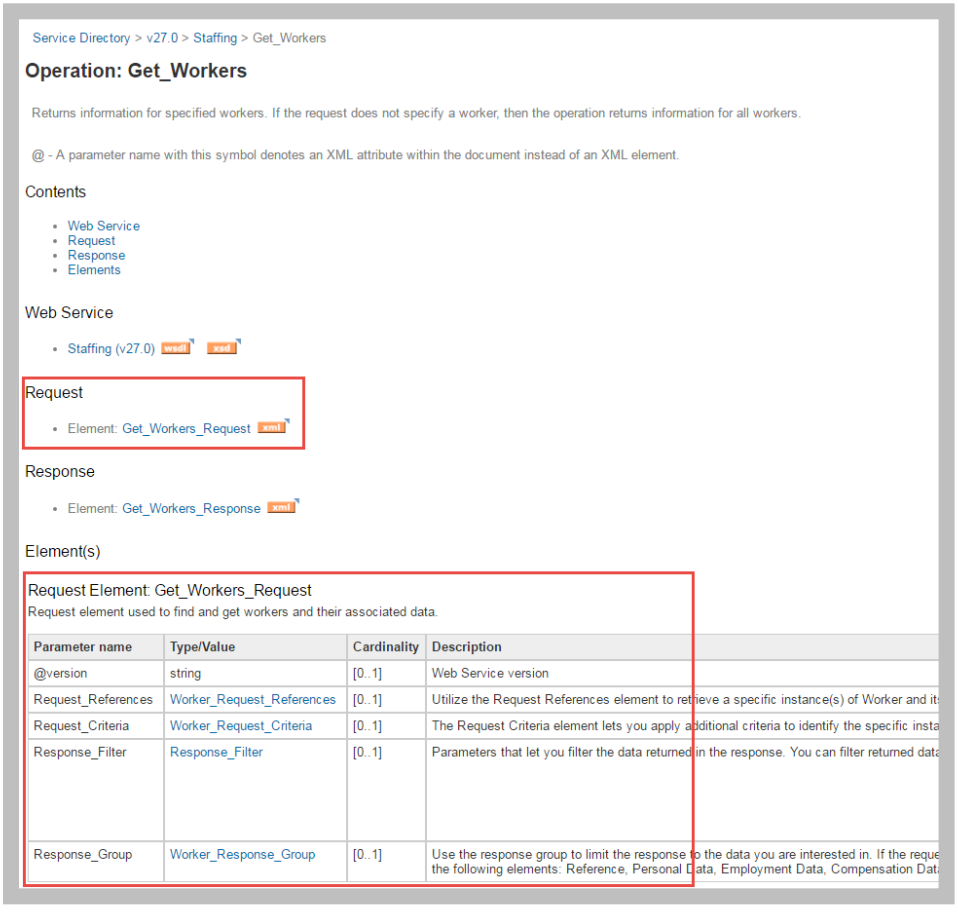
WORKDAY PUBLIC WEB SERVICES

REQUEST XML

All Workday Web Service operations are invoked by a request message. Workday processes the request and sends back a response message

"Get" requests include four main elements that let you limit the data that Workday will return in the response:

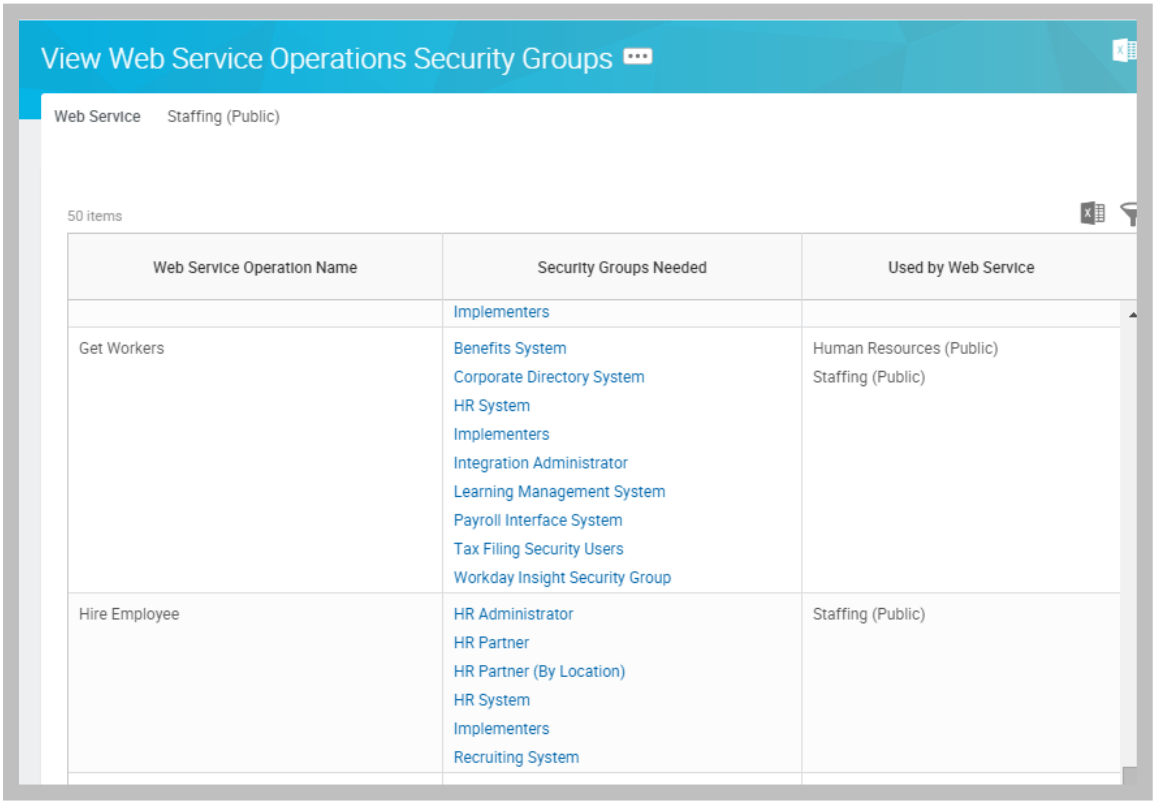
- **Request References**: Specify the instances (e.g. individual workers) to be returned
- **Request Criteria**: Set object-type specific parameters that limit the scope of data (e.g. workers' supervisory organization or location)
- **Response Filter**: Filter the results by entry date/time, effective date, and/or number of records
- **Response Group**: Limit the result set to certain types of data (e.g. compensation)



103 - API documentation on Workday Community

WEB SERVICE OPERATION SECURITY

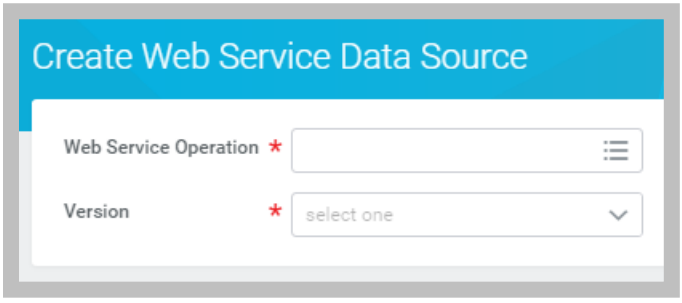
Each Web Service Operation is a securable item. The user that launches or schedules the EIB must have access to the Web Service Operation. There are several ways to see and update the security for a web service. The **View Web Service Operations Security Groups** report allows you to see the security groups that currently have access to the Operation.



104 - View Web Service Operations Security Groups report

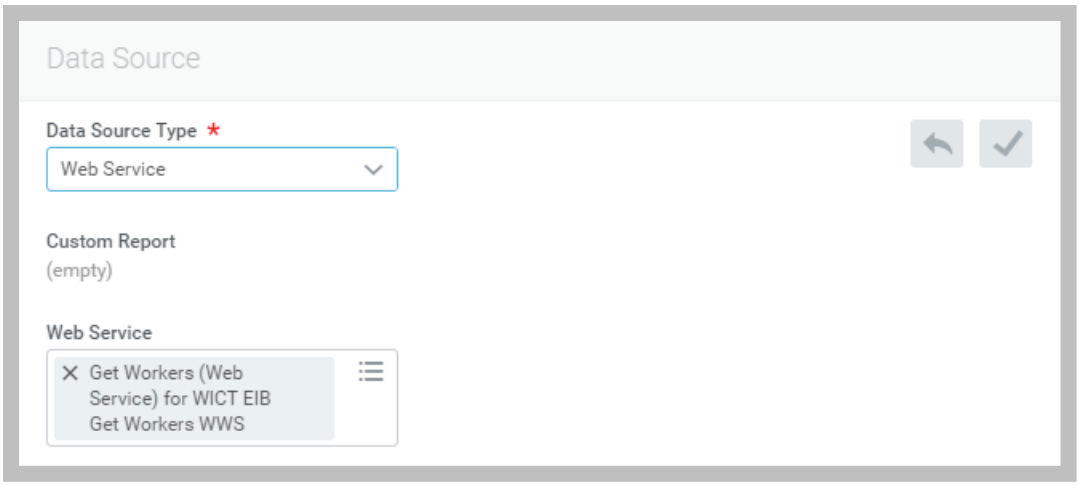
WEB SERVICE DATA SOURCE

In order to build an outbound EIB for a WWS operation, you much first run the **Create Web Service Data Source**, which builds an object to hold the request details for an EIB.



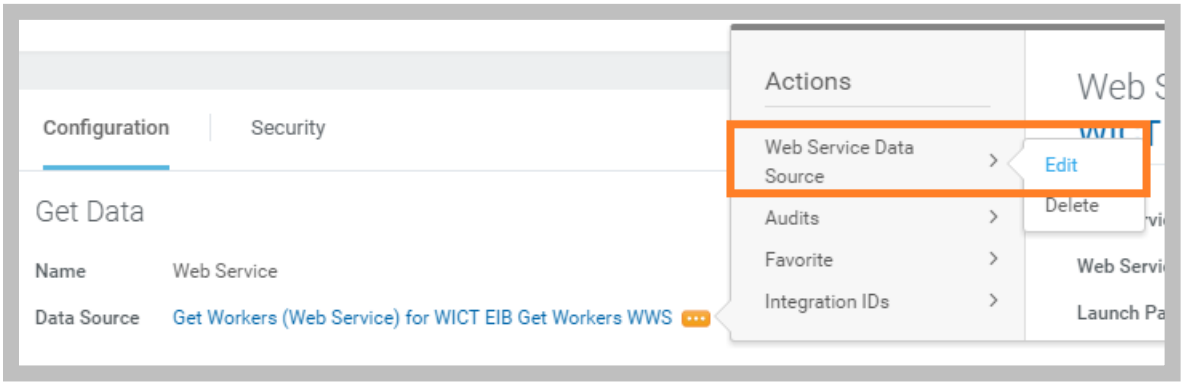
105 - Create Web Service Data Source task

Configure the EIB to use this Web Service Data Source instead of a Custom Report.



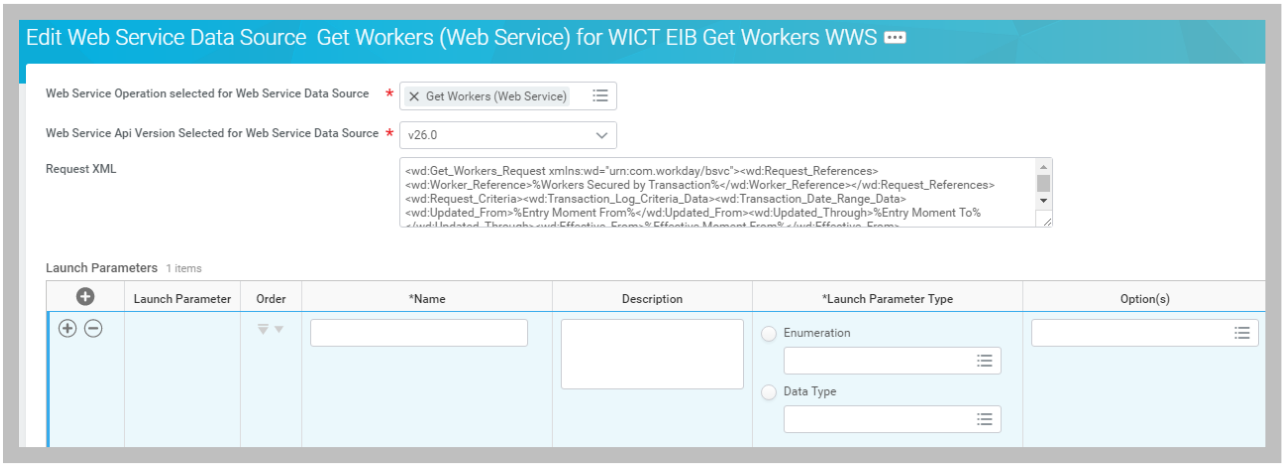
106 - Web Service Data Source Type

To configure the request XML for the EIB, access the integration system and edit the data source by using the Related Actions of the **Data Source** on the *Configuration* tab.



107 - Edit Web Service Data Source related action

This will display the interface to modify the Request XML.



108 - Edit Web Service Data Source

LAUNCH PARAMETERS

Workday provides a default XML request message that includes the tokens you can use as input parameters. Tokens are delimited by % symbols, such as %Workers%. You can replace these tokens with hard-coded values, or enter the token names (without “%” signs) as Launch Parameters to be set by users when triggering the integration, much like custom report prompts.

Important: The XML request message and launch parameters apply to all integration systems that use that same data source. However, users can specify different parameter values at each launch.
It is also possible to create multiple data sources for the same web service operation version.

Important: The maximum processing time for outbound EIBs retrieving custom report or web service data is 30 hours.

Any pause in processing doesn't count toward the 30-hour limit.

DEMO 5.A – OUTBOUND EIB USING WWS

Introduction: We will use a WWS as the data source for a new EIB.
We will see how different configurations of the request XML deliver different outputs.

TASK #1: CREATE WEB SERVICE DATA SOURCE

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select the **Create Web Service Data Source** task.
3. Select the **Get Positions (Web Service)** operation from the prompt.
4. Accept the default *Version* and click **OK**.

TASK #2: CREATE EIB

1. Use the *Create EIB* task to create an **Outbound** EIB named **WICT EIB Demo Positions**.
2. Click **Next** to acces *Get Data* page.
3. Edit the *Data Source* to select **Web Service** as the *Data Source Type*.
4. Select the **Get Positions (Web Service)** you created earlier to populate the **Web Service** field.
5. Click **Next** twice to edit the *Deliver* page.
6. Accept the default *Delivery Method* and *Details* and enter a **File Name** of **DemoPositions.xml**.
7. Accept the default *Document Retention Policy* and click **Next**.
8. Click **OK.** Note the Error.
9. From the Data Source's **Related Actions**, select **Web Service Data Source > Edit**.
10. Delete the **Launch Parameter** (the UI assumes we want at least one).
11. Replace the Request XML with the following input XML for the Get Positions WWS:

```
<wd:Get_Positions_Request xmlns:wd="urn:com.workday/bsvc">
</wd:Get_Positions_Request>
```

12. Click **OK,** then **Done.**

13. If the new EIB is not displayed, search to find and open it. (Notice that the *Error* message no longer exists.)

14. **Launch** the Integration (Run Now) using System Default values (no changes).

    Note: The results will bring all positions from the tenant. We need to focus our integration to positions from a specific organization.

TASK #3: CHANGE THE REQUEST TO RETRIEVE POSITIONS FROM A SPECIFIC ORGANIZATION

1. Search and select the Payroll department.

2. View that it has 8 associated positions. See the Members tab.

3. From the **Related Actions** select Integration IDs > View IDs and note the Reference ID type and value.

4. Open the **WICT EIB Demo Position** integration system and from the **Related Actions** of the **Data Source**, select **Web Service Data Source > Edit**.

5. Replace the Request XML with the following, which returns positions from the Payroll Department:

```
<wd:Get_Positions_Request xmlns:wd="urn:com.workday/bsvc">
<wd:Request_Criteria>
<wd:Supervisory_Organization_Reference wd:Descriptor="Organization">
<wd:ID wd:type="Organization_Reference_ID">Payroll_supervisory</wd:ID>
</wd:Supervisory_Organization_Reference>
</wd:Request_Criteria>
<wd:Response_Group>
<wd:Include_Position_Definition_Data>true</wd:Include_Position_Definition_Data>
<wd:Include_Worker_For_Filled_Positions_Data>true</wd:Include_Worker_For_Filled_Positions_Data>
</wd:Response_Group>
</wd:Get_Positions_Request>
```

6. You will once again need to delete the default, blank launch parameter row.

7. Click **OK** to save the data source.

8. Launch the integration, open the resulting xml file in a browser (or an XML editor if you have one), and investigate the structure of the xml output.

9. Notice that it only contains the 8 positions from the Payroll Department. For each position, we have the requested data (Position and Worker data).

TASK #4: MODIFY THE REQUEST TO INCLUDE LAUNCH PARAMETERS

1. The users would like the ability to provide the Organization at run time and also decide if to include worker data in the output. From the integration system, again use the *Edit* Web Service Data Source Related Actions to change the Request XML as follows:

```
<wd:Get_Positions_Request xmlns:wd="urn:com.workday/bsvc">
<wd:Request_Criteria>
<wd:Supervisory_Organization_Reference wd:Descriptor="Organization">
<wd:ID wd:type="Organization_Reference_ID">Payroll_supervisory</wd:ID>
</wd:Supervisory_Organization_Reference>
</wd:Request_Criteria>
<wd:Response_Group>
<wd:Include_Position_Definition_Data>true</wd:Include_Position_Definiti
on_Data>
<wd:Include_Worker_For_Filled_Positions_Data>%Include
Worker%</wd:Include_Worker_For_Filled_Positions_Data>
</wd:Response_Group>
</wd:Get_Positions_Request>
```

2. This time, instead of deleting the Launch Parameter, enter the following:

Field Name	***Value***
Name	**Include Worker** (Make sure this matches the case and spacing of the %Include Worker% token in the request XML.)
Launch Parameter Type	Data Type – **Boolean**
Option(s)	**Required**
Default at Launch	**Checked**
Value Type	**Specify Value**

Value	**Checked**

3. Click **OK** and **Done**.
4. Launch the integration and note the new launch parameter.
5. Click **OK**.
6. Confirm that the output shows eight positions, and that the response group includes position and no worker data.

   Note: Keep the file open to compare with the upcoming demo's output.

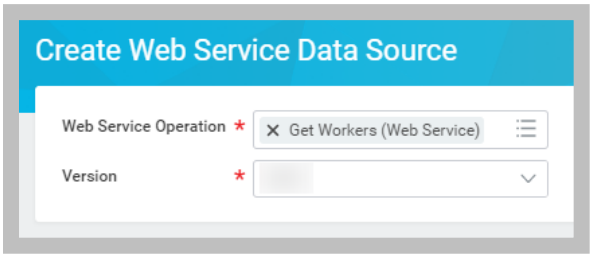
ACTIVITY 5.1 – OUTBOUND EIB USING WWS

Business Case: You have been asked to test the Get Workers WWS using EIB as an alternative to RaaS.

- Test Get Workers without specifying input parameters.
- Modify the request to get only certain pages of Worker information.
- Further modify the data source to include launch parameters.

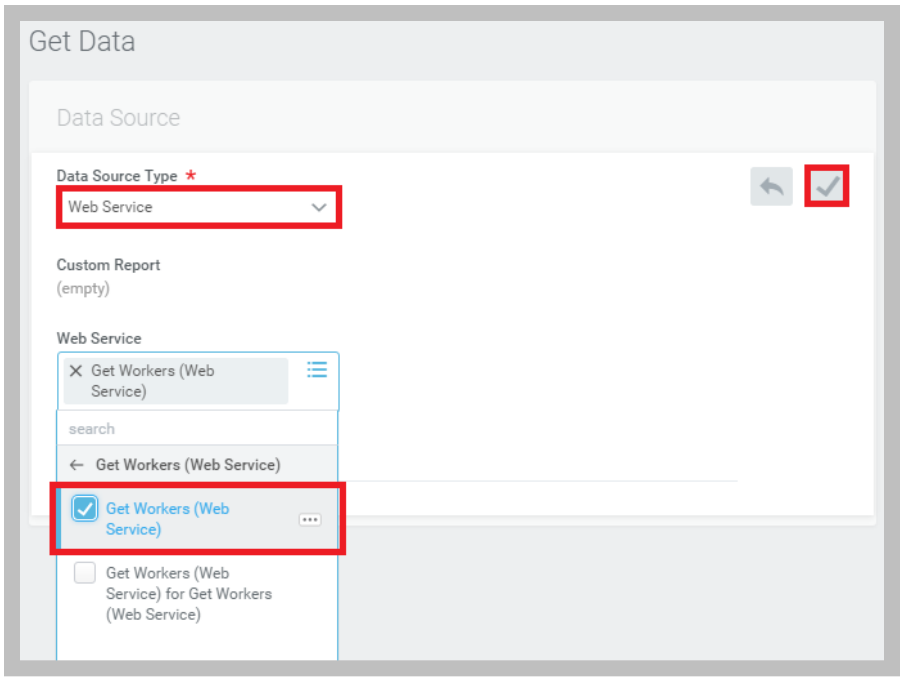
TASK #1: CREATE WEB SERVICE DATA SOURCE AND EIB FOR GET WORKERS

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select the **Create Web Service Data Source** task.
3. Select the **Get Workers (Web Service)** operation from the prompt.



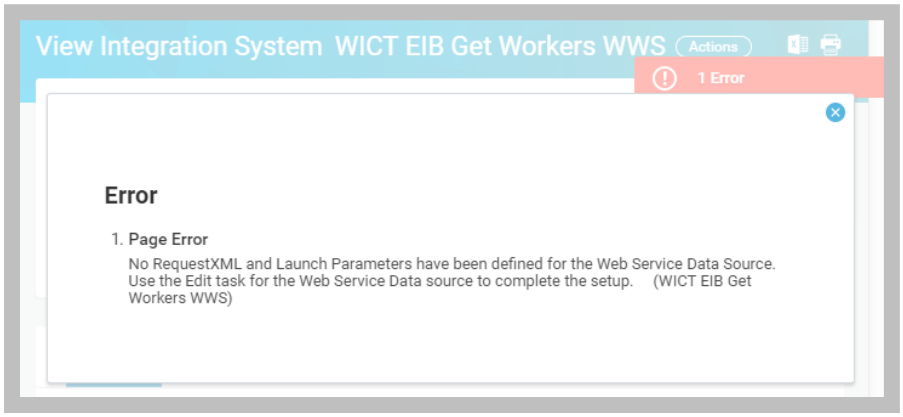
109 - Create Web Service Data Source task

4. Accept the default *Version* and click **OK**.
5. Use the *Create EIB* task to create an **Outbound** EIB named **WICT EIB Get Workers WWS**.
6. Click **Next** to acces *Get Data* page.
7. Edit the *Data Source* to select **Web Service** as the *Data Source Type*.
8. Select the **Get Workers (Web Service)** you created earlier to populate the **Web Service** field. (Note: You can confirm the API version using the preview icon.)



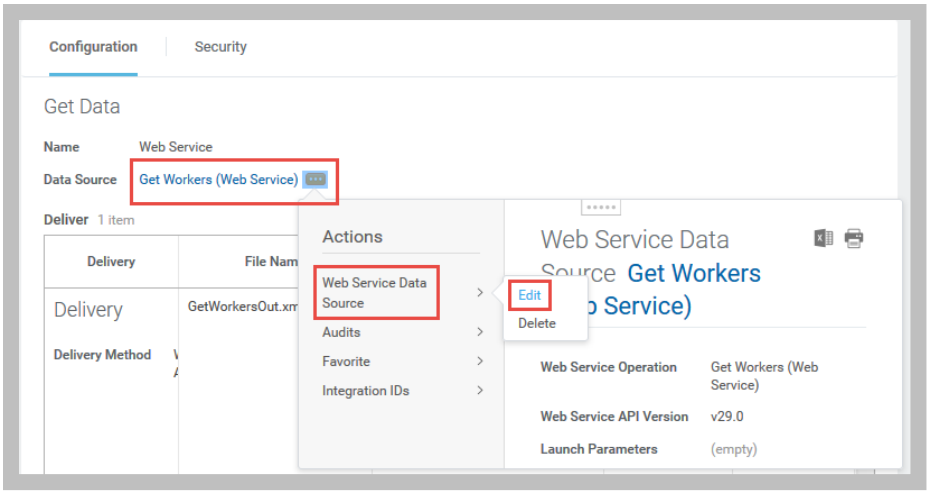
110 - Get Workers (Web Service)

9. Click **Next** twice to edit the *Deliver* page.
10. Accept the default *Delivery Method* and *Details* and enter a **File Name** of **GetWorkersOut.xml**.
11. Accept the default *Document Retention Policy* and click **Next**.
12. Click **OK.** Note the Error.



111 - Missing Request XML error

13. From the **Related Actions** of the Data Source, select **Web Service Data Source > Edit**.

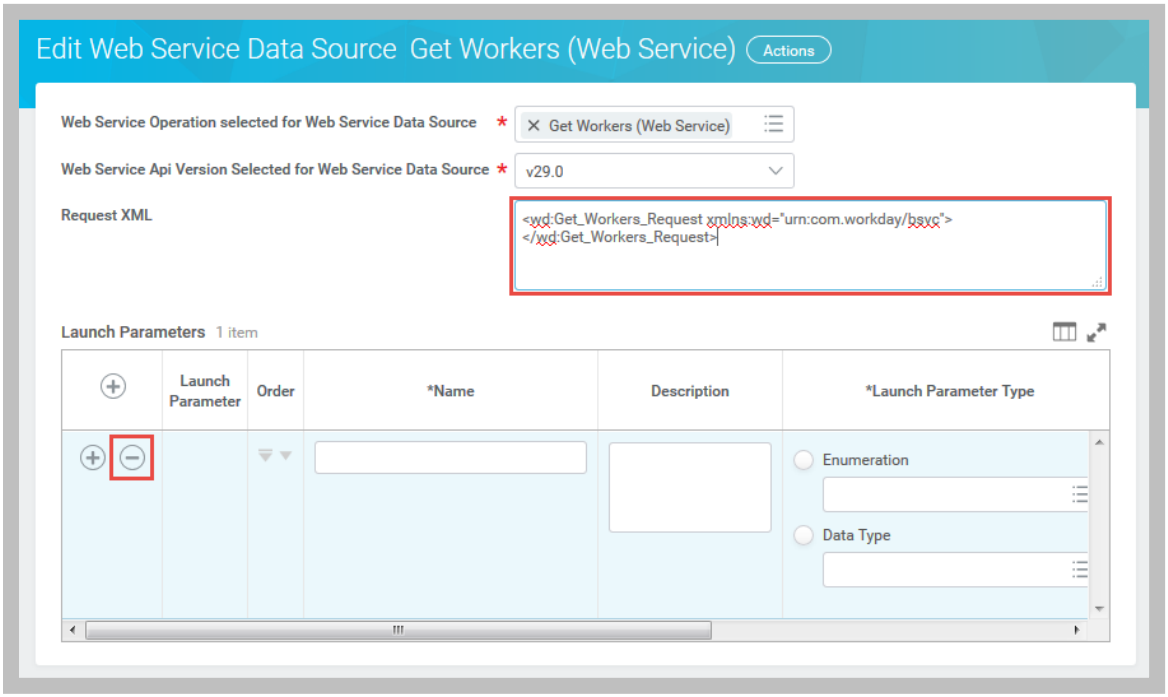


112 - Edit Web Service Data Source related action

14. Delete the **Launch Parameter** (the UI assumes we want at least one).

15. Replace the Request XML with the following input XML for the Get Workers WWS:

```
<wd:Get_Workers_Request xmlns:wd="urn:com.workday/bsvc">
</wd:Get_Workers_Request>
```



113 - Edit Web Service Data Source

16. Click **OK,** then **Done**.

17. If your new EIB is not displayed, search to find and open it. (Notice that the *Error* message no longer exists.)

18. **Launch** the Integration (Run Now) using System Default values (no changes).

    Note: The results will be quite large (about 12MB), so do not open this file in any browser or editor. Instead, continue to Task 2 to obtain a somewhat smaller file as the result.

TASK #2: CHANGE THE REQUEST TO RETRIEVE A SPECIFIC PAGE

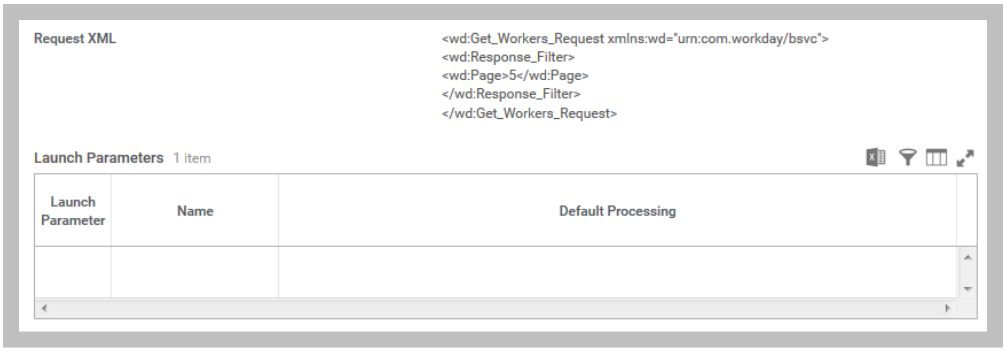
1. Open the **WICT EIB Get Workers WWS** integration system and from the **Related Actions** of the Data Source, select **Web Service Data Source > Edit**.

2. Replace the Request XML with the following, which filters the results to Page 5:

```
<wd:Get_Workers_Request xmlns:wd="urn:com.workday/bsvc">
<wd:Response_Filter>
<wd:Page>5</wd:Page>
</wd:Response_Filter>
</wd:Get_Workers_Request>
```

3. You will once again need to delete the default, blank launch parameter row.

4. Click **OK** to save the data source.



114 - Edit Web Service Data Source completed

5. Launch the integration, open the resulting xml file in a browser (or an XML editor if you have one), and investigate the structure of the xml output.


```
<?xml version="1.0"?>
<wd:Get_Workers_Response wd:version="v29.0" xmlns:wd="urn:com.workday/bsvc">
 - <wd:Response_Filter>
      <wd:Page>5</wd:Page>
   </wd:Response_Filter>
 - <wd:Response_Results>
      <wd:Total_Results>445</wd:Total_Results>
      <wd:Total_Pages>5</wd:Total_Pages>
      <wd:Page_Results>45</wd:Page_Results>
      <wd:Page>5</wd:Page>
   </wd:Response_Results>
 - <wd:Response_Data>
    - <wd:Worker>
       - <wd:Worker_Reference>
            <wd:ID wd:type="WID">2e2967b4b10949fdafde3b5e1688e5c6</wd:ID>
            <wd:ID wd:type="Contingent_Worker_ID">21085</wd:ID>
         </wd:Worker_Reference>
         <wd:Worker_Descriptor>Kevin Gibson</wd:Worker_Descriptor>
       - <wd:Worker_Data>
            <wd:Worker_ID>21085</wd:Worker_ID>
            <wd:User_ID>kgibson</wd:User_ID>
          - <wd:Personal_Data>
             - <wd:Name_Data>
                - <wd:Legal_Name_Data>
                   - <wd:Name_Detail_Data wd:Reporting_Name="Gibson, Kevin" wd:Formatted_Name="Kevin Gibson">
                      - <wd:Country_Reference>
                            <wd:ID wd:type="WID">bc33aa3152ec42d4995f4791a106ed09</wd:ID>
                            <wd:ID wd:type="ISO_3166-1_Alpha-2_Code">US</wd:ID>
                            <wd:ID wd:type="ISO_3166-1_Alpha-3_Code">USA</wd:ID>
                            <wd:ID wd:type="ISO_3166-1_Numeric-3_Code">840</wd:ID>
                         </wd:Country_Reference>
                         <wd:First_Name>Kevin</wd:First_Name>
                         <wd:Last_Name>Gibson</wd:Last_Name>
                      </wd:Name_Detail_Data>
                   </wd:Legal_Name_Data>
                - <wd:Preferred_Name_Data>
                   - <wd:Name_Detail_Data wd:Reporting_Name="Gibson, Kevin" wd:Formatted_Name="Kevin Gibson">
                      - <wd:Country_Reference>
                            <wd:ID wd:type="WID">bc33aa3152ec42d4995f4791a106ed09</wd:ID>
                            <wd:ID wd:type="ISO_3166-1_Alpha-2_Code">US</wd:ID>
                            <wd:ID wd:type="ISO_3166-1_Alpha-3_Code">USA</wd:ID>
                            <wd:ID wd:type="ISO_3166-1_Numeric-3_Code">840</wd:ID>
                         </wd:Country_Reference>
                         <wd:First_Name>Kevin</wd:First_Name>
                         <wd:Last_Name>Gibson</wd:Last_Name>
                      </wd:Name_Detail_Data>
                   </wd:Preferred_Name_Data>
                </wd:Name_Data>
             - <wd:Gender_Reference>
                   <wd:ID wd:type="WID">d3afbf8074e549ffb070962128e1105a</wd:ID>
```


115 - Web Service XML output

6. Notice that in addition to a **Worker_Reference** section for each Response_Data/Worker, there is a Worker_Data element with detailed **Personal_Data**, **Employment_Data**, and **Compensation_Data** groups.

TASK #3: MODIFY THE REQUEST TO INCLUDE LAUNCH PARAMETERS

1. From the integration system, again use the **Edit** Web Service from Data Source's **Related Actions** to change the Request XML as follows:

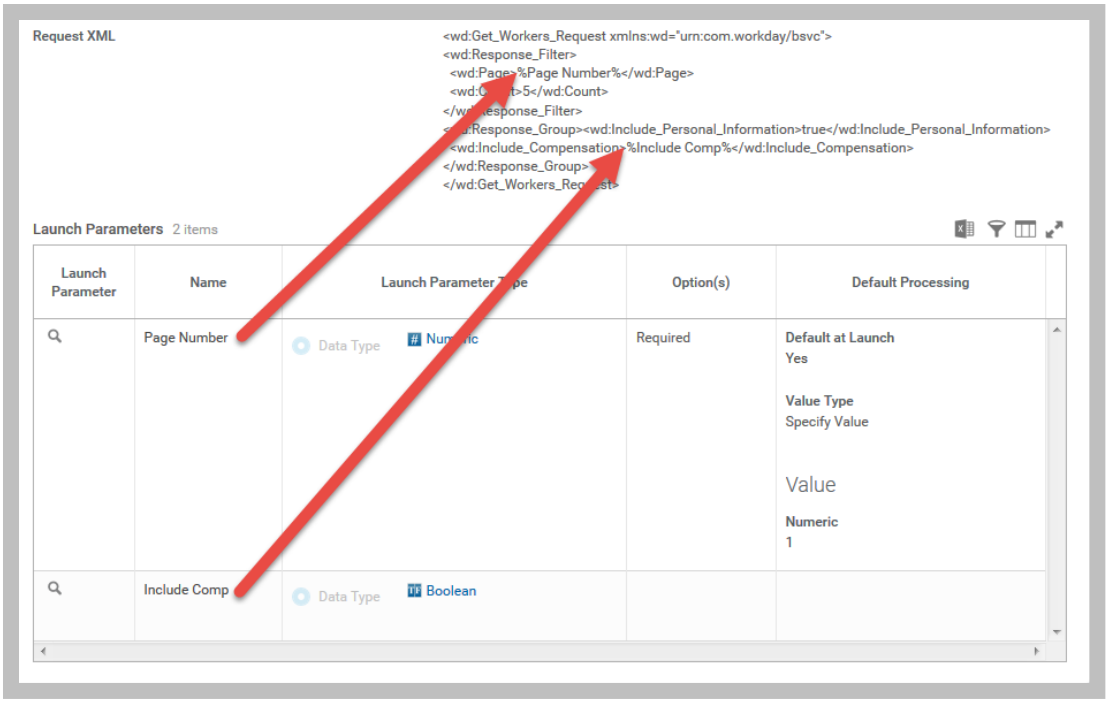
```
<wd:Get_Workers_Request xmlns:wd="urn:com.workday/bsvc">
<wd:Response_Filter>
<wd:Page>%Page Number%</wd:Page>
<wd:Count>5</wd:Count>
</wd:Response_Filter>
<wd:Response_Group>
<wd:Include_Personal_Information>true</wd:Include_Personal_Information>
<wd:Include_Compensation>%Include Comp%</wd:Include_Compensation>
</wd:Response_Group>
</wd:Get_Workers_Request>
```

2. This time, instead of deleting the Launch Parameter, enter the following:

Field Name	*Value*
Name	**Page Number** (Make sure this matches the case and spacing of the % Page Number% token in the request XML.)
Launch Parameter Type	Data Type > Basic Attributes > **Numeric**
Option(s)	**Required**
Default at Launch	**Checked**
Value Type	**Specify Value**
Value	**1**

3. Add another Launch Parameter with the following attributes:

Field Name	*Value*
Name	**Include Comp** (Make sure this matches the case and spacing of the %Include Comp% token in the request XML.)
Launch Parameter Type	Data Type > Basic Attributes > **Boolean**

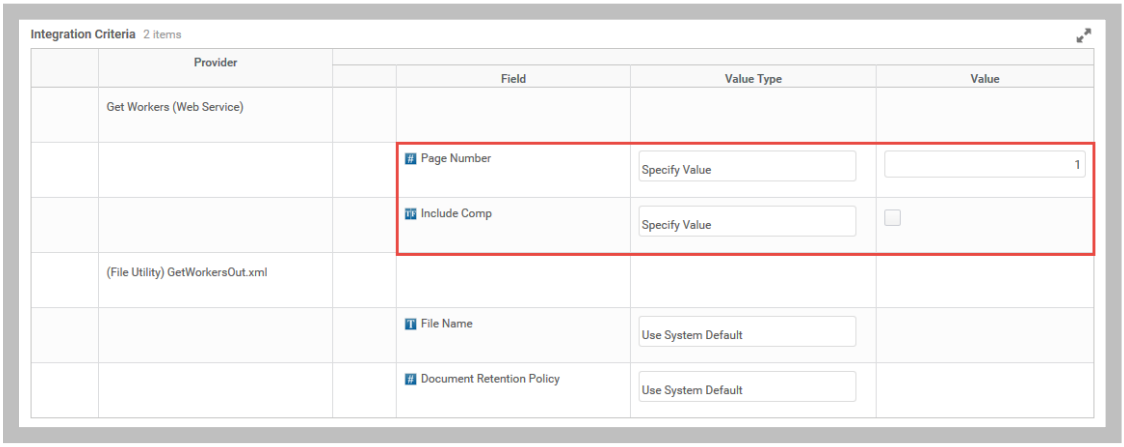


116 - Launch Parameters matching parameter strings

4. Click **OK** and **Done**.

5. Launch the integration and note the new launch parameters.

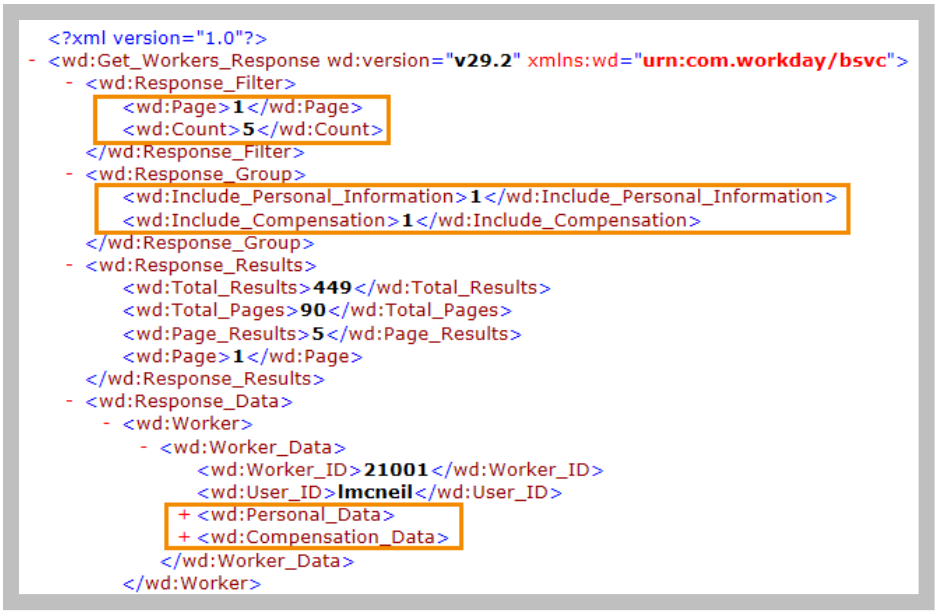
6. Select the checkbox to include compensation.



117 - Integration Criteria

7. Click **OK**.

8. Confirm that the output shows five workers from the first page of results, and that the response group includes both personal data and compensation.



118 - Web Service XML output

CUSTOM TRANSFORMATIONS AND WEB SERVICES

Just as you can apply a custom transformation to an EIB created using a custom report, you can apply one to an EIB created using a Workday Web Service. The steps to apply the xslt document are the same, although the structure of WWS XML responses might require more complex XSLT logic and XPath expressions.

There is an example on Workday Community that is specific to the Get Workers web service operation called Extracting HR-XML using GetWorkers & EIB. You may wish to follow this example and compare the output of the file with and without the custom transformation.

119 - Extracting HR-XML using GetWorkers & EIB Workday Community example

IMPORTING AN XML FILE USING EIB AND XSLT

XML data can be loaded via an Inbound EIB. Generally, you will need to format this data to match a Workday WWS inbound operation, which requires XSLT to transform the XML.

```
<root>
    <employee_entry>
        <employee_ID>21142</employee_ID>
        <email_address>aidan@usa.workday.net</email_address>
    </employee_entry>
    <employee_entry>
        <employee_ID>21132</employee_ID>
        <email_address>alain@can.workday.net</email_address>
    </employee_entry>
    <employee_entry>
        <employee_ID>21019</employee_ID>
        <email_address>angela@usa.workday.net</email_address>
    </employee_entry>
</root>
```

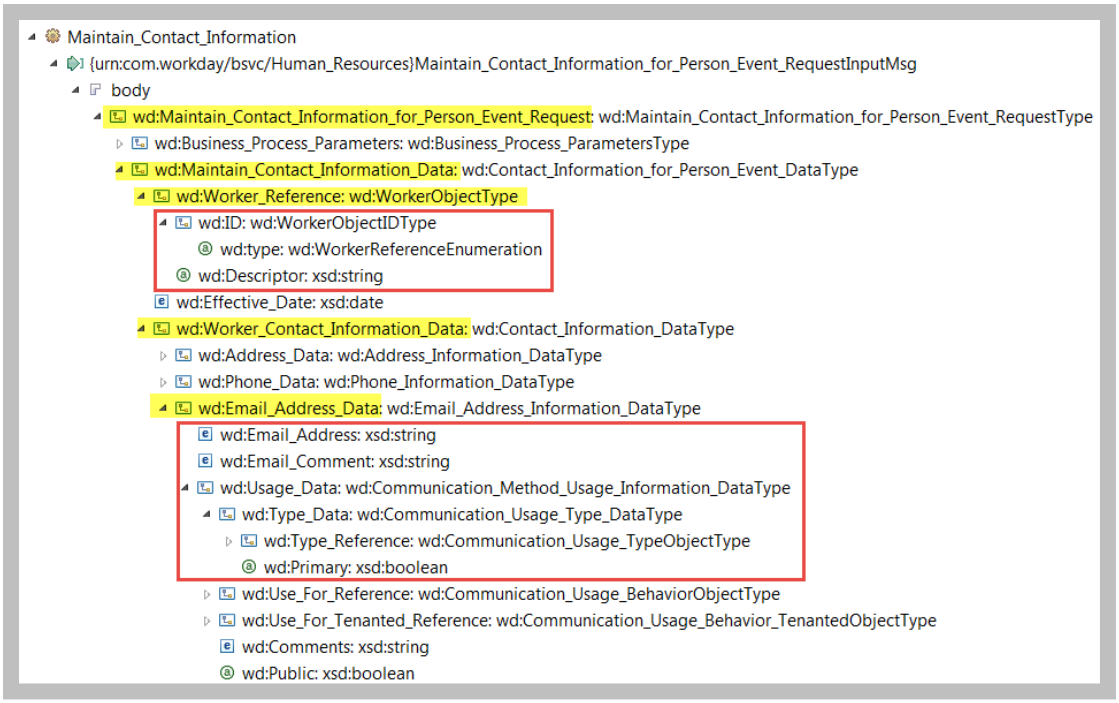
120 - Inbound XML file

Note: It is recommended to build a Workday Studio integration system if you have large files that require transformation, as it is a more efficient and scalable tool than EIB.

WSDL

You must fully understand the web service operation you are invoking in order to transform the data you are importing to meet Workday's data structure and data validation rules. *Web Service Description Language* (WSDL) is an XML standard used to describe the operations within a service, detailing the elements within the request messages that invoke those operations and the responses that are returned.

Below is a representation of the WSDL for the *Maintain Contact Information* web service operation. The original XML document needs to be transformed to meet the inbound structure and data requirements of Workday, as documented by the WSDL.



121 - WSDL

XSLT FOR INBOUND WWS

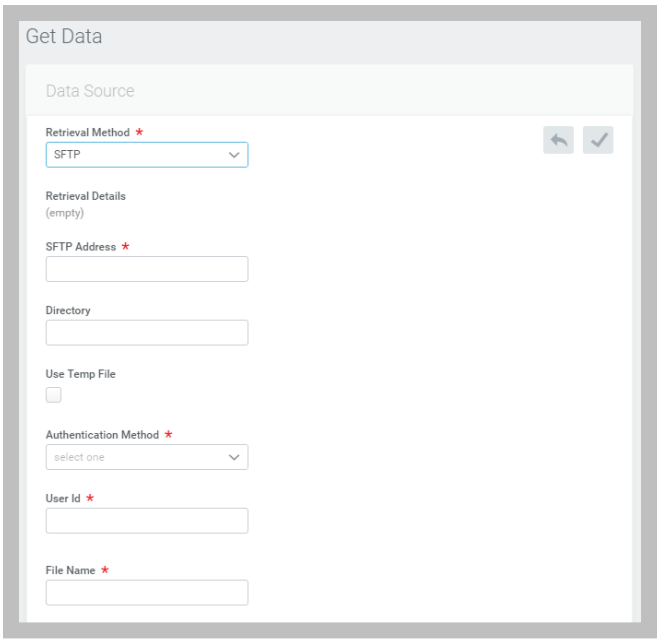
The XSLT for an inbound operation needs to select values from the input file to produce the WWS request format.

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="2.0">
    <xsl:output indent="yes" method="xml"/>
    <xsl:template match="root" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
        <root>
            <xsl:for-each select="employee_entry">
                <bsvc:Maintain_Contact_Information_for_Person_Event_Request bsvc:version="v27.0"
                    bsvc:Add_Only="false" xmlns:bsvc="urn:com.workday/bsvc">
                    <bsvc:Maintain_Contact_Information_Data>
                        <bsvc:Worker_Reference>
                            <bsvc:ID bsvc:type="Employee_ID">
                                <xsl:value-of select="employee_ID"/>
                            </bsvc:ID>
                        </bsvc:Worker_Reference>
                        <bsvc:Effective_Date>2016-10-10</bsvc:Effective_Date>
                        <bsvc:Worker_Contact_Information_Data>
                            <bsvc:Email_Address_Data>
                                <bsvc:Email_Address>
                                    <xsl:value-of select="email_address"/>
                                </bsvc:Email_Address>
                                <bsvc:Email_Comment>Imported Via Integration</bsvc:Email_Comment>
                                <bsvc:Usage_Data bsvc:Public="true">
                                    <bsvc:Type_Data bsvc:Primary="true">
                                        <bsvc:Type_Reference bsvc:Descriptor="?">
                                            <bsvc:ID bsvc:type="Communication_Usage_Type_ID">WORK</bsvc:ID>
                                        </bsvc:Type_Reference>
                                    </bsvc:Type_Data>
                                </bsvc:Usage_Data>
                            </bsvc:Email_Address_Data>
                        </bsvc:Worker_Contact_Information_Data>
                    </bsvc:Maintain_Contact_Information_Data>
                </bsvc:Maintain_Contact_Information_for_Person_Event_Request>
            </xsl:for-each>
        </root>
    </xsl:template>
</xsl:stylesheet>
```

122 - XSLT

XML FILE AND EIB

When you create the inbound EIB, in the *Get Data* page, select the appropriate *Retrieval Method* rather than *Attachment* to pick up the file from an external server. The *Retrieval Details* contains address, directory and authentication details. You must also specify the file name to be retrieved. (You can override these details on the launch/schedule request page.)



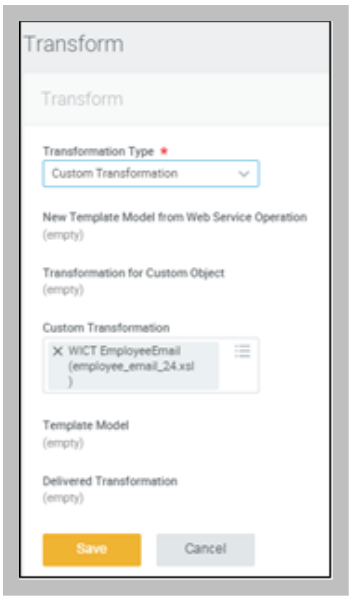
123 - Get Data

When loading data from an external XML file, the *File Type* selection is set to *None* and, generally, an XSLT stylesheet is required to transform the data into the format required by the web service.

Note: Predefined Templates have been deprecated. This option will generate an error and should not be selected when creating new EIBs.

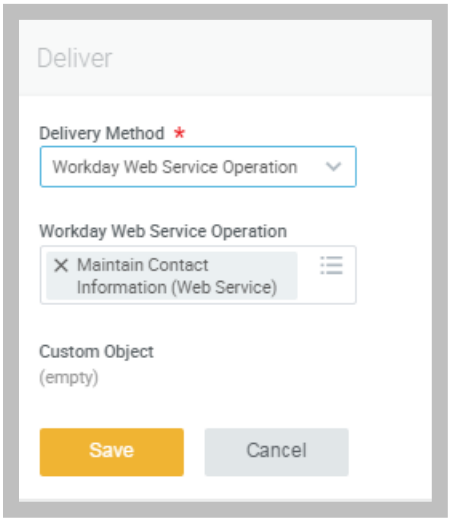
Note: The retrieved data file will be retained for 1 day. This value is not configurable

You upload the .xsl file as an XSLT attachment as a separate task. In the *Transform* page of the EIB, set the **Transformation Type** to **Custom** and select your uploaded XSLT attachment.



124 - Transform

Finally, specify the **Delivery Method** and **Web Service Operation** that is invoked to update Workday.



125 - Deliver

DEMO 5.C – INBOUND EIB USING WWS AND XSLT

Introduction: We will update Workday with wellness data from a XML file that we will retrieve from a sFTP server.
The file is not in the appropriate format for the WWS. We will add an XSLT transformation to create it.

TASK #1: SEE CURRENT WELLNESS DATA

1. Sign in as Logan McNeil (lmcneil).
2. Search and run the **Wellness Program** report.
3. For **Atlanta**, click on the value 2 in the **Not Participating** column.
4. See that **Anwar Devi** and **Jeremy Miller** are not participating and close the pop up window.

TASK #2: CREATE XSLT ATTACHMENT

1. Search for *create xslt* and select the **Create XSLT Attachment Transformation** task.
2. Enter **WICT EIB demo Wellness** for the *Name*.
3. Click the **Select Files** button or drop the **5.Cdemo.xsl** file.
4. Click **OK** and **Done**.

TASK #3: CREATE EIB TO UPDATE WELLNESS DATA

1. Search for *Create EIB* and select **Create EIB** from the *Tasks* results.
2. Select ***Inbound*** and enter **WICT EIB Demo Wellness** for the Name.
3. Click **OK**.
4. Click **Next** to access the *Get Data* page and edit the *Data Source* section.
5. Enter the following:

Field	*Value*
Retrieval Method	SFTP
SFTP Address	{provided by instructor}
Directory	/home
Authentication Method	User Name / Password
User Id	{provided by instructor – NOT your tenant username}
New Password / Verify Password	{provided by instructor – NOT your tenant password}
File Name	**5.CdemoWellnessData.xml**

6. Save the section and edit the *Data Format* area.
7. Specify a **File Type** of **None**.
8. Save the section and click **Next** to access the *Transform* page.
9. Edit the Transform section.
10. Select a **Transformation Type** of **Custom Transformation**.
11. In the **Custom Transformation** field, enter the **WICT EIB Demo Wellness** that we attached previously.
12. Save the section and click **Next** to access the *Deliver* page.
13. Edit the *Deliver* section.
14. Select a **Delivery Method** of **Workday Web Service Operation**.
15. Use the **Workday Web Service Operation** prompt to select the **Put Worker Wellness Data (Web Service)**.

16. Click **Next** to review the summary and click **OK**.

TASK #4: TEST TRANSPORT AND LAUNCH EIB TO UPDATE EMPLOYEE WELLNESS DATA

1. From the EIB's **Related Actions**, select **Integration > Test Transport**.
2. Click **OK** to accept the default.
3. Select **Retrieve Files**.
4. Click **OK** and control the output.
5. Search for and select the **WICT EIB Demo Wellness** integration system.
6. From the **Related Actions**, select **Integration > Launch / Schedule.**
7. Click **OK** to accept *Run Now*.
8. Click **OK** to accept the default launch parameters and wait for completion.

TASK #5: SEE THE UPDATED WELLNESS DATA

1. Search and run the **Wellness Program** report.
2. For **Atlanta**, see that the value in the **Not Participating** column is now 0.
3. Click the value 4 in the 26-50 column to see **Anwar Devi**.
4. Click the value 4 in the 76-100 column to see **Jeremy Miller**.

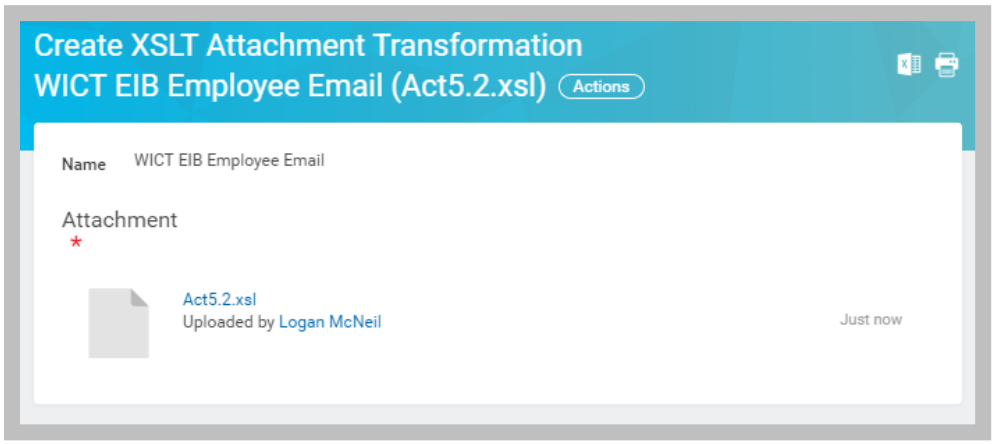
ACTIVITY 5.2 – INBOUND EIB USING WWS AND XSLT

Business Case: You will create a new EIB using the Maintain Contact Information Web Service and retrieve an external file from SFTP to provide the information.

- The file to be transformed is already on the SFTP server.
- The XSLT code to transform the file is in your class files.

TASK #1: CREATE XSLT ATTACHMENT

1. Sign in as Logan McNeil (lmcneil).
2. Search for *create xslt* and select the **Create XSLT Attachment Transformation** task.
3. Enter **WICT EIB Employee Email** for the *Name*.
4. Click the **Select Files** button or drop the **5.2activity.xsl** file.



126 - Create XSLT Attachment Transformation task

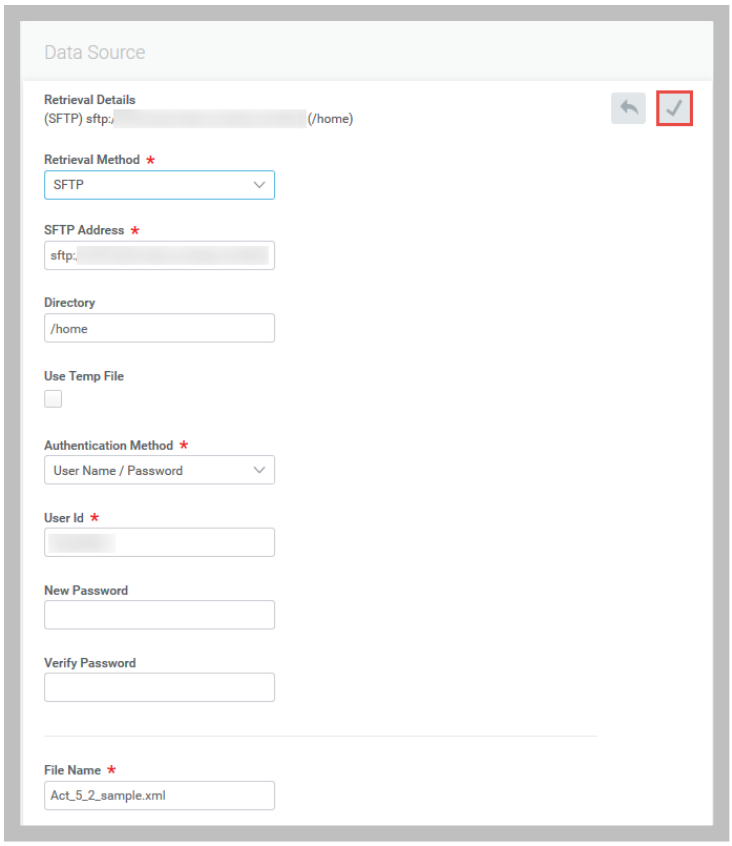
5. Click **OK** and **Done**.

TASK #2: CREATE EIB TO MAINTAIN CONTACT EMAILS

1. Search for *Create EIB* and select **Create EIB** from the *Tasks* results.
2. Select ***Inbound*** and enter **WICT EIB Employee Email** for the Name.
3. Click **OK**.
4. Click **Next** to access the *Get Data* page and edit the *Data Source* section.
5. Enter the following:

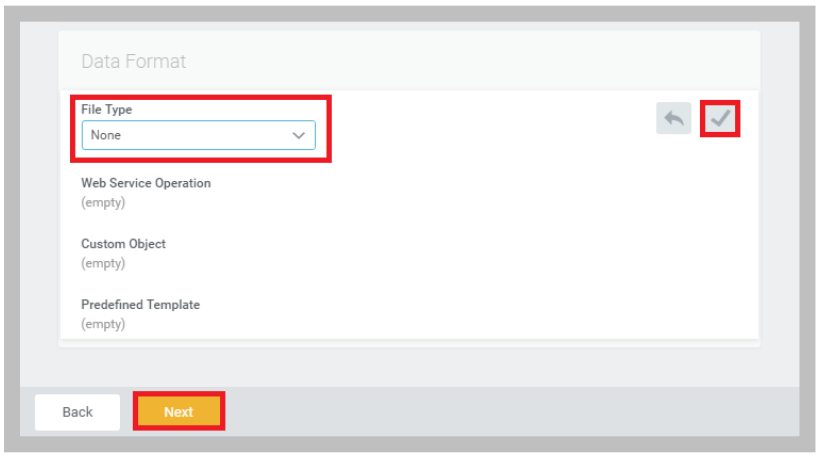
Field	*Value*
Retrieval Method	SFTP
SFTP Address	{provided by instructor}
Directory	/home
Authentication Method	User Name / Password
User Id	{provided by instructor – NOT your tenant username}
New Password / Verify Password	{provided by instructor – NOT your tenant password}
File Name	**5.2activityEmailList.xml**

6. Save the section.



127 - Data Source section

7. Edit the *Data Format* section.
8. Specify a **File Type** of **None**.
9. Save the section and click **Next** to access the *Transform* page.



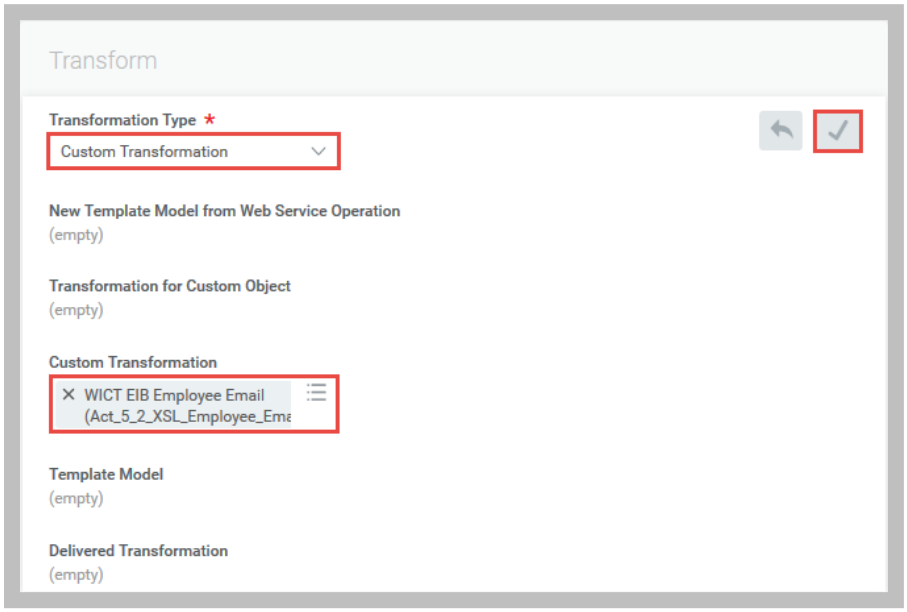
128 - Data Format section

10. Edit the Transform section.

11. Select a **Transformation Type** of **Custom Transformation**.

12. In the **Custom Transformation** field, enter the **WICT EIB Employee Email** that we attached previously.

13. Save the section and click **Next** to access the *Deliver* page.

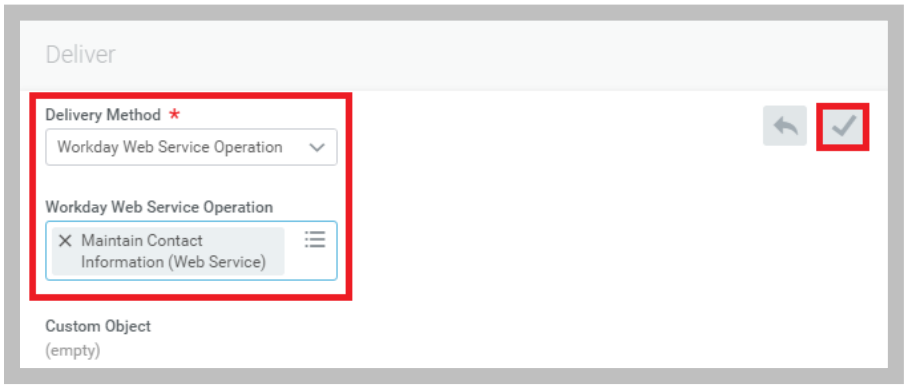


129 - Transform section

14. Edit the *Deliver* section.

15. Select a **Delivery Method** of **Workday Web Service Operation**.

16. Use the **Workday Web Service Operation** prompt to select the **Maintain Contact Information (Web Service)**.



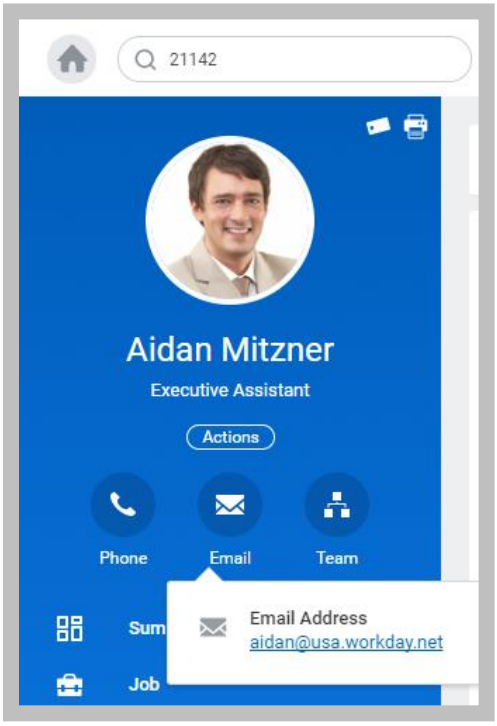
130 - Deliver section

17. Click **Next** to review the summary.

18. Click **OK**.

TASK #3: TEST TRANSPORT AND LAUNCH EIB TO UPDATE EMPLOYEE EMAILS

1. From the EIB's **Related Actions**, select **Integration > Test Transport**.
2. Click **OK** to accept the default.
3. Select **Retrieve Files**.
4. Click **OK** and control the output.
5. Search for and select the **WICT EIB Employee Email** integration system.
6. From the **Related Actions**, select **Integration > Launch / Schedule.**
7. Click **OK** to accept *Run Now*.
8. Click **OK** to accept the default launch parameters.
9. To verify the success of the integration, look up Employees **21142**, **21132** and **21019** in the tenant and view their contact information.



131 - Aidan Mitzner (21142) new email address

CHAPTER 6 – INBOUND EIB WITH TEMPLATES

OVERVIEW

To complement the standard Enterprise Interface Builder framework, Workday provides spreadsheet import templates that offer immediate business value by helping you upload data into Workday. You can generate templates directly in Workday.

OBJECTIVES

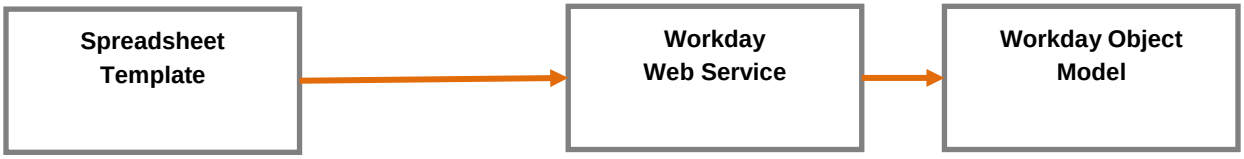
By the end of this chapter, you will be able to:

- Create an inbound EIB based on a web services spreadsheet template.
- Bulk load data into a Workday business process using EIB.

LOADING BULK DATA INTO WORKDAY USING EIB

An Inbound EIB spreadsheet template is based on a template model that defines the column information for an upload. To simplify data entry and streamline the upload process, you can edit the template model to fit your needs. For example, you can override column values, provide your own labels and cell comments, reorder worksheets, and hide unwanted items to customize the template for a specific purpose. Some web service operations support Template Generation with Data to simplify data entry.

132 - Inbound EIB schema



Inbound EIB provides an Excel front-end to Workday Web Services (WWS). While it makes it easier for non-technical users to load bulk data into Workday, it does not eliminate the complexity of the Object Model exposed by the WWS.

SPREADSHEET TEMPLATES

You must create a separate EIB integration for each version of a template model. Workday automatically creates a template model when you set up an EIB interface. View the template model and pay attention to the Pattern, as this indicates how the EIB is processed. You then generate a spreadsheet template, which is a blank spreadsheet used to populate data. Only users with View and Modify access to the **Integration Build** or **Integration Process** domains can access the **Generate Spreadsheet Template** task.

	A	B	C	D	E	F
1	Hire Employee					
2	Area	All			Applicant Data (All)	Name Detail Data (All > App
3	Restrictions	Required	Required	Required	Optional	Optional
4	Format	Text	Applicant_ID	Former_Worker_ID	Text	Text
5	Fields	Spreadsheet Key*	Applicant*	Former Worker*	Applicant ID	Formatted Name
6		1	A01388			
7		2	A01163			
8						

133 - Spreadsheet Template

CREATE INBOUND INTEGRATION SYSTEM

CREATE EIB

You use the same *Create EIB* task to build inbound EIBs. Selecting *Inbound* changes the three-step pattern of the wizard.

GET DATA

There are two areas that require input on the **Get Data** page of the wizard:

Data Source

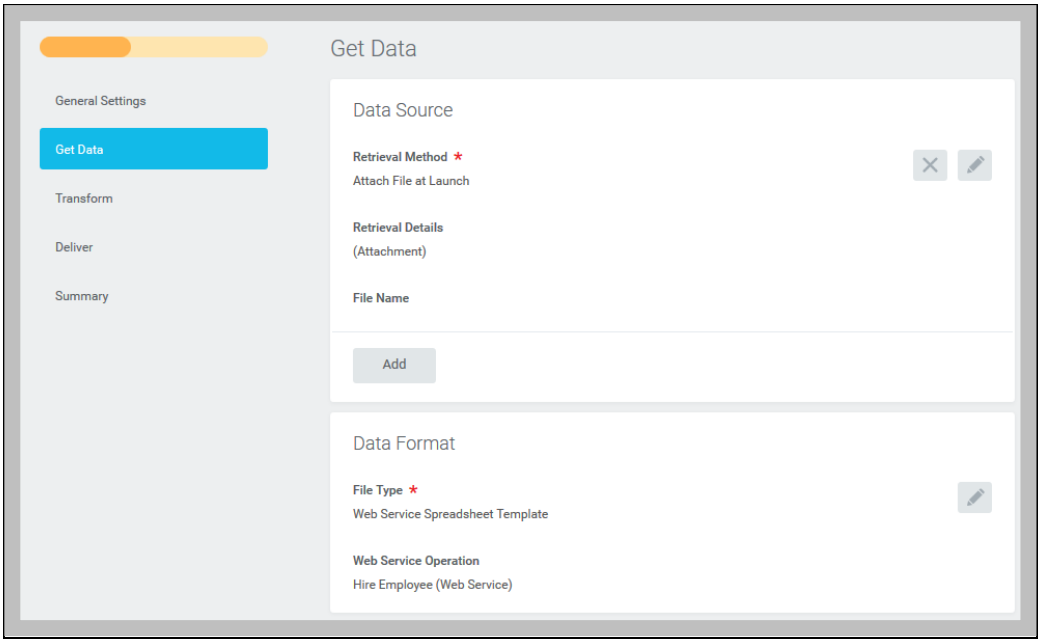
The.xml file that will load the data into Workday can be attached at launch or can be retrieved using different protocols: FTP/SSL; REST URL; SFTP. If using a pre-defined transport protocol, select *Use Existing Retrieval Method* and then identify the protocol in the Retrieval Details and File Name fields.

Data Format

The File Type will most often be *Web Service Spreadsheet Template*, which populates as the default value. You must edit the section to specify the *Web Service Operation* for which the template will be generated. If uploading data to a Custom Object, the selection should be *Custom Object Spreadsheet Template*.

Important: Inbound File size limits:

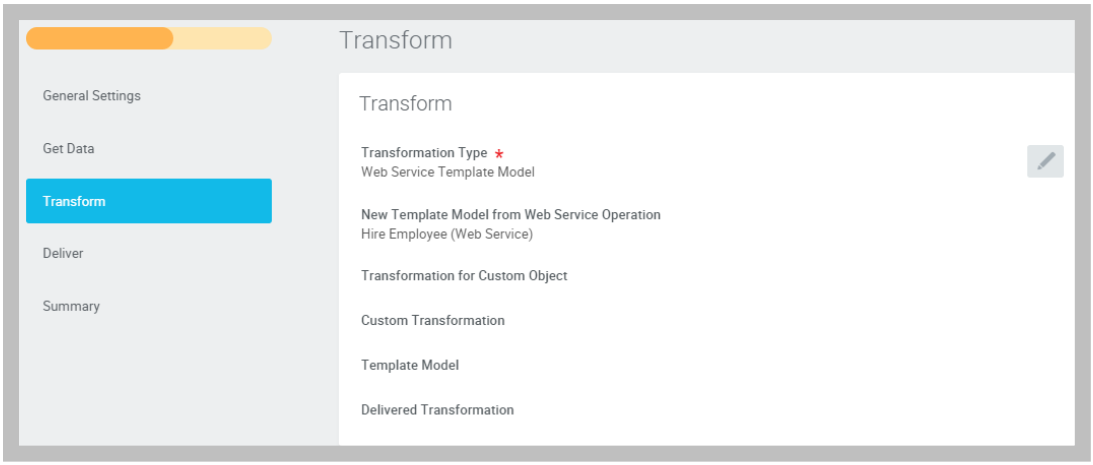
- Using secured FTP: 300 MB
- File attached at launch: 30 MB



134 - Get Data

TRANSFORM

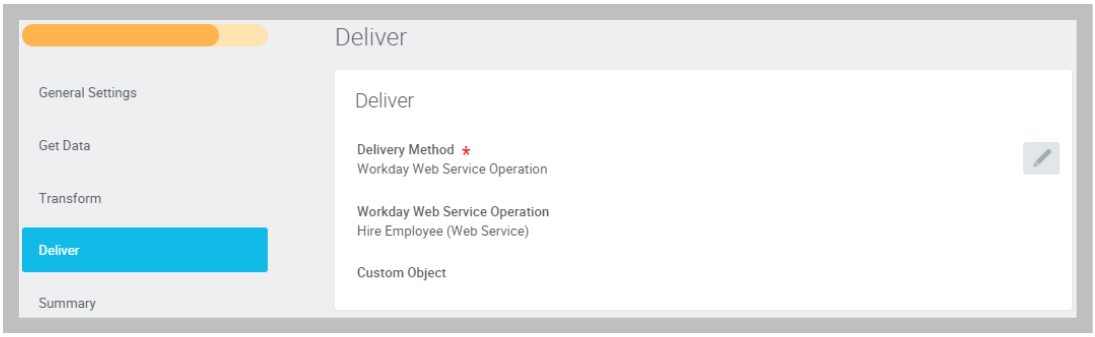
When loading data from a web service spreadsheet template, the *Transformation Type* will auto-populate.



135 - Transform

DELIVER

Every inbound EIB needs to know the *Workday Web Service Operation* or *Custom Object* for the delivery location for the integration system. If you selected "Web Service Spreadsheet Template" as your data format, this will automatically default.



136 - Deliver

DEMO 6.A – CREATE INBOUND EIB TO UPDATE EMAIL ADDRESSES

Introduction: In the last activity, we updated emails from a file provided by an external system. What if the new email was paper based. How could user key in multiple email updates without using the UI
We will create an EIB to update Workday using data from a Spreadsheet Template.

TASK #1: CREATE EIB

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select **Create EIB**.
3. Enter a *Name* of **WICT EIB Demo Change Email**.
4. Select the **Inbound** radio button
5. Click **OK**.
6. Click **Next**.
7. On the *Get Data* page, edit the **Data Format** area.
8. For the **Web Service Operation**, select **Maintain Contact Information (Web Service)**.
9. Save and click **Next**.
10. Accept the default values on the **Transform** page and click **Next**.
11. Accept the default values on the **Deliver** page and click **Next**.
12. Review the Summary and click **OK**.

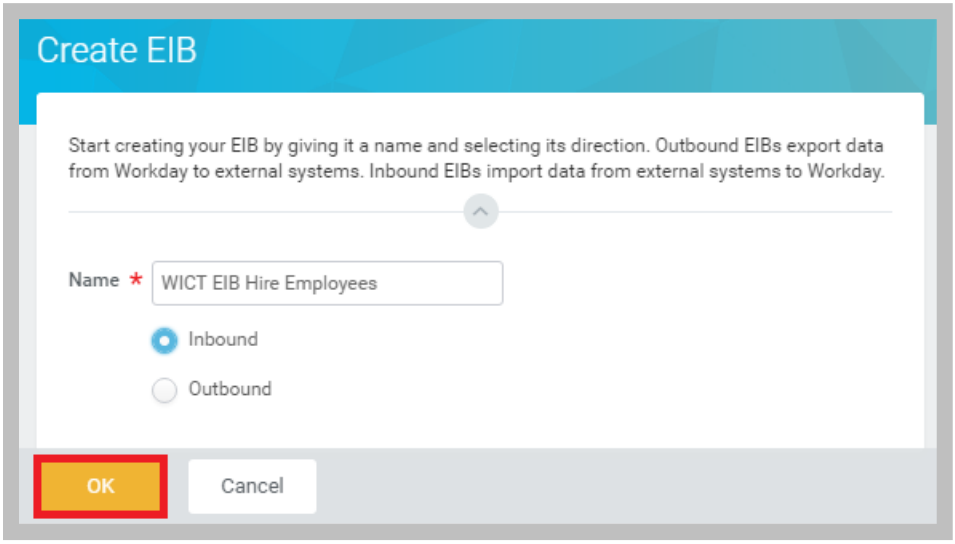
ACTIVITY 6.1 – CREATE EIB TO HIRE EMPLOYEES

Business Case: You have been asked to load a spreadsheet that contains new hires. You will create an inbound EIB using the "Hire Employee" web service operation.

- The template spreadsheet has already been generated and populated.
- There is no need to modify the default template for this EIB.

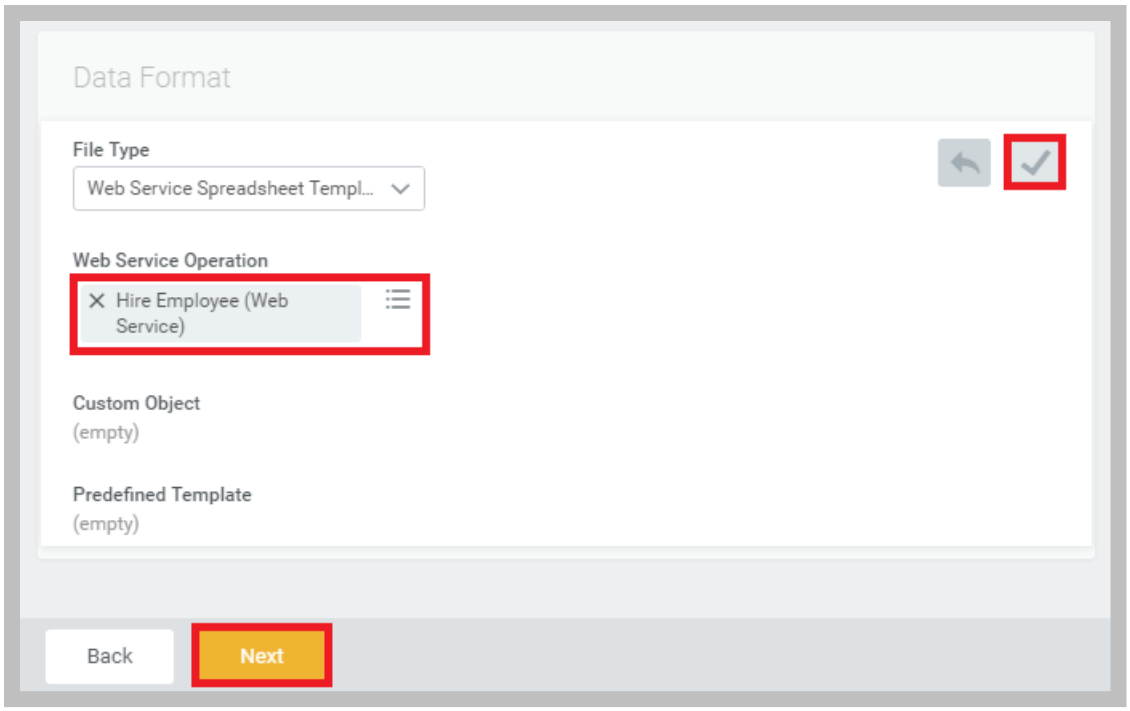
TASK #1: CREATE EIB.

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select **Create EIB**.
3. Enter a *Name* of **WICT EIB Hire Employees**.
4. Select the **Inbound** radio button and click **OK**.



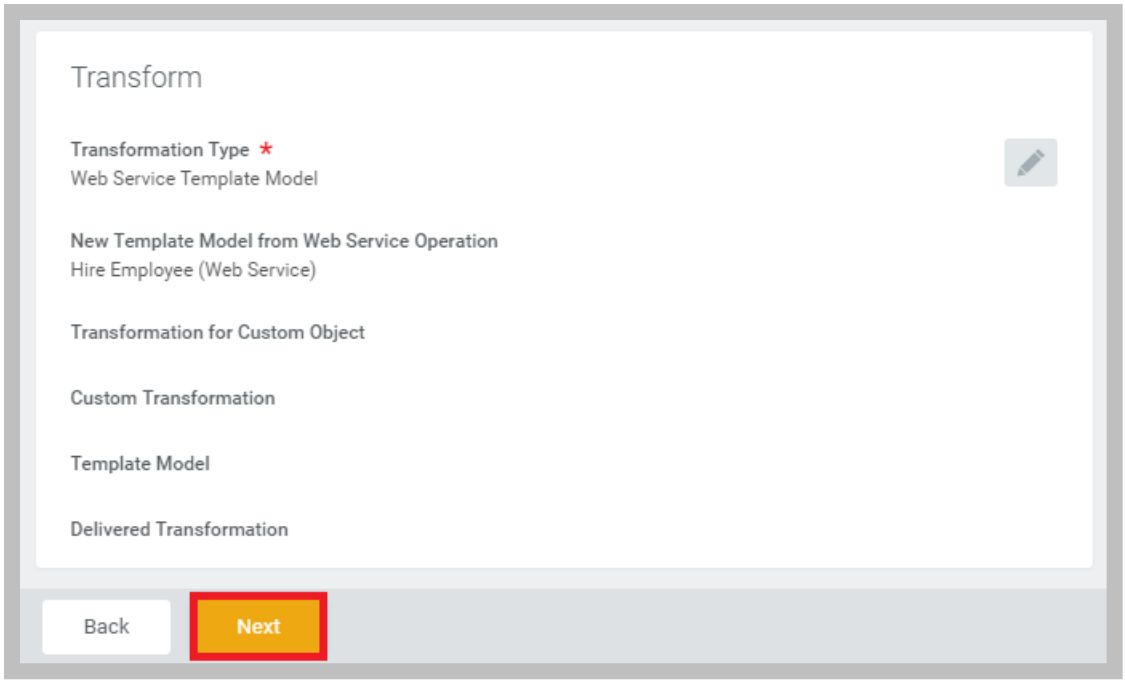
137 - Create EIB task

5. (Optional) In *General Settings, Edit* the *Description* section and enter a **Comment**.
6. Click **Next**.
7. On the *Get Data* page, edit the **Data Format** area.
8. For the **Web Service Operation**, select **Hire Employee (Web Service)**.
9. Save and click **Next**.



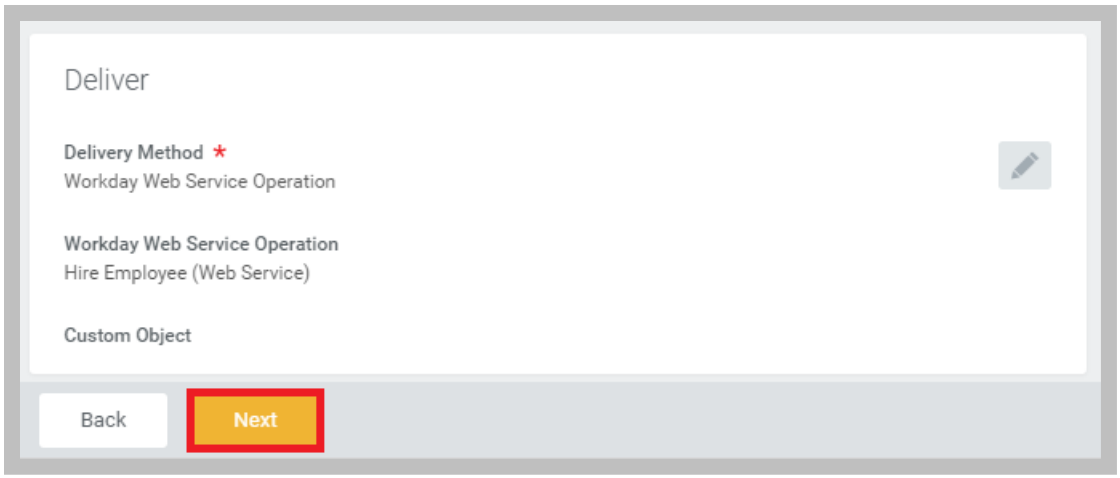
138 - Data Format area

10. Accept the default values on the **Transform** page and click **Next**.



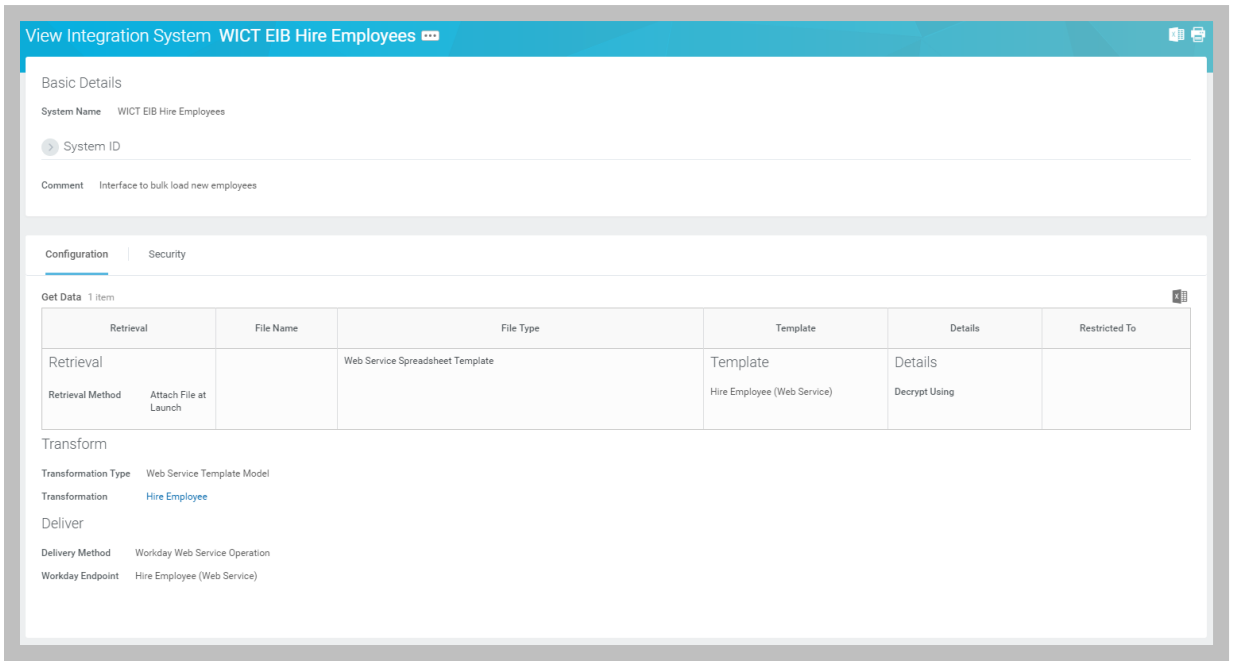
139 - Transform page

11. Accept the default values on the **Deliver** page and click **Next**.



140 - Deliver page

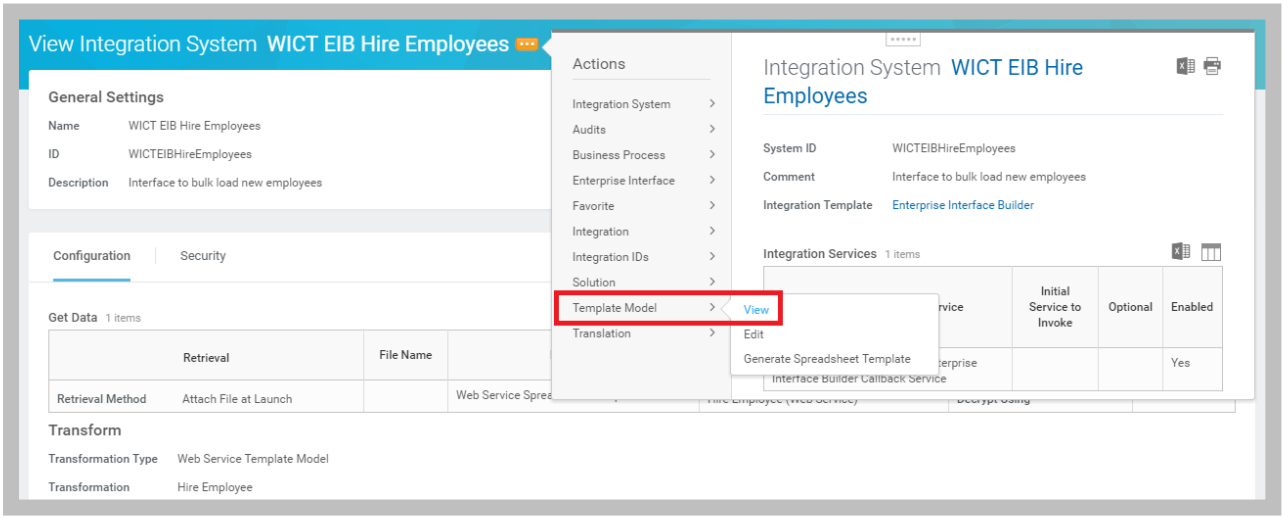
12. Review the Summary and click **OK**.



141 - View Integration System

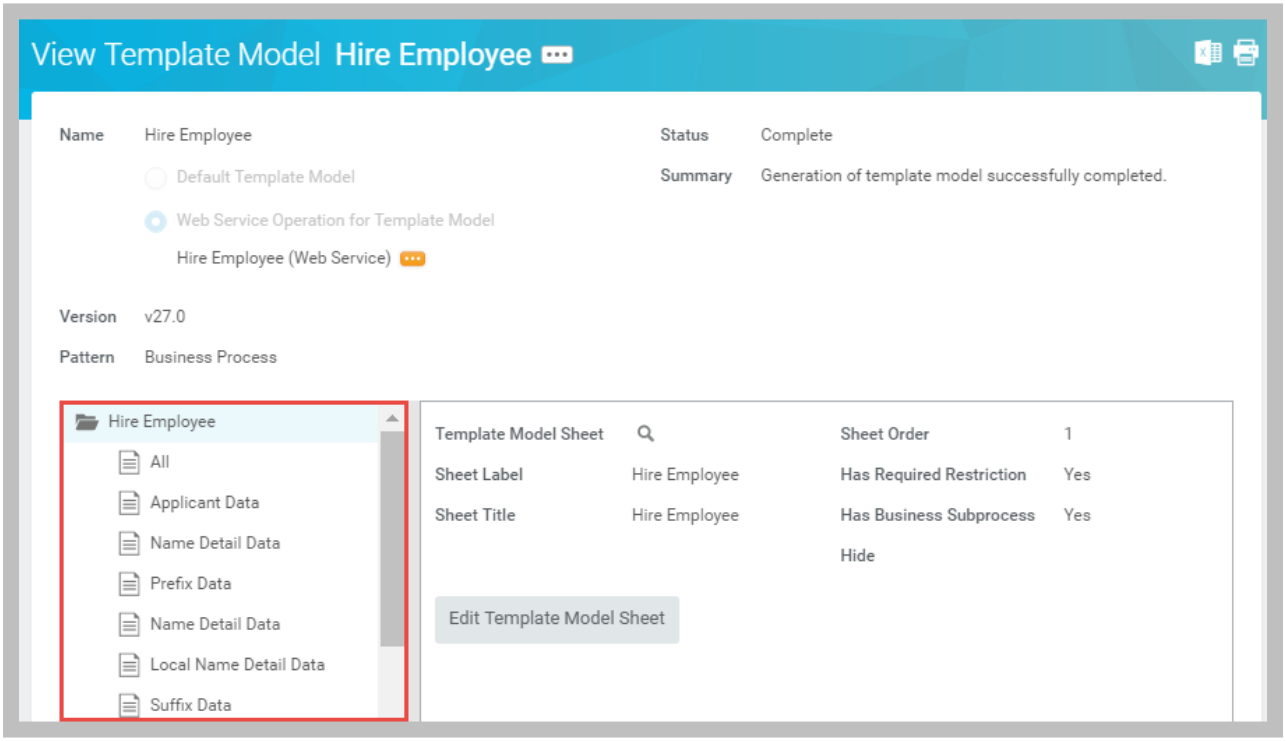
VIEW TEMPLATE MODEL

Each inbound EIB has a *Spreadsheet Template Model* based on its associated web service operation.



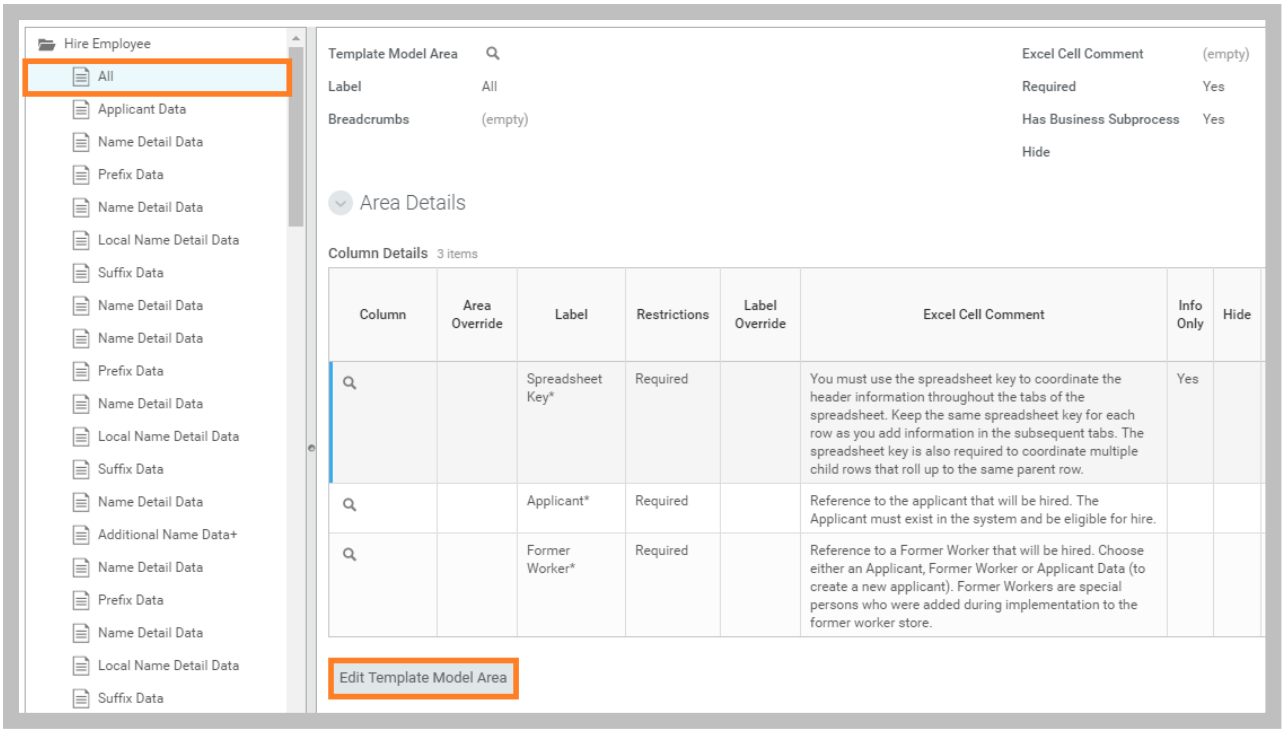
142 - View Template Model related action

There are three Template Model Pattern: Business Process, Data Load, and Web Service Background Process



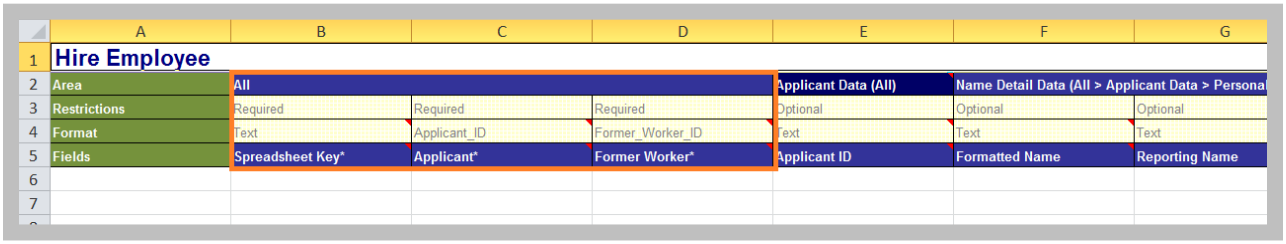
143 - View Template Model

The template model is organized into *Template Model Sheets* based on a Task or on a Business Process and its available Sub Business Processes. By expanding the folder(s) in the Spreadsheet Model, you can view the fields in each *Template Model Area*.



144 - View Template Model, Model Area

Areas and fields are organized in the default template based on how users interact with this data in the Workday UI tasks. You can edit how those fields will appear in the EIB spreadsheet by clicking on the *Edit Template Model Area* button.



145 - Spreadsheet Template

Whenever you are prompted for a value for a field while populating an action or task online, you will have to specify a Reference ID Type. This is a "lookup" field that must be populated with a valid Reference ID Value in the integration file.

	Optional	Optional	O
	General_Event_Subcategory_ID	Employee_Type_ID	Y
	Hire Reason	**Employee Type**	**Fi**
	Hire_Employee_New_Hire_Fill_Vacancy	Regular	
	Hire_Employee_New_Hire_Fill_Vacancy	Regular	

146 - Spreadsheet Template, Reference ID

INTEGRATION IDS

Workday uses "Integration IDs" as an umbrella term for all of the various object identifiers that can be used for integrations. Integration IDs include Workday ID (WID), Reference ID and External ID. **Reference IDs** are most often used to populate EIB spreadsheets.

Methods to locate the IDs needed for an inbound EIB consist of using Related Actions from objects in the user interface, and running the Integration ID or View Reference ID reports.

Workday ID

A globally unique identifier that Workday automatically generates on all object data. Workday IDs are 32-character, immutable strings. For example: b0685b69d8ac412582c0a44d7973f707.

WIDs are unique within each Workday environment, thus the same Workday object has different WIDs in your production, testing, and implementation tenants. Although the use of WIDs can prevent integrations from inadvertently running against the wrong environment, testing and migration of these integrations is more complex.

Reference ID

An optional, unique identifier that can be set externally or within Workday. Each instance of a business object can have one or more Reference IDs. All Reference IDs contain a "type" and a "value".

- The "type" defines the attribute that is being used as the unique identifier
- The "value" is the identifier itself

Reference IDs are only unique by type and value and can be shared between tenants. This allows you to build an integration in one environment and use the same IDs in production.

External ID

A two-part, unique identifier that is controlled by an external system. They require an "Integration System" together with an identifier value (e.g. Integration System = "Taleo" with ID = "A57987"). In prior updates, these IDs were referred to as "Integration IDs" but are now called "External IDs" for clarity.

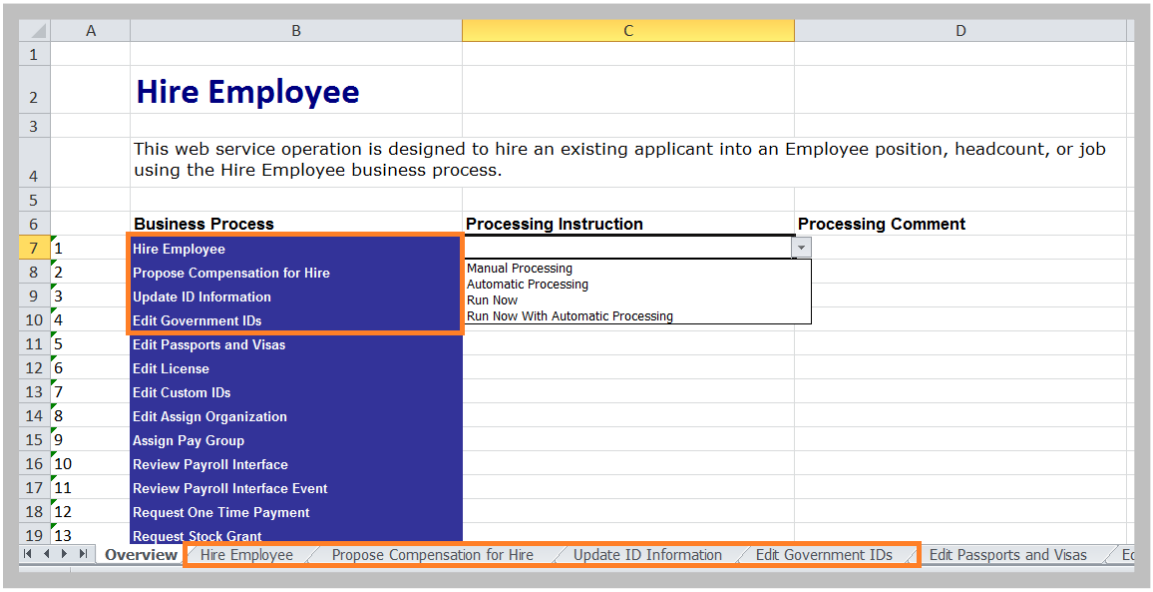
External IDs consist of:

- A System ID, which identifies an integration system in Workday. For example, SFDC is a System ID for a tenanted integration system between Workday and Salesforce.com.
- A value, which identifies a particular business object instance. For example, W-001 is the external ID value for the Western region instance of the sales organization.

Reserved System IDs are a special form of External ID that allows for backward compatibility with v1 and v2 Workday web service operations.

BUSINESS PROCESS GUIDELINES

When the template model pattern is *Business Process*, spreadsheets have separate tabs for the main business process and each supported sub process.



147 - Business Process pattern Spreadsheet Template

The following levels of workflow automation are available:

Full Automation

Import new hire data into Workday using EIB and select **automatic processing** to bypass To Do tasks, Notifications, and Approvals, and to automatically complete business process workflow.

Important: To fully automate the Hire Employee business process, all employees in a spreadsheet must have identical processing requirements. If some employees will skip a sub process and others will not, you must either perform separate spreadsheet uploads for each group or use partial automation.

Manual Processing

If you want business process participants to manually complete all Review, Approval and To Do steps and to receive Notifications, specify **manual processing** for the entire business process and either import all of your new hire data into Workday using the EIB upload process or provide partial data in the spreadsheet and have users enter the rest manually.

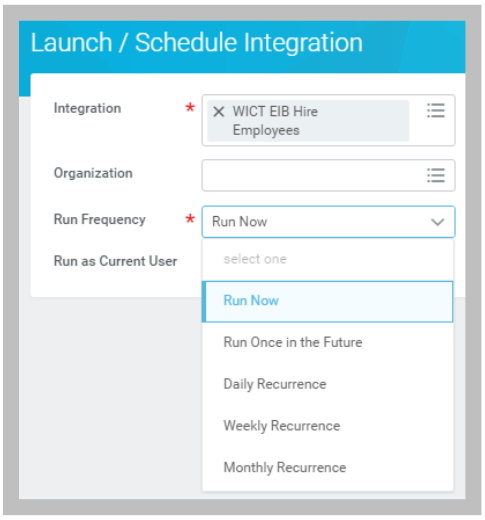
Important: When you select manual processing, any data uploaded from the spreadsheet will trigger workflow just as if the data had been entered online.

Partial Automation To require manual review and approval for some processes but not others, select a mix of automatic and manual processing options. For example, you might want to automate the Assign Organizations sub process while using approval workflow for the Propose Compensation for Hire sub process.

Option	Description
Manual Processing	Triggers review and approval workflow and includes all To Do tasks and Notifications defined for a process or subprocess. If you select this option for a subprocess, you can enter partial data in the corresponding spreadsheet section and enter the remaining information online, worker by worker. Important: Provide all required data for the main process, even when the automation level for this process is Manual. Only subprocess actions can include partial data.
Automatic Processing	Automatically completes workflow steps and bypasses To Do tasks, Notifications, and Approvals for a process or subprocess. If you select this option, enter data in all of the fields (columns) marked Required in the related worksheet. Note: The fields marked Required represent the minimum amount of data required to fully automate the business process; other fields may be required depending on your setup.
Run Now / Run Now With Automatic Processing	DEPRECATED (Main process only) Triggers immediate start of the business process with manual processing (Run Now) or automatic processing (Run Now With Automatic Processing). You should use this option only if you need each business process instance to complete before the EIB has finished loading. Note: Selecting this option will affect the performance of your EIB load; the load may take more time than expected.
Skip Processing when Step is marked Optional	(Subprocesses only) Bypasses a subprocess that is either defined as optional or not included in your business process configuration. You cannot Skip the main process. Important: If you select Skip, do not enter any information in the worksheet for this process.

LAUNCHING A TEMPLATE-BASED INBOUND EIB

To launch the integration, use the Related Action *Integration* > *Launch* /*Schedule*.



148 - Launch / Schedule Integration task

Note: Inbound EIBs are meant for small-scale, ad hoc, user-driven data loads, and do not currently support retrieving dynamic filenames. Scheduling these integrations to run recurrently not recommended.

If the *Get Data* section of your EIB is set to *Attach File at Launch*, you must create or select the integration attachment and decide whether to execute the integration live or in validation only mode.

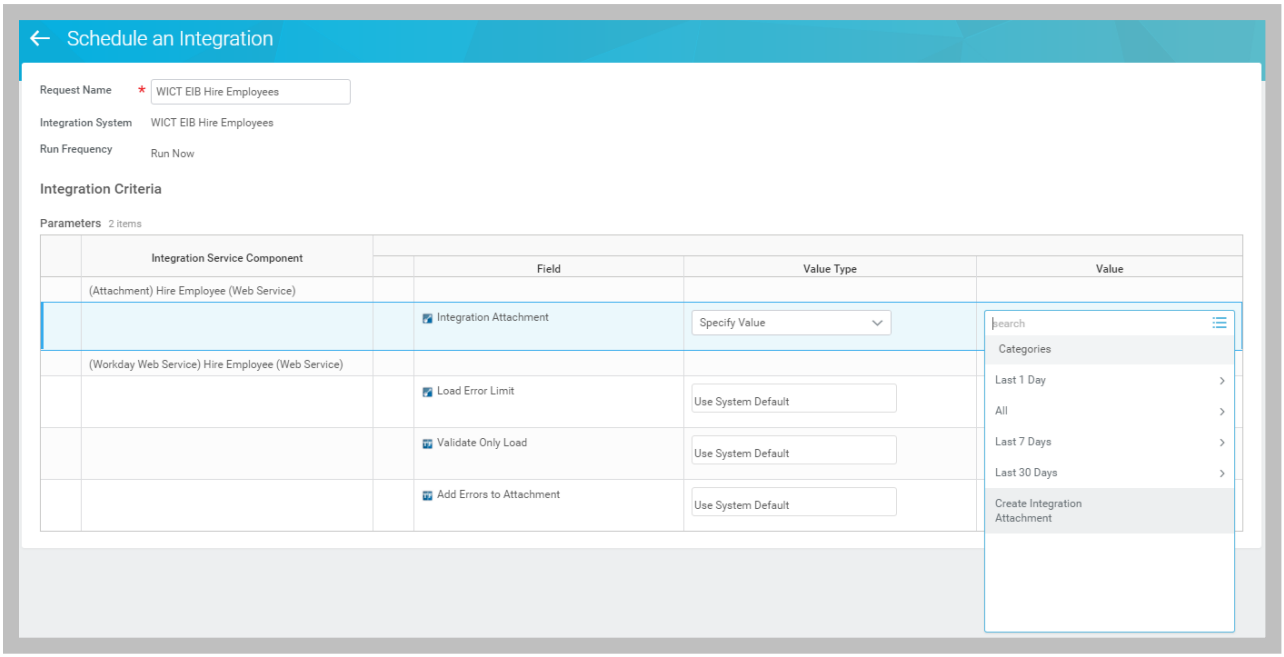
To improve availability of integration resources, Workday now limits the maximum size of inbound EIB spreadsheets. Any spreadsheet that exceeds **300 megabytes (MB)** will fail to load. However, there is a **30 MB limit for all attachments** in Workday, so you will need to use SFTP for inbound EIBs if loading large amounts of data in a spreadsheet.

LAUNCH PARAMETERS

Integration Attachment	Create an attachment object and upload your spreadsheet to it, or select one that was already created.
Load Error Limit	Specify an error limit for the upload process. You can select a value from 1 to 1000 or specify Unlimited. The process stops when it reaches the error limit. If you set the Value Type to Use System Default, the default error limit is 25.

Validate Only Load — If you want to validate your input data without performing an actual upload, select this check box to create a trial run so that you can correct any data errors.

Add Errors to Attachment — If you want Workday to write errors back to the spreadsheet for troubleshooting purposes, select this check box to create an attachment in the Integration Events report.

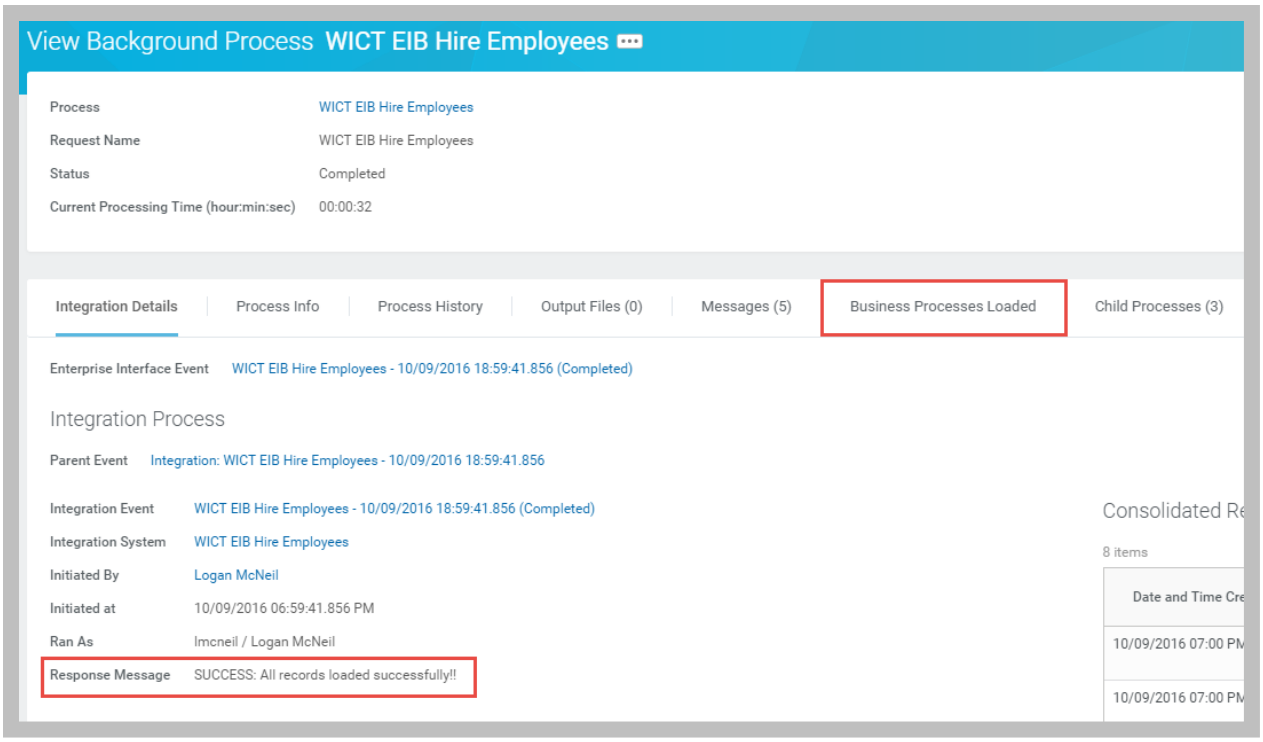


149 - Schedule an Integration, Create Integration Attachment

Note: The Edit Tenant Setup – System task allows you to limit the file types that you can upload into Workday.

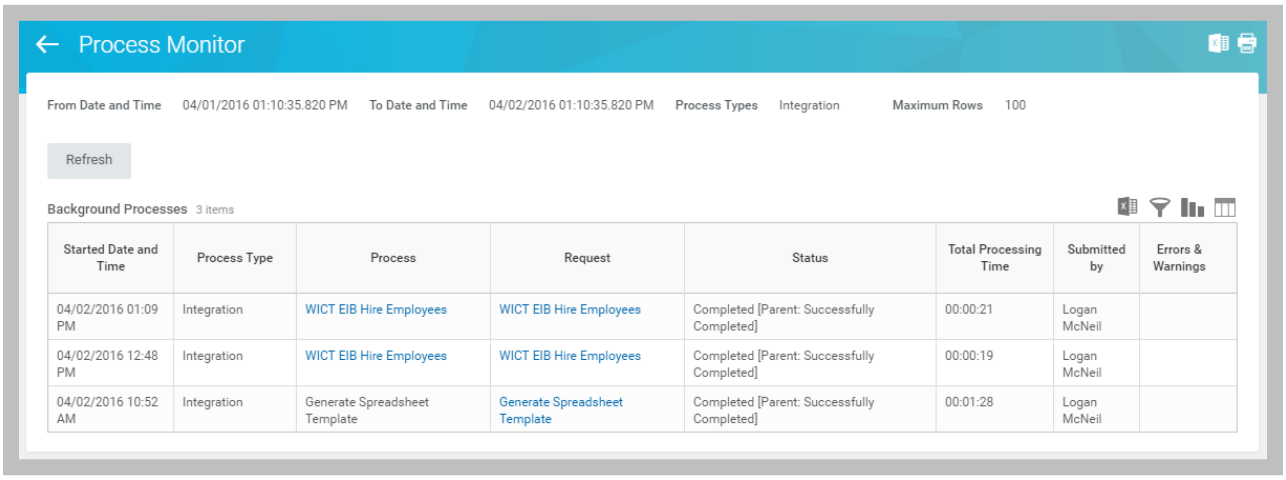
VIEW BACKGROUND PROCESS EVENT

When the Integration is complete, you can view the details of your process as well as any error attachment.



150 - **View Background Process, Business Processes Loaded tab**

The **Process Monitor** report can be used to examine the details of the integration event as well as any business processes triggered by the integration.



151 - **Process Monitor**

DEMO 6.B – CHANGE EMAILS USING INBOUND EIB WITH SPREADSHEET TEMPLATE

Introduction: We will now use the previously created EIB to update Workday with email address changes.

TASK #1: LAUNCH THE EIB

1. Search for *'WICT EIB'* and select **WICT EIB Demo Change Email**.
2. From the **Related Actions**, select **Integration > Launch/Schedule**.
3. Accept the default value of *Run Now* and click **OK**.
4. In the *Value* prompt for **Integration Attachment**, select *Create Integration Attachment*.
5. Click the **Select Files** button or drop the **6.BdemoMaintainEmails.xml**.
6. When uploaded, click **OK**.
7. In the *Value Type* column of **Validate Load Only**, select *Specify Value* then click the *Value* checkbox.
8. Click the *Value* checkbox for **Add Errors to Attachment**.
9. Click **OK** and **Refresh** the results on the Background Event page.
10. Once the EIB completes, review the *Execution Summary* to verify that all records were processed successfully in Validation Only Mode.

TASK #2: RE-LAUNCH THE INTEGRATION EVENT

1. From the **Related Actions** of the Background Process, select **Integration Event >Re-Launch Integration Event**.
2. Uncheck the value for the *Validate Only Load* criteria.

   Note: Since you know that your data is error-free, you can also uncheck the value for the *Add Errors to Attachment* criteria.
3. Click **OK** and **Refresh** for the results on the View Background Process page.
4. Once complete, select **Business Processes Loaded** to see the Contact Change for the two loaded employee's email addresses.

5. To verify the success of the integration, look up Employees 21120 and 21391 in the tenant and view their contact information.

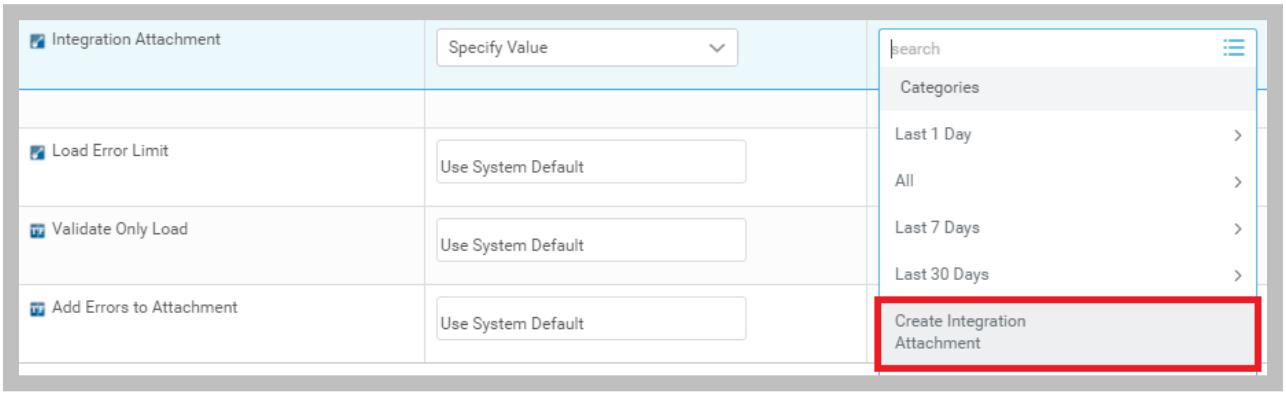
ACTIVITY 6.2 – HIRE EMPLOYEES WITH AN INBOUND EIB USING TEMPLATE

Business Case: You now need to launch the WICT EIB Hire Employees integration system and upload the Act6.2.Hire.Employee.xml template.

- First launch in Validate Only mode to capture any errors.
- Re-launch without validation mode selected and review the business events.
- Use the WDINST EIB IntNewHire report to confirm the new hires.

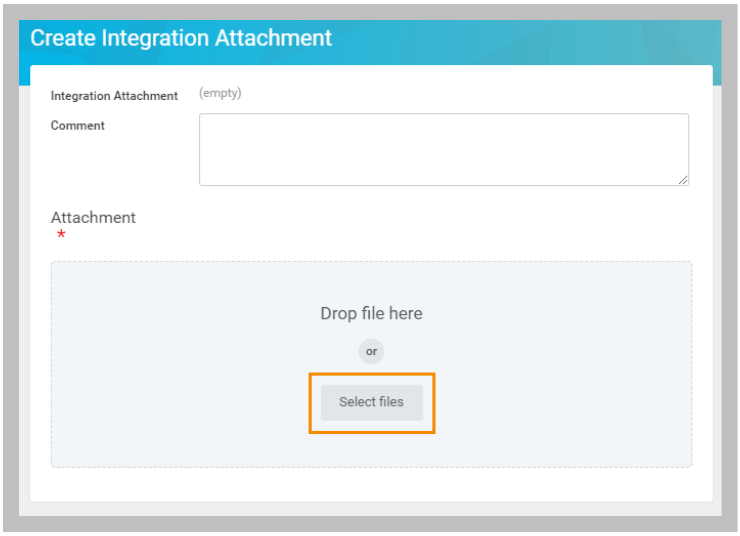
TASK #1: LAUNCH INTEGRATION SYSTEM

1. Sign in as Logan McNeil (lmcneil).
2. Search for *'WICT EIB'* and select **WICT EIB Hire Employees**.
3. From the **Related Actions**, select **Integration > Launch/Schedule**.
4. Accept the default value of *Run Now* and click **OK**.
5. In the *Value* prompt for **Integration Attachment**, select *Create Integration Attachment*.



152 - Create Integration Attachment prompt

6. Click the **Select Files** button or drop the **6.2activityHireEmployee.xml**.

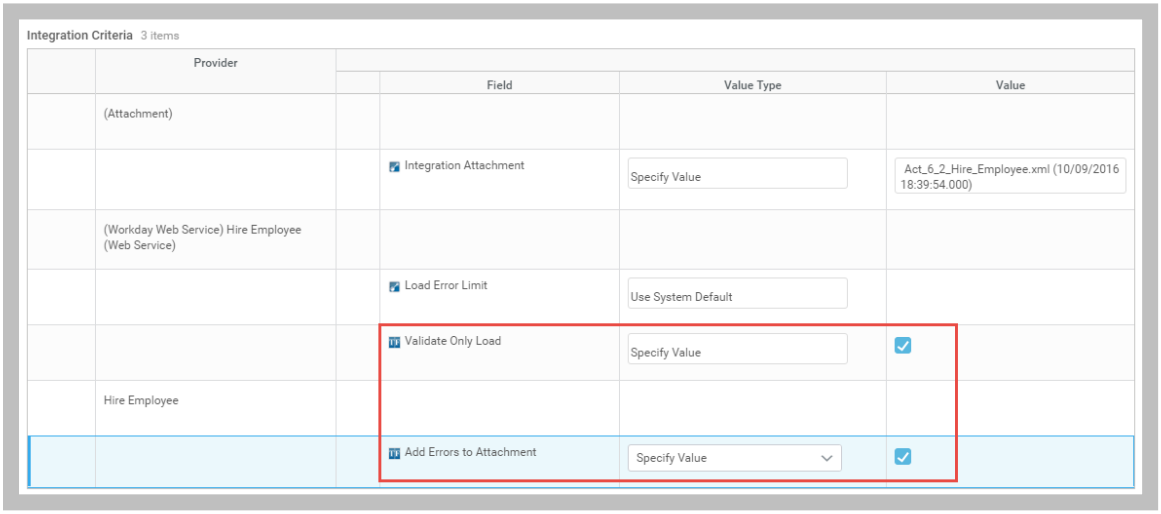


153 - Create Integration Attachment

7. When uploaded, click **OK** (this will bring you back to the *Schedule Integration* page).

8. In the *Value Type* column of **Validate Only Load**, select *Specify Value* then click the *Value* checkbox.

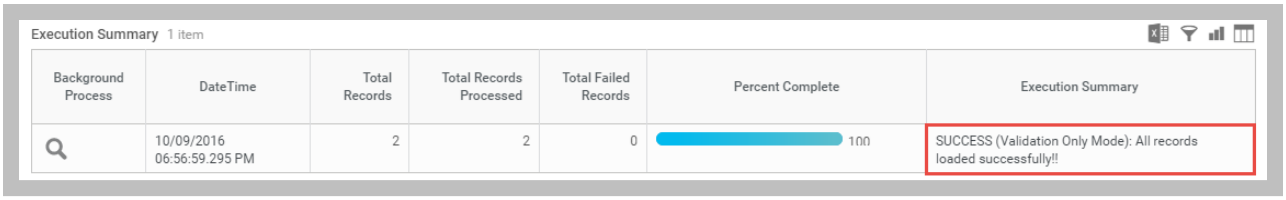
9. Click the *Value* checkbox for **Add Errors to Attachment**.



154 - Validate Only Load and Add Errors to Attachment

10. Click **OK** and **Refresh** the results on the Background Event page.

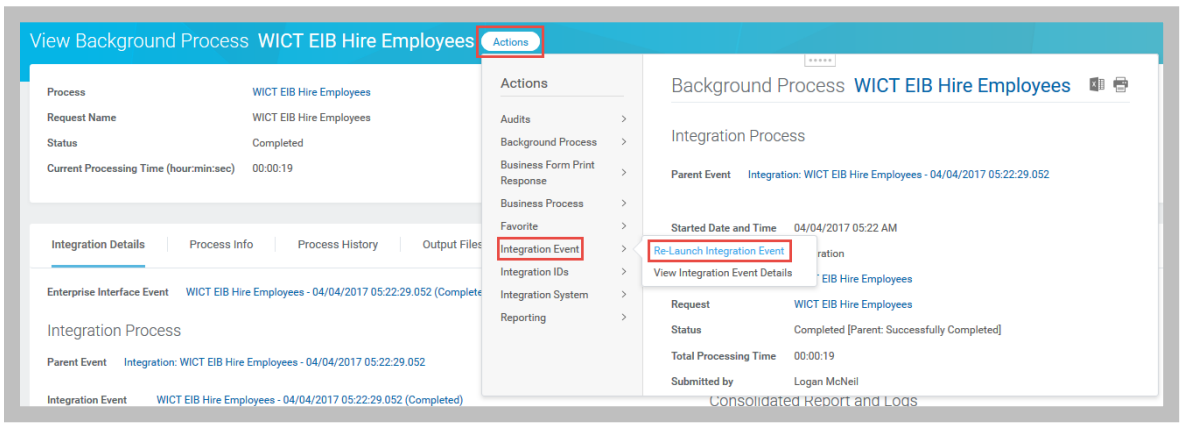
11. Once the EIB completes, review the *Execution Summary* to verify that all records were processed successfully in Validation Only Mode.



155 - Execution Summary

TASK #2: RE-LAUNCH THE INTEGRATION EVENT

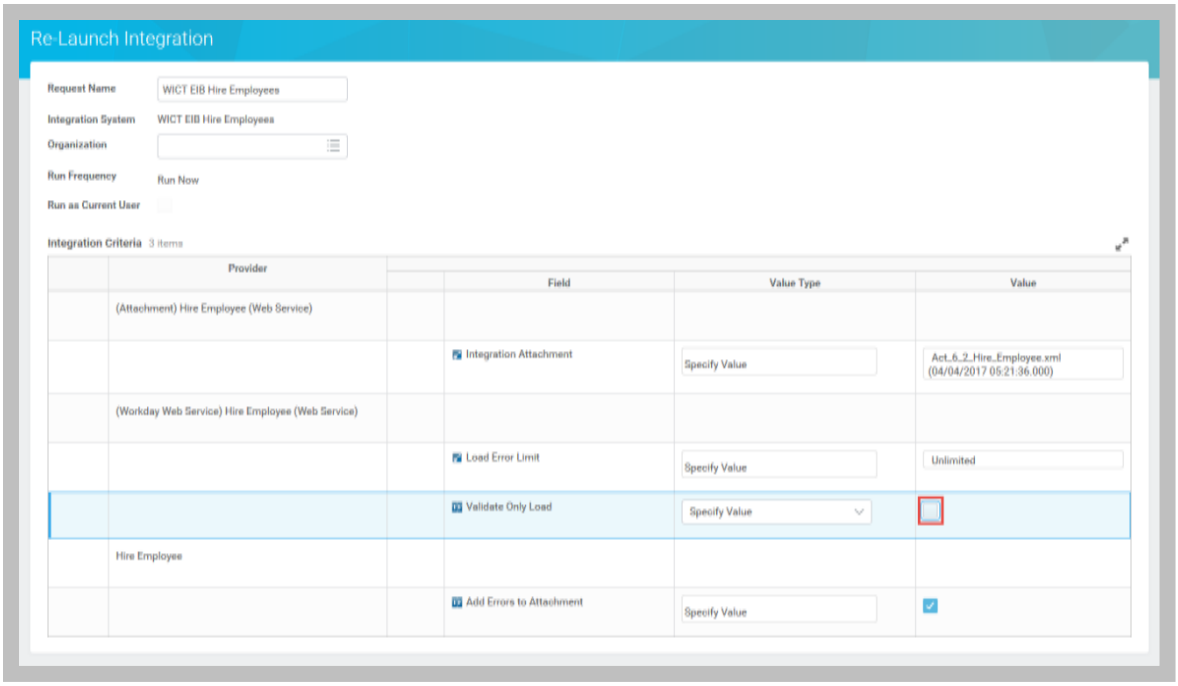
1. From the **Related Actions** of the Background Process, select **Integration Event >Re-Launch Integration Event**.



156 - Re-Launch Integration Event related action

2. Uncheck the value for the **Validate Only Load** criteria.

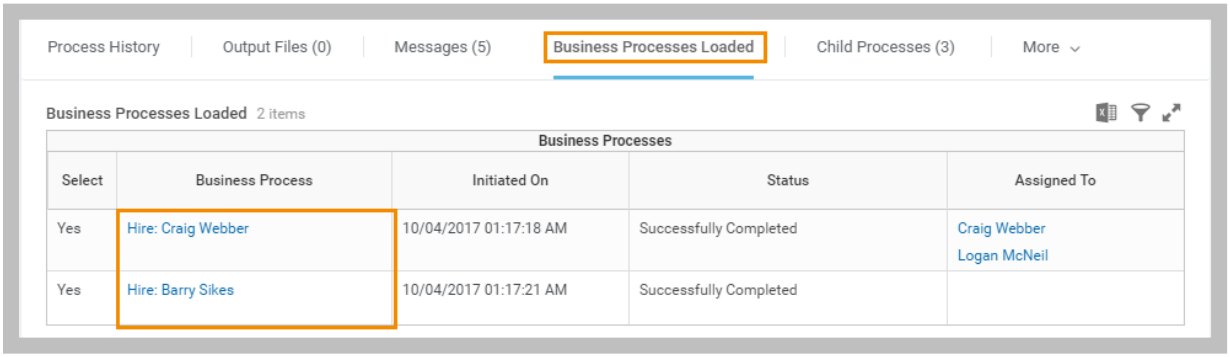
   Note: Since you know that your data is error-free, you can also uncheck the value for the *Add Errors to Attachment* criteria.



157 - Re-Launch Integration

3. Click **OK** and **Refresh** for the results on the View Background Process page.

4. Once complete, select **Business Processes Loaded** to see the Hire events for the two loaded employees.

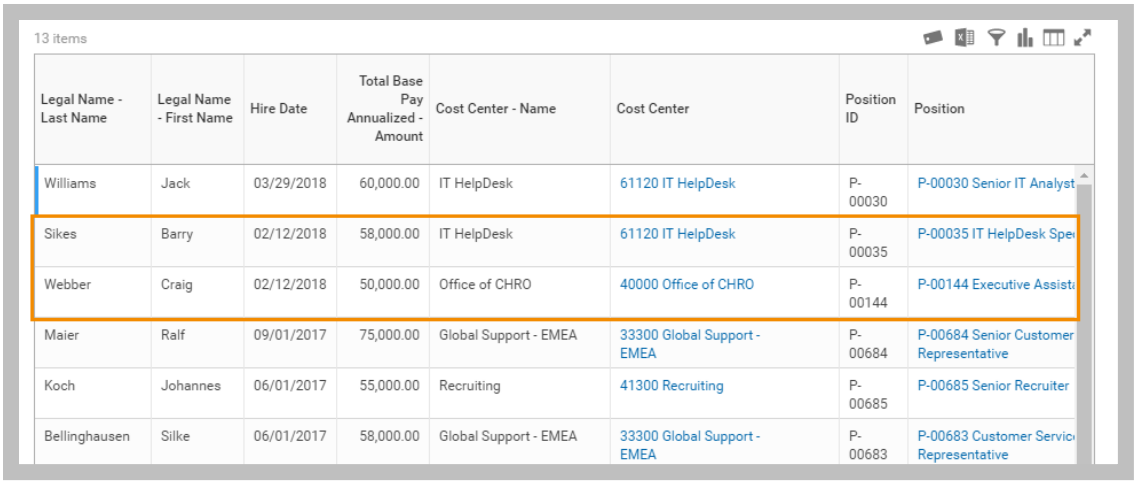


158 - Business Processes Loaded tab

TASK #3: VALIDATE RESULTS

1. Run the **WDINST EIB IntNewHire** report using 01/01/2017 as the starting date and today's date as the ending date.

2. Compare the results to the spreadsheet template data.

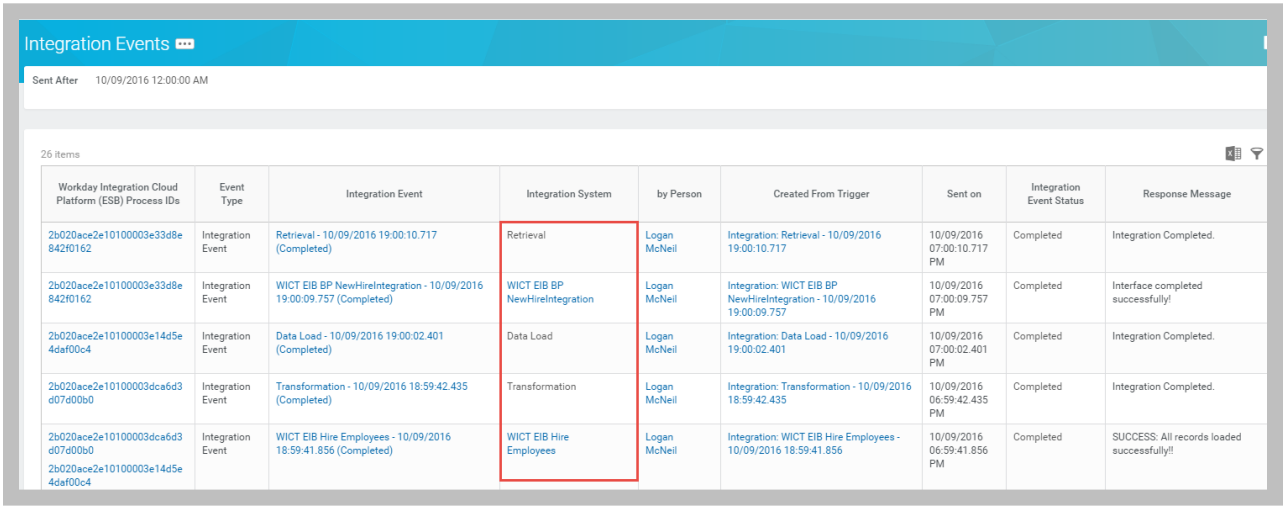


13 items

Legal Name - Last Name	Legal Name - First Name	Hire Date	Total Base Pay Annualized - Amount	Cost Center - Name	Cost Center	Position ID	Position
Williams	Jack	03/29/2018	60,000.00	IT HelpDesk	61120 IT HelpDesk	P-00030	P-00030 Senior IT Analyst
Sikes	Barry	02/12/2018	58,000.00	IT HelpDesk	61120 IT HelpDesk	P-00035	P-00035 IT HelpDesk Spe
Webber	Craig	02/12/2018	50,000.00	Office of CHRO	40000 Office of CHRO	P-00144	P-00144 Executive Assist
Maier	Ralf	09/01/2017	75,000.00	Global Support - EMEA	33300 Global Support - EMEA	P-00684	P-00684 Senior Customer Representative
Koch	Johannes	06/01/2017	55,000.00	Recruiting	41300 Recruiting	P-00685	P-00685 Senior Recruiter
Bellinghausen	Silke	06/01/2017	58,000.00	Global Support - EMEA	33300 Global Support - EMEA	P-00683	P-00683 Customer Servic Representative

159 - WDINST EIB IntNewHire report output

Tip: The *Integration Events* report provides many details on each component of an EIB. In this activity, the inbound EIB involved an internal transformation of the template data and a data load, which are treated as separate, sub-processes of the main integration event.
Also, note that one of the new employees was hired into the IT HelpDesk department, so our outbound integration was triggered. That event included a Retrieval sub-process, which executed the custom report data source.



Integration Events

Sent After 10/09/2016 12:00:00 AM

26 items

Workday Integration Cloud Platform (ESB) Process IDs	Event Type	Integration Event	Integration System	by Person	Created From Trigger	Sent on	Integration Event Status	Response Message
2b020ace2e10100003e33d8e842f0162	Integration Event	Retrieval - 10/09/2016 19:00:10.717 (Completed)	Retrieval	Logan McNeil	Integration: Retrieval - 10/09/2016 19:00:10.717	10/09/2016 07:00:10.717 PM	Completed	Integration Completed.
2b020ace2e10100003e33d8e842f0162	Integration Event	WICT EIB BP NewHireIntegration - 10/09/2016 19:00:09.757 (Completed)	WICT EIB BP NewHireIntegration	Logan McNeil	Integration: WICT EIB BP NewHireIntegration - 10/09/2016 19:00:09.757	10/09/2016 07:00:09.757 PM	Completed	Interface completed successfully!
2b020ace2e10100003e14d5e4daf00c4	Integration Event	Data Load - 10/09/2016 19:00:02.401 (Completed)	Data Load	Logan McNeil	Integration: Data Load - 10/09/2016 19:00:02.401	10/09/2016 07:00:02.401 PM	Completed	Integration Completed.
2b020ace2e10100003dca6d3d07d00b0	Integration Event	Transformation - 10/09/2016 18:59:42.435 (Completed)	Transformation	Logan McNeil	Integration: Transformation - 10/09/2016 18:59:42.435	10/09/2016 06:59:42.435 PM	Completed	Integration Completed.
2b020ace2e10100003dca6d3d07d00b0 2b020ace2e10100003e14d5e4daf00c4	Integration Event	WICT EIB Hire Employees - 10/09/2016 18:59:41.856 (Completed)	WICT EIB Hire Employees	Logan McNeil	Integration: WICT EIB Hire Employees - 10/09/2016 18:59:41.856	10/09/2016 06:59:41.856 PM	Completed	SUCCESS: All records loaded successfully!!

160 - Integration Events

Activity Complete

CHAPTER 7 – TROUBLESHOOTING INBOUND EIB

OVERVIEW

Despite the fact that EIB does not allow for custom validation or conditional logic, all data updates pass through web services and are subject to delivered Workday business rules. From validation modes through business process monitoring, Workday provides several tools to test and evaluate inbound data loads.

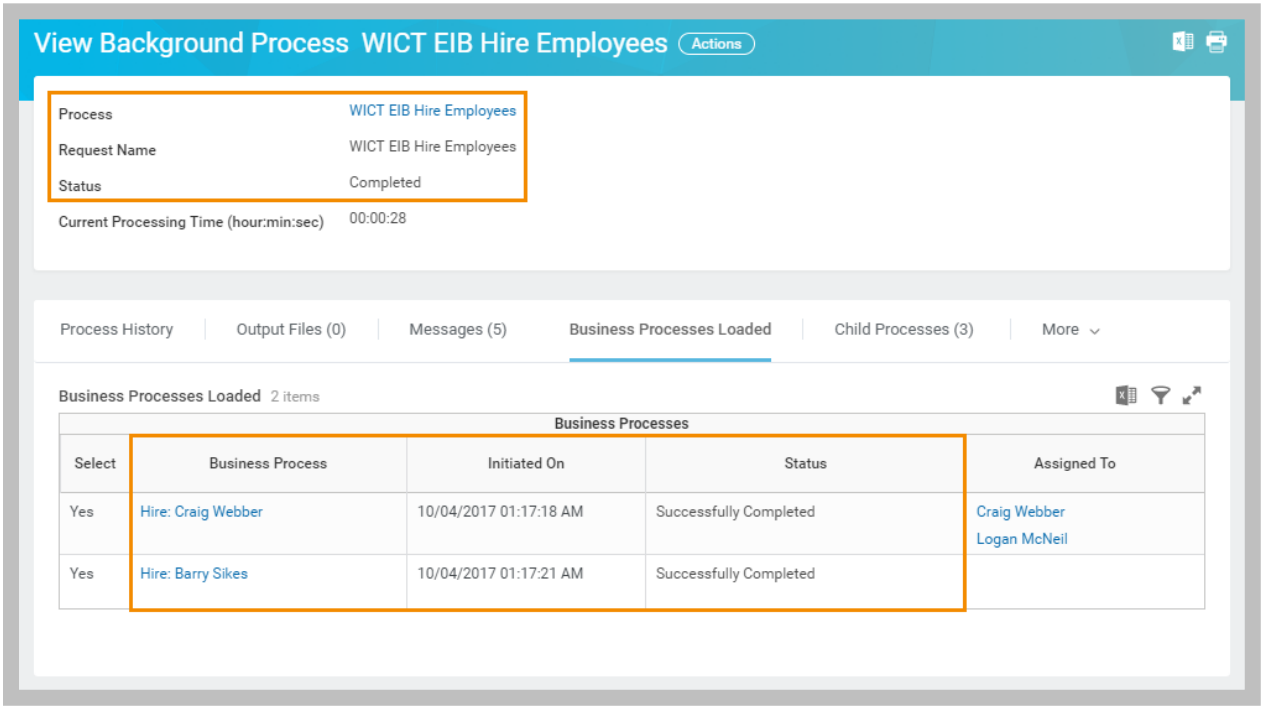
OBJECTIVES

By the end of this chapter, you will be able to:

- Define business process and integration status codes.
- Leverage failure reports and error attachments.
- Edit integration attachments to resubmit corrected data.

BUSINESS PROCESSES STATUS

When an integration event status is completed, you still want to verify the status of any **Business Processes Loaded** during the event. To view this tab in the Integration Event, you must be a member of a security group that has access to the *Integration Process* domain.



161 - View Background Process, Business Processes Loaded tab

Note: In Workday, the completion step of a Business Process may not be the last step. The Assign to column contains the names of the users to whom the next step is assign.

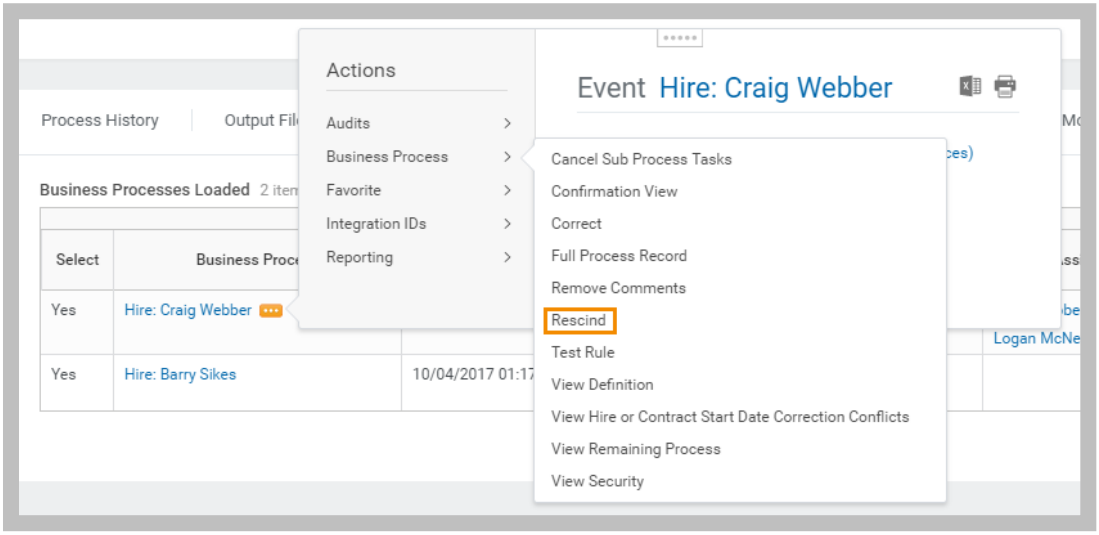
MANAGING BUSINESS PROCESSES

You can *Cancel* or *Rescind* business processes triggered by an EIB integration when you need to undo the results of an upload. The reasons for this action might be:

- The business processes completed with errors due to incorrect data.
- Steps in your business process configuration were missing or incorrect.

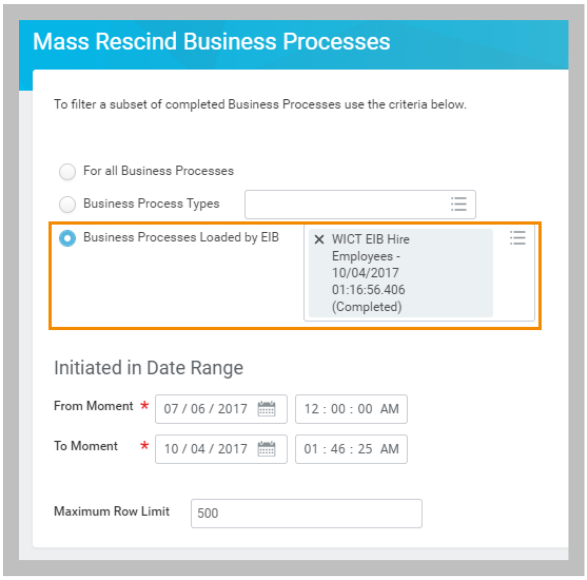
Cancellation is allowed for business processes that are in progress, while rescind applies to business processes that are past the completion step.

You can cancel or rescind by using the Related Actions of the business process to view the Business Process possible actions.



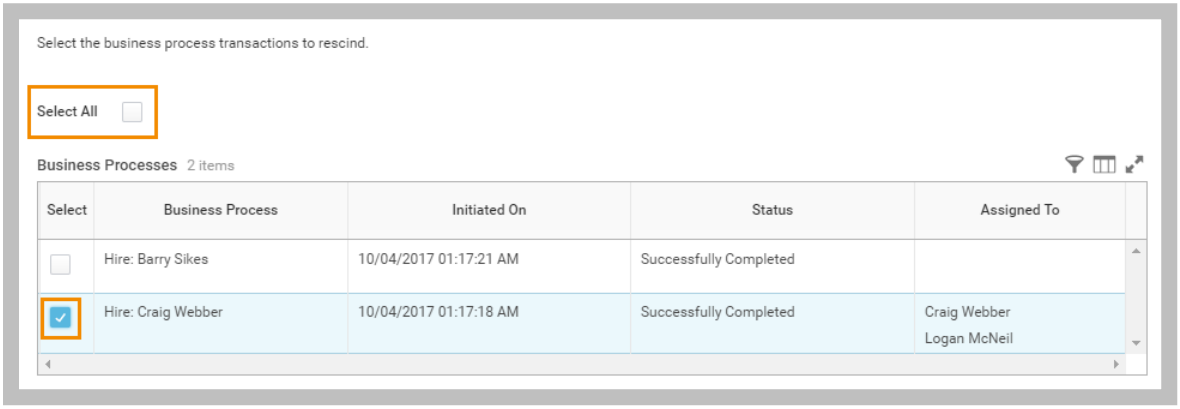
162 - Rescind Business Process related action

You can also mass rescind EIB loads by using the **Mass Rescind Business Processes** task with the *Business Processes Loaded by EIB* option.



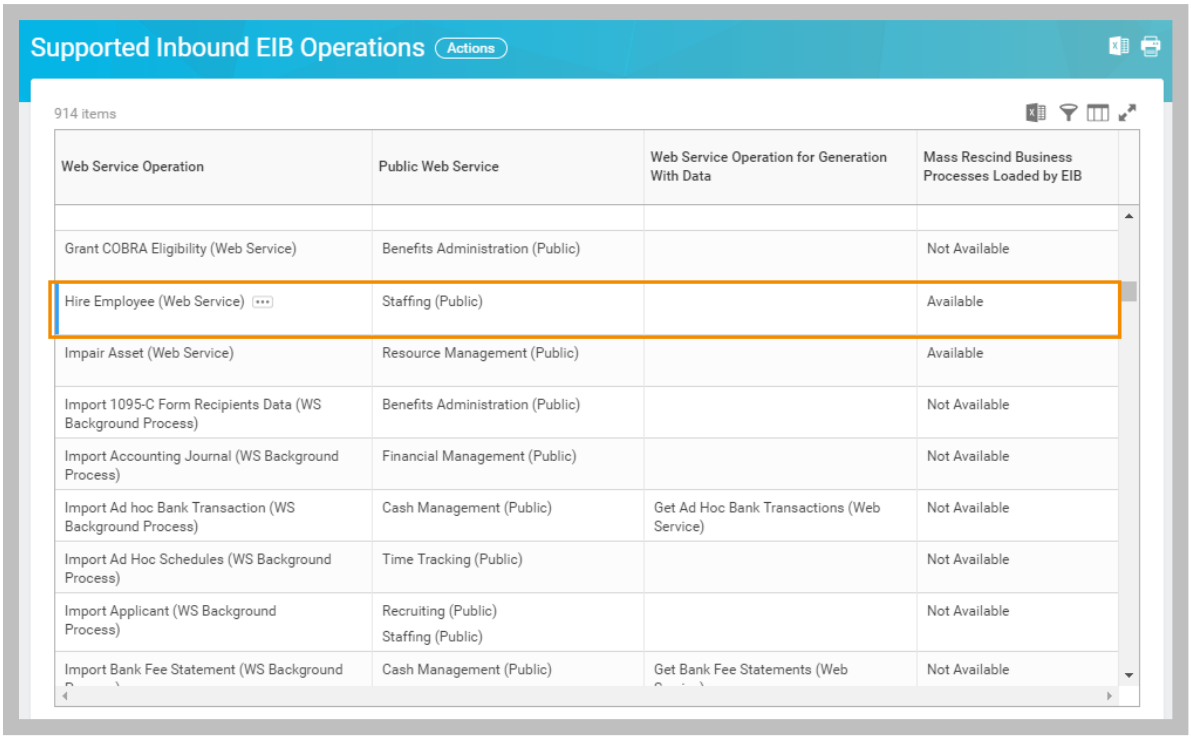
163 - Mass Rescind Business Processes task, prompt

After submitting your selection criteria, you can choose which business process events to rescind.



164 - Mass Rescind Business Processes task

The **Supported Inbound EIB Operations** report identifies the web service operations that support the ability to mass rescind business process loaded by EIB.



165 – Supported Mass Rescind Business Process Loaded By EIB

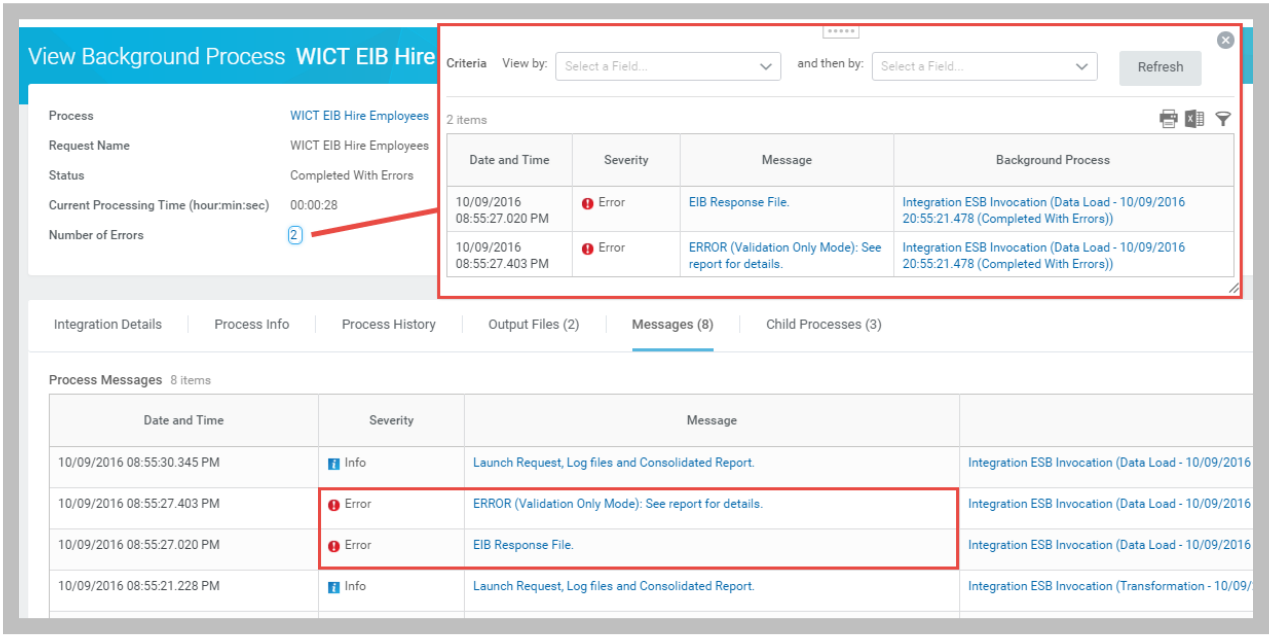
INTEGRATION ERROR HANDLING

Understanding the way Workday handles integration errors allows you to troubleshoot problems more easily. Always check the status of an integration event by accessing the **Process Monitor** or **Integration Event**.

EVENT STATUS

Status	Reason
Initiated	Request is queued and not yet being processed.
Aborted	An integration administrator stopped the integration event.
Completed	The background process completed with no warning or error messages.
Completed with errors	The background process completed with 1 or more error messages, but no critical messages.
Completed with warnings	The background process completed with 1 or more warning messages, but no critical or error messages.
Failed	The background process had an unrecoverable critical error that caused it to abort.
Not Run due to Exceptions on Process Definition	The background process couldn't be run because the EIB or schedule owner has insufficient security. This status applies only to Enterprise Interface Builder (EIB) integrations.
Processing	The background process is running.

View the **Messages** tab and/or drill down on the **Number of Errors** value to see the details of any exceptions.



166 - Messages tab and Number of Errors drill down

MESSAGE SEVERITY

Severity	Message Example	Processing Behavior	Integration Event Status
INFO	Initiated process	Processing continues	Completed
WARNING	Ann Smith has missing or invalid data. The value 1223-456-78910 is too long for “Phone Number” and will be truncated in the output. Phone Number should have length equal to or shorter than 12.	Processing continues	Completed with Warnings

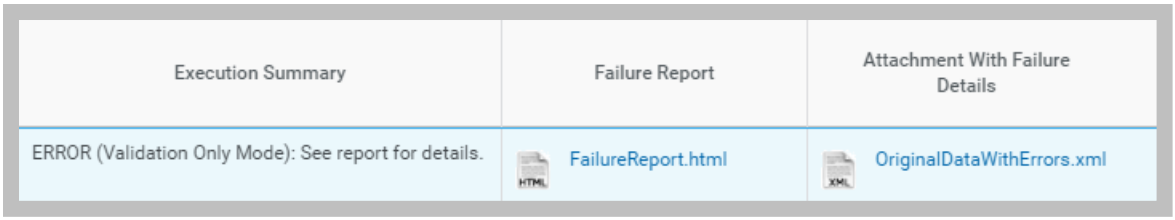
ERROR	Errors during data load. See report for details.	Processing continues unless the error threshold has been met.	Completed with Errors
CRITICAL	Unable to complete integration processing.	Processing stops.	Failed

An integration event can generate up to 500 error messages before processing stops. Although warnings do not affect integration processing, the number of warnings is limited to 500 at which time a final warning is issued. Workday processes inbound and outbound integrations differently when errors occur.

Workday processes the entire batch of transactions in **inbound** integrations. If an error occurs, Workday generates an error message, skips the transaction that caused the error, and continues to process the other transactions in the batch. Transactions without errors execute successfully.

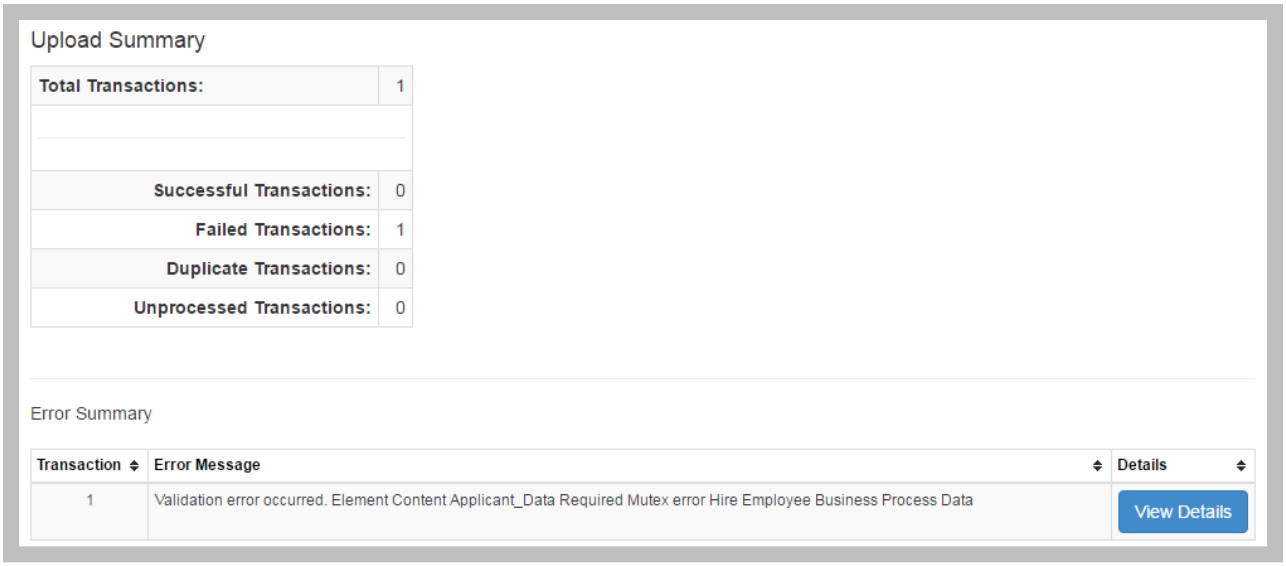
When an error occurs in an **outbound** integration, Workday does not transmit any data but fully processes the file to produce a comprehensive failure report.

FAILURE REPORTS



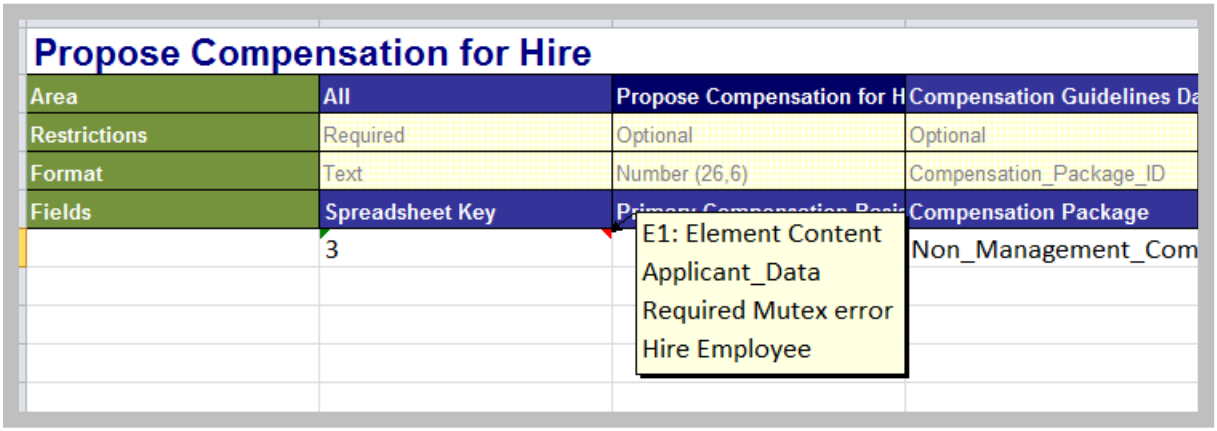
167 - Failure Reports

The **Failure Report** is an HTML page that describes any exceptions encountered during the EIB run.



168 - Failure Report

If *Add Errors to Attachment* was checked for an inbound EIB request, the **Attachment With Failure Details** column includes a copy of the file with embedded comments on the transactions with exceptions.



169 - Original Data With Errors file

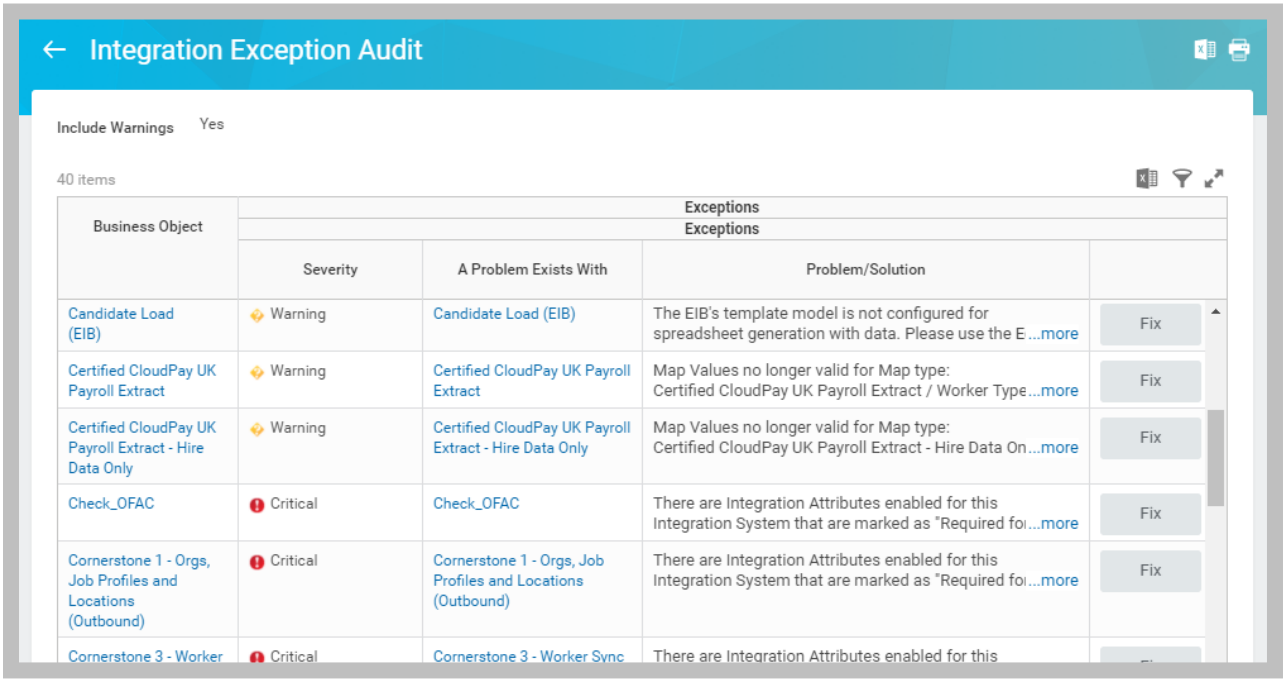
Important: Workday keeps following troubleshooting files for 60 days

- ErrorsAndWarningsSpreadsheet.xml
- FailureReport.html
- OriginalDataWithErrors.xml

INTEGRATION EXCEPTION REPORTS

INTEGRATION EXCEPTION AUDIT

This report summarizes critical errors and warnings by integration system and provides suggestions to help you resolve each problem. Workday does not prevent you from launching an integration with exceptions, but you can avoid integration failure by viewing the exception audit to identify issues and take action.
The Fix button in the report may automatically fix the exception or it will help you access the area which is the source of the exception.

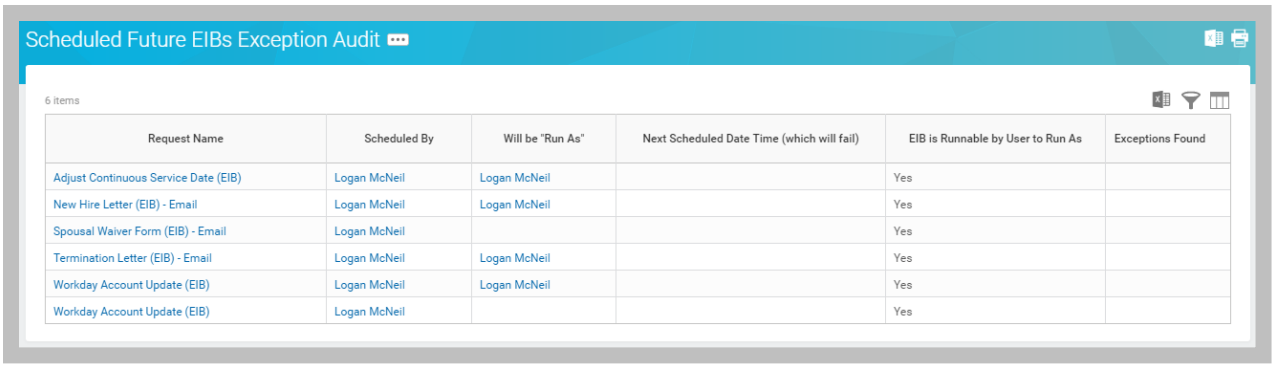


170 - Integration Exception Audit

SCHEDULED FUTURE EIBS EXCEPTION AUDIT

This report identifies two types of security-related exceptions:

- **EIBs that cannot be launched by the scheduled user due to insufficient security:**
  Resolve the exception by modifying the current user's security permissions, or transferring ownership to another user.
- **EIBs that cannot be triggered by workflow steps in business process definitions due to insufficient user security:**
  Either modify the security for the user specified in the workflow step, or edit the business process definition to assign a different user to the step.

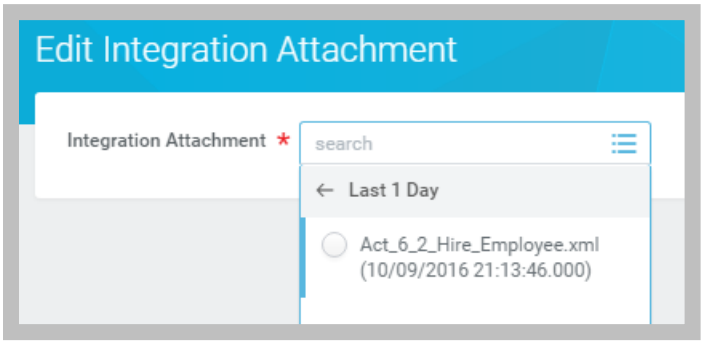


Request Name	Scheduled By	Will be "Run As"	Next Scheduled Date Time (which will fail)	EIB is Runnable by User to Run As	Exceptions Found
Adjust Continuous Service Date (EIB)	Logan McNeil	Logan McNeil		Yes	
New Hire Letter (EIB) - Email	Logan McNeil	Logan McNeil		Yes	
Spousal Waiver Form (EIB) - Email	Logan McNeil			Yes	
Termination Letter (EIB) - Email	Logan McNeil	Logan McNeil		Yes	
Workday Account Update (EIB)	Logan McNeil	Logan McNeil		Yes	
Workday Account Update (EIB)	Logan McNeil			Yes	

171 - Scheduled Future EIBs Exception Audit

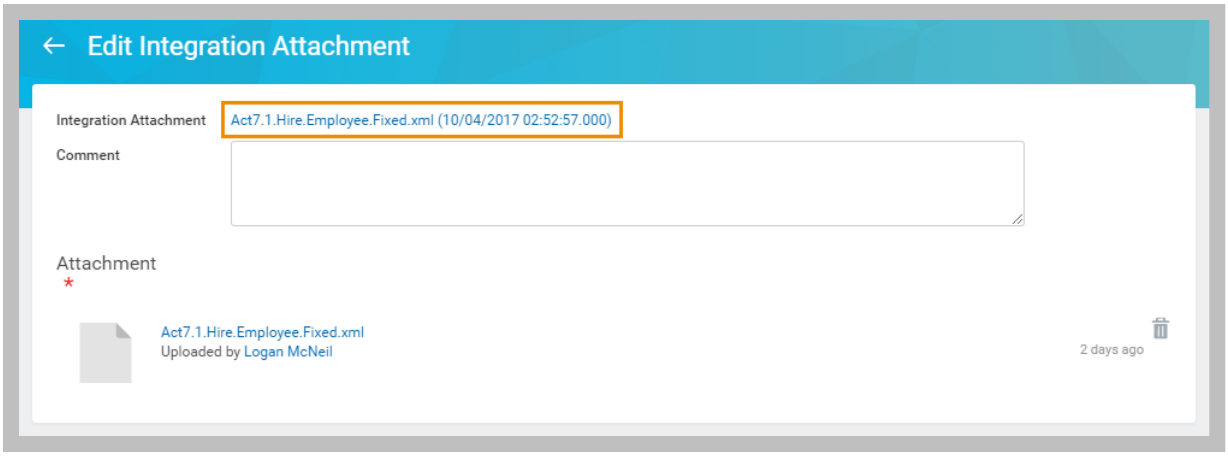
EDIT AN INTEGRATION ATTACHMENT

Once you have executed an integration and uploaded a spreadsheet, it is stored in Workday as an object. You can edit this attachment by executing the **Edit Integration Attachment** task and attaching a new version of the file. You must complete this task independently of running the integration system.



172 - Edit Integration Attachement task

The integration attachment object is updated with name of the new file (if different) and the date/time of the upload.



173 - Edit Integration Attachement

Note: Inbound EIBs update Workday data. If you reload the same data you will have duplication errors. To prevent that from happening, you must undo your previous changes (delete data or rescind business processes).
Remember, there is a **30 MB limit** for all attachments in Workday.

DEMO 7.A – TROUBLESHOOT EMAIL UPDATE INTEGRATION

Introduction: We will update Workday with more email address changes.
The provided spreadsheet contains errors.
We will review the generated error message, mimic error correction and load corrected data.

TASK #1: LAUNCH THE EMAIL EIB IN VALIDATION MODE

1. Sign in as Logan McNeil (lmcneil).
2. Search and run the **Edit Integration attachment** task.
3. In the prompt, select **Last 1 Day** and then the **6.BdemoMaintainEmails.xml** attachment, then press **OK**.
4. Click the **Delete** icon.
5. Click the **Select Files** button or drop the **7.AdemoEmailErrors.xml**.
6. Click **OK** and **Done**.
7. Search and launch the **WICT EIB Demo Change Email** integration system using the *7.AdemoEmailErrors.xml* attachment, *in validation mode* and check *Add Errors to Attachment*.
8. **Refresh** until you see a status of *Completed with Errors.*
9. Download and review the **Failure Report** and the **Original Data With Errors** files.
10. Note the error on the communication usage type for employee **21282** and the error on the effective date for employee **21388**.

TASK #2: EDIT THE SPREADSHEET

Note: You can jump to Task #3 using the **7.AdemoEmailFixed.xml** file in the **Solution** folder.

1. In column D, enter an effective date of **2017-09-14** for employee 21388. In column BV enter a usage type id of **WORK** for employee 21282.
2. Save the edited file as **7.AdemoEmailFixed.xml**.

TASK #3: EDIT THE INTEGRATION ATTACHMENT IN YOUR TENANT

1. Search for and select the **Edit Integration Attachment** task.
2. Select last 1 day and the **7.AdemoEmailErrors.xml** object then click **OK**.
3. Click the **Delete** icon.
4. Click the **Select Files** button or drop the **7.AdemoEmailFixed.xml**.
5. Click **OK** and **Done**.

TASK #4: LAUNCH THE INTEGRATION SYSTEM

1. From the View Background process's **Related Actions**, select **Integration Event, Re-launch Integration Event**.
2. Click **OK**.
3. Confirm a successful result, then re-launch the event not using validation mode.
4. Verify the email addresses update for employee **21206**, **21282** and **21388**.

ACTIVITY 7.1 – HIRE ERROR TROUBLESHOOTING

Business Case: You have been asked to hire two additional employees.

- Their information is provided in the solution file and in the table below.
- This activity will require multiple runs to identify a problem, edit the integration attachment with the correction, and perform the final data load.

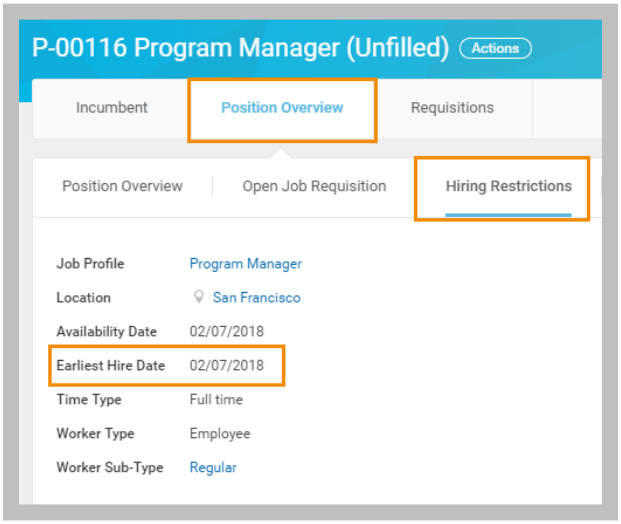
TASK #1: REVIEW THE DATA TO UPLOAD

1. Review the data in the table below.

Field Name	*Entry Value*	*Entry Value*
Hire Employee		
Name	Andrew Shea	Claire Vincent
Spreadsheet Key	A01383	A01150
Organization	Program_Management_supervisory	Global_Support_Central_Southern_Europe_supervisory
Position	P-00116	P-00564
Hire Date	2018-02-12	2018-04-15
Hire Reason	Hire_Employee_New_Hire_Fill_Vacancy	Hire_Employee_New_Hire_Fill_Vacancy
Employee Type	Regular	Regular
Location	San_Francisco_site	Geneva_site
Position Time Type	Full_time	Full_time
Default Hours	40	40
Scheduled Hours	40	40
Propose Compensation for Hire		
Spreadsheet Key	A01383	A01150
Compensation Package	Non_Management_Compensation_Package	Non_Management_Compensation_Package
Compensation Grade	Non_Management	Non_Management
Row ID	A01383-1	A01150-1
Pay Plan	SALARY_Salary_Plan	SALARY_Salary_Plan
Amount	50000	75000
Currency	USD	CHF
Frequency	Annual	Annual

TASK #2: LAUNCH THE HIRE EIB IN VALIDATION MODE

1. Sign in as Logan McNeil (lmcneil).
2. Search and run the **Edit Integration attachment** task.
3. In the prompt, select **Last 1 Day** and then the **6.2activityHireEmployee.xml** attachment, then press **OK**.
4. Click the **Delete** icon.
5. Click the **Select Files** button or drop the **7.1activityHireEmployeeErrors.xml**.
6. Click **OK** and **Done**.
7. Launch the **WICT EIB Hire Employees** integration system with the **7.1activityHireEmployeeErrors.xml** attachment, *in validation mode* and check *Add Errors to Attachment*.
8. **Refresh** until you see a status of *Completed with Errors.*
9. Download and review the **Failure Report** and the **Original Data With Errors** file.
10. Note the error on the hire date for the P-00116 position.
11. Search for and select position **P-00116** in the tenant.
12. Select the **Position Overview > Hiring Restrictions** tab to find the **Earliest Hire Date**.



174 - Position Overview, Hiring Restrictions tab

TASK #3: EDIT THE SPREADSHEET

Note: You can jump to Task #4 using the **7.1activityHireEmployeeFixed.xml** file in the **Solution** folder.

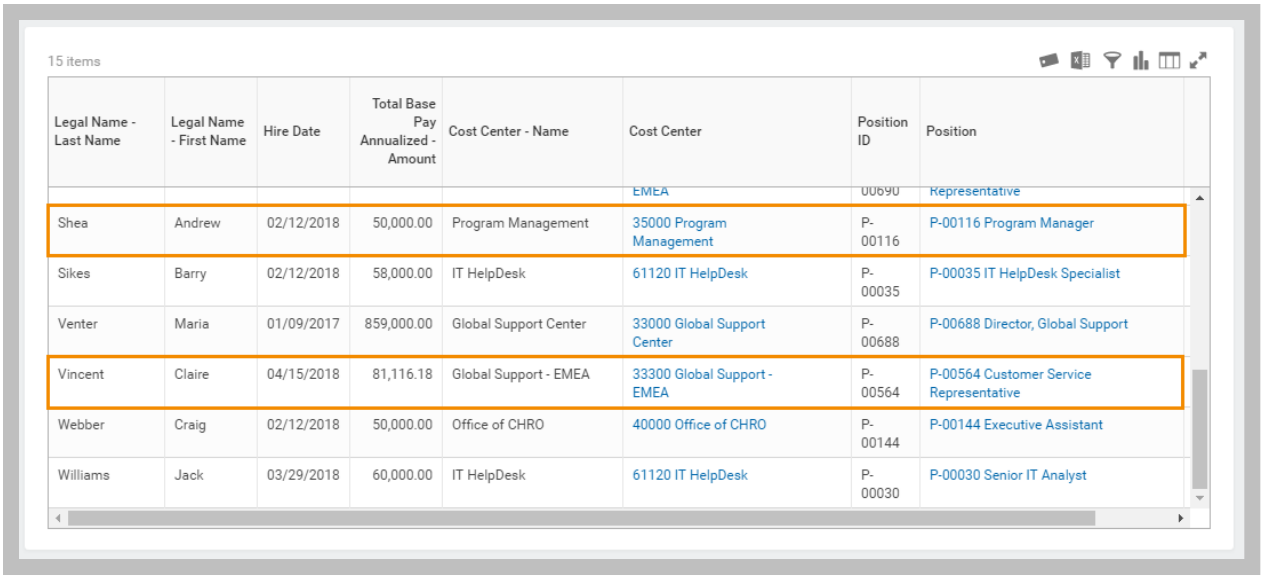
1. Using the value you located in the tenant, edit **7.1activityHireEmployeeErrors.xml** to correct the *Hire Date* to 2018-02-12 in Column *NH* of the *Hire Employee* tab.
2. Save the edited file as **7.1activityHireEmployeeFixed.xml**.

TASK #4: EDIT THE INTEGRATION ATTACHMENT IN YOUR TENANT

1. Search for and select the **Edit Integration Attachment** task.
2. Select the **7.1activityHireEmployeeErrors.xml** object then click **OK**.
3. Click the **Delete** icon.
4. Click the **Select Files** button or drop the **Act7.1.Hire.Employee.Fixed.xml**.
5. Click **OK** and **Done**.

TASK #5: LAUNCH THE INTEGRATION SYSTEM

1. Search for and select **WICT EIB Hire Employee.**
2. Launch the integration to Run Now.
3. Launch the **WICT EIB Hire Employees** integration system with the **7.1activityHireEmployeeFixed.xml** attachment, *in validation mode* and check *Add Errors to Attachment*.
4. Confirm a successful result, then re-launch not using validation mode.
5. Verify Andrew Shea and Claire Vincent were hired by running the **WDINST EIB IntNewHire** report using 01/01/2017 as the starting date and today's date as the ending date.



15 items

Legal Name - Last Name	Legal Name - First Name	Hire Date	Total Base Pay Annualized - Amount	Cost Center - Name	Cost Center	Position ID	Position
					EMEA	00690	Representative
Shea	Andrew	02/12/2018	50,000.00	Program Management	35000 Program Management	P-00116	P-00116 Program Manager
Sikes	Barry	02/12/2018	58,000.00	IT HelpDesk	61120 IT HelpDesk	P-00035	P-00035 IT HelpDesk Specialist
Venter	Maria	01/09/2017	859,000.00	Global Support Center	33000 Global Support Center	P-00688	P-00688 Director, Global Support
Vincent	Claire	04/15/2018	81,116.18	Global Support - EMEA	33300 Global Support - EMEA	P-00564	P-00564 Customer Service Representative
Webber	Craig	02/12/2018	50,000.00	Office of CHRO	40000 Office of CHRO	P-00144	P-00144 Executive Assistant
Williams	Jack	03/29/2018	60,000.00	IT HelpDesk	61120 IT HelpDesk	P-00030	P-00030 Senior IT Analyst

175 - WDINST EIB IntNewHire report output

CHAPTER 8 – CUSTOMIZING THE TEMPLATE MODEL

OVERVIEW

When you use the Create EIB task to set up an inbound integration from a web service operation as its data source, Workday automatically creates a template model as part of the workflow. From this model, you can generate a spreadsheet template that can be used for data upload. You can optionally modify the template to meet your needs.

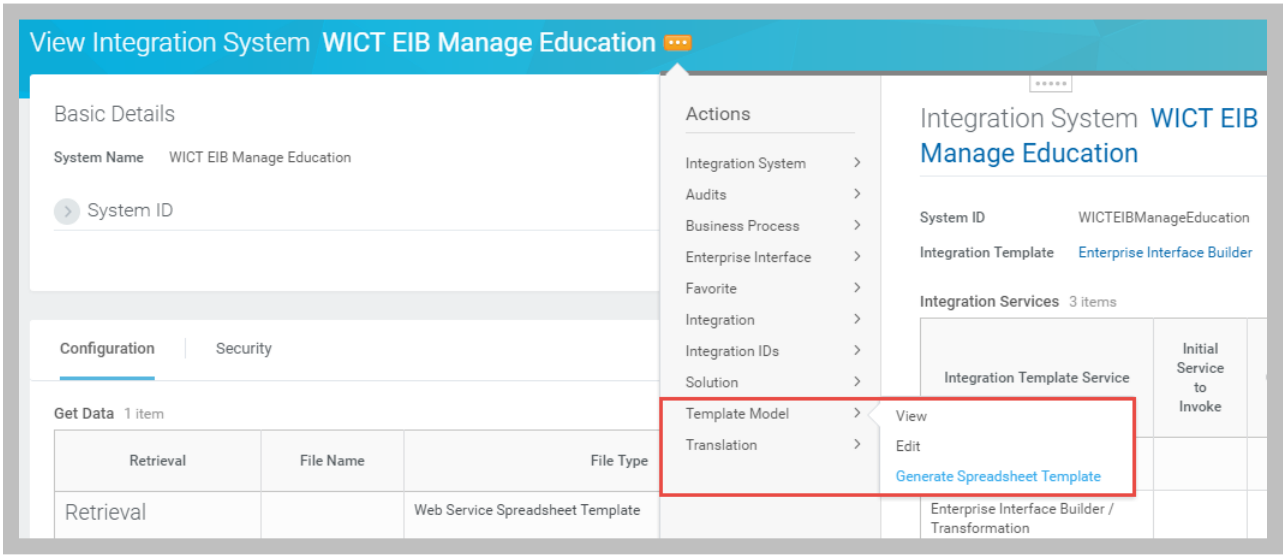
OBJECTIVES

By the end of this chapter, you will be able to:

- Generate a template from an inbound EIB.
- Populate a spreadsheet template to maintain data with parent child relationships.
- Maintain Reference IDs and customize a template model to improve usability.

GENERATE SPREADSHEET TEMPLATE

To generate a spreadsheet template for an inbound EIB, use its Related Actions to select **Template Model > Generate Spreadsheet Template.**

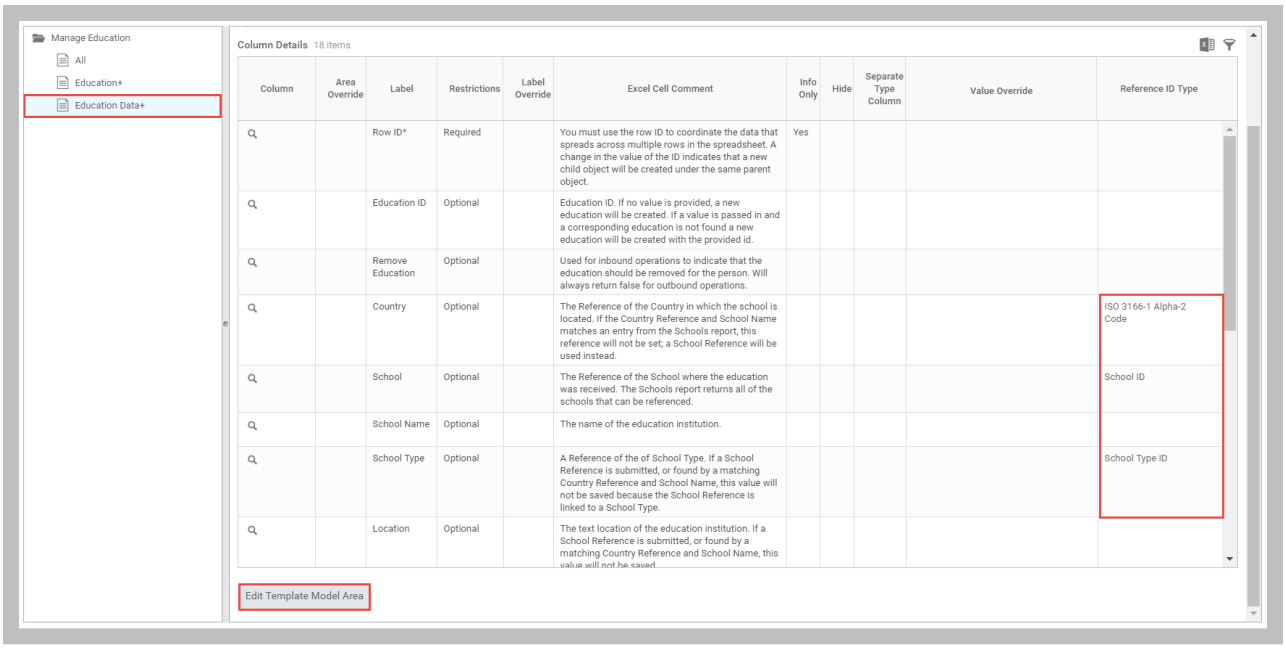


176 - Generate Spreadsheet Template related action

Important: Workday generates spreadsheets in XML Spreadsheet 2003 (XMLMS) format. To maintain the correct spreadsheet format, do not change the .xml file extension.

VIEW TEMPLATE MODEL

By viewing the template model, you can review the Business Process and sub processes. Additionally, within each template model area, you can view any required fields and default *Reference ID Types*.

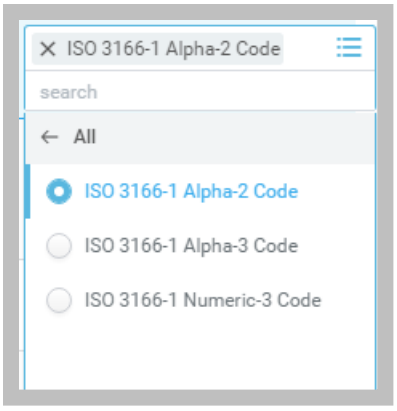


177 - View Template Model

EDIT TEMPLATE MODEL

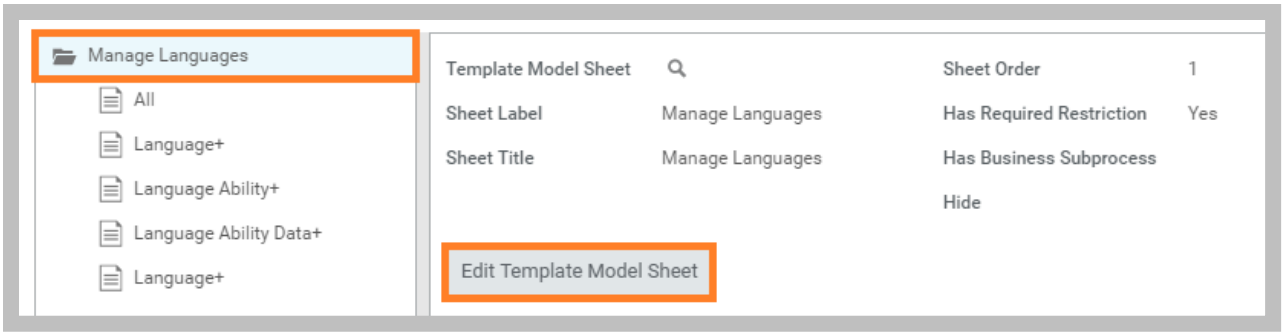
For each Business Process, you can review the *Template Model Area*. Once you view the template model, click on the button to **Edit Template Model Area**.

The **Reference ID Type** set by default may be the most common usage or the first value alphabetically in the list, and therefore needs to be evaluated for your needs.



178 - Default Reference ID Type

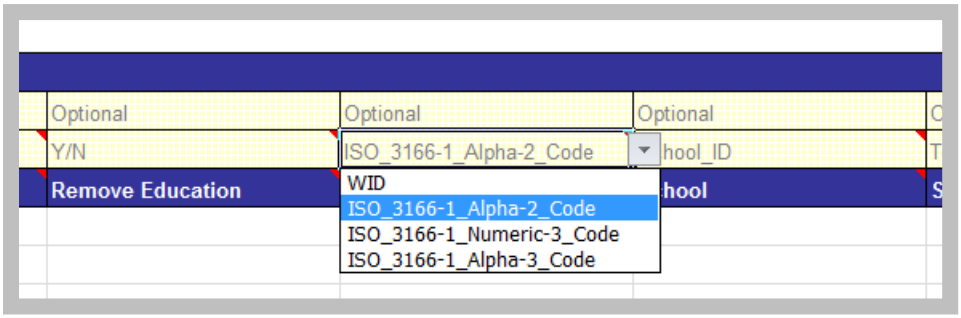
Tip: For smaller spreadsheets, you may want to edit all the data model areas for a business process at once by selecting the process folder and clicking **Edit Template Model Sheet**.



179 - Edit Template Model Sheet

EDITING REFERENCE ID TYPES IN SPREADSHEETS

For added flexibility, you can change the Reference ID Type either in the Template Model or directly in the generated spreadsheet template.



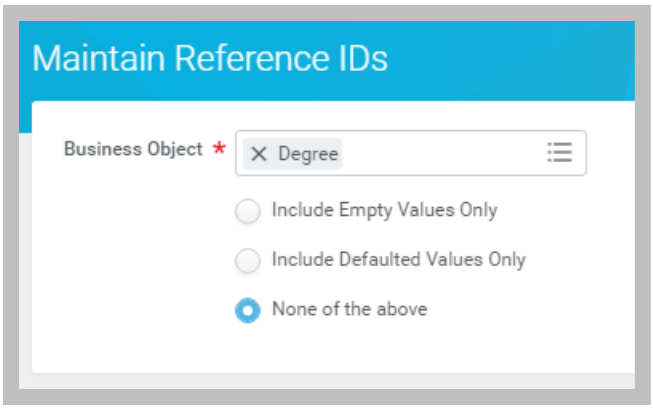
180 - Change Reference ID Type in the Spreadsheet Template

MAINTAIN REFERENCE IDS

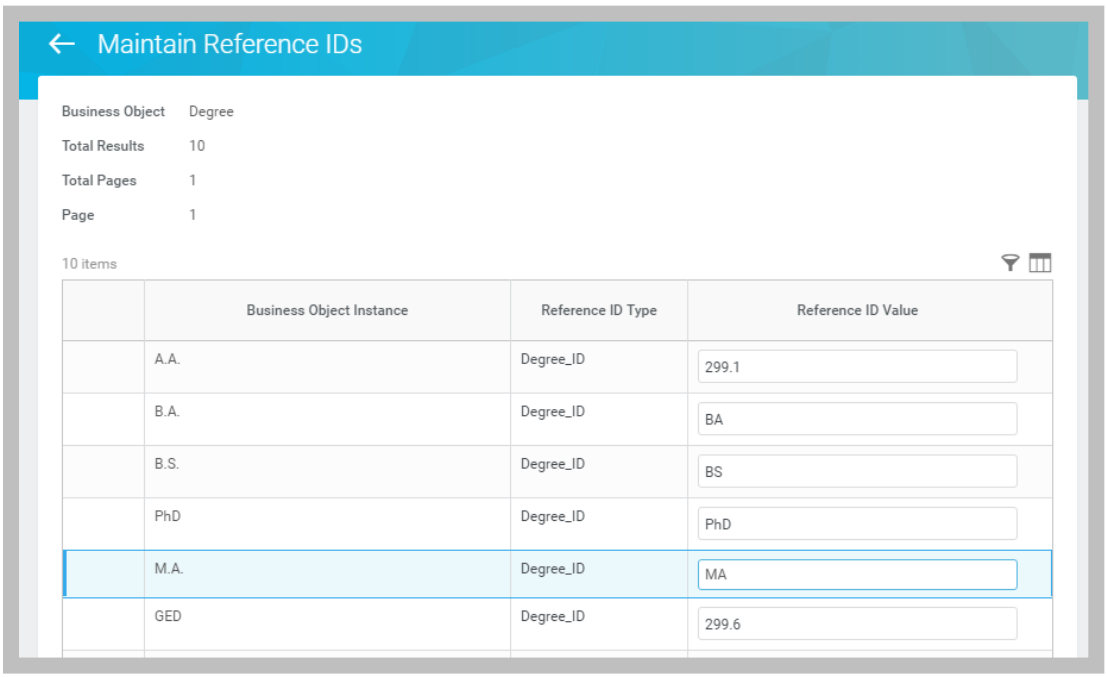
The values of Reference IDs are configurable by the customer but the availability of Reference IDs on our business objects is defined by our applications. In other words, Workday defines the Reference IDs for our business objects, as well as default values and whether or not customers can configure them.

Important: Use caution when editing Reference ID values. After the ID values have been set, changes to those values can break existing integrations that use the current ID values.

You can update a Reference ID by selecting *Integration IDs* > *Edit Reference ID* from the Related Actions on an individual business object. To update Reference IDs in bulk, use the **Maintain Reference ID** task.



181 - Maintain Reference IDs task



182 - Maintain Reference IDs

Security Note: To edit and maintain Reference IDs, you must be a member of a security group with access to *Set Up: Integration* security domain or *Set Up: System* security domain.

DEMO 8.A – MANAGE LANGUAGES USING SPREADSHEET TEMPLATES

Introduction: We want update worker data in workday with their new language capabilities.
First we will change reference IDs to meaningful values.
Then we will create the EIB, modify the Template Model and generate the Spreadsheet Template.

TASK #1: MAINTAIN REFERENCE IDS

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select the **Maintain Reference IDs** task.
3. Enter **Language** for the *Business Object*.
4. Click **OK**.
5. Click **OK** to accept Page 1 of the results.
6. Enter the following:

Business Oject Instance	***Reference ID Value***
English	ENG
Swedish	SWE

7. Click **OK** to save your changes, and **Done**.

TASK #2: CREATE A NEW INBOUND EIB

1. Use the **Create EIB** task to create an inbound integration system.

Field	***Value***
Name	WICT EIB Demo Languages
Retrieval Method	Attach file at launch

File Type	Web Service Spreadsheet Template
Web Service Operation	Manage Languages (Web Service)

TASK #3: MODIFY THE TEMPLATE MODEL

1. From the integration system's **Related Actions**, select **Template Model > View**. (If prompted, click **OK** to navigate away and save changes.)

   Note: If the template generation is not completed, click refresh until completion.

2. Modify the **Role** in the *All* template model area under *Manage Languages*:

   A. The *Manage Languages* folder is expanded by default. Select **All**.

   B. Click the **Edit Template Model Area** button.

   C. Change the *Reference ID Type* for **Role** to **Employee ID**.

   D. Click **OK**, then **Done**.

3. Expand the Manage Languages folder and select the *Language+* (second occurrence) template model area.

4. Click **Edit Template Model Area**.

5. Change the *Reference ID Type* for **Assessed by Worker** to **Employee ID**.

6. Click **OK**, then **Done**.

TASK #4: GENERATE SPREADSHEET TEMPLATE

1. From the **Related Actions**, select **Template Model > Generate Spreadsheet Template**.

2. Check the **Confirm** checkbox and **Submit**.

3. The spreadsheet template is generated as a background process and made available in **My Reports**. Download the spreadsheet to your hard drive, making note of the location.

ACTIVITY 8.1 – GENERATE A SPREADSHEET TEMPLATE TO UPDATE EDUCATION/DEGREES

Business Case: Logan has been asked to create a spreadsheet so that your company can manage the education details of employees in bulk through an integration.

- Workday provides a public Manage Education web service operation for this task.
- You will use the Maintain Reference IDs task to simplify some of the data entry.
- Your company prefers to use three-letter country codes.

TASK #1: CREATE A NEW INBOUND EIB

1. Sign in as Logan McNeil (lmcneil).
2. Use the **Create EIB** task to create an inbound integration system.

Field	***Value***
Name	WICT EIB Manage Education
Retrieval Method	Attach file at launch
File Type	Web Service Spreadsheet Template
Web Service Operation	Manage Education (Web Service)

TASK #2: MODIFY THE TEMPLATE MODEL

1. From the **Related Actions** of the integration system, select **Template Model > View**. (If prompted, click **OK** to navigate away and save changes.)

   Note: If the template generation is not completed, click refresh until completion.

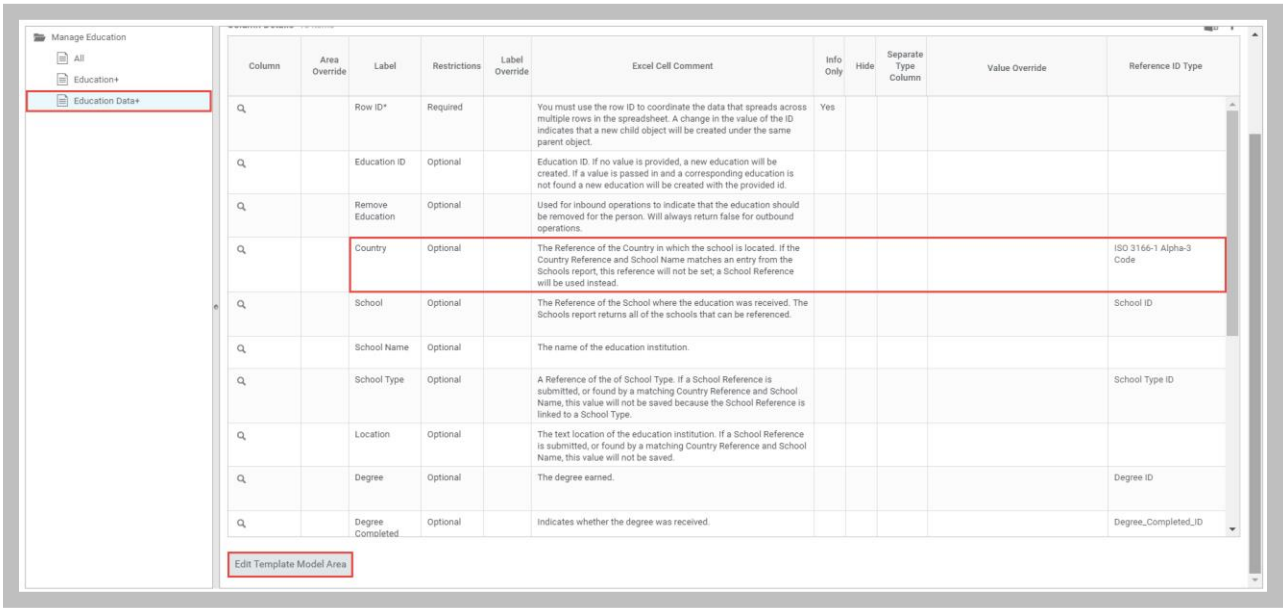
2. Modify the **Country** in the *Education Data+* template model area under *Manage Education*:

   A. The *Manage Education* folder is expanded by default. Select **Education Data+**.

   B. Click the **Edit Template Model Area** button.

   C. Change the *Reference ID Type* for **Country** to **ISO 3166-1 Alpha-3 Code**.

D. Click **OK**, then **Done**.



183 - Edit Template Model Area

TASK #3: GENERATE SPREADSHEET TEMPLATE

1. From the **Related Actions**, select **Template Model > Generate Spreadsheet Template**.
2. Check the **Confirm** checkbox and **Submit**.
3. The spreadsheet template is generated as a background process and made available in **My Reports**. Download the spreadsheet to your hard drive, making note of the location.

TASK #4: MAINTAIN REFERENCE IDS

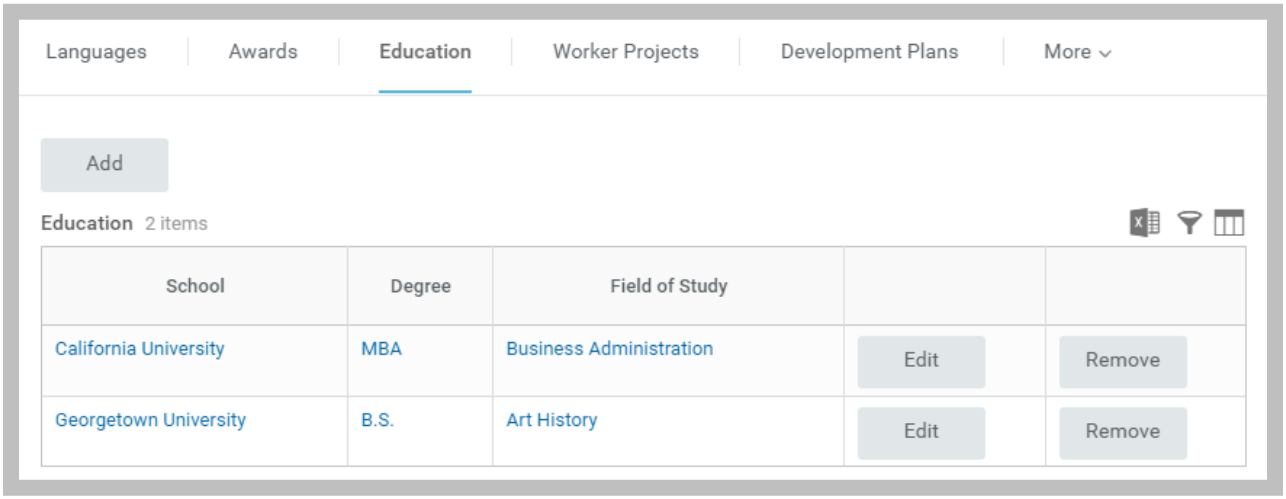
1. Search for and select the **Maintain Reference IDs** task.
2. Enter **Degree** for the *Business Object*.
3. click **OK**.
4. Click **OK** to accept Page 1 of the results.
5. Enter the following:

Business Object Instance	*Reference ID Value*
B.A.	BA
B.S.	BS
PhD	PhD
M.A.	MA

6. Click **OK** to save your changes.

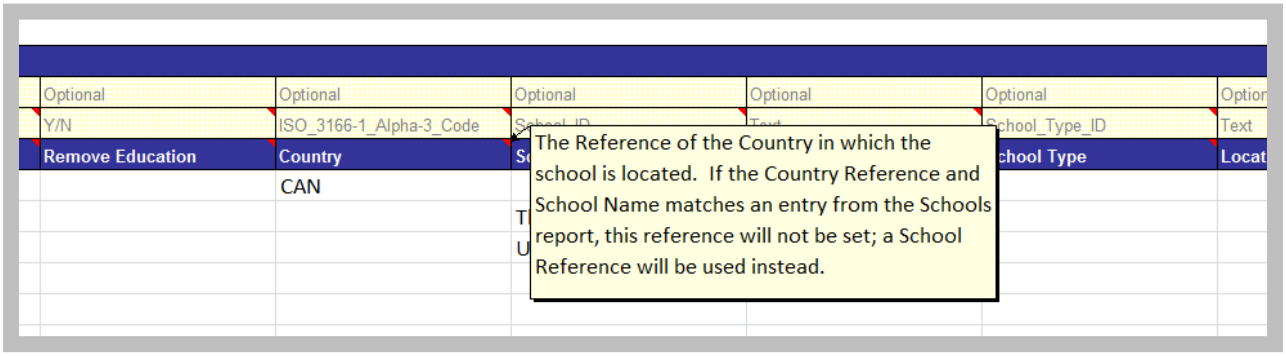
POPULATING GENERATED TEMPLATES

The most efficient way to learn the Workday Object Model is through the Workday UI.



184 - Worker Education page

Another useful guide is the documentation generated from the template model as Excel comments.



185 - Excel comments in the Spreadsheet Template

When launching integration systems, it is recommended to always test in your sandbox before loading into production. Additionally, use the *Validate Only Load*, *Load Error Limit* and *Add Errors to Attachment* options both when testing and in production.

SPREADSHEET GUIDELINES

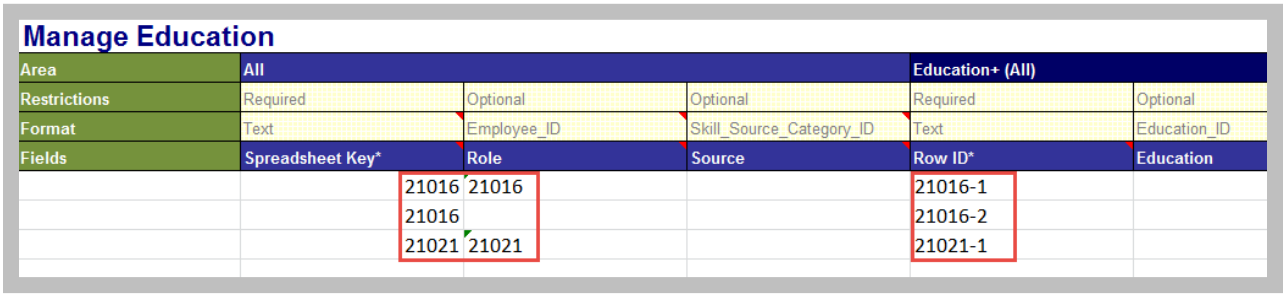
Template

- Always generate a spreadsheet template in Workday for the upload.
- Keep the template in its original XML Spreadsheet 2003 format. Do not save a template to any other format.

- Only add data values to the generated spreadsheet. Do not make formatting changes, introduce hard breaks or returns, rearrange rows or columns, or add new rows and columns. Doing so may cause the upload to fail.

Spreadsheet Keys and Row IDs

- It is recommended that you use the ID of the object you are loading if it is available. For example, the spreadsheet key for data being loaded for an employee can be the Employee ID.
- It is recommended that you use the ID (Spreadsheet key) of the main object followed by -1, -2, etc. for each child row of data.



Manage Education

Area	All			Education+ (All)	
Restrictions	Required	Optional	Optional	Required	Optional
Format	Text	Employee_ID	Skill_Source_Category_ID	Text	Education_ID
Fields	Spreadsheet Key*	Role	Source	Row ID*	Education
	21016	21016		21016-1	
	21016			21016-2	
	21021	21021		21021-1	

186 - Spreadsheet Keys and Row IDs

Required Data

- Each column in the spreadsheet indicates whether a field is optional or required.
- In general, these fields are only required if that template area contains data.
- For example, when hiring an employee, you would leave the Name Data area entirely empty if you included an Applicant ID in the All section, and vice versa.

Data Types

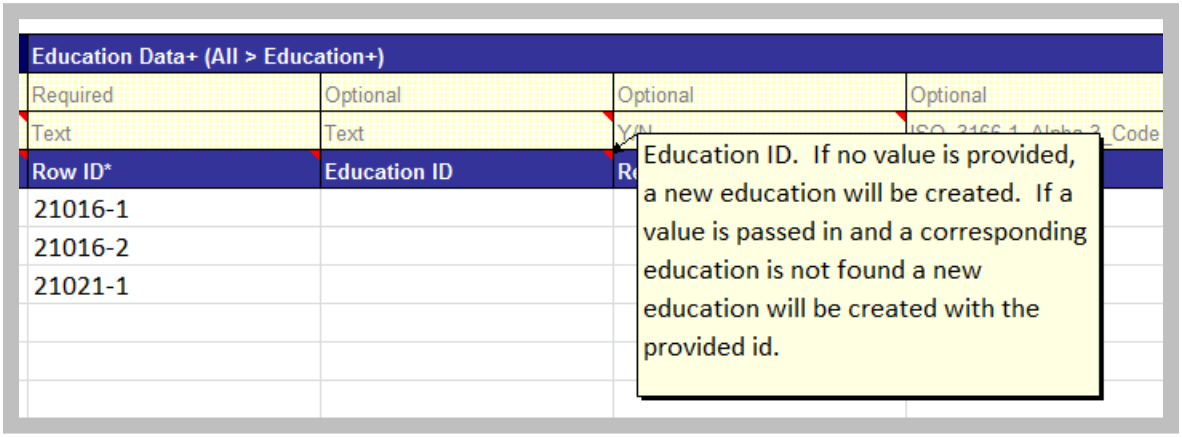
- Columns with formats such as YYYY-MM-DD, Y/N, TEXT, or NUMBER accept data only in the specified format.
- Dates must always be entered in YYYY-MM-DD format. (Excel may reformat the display of dates based on your regional preferences, but it must be entered in the specified format.)
- To protect spreadsheet cell formatting, either enter values manually or reapply the correct formats if you cut and paste data from another spreadsheet or report.

Lookup Columns

- Columns identified by a Reference ID Type must be populated with Workday Reference ID values, not the names that appear in the corresponding Workday fields.
- If Reference ID values are empty in Workday, you must assign Reference IDs before you can upload data.

ID Columns

- When left blank, some ID columns trigger Workday's ID generator to assign new ID values during the upload. Refer to the spreadsheet comments in ID columns to find out whether IDs are automatically generated.



187 - Education ID column

Replacing and Deleting Data

- In addition to uploading new data, some Workday operations allow EIB spreadsheets to replace or delete existing data. **Inbound data automatically replaces existing values.**
- To delete data, enter {empty} values in spreadsheet cells that are formatted as TEXT fields.
- Deletion of field values is allowed only in TEXT fields, not LOOKUP fields.

Spreadsheet Column (Field)	Current Data	Inbound Data	Result
UPDATED POSITION ID	388.8	{empty}	No value in field
EMPLOYEE TYPE	Regular	No value entered in spreadsheet	Regular
JOB PROFILE	Staff Recruiter	30350 (Workday Reference ID for Senior Recruiter)	Senior Recruiter

Loading Multiple Values

- To enter multiple values in a multi-select field, add rows immediately following the initial row and leave all fields in these rows blank except for the key fields and the fields holding the multi-select values.
- For example, the Cost Center field accepts more than one value; to add multiple cost centers you need to specify only the Applicant ID (key field) in the additional rows and a Reference ID for each Cost Center:

Spreadsheet Key	Applicant ID	Applicant Name	Company	Cost Center	Region
A01032	A01032	Julie Bowles	2501.21	**61200**	2503.42
A01032				**61210**	

RESERVED SYSTEM ID

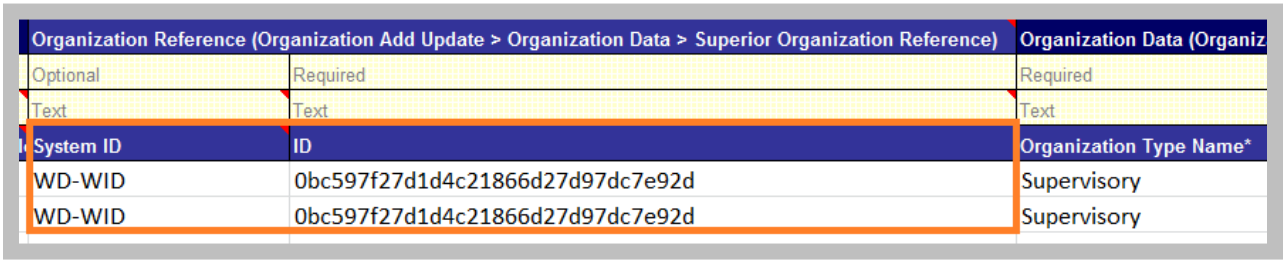
Reserved System IDs are internal system ID values that allow for backward compatibility between the original v1 and v2 operations in the Workday API and newer operations that use Reference IDs and WIDs.

Two types of reserved system IDs are used today:

- **WD-WID:** used to pass Workday IDs into a v1 or v2 operation.
- **WD-EMPLID:** used to pass Employee IDs or Contingent Worker IDs into a v1 or v2 operation.

Even though the original v1 and v2 operations have been retired, some web services, such as the Add Update Organization web service operation, still reflect the use of reserved system IDs.

The combination of **System ID** and **ID** fields in a spreadsheet template is an indicator that you need to use Reserved System IDs. If referring to an employee or contingent worker, the System ID is populated with **WD-EMPLID** and the ID field is populated with the actual worker ID. If the field refers to anything else (other than a worker) the System ID field is populated with **WD-WID** and the ID field is populated with the 32 character Workday ID.



Organization Reference (Organization Add Update > Organization Data > Superior Organization Reference)		Organization Data (Organiz
Optional	Required	Required
Text	Text	Text
System ID	ID	Organization Type Name*
WD-WID	0bc597f27d1d4c21866d27d97dc7e92d	Supervisory
WD-WID	0bc597f27d1d4c21866d27d97dc7e92d	Supervisory

188 - Reserved System ID

DEMO 8.B – POPULATE THE LANGUAGES SPREADSHEET

Introduction: Now that the Spreadsheet Template is available, we will key in the data and launch the EIB to update workday with the newly created data.

TASK #1: FIND REFERENCE ID TYPE VALUES

1. Sign in as Logan McNeil (lmcneil).
2. Search for and run the **Integration IDs** report.
3. Enter **Language Ability Type** and **Language Proficiency** for the *Business Object* and click **OK**.
4. Keep that tab open for reference.

TASK #2: POPULATE SPREADSHEET TEMPLATE

Note: You can jump to Task #3 using the **8.BdemoManageLanguages.xml** file in the **Solution** folder

1. On the Overview tab, select **Automatic Processing** for the *Manage Language* Business Process.
2. On the *Manage Languages* tab, enter the following information for **Elin Persson**:
    A. **First Record** (her native language Swedish):

Field Name	***Entry Value***
Spreadsheet Key	21391 (Elin's Employee ID)
Employee ID	21391
Row ID (Language+ (All))	21391-1
Language	SWE
Native Language	Y

Row ID (Language Ability+ (All > Language+))	21391-1-1
Row ID (Language Ability Data+ (All > Language+ > Language Ability+))	21391-1-1
Language Proficiency	233.5 (Fluent)
Language Ability Type	268.3 (Overall)
Assessed On	2018-02-12
Assessed by Worker	21001 (Logan McNeil)

B. **Second Record** (English Overall):

Field Name	***Entry Value***
Spreadsheet Key	21391 (Elin's Employee ID)
Row ID (Language+ (All))	21391-2
Language	ENG
Row ID (Language Ability+ (All > Language+))	21391-2-1
Row ID (Language Ability Data+ (All > Language+ > Language Ability+))	21391-2-1
Language Proficiency	233.3 (Intermediate)
Language Ability Type	268.3 (Overall)
Assessed On	2018-02-12
Assessed by Worker	21001 (Logan McNeil)

C. **Third Record** (English Writing):

Field Name	*Entry Value*
Spreadsheet Key	21391 (Elin's Employee ID)
Row ID (Language+ (All))	21391-2
Language	ENG
Row ID (Language Ability+ (All > Language+))	21391-2-2
Row ID (Language Ability Data+ (All > Language+ > Language Ability+))	21391-2-2
Language Proficiency	233.5 (Fluent)
Language Ability Type	268.1 (Writing)

3. Enter the following information for **Stefania Jaworski**:

    A. **First Record** (English Speaking):

Field Name	*Entry Value*
Spreadsheet Key	21282 (Elin's Employee ID)
Employee ID	21282
Row ID (Language+ (All))	21282-1
Language	ENG
Row ID (Language Ability+ (All > Language+))	21282-1-1
Row ID (Language Ability Data+ (All > Language+ > Language Ability+))	21282-1-1
Language Proficiency	233.3 (Intermediate)

Language Ability Type	268.5 (Speaking)
Assessed On	2018-02-12
Assessed by Worker	21001 (Logan McNeil)

TASK #3: LAUNCH THE EIB AND UPLOAD THE SPREADSHEET ATTACHMENT

1. Search for and select **WICT EIB Demo Languages**.
2. From the **Related Actions**, select **Integration > Launch / Schedule**.
3. Click **OK** to Run Now.
4. Upload a new **Integration Attachment** by selecting **Create > Create Integration Attachment.**
5. Click the **Select Files** button or drop your file. (**Manage Education.xml** or **8.BdemoManageLanguages.xml**)
6. Click **OK** and **Done**.
7. Select Specify Value for **Validate Only Load** and click the checkbox.
8. Select the checkbox for **Add Errors to Attachment**.
9. Click **OK** and **Refresh** until the process is complete.
10. If completed successfully, re-launch the integration without *Validate Only* selected

    Note: From the Related Actions of the Background Process, select *Integration Event >Re-Launch Integration Event* and change the values for the criterias.

11. Refresh the Background Process page and confirm success.

TASK #4: FINAL VALIDATION

1. Search for **Elin Persson** (21391).
2. Click on **Career**. (if you don't see it click on More)
3. Select the **Language** tab. (if you don't see it click on More)
4. Repeat the steps for **Stefania Jaworski** (21282).

ACTIVITY 8.2 – POPULATE SPREADSHEET TEMPLATE WITH CHILD DATA

Business Case: It is time to update employee data by loading education details from our spreadsheet template.

- Use the Integration IDs report to find any Reference ID values you might need.
- The Schools report provides School IDs (these have been provided for you).

TASK #1: FIND REFERENCE ID TYPE VALUES

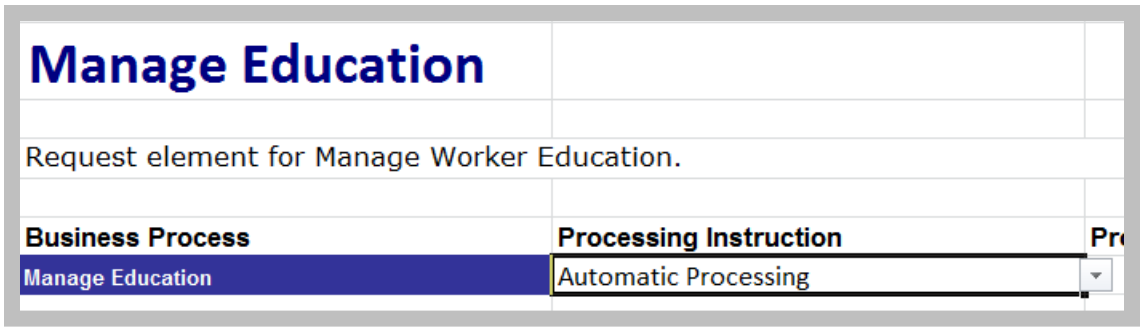
1. Sign in as Logan McNeil (lmcneil).
2. Search for and run the **Integration IDs** report.
3. Enter **Degree** for the *Business Object* and click **OK**.
4. Make note of the Reference ID values you will need to populate the spreadsheet.

Note: There are over 19,000 Schools in the GMS tenant, which exceeds the capacity of the Integration IDs report. You can run the **Schools** report to find School IDs for the spreadsheet. Alternatively, Manage Education supports using **School Name** and **Country** to look up existing school entries. (If no school is found using those criteria, a new one is created.)

TASK #2: POPULATE SPREADSHEET TEMPLATE

Note: You can jump to Task #3 using the **8.2activityManageEducation.xml** file in the **Solution** folder

1. On the Overview tab, select **Automatic Processing** for the *Manage Education* Business Process.



189 - Automatic Processing

2. On the *Manage Education* tab, enter the following information for **Chad Anderson**:

   A. **First Record** (use Country and School Name to look up his school):

Field Name	***Entry Value***
Spreadsheet Key	21016 (Chad's Employee ID)
Role	21016
Row ID (Education+)	21016-1
Row ID (Education Data+)	21016-1
Country	CAN
School	[leave blank]
School Name	McGill University
Degree	BS

   B. **Second Record** (use School ID to identify school):

Field Name	***Entry Value***
Spreadsheet Key	21016 (Chad's Employee ID)
Role	[leave blank]
Row ID (Education+)	21016-2
Row ID (Education Data+)	21016-2
Country	[leave blank]
School	The_Texas_Am_University

School Name	[leave blank]
Degree	PhD

3. Enter the following information for **Anthony Rizzo**:

   A. **First Record:**

Field Name	***Entry Value***
Spreadsheet Key	21021 (Anthony's Employee ID)
Role	21021
Row ID (Education+)	21021-1
Row ID (Education Data+)	21021-1
Country	[leave blank]
School	Universite_Paris_4_Sorbonne
School Name	[leave blank]
Degree	BA

4. Save the spreadsheet. When prompted to save in the current format, click **Yes**.

TASK #3: LAUNCH THE EIB AND UPLOAD THE SPREADSHEET ATTACHMENT

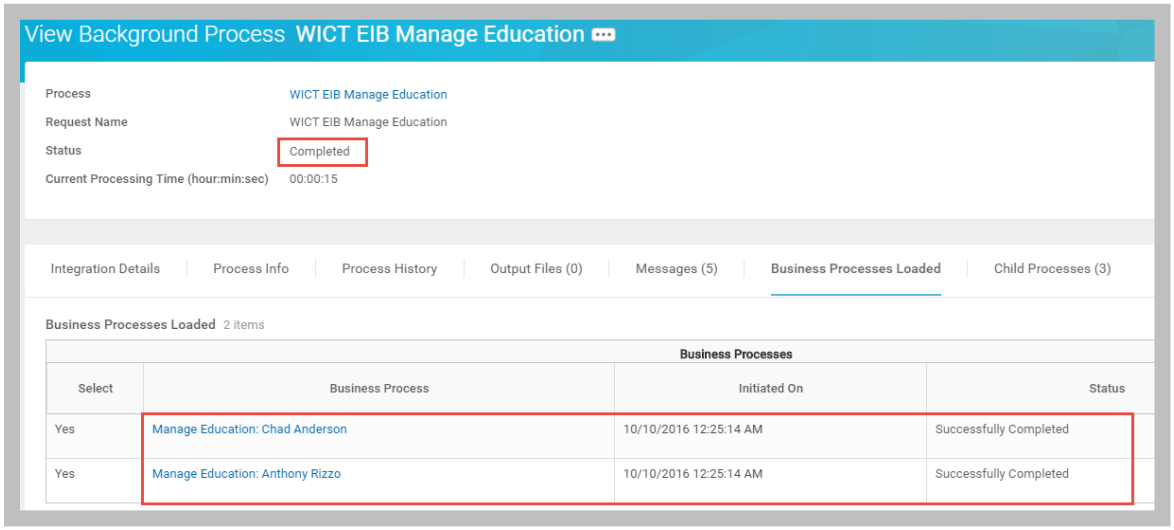
1. Search for and select **WICT EIB Manage Education**.
2. From the **Related Actions**, select **Integration > Launch / Schedule**.
3. Click **OK** to Run Now.
4. Upload a new **Integration Attachment** by selecting **Create > Create Integration Attachment**.
5. Click the **Select Files** button or drop your file. (**Manage Education.xml** or **8.2activityManageEducation.xml**).
6. Click **OK** and **Done**.
7. Select Specify Value for **Validate Only Load** and click the checkbox.
8. Select the checkbox for **Add Errors to Attachment**.

9. Click **OK** and **Refresh** until the process is complete.

10. If completed successfully, re-launch the integration without *Validate Only* selected. Re-use the same integration attachment created above.

    Note: From the Related Actions of the Background Process, select *Integration Event >Re-Launch Integration Event* and change the values for the criteria.

11. Refresh the View Background Process page and confirm success.



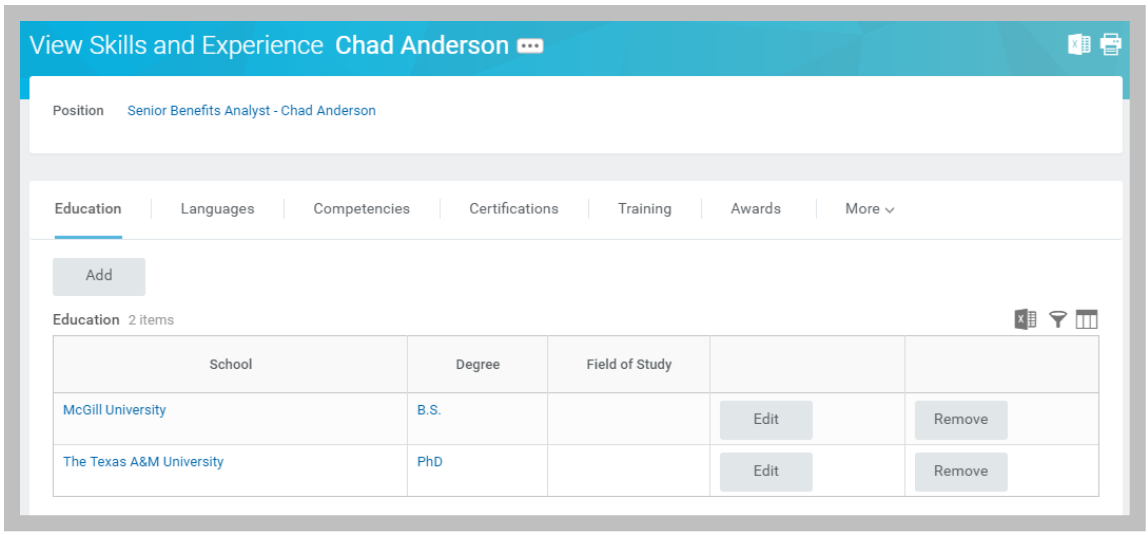
190 - View Background Process

TASK #4: FINAL VALIDATION

1. Search for **Chad Anderson** (21016).

2. From the **Related Actions** of Chad Anderson's Employee Object, select **Talent > View Skills and Experience**, and then choose the Education tab to review your results.

   Note: you can also access Chad's profile and select the Career > Education tabs.



191 - View Skills and Experience

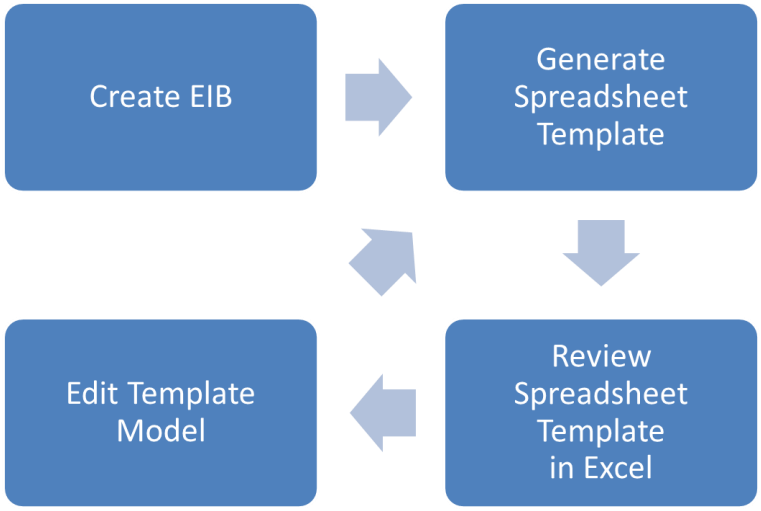
3. Repeat the steps for **Anthony Rizzo** (21021).

Activity Complete

CUSTOMIZE TEMPLATE MODEL

Recommended flow for template model editing:

As a best practice, start by generating a baseline spreadsheet template and reviewing the spreadsheet details. Then, edit the underlying template model as needed to define a custom spreadsheet template.



192 - Template Model editing workflow

Open the spreadsheet in Microsoft Excel and familiarize yourself with its details:

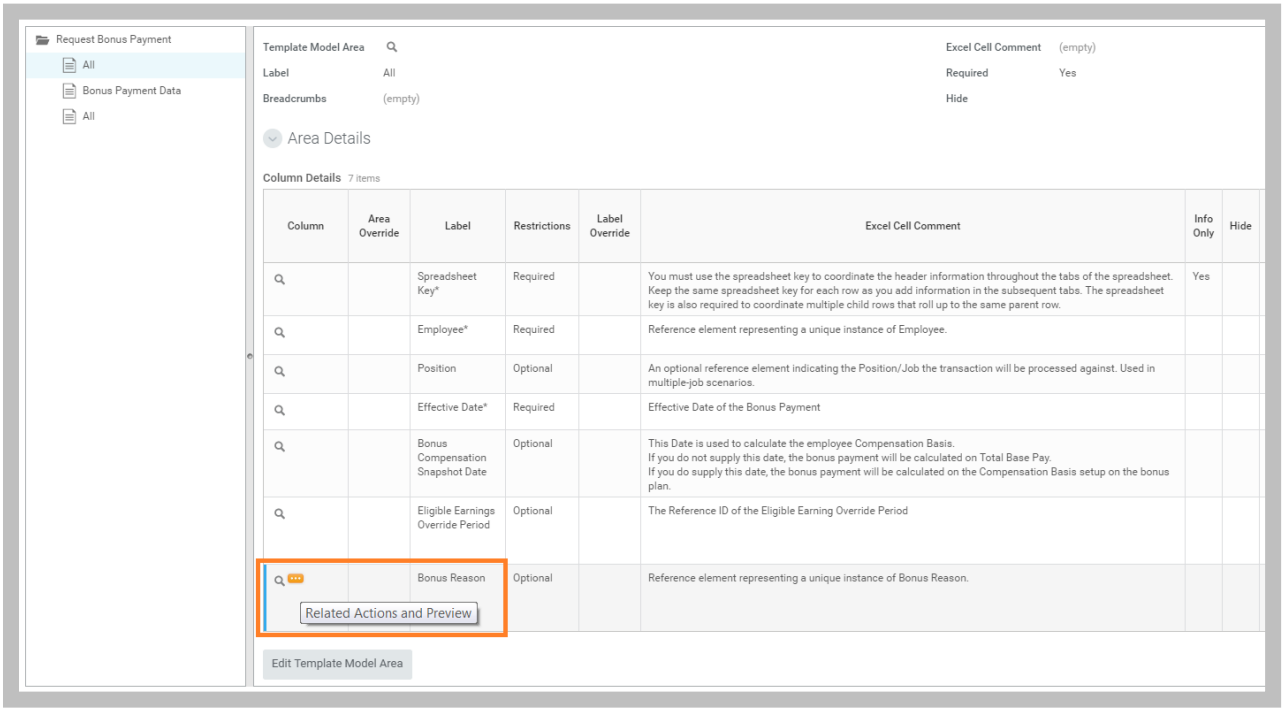
- Look at the overall structure of the spreadsheet, including the individual worksheets and sheet areas.
- Review the column groupings in each area to understand the relationships between fields.
- Notice which areas and fields are required, conditionally required, and optional.
- View comments by resting your mouse pointer over spreadsheet cells.

Determine whether you want to modify the spreadsheet template. You can make the following changes:

- Worksheets – reorder tabs, rename tabs, change sheet titles, or hide sheets completely.
- Areas – rename, add Excel cell comments, or hide areas completely.

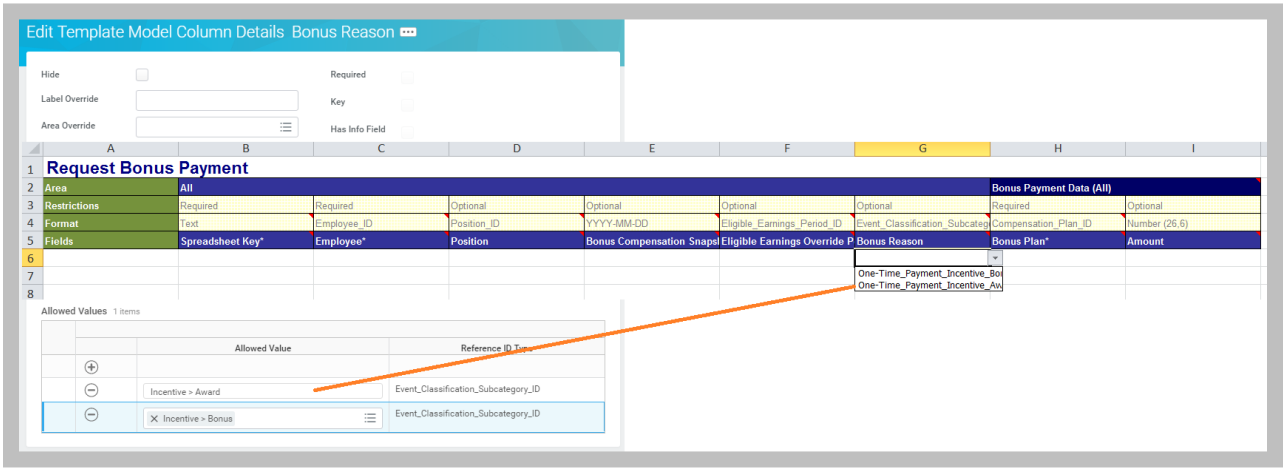
TEMPLATE MODEL COLUMNS

You can rename, change area labels, override values, select Reference ID types, edit Excel cell comments, or hide columns completely. You can also maintain occurrences for columns that accept multiple values, such as worktags, address lines, earnings, deductions, and related calculations.



193 - Template Model Columns

Within a template model area in the spreadsheet model, you can use the Related Actions in the first column to edit the column details, including limiting the field to a list of valid values.



194 - Predefined Entry values

Important: When you add permitted values to a Template Model Column, the generated Excel spreadsheet might not display the permitted values if the combined list of Reference IDs for the permitted values, plus comma separators, exceeds 255 characters.

DEMO 8.C – CUSTOMIZE THE MAINTAIN CONTACT TEMPLATE MODEL

Introduction: We will update Workday with more email address changes.
The previously generated spreadsheet template has more than what we need.
We will customize the template model to generate a more appropriate spreadsheet.

TASK #1: REVIEW THE SPREADSHEET TEMPLATE

1. From the Solution folder open the **7.AdemoEmailFixed.xml** file in Excel.
2. Confirm that we can hide many sections and fields from the user.

TASK #2: CREATE EIB

1. Sign in as Logan McNeil (lmcneil).
2. Use the **Create EIB** task to create an inbound integration system.

Field	***Value***
Name	WICT EIB Demo Change Email Only
Retrieval Method	Attach file at launch
File Type	Web Service Spreadsheet Template
Web Service Operation	Maintain Contact Information (Web Service)

TASK #3: EDIT THE TEMPLATE MODEL

1. From the EIB's **Related Actions**, select ***Template Model > View.***

   Note: If the template generation is not completed, click refresh until completion.

2. Select the first **Address Data+** area. From the **Related Actions**, select **Template Model Area> Hide**.
3. Click OK to confirm the hiding of this and all additional areas mentioned.

4. Repeat with the following areas: **Phone Data+**, **Instant Messenger Data+** and.**Web Address Data+**
5. Scroll to and select the **Email Address Data+** Template Model Area
6. Click the **Edit Template Model Area** button
7. For the Email Comments column enter the following:

Column	***Field / Value***
Hide	**checked**
Value Override	Spreadsheet Update

8. Click **Ok** and **Done**
9. Scroll to and select the first **Type Data+** area after the **Email Address Data+** area.
10. For the Type* row, in the first column, next to the magnifying glass, from the **Related Actions**, navigate to **Template Model Column > Edit Details**.
11. Enter **Email address type** in the *Excel Cell Comment* field.
12. Verify that the *Reference ID Type* is *Communication Usage Type ID*.
13. Under **Allowed Values**, add one row and enter the following:
    A. **Work**
    B. **Home**
14. Click **OK** then **Done.**

TASK #4: GENERATE SPREADSHEET TEMPLATE

1. From the **Related Actions**, select **Template Model > Generate Spreadsheet Template**
2. Save the spreadsheet to your hard drive, making note of the location.

TASK #5: POPULATE THE EXCEL SPREADSHEET

Note: You can jump to Task #6 using the **8.CdemoEmailOnly.xml** file in the **Solution** folder.

1. Open the **Maintain_Contact_Information.xml** file created and saved in the previous activity.
2. On the **Overview** tab, select **Automatic Processing** for the Business Process.
3. Enter the information below into the correct columns on the *Maintain Contact Information fo* Tab:

Field Name	***Entry Value***
Spreadsheet Key	21196
Worker	21196
Effective Date	2017-09-14
Row Id	21196-1
Email address	juan.carlos@mex.workday.net
Row ID	21196-1
Public	Y
Row ID	21196-1
Primary	Y
Type	Select from dropdown list (WORK)

4. Save the spreadsheet. Click **Yes** if prompted to save in the current format.

TASK #6: LAUNCH THE INTEGRATION

1. Search for *wict eib* in your tenant and select **WICT EIB Demo Change Email Only.**
2. From the **Related Actions**, select ***Integration > Launch/Schedule***.
3. Leave the default value of *Run Now* and click **OK**.
4. In the *Integration Attachment Value* prompt, select ***Create > Create Integration Attachment***.
5. Click the **Select Files** button or drop your file. (**Maintain_Contact_Information.xml** or **8.CdemoEmailOnly.xml**).
6. Click **OK** and **Done**.

7. Select *Specify Value* for **Validate Only Load** and select the checkbox.
8. Select the checkbox for **Add Errors to Attachment**.
9. Click **OK** and **Refresh** until the process completes.
10. If completed successfully, re-launch the integration without *Validate Only* selected

    Note: From the Related Actions of the Background Process, select *Integration Event >Re-Launch Integration Event* and change the values for the criterias.

11. Search employee **Juan-Carlos Salazar Jimenez** (21196) to verify email address change.

ACTIVITY 8.3 – CUSTOMIZE A TEMPLATE MODEL

Business Case: Logan has to create an inbound EIB that uses the Request Bonus Payment service operation. Once created, you will view and modify the template model, and then generate the template. Finally, you will populate the template with the data provided before launching the integration.

- The necessary modifications include hiding columns, setting static values, overriding reference ID types, and customizing labels and comments.
- You will define a small set of allowed values for Bonus Reason and Bonus Plan to guide the data entry.

TASK #1: CREATE EIB

1. Sign in as Logan McNeil (lmcneil).
2. Use the **Create EIB** task to create an inbound integration system.

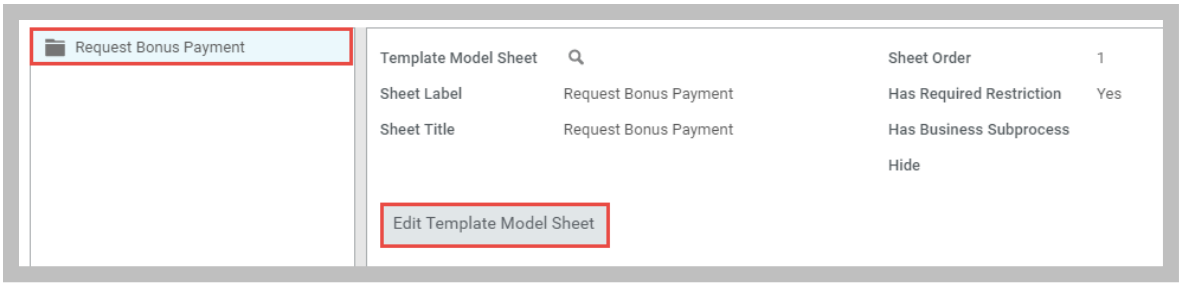
Field	***Value***
Name	WICT EIB Request Bonus for Sales & Marketing
Retrieval Method	Attach file at launch
File Type	Web Service Spreadsheet Template
Web Service Operation	Request Bonus Payment (Web Service)

TASK #2: EDIT THE TEMPLATE MODEL

1. From the EIB's **Related Actions**, select ***Template Model > View.***

   Note: If the template generation is not completed, click refresh until completion.

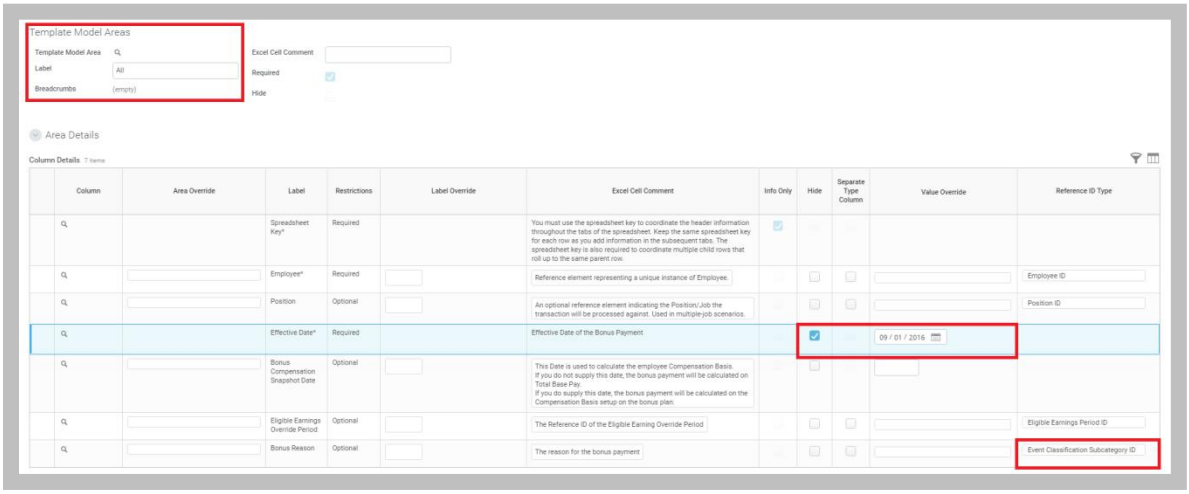
2. With the *Request Bonus Payment* folder selected, click the **Edit Template Model Sheet** button.



195 - Edit Template Model Sheet

3. Scroll to the first Template Model Area All and enter the following:

Column	***Field / Value***
Effective Date	[Hide – **checked**] Value Override – **03/03/2018**
Bonus Reason	Reference ID Type – **Event Classification Subcategory ID**

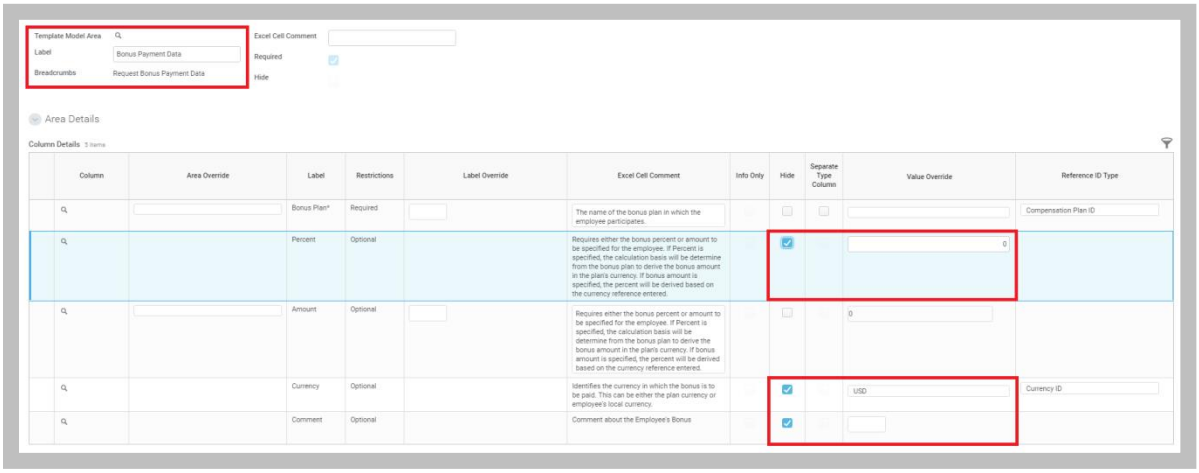


196 - First All Template Model Area

4. Scroll down to the Template Model Area **Bonus Payment Data** and enter the following:

Column	***Field / Value***
Percent	Hide – **checked**
Currency	[Hide – **checked**] Value Override – **USD**

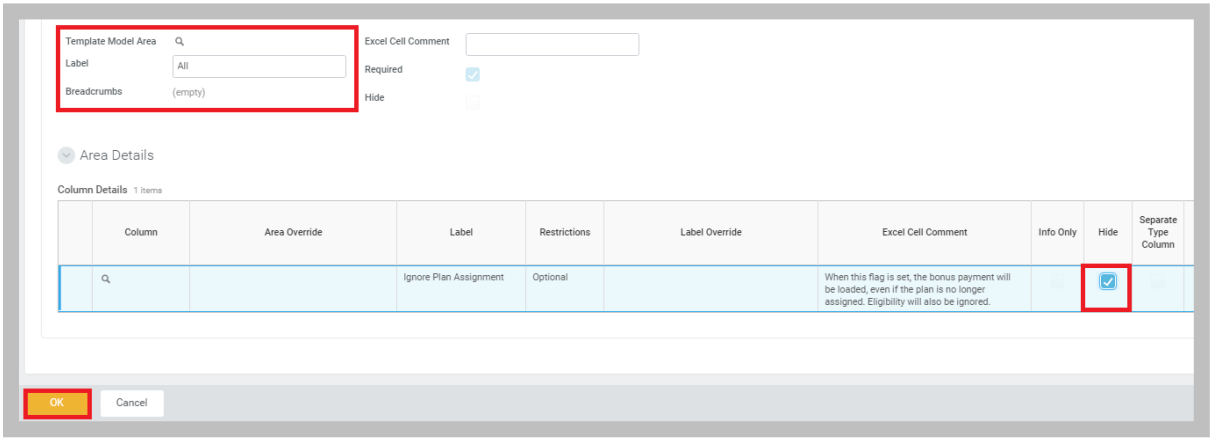
Comment	Hide – **checked**



197 - Bonus Payment Data Template Model Area

5. Scroll down to the second Template Model Area **All** and enter the following:

Column	***Field / Value***
Ignore Plan Assignment	Hide – **checked**

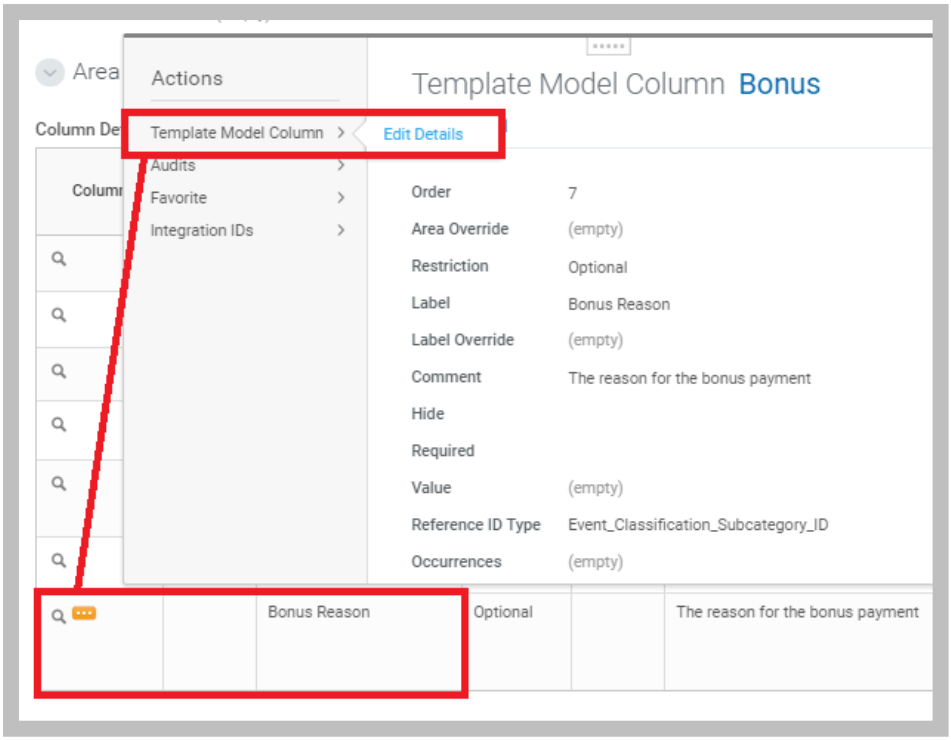


198 - Second All Template Model Area

6. Click **OK,** then **Done**.

7. In the *Request Bonus Payment* folder, select the first *All* template model area.

8. From the **Related Actions** in the *Bonus Reason* row's first column, navigate to **Template Model Column > Edit Details**.



199 - Template Model Column Edit Details related action

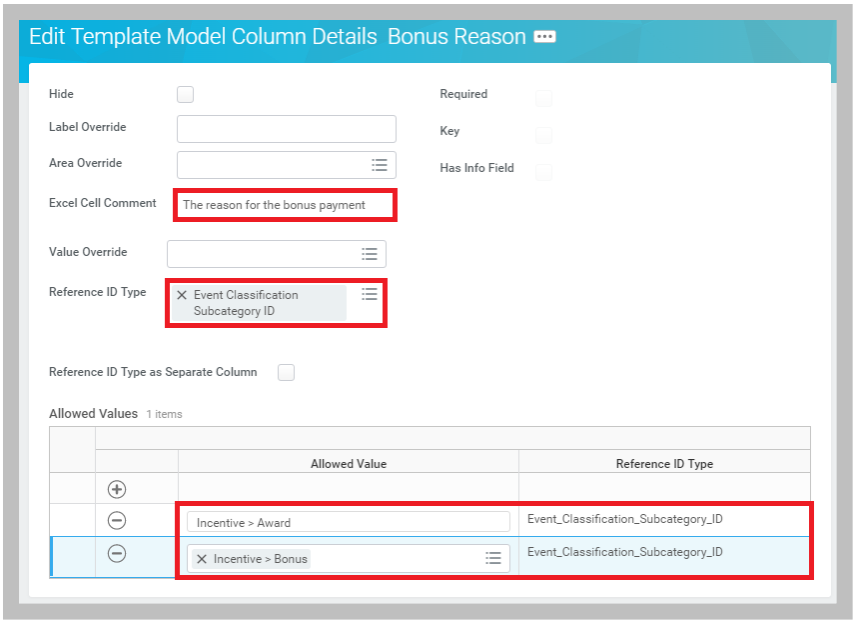
9. Enter "The reason for the bonus payment" in the *Excel Cell Comment* field.

10. Verify that the *Reference ID Type* is *Event Classification Subcategory ID*.

11. Under **Allowed Values**, add one row and enter the following:

    A. **One-Time Payment > Incentive > Bonus**

    B. **One-Time Payment > Incentive > Award**



200 - Edit Template Model Column Details

12. Click **OK** then **Done.**

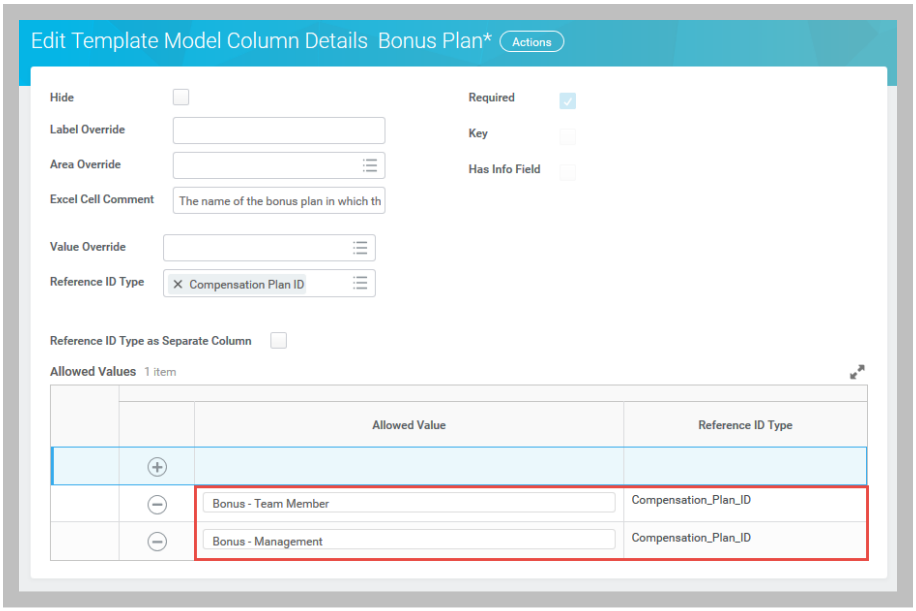
13. In the *Request Bonus Payment* folder, select the ***Bonus Payment Data*** template model area.

14. Use the relation actions in the *Bonus Plan* row's first column to navigate to ***Template Model Column > Edit Details***.

15. Under **Allowed Values**, add one row and enter the following

    A. **Bonus - Management**

    B. **Bonus – Team Member**



201 - Edit Template Model Column Details

16. Click **OK** then **Done**.

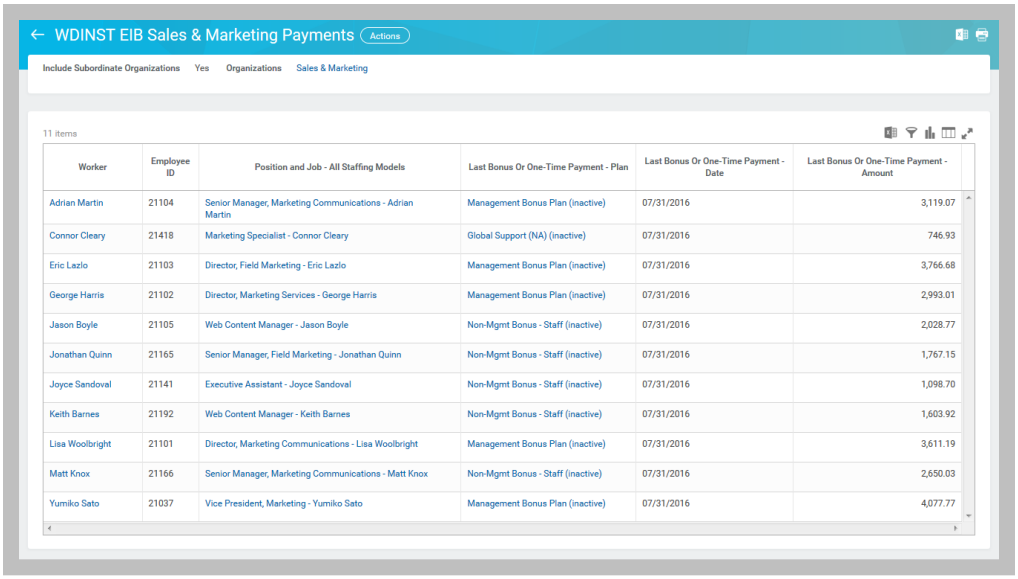
TASK #3: GENERATE SPREADSHEET TEMPLATE

1. From the **Related Actions**, select **Template Model > Generate Spreadsheet Template**
2. Save the spreadsheet to your hard drive, making note of the location.

TASK #4: REVIEW REPORT

Note: You can jump to Task #6 using the **8.3activityRequestBonusPayment.xml** file in the **Solution** folder

1. Search and run the report called **WDINST EIB Sales & Marketing Payments**.
2. Review the output. You will use this report to locate the necessary Reference IDs and to validate the data loaded by your integration system.



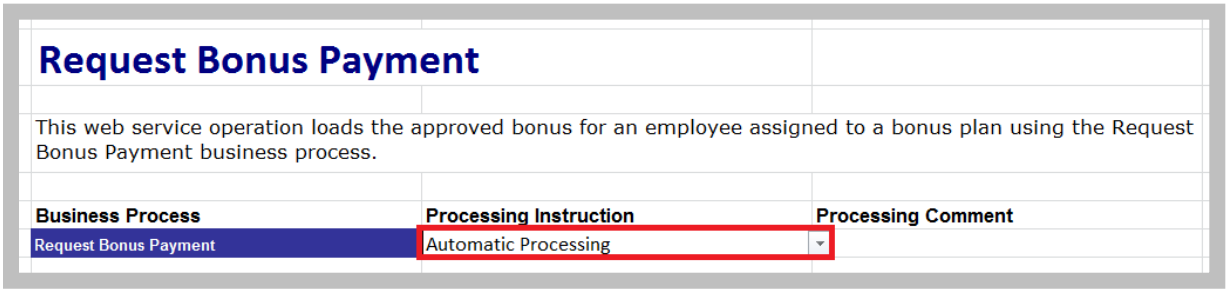
Worker	Employee ID	Position and Job - All Staffing Models	Last Bonus Or One-Time Payment - Plan	Last Bonus Or One-Time Payment - Date	Last Bonus Or One-Time Payment - Amount
Adrian Martin	21104	Senior Manager, Marketing Communications - Adrian Martin	Management Bonus Plan (inactive)	07/31/2016	3,119.07
Connor Cleary	21418	Marketing Specialist - Connor Cleary	Global Support (NA) (inactive)	07/31/2016	746.93
Eric Lazlo	21103	Director, Field Marketing - Eric Lazlo	Management Bonus Plan (inactive)	07/31/2016	3,766.68
George Harris	21102	Director, Marketing Services - George Harris	Management Bonus Plan (inactive)	07/31/2016	2,993.01
Jason Boyle	21105	Web Content Manager - Jason Boyle	Non-Mgmt Bonus - Staff (inactive)	07/31/2016	2,028.77
Jonathan Quinn	21165	Senior Manager, Field Marketing - Jonathan Quinn	Non-Mgmt Bonus - Staff (inactive)	07/31/2016	1,767.15
Joyce Sandoval	21141	Executive Assistant - Joyce Sandoval	Non-Mgmt Bonus - Staff (inactive)	07/31/2016	1,098.70
Keith Barnes	21192	Web Content Manager - Keith Barnes	Non-Mgmt Bonus - Staff (inactive)	07/31/2016	1,603.92
Lisa Woolbright	21101	Director, Marketing Communications - Lisa Woolbright	Management Bonus Plan (inactive)	07/31/2016	3,611.19
Matt Knox	21166	Senior Manager, Marketing Communications - Matt Knox	Non-Mgmt Bonus - Staff (inactive)	07/31/2016	2,650.03
Yumiko Sato	21037	Vice President, Marketing - Yumiko Sato	Management Bonus Plan (inactive)	07/31/2016	4,077.77

202 - WDINST EIB Sales & Marketing Payments report output

TASK #5: POPULATE THE EXCEL SPREADSHEET

1. Open the **Request_Bonus_Payment.xml** file created and saved in the previous activity.

2. On the **Overview** tab, select **Automatic Processing** for the Business Process.



203 - Overview tab

3. Enter the information below into the correct columns on the *Request Bonus Payment* Tab. Some of the values are accessible from the **WDINST EIB Sales & Marketing Payments** report:

Field Name	***Entry Value***
Spreadsheet Key	21103
Employee	21103
Position	P-00124

Bonus Reason	Select from Dropdown (One-Time_Payment_Incentive_Bonus)
Bonus Plan	BONUS_PERCENT_PLAN-16-38 - Select from Dropdown
Amount	1103

Spreadsheet Key	21102
Employee	21102
Position	P-00123
Bonus Reason	Select from Dropdown (One-Time_Payment_Incentive_Bonus)
Bonus Plan	Select from Dropdown BONUS_PERCENT_PLAN-16-38
Amount	1102

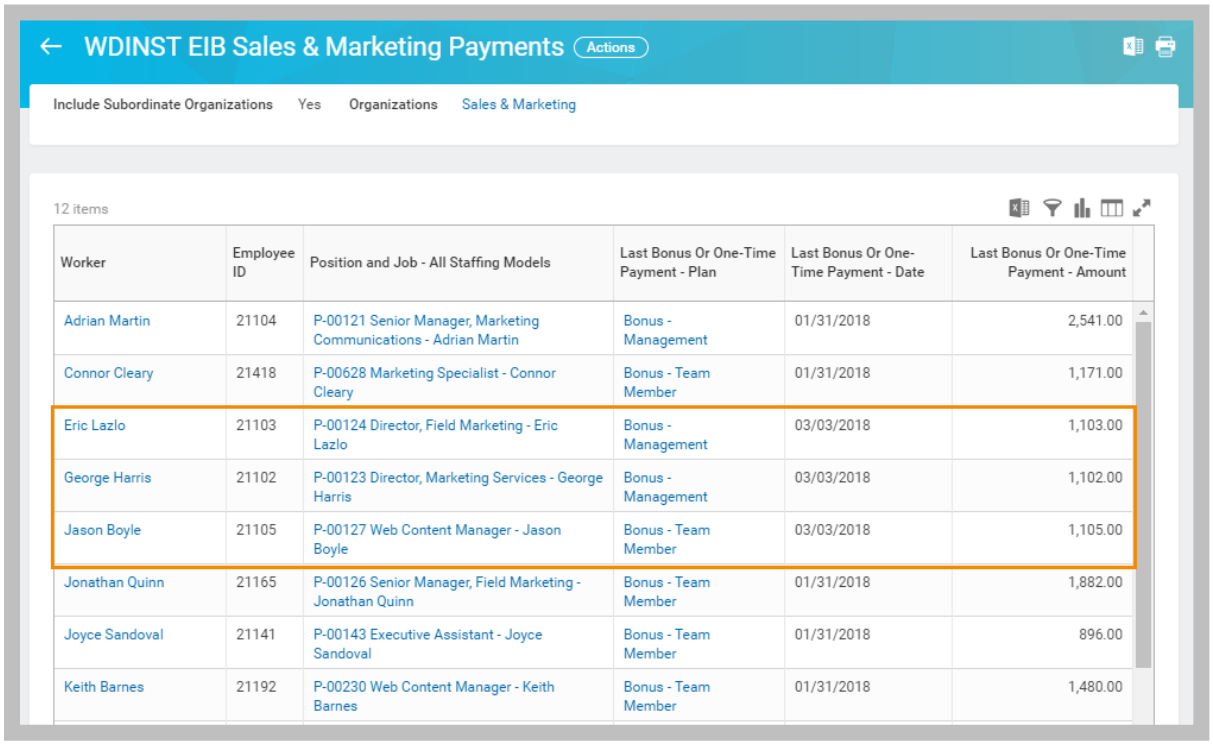
Spreadsheet Key	21105
Employee	21105
Position	P-00127
Bonus Reason	Select from Dropdown (One-Time_Payment_Incentive_Bonus)
Bonus Plan	Select from Dropdown BONUS_PERCENT_PLAN-16-39
Amount	1105

4. Save the spreadsheet. Click **Yes** if prompted to save in the current format.

TASK #6: LAUNCH THE INTEGRATION

1. Search for and select **WICT EIB Request Bonus for Sales & Marketing.**
2. From the **Related Actions**, select ***Integration > Launch/Schedule***.

3. Leave the default value of *Run Now* and click **OK**.
4. In the *Integration Attachment Value* prompt, select ***Create > Create Integration Attachment***.
5. Click the **Select Files** button or drop your file. (**Request_Bonus_Payment.xml** or **8.3activityRequestBonusPayment.xml**).
6. Click **OK** and **Done**.
7. Select *Specify Value* for **Validate Only Load** and select the checkbox.
8. Select the checkbox for **Add Errors to Attachment**.
9. Click **OK** and **Refresh** until the process completes.
10. If completed successfully, re-launch the integration event without Validate Only selected. Re-use the same integration attachment created above.
11. Run the **WDINST EIB Sales & Marketing Payments** report to verify the results.



Worker	Employee ID	Position and Job - All Staffing Models	Last Bonus Or One-Time Payment - Plan	Last Bonus Or One-Time Payment - Date	Last Bonus Or One-Time Payment - Amount
Adrian Martin	21104	P-00121 Senior Manager, Marketing Communications - Adrian Martin	Bonus - Management	01/31/2018	2,541.00
Connor Cleary	21418	P-00628 Marketing Specialist - Connor Cleary	Bonus - Team Member	01/31/2018	1,171.00
Eric Lazlo	21103	P-00124 Director, Field Marketing - Eric Lazlo	Bonus - Management	03/03/2018	1,103.00
George Harris	21102	P-00123 Director, Marketing Services - George Harris	Bonus - Management	03/03/2018	1,102.00
Jason Boyle	21105	P-00127 Web Content Manager - Jason Boyle	Bonus - Team Member	03/03/2018	1,105.00
Jonathan Quinn	21165	P-00126 Senior Manager, Field Marketing - Jonathan Quinn	Bonus - Team Member	01/31/2018	1,882.00
Joyce Sandoval	21141	P-00143 Executive Assistant - Joyce Sandoval	Bonus - Team Member	01/31/2018	896.00
Keith Barnes	21192	P-00230 Web Content Manager - Keith Barnes	Bonus - Team Member	01/31/2018	1,480.00

204 - WDINST EIB Sales & Marketing Payments report output

CHAPTER 9 – ADVANCED INBOUND EIB OPTIONS

OVERVIEW

Workday has enhanced some inbound web services to aid in data updates or to improve the scalability of high-volume data loads. Generating spreadsheet templates with data reduces time and effort by pre-populating templates with tenanted data that needs to be modified before being resubmitted. Import web services are specially-developed background processes that can process large amounts of data very efficiently.

OBJECTIVES

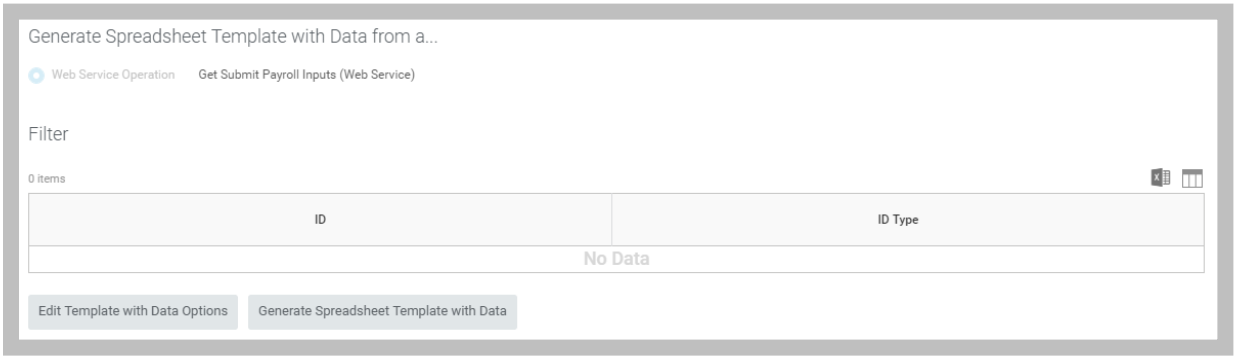
By the end of this chapter, you will be able to:

- Generate spreadsheet templates with data.
- Perform bulk uploads using Import Web Services.

GENERATE SPREADSHEET TEMPLATE WITH DATA

You have the ability to generate a spreadsheet populated with data to aid in loading data.

This option generates a pre-populated spreadsheet based on your EIB's web service operation and template configuration. You can edit the filter to populate specific data. When complete, you download the file from the *Notifications* section of My Workday report, or locate it on your W:Drive.



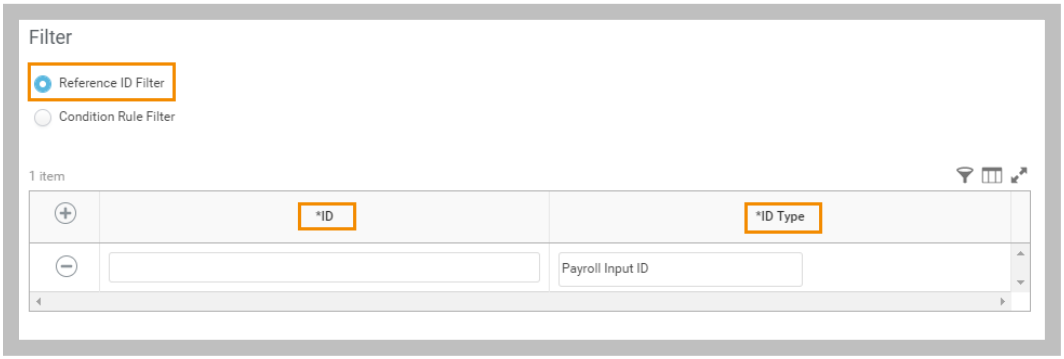
205 - Generate Spreadsheet Template with Data

This feature can be valuable when there is a need to reload minor edits or additions. The pre-populated spreadsheet can reduce the effort and time required.

EIBs: Edit Template with Data Options

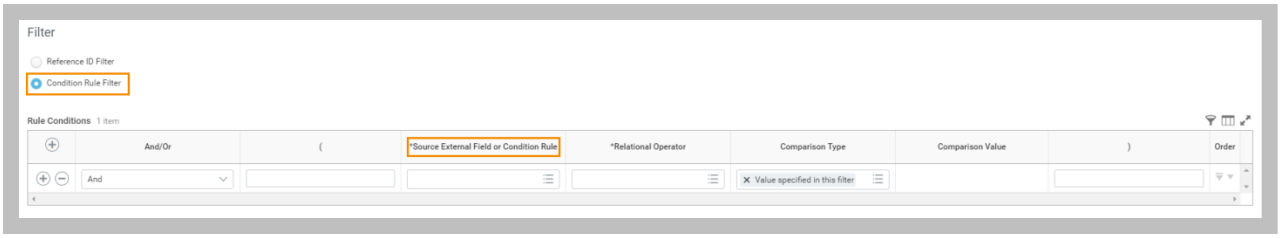
You have the possibility to choose between a Reference ID Filter or a Condition Rule Filter

A Reference ID Filter will need you to provide all the Reference IDs that you want in your output



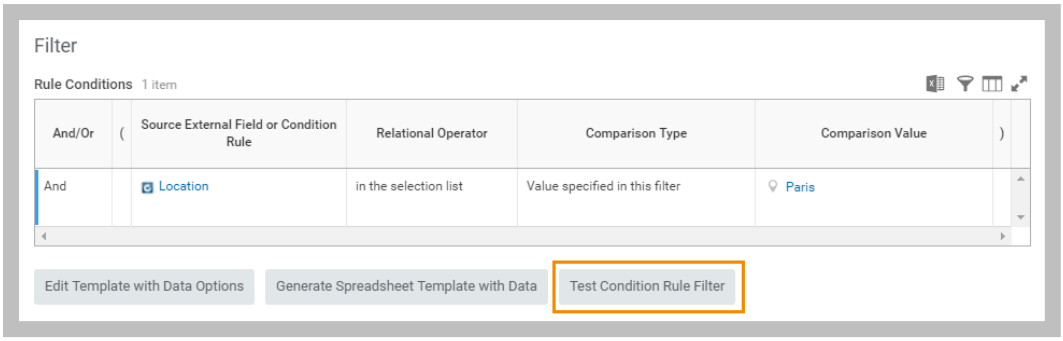
206 - Edit Template with Data Options, Reference ID Filter

A Condition Rule Filter allows you to create a filter using External Fields or Condition Rules in a similar way as creating a filter for a report



207 - Edit Template with Data Options, Condition Rule Filter

If you create a Condition Rule Filter, you then have the option to test it



208 - Test Condition Rule Filter

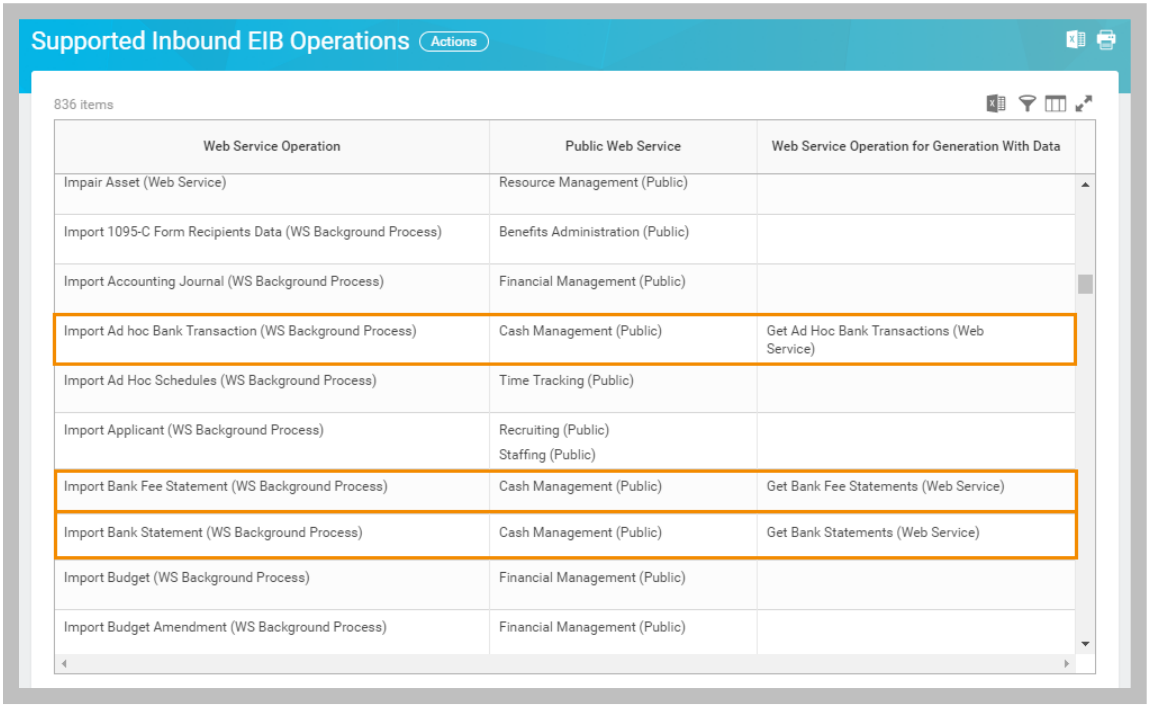
This will provide you with the list of items that will be included in the generated spreadsheet template.

Note: changes to the Workday Web Service may throw an error on the Condition Rule Filter if a referenced field is now absent from the Web Service Operation

EIBs: Spreadsheet with Data Size Limits

If you attempt to generate a spreadsheet with data where the web service operation returns between 60 MB and 300MB of data, Workday splits the output across multiple spreadsheets. If you attempt to generate a spreadsheet with data where the web service operation returns more than 300 MB of data or more than 50K instances, or if the generation time is over 2 hours, Workday displays an error in the Process Monitor and does not generate a spreadsheet. To resolve this issue, filter your data by selecting Edit Template with Data Options in the template model's Data tab.

The **Supported Inbound EIB Operations** report identifies the web service operations that currently support the ability to generate spreadsheet with data.



Web Service Operation	Public Web Service	Web Service Operation for Generation With Data
Impair Asset (Web Service)	Resource Management (Public)	
Import 1095-C Form Recipients Data (WS Background Process)	Benefits Administration (Public)	
Import Accounting Journal (WS Background Process)	Financial Management (Public)	
Import Ad hoc Bank Transaction (WS Background Process)	Cash Management (Public)	Get Ad Hoc Bank Transactions (Web Service)
Import Ad Hoc Schedules (WS Background Process)	Time Tracking (Public)	
Import Applicant (WS Background Process)	Recruiting (Public) Staffing (Public)	
Import Bank Fee Statement (WS Background Process)	Cash Management (Public)	Get Bank Fee Statements (Web Service)
Import Bank Statement (WS Background Process)	Cash Management (Public)	Get Bank Statements (Web Service)
Import Budget (WS Background Process)	Financial Management (Public)	
Import Budget Amendment (WS Background Process)	Financial Management (Public)	

209 - Supported Inbound EIB Operations

DEMO 9.A – RETRIEVE AND UPDATE THE PARIS LOCATION DATA

Introduction: We will retrieve the current data for the Paris Location in Workday.
We will change the data in the generated spreadsheet and use the EIB to load the updated data in Workday.

TASK #1: : RUN REPORT CONFIRM LOCATION DATA

1. Sign in as Logan McNeil (lmcneil).
2. Search for and run **Location Directory Map** report.
3. Filter the output by the Location column with the **Paris** value and confirm the Primary Address.

TASK #2: CREATE EIB

1. Use the **Create EIB** task to create an inbound integration system.

Field	***Value***
Name	WICT EIB Demo Update Location
Retrieval Method	Attach file at launch
File Type	Web Service Spreadsheet Template
Web Service Operation	Put Location (Web Service)

TASK #3: GENERATE SPREADSHEET WITH DATA

1. From the **Related Actions** of the EIB, select **Template Model > View**.
2. Scroll down to locate the *Data* tab; click the **Edit Template with Data Options** button.
3. Select **Condition Rule Filter** option.
4. In the **Source External Field or Condition Rule** search and select the self-referencing **Location** field.
5. For the **Relational Operator** select **in the selection list**.

6. For the **Comparison Value** select **Paris**.
7. Click **OK** and **Done**.
8. Scroll down to click the **Test Condition Rule Filter** button.
9. Confirm the Paris location output and click **Done**.
10. Scroll down to click the **Generate Spreadsheet Template with Data** button.
11. Check the **Generate Spreadsheet with Data** check box and click **Submit** and **Done**.
12. Click the link in your **Notifications** or in **My Reports** to save *Put_Location.xml* to your local hard drive.

TASK #4: POPULATE SPREADSHEET

Note: You can jump to Task #5 using the **9.AdemoUpdateParis .xml** file in the **Solution** folder.

1. Enter the following values into the spreadsheet:

Field Name	***Entry Value***
Formatted Address (column AF)	Replace **38 Avenue Kléber** with **2 Avenue du Président Kennedy**
Effective Date (column AK)	**2017-09-14** (will auto format)
Address line data (column AQ row 6)	Replace **38** by **2**
Address line data (column AQ row 7)	Replace **Avenue Kléber** with **Avenue du Président Kennedy**
Do Not Replace All (column BW row 6 and 7)	**Y**
Phone Number (column BZ row 6 and 7)	Remove spaces. Entries should be **185200200** and **185200201**

Do Not Replace All (column CO row 6)	**Y**

2. Save your file locally.

TASK #5: LAUNCH AND MONITOR INTEGRATION

1. Launch the **WICT EIB Demo Update Location** integration system.

Note: If you are on the Template model page, you can access the Integration system. Scroll down and click the **Usage** tab. From the **Related Actions** of the *WICT EIB Demo Update Location* integration system, launch it to **Run Now.**

2. Attach the updated spreadsheet.

3. Run it in **Validate Only** mode, and then, if error free, in live execution mode.

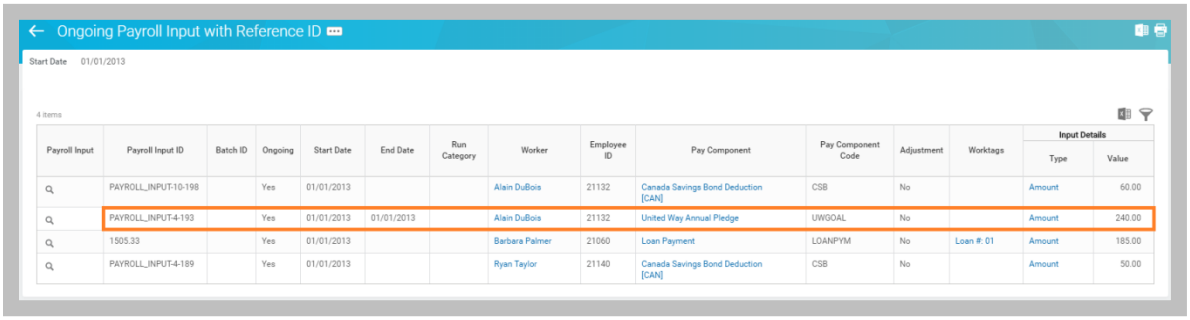
4. When complete, re-run the **Location Directory Map**, and note the changes to the Paris location address loaded with the EIB.

ACTIVITY 9.1 – GENERATE A SPREADSHEET TEMPLATE WITH DATA

Business Case: Using the Submit Payroll Input Web Service, Logan will generate a spreadsheet with data loaded from ongoing payroll input.

TASK #1: RUN REPORT TO LOCATE PAYROLL INPUT ID

1. Sign in as Logan McNeil (lmcneil).
2. Search for and run **Ongoing Payroll Input with Reference ID** report. Use **01/01/2013** as the Start date and click **OK**.
3. Note the **Payroll Input ID** for United Way Annual Pledge Pay Component: **PAYROLL_INPUT-4-193**.



210 - Ongoing Payroll Input with Reference ID report output

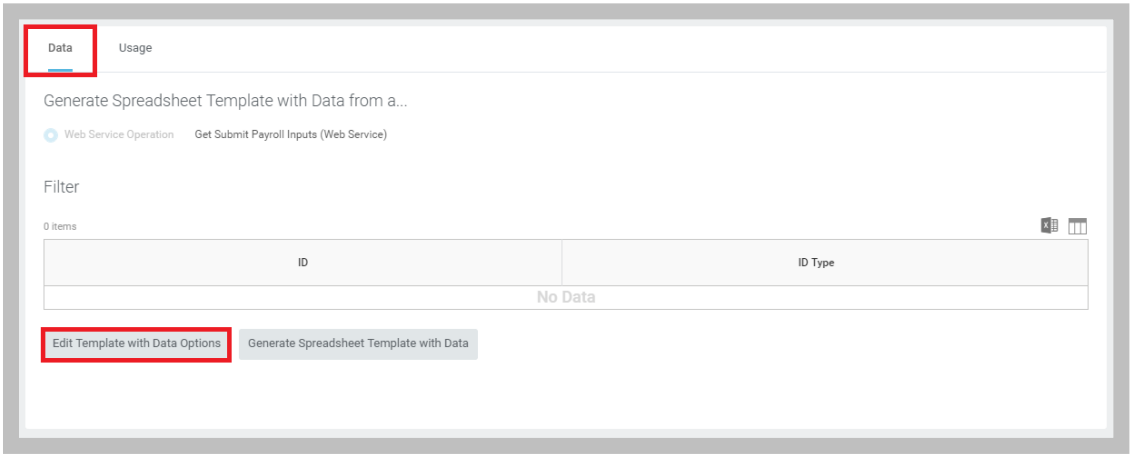
TASK #2: CREATE EIB

1. Use the **Create EIB** task to create an inbound integration system

Field	***Value***
Name	WICT EIB Submit Payroll Input
Retrieval Method	Attach file at launch
File Type	Web Service Spreadsheet Template
Web Service Operation	Submit Payroll Input (Web Service)

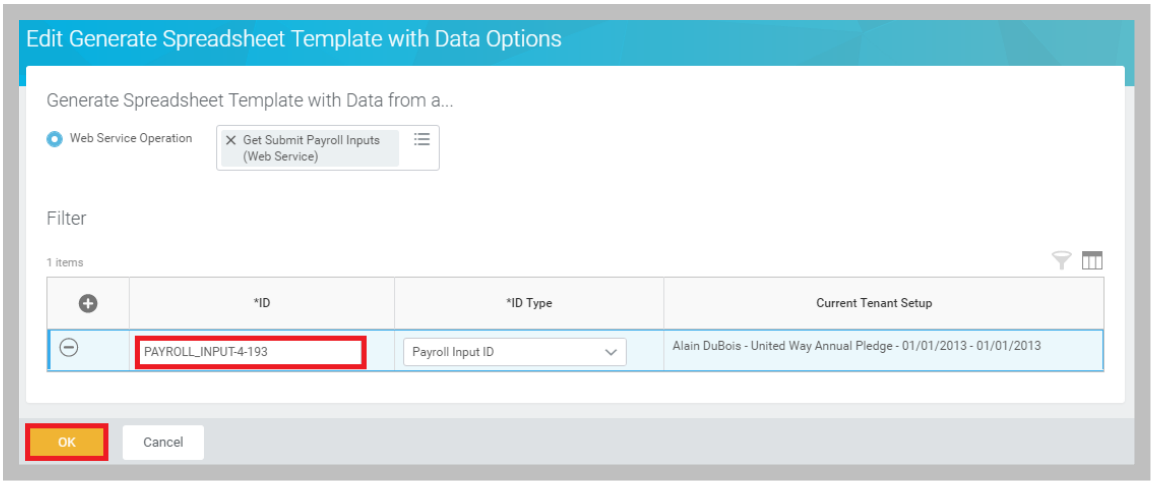
TASK #3: GENERATE SPREADSHEET WITH DATA

1. From the **Related Actions** of the EIB, select Template Model > View.
2. Scroll down to locate the *Data* tab; click the **Edit Template with Data Options** button.



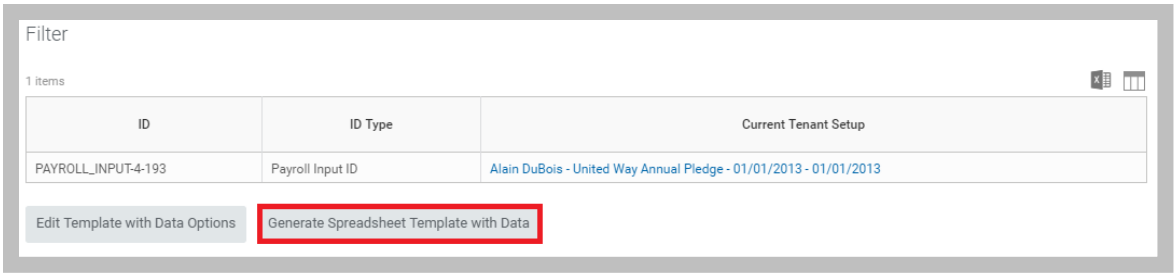
211 - Edit Template with Data Options button

3. In the **ID** field, enter the Payroll Input ID captured in Step 3 of Task 1 (PAYROLL_INPUT-4-193).
4. Click **OK**



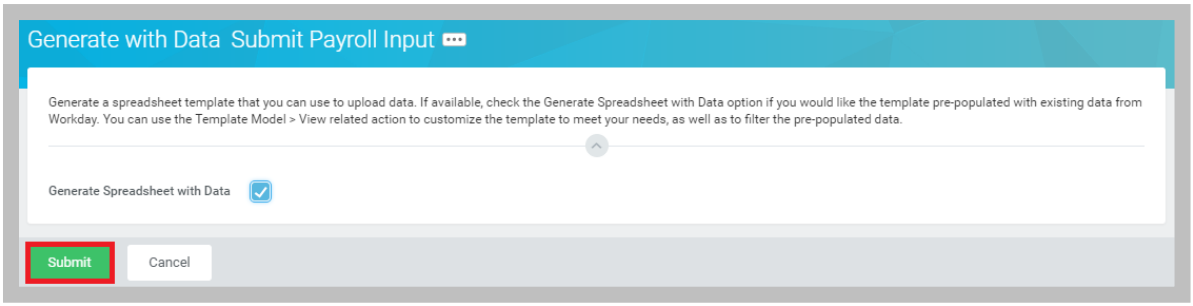
212 - Edit Template with Data Options

5. Notice the returned information in the Current Tenant Setup column and click **Done**.
6. Scroll down to click the **Generate Spreadsheet Template with Data** button.



213 - Generate Spreadsheet Template with Data button

7. Check the **Generate Spreadsheet with Data** check box and click **Submit** and **Done**.



214 - Generate Spreadsheet with Data

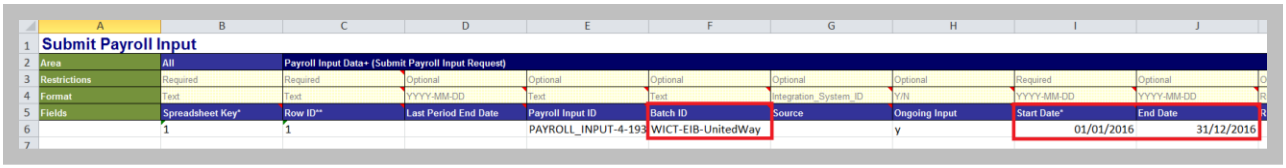
8. Click the link in your **Notifications** or in **My Reports** to save *Submit_Payroll_Input.xml* to your local hard drive.

TASK #4: POPULATE SPREADSHEET

Note: You can jump to Task #5 using the **9.1activityUpdatePayrollInput .xml** file in the **Solution** folder

1. Enter the following values into the spreadsheet

Field Name	***Entry Value***
Payroll Input ID (Column E)	PAYROLL_INPUT-4-193 (already populated)
Batch ID (Column F)	**WICT-EIB-UnitedWay**
Start Date (Column I)	**2018-01-01** (will auto format)
End Date (Column J)	**2018-12-31** (will auto format)



	A	B	C	D	E	F	G	H	I	J
1	Submit Payroll Input									
2	Area	All	Payroll Input Data+ (Submit Payroll Input Request)							
3	Restrictions	Required	Required	Optional	Optional	Optional	Optional	Optional	Required	Optional
4	Format	Text	Text	YYYY-MM-DD	Text	Text	Integration_System_ID	Y/N	YYYY-MM-DD	YYYY-MM-DD
5	Fields	Spreadsheet Key*	Row ID**	Last Period End Date	Payroll Input ID	Batch ID	Source	Ongoing Input	Start Date*	End Date
6		1	1		PAYROLL_INPUT-4-193	WICT-EIB-UnitedWay		y	01/01/2016	31/12/2016
7										

215 - Populated Spreadsheet

2. Save your file locally.

TASK #5: LAUNCH AND MONITOR INTEGRATION

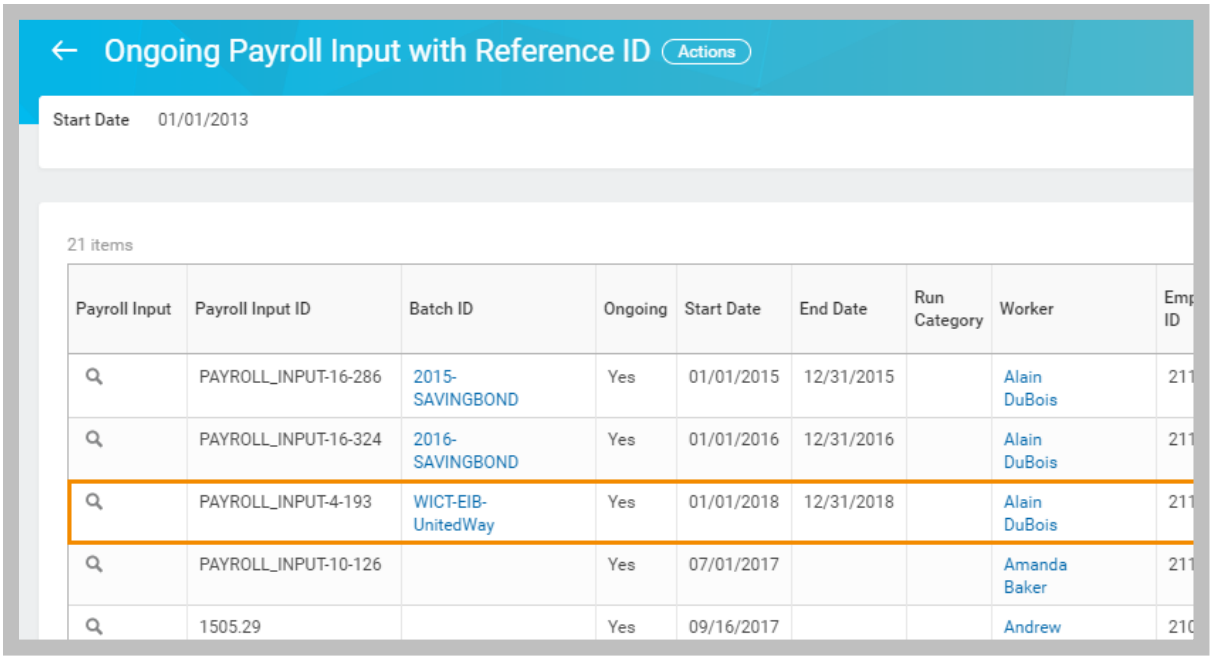
1. Launch the **WICT EIB Submit Payroll** integration system.

Note: If you are on the Template model page, you can access the Integration system. Scroll down and click the **Usage** tab. From the **Related Actions** of the *WICT EIB Submit Payroll i*ntegration system, launch it to **Run Now.**

2. Attach the updated spreadsheet.

3. Run it in **Validate Only** mode, and then, if error free, in live execution mode.

4. When complete, re-run the **Ongoing Payroll Input with Reference ID** report with a Start Date of **01/01/2013**, and note the changes loaded with your EIB.

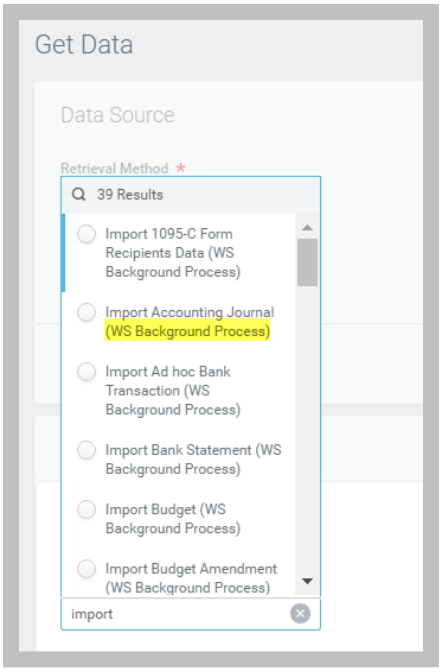


Payroll Input	Payroll Input ID	Batch ID	Ongoing	Start Date	End Date	Run Category	Worker	Emp ID
	PAYROLL_INPUT-16-286	2015-SAVINGBOND	Yes	01/01/2015	12/31/2015		Alain DuBois	211
	PAYROLL_INPUT-16-324	2016-SAVINGBOND	Yes	01/01/2016	12/31/2016		Alain DuBois	211
	PAYROLL_INPUT-4-193	WICT-EIB-UnitedWay	Yes	01/01/2018	12/31/2018		Alain DuBois	211
	PAYROLL_INPUT-10-126		Yes	07/01/2017			Amanda Baker	211
	1505.29		Yes	09/16/2017			Andrew	210

216 - Ongoing Payroll Input with Reference ID report output

INBOUND EIBS FOR IMPORT WEB SERVICES

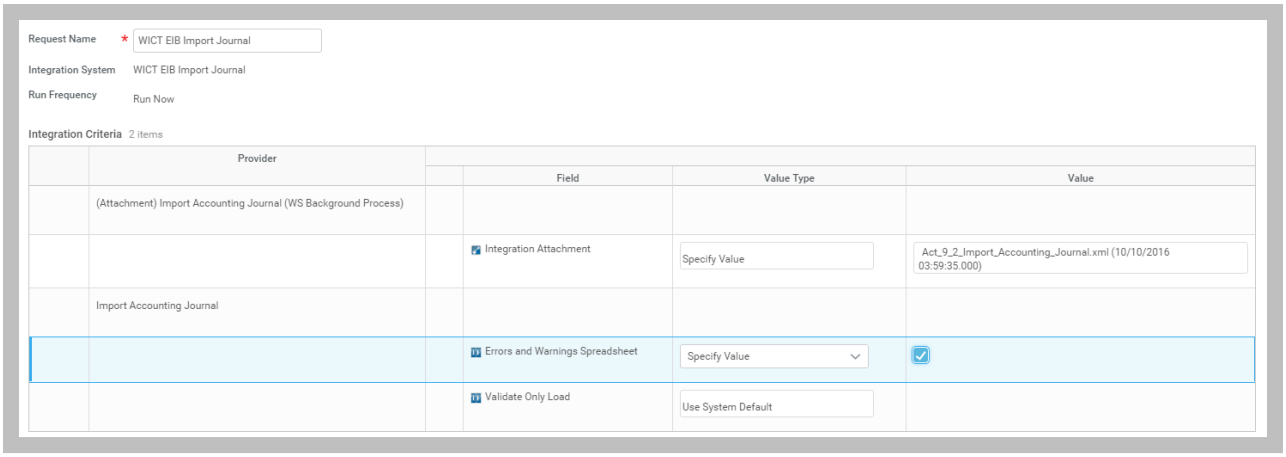
Import Web Services were made available starting with Workday 21. These “Web Service Background Processes” are optimized for performance and should be used instead of the standard “submit” services where possible. The benefits are improved availability of the Workday application for other users and systems, and reduced time and effort to monitor and troubleshoot the spreadsheet load.



217 - Import Web Service

Import Web Services have EIB template model support and generate a two-tab spreadsheet template. The integration event is enhanced with drillable errors providing access to view detailed data and exceptions. Import Web Services support both *Errors and Warnings Spreadsheets* and *Validate Only Load*.

Important: You can cancel an inbound EIB that uses an Import Web Service. Use the Background Process page’s related action to abort the import.



218 - Errors and Warnings Spreadsheets and Validate Only Load

DEMO 9.B – INBOUND EIB USING AN IMPORT WEB SERVICE

Business Case: You have been provided a spreadsheet that contains journal entries. You will create the EIB, attach the spreadsheet and view the results.

TASK #1: CREATE AN INBOUND EIB

1. Sign in as Terresa Serrano (tserrano).
2. Use the **Create EIB** task to create an inbound integration system.

Field	***Value***
Name	WICT EIB Demo Import Journal
Retrieval Method	Attach file at launch
File Type	Web Service Spreadsheet Template
Web Service Operation	Import Accounting Journal (WS Background Process)

TASK #2**:** INVESTIGATE THE SPREADSHEET TEMPLATE

1. View the template model. Notice the template pattern is **Web Service Background Process**.
2. Review the populated spreadsheet in the class files named **9.BdemoImportAccountingJournal.xml**.
    A. Note the two-tab entry format. The *Header Key* ties the data together across the tabs.
    B. The *Line Key* on the *Journal Entry Line Replacement* tab includes one debit and one credit entry for each *Header Key.*

TASK #3: LAUNCH AND MONITOR INTEGRATION SYSTEM

1. Search for and launch *WICT EIB Demo Import Journal* using its **Related Actions**.

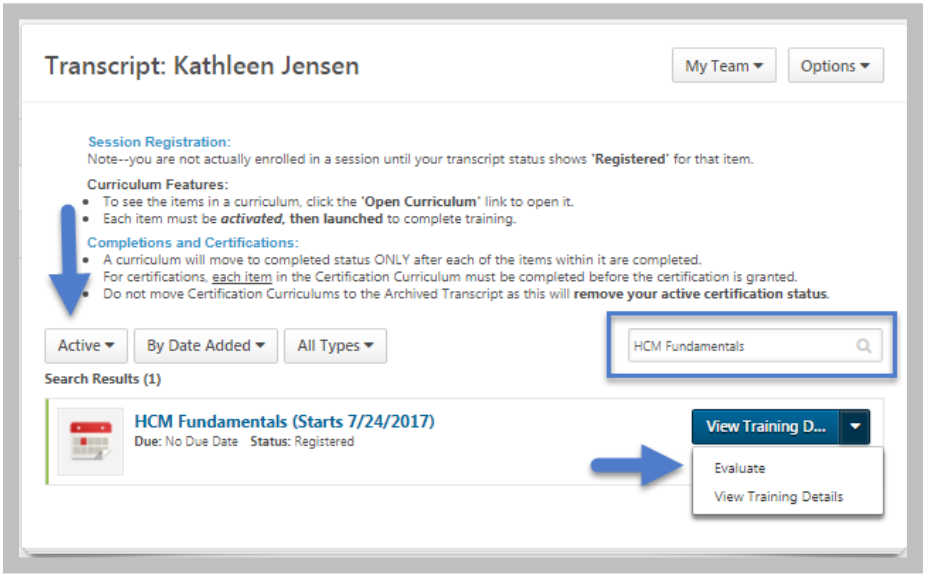
2. Attach the **9.BdemoImportAccountingJournal.xml** spreadsheet.
3. Select **Specify Value** for *Errors and Warnings Spreadsheet* and click the checkbox.
4. Click **OK** to launch. **Refresh** until the event completes.
5. Note that one journal was processed successfully, but the other had an error. Click the number in the *Errors & Warnings* column (or in the header of the View Background Process page) to view the error details.
6. On the Output Files tab, download and open the ErrorsAndWarningsSpreadsheet.xml file.
7. Run the **Find Journals** report to view the changes that were successfully submitted. Populate the following prompts:

Field	***Value***
Company	Global Modern Services – USA
Year	2018
Period	Apr

APPENDIX A – CLASS EVALUATIONS

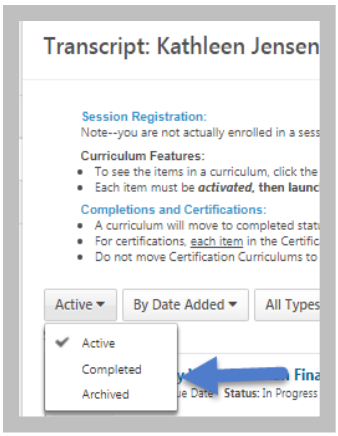
AVAILABLE AT THE START OF THE LAST DAY OF CLASS

1. Log in to the Learning Center: https://workday.csod.com
2. Select **View Transcript**.
3. Locate the training session in your **Active** tab. (Use the search field to quickly find your training session.)
4. Click the **View Training Details** pull-down menu and select **Evaluate**.



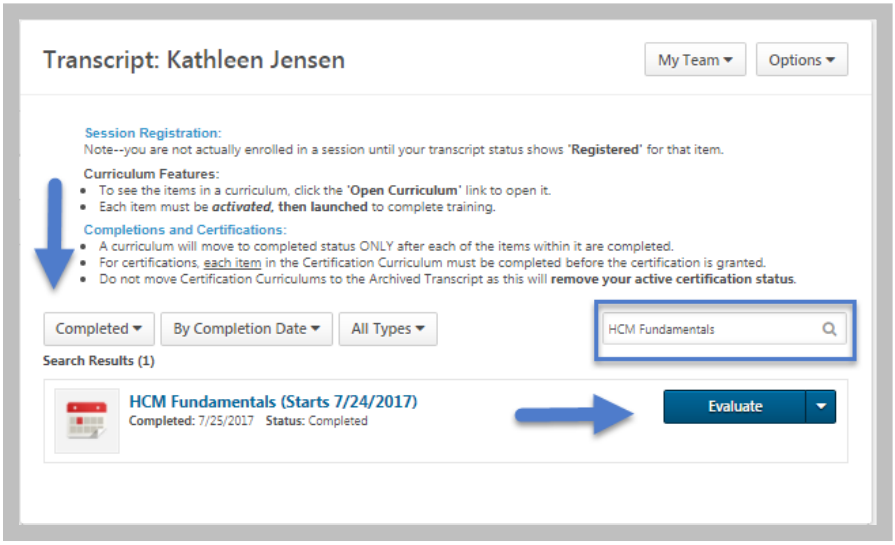
AVAILABLE AFTER CLASS ENDS AND ROSTER SUBMITTED

1. Log in to the Learning Center: https://workday.csod.com
2. Select **View Transcript**.
3. Select the **Active** tab to toggle to your **Completed** training.



4. Locate and select the completed training session. (Use the search field to quickly find your training session.)

5. Click **Evaluate**.



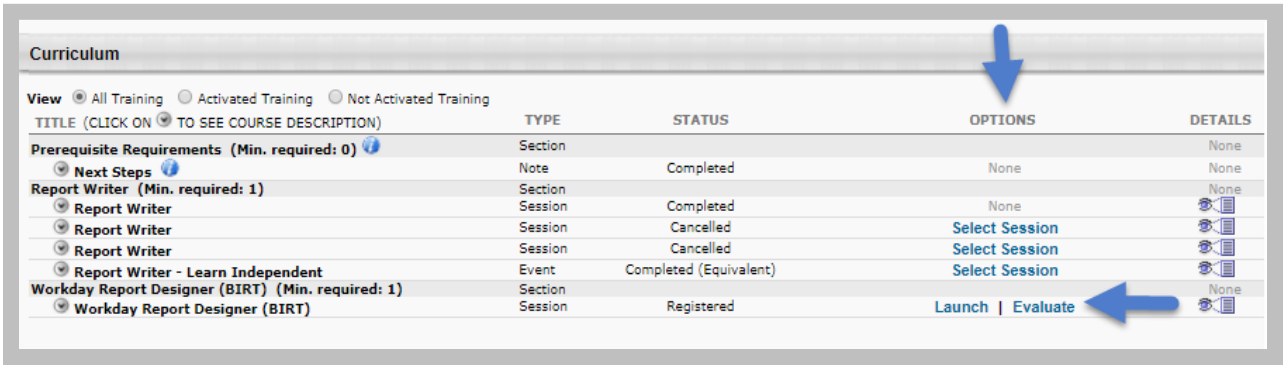
CLASS EVALUATION (SESSION WITHIN A CURRICULUM): AVAILABLE AT THE START OF THE LAST DAY OF CLASS

1. Log in to the Learning Center: https://workday.csod.com

2. Select **View Transcript**.

3. Locate the training session within the curriculum in your Active tab. (Use the search field to quickly find your training session and select the Curriculum Training Tile link to open the curriculum.)

4. Select **Evaluate** under the Options column.

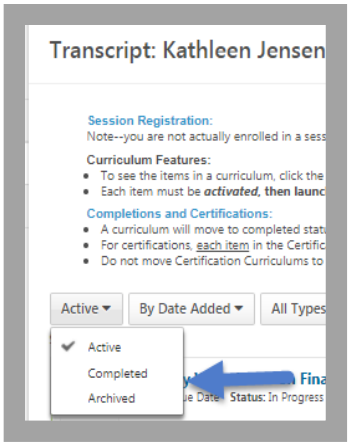


CLASS EVALUATION (WITHIN A CURRICULUM): AVAILABLE AFTER CLASS ENDS AND ROSTER SUBMITTED

1. Log in to the Learning Center: https://workday.csod.com

2. Select **View Transcript**.

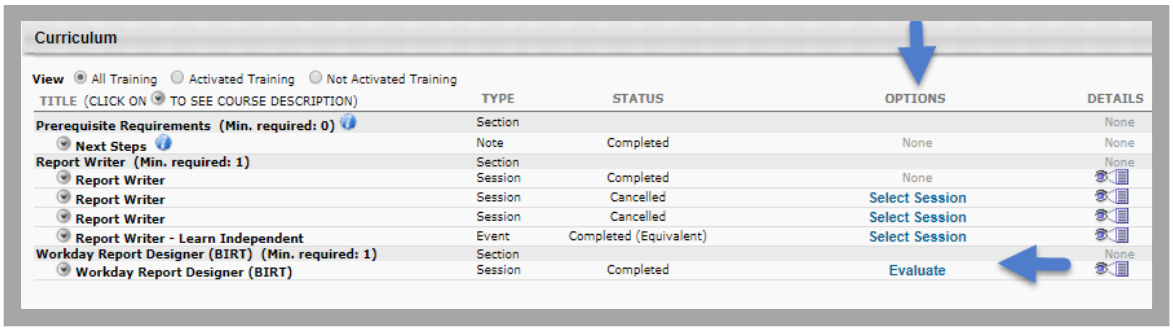
3. Select the **Active** tab to toggle to your **Completed** training.



Note: If the curriculum is still Active, meaning the curriculum requirements have not been met, the curriculum will remain on the Active tab.

4. Locate and select the completed training curriculum. Select the Training Title link to open the curriculum and locate the session. (Use the search field to quickly find your training session.)

5. Click **Evaluate**.



APPENDIX B – KNOWLEDGE CHECK ANSWER KEYS

INTRODUCTION

This section contains answers to questions posed throughout the Knowledge Checks in this course.

DAY 1 KNOWLEDGE CHECK

This knowledge check is set at the beginning of day 2

1. What are the three steps in the EIB design pattern?
   Data Source, Transformation, Transport.

2. What are the two possible data sources for an outbound EIB?
   Report and WWS

3. In addition to general integration security, to launch an EIB you must have access to the underlying data via?
   The Web Service Operation or RaaS Report

4. Where can you go to see the list of scheduled integrations?
   Scheduled Future Processes report

5. You can either launch an outbound EIB immediately or you can schedule it. What is another way to trigger your integration?
   Triggering it in real time from a business process.

6. Which of the following is not an alternate output format for a RaaS Report?
   XSLT.
   CSV, Simple XML and JSON are valid alternate output formats.

7. Can you schedule both inbound and outbound EIBs?
   Yes

8. Which one is not a delivery point for outbound EIBs?
   RaaS Report
   Workday attachment, sFTP and Email are valid delivery points.

9. What report is best suited to view the results of an integration event?
   Integration Event

DAY 2 KNOWLEDGE CHECK

This knowledge check is set at the beginning of day 3

1. Why do we use inbound EIBs?
   Send data from an external system to Workday.
   Bulk load of user provided data into Workday.

2. What is the delivery point for inbound EIBs?
   Workday Web Service

3. The file that loads into an EIB must be in what format?
   XML

4. Which of the following IDs **cannot** be used in inbound EIBs?
   National ID
   Workday ID, Reference ID and Reserved System ID are valid integration IDs

5. Can you use the object's "names" or user-friendly labels in the spreadsheet?
   No

6. How would I find the Ref ID for multiple locations?
   View Reference ID

7. How would I find the Ref ID for Betty Liu's organization?
   Betty Liu's organization's Related Actions

8. In the Workday UI, what is an indication that you will need a Integration ID in a spreadsheet template?
   A prompt or dropdown list

9. Where do you go to see the security for a Web Service Operation?
   View Security for Securable Item.

APPENDIX C – DEMO AND ACTIVITY CHAINS

DEMO CHAIN

2.A – Review Raas report outputs

2.B – Create an Outbound EIB

2.C – Launch EIB Using Security Proxy (Optional)

2.D – Launch an EIB from a Business Process

2.E – Schedule EIB

2.F – Verify the scheduled run's security

3.A – Apply a Custom Report Transformation

3.B – Apply a Custom Transformation (XSLT)

3.C – EDIT XSLT Attachments

4.A – Create Dynamic Filenames

4.B – Create Unique Filenames and configure SFTP Delivery

4.C – Email PGP Encrypted Files

4.D – Configure Notifications

5.A – Outbound EIB using WWS

5.B – Transform and deliver the Output of the WWS Data Source (Optional)

5.C – Inbound EIB using WWS and XSLT

6.A – Create inbound EIB to update emails

6.B – Change Emails using Inbound EIB with Spreadsheet Template

7.A – Troubleshoot Email update Integration

8.A – Manage Languages using Spreadsheet Templates

8.B – Populate the Languages Spreadsheet

8.C – Customize the Maintain Contact Template Model

9.A – Retrieve and Update the Paris location Data

9.B – Inbound EIB Using an Import Web Service

ACTIVITY CHAIN

- 2.1 – Create an Outbound EIB
  - 2.2 – Launch EIB Using Security Proxy (Optional)
  - 2.3 – Launch an EIB from a Business Process
    - 4.1 – Create Dynamic Filenames
  - 2.4 – Schedule EIB
    - 2.5 – Verify the scheduled run's security (Optional)
  - 3.1 – Apply a Custom Report Transformation
  - 3.2– Apply a Custom Transformation (XSLT)
    - 3.3– EDIT XSLT Attachments
  - 4.2– Create Unique Filenames and configure SFTP Delivery
  - 4.3 – Email PGP Encrypted Files
  - 4. 4 – Configure Notifications
- 5.1 – Outbound EIB using WWS
- 5.2 – Inbound EIB using WWS and XSLT
- 6.1 – Create EIB for Hire Employee
  - 6.2 – Hire Employees With an Inbound EIB Using Template
    - 7. 1 – Hire error Troubleshooting
- 8.1 – Generate a Spreadsheet Template to update Education/Degrees
  - 8.2 – Populate Spreadsheet Template with Child Data
- 8.3 – Customize a Template Model
- 9.1 – Generate a Spreadsheet Template with Data

APPENDIX D – OPTIONAL DEMOS AND ACTIVITIES

OPTIONAL DEMOS

DEMO 2.C – LAUNCH EIB USING SECURITY PROXY (OPTIONAL)

Introduction: This demo will show how Jack Taylor will only have access to report as the data source of the WICT EIB Demo Integration.
He will not be able to run the report

TASK #1: TEST ACCESS TO LAUNCH EIB

1. Sign in as Jack Taylor (jtaylor). **Do not Proxy**.
2. Search the **WICT EIB Demo Report** report. Confirm that Jack has no access to the report.
3. Search for and select the **Launch / Schedule Integration** task.
4. Confirm that Jack cannot select the **WICT EIB Demo Integration** EIB in the **Integration** parameter.

TASK #2: CONFIGURE SECURITY PROXY

1. Sign in as Logan McNeil (lmcneil).
1. Search for and select the **Create Security Proxy** task.
2. Configure the security proxy as follows:

Field	***Value***
Report Definition	WICT EIB Demo Report
Proxied Workday Account	lmcneil
Authorized Workday Account	jtaylor

3. Click **OK** to save and click **Done**.

4. Search for the **WICT EIB Demo Integration** integration system.
5. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
6. Edit the **Data Source** section
7. Expand **Details**.
8. Enter **lmcneil** as the **Run As System User**.
9. Save the section.
10. Click **OK**.

TASK #3: TEST ACCESS TO LAUNCH EIB

1. Sign in as Jack Taylor (jtaylor). Do not Proxy.
2. Search for the **WICT EIB Demo Report** report. Confirm that Jack still has no access to the report.
3. Search and select the **Launch / Schedule Integration** task.
4. Confirm that Jack can select the **WICT EIB Demo Integration** EIB in the **Integration** parameter.
5. In the prompt page provide *IT Helpdesk department* as the organization and click **OK**.
6. Configure the **Integration Criteria** as follows:

Field	***Value***
Orgs	Payroll Department
Include Sub	Not checked

7. Click **OK**.
8. On the *View Background Process* page, click **Refresh** until the event completes.
9. Select the **Output Files** tab.
10. Click the link to download the **DemoIntegrationOutput.csv** file, and open it in a text editor.

TASK #4: REMOVE SECURITY PROXY CONFIGURATION FOR UPCOMING DEMOS

1. Sign in as Logan McNeil (lmcneil).
2. Search for the **WICT EIB Demo Integration** integration system.
3. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
4. Edit the **Data Source** section.
5. Expand **Details**.
6. Remove **lmcneil** from the **Run As System User**.
7. Save the section.
8. Click **OK**.

DEMO 5.B – TRANSFORM AND DELIVER THE OUTPUT OF THE WWS DATA SOURCE (OPTIONAL)

Introduction: We will add an XSLT transformation and a sFTP delivery to the EIB created in the previous demo.

TASK #1: CREATE XSLT ATTACHMENT

1. Sign in as Logan McNeil (lmcneil).
2. Search for 'create xslt' and select the **Create XSLT Attachment Transformation** task.
3. Name the XSLT Attachment Transformation **WICT EIB Demo Positions**.
4. Click the **Select Files** button or drop the **5.Bdemo.xsl** file.
5. Click **OK** and **Done** to save your XSLT attachment.

TASK #2: CREATE ID DEFINITION / SEQUENCE GENERATOR

1. Search for '*create sequence'* and select the **Create ID Definition / Sequence Generator** task.
2. Enter the following:

Field Name	***Value***
Sequence Name	WICT EIB Demo Positions
Increment by	1
Use Time Zone	Select your time zone from the list
Format/Syntax	WICTposition[HH][mm][seq].xml

3. Click **OK** to save, then **Done**.

TASK #3: CONFIGURE AND LAUNCH THE EIB

1. Search for and select the **WICT EIB Demo Positions** integration system.
2. From the **Related Actions** of *WICT EIB Demo Positions* to select **Enterprise Interface > Edit**.

3. Edit the **Transform** section.
4. Select **Custom Transformation** from the *Transformation Type* drop-down menu.
5. Enter **WICT EIB Demo Positions** in the *Custom Transformation* field to select the XSLT attachment you created earlier.
6. Save the section.
7. **Edit** the **Deliver** section.
8. Enter the following:

Field	***Value***
Delivery Method	SFTP
SFTP Address	{provided by instructor}
Directory	/home/{your name}
Authentication Method	User Name / Password
User Id	{provided by instructor – NOT your tenant username}
New Password / Verify Password	{provided by instructor – NOT your tenant password}

9. Expand **Details**.
10. In the *Sequence Generator for Filename* prompt, select **WICT EIB Demo Positions.**
11. Click **OK**. This will automatically save the section
12. Use the related actions *Launch/Schedule* the **WICT EIB Demo Positions** Integration System.
13. For the File Name, select **Determine Value at Runtime** for the *Value Type*, and using the **Next Sequence for Integration File Utility** for the *Value* field.

14. Click **OK** and **Refresh** until completion.

15. From the Output Files tab, Open the transformed file and compare with the original file from the previous demo

16. Use **Test Transport** to access the sFTP server to confirm the presence of the transformed file

OPTIONAL ACTIVITIES

ACTIVITY 2.2 – LAUNCH EIB USING SECURITY PROXY (OPTIONAL)

Business Case: Teresa Serrano should launch the WICT EIB New Hire Integration EIB but does not have access to its report. Logan will configure a Security Proxy to allow her to do so.

- Teresa should only have access to launch the integration, not to run the report.

TASK #1: TEST ACCESS TO LAUNCH EIB

1. Sign in as Teresa Serrano (tserrano). **Do not Proxy**.

   Note: All users in the tenant share the same password.

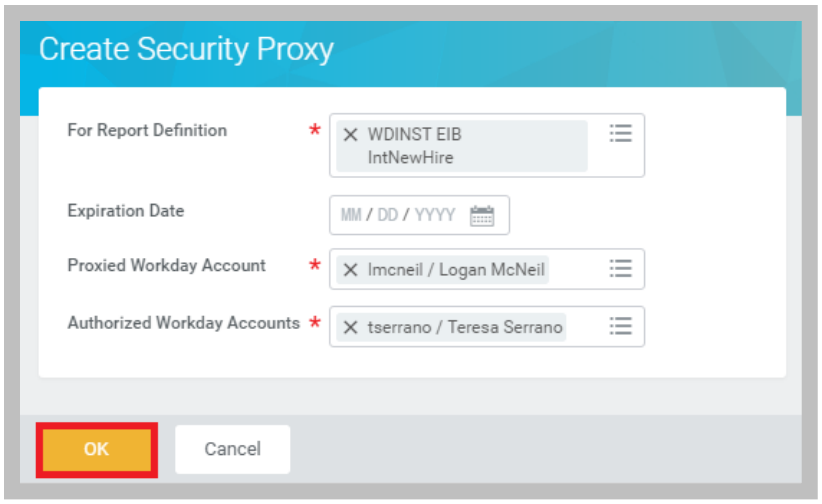
2. Search for and select the **WICT EIB New Hire Integration** integration system.
3. From the EIB's **Related Actions,** to try to select **Integration > Launch/Schedule**.
4. Confirm Teresa does not have the option to launch the integration.

TASK #2: CONFIGURE SECURITY PROXY

1. Sign in as Logan McNeil (lmcneil). **Do not Proxy**.
2. Access the **Create Security Proxy** task.
3. Configure the security proxy as follows:

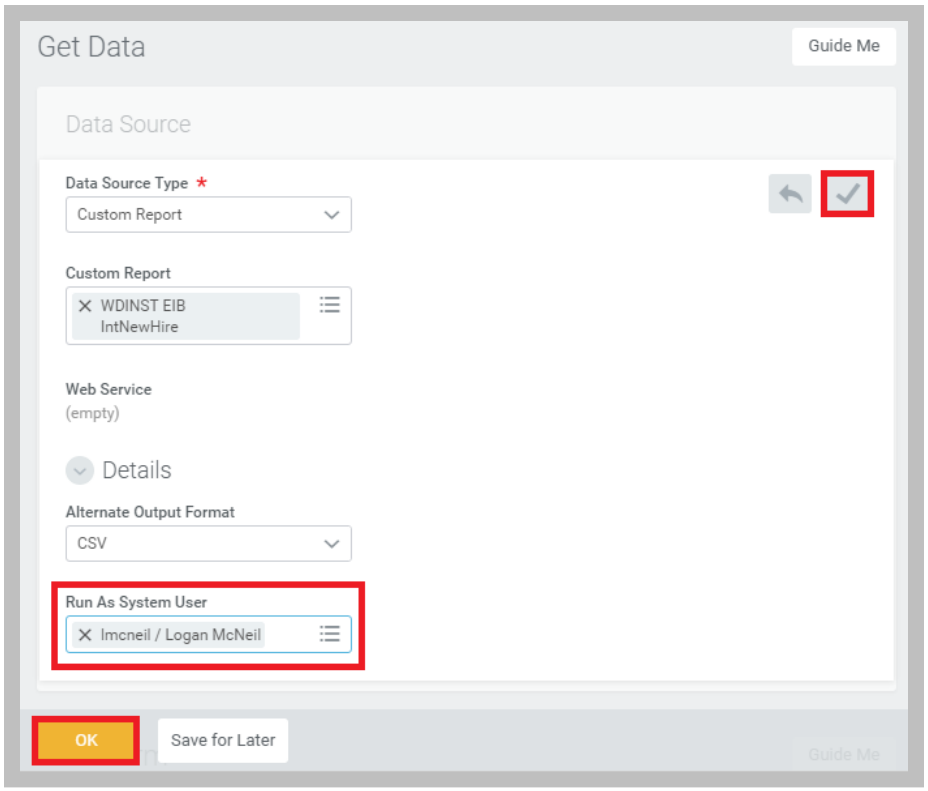
Field	***Value***
Report Definition	WDINST EIB IntNewHire
Proxied Workday Account	lmcneil
Authorized Workday Account	tserrano

4. Click **OK** to save.



219 - Create Security Proxy task

5. Click **Done**.
6. Search for the **WICT EIB New Hire Integration** integration system.
7. From the EIB's **Related Actions,** select **Enterprise Interface > Edit**.
8. Edit the **Data Source** section.
9. Expand **Details**.
10. Enter **lmcneil** as the **Run As System User**.
11. Save the section.
12. Click **OK**.



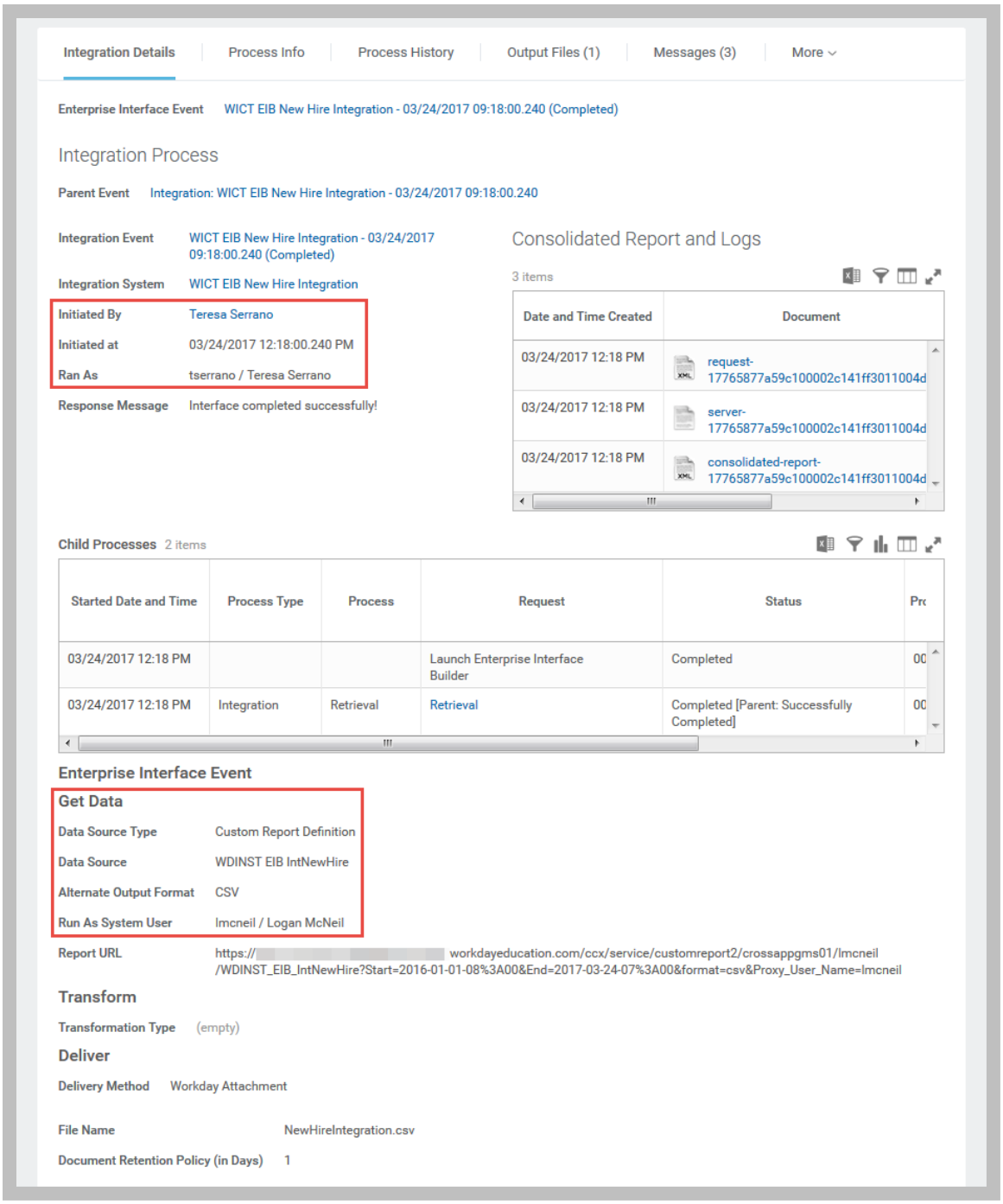
220 - Get Data, Data Source section

TASK #3: LAUNCH EIB AS AUTHORIZED USER

1. Sign in as Teresa Serrano (tserrano). **Do not Proxy**.
2. Search for the **WICT EIB New Hire Integration** integration system.
3. From the **Related Actions,** select **Integration > Launch / Schedule**.
4. Click **OK** to accept the Now, Run Frequency.
5. Enter the report parameters:

Field	***Value***
Start	01/01/2017
End	{Today's date}

6. Click **OK** to launch the integration.
7. **Refresh** until complete and review the Integration Process details.



221 - View Background Process, Integration Details tab

TASK #4: REMOVE SECURITY PROXY CONFIGURATION FOR UPCOMING ACTIVITIES

1. Sign in as Logan McNeil (lmcneil).
2. Search for and select the **WICT EIB New Hire Integration** integration system.

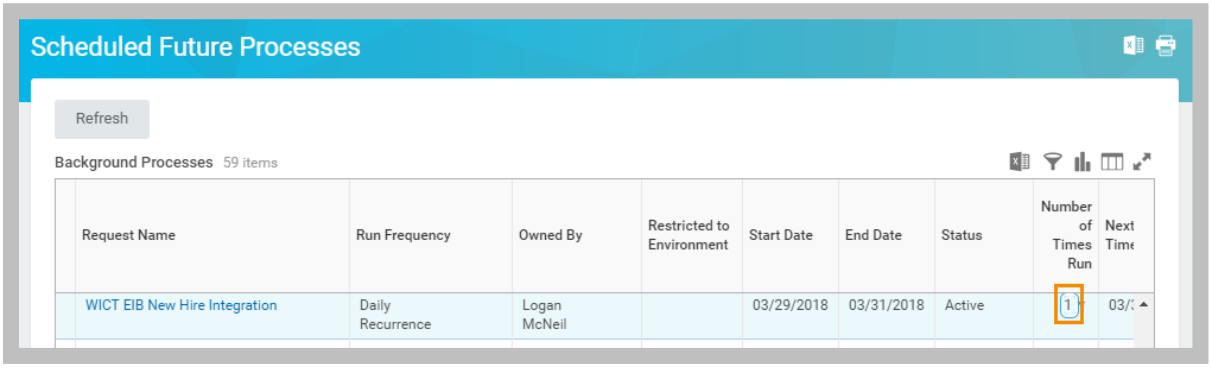
3. From the EIB's **Related Actions**, select **Enterprise Interface > Edit**.
4. Edit the **Data Source** section.
5. Expand **Details**.
6. Remove **lmcneil** from the **Run As System User**.
7. Save the section.
8. Click **OK**.

ACTIVITY 2.5 – VERIFY THE SCHEDULED RUN'S SECURITY (OPTIONAL)

Business Case: Logan needs to confirm that the EIB's security is setup correctly. She will access the background request page to confirm that the EIB did run under the ISU's security.

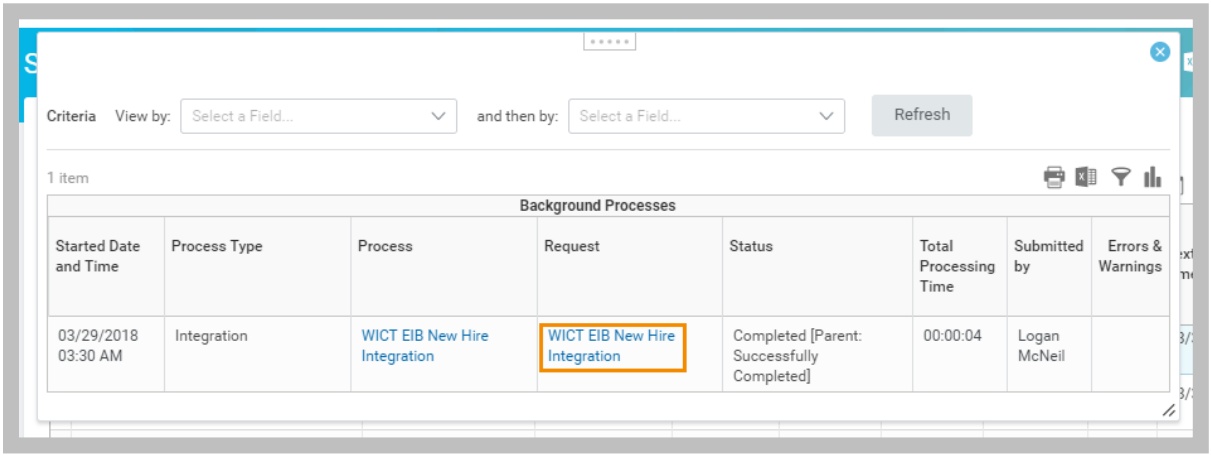
TASK #1: CONTROL SECURITY

1. Search for and run the **Scheduled Future Processes** report.
2. Find the schedule for the **WICT EIB New Hire Integration**.
3. Click on the number in the **Number of Times Run** column.



9 - Scheduled Future Processes, Number of Times Run

4. In the pop up window click on **WICT EIB New Hire Integration** in the **Request** column.



10 - Pop up, WICT EIB New Hire Integration Request

5. Confirm that the process has been initiated by Logan McNeil and ran as WDINST EIB New Hire ISU.

6. Select the **Output Files** tab.

7. Click the link to download the **NewHireIntegration.csv** file, and open it in a text editor.

8. Confirm that the EIB's security setup is correct as the output contains all the data fields for Jack Williams.

APPENDIX E – USEFUL LINKS

EIB LIMITATIONS

For further details, refer to the Workday Community reference: Integrations and Web Service Limits.

ENCRYPTION

For additional information, refer to Workday Community for PGP Certificates in Workday as well as for FAQ: Encryption, Certificates, and Ciphers for Integrations

PUBLIC WEB SERVICE API

To learn more about the Request and Response XML elements for each operation, please see the API documentation on Workday Community.

EIB TEMPLATES WITH CUSTOM OBJECTS

To find out more about using EIB templates with custom objects, please refer to EIB Support for Custom Object Data SOAP API on Workday Community.

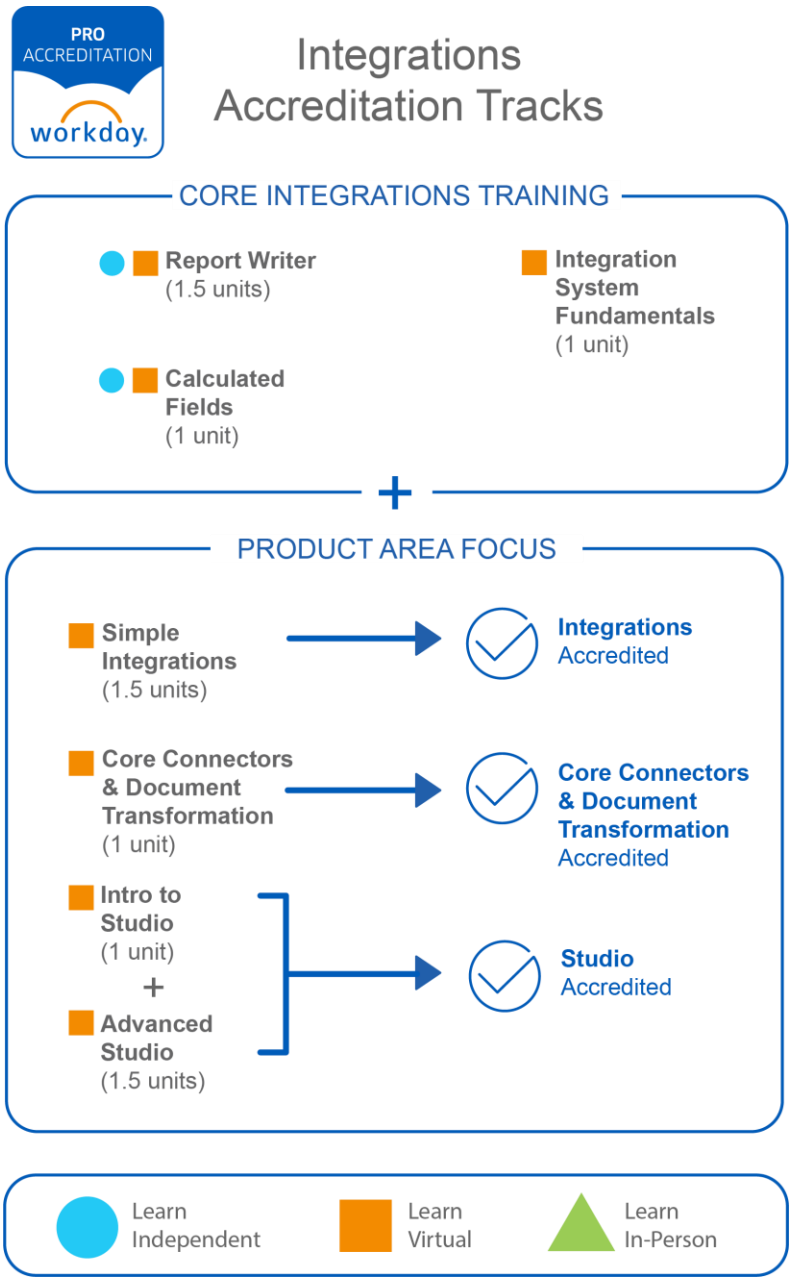
SPREADSHEET GUIDELINES

Guidelines are documented on Workday Community. Follow this link for more information

APPENDIX F – WORKDAY PRO

CUSTOMER ACCREDITATION PROGRAM

Workday Pro is a customer-focused accreditation program targeted at customers who want to actively engage and work side-by-side with the ecosystem on a path to develop a similar level of knowledge and expertise. It consists of several tracks, each with relevant courses, plus a written test.



Learn more: community.workday.com/pro