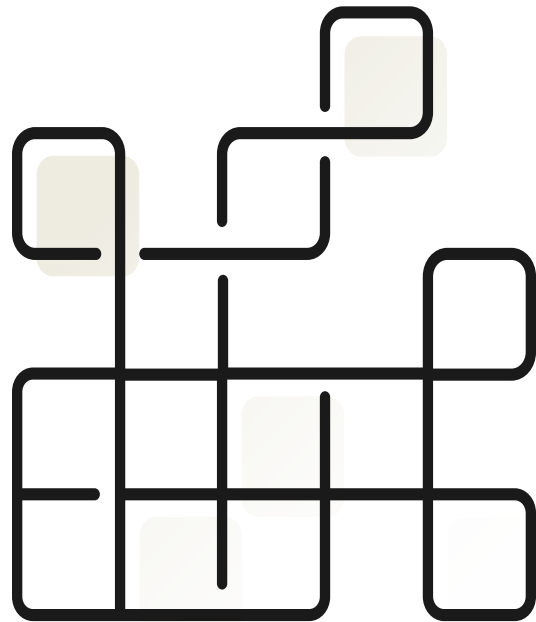




Employee Central to hrX Exchange Time-Off Implementation User Guide Version 7.0



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3.2	Formatting	September 2020
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4.0	Correction on supported scenarios	November 2020
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5.0	Rebranding of SCPI to Cloud Integration	April 2021
6.0	Changes for 19.0 Exchange Release	May 2021
6.1	Changes for 19.1 Exchange Release	June 2021
6.2	Update for value mapping	June 2021
6.3	Added section 8	June 2021
6.4	Changes on supported scenarios	January 2022
6.5	Changes on 22.1and supported scenarios	February 2022
6.5	Additional filtering in Odata API extraction	February 2022
6.6	Added screenshot of the payload as attachment	March 2022
7.0	Remove the section for data migration into a separate document and additional parameters for filter	November 2022

Summary of Changes		
Item Number	Change Description	Chapter/Section
3.2	Added section on deletions	

4.0	Added clarification on scenarios supported, clarified timing	Section 3 and 6
4.1	Update on section 4 and 5	Section 4 and 5
4.2	Update on section 1 and 3	Section 4 and 5
5.0	Rebranding of SCPI to Cloud Integration	All sections
6.0	Changes for 19.0 Exchange Release	All sections
6.1	Changes for 19.1 Exchange Release	Section 4
6.2	Changes for value mapping	Chapter 7.3
6.3	Added Section 8, rebrand to Alight and 19.2 changes	Chapter 8 and 6.1
6.4	Changes on supported scenarios	Chapter 6.1
6.5	Additional filtering in Odata API extraction and supported scenarios	Chapter 7.2 and 6.1
6.6	Added screenshot of the payload as attachment	Page 12
7.0	Added screenshot of the new selection screen of the interface and remove section for data migration	Chapter 7.2

Introduction

This document is a guide for users on how to implement [Packaged Integration - SF EC Time-off to hrX Exchange](#) in the customer Cloud Integration tenant. The person performing the steps must have access to Cloud Integration and be familiar with the configuration.

Related documents

All related documents can be found in [Alight Help Center](#).

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1 Introduction

This implementation document will guide a customer who wants to implement the [Packaged Integration - SF EC Time-off to hrX Exchange](#) in their Cloud Integration tenant.

Time off data is not integrated with the EC to Exchange package as CompoundEmployee does not send over the time-data.

The data to be extracted will be coming from EmployeeTime Entity in SuccessFactors. Although Employee Central Absences can now be filtered in the Cloud Integration Flow, the customer should configure the values in hrX Exchange to be transformed and integrated in HrX Exchange to Payroll Service.

The supported functionality is limited to Time-off only, Time sheets and balances are not supported due to constraints on performing this efficiently.


The guide explains two different variants on connecting to Exchange:

- * Webservice call (standard)
- * AS2 (optional)

Unless there are specific requirements by clients mandating AS2, the recommendation is to follow the steps for the webservice call.

2 Implementation Guide

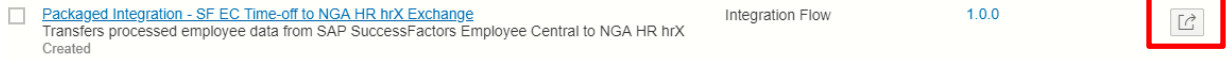
There is a new Artifact for time-off integration introduced together with the standard package. The artifact (integration flow) is included once customer upgrades to the latest version of the package.

<input type="checkbox"/>	Packaged Integration - SF EC Time-off to NGA HR hrX Exchange Transfers processed employee data from SAP SuccessFactors Employee Central to NGA HR hrX Unmodified	Integration Flow	1.0.0	
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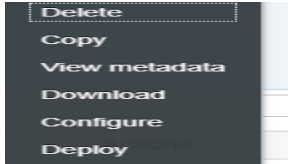
- Integration Flow **Packaged Integration - SF EC Time-off to hrX Exchange** – Transfers time-off data from SuccessFactors Employee Central to Exchange.

3 Integration Flow Configurations

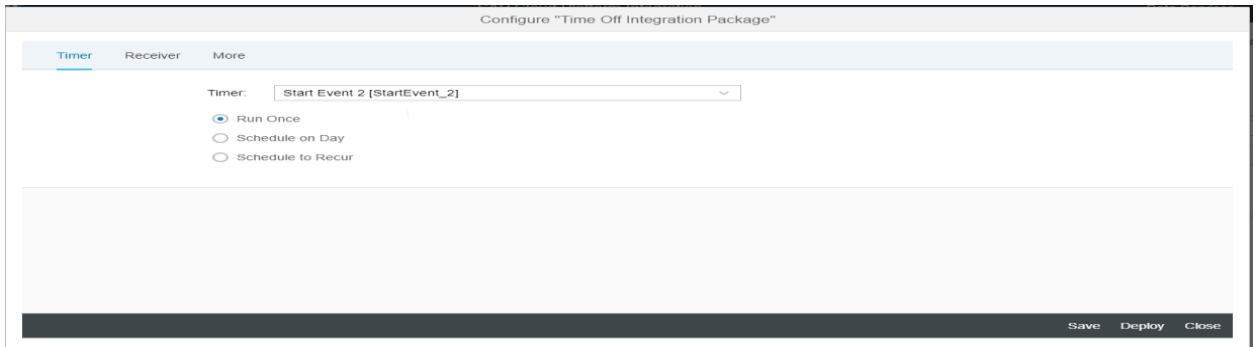
- Go to integration flow and click on Action.



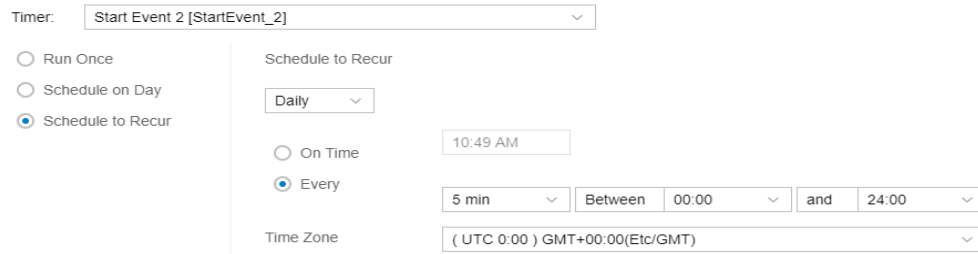
- Click on Configure.



- The integration flow has 3 tabs, Timer, Receiver and More



- **Timer** Tab can be scheduled as customer desires



Recommendation from Alight is to put the scheduling to once per day at 07:00 AM. For time-off once per pay period is usually sufficient but as the cut-off date varies per month, this is difficult to schedule upfront in Cloud Integration.

- **Receiver** Tab is the Configuration of SF Instance and hrX Exchange web service

Timer **Receiver** More

Receiver: PEXReceiver

Adapter Type: SOAP

Connection

Address: http://ngaendpoint

Credential Name: <NGACredentials>

Timer **Receiver** More

Receiver: SFReceiver

Adapter Type: SuccessFactors

Connection

Address: http://sfapiserver

Credential Name: <SFEC Credentials>

The following set-up is only required when there is a requirement to send records via AS2 protocol:

Configure "Packaged Integration - SF EC Time-off to hrX Exchange"

Timer **Receiver** More

Receiver: AS2_Adapter_Call

Adapter Type: ProcessDirect

Connection

Address: AS2Endpoint

A new integration flow, **Package Integration - SF EC AS2 Adapter** is created to handle AS2 support for all the iflows. See expected configuration below:

Configure "Package Integration - SF EC AS2 Adapter"

Sender Receiver More

Sender: Sender

Adapter Type: ProcessDirect

Connection

Address: AS2Endpoint

Sender details address input should match with the same value configured in the calling iflow.

AS2 receiver configuration:

Configure "Package Integration - SF EC AS2 Adapter"

Sender	<u>Receiver</u>	More
Connection	Receiver:	AS2_Receiver
	Adapter Type:	AS2
	Receipient URL:	<AS2 Endpoint>
	Proxy Type:	Internet
Processing	Authentication Type:	Basic Authentication
	Credential Name:	<AS2 Credential>
	Own AS2 ID:	<Own AS2 ID from tenant>
Security	Partner AS2 ID:	<AS2 ID provided by EFT Team>
	Message Subject:	<Message Subject>
	Own E-mail address:	<Email Address>
	Private Key Alias:	<AS2 Key Pair>
	Public Key Alias:	<Certificate Provided by EFT Team>

If a dedicated SF EC user is created for this integration, ensure the following minimum set of authorizations:

- ▼ **Permission not requiring target**
 - Employee Central API**
 - Employee Central Foundation OData API (editable)
 - Employee Central HRIS OData API (editable)
 - Manage Integration Tools**
 - Allow Admin to Access OData API through Basic Authentication
- ▼ **Permission requiring target**
 - Employee Data**
 - Biographical Information View
 - Employment Details MSS View
 - Employee Views**
 - Personal Information View
 - Employee Central Effective Dated Entities**
 - CP View Current
 - IPIN View Current
 - Pay Group View Current
 - Time Management Object Permissions**
 - Employee Time

More Tab is the Selection Screen of the Integration Flow

Configure "Packaged Integration - SF EC Time-off to hrX Exchange"

Timer Receiver More

Type: All Parameters

Business Unit:

Company:

EmployeeClass:

Enable AS2: <Enter 1 to Enable AS2 else 0 for Webservice Call>

Exclude LastModifiedBy:

GlobalCustomerCode: <Global Customer Code>

IsEmailEnabled: <Enter 1 to enable mail else 0>

LastExecutionTimeStamp: <YYYY-MM-DDTHH:MM:SS:ssZ for_example 2014-11-04T05:01:29.000Z>

PayGroup:

PayLoadLogging: <Enter 1 to view payload else 0>

timeType:

UserId:

Parameter	Explanation	Default	Mandatory
Business Unit	Business unit value of the employee to be send to Exchange	None	No
Company	Company value of the employee to be send to Exchange	None	Yes
Employee Class	Employee Class value of the employee to be send to Exchange	None	No
Enable AS2	1 for AS2 and 0 for Webservice Call	0	Yes
GlobalCustomerCode	GCC of hrX Exchange Environment	None, provided by Alight	Yes
IsEmailEnabled	1 to enable email else 0	0	
Exclude LastModifiedBy	exclude time-off records by lastModifiedBy	None	No
LastExecutionTimeStamp	The start time until today of the records to be pickup. Leave as blank in the normal schedule run	None	No
Paygroup	Paygroup value of the employee to be send in Exchange	None	No
PayLoadLogging	When you wanted to download a copy of the records in EC when set to 1 and will be available as Attachment in the Monitor View	0	No
timeType	Employee Time Type. This acts as a filter. Specify the time types to interface.	None	No
UserId	Employee IDs separated by comma to filter on. <i>Note: If this is populated, it will trigger debug mode = true and last modified on will not updated.</i>	None	No

If the PayLoadLogging is enabled, then the attachments tab of the executed run shows this

The screenshot shows a message titled "Packaged Integration - SF EC Time-off to hrX Exchange" with a status of "Completed". The message was sent on Mar 08, 2022, at 02:14:35 and took 3 seconds and 783 milliseconds to process. The "Attachments" tab is active, showing a single attachment named "ResponsePayload:" with a size of 4 KB and a "text/plain" content type. A download icon is visible next to the attachment name.

You can download the file and it will contain the extracted time-off data sent to Exchange.

```
<EmployeeTime>
<gcc>Z05</gcc>
<MessageId>AGImS4d7yCXgHRWwPuH-kseek_FO</MessageId>
<iVersion>22.1</iVersion>
<EmployeeTime>
  <approvalStatus>APPROVED</approvalStatus>
  <timeCalendar>
    <userIdNav>
      <lastModifiedDateTime>2022-02-16T07:46:18.000</lastModifiedDateTime>
      <externalCode>598e70143efe411c90d6dbb992a80d4f</externalCode>
      <endDate>2021-12-05T00:00:00.000</endDate>
      <editable>true</editable>
      <lastModifiedBy>bestantea</lastModifiedBy>
      <loaActualReturnDate/>
      <quantityInDays>4</quantityInDays>
      <timeType>VACATION</timeType>
      <userId>E00002208</userId>
      <loaExpectedReturnDate/>
      <cust_SubEventU/>
      <quantityInHours>32</quantityInHours>
      <comment/>
      <loaStartJobInfoId/>
      <loaEndJobInfoId/>
      <startDate>2021-12-01T00:00:00.000</startDate>
    </EmployeeTime><EmployeeTime>
      <approvalStatus>APPROVED</approvalStatus>
      <timeCalendar>
        <userIdNav>
          <User>
            <empInfo>
              <empEmployment>
                <personIdExternal>E00002208</personIdExternal>
              </empEmployment>
            </empInfo>
          </User>
        </userIdNav>
      </timeCalendar>
    </EmployeeTime>
  </EmployeeTime>
</EmployeeTime>
```

- Once the setup is done, click **Deploy**.

The screenshot shows the configuration interface for a timer. The "Receiver" tab is selected, and a "More" link is visible. The configuration includes the following fields:

- Type: All Parameters
- GlobalCustomerCode: <GCC>
- LastExecutionTimeStamp: Timestamp <YYYY-MM-ddTHH:mm:ss.SSSZ> format
- PayGroup: <SFEC Paygroup>
- PayLoadLogging: <1 or 0>
- timeType: <SFEC timeType>
- UserId: <SFEC User Id>

At the bottom of the interface, there are three buttons: "Save", "Deploy" (highlighted with a red box), and "Close".

4 hrX Exchange Configurations

4.1 Time type configuration

The absences recorded in EC can be payroll relevant but not all. If there is paid leave for the employees and no quota deduction takes place, e.g., a day-off when the employee gets married, this is not relevant to interface.

Other types like sick leave and vacation leave can be payroll relevant. The decision is made to have the relevant ones for payroll explicitly configured.

Since the Time Off integration is not filtering the codes from EC, the filtering will be done in hrX Exchange Configuration.

Note that if there is no configuration in hrX Exchange, no Time off records will be created.

Provide the list absence types and the corresponding country that are payroll relevant to Alight so it can be configured.

4.2 Multi-day and daily records

The default is to send the same records as stored in EC Time-off and not daily records. This is required for payroll configurations where the number of absence days is needed per month. With a multi-day absence, there is a single record with start date 2020-10-25 and end date of 2020-11-03. As the work schedule does not exist in payroll, it is not possible to know how many days belong to October and which one for November.

The integration can now support sending multi-day absence records. This is driven by customer configuration to activate the integration to send absence records daily. Alight technical teams can configure this, and this functionality can be activated per legal entity (LCC) in Exchange based on country and payroll requirements.

5 EC to hrX Exchange Mapping

The table below shows the updated mapping from EC to hrX Exchange to add support for sending absence records daily. Only the fields mentioned in the table below are considered, custom fields and additional fields in the response are ignored.

EC EmployeeTime	hrX Exchange nga:TimeElement	Example
EmployeeTimeCalendar->date	validFrom	2018-11-19T00:00:00.000
EmployeeTimeCalendar->date	validTo	2018-11-19T00:00:00.000
userId	hr:EmployeeId	E00009841
timeType	hr:ID	CSUSA0011
EmployeeTimeCalendar->quantityInDays	nga:Units (Days)	1
EmployeeTimeCalendar->quantityInHours	nga:Units (Hours)	8
approvalStatus	N/A	Only APPROVED and CANCELLED
N/A (depending on the maintenance of time type in Exchange)	nga:UnitType	DAYS or HOURS

Sample File Generated in Cloud Integration Time Off Integration

```

<EmployeeTime>
  <gcc>ZZA</gcc>
  <EmployeeTime>
    <approvalStatus>APPROVED</approvalStatus>
    <timeCalendar>
      <EmployeeTimeCalendar>
        <date>2020-12-18T00:00:00.000</date>
        <quantityInHours>8</quantityInHours>
        <quantityInDays>1</quantityInDays>
      </EmployeeTimeCalendar>
      <EmployeeTimeCalendar>
        <date>2020-12-19T00:00:00.000</date>
        <quantityInHours>8</quantityInHours>
        <quantityInDays>1</quantityInDays>
      </EmployeeTimeCalendar>
    </timeCalendar>
    <userIdNav>
      <User>
        <empInfo>
          <EmpEmployment>
            <personIdExternal>E00009090</personIdExternal>
          </EmpEmployment>
        </empInfo>
      </User>
    </userIdNav>
    <lastModifiedDateTime>2020-11-24T16:19:02.000</lastModifiedDateTime>
    <externalCode>ff3c0cece1068426cb86ff001bae52852</externalCode>
    <endDate>2020-12-29T00:00:00.000</endDate>
    <quantityInHours>16</quantityInHours>
    <quantityInDays>2</quantityInDays>
    <timeType>VACATION</timeType>
    <comment/>
    <userId>E00009090</userId>
    <startDate>2020-12-18T00:00:00.000</startDate>
  </EmployeeTime>
</EmployeeTime>

```

Sample BOD Transformation

```
<nga:PayServEmpTimeElements>
  <nga:TimeElement validTo="2020-12-18" validFrom="2020-12-18">
    <hr:ID>VACATION</hr:ID>
    <nga:Units>1</nga:Units>
    <nga:UnitType>DAYS</nga:UnitType>
    <nga:FreeFormEffectivePeriod>
      <hr:StartDate>
        <hr:FormattedDateTime>2020-12-18</hr:FormattedDateTime>
      </hr:StartDate>
      <hr:EndDate>
        <hr:FormattedDateTime>2020-12-18</hr:FormattedDateTime>
      </hr:EndDate>
    </nga:FreeFormEffectivePeriod>
  </nga:TimeElement>
  <nga:TimeElement validTo="2020-12-19" validFrom="2020-12-19">
    <hr:ID>VACATION</hr:ID>
    <nga:Units>1</nga:Units>
    <nga:UnitType>DAYS</nga:UnitType>
    <nga:FreeFormEffectivePeriod>
      <hr:StartDate>
        <hr:FormattedDateTime>2020-12-19</hr:FormattedDateTime>
      </hr:StartDate>
      <hr:EndDate>
        <hr:FormattedDateTime>2020-12-19</hr:FormattedDateTime>
      </hr:EndDate>
    </nga:FreeFormEffectivePeriod>
  </nga:TimeElement>
</nga:PayServEmpTimeElements>
```

6 Supported and unsupported scenarios

6.1 Supported scenarios

The following scenarios are supported in the current version of the interface.

*** Create absence**

When an absence is created, it is only interfaced to Exchange when it's approved. This could be explicit approval by the manager or implicit by the configuration of the time element in EC. This is typically the case when there's absence without a quota, e.g., sick leave.

*** Delete absence**

When an approved absence is cancelled in EC, Exchange as of 19.2 release is now generating a DELETE BOD with Units set to 0. With this BOD, the absence record in euHReka, Alight's payroll service, is automatically deleted. Other payroll vendors are instructed to handle 0 units event as deleted.

***Edit absence**

As of release 19 of Exchange (June 2021) integration support edit of absence by generating DELETE (for the previous/corrected time-off) and ADD BOD (for the new time-off). The solution works by saving the EmployeeTime records of employees in Cloud Integration through data store. Correction is detected when a new time-off record's EmployeeTime->externalCode is the same with existing externalCode in the data store. If there is a correction the interface sets the EmployeeTime->action to CHANGE. Transformation in Exchange then generates the expected DELETE and ADD BOD.

***Half day absences**

There is no special handling by the integration when dealing with half day absences. It is expected that the configuration (permitted fractions) in SuccessFactors Employee Central allows the time type to have half day booking for time type. This means for time type unit in day(s) the interface expects to receive 0.5 day for half day absence or half of the working hours per day in case the time type unit is in hour(s).

***Convert LOA to Time-off (time elements)**

This feature provides a solution for conversion of Leave of Absence (LOA) to time-off (absence) because certain long-term absences need to be processed by the payroll service as time elements. The solution allows clients with Employee Central as HRIS to convert LOA to a time-off event. This feature is activated using the current time type configuration that determines whether a time type for an LOA needs to be sent to Exchange as time-off/time element. If the time type for the LOA is for time-off, then the transformation suppresses generation of LOA Start or LOA End events in Exchange. The same check is applied in case of LOA correction and rescind. For further details on the necessary configuration please reach out to Alight Exchange support team.

***Quota or time off balances integration**

As of 22.1 a standard solution for EC to Exchange integration of absence quotas will be available. The solution works on the premise that client is creating Time Account Snapshot by running a Snapshot Creation calendar in Manage Time Off Calendars in Employee Central. Time Account Snapshot is an MDF entity from Time Management module which contains the balance information of a specific time account for a user as of a particular point in time. A new integration flow extracts the time account snapshot using Odata and send them to Exchange where the data is transformed into pay elements.

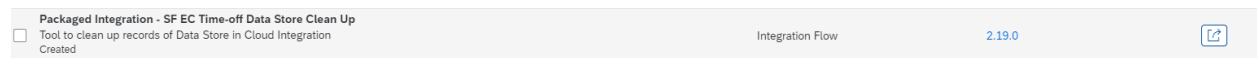
6.2 Unsupported scenarios

- Time sheet integration

7 Updates in the Integration

7.1 Time-off Data Store Clean Up

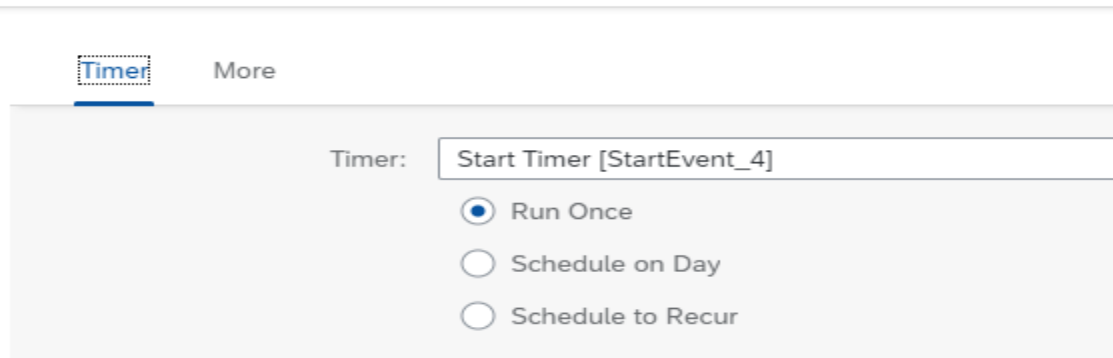
There is a new Artifact for time-off integration introduced together with the standard package in 19.0. The artifact (integration flow) is included once customer upgrades to the latest version of the package.



Packaged Integration - SF EC Time-off Data Store Clean Up– Tool to clean up records of Data Store in Cloud Integration

- Parameters
 1. Timer

Configure "Packaged Integration - SF EC Time-off Data Store Clean Up"



2. More

Timer **More**

Type:	All Parameters
CleanUp Months:	
Data Store Name:	TimeOffHistory
Entry ID:	TimeOffDelta
External Code:	
User ID:	

- CleanUp Months – Indicate # of Months and minus from current date and compare to effective end date. If effective end date less than the current date minus clean up months, then remove the data in data store.

For example:

Current date: May 4, 2021

CleanUp Months: 3months

Computation (May 4, 2021 – 3months) > EmployeeTime-endDate

- Data Store Name – default to TimeOffHistory
- Entry ID – default to TimeOffDelta
- External Code – Filter to delete the externalCode
- User ID – Filter to delete the userId

*The parameter CleanUp Months takes precedence in the logic. If populated filter to External Code and User ID is ignored. If leave blank, then External Code and User ID are considered as filtering conditions.

- **Sample Execution**

- Run the Iflow with 1 Month CleanUp

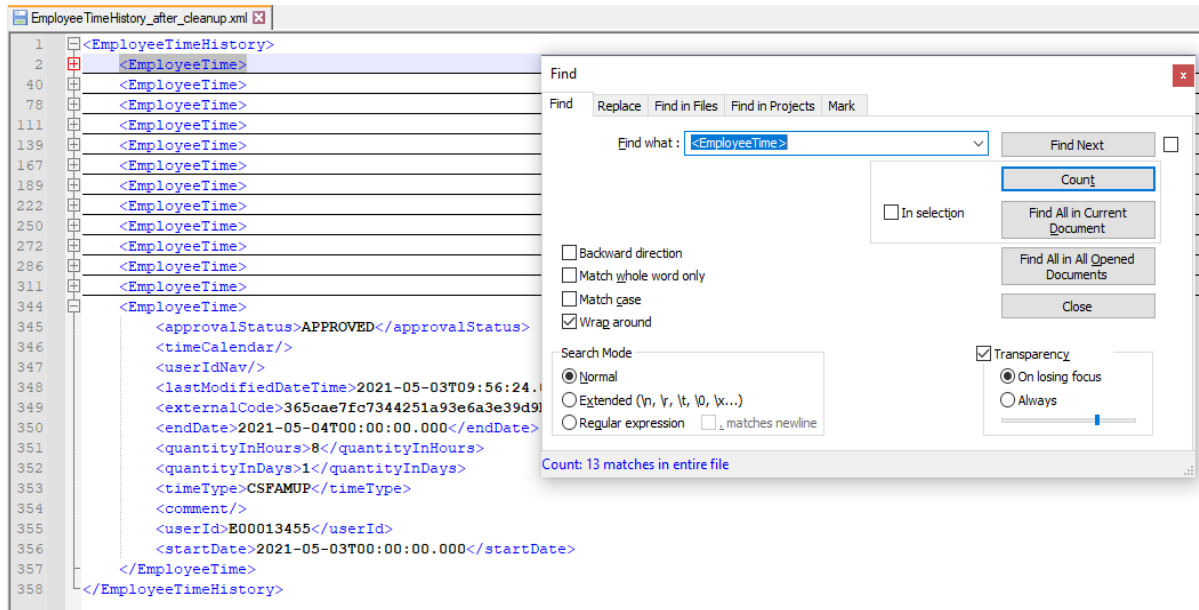
Timer **More**

Type:	All Parameters
CleanUp Months:	1
Data Store Name:	TimeOffHistory
Entry ID:	TimeOffDelta
External Code:	
User ID:	

- Data Store Before CleanUp 33 records in Data Store

- o Data Store After CleanUp. Only 13 Records in the Data Store.

Packaged Integration - SF EC Data Store Clean Up May 04, 2021, 17:27:59	Completed 257 ms
---	---------------------



7.2 Custom field for EC Time-off

This section can be skipped unless there has been a specific requirement for a country to interface additional fields.

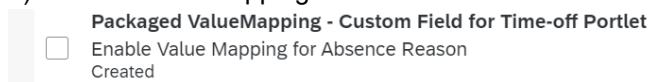
Starting with Exchange 19.1, custom field from SuccessFactors Employee Central time-off screen is extracted and made available in the source file so that it can be sent and map to time element BOD in Exchange.

The custom field to be extracted is configured in Cloud Integration via a value mapping.

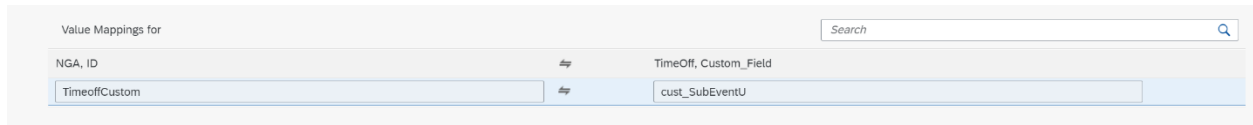
See **Packaged ValueMapping - Custom Field for Time-off Portlet** in the integration package in Cloud Integration. A configuration in Exchange is also required to be performed by Alight Exchange support team to map the custom field to BOD. With the mapping in place exits can be implemented at the payroll service to consume the data.

To use this functionality, perform following steps:

1) Edit the value mapping for “Custom field for Time-off portlet”:



2) Maintain the following mapping: On the left-hand side add “TimeoffCustom” On the right-hand side add the technical name of the custom field carrying the extra field to integrate with Exchange. In this example it is cust_SubEventU but must be adjusted to customer specific environment



- 3) Deploy the value mapping
- 4) Run Time-off integration again

7.3 Additional filtering for EC Time-off

With Exchange 22.1 the integration can now exclude the time-off records via:

- Additional filter for the EmployeeTime OData query where field editable = true. This means by default the integration now excludes time-off records with editable set to false to avoid resending unwanted changes because of time account closure.
- New parameter:

Exclude LastModifiedBy:

This will exclude time-off records with lastModifiedBy = parameter input.

With Exchange 23.10 the following additional filters are delivered:

- Company
- Business Unit
- Employee Class

The additional filter can be enabled by maintaining the following entries in **Packaged ValueMapping - Special Feature**:

TimeOff_EmployeeClass	⇔	
TimeOff_BusinessUnit	⇔	X
TimeOff_Company	⇔	