Integration Guide
SAP SuccessFactors Employee Central
Q4 2016 Release – October 20

CUSTOMER

SuccessFactors Employee Central and Kronos Workforce Central

SAP HANA Cloud Integration

Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
`EXAMPLE`	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
`Example`	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE`	Keys on the keyboard, for example, `F2` or `ENTER`.

Document History

What's new	Description	More Info
July 30, 2015		
Initial version of the document	Overview of the Kronos integration.	Kronos Integration Overview

Contents

1 Kronos Integration Overview

This guide is for SAP Support or partner consultants to integrate SuccessFactors Employee Central with Kronos Workforce Central suite. Integration is through an SAP HANA Cloud Integration process for validated third-party time management providers.

For more information about Employee Central, see the Employee Central Implementation Guide.

1.1 Integration Options

Use the following process steps as a guideline to successfully integrate Employee Central with the time management provider. This is a simplified approach to a possible integration process. You will need to adjust these process steps based on the customer's business requirements. Following is an overview:

1. Set up Employee Central.

   For more information, see the Employee Central Implementation Guide.
2. Make third-party provider-specific settings, for example, SFTP server accessibility.
3. Get access to the catalog in SAP HCI Spaces.
4. Set up the data integration.
5. If required by the customer, extend the data integration.

1.2 Time Management Business Process with Kronos

An API is implemented in Employee Central to extract the required employee data. SAP HANA Cloud Integration is used to call the API in Employee Central and collect the extracted employee data.

Employee data is entered into Employee Central (new hire, retire, transfer, termination, change data) by the HR administrator, which is then replicated to Kronos via an SAP HANA Cloud Integration process using a standard flat file format. This employee data from Employee Central is then used for data that supports Kronos products.

Following are the areas from Employee Central to Kronos data integration that are currently captured:

- Employee master data (name, address)
- Employment and job (including union information when applicable)
- Compensation (annual salary, total compensation including bonus)
- Dependent data
- Life event notifications

The integration is via a comma-delimited flat file (CSV) with Windows format reflected at Kronos daily via SFTP. The outcome of the outbound process is 2 files:

- person_import_<company_territory_code>.txt
- cost_center_import.txt

Kronos makes easy work of the tedious tasks involved with monitoring employee time and attendance. Kronos time-tracking works in tandem with data collection devices. This helps control labor costs, minimize compliance risk, and improve workforce productivity.

Kronos provides employers and consumers with cloud-based technology to manage time and labor related information. Kronos then sends updates to Employee Central as required for legal reporting.

The current solution looks at Employee Central sending the complete data about an employee and related information updates to Kronos.

1.3 Overview of Payroll Export Process

Kronos

Time data is extracted from Kronos to a CSV file and saved in an SFTP location.

SAP HANA Cloud Integration

SAP HANA Cloud Integration accesses this SFTP location for the time data and transmits the time data to Employee Central Payroll via a Web service call.

Employee Central Payroll

1. When the XML file is received, it is automatically converted to an IDoc and can be seen in the IDoc queue.
2. Report RBDAPP01 posts the records from the IDoc to SAP interface tables PTEX2000 (Absences) and PTEX2010 (Remuneration Wage Types).
3. Report RPTEXTPT moves the data from the interface tables to the respective infotype tables, that is, PA2001 (Absence Data) and PA2010 (Wage Types).

2 Employee Data Replication

The replication of employee data from Employee Central to Kronos comprises the following steps:

1. A scheduled SAP HANA Cloud Platform, integration service job extracts the employee data from Employee Central as of a certain date.
2. The extracted data is mapped to and conforms to a File layout published by Kronos.
3. SAP HANA Cloud Platform, integration service creates a (.txt) file and saves the same in SFTP location.
4. After the data is received, employee import processing occurs within Kronos.

> **Note**
>
> These specifications apply to the country version for the United States. If a customer implements any other country versions, some adjustments may be necessary.

> **Note**
>
> All required data fields for configuring EmpCenter rules must be returned in a single row by the employee data extraction process via SAP HANA Cloud Platform, integration service.

2.1 Prerequisites

2.1.1 Configurations for Employee Central Compound Employee API

The Compound Employee API for Employee Central pulls employee data from Employee Central. It returns employee data in a hierarchically structured response XML (root node: employee person data).

Choose your regional API endpoint from the table below:

Location	End Point
Europe	https://api.successfactors.eu/sfapi/v1/soap
USA, New Jersey	https://api.successfactors.com/sfapi/v1/soap
USA, Arizona	https://api4.successfactors.com/sfapi/v1/soap

Get the generic WSDL by adding *?wsdl* to the above addresses. For example, *https://api.successfactors.eu/sfapi/v1/soap?wsdl*

Apart from the endpoints, an XML schema is provided that describes the XML response of the compound API including all substructures and elements. The XML schema is required for integration purposes. It needs to be

maintained manually as part of the development process. The new API will only provide the query and the queryMore operation. All other operations such as list, describe, and describeEx are not supported.

You may have to make the following settings:

- **Webservice setup**

  Follow the standard process for SF APIs to set up SFAPI operations login and log out and to enable the API.
- **Thresholds and limits**

  The API Compound Employee has similar thresholds and limitations as the other SFAPIs. You can set this number to a value between 1 and 800 by specifying the maxRows parameter in the query method.
- **API enhancements and compatibility**

  The API response message type can be enhanced with additional elements and attributes. Additional elements and attributes can be supplied by SAP or SuccessFactors and by using custom fields. The external application must be able to process the extended response successfully. The API request message type can be enhanced by new processing and query string parameters (for example an additional parameter for selecting or filtering data). Enhancements of request message types and parameters are always optional. The system does not require the external application to provide optional values and parameter in the request.

2.1.2 Preparations by Third-Party Provider

Once a customer opts for a particular third-party provider's integration solution, the customer should sync on the following points for initial setup preparations to be done by the third-party provider:

- Functional preparation

  For example, availability of a document such as Discovery and Requirements Gathering
- Group and time plan setup
  - Technical setup of employee file

    For example, availability of documents such as Integration and Data Migration Discovery
  - SFTP server configuration

2.2 Data Replication Specification

The replication of employee master data from Employee Central to Kronos uses the CompoundEmployee service from Employee Central.

For information on Compound Employee Element structure ...	See EC HRIS-element
Personal Information	Personal Information [EC hris-element-id: personInfo]
Phone information	Phone Information [EC hris-element-id: phoneInfo]
Email Information	E-mail Information [EC hris-element-id: emailInfo]

For information on Compound Employee Element structure ...	See EC HRIS-element
Employment Information	Employment information [EC hris-element-id: employmentInfo]
Job Information	Job Information [EC hris-element-id: jobInfo]
Pay Component Recurring	Pay Component Recurring Information [EC hris-element-id: paycomponentRecurring]

The tables below list the different Employee Central Entities and fields required for replicating data from Employee Central using the middleware to the comma separated flat file format for Kronos. The tables also show the fields you need to map manually and the corresponding pick lists IDs for doing so. You will also find descriptions for mapping activities you need to do for which fields.

2.2.1 Personal Information [EC hris-element-id: personInfo]

EC Field Label	Description	Required/ Optional/Constant	Code Mapping Required?	Value Mapping	Kronos Field
First Name	The person's first name.	R			First Name
Middle Name	The person's middle initial	O	X		Middle Initial
Last Name	The person's last name.	R			Last Name
Alt1 First Name	The person's short name	O			Short Name

Middle Name

The Employee Central field *Middle Name* is mapped to the Kronos field *Middle Initial* through an SAP HANA Cloud Integration function. This function trims the characters in a string from the right to bring it to a fixed length. In this case, the fixed length is 1.

2.2.2 Phone Information [EC hris-element-id: phoneInfo]

EC Field Label	Description	Required/ Optional/C onstant	Code Mapping Required?	Value Mapping	Kronos Field
Phone Number	The customer-defined name of the contact category; up to three telephone numbers can be provided.	O			Phone 1 (Type: cell) Phone 2 (Type: home) Phone 3 (Type: office)

2.2.3 E-mail Information [EC hris-element-id: emailInfo]

EC Field	Description	Required/ Optional/ Constant	Code Mapping Required?	Value Mapping	Kronos Field Name
Email Address	Employee's e-mail address (Type: Business)	O			Email Address

2.2.4 Employment information [EC hris-element-id: employmentInfo]

EC Field	Description	Required/ Optional/ Constant	Code Mapping Required?	Value Mapping	Kronos Field Name
Employment ID	Person's identification number	R			Person Number
Start Date	Date on which the person was hired	O			Hire Date
Employment ID	Person's	O			Badge Number

EC Field	Description	Required/ Optional/ Constant	Code Mapping Required?	Value Mapping	Kronos Field Name
	badge number				

2.2.5 Job Information [EC hris-element-id: jobInfo]

EC Field Label	Description	Required/ Optional/ Constant	Code Mapping Required?	Value Mapping	Kronos Field
EmplStatus	Employment status of employee	R	X	ValueMapping: EmploymentStatus	Employment Status
Start Date	Latest effective date for changes in employee status	O			Status Effective Date
Cost_center	Name of the labor level to which this labor level entry belongs	R			Labor Level 4
Start Date		R			Primary LaborAccount Effective Date
Start Date	Date that the pay rule becomes effective	R			Pay Rule Effective Date
Is_fulltime_employee	Name of the pay rule that is assigned to the employee	R	X	ValueMapping: PayRule	Pay Rule Name
	Time zone where the employee works	R	X	ValueMapping: TimeZone	Time Zone
Manager_person_id	Person number of the employee's	O			Reports To

EC Field Label	Description	Required/ Optional/ Constant	Code Mapping Required?	Value Mapping	Kronos Field
	manager				
	Whether the current employee is a manager	O			Manager License

Employment Status

The Employee Central field *EmplStatus* is mapped to the Kronos field *Employment Status* through the value mapping.*EmploymentStatus.* This table is defined as a value mapping in SAP HANA Cloud Integration and must be filled by the consumer based on the Kronos values. Default mapping values are available.

Pay Rule Name

The Employee Central field *Is_fulltime_employee* is mapped to the Kronos field *Pay Rule Name* through the value mapping *PayRule.* This table is defined as a value mapping in SAP HANA Cloud Integration and must be filled by the consumer based on the Kronos values. Default mapping values are available.

Time Zone

The Kronos field *Time Zone* is mapped through the value mapping *TimeZone.* This table is defined as a value mapping in SAP HANA Cloud Integration and must be filled by the consumer based on the Kronos values. Default mapping values are available.

2.2.6 Pay Component Recurring Information [EC hris-element-id: paycomponentRecurring]

EC Field	Description	Required/ Optional/Constant	Code Mapping Required?	Value Mapping	Kronos Field Name
payCompValue	Base wage rate for an employee	O			Base Wage Rate
Start_date	Effective date of the base wage rate	O			Base Wage Rate Effective Date

2.2.7 Address Information [EC hris-element-id: address_information]

EC Field	Description	Required/ Optional/Constant	Code Mapping Required?	Value Mapping	Kronos Field Name
country	Country Code	O		ValueMapping: Mapping by Country	Home Address Country
state	State	O		ValueMapping: Mapping by Country	Home Address State
zip_code	ZIP Code	O		ValueMapping: Mapping by Country	Home Address ZIP Code
address_type	Category of Address	"home"		ValueMapping: Mapping by Country	Category of Address
city**	City	O	X	ValueMapping: Mapping by Country	Home Address City
address1-20**	Address 1-20	O	X	ValueMapping: Mapping by Country	Home Address Street

Address Fields

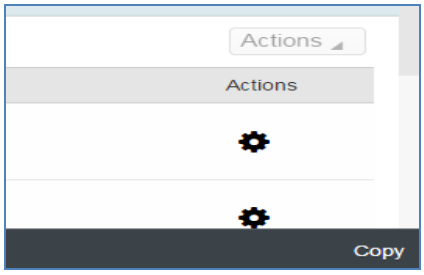
The mappings of the Kronos fields *Home Address Street* and *Home Address City* are country-dependent. Based on the country, these fields are mapped using the appropriate Employee Central fields. For information about country-dependent address field mappings, see Country-Specific Mappings of Address Fields in the appendix.

2.3 Getting Access to the Solution

SAP HCI Spaces is a Web-based application that helps you to access the integration content available for a particular tenant on an on-demand integration infrastructure. In SAP HCI Spaces, you can access integration packages with artifacts such as value mappings, integration flows, and files. For more information, see *Viewing Integration Flow Configurations* in the Developer's Guide for Managing Integration Content.

You can edit and configure a package as follows:

1. On the *Discover* tab, click the integration package to be configured.
2. Choose *Copy* (as shown in the following figure).



On the *Design* tab, you should now find the copied package.

3. To configure and edit the package, follow *Editing Integration Flow Configurations* in the SAP HANA Cloud documentation.

2.3.1 Common Configuration Steps

2.3.1.1 SAP Credential Deployment

To deploy the following artifacts, see *Deploying and Editing a User Credentials Artifact* in the Operations Guide for SAP HANA Cloud Integration.

Artifact	Description
SuccessFactors EC Credentials	These credentials are used to connect to the Employee Central system.
SuccessFactors EC Payroll Credentials	These credentials are used to connect to the Employee Central Payroll system.
SAP SFTP Server Credentials	These credentials are used to connect to the SFTP server.
Kronos SFTP Server Credentials	These credentials are used to connect to the Kronos SFTP server.

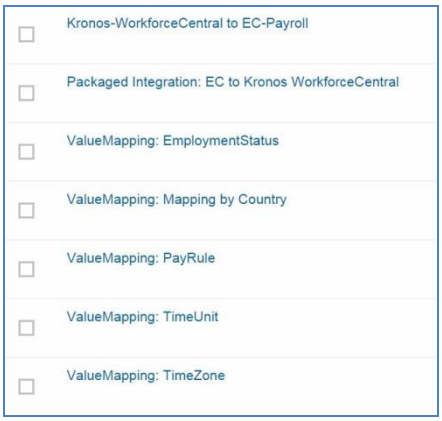
For more information about SFTP-based communication, see the Operations Guide for SAP HANA Cloud Integration.

2.3.1.2 Value Mapping Maintenance

A value mapping project is delivered along with the iFlows in this integration. It must be deployed in the customer landscape so that the iFlows can refer to the value mappings. For information about using and editing value mappings, see the Developer's Guide for Managing Integration Content.

2.4 Setting Up the Standard Data Integration

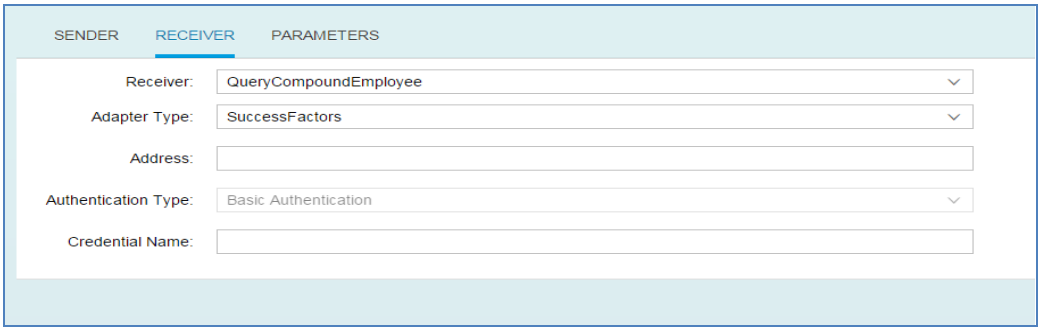
In the Discover section, click the *SuccessFactors EC with Third-Party Time Vendor — Kronos* integration process and configure the *EC to Kronos Workforce Central* integration flow.



2.4.1Receiver Settings

2.4.1.1 Query Compound Employee

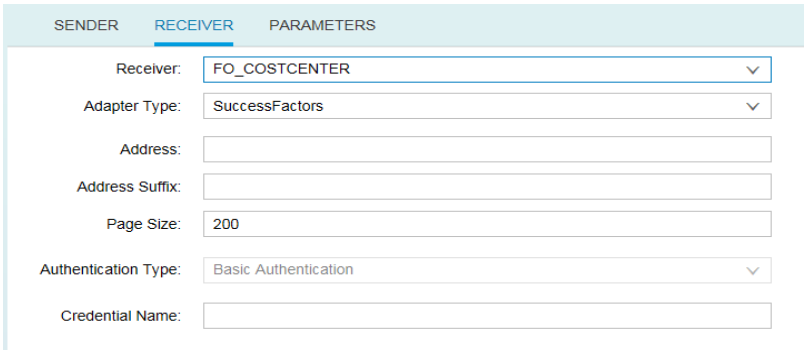
This receiver helps you to connect to Employee Central.



Field	Description
Address	Employee Central URL, for example, https://test.successfactors.com
Credential Name	Name of artifact that was deployed in Common Configuration Steps

2.4.1.2 Query FO_COSTCENTER

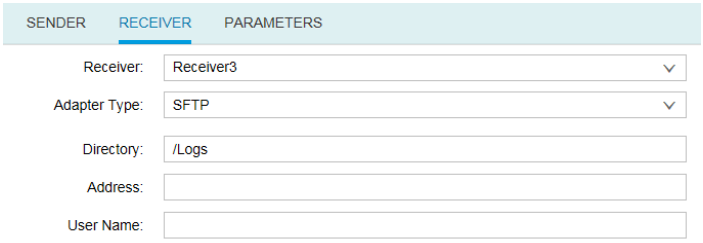
This receiver helps you to connect to Employee Central.



Field	Description
Address	Employee Central URL, for example, https://test.successfactors.com
Credential Name	Name of artifact that was deployed in Common Configuration Steps

2.4.1.3 SFTP Connection

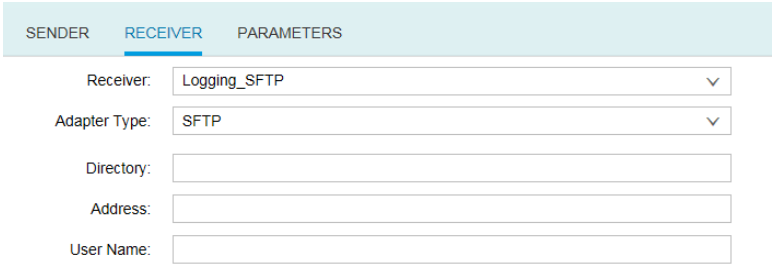
This receiver helps you to connect to the SFTP server of Kronos.



Field	Description
Directory	Directory name on the SFTP server where the resulting file is to be stored, for example, /Test
Address	SFTP server host URL, for example, test.sftp.com
User Name	Name of the artifact that was deployed in Common Configuration Steps

2.4.1.4 Logging: Error Reporting

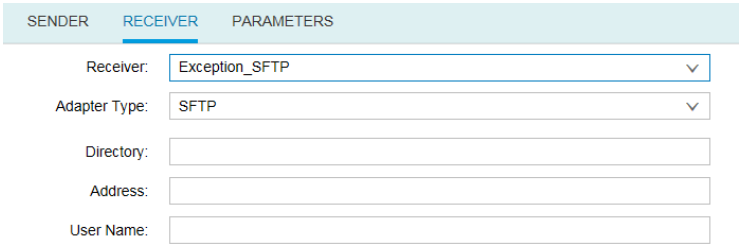
This receiver helps you to log the failing employees from the payload and to send the relevant information to a directory on the SFTP location.



Field	Description
Directory	Directory name on the SFTP server where the log is to be stored, for example, /Logs
Address	SFTP server host URL, for example, test.sftp.com
User Name	Name of the artifact that was deployed in Common Configuration Steps

2.4.1.5 Exception Message

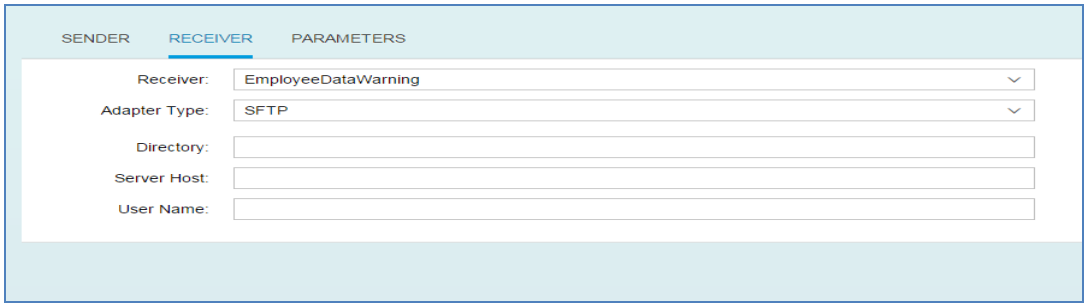
This receiver helps you to log the exceptions that occur during a process run and to send the relevant information to a directory on the SFTP location.



Field	Description
Directory	Directory name on the SFTP server where the exceptions are to be stored, for example, /Logs
Address	SFTP server host URL, for example, test.sftp.com
User Name	Name of the artifact that was deployed in Common Configuration Steps

2.4.1.6 Employee Data Warning

This receiver helps you to log the payload-related warnings during a process run and to send the relevant information to a directory on the SFTP location.

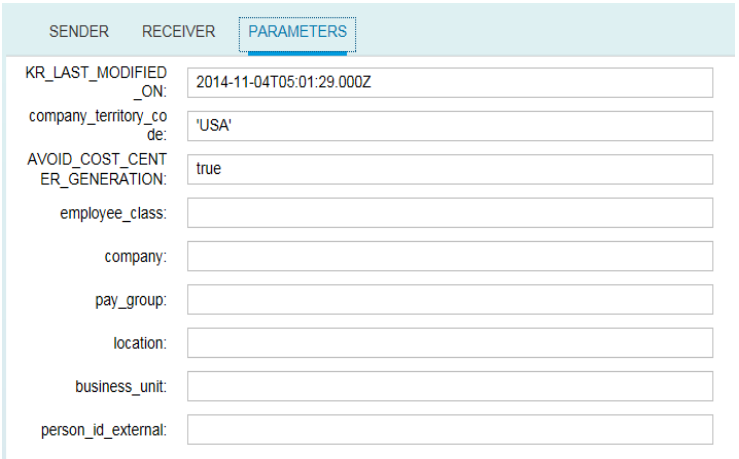


Field	Description
Directory	Directory name on the SFTP server where the warnings are to be stored, for example, /Logs
Server Host	SFTP server host URL, for example, test.sftp.com
User Name	Name of the artifact that was deployed in Common Configuration Steps

> **Note**
>
> Currently, SAP HANA Cloud Integration does not expose the SFTP file name and archive directory to be changed at catalog level. If this is required, see Extending the Standard Data Integration.

2.4.2 Parameters

These parameters contain customizing options. To configure the parameters, you can override the default values.



Parameter Name	Description
KR_LAST_MODIFIED_ON	In this dynamic process property, provide a timestamp value in the format yyyy-MM-ddTHH:mm:ss.SSSZ (for example, 2015-01-01T00:00:00.000Z) for the first ever execution of the process. The process will then fetch the changes in the Employee Central system since the provided timestamp value.
company_territory_code (Country)	This is a mandatory field. Enter a single company_territory_code (ISO-3). This field does not accept multiple values. **The process will be terminated if this field is left blank.**
Avoid Generation of Cost Center File	Allows you to avoid generating the cost center file. By default, the cost center file is generated.
employee_class	Comma-delimited list filter (no blank spaces before/after comma) for specifying the employee classes to include in the extract
Company	Comma-delimited list filter (no blank spaces before/after comma) for specifying the companies to include in the extract
pay_group	Include the foundation object externalCode if you want to include only employees associated with that foundation object
Location	Include the foundation object externalCode if you want to include only employees associated with that foundation object
business_unit	Include the foundation object externalCode if you want to include only employees associated with that foundation object
person_id_external	Comma-delimited list filter (no blank spaces before/after comma) for specifying the person_id_externals to include in the extract

2.4.3 Value Mappings

Value mappings are translation tables between the Employee Central picklist entries and the Kronos values.

The following fields have been mapped through a value mapping project in SAP HANA Cloud Integration:

- PayRule
- EmploymentStatus
- Mapping by Country
- TimeZone

You can modify the entries in this project to suit your needs.

In the Developer's Guide for Managing Integration Content, see *Developing Value Mappings* for general information about value mappings, and *Editing the Value Mapping Project* for information about editing value mappings.

2.5 Extending the Standard Data Integration

This section describes cases where you want to enhance the current solution and to add custom fields.

To make changes, you must be familiar with the following topics:

- SAP HANA Cloud Integration process development

  SAP HANA Cloud Integration provides integration tools on the Eclipse platform to model integration flows, configure attributes of the integration flows, and deploy them to the runtime. For more information, see the Developer's Guide for Managing Integration Content.
- Employee Central compound APIs

  Example

  You want to enhance the current process to adjust 10 custom fields in the destination file. In this case, the mapping palette of the SAP HANA Cloud Integration process needs to be changed to adjust the 10 user-defined fields. Once the fields are introduced, you can choose to map the required field from Employee Central to the destination fields.

3 Integrating the Kronos UI

You can enable single sign-on from the Employee Central UI as part of the integration with Kronos.

3.1 Single Sign-On (SSO)

This section describes how to configure a single sign-on connection to Kronos.

Prerequisites

- Provisioning user for a respective SFSF tenant is needed to maintain the SSO configuration.

3.1.1 Employee Central Certification for Kronos

Kronos needs the following data from SuccessFactors to configure SSO:

1. Issuer ID

   Steps to be Performed

   1. Replace the values in the brackets to SFSF data center and the company id (tenant) respectively in the below link and provide the same to Kronos for SSO setup.

      https://[SFSF Data center servername]/sf/idp-init/sso/company/[companyid]

      For example, if the name of the SFSF data center server name is www.successfactors.com and the tenant or the company id is ABCDEFG, the link will be as follows:

      https://www.successfactors.com/sf/idp-init/sso/company/ABCDEFG

2. SAML metadata & Signing Certificate

   This is the signing X509Certificate for SSO communication and can be taken from the X509Certificate-Tag of SAML metadata file,

   Steps to be Performed

   1. Replace the values in the brackets to SFSF data center server name and the company id respectively in the below link and execute the link in a browser.

      https://[SFSF data center servername]/idp/samlmetadata?company=[companyid]

      For example, if the name of the SFSF data center server name is www.successfactors.com and the tenant or the company id is ABCDEFG, then the link will be as follows: will look like below:

      https://www.successfactors.com/idp/samlmetadata?company=ABCDEFG

      You will be prompted to Download and save the file to disk.

   2. Open the file in a Notepad and remove all data except information in X509Certificate-Tag. (remove the red XML text)

3. Save the file (using SAVE AS) with a .cer extension and specify Unicode as encoding. The .cer file can be opened in Windows Explorer directly.

- To save the certificate in different formats, go to detail tab in the certificate and click "*copy to file*".
- This will start a wizard. Select DER as the format type to save as.

- Repeat the steps and save the certificate in Base 64 format. You will have two certificate files at the end of this step.

4. Information about user identifying attributes
5. The user ID comes in the name ID element of the SAML subject and that the company ID comes within the 'companyid' attribute within the attribute statement as shown in the example.

```
<saml:Subject xmlns:saml="urn:oasis:names:tc:SAML:2.0:assertion">
        <saml:NameID Format="urn:oasis:names:tc:SAML:1.1:nameid-
        format:unspecified">root</saml:NameID>
</saml:Subject>
<saml:AttributeStatement xmlns:saml="urn:oasis:names:tc:SAML:2.0:assertion">
        <saml:Attribute Name="companyid">
                <saml:AttributeValue xmlns:xsi="http://www.w3.org/2001/XMLSchema-
                instance" xsi:type="xs:string">HRTech1</saml:AttributeValue>
        </saml:Attribute>
</saml:AttributeStatement>
```

Note that the values in the square brackets are placeholders and must be replaced by the correct data. This information may be packaged in a metadata file. If you send the metadata file to Kronos, make sure you replace the entity ID within that file with the correct issuer ID. Kronos will use this information to setup SSO on their side.

To set up SSO, the following information must be sent to Kronos: Issuer ID / SAML metadata for the Company ID / X509 Certificate / SAML User Attribute for Company ID.

3.1.2 Configuration of Employee Central Identity Provider for Kronos

Prerequisites

Employee Central needs the following information from Kronos:

- Assertion consumer service
- Audience URL (optional)
- Relay state value (optional)

Task Steps

1. Set up SSO Connection
    1. In Provisioning, select the company and then choose *Authorized SP Assertion Consumer Settings*.

2. Enter the assertion consumer service URL and audience string that you received from Kronos.

3. Enter **`kronos-logonsp`** as the mapping key.

3.1.3 Configure 'Time and Attendance' Link for Kronos

2. Activating and Configuring Link to Kronos
   1. In *Provisioning > Company Settings > Employee Central*, select the *Enable Employee Central V2 timesheets* link.
   2. Enter the target URL
   3. Note that the values in the square brackets are placeholders and must be replaced by the correct data. For example, if the SFSF data center server name is www.successfactors.com then the link will look like:

      https://www.successfactors.com/sf/idp-init/sso/kronos-logonsp?saml2=true

4 Time Data Replication

This chapter describes how to export time data from Kronos to Employee Central Payroll. This process involves the following steps:

Kronos

Time data is extracted from Kronos to an XML file and saved in an SFTP location.

SAP HANA Cloud Integration

SAP HANA Cloud Integration accesses this SFTP location and transmits the time data to Employee Central Payroll using a Web service call.

Employee Central Payroll

1. When the flat file arrives in Employee Central Payroll, it is automatically converted to an IDoc and can be seen in the IDoc queue.
2. Report RBDAPP01 posts the records from the IDoc to SAP interface tables PTEX2000 (absences) and PTEX2010 (remuneration wage types).
3. Report RPTEXTPT moves the data from the interface tables to the respective infotype tables PA2001 (absence data) and PA2010 (wage types).

> Note
>
> These specifications apply to the country version for the United States. If a customer implements any other country version, some adjustments may be necessary.

4.1 Utility Report

From the May 2014 release onwards, the utility report to clear previous imports is delivered as standard in add-on SFIECPEP 100. We recommend using this standard utility report instead of the custom solution delivered in SAP Note 1915630.

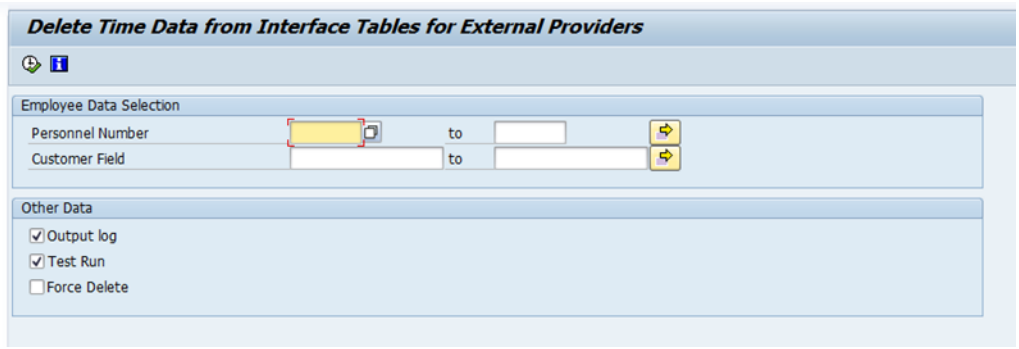
Prerequisites

The following add-on is a prerequisite for using the standard utility report:

SFIECPEP 100 SuccessFactors Employee Central Payroll Third-Party Data Integration Tool

Report RPDELPTINT Delete Time Data from Interface Tables for External Providers

Transaction PT_DEL_INT



Following are some of the features of the utility program and how you can use it to clean up your system and make it ready to import the re-export from the third-party time and labor management (TLM) system.

- A given batch of time data has a unique identifier. This unique identifier is stored in field CUSTOMER_FIELD of the IDoc segment. For any errors while importing time data, note down this CUSTOMER_FIELD. You need to specify this CUSTOMER_FIELD when executing the undo/delete utility report.
- If the batch inserted time data into employee master data, the utility will delete it. If the batch deleted time data from employee master data, the utility will restore the deleted data.
- The utility report will also delete the segments from the staging area of PTEX2010, PTEX2000, and PTEXDIR.
- You can execute the utility report in test run mode. In this mode, the system simulates the actual execution and displays the result. You can also select a set of employees for simulation.
- In a live run (the *Test Run* checkbox is not selected), you must process the delete report for the complete batch. You do this by executing the report with a given batch number in the selection parameter. Part delete is not allowed.
- The utility report has built-in safety mechanisms to ensure system consistency. However, there is also a force delete mode to ignore such safety. This mode is useful if the system is in an inconsistent state and you want to delete a batch forcefully.

4.2 Absence Data

The following fields are considered during the replication:

Kronos Emp Center Field	Description	Required/Optional/ Constant	Code Mapping Required?	Value Mapping Required?	EC Payroll/IDoc Fields
	Partner system	As configured in Receiver logical system of third-party time management system, for example, KRONOS	Yes	No	EXTSYSTEM
	External application	"EXT", as defined in Checking External Application Key	Yes	No	EXTAPPLICATION

	Generated unique IDoc document number	Required	Yes	No	EXTDOCUMENTNO
Batch Number	Generated unique batch number	Required	Yes	No	CUSTOMER_FIELD
Person Number	Employee payroll ID as in EC Payroll (PERNR)	Required	No (direct map)	No	EMPLOYEENUMBER
Date	Start date and end date for the absence	Required	No	No	FROM_DATE, TO_DATE
Kronos Pay Code	Kronos pay code	Required	Yes	Yes	
SuccessFactors Paycode Name	Wage type code name as in EC Payroll	Required	Yes	Yes	
SuccessFactors Paycode ID	Absence/ attendance code	Required	No	No	ABS_ATT_TYPE
Labor Level 4	Cost center (for overriding default cost center assignment)	Optional	No	No	COSTCENTER
Time	Absence/ attendance hours	Optional	No	No	ABS_ATT_HOURS
Unit of Time	Unit of time	Optional	No	No	
Worked or Absence	Employee's work (W) or absence (A) status	Optional	No	Yes	
Pay code wage rate	Rate	Optional	No	No	
Financial Company Code	Company code of overriding cost center	Optional	No	No	COMP_CODE

4.3 Remuneration Data

The following fields are considered during the replication:

Kronos Emp Center Field	Description	Required/Optional/ Constant	Code Mapping Required?	Value Mapping Required?	EC Payroll/IDoc Fields
	Partner system	As configured in Receiver logical system of third-party time management system, for example, KRONOS	Yes	No	EXTSYSTEM
	External application	"EXT", as defined in Checking External Application Key	Yes	No	EXTAPPLICATION
	Generated unique IDoc document number	Required	Yes	No	EXTDOCUMENTNO
Batch Number	Generated unique batch number	Required	Yes	No	CUSTOMER_FIELD
Person Number	Employee payroll ID as in EC Payroll (PERNR)	Required	No	No	EMPLOYEENUMBER
Date	Date to which remuneration data belongs	Required	Yes	No	VALIDITYDATE
Kronos Pay Code	Kronos pay code	Required	No	Yes	
SuccessFactors Paycode Name	Wage type code name as in EC Payroll	Required	No	Yes	
SuccessFactors Paycode ID	Wage type code as in EC Payroll	Required	No	Yes	WAGETYPE
Labor Level 4	Cost center	Optional	No	Yes	COSTCENTER
Time	Number of hours	Optional	No	No	NO_OF_HOURS
Time	Number	Optional	No	Yes Value mapping: TimeUnit	Number

Unit of Time	Time unit for the number. The value is configured as in EC Payroll, for example, 001 for Hours.	Optional*	No	Yes Value mapping: TimeUnit	TIME_UNIT
Unit of Time	Time unit for the number in ISO format	Optional*	No	No	TIME_UNIT_ISO
Worked or Absence	Employee's work (W) or absence (A) status	Optional	No	Yes	
Pay Code Wage Rate	Rate	Optional	No	No	VALUATION_BASIS
Financial Company Code	Company code of the overriding cost center	Optional	No	No	COMP_CODE

* The fields are optional. However, some of them will be required based on the wage type configuration in Employee Central Payroll.

4.3.1 Value Mappings

The value mappings are translation tables between the Employee Central picklist entries and the Kronos values.

The following fields have been mapped through a value mapping project in SAP HANA Cloud Integration:

- TimeUnit

You can modify the entries in this project to suit your needs.

In the Developer's Guide for Managing Integration Content, see *Developing Value Mappings* for general information about value mappings, and *Editing the Value Mapping Project* for information about editing value mappings.

4.4 Getting Access to the Solutions

SAP HCI Spaces is a Web-based application that helps you to access the integration content available for a particular tenant on an on-demand integration infrastructure. In SAP HCI Spaces, you can access integration packages with artifacts such as value mappings, integration flows, and files. For more information, see *Viewing Integration Flow Configurations* in the Developer's Guide for Managing Integration Content.

You can edit and configure a package as follows:

1. On the *Discover* tab, click the integration package to be configured.
2. Choose *Copy*.

   On the *Design* tab, you should now find the copied package.

To configure and edit the package, follow *Editing Integration Flow Configurations* in the SAP HANA Cloud documentation.

4.4.1Common Configuration Steps

4.4.1.1 SAP Credential Deployment

To deploy the following artifacts, see *Deploying and Editing a User Credentials Artifact* in the Operations Guide for SAP HANA Cloud Integration.

Artifact	Description
SuccessFactors EC Credentials	These credentials are used to connect to the SuccessFactors Employee Central system
SuccessFactors EC Payroll Credentials	These credentials are used to connect to the SuccessFactors Employee Central Payroll system
SAP SFTP Server Credentials	These credentials are used to connect to the SFTP server
Kronos SFTP Server Credentials	These credentials are used to connect to the Kronos SFTP server

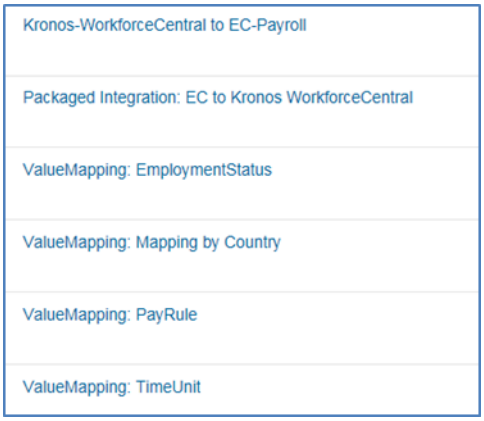
For more information about SFTP-based communication, see the Operations Guide for SAP HANA Cloud Integration.

4.4.1.2 Value Mapping Maintenance

A value mapping project is delivered along with the iFlows in this integration. It must be deployed in the customer landscape so that the iFlows can refer to the value mappings. For information about using and editing value mappings, see the Developer's Guide for Managing Integration Content.

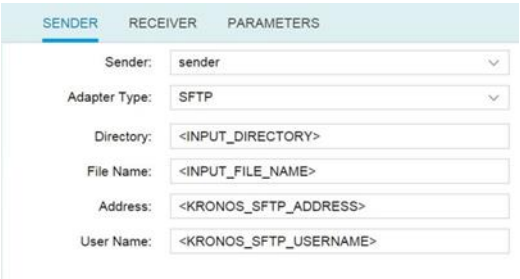
4.4.2 Setting Up the Standard Data Integration

In the Discover section, click the *SuccessFactors EC with Third-Party Time Vendor — Kronos* integration process and configure the *Kronos WorkforceCentral to EC Payroll* integration flow.



4.4.2.1 Sender Settings

4.4.2.1.1 Kronos SFTP



Field	Description
Directory	Directory name on the SFTP server where the input file is stored, for example, /input
File Name	Name of the input file along with the extension, for example, input.txt
Address	SFTP server host URL, for example, test.sftp.com
User Name	SFTP user name for the above connection

4.4.2.2 Receiver Settings

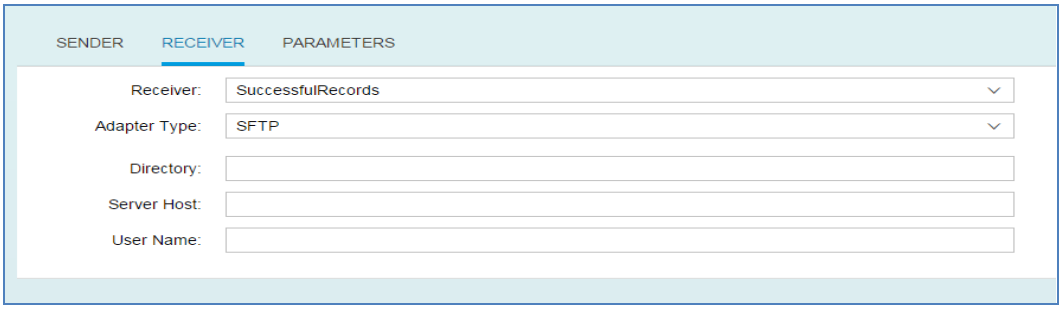
4.4.2.2.1 Employee Central Payroll

This receiver helps you to connect to the SuccessFactors Employee Central Payroll system.

Field	Description
Address	Employee Central Payroll connection URL
Credential Name	Name of the artifact that was deployed in Common Configuration Steps

4.4.2.2.2 SFTP: Successful Records

This receiver helps you to send the resulting file of the process to a directory at the SFTP location.

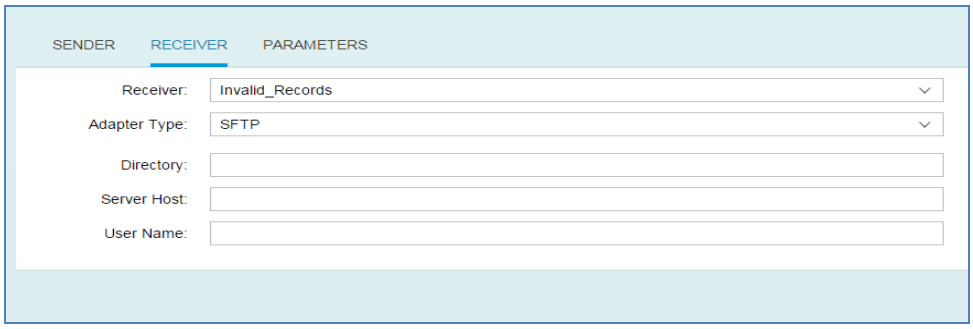


Field	Description
Directory	Directory name on the SFTP server where the resulting file is to be stored, for example, /Test
Server Host	SFTP server host URL, for example, test.sftp.com

User Name	SFTP user name for the above connection

4.4.2.2.3 SFTP: Error Records and Invalid Records

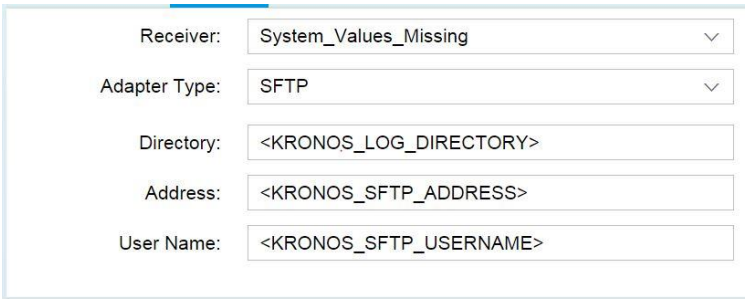
This receiver helps you to log the failing employees from the payload and send the relevant information to a directory at the SFTP location.



Field	Description
Directory	Directory name on the SFTP server where the logs are to be stored, for example, /Logs
Server Host	SFTP server host URL, for example, test.sftp.com
User Name	SFTP user name for the above connection

4.4.2.2.4 SFTP: System Values Missing

This receiver helps you to capture the records where mandatory fields are missing from the payload, and to send the relevant information to a directory at the SFTP location.



Field	Description
Directory	Directory name on the SFTP server where the logs are

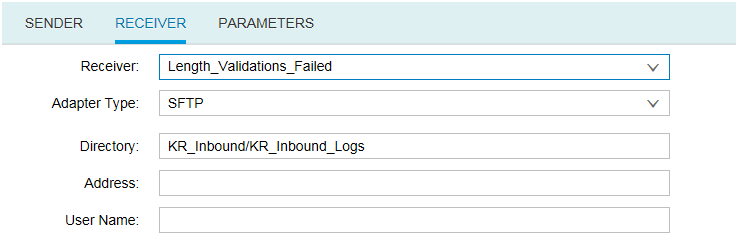
	to be stored, for example, /Logs
Address	SFTP server host URL, for example, test.sftp.com
User Name	SFTP user name for the above connection

Note

Currently, SAP HANA Cloud Integration does not expose the SFTP file name and archive directory to be changed at catalog level. If this is required, see Extending the Standard Data Integration.

4.4.2.2.5 SFTP: Length Validations Fail

This receiver helps you to capture the records where length validations fail on the payload and to send the relevant information to a directory at the SFTP location.

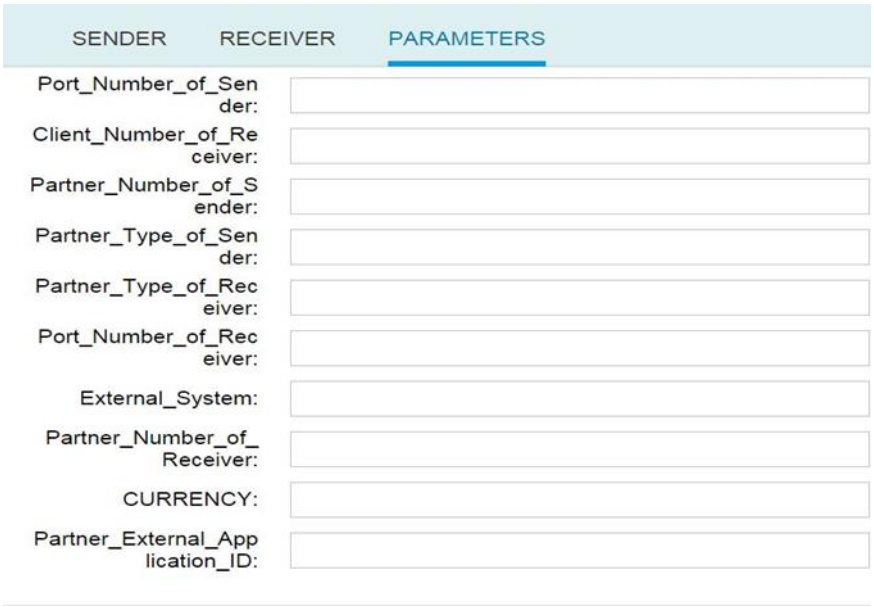


Field	Description
Directory	Directory name on the SFTP server where the logs are to be stored, for example, /Logs
Address	SFTP server host URL, for example, test.sftp.com
User Name	SFTP user name for the above connection

Note

Currently, SAP HANA Cloud Integration does not expose the SFTP file name and archive directory to be changed at catalog level. If this is required, see Extending the Standard Data Integration.

4.4.2.2.6 Parameters



Parameter Name	Description
Port Number of Sender	Port number of the sender logical system
Client Number of Receiver	In transaction SM30, display table T000. Enter the client number that you want to use, for example, 502.
Partner Number of Sender	Logical system of the sender system configured in transaction BD64
Partner Type of Sender	Partner type of the sender system configured in the SAP ERP system
Partner Type of Receiver	Partner type of the receiver system configured in the SAP ERP system
Port Number of Receiver	Port number of the receiver logical system
External System	Receiver logical system of the third-party time management system. Enter the system from the Logical System step, for example, KRONOS.
Partner Number of Receiver	Logical system of the receiver system configured in transaction BD64
CURRENCY	3-digit currency code, for example, USD
Partner External Application ID	As configured in the IDoc

4.5 Details about the Data Replication

General

- EmpCenter will be the system of record for quotas/banks to facilitate accrual and usage calculations.
- The inbound data from Kronos to EmployeeCentral Payroll will contain cost center related information. Providing cost center in the inbound allows you to make use of cost override feature on Employee Central Payroll. This cost center information is the same as the one sent from Employee Central to Kronos as a part of Employee Data Replication.
- As part of the paycode, Kronos may send Hours, Days or Amount. Based on this information, Wagetype is configured by the customer.

Absence Data

- Absence quota payouts are determined by the administrator in the time system (including accrual payouts at termination).
- If you use integration with Infotype 2001, be aware that regardless of the absence hours that are sent from Kronos, the hours are recalculated again in SAP ERP Time Management based on the absence type configuration and the employee's work schedule in Infotype 0007. This is not be the case, when you use integration with Infotype 2010 for absence hours. You need to decide which infotype to use depending on your business needs and requirements.
- If correct absence hours are relevant for Employee Central Payroll and cannot be handled using the remuneration infotype, then information on planned working time and public holidays must be held in sync with the planned working time in Kronos. You must configure the absence type calculation according to the customer's business requirements. Absences records must not be longer than a day. If they are longer, they need to split up into multiple absences, each only one a day long. For example, if there is a 4-days absence, it needs to be split into four records where each absence lasts only one day.
- Absence codes sent to Employee Central Payroll may trigger business logic checks. We recommend that you select absence codes that have minimum or no business checks in Employee Central Payroll (for example, general absence with no collision checks and input checks). Absence codes which trigger business checks may require extensive configuration in Employee Central Payroll.

Remuneration Data

- Wage types are always expected to contain the number of hours and rate of pay. You can skip the rate if you want SAP to calculate the rate.
- FLSA rates are calculated by default at Kronos. Customers need to use the custom fields for bonus data in SuccessFactors and this data needs to be transmitted to Kronos so that it calculates FLSA rates accurately. If customers want to use the FLSA rate calculated by Employee Central Payroll, they need to switch off the FLSA rate calculation in Kronos and instead have to configure the FLSA rate calculation in Employee Central Payroll. For more information, see subschema UTR0.
- Wages are added to either the bonus pay component or the basic pay component based on the configuration in Employee Central Payroll. This influences subsequent payroll calculations.
- For premium pay, there are two scenarios possible:
    - Kronos sends wage types with the final rate of payment.
      In this case, you must change the configuration of wage types in Employee Central Payroll such that there is no further premium applied on the rate supplied by Kronos.
    - Kronos is configured to send the regular rate.
      In this case, the Employee Central Payroll configuration can contain premium rates.

- We recommend supplying cost center information only for override. If supplied in every case, it is assumed that the third-party provider takes care of sending amendments to Employee Central Payroll even if only the cost center changed for employees (for example, the cost center of an employee changed for the last period, but the time data remains the same).
- For cost center overrides, only information for cost center is exposed from Employee Central Payroll.
- Kronos needs to know the cost center/company codes that are valid in Employee Central Payroll. This needs to be achieved by a custom integration. There is no standard integration available for this purpose.

Functions Supported by the Payroll Export

- Import of wage types into Employee Central Payroll = Infotype 2010 with valid date and amount of hours
- Import of Absences into Employee Central Payroll = Infotype 2001 with valid date and hours
- In case of terminated employees, the time data after the termination date is not processed. These cases have to be handled directly in Employee Central Payroll.
- Absence quota payments will have to be determined by the administrator in the time system (including accrual payouts at termination).
- In case of errors during the import of a particular batch of time data, the administrator needs to delete the complete batch. To achieve this, the batch number can be entered as a selection parameter when the Delete report is executed. Partial deletion is not allowed. For details about the Delete report, see the Error Correction section.
- Time substitutions are out of scope.
- Cancellation / deletion of absences previously exported to SAP payroll are out of scope
- Cancellation / deletion of wage types previously exported to SAP payroll are out of scope

4.6 Configuring the Integration between Kronos and Employee Central Payroll

To enable the integration between Kronos and Employee Central Payroll, perform the following steps:

- Configure Absence Types
- Configure Remuneration Wage Types
- Set up the ALE Scenario for IDoc

4.6.1 Configuring Absence Types

> **Note**
>
> If you don't use Time Management in SAP ERP, ensure that all time-based checks, for example, Input Checks or Quota Deduction Assignments, are deactivated.

1. In the IMG, choose *Time Management* → *Time Data Recording and Administration* → *Absences* → *Absence Catalog* → *Define Absence Types*.
2. Create only absence types that are relevant for payroll. For more information, see the documentation for the IMG activity.

3. In SM31, enter T554S and click *Maintain*. Double-click each payroll-relevant entry in the table and make the following settings for each:
   - In the *Input Checks* section, ensure the fields are either blank or unchecked. For *minimum duration*, enter 001 and for *maximum duration*, enter 999.
   - In the *Counting and Quota Deduction* section, uncheck everything except *Grpg att./abs. for counting (01)*. Enter a counting rule.
   - In the *Payment Data* section, enter an *Absence Valuation Rule* and *Abs./Att cat. for Payroll* as required by payroll calculation depending on the business demands of the absence valuation in payroll.

Example SAP absence types are listed in the following table. As mentioned above, you can select absence types that have no checks. If you plan to select the other absence types, make sure that you deactivate the checks in the customizing.

Absence Code	Description	Screens Used (and Subsequent Business Logic Applied)	Collision Checks	Input Checks	Unit of Measure
0100	Paid Leave	Quota Deduction	Yes	None	Calendar Days
0140	Paid Absence	General absence	None	End Date is required. Error if start and end date is an off day; or if the entire period is an off period.	Calendar Days
0150	Unpaid Absence	General absence	None	None	Calendar Days
0200	Illness	Work Incapacity	None	Error - if absence is on a holiday	Calendar Days
0201	Short Term Disability	Work Incapacity	None	None	Calendar Days
0202	Long Term Disability	General absence	None	None	Calendar Days
0215	Comp Time for Overtime	Quota Deduction	Yes	End Date is required	Calendar Days
0220	Floating Holiday	Quota Deduction	Yes	End Date is required	Calendar Days
0230	Personal time	General absence	None	End Date is required. Error if start and end date	Calendar Days

				is an off day; or if the entire period is an off period.	
0250	Occ. Inj/Worker's Comp	General absence	None	None	Calendar Days
0500	Maternity protection	Maternity Protection	Yes	None	Calendar Days
0510	Family care leave	Maternity Protection	Yes	None	Calendar Days
0520	Jury Duty-Quota	General absence	None	None	Calendar Days
0530	Bereavement Leave	General absence	None	None	Calendar Days
0650	Military/non-mil.service	Military Service	Yes	None	Calendar Days
0700	Strike/Lockout	General absence	Yes	None	Calendar Days

4.6.2 Configuring Remuneration Wage Types

1. In the IMG, select *Personnel Management → Personnel Administration → Payroll Data → Employee Remuneration Information → Wage Types → Check Wage Type Characteristics*.
2. If a wage type already exists that fulfills customer requirements, use it.

   If not, do the following:

   - Select *Personnel Management → Personnel Administration → Payroll Data → Employee Remuneration Information → Wage Types → Create Wage Type Catalog*.
   - Select copy and enter a country.
   - Select wage type and click *Copy*.
3. Adapt the wage type, if necessary, so that it exactly matches to the wage types that exist in Kronos. In the Input combination field, enter *X* for both *Amount* and *Number/unit*. In *Number/unit* section, choose a relevant entry for *Time unit/mass*, for example, *Hours*.

   For other sections, see the field documentation for more information.
4. In SM31, enter V_512W_O and click *Maintain*. Choose the country grouping. Double-click the wage type and maintain the table according to the payroll requirements of the customer.

Example SAP remuneration wage types are listed in the following table.

Wage Type	Wage Type Description	Wage Type Characteristics
M800	Regular working time	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total

M801	Lump sum period hours	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M802	On Call/Standby	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M803	Training - internal	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M804	Training - external	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M805	Overtime paid 1.0	- Either amount or number/unit - Unit of measure: Hours - For basic overtime hours - Add to total
M806	Overtime paid 1.5	- Either amount or number/unit - Unit of measure: Hours - For for basic overtime hours - multiplied by 150% - Add to total
M807	Overtime paid 2.0	- Either amount or number/unit - Unit of measure: Hours - For basic overtime hours - multiplied by 200% - Add to total
M810	Sunday premium	- Either amount or number/unit - Unit of measure: Hours - multiplied by 25% - Bonus wage type - Add to total
M811	Holiday premium	- Either amount or number/unit - Unit of measure: Hours - multiplied by 15% - Bonus wage type - Add to total
M812	Evening Shift premium	- Either amount or number/unit - Unit of measure: Hours - multiplied by 5% - Bonus wage type

		- Add to total
M813	Night Shift premium	- Either amount or number/unit - Unit of measure: Hours - multiplied by 10% - Bonus wage type - Add to total
M814	Weekend Shift premium	- Either amount or number/unit - Unit of measure: Hours - multiplied by 20% - Bonus wage type - Add to total
M815	Call In pay	- Either amount or number/unit - Unit of measure: Hours - Bonus wage type - Add to total
M850	Holiday Pay	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M851	Vacation Pay	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M852	Sick pay	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M853	Comp time taken	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M854	Jury duty	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M855	Bereavement leave	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M858	Family Medical Leave	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M859	Maternity leave	- Either amount or number/unit

		- Unit of measure: Hours - For basic hours - Add to total
M860	Short term disability	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
M864	Other Paid Absence	- Either amount or number/unit - Unit of measure: Hours - For basic hours - Add to total
ML01	Piecework time	- Either amount or number/unit - Unit of measure: Pieces - For basic hours - Add to total
TD00	Direct tip	- Amount essential, no number/unit - For bonus - Add to total
TGS0	Gross sales	- Amount essential, no number/unit - For bonus - Add to total
TI00	Indirect tip	- Amount essential, no number/unit - For bonus - Add to total
TO01	Overtime hours - tips	- No amount, number/unit essential - For bonus - Add to total
TO02	Overtime hours - tips	- No amount, number/unit essential - For bonus - Add to total
TR01	Regular hours - tips	- No amount, number/unit essential - For bonus - Add to total
TR02	Regular hours - tips	- No amount, number/unit essential - For bonus - Add to total

4.6.3 Configuring Technical Communication User

To enable a customer specific integration scenario, the customer has to create a customer specific communication user for the inbound communication in the relevant payroll client. To ensure that the middleware

can successfully communicate with the payroll system, create a technical user of type B (System User) with specific authorizations and restrictions.

For your convenience, we have created a template role you can assign to this user: SAP_HR_PA_EC_EE_REPL. We strongly recommend that you create the user with this template role.

Also be sure to mark this user as 'customer' user by assigning the user group “customer” to the user via SU01 – else the user will be automatically deleted.

> Caution
>
> If the customer has already been using this template role since b1302, the customer must copy this template again and assign it to the user to ensure that Date Specifications, which are new to b1308, is replicated as well.

For more information about creating users, see Creating a Technical User in the SAP Library.

4.6.4 Setting up ALE Scenario for IDoc

4.6.4.1 Defining a Logical System

You must create a logical system that represents the third-party time management system. This will send the absence and remuneration data to the SAP system.

> Note
>
> Logical systems are defined as cross-client systems. You must maintain the logical system in a client in which cross-client customizing is allowed.

For more information, see the SAP ERP Implementation Guide (IMG) under *SAP NetWeaver* → *Application Server* → *IDoc Interface / Application Link Enabling (ALE)* → *Basic Settings* → *Logical Systems* → *Define Logical Systems.*

1. In transaction BD54, select *Edit* → *New Entries*.
2. Create a logical system that identifies the third-party time management system, as shown in the following table:

Field	Entry
Logical System	Enter the logical system name of the third-party time management system, for example, WORKFORCE.
Description	Enter a descriptive name.

4.6.4.2 Identifying the SAP System

1. In transaction SM30, display table *T000*.
2. Double-click the client you want to display (for example, 850).

3. Note the logical system specified here (example: XXXCLNT850) since this will be the system that receives the IDoc.

4.6.4.3 Maintain Distribution Model

You must define a distribution model for each system that receives data from SAP ERP. Distribution models describe the Application Link Enabling (ALE) message flows between logical systems.

The distribution model consists of separate model views in which all the associated, cross-system message flows in your organization can be defined. These views must be distributed to the receiving systems. In the individual message flows you can define filters to determine which data is to be transferred to which receiving systems. The distribution model controls this distribution.

For more information, see the SAP ERP Implementation Guide (IMG) under *SAP NetWeaver* → *Application Server* → *IDoc Interface / Application Link Enabling (ALE)* → *Modelling and Implementing Business Processes* → *Edit Distribution Model and Distribute Views.*

1. In transaction BD64, switch to edit mode.
2. Select *Create Model View*.
3. Create a model view, as shown in the following tables:

Field	Value
Short text	For example, Employee Central Payroll – Third-Party Time Management System
Technical Name	For example, CP_WF_INT Maximum 10 characters
Start Date	<current date>
End Data	31.12.9999

4. In the *Distribution Model* list, select the model you just created and select *Add Message Type*.

Fields and Values for hrsm_d

Field	Value	Example
Sender	Logical system of SAP ERP <system ID>CLNT<client number>	XXXCLNT850
Receiver	Receiver logical system of third-party time management system. Enter system from the Logical System step.	WORKFORCE
Message Type	hrsm_d	

5. Select *Add BAPI*.
6. For the following BAPIs, enter sender / receiver port as above:
   - Choose PTMgrExtAttAbs and then choose Method: InsertWithCostAssignment
   - Choose PTMgrExtRemunSpec and then choose Method: InsertWithCostAssignment

7. Save your entries.

4.6.4.4 Checking and Registering IDoc Service

1. To check if the service /sap/bc/srt/idoc (Inbound SOAP for IDoc) is active, proceed as follows:
   1. In transaction SICF, enter /sap/bc/srt/idoc in the *Service Path* field. [Right-click IDoc, click test service, Web browser opens, the URL shown is the URL needed for the xml end point.]
   2. Choose *Execute*.

      If the service is displayed in gray, it is inactive.
   3. To activate the service, right-click the service name and choose *Activate Service*. from the context menu.
2. To register the service, proceed as follows:
   1. In transaction SRTIDOC, select the *Register Service* checkbox.
   2. In the *Service Attributes* section, enter the parameters:

Parameter	Value
URI SOAP Application	urn:sap-com:soap:runtime:application:idoc
Name of Web Service Definition	GENERIC
Call Address (ICF Path)	/sap/bc/srt/idoc
Number of Virtual Host	Leave empty

   3. Choose *Execute*.

4.6.4.5 Maintain Partner Profile - Logical System (LS)

This section describes how to configure partner profiles so that data is sent immediately.

For more information, see the SAP ERP Implementation Guide (IMG) under *SAP NetWeaver* → *Application Server* → *IDoc Interface / Application Link Enabling (ALE)* → *Modeling and Implementing Business Processes* → *Partner Profiles.*

Procedure

1. In transaction WE20, select *Partner Type LS* and select *Create*.
2. Create a partner profile, as shown in the following table:

Field	Value	Example
Partner No.	Enter the logical system name	
Partner Type	LS (Logical System)	
Type	Organizational Unit or User (O or US)	

Agent	Enter the job (person or group of persons) to be notified in case of error	50010120
Language	EN	

3. Save your entries.
4. Click the *Add Row* icon to define the inbound parameters for the message type HRSM_D.

Inbound Options tab for Message Type HRSM_D

Field	Value
Message Type	HRSM_D
Process Code	HRSM_D
Processing By Function Module	Trigger Immediately

5. Ensure that *Cancel Processing After Syntax* checkbox is selected.

4.6.4.6 Checking External Application Key

1. In SM31, enter the table *tptextapp* and click *Maintain*.
2. Ensure that there is a corresponding entry in the table for the external application field in the XML. If it is missing, add entry for external application for key EXT.

4.6.4.7 Defining Background Jobs

To move data from the IDoc to the correct infotype in the system., certain reports must be scheduled to run.

1. In transaction SM36, click *Job Wizard*.
2. Enter job name. Click *Next*.
3. Choose ABAP Program Step. Click *Next*.
4. Enter report RBDAPP01 as ABAP program name. Click *Next*.
5. Click Start immediately. Click *Next*.
6. Select periodical jobs. Click *Next*.
7. Choose the interval period for how often the report should run, for example, every five minutes.
8. Repeat the job wizard for report RPTEXTPT. The report should not use the option "Transfer/Delete". This is to make sure that the staging area data is retained. This data is required for the Error correction report.

4.7 Troubleshooting

In exceptional cases, problems can occur with the data that is imported to Employee Central Payroll, for example, if an incorrect wage type code is attached to time entries. When errors occur, the export report fails and the administrator is notified. The batch needs to be re-exported from the EmpCenter and replicated in Employee Central Payroll. The administrator needs to access the EmpCenter and provide the unique batch ID for which the re-export of the time data is required. This unique batch ID is available in the IDoc field CUSTOMER_FIELD.

Before the re-export is started, the previously imported data must be removed from the system. A cleanup is needed for both employee master data and the time data staging tables. From the May 2014 release onwards, we recommend using the standard utility report delivered in add-on SFIECPEP 100 to clean up the previous imports instead of the custom solution delivered through SAP Note 1915630. For lower releases, SAP Note 1915630 describes a utility report that cleans up this data. Please implement this SAP note in the customer's Employee Central Payroll system. Follow the instructions in the SAP note carefully to execute the report correctly.

5 Appendix

5.1 Country-Specific Mappings of Address Fields

The mapping of some of the Kronos address fields is dependent on the country. The following table shows the mappings between the Employee Central fields and the Kronos fields *Home Address Street* and *Home Address City* based on the country.

Country	Home Address Street	Home Address City
Argentina	address1	city
Australia	address1	city
Austria	address1	city
Brazil	address1	city
Canada	address1	city
Chile	address2	city
China	address2	city
Finland	address1	city
France	address2	city
Germany	address1	city
Hong Kong	address2	-
India	address1	city
Ireland	address1	city
Italy	address1	city
Japan	-	address1
Korea	address3	address1
Malaysia	address1	city
Mexico	address1	city
Netherlands	address3	city+address2
New Zealand	address3	city
Russia	address1	city
Singapore	address1	city

Spain	address1	city
Sweden	address1	city
Switzerland	address1	city
United Kingdom	address1	city
United States	address1	city
Venezuela	address1	city
DEFAULT**	address1	city

NOTE

** The standard implementation provides country-dependent address mapping for the countries listed in the above table. For all other countries the DEFAULT mapping is used.

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Material Number: