SAP SuccessFactors

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Implementing Point-to-Point Time Data Replication

THE BEST RUN SAP

Content

1 Implementing Point-to-Point Time Data Replication

Use SAP SuccessFactors Employee CentralTime Management to cover major time processes such as absence management and time recording. With point-to-point time data replication, you can replicate time management data to an SAP payroll system. This chapter provides an overview of the scope of the point-to-point time data replication.

The following functionality is supported by the standard point-to-point replication:

- *Absences* (2001), *Substitutions* (2003), and *Remuneration information* (2010) infotypes
- Some country/region-specific integration scenarios, like, the handling of Absence Quota for Chile (CHL), Egypt (EGY), the Kingdom of Saudi Arabia (SAU), Mexico (MEX), Oman (OMN), Qatar (QAT), and the United Arab Emirates (ARE) and the calculation of Leave Liability for Australia.

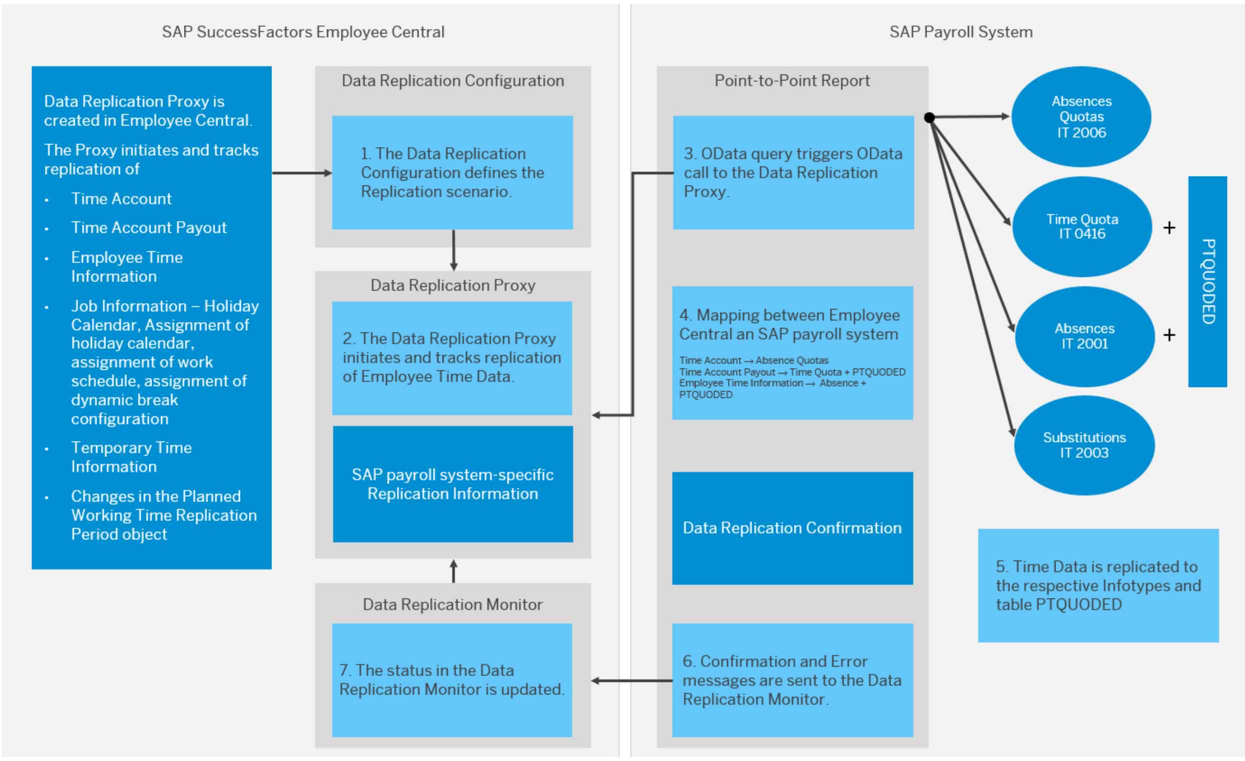
In addition, a variety of project solutions is possible: for example creating a data feed into the infotypes such as *Attendances* (2002).

> **Note**
>
> Key to these scenarios is that, for a single employee or a given population of employees, only one time solution is in place. Be aware that, mixing, for example, some features of Employee Central Time Management with other (3rd party) time solutions will probably lead to unwanted side effects. Similarly, Manager Self-Service (MSS) and Employee Self-Service (ESS) scenarios should not be used in an SAP payroll system if this data is from Employee Central Time Management.

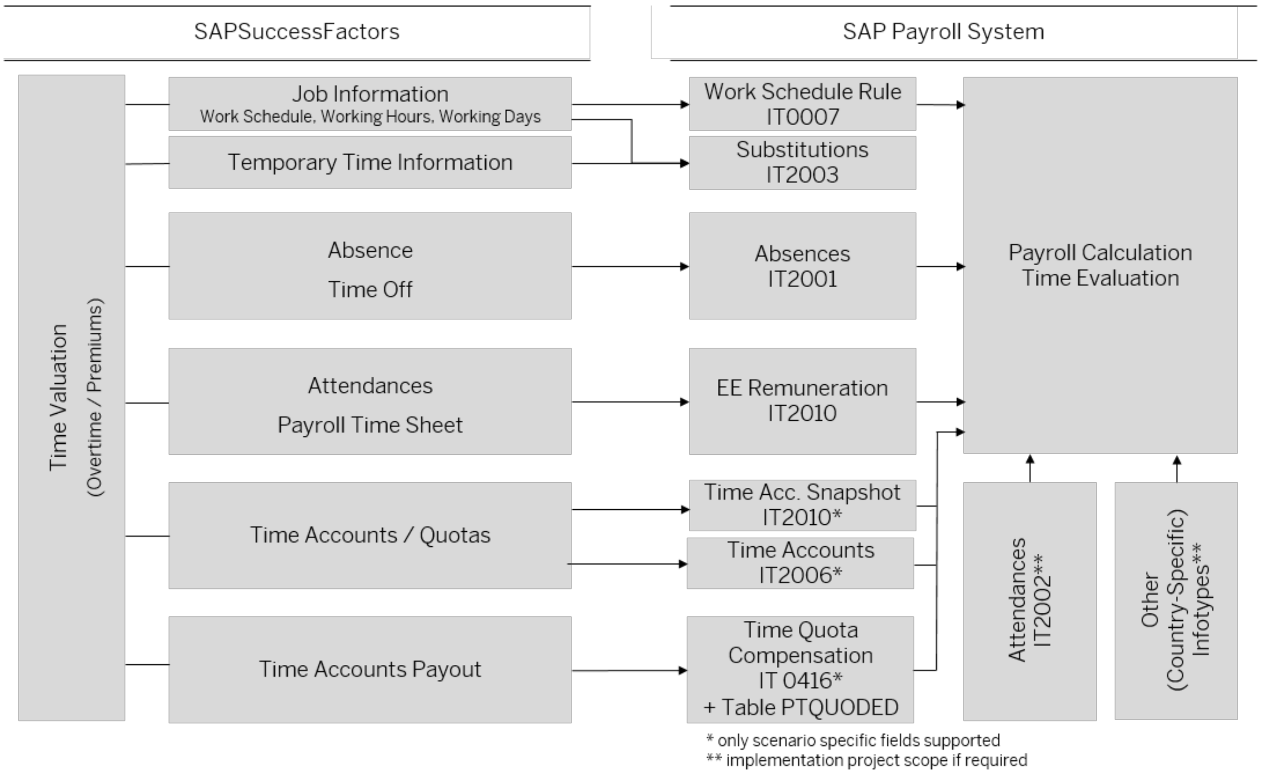
For country/region-specific processing:

- Customers may decide to build project solutions for other payroll / time management infotypes (for example special absences like, in France, infotypes `0424` for work accident and `0080` for maternity leave) and leverage `RPTIME` to cover gaps.
- SAP SuccessFactors investigates in a case by case manner how to selectively enhance integration.

The following graphic illustrates the technical process of the replication from Employee Central time management data to an SAP payroll system:



The following graphic illustrates the business process of the replication from Employee Central Time Management to an SAP payroll system:



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Restriction

- It isn't possible to use the Employee Central `CompoundEmployee` API for replicating employee time data. You can't register MDF objects for transactional data. Objects for transactional data lead to memory issues. For more information, refer to Extending the API with MDF Objects.
- The point-to-point replication of *Leave Liability and Purchase Leave for Public Sector Australia* is only supported in SAP SuccessFactors Employee Central Payroll.

2 Prerequisites for Implementing Point-to-Point Time Data Replication

Make some important initial settings before implementing the point-to-point Time Data Replication.

In order to use the full range of features for point-to-point integration, the latest support package must be installed in your SAP payroll system. We also recommend that you update your system regularly to ensure legal compliance.

- Employee Central and an SAP payroll system are set up and point-to-point Time Data Replication is working.
- You've switched on the Business Function `HCM_SFEC_TDEC2HR`:
    1. Go to transaction **SFW5**
    2. Check the box for business function `HCM_SFEC_TDEC2HR` to activate it. Activating the Business Function makes the relevant section of the SAP Customizing Implementation Guide (IMG) visible, that you need for Customizing.

    > Note
    >
    > **Special Case**
    >
    > You have a multiclient system and you've activated the business function. If you want to continue to use the old solution in certain clients, activate the switch `SFEC/ORBFT` in the clients where you want to use the old solution.

When you replicate time management data from Employee Central to an Enterprise Resource Planning (ERP) system, different prerequisites apply depending on which add-on you are using:

- For the SFSF EC S4 HCM INTEGRATION (ECS4HCM) add-on (product SAP SuccessFactors Employee Central integration with SAP Human Capital Management for SAP S/4HANA), refer to Installing the Required Software Component Versions and Support Packages in SAP S/4HANA.
- For the SFSF EC INTEGRATION (PA_SE_IN) add-on (product SAP SuccessFactors Employee Central Integration to SAP Business Suite), refer to Checking the Minimum Setup Required for Your Systems and How to Keep Your Systems in Sync .

3 Setting Up Permissions

Set up all permissions required for the point-to-point time data replication. It includes the permissions needed by API users in Employee Central, permissions for data replication users, and authorizations for the integration users in an SAP payroll system.

3.1 Granting Permissions to API Users

Set the permissions required by a user of the SAP SuccessFactors Application Programming Interface (API) and the Data Replication Proxy and grant your replication (API) users the permission they require for running employee time data replication in Employee Central.

Context

The permissions listed here give a user access to use the SAP SuccessFactors OData API and OData API for time data replication. Please note that they don't grant any user interface logon.

Your API users need permission to access the *Data Replication Proxy* object, to be able to run the replication of employee time data to an SAP payroll system.

For more information about role-based permissions – what they are, how they work, how you set them up – see Implementing Role-Based Permissions

Procedure

1. Under *Administrator Permissions*, select the *Manage Integration Tools* category.
   a. Select the checkbox for the *Allow Admin to Access OData API through Basic Authentication* permission.

      For better security, we recommend that you use OAuth 2.0 to authenticate API users.

2. Under *Administrator Permissions*, select the *Metadata Framework* category
   a. Select the checkbox for the *Admin access to MDF OData API* permission.

Next Steps

You can test that the API works by using any commonly available tools, such as the SOAP UI tool.

3.2 Granting Permissions for the Data Replication Configuration

Grant your Employee Central admin users the permissions they require for configuring employee time data replication in Employee Central.

Context

Your Employee Central admin users need permission to access the Data Replication Configuration object, to be able to make settings for replication of employee time data to an SAP payroll system.

For more information about role-based permissions – what they are, how they work, how you set them up – see Implementing Role-Based Permissions

Procedure

1. Under *User Permissions*, select the *Payroll Integration Permission* category.
2. Select the checkboxes for *View*, *Edit* for the following permissions:
   - Data Replication Configuration
   - Data Replication Proxy
   - Trigger Data Replication Proxy Creation Job
   - Trigger Data Replication Proxy Deletion Job
   - Planned Working Time Replication Period (only relevant for replication of planned working time)
   - Work Schedule Replication Exclusion List (only relevant for replication of planned working time)
3. Under *User Permissions*, select the *Admin Alerts Object Permissions* category.
   - Select the checkboxes for *View*, *Edit* for the *Planned Working Time Replication Admin Alert* permission (only relevant for replication of planned working time).
   - Select the checkboxes for *View*, *Edit* for the *Time Account Replication Admin Alert* permission (only relevant for replication of time accounts).

3.3 Creating the Technical User (Integration User)

Find out how to set up the permission required for a user in an SAP payroll system.

The user needs to be of type B (*System User*) with specific authorizations and restrictions. For your convenience, we've created a template role you can assign to this user: `SAP_HR_TIM_EC_PTP_REPL`. We strongly recommend that you create the user with this template role. You have also to mark this user as a customer user by assigning it to the user group customer in transaction `SU01`, otherwise the user is deleted automatically by the system.

> ⚠ Caution
>
> You have to copy this role from client 000 into your customizing client.

For more information, see Creating a Technical User in the SAP NetWeaver Library.

4 Setting Up Point-to-Point Communication

Describes how to configure the point-to-point integration from Employee Central to an SAP payroll system.

To help you with your implementation, use the following sequence:

1. Set the connection data to Employee Central and automatically create the replication target system object according to the selected system:
   - In an Employee Central Payroll system: follow the instructions in Set Up Connection Between an Employee Central Payroll System and Employee Central [page 12]
   - In an SAP payroll system other than an Employee Central Payroll system : select first the prerequisites about generating client certificates before the Setting Up Connection With an SAP Payroll System Other Than Employee Central Payroll [page 15].
2. If applicable, create the replication target system object manually. For more information, refer to Creating the Replication Target System Object Manually [page 23].
3. Ping the Employee Central APIs to ensure that communication is up and running. For more information, refer to Pinging Employee Central APIs.

4.1 Set Up Connection Between an Employee Central Payroll System and Employee Central

Learn how to configure the connection between an Employee Central Payroll system and Employee Central that is needed to replicate employee master data and time data using the point-to-point (PTP) integration.

Prerequisites

Make sure that all permissions of the SAP standard role `SAP_HR_EC_PTP_CONFIG` are assigned to you.

Context

You run this report by using transaction `HRSFEC_PTP_CONFIG`. You can select the following options:

- *Set connection Data*: You can set up, or update, the connection data from an Employee Central Payroll system to Employee Central.
- *Ping Employee Central APIs*: You can check the connection setup by performing a ping test for the Employee Central APIs.

Procedure

1. In an Employee Central Payroll system, enter the `HRSFEC_PTP_CONFIG` transaction.
2. Select one of the following options to run the report:
    1. *Set Connection Data*
    2. *Ping Employee Central APIs*

    1. *Set Connection Data*
    Provide all the following information:

Field	Description
• *API Server URL* • *Company*	• Specify an *API Server URL* or select one from the dropdown list. • Specify a *Company*.
Connect with X.509 Certificate. **Note** Make sure that your Employee Central instance is hosted on one of the data centers listed in KBA 3167173.	Proceed as follows: 1. Choose the SSL Certificate <client_id>_SD from the dropdown list, for example, 100_SD. **Note** If <client_number>_SD can't be found, create a customer ticket in component LOD-EC-GCP-PY-OPS and request the creation of the missing clients. 2. Run the report using the selected SSL client certificate. 3. Start transaction STRUST and export the public key as described in Exporting Client Certificates from STRUST. 4. In the Employee Central Security Center, import the public key as described in Importing Client Certificates to the Security Center.

Field	Description
Connect with User ID and Password	Enter the *User ID* and *Password* from the Employee Central system. Ensure that your password doesn't contain the special characters & or <. → Remember The user needs permission to access the Employee Central APIs and OData Service Communication must be enabled. For more information, see Granting Permissions to API Users [page 9]. Please note that Basic Authentication will be replaced with X.509 certificate authentication. ⓘ Note In certain systems the option to connect with user ID and password has been disabled by default. If this is the case in your system but you want to use this option, request the activation by following the instructions in KBA 3268520.
Replication Target System for Employee Central	Mark the checkbox to create the replication target system for Employee Central. You can also create the replication target system manually in the *Admin Center*. For more information, see Creating the Replication Target System Object Manually [page 23].

2. *Ping Employee Central APIs*
   You can check the following connections:

Type of connection	Description
Employee Master Data API	Allows pinging the SOAP connection to Employee Centrall for the point-point PTP master data replication. It is only available for Employee Central Payroll systems.
Time Data API	Allows pinging the OData query to Employee Central for the point-to-point time data replication.
Confirmation API	Allows pinging the OData query for the confirmation. It is relevant for both point-to-point (PTP) master and time data replication.

3. Save your settings and execute the report.

Results

The output depends on the selected option:

Selected Option	Description
Set Connection Data	The report creates, or updates, the relevant RFC destinations for the connection between an Employee Central Payroll system and Employee Central. The following RFC destinations are created or updated: • ECP_PTP_SOAP_NNN for PTP master data replication • ECP_PTP_ODATA_NNN for PTP time data replication and for confirmation Note The last three characters of the RFC destination name must be the same as the once in the client of the Employee Central Payroll system you use. The credentials of the Employee Central system are stored in a secure store. If you chose to create the replication target system with the report and the creation is successful, the following success message is shown: Replication Target System `XXXCLNTNNN` is created successfully in Employee Central.
Ping Employee Central APIs	The report shows the results of the pings and also displays the following success messages: • SOAP login/logout HTTP status code: 200 • OData query was successful with HTTP status code 200 for object DataReplicationProxy. • OData query was successful with HTTP status code 200 for object EmployeeDataReplicationConfirmation.

Related Information

Client Certificate-Based Authentication for Outbound Communication

4.2 Setting Up Connection With an SAP Payroll System Other Than Employee Central Payroll

Generate client certificates for an SAP payroll system other than Employee Central Payroll and use them to configure the point-to-point connection with this system.

1. Prerequisites: Generating Client Certificates in an SAP Payroll System Other Than Employee Central Payroll [page 16]
   Before configuring the point-to-point connection with an SAP Payroll system other than Employee Central Payroll, choose one of the options to create client certificates.
2. Set Up Connection With an SAP Payroll System Other Than Employee Central Payroll [page 20]
   Learn how to configure the connection between an SAP payroll system other than an Employee Central Payroll that is needed to replicate time data using the point-to-point (PTP) integration.

4.2.1 Prerequisites: Generating Client Certificates in an SAP Payroll System Other Than Employee Central Payroll

Before configuring the point-to-point connection with an SAP Payroll system other than Employee Central Payroll, choose one of the options to create client certificates.

> → Tip
>
> In addition to the certificates described here, you need the basic certificate that establishes a secure connection between the SAP Payroll system and Employee Central. To establish a secure connection, download the root certificate from your SAP SuccessFactors instance as described in Downloading Certificate from SAP Cloud Integration. Upload this certificate in the *Trust Manger* (`STRUST`) transaction of the SAP Payroll system as described in Uploading SAP Cloud Integration Certificate to SAP S/4HANA. Note that for point-to-point integration, you download and upload the SAP SuccessFactors root certificate, not the SAP Cloud Integration root certificate. Apart from that, the procedure is the same.

Creating Client Certificate Using Subaccounts in SAP Business Technology Platform [page 17]
   Generate a valid certificate to set up the connection with an SAP Payroll system other than Employee Central Payroll using a Cloud Foundry subaccount in SAP Business Technology Platform (BTP).

Creating a Client Certificate Using SAP Cloud Identity Services - Identity Authentication [page 19]
   Generate a valid certificate to set up the connection with an SAP Payroll system other than an Employee Central Payroll using SAP Cloud Identity Services - Identity Authentication.

Parent topic: Setting Up Connection With an SAP Payroll System Other Than Employee Central Payroll [page 15]

Next task: Set Up Connection With an SAP Payroll System Other Than Employee Central Payroll [page 20]

4.2.1.1 Creating Client Certificate Using Subaccounts in SAP Business Technology Platform

Generate a valid certificate to set up the connection with an SAP Payroll system other than Employee Central Payroll using a Cloud Foundry subaccount in SAP Business Technology Platform (BTP).

Procedure

1. From your global account, navigate to the *Account Explorer* page.
2. Select a subaccount from your global account or create a subaccount using *Create* > *Subaccount*.
   You only need this subaccount to download the generated certificate.
3. Navigate to *Connectivity* > *Destinations*.
4. Choose *Certificates* and select *Generate Certificate*.
5. Make the following settings.

   Mandatory Fields for Generating New Certificate

Field	Description
Certificate File Name	Specify a name for the certificate.
File Name Extension	Keep the value *PEM*.
Certificate Common Name	Specify a technical user with access to SAP SuccessFactors OData API.

   The other fields to enter a password and define the certificate validity are optional.
6. Choose *Generate Certificate* and close the *Certificates* pop-up with *Cancel*.
7. Choose *New Destination*.
8. Select *ClientCertificateAuthentication* in the *Authentication* field.
   The *Name* and *URL* are mandatory fields. Enter any value because the URL doesn't have to be valid but must start with **`https://`**.
9. For the *Key Store Location*, select the certificate that you created and click on *Save*.
10. Choose *Export* to download the destination and the certificate.
11. Extract the downloaded zip file and open the *.pem certificate file with a text editor.

    > **Note**
    >
    > This file is base64 encoded. Use your text editor to decode it.
12. Save the file.
    This file is the private key to be uploaded later to your relevant SAP Payroll system.
13. In your text editor, remove the private part of the certificate such as all the information contained between `-----BEGIN PRIVATE KEY-----` and `-----END PRIVATE KEY-----`.
14. Save the file with a suffix like `_public`.
    The file is the public part of the certificate that must be uploaded in SAP SuccessFactors.

15. Log in to your SAP SuccessFactors instance and go to the *Security Center*.
16. Select *X.509 Public Certificate Mapping* choose *Add*.
17. Make the following settings.

Mandatory Fields for Adding New Certificate

Field	Description
Configuration Name	Specify a name for the certificate.
Integration Name	Select *Employee Central Payroll*.
Certificate File	Select the certificate with the `_public` suffix.
Login Name	Make sure that you specify the same name as the one you specified in the *Certificate Common Name* in step 3 of the procedure.

18. Log in to your SAP Payroll system and import the certificate that you saved with the private key using the Trust Manager by proceeding as follows:

> → Remember
>
> The private key is the file saved in step 11.

a. Switch to the *Change* mode in Trust Manager (STRUST).
b. Choose *PSE* > *Import*.
c. Switch to *All Files* and select the `.pem` file.
d. Enter the password that was maintained on the Cloud Foundry side, or leave it empty if you haven't set up a password.

   The certificate is imported. We recommend saving it in an SSL store. To do this, continue with the next two steps.
e. Choose *PSE* > *Save as*.
f. Select the appropriate SSL Client Identity.

Results

You can now configure the point-to-point connection between your SAP Payroll system and SAP SuccessFactors.

Next Steps

You can delete the subaccount if you don't need it for any other purposes.

Related Information

Maintaining PSEs and Managing Certificates

4.2.1.2 Creating a Client Certificate Using SAP Cloud Identity Services - Identity Authentication

Generate a valid certificate to set up the connection with an SAP Payroll system other than an Employee Central Payroll using SAP Cloud Identity Services - Identity Authentication.

Procedure

1. Access the administration console of the SAP Cloud Identity Services - Identity Authentication tenant.
2. Choose *Applications & Resources* > *Applications*, then *Create*.
3. Enter any value for *Display Name* and save it.
4. Select the newly created application and choose *Client Authentication* under *Application APIs*.
5. Choose *Add* in the *Certificate* section.

   Make the following settings:

Field	Description
Description	Specify a name for the certificate.
Common Name	Specify a technical user with access to SAP SuccessFactors OData API.
Password	Enter your password and confirm it.

6. Choose *Generate*.

   A *.p12 certificate is automatically downloaded to your local computer. Select *Cancel* to close the dialog and delete the application you created because it's no longer needed.
7. Convert the *.p12 certificate to *.pem certificates. There are many ways of converting. For example, you can run the following in your command line:
   - `openssl pkcs12 -in cert_ptp_time.p12 -out cert_ptp_time_public.pem -clcerts -nokeys`
   - `openssl pkcs12 -in cert_ptp_time.p12 -out cert_ptp_time.pem -nocerts -nodes`

   The first command extracts the public part of the certificate, the second command the private key. Enter the password you set when creating the certificate in SAP Cloud Identity Services - Identity Authentication service.
8. Open both *.pem files in a text editor and remove the first lines beginning with `Bag Attributes` and ending with `until issuer=`....

   Once you've deleted these lines, the files start with `-----BEGIN CERTIFICATE-----` and ends with `-----BEGIN PRIVATE KEY-----`.
9. Log in to your SAP SuccessFactors instance and go to the *Security Center*.
10. Select *X.509 Public Certificate Mapping* choose *Add*.
11. Make the following settings.

Mandatory Fields for Adding New Certificate

Field	Description
Configuration Name	Specify a name for the certificate.
Integration Name	Select *Employee Central Payroll*.
Certificate File	Select the certificate with the `_public`suffix.
Login Name	Make sure that you specify the same name as the one you specified in the *Certificate Common Name* in step 5 of the procedure.

12. Log in to your SAP Payroll system and import the certificate that you saved without the `_public` suffix using the Trust Manager. For more information, refer to Maintaining PSEs and Managing Certificates.

Results

You can now configure the point-to-point connection between your SAP Payroll system and SAP SuccessFactors.

4.2.2 Set Up Connection With an SAP Payroll System Other Than Employee Central Payroll

Learn how to configure the connection between an SAP payroll system other than an Employee Central Payroll that is needed to replicate time data using the point-to-point (PTP) integration.

Prerequisites

Make sure that all permissions of the SAP standard role `SAP_HR_EC_PTP_CONFIG` are assigned to you.

Before using X.509 certificates for the connection, make sure you've made the settings to generate valid client certificates.

Context

You run this report by using transaction `HRSFEC_PTP_CONFIG`. You can select the following options:

Procedure

1. In an SAP payroll system other than an Employee Central Payroll system, enter the `HRSFEC_PTP_CONFIG` transaction.

2. Select one of the following options to run the report:
    1. *Set Connection Data*
       Provide all the following information:

Field	Description
• *API Server URL* • *Company*	• Specify an *API Server URL* or select one from the dropdown list. • Specify a *Company*.
Connect with X.509 Certificate.	Proceed as follows: 1. Choose the appropriate SSL Certificate from the dropdown list. 2. Run the report using the selected SSL client certificate.
Connect with User ID and Password	Enter the *User ID* and *Password* from the Employee Central system. Ensure that your password doesn't contain the special characters **&** or **<**. → Remember The user needs permission to access the Employee Central APIs and OData Service Communication must be enabled. For more information, see Granting Permissions to API Users [page 9]. Please note that Basic Authentication will be replaced with X.509 certificate authentication.
Replication Target System for Employee Central	Mark the checkbox to create the replication target system for Employee Central. You can also create the replication target system manually in the *Admin Center*. For more information, see Creating the Replication Target System Object Manually [page 23]. ⚠ Caution For customers using a reverse proxy or web dispatcher, the replication target system is not created automatically. Make sure that the manual setup of the proxy or web dispatcher in transaction `SM59` is correct.

> ⓘ Note
>
> In addition, if you want to control the inbound and outbound traffic to and from your Payroll system, configure the HTTP Proxy as described, for example, in Configuring a Proxy. Then, specify the HTTP Proxy for the relevant outbound RFC connection using transaction `SM59`.

    2. *Ping Employee Central APIs*

You can check the following connections:

Type of connection	Description
Time Data API	Allows pinging the OData query to Employee Central for the point-to-point time data replication.
Confirmation API	Allows pinging the OData query for the confirmation.

3. Save your settings and execute the report.

Results

The output depends on the selected option:

Selected Option	Description
Set Connection Data	The report creates, or updates the RFC destination `ECP_PTP_ODATA_NNN` for the point-to-point time data replication. **Note** The last three characters of the RFC destination name must be the same as the once in the client of the SAP payroll system you use. The credentials of the Employee Central system are stored in a secure store. If you chose to create the replication target system with the report and the creation is successful, the following success message is shown: Replication Target System `XXXCLNTNNN` is created successfully in Employee Central.
Ping Employee Central APIs	The report shows the results of the pings and also displays the following success messages: • OData query was successful with HTTP status code 200 for object DataReplicationProxy. • OData query was successful with HTTP status code 200 for object EmployeeDataReplicationConfirmation.

Task overview: Setting Up Connection With an SAP Payroll System Other Than Employee Central Payroll [page 15]

Previous: Prerequisites: Generating Client Certificates in an SAP Payroll System Other Than Employee Central Payroll [page 16]

4.3 Creating the Replication Target System Object Manually

Find out how to create the *Replication Target System* Object manually:

Procedure

1. Create the *Replication Target System* object by using transaction `SCC4`.
2. Choose your client and select the magnifying glass.
3. Note down the logical system name. You need it again later.
4. Go to *Admin Center*. In the *Tools* search field, enter *Manage Data*.
5. Choose *Replication Target System* from the *Create New* dropdown.
    a. Go to *Admin Center*. In the *Tools* search field, enter *Manage Data*.
    b. Enter the logical system name you just noted down in *Tools* search field, enter *Manage Data*.

    > Note
    >
    > In some cases, changing your payroll system may require you to use a new replication target system. In this case, you need to switch to a new replication target system. Refer to the instructions provided in the KBA 3135532 for Master Data Replication and 3135533 for the Time Data Replication.

6. In the *Replication Time Offset in Minutes* field, enter the number of minutes you want the resend of data to be delayed by when the payroll area is locked or in correction phase. If you leave this field empty, the default time until resend is 60 minutes.
7. Define an *External Name*.
8. For *Relevant for Payroll Integration* choose *Yes* and *Save*.

4.4 Pinging Employee Central APIs

Verify that OData API queries are being received, understood, and accepted for time data by using *Ping Employee*.

Context

You ping an Employee Central API to ensure that the request has succeeded and use the configuration report (`RP_HRSFEC_PTP_CONFIGURATION`) to verify the connection.

Procedure

1. Start the configuration report with transaction **HRSFEC_PTP_CONFIG**.
2. Choose the *Ping Employee Central APIs* radio button.
3. Select the connection to test.
    - *Time Data API*
      An OData API query is performed to the DataReplicationProxy object.
    - *Confirmation API*
      An OData API query is performed to the EmployeeDataReplicationConfirmation object.
4. Choose *Execute*.

Results

When the test is successful, the following success messages display in the log:

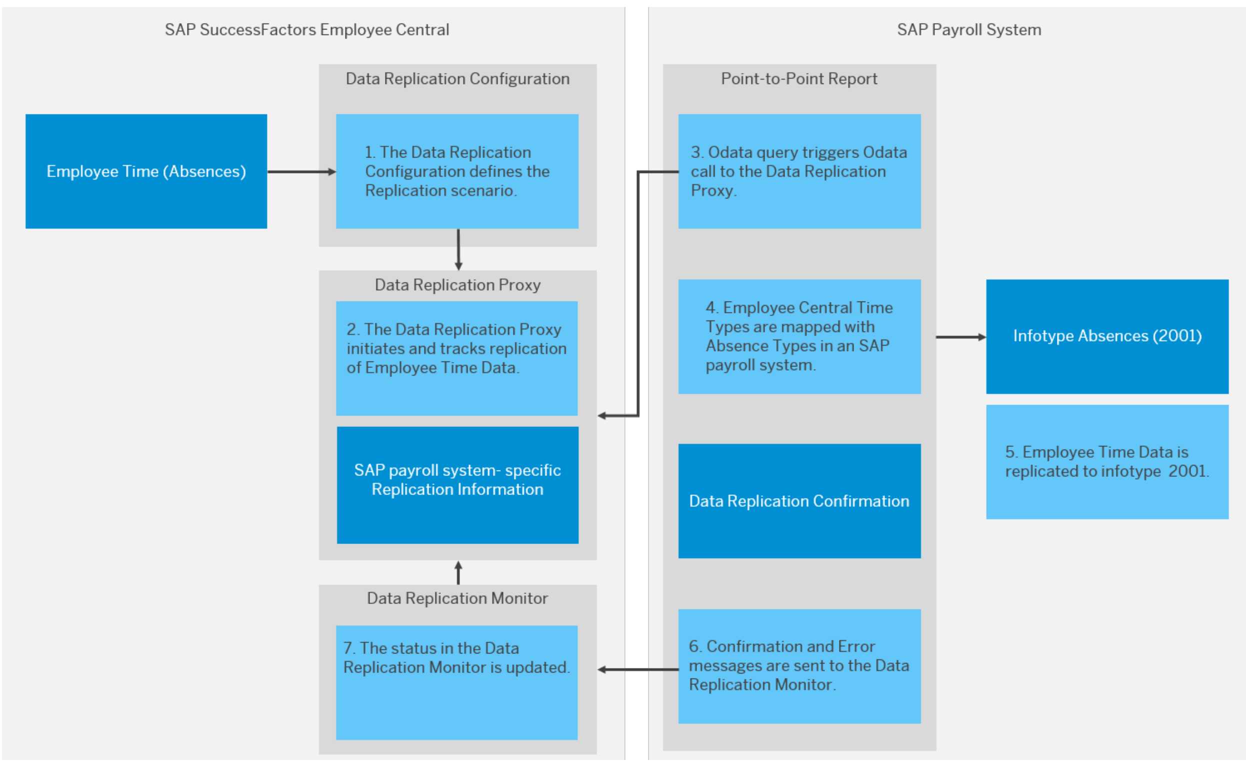
- OData query was successful with HTTP status code 200 for object DataReplicationProxy.
- OData query was successful with HTTP status code 200 for object EmployeeDataReplicationConfirmation.

5 Replication of Absences

Let's look at the replication process of time data from Employee Central Time Management to an SAP payroll system.

Replication Overview

This graphic shows a typical example of the overall replication process for absences. The entire replication process has seven main phases, preceded by a preliminary phase where the absence is approved.



Prior to the Replication Process: Absence Approval and the Creation of Employee Time in the Employee Central System

An employee requests time off, for example paid time off (PTO). The absence is approved by the manager and the approval status changes to *Approved*.

Phase 1: Creating the Data Replication Configuration

Phase 2: Create/ Update Data Replication Proxy & Trigger Replication Process

The status change for the absence from *Pending* to *Approved* triggers the creation of the Data Replication Proxy object.

Phase 3: Collect Data Replication Proxy

The point-to-point report checks if there are data replication proxies to be replicated available. If yes, the report collects them from the Employee Central MDF object `DataReplicationProxy`, for each distinct employee time to be replicated. The data replication proxy in Employee Central tracks the status of employee time. Only Data Replication Proxies with status *Out of Sync* or status *Deleted* are selected for replication.

> ⓘ Note
>
> **What does status *Deleted* mean?**
>
> Status *Deleted* means, that the proxy is replicated, and the time information is deleted in the SAP payroll system accordingly.
>
> **Possible use case for status *Deleted***
>
> If a user deletes the time object/absence via *Manage Data*, the proxy gets status *Deleted*.

Phase 4: Map Employee Central Time Type to an SAP Payroll System Time Type

Replication continues with the mapping of the absence in Employee Central to the SAP payroll system *Time Type* in infotype 2001.

Phase 5: Replicate Absence to Infotype 2001 in an SAP Payroll System

The Absence is replicated to the SAP payroll system. In this example and based on preconfigured mapping, infotype 2001 in an SAP payroll system is filled.

> ⓘ Note
>
> Absence time types can also be defined as event: A task is created in *Complete Payroll Tasks* as soon as the absence data is replicated. For more information, refer to Event and Payroll Unified Configuration.

Phase 6: Send Replication Status to Data Replication Monitor

The SAP payroll system sends the status of the replication to Infotype 2001 to the Data Replication Monitor in Employee Central.

Phase 7: Update Data Replication Monitor

The Data Replication Monitor is updated with the status of the replication:

- *Successful*: The replication results are successful and the corresponding data replication proxy objects are set to inactive and deleted on a regular basis.
- *Failed*: The replication results are unsuccessful.

Phase 7: Retry for Unsuccessful Replication

Any replication with the status *Failed* is repeated until the status *Successful* is achieved in the Data Replication Monitor. When the replication is successful, the corresponding data replication proxy objects are deleted.

Replication of Absences If There Are Two Employments?

An absence has been recorded for the employee in his or her current employment (PERNR). Because an employment change, a new personnel number (PERNR) is created. As a consequence, your employee now has two personnel numbers, and the absence is only stored in the first personnel number PERNR. To ensure a correct replication of the absences with the corresponding company and according to the validity of each employment, proceed as follows:

1. Cancel manually the absence in the first employment (PERNR).
2. Create two absences for each employment (PERNR) according to the dates of each employment (PERNR).

Here is an illustration of the process with the global assignment replication scenario:

> **Example**
>
> Lisa Cooper is on leave from 01/15 to 02/15. As of 02/01, she is on a global assignment. To ensure a correct replication of the absences with the corresponding company, proceed as follows:
>
> 1. Cancel manually the leave from 01/15 to 02/15.
> 2. Create two absences according to the validity period of each employment:
>   1. PERNR 1: Leave from 01/15 to 01/31.
>   2. PERNR 2 - (Global assignment): Leave from 02/01 to 02/15.

5.1 Absences (Infotype 2001)

Find out how to replicate absences from Employee Central to an SAP payroll system.

Standard Mapping for Absences

In addition to the standard mapping, this table shows also which fields you need to map manually. This is indicated in the column *Code mapping required?*. Along with the table, you find descriptions on which mapping activities you need to do for which fields.

> ⓘ Note
>
> Character length in an SAP payroll system is restricted to 128 characters for the absence type.

Employee Central MDF field	Description	Mapping to the Inbound Message	Code mapping required?	Infotype	Infotype Field
Data Replication Proxy - Worker	Identifier for User	Employment - user ID			
Data Replication Proxy - Replication Content Type	Type of content to be replicated.	Employment - Replication Content Type		2001	AWTYP [Set to ECTOF]
Data Replication Proxy - Allow Replication in Correction Phase	Indicator whether data is processed even if payroll is in correction phase.	Employment - AllowReplicationInCorrectionPhase			
Data Replication Proxy - Company - externalCode	Unique identifier for the company	Employment - Time - LegalEntity			
Data Replication Proxy - externalCode	Unique identifier for replication of employee time	Employment - Time - DataReplicationProxyExternalCode			
DataReplication Proxy - sourceGenericObjectExternalCode	External code of referenced time object	Employment - Time - SourceGenericObjectExternalCode			The first 10 characters are filled into AWREF
Employee Time - approvalStatus	Approval status of absence	Employment - Time - Approval Status			

Employee Central MDF field	Description	Mapping to the Inbound Message	Code mapping required?	Infotype	Infotype Field
Data Replication Proxy - dataReplicationProxyStatus	Replication status of data replication proxy	Employment - Time - DataReplication-ProxyStatus			
Employee Time - timeType external - Code	Absence Type	Employment - Time - EmployeeTime - TimeType	yes	2001	AWART
Employee Time - startDate*	Start date of absence	Employment -Time-EmployeeTime - StartDate		2001	BEGDA
Employee Time - endDate*	End date of absence	Employment -Time-EmployeeTime - EndDate		2001	ENDDA
Employee Time - quantityInDays*	Quantity of vacation days	Employment -Time-EmployeeTime - QuantityInDays		2001	ABWTG
Employee Time - quantityInHours*	Quantity of vacation hours	Employment -Time-EmployeeTime - QuantityInHours		2001	STDAZ
Employee Time - startTime*	Start Time	Employment -Time-EmployeeTime - StartTime		2001	BEGUZ
Employee Time - endTime*	End Time	Employment -Time-EmployeeTime - EndTime		2001	ENDUZ
Employee Time - physicalStartDate*	Physical Start Date	Employment Time – Employee Time – PhysicalStartDate		2001	BEGDA
Employee Time - physicalEndDate*	Physical End Date	Employment Time – Employee Time – PhysicalEndDate		2001	ENDDA

Legend: The fields with * are included in the detailed mapping logic described in the following table.

→ Tip

We strongly recommend that you don't maintain manually infotype 2001 in the SAP payroll system when using the standard replication of absences from Employee Central. However, if you have to do so, refer to KBA 3044707 .

Mapping Logic for Partial Day Absences

Employee Central	SAP Payroll System
The absence is 1 day or longer. In this case, the *Start Date* and the *Physical Start Date* are the same.	`BEGDA` is filled and `ENDDA` from the *End Date*. *Previous Day Indicator* (`VTKEN`) remains initial. The fields *Absence days* (`ABWTG`) and *Absence hours* (`STDAZ`) are filled based on the values from Employee Central. However, the time management framework also recalculates them based on the dates and the employee's planned working times. *Payroll days* (`ABRTG`) and *Payroll Hours* (`ABRST`) are calculated based on the employee's planned working times and the configuration.
The absence is a partial day absence with clock times specified. The shift of the employee doesn't cross. The partial day absence then also can't cross-midnightmidnight. In this case, the *Start Date* and the *Physical Start Date* are the same.	`BEGDA` and `ENDDA` are filled with the *Start Date*. `BEGUZ` and `ENDUZ` are filled. *Previous Day Indicator* (`VTKEN`) remains initial. The fields *Absence days* (`ABWTG`) and *Absence hours* (`STDAZ`) are filled based on the values from Employee Central. However, the time management framework also recalculates them based on the dates and the employee's planned working times. *Payroll days* (`ABRTG`) and *Payroll Hours* (`ABRST`) are calculated based on the employee's planned working times and the configuration.
The absence is a partial day absence with clock times specified. The shift of the employee crosses midnight, that is, the shift starts on one day and ends on the next day. The partial day absence doesn't cross-midnight and starts and ends on the day when the shift starts. In this case, the *Start Date* and the *Physical Start Date* are the same.	`BEGDA` and `ENDDA` are filled with the *Start Date*. `BEGUZ` and `ENDUZ` are filled. *Previous Day Indicator* (`VTKEN`) remains initial. The fields *Absence days* (`ABWTG`) and *Absence hours* (`STDAZ`) are filled based on the values from Employee Central. However, the time management framework also recalculates them based on the dates and the employee's planned working times. *Payroll days* (`ABRTG`) and *Payroll Hours* (`ABRST`) are calculated based on the employee's planned working times and the configuration.

Employee Central	SAP Payroll System
The absence is a partial day absence with clock times specified. The shift of the employee crosses midnight, that is, the shift starts on one day and ends on the next day. The partial day absence crosses midnight as well, that is, it starts on one day and ends on the next day. In this case, the *Start Date* and *Physical Start Date* are the same.	`BEGDA` and `ENDDA` are filled with the *Start Date*. `BEGUZ` and `ENDUZ` are filled. *Previous Day Indicator* (`VTKEN`) remains initial. The fields *Absence days* (`ABWTG`) and *Absence hours* (`STDAZ`) are filled based on the values from Employee Central. However, the time management framework also recalculates them based on the dates and the employee's planned working times. *Payroll days* (`ABRTG`) and *Payroll Hours* (`ABRST`) are calculated based on the employee's planned working times and the configuration.
The absence is a partial day absence with clock times specified. The shift of the employee crosses midnight, that is, the shift starts on one day and ends on the next day. The partial day absence lies entirely after midnight, that is, it starts and ends on the day when the shift ends. In this case, the *Start Date* and *Physical Start Date* are different.	`BEGDA` and `ENDDA` are filled with the *Physical Start Date*. `BEGUZ` and `ENDUZ` are filled.`BEGDA` However, `ENDUZ` is lower than `BEGUZ`. *Previous Day Indicator* (`VTKEN`) is filled with X. The fields *Absence days* (`ABWTG`) and *Absence hours* (`STDAZ`) are filled based on the values from Employee Central. However, the time management framework also recalculates them based on the dates and the employee's planned working times. *Payroll days* (`ABRTG`) and *Payroll Hours* (`ABRST`) are calculated based on the employee's planned working times and the configuration.

Employee Central	SAP Payroll System
The absence is a partial day absence with clock times specified within the flextime bandwidth.	The fields *Dates* and *Clock times* of infotype 2001 are filled according to the logic of partial day absence with clock times specified as described in the rows above. **Example** Employees's planned working time is from 08.00 to 16:00. Breaks aren't taken into account, so these employees work 8 hours. Flextime bandwidth is from 06:00 to 18:00. Because of flextime, employees start their actual working time at 10:00. They work 4 hours, then decide to take off the 4 remaining hours by deducting them from their time or vacation accounts. Here is how the absence from 14:00 to 18:00 that is included in the employee's planned working time is replicated to an SAP payroll system: The absence is stored with start time 14:00 and end time 18:00, as provided by Employee Central using the point-to-point Time Data Replication, and regardless of the fact that infotype 2003 does not contain information on flextime bandwidth and indicates that the time lasts until 17:00. For more information about absence requests within the flextime bandwidth in Employee Central, refer to Enabling Absence Requesting Within Flextime Bandwidth.
The absence is a partial day absence with only a duration specified. In this case, the *Start Date* and *Physical Start Date* are the same.	`BEGDA` and `ENDDA` are filled with the *Start Date*. The duration is filled as well. `BEGUZ` and `ENDUZ` remain initial. *Previous Day Indicator* (`VTKEN`) remains initial. The fields *Absence days* (`ABWTG`) and *Absence hours* (`STDAZ`) are filled based on the values from Employee Central. However, the time management framework also recalculates them based on the dates and the employee's planned working times. *Payroll days* (`ABRTG`) and *Payroll Hours* (`ABRST`) are calculated based on the employee's planned working times and the configuration.

Example

A cross-midnight shift is defined as one that starts on one calendar day and ends on the next calendar day. For example, a shift that starts at 10:00 PM on Monday and ends on 6:00 AM on Tuesday. If the shift ends or starts directly at midnight (00:00), it isn't considered to be a cross-midnight shift. A cross-midnight shift also affects the way partial day absences with clock times are recorded in the system.

Let's take an example: An employee works in a shift that starts at 22:00 on September 10 and ends at 06:00 on September 11. The employee wants to take half a day off in the shift, that is, from 02:00 to 06:00. The physical start date of the absence is September 11. For that reason, the *Start Date* is filled with September 10 2020 and corresponds to the start date of the shift. It's also called the *logical start date*.

5.2 Configuring Employee Central

An overview of which settings you need to make in Employee Central to set up absences replication.

5.2.1 Data Replication Configuration for Absences Replication

The steps you need to take to create Data Replication Configuration for absences replication from Employee Central to an SAP payroll system.

Context

In order to replicate absences from Employee Central to an SAP payroll system, you have to create a *Data Replication Configuration* that defines the replication scenario. Use replication scenarios to more precisely specify which employee absence data is replicated to an SAP payroll system.

There are three *Replication Scenarios*:

- *Absences Only*
  In this scenario, only absences created in Employee Central are replicated to infotype 2001 in an SAP payroll system.
- *Absences with Time Account Snapshots*
  In this scenario, employee absence data created in Employee Central is replicated to infotype 2001 and time account snapshots are replicated to infotype 2010 in an SAP payroll system.
- *Time Accounts and Related Information*
  In this scenario, employee absence data including deduction information created in Employee Central is replicated to infotype `2001` and table *Deduction of Time Quotas* (`PTQUODED`), absence quotas are replicated to infotype `2006` and time account payouts are replicated to infotype 0416 and table `PTQUODED` in an SAP payroll system.

Procedure

1. In *Admin Center*, go to *Manage Data*.
2. From the *Create New* dropdown, choose *Data Replication Configuration*.
3. Give your configuration object an *External Name*.
4. Choose the respective *Replication Target System*.

   If you have several SAP payroll target systems for one single SAP payroll system, make sure that each system has its own configuration, for example by company or country/region.
5. For *Replication Content Type*, choose *Employee Absence Data*.
6. Choose Replication Scenario *Absences Only*.

   > → Remember
   >
   > *Data Replication Proxies* are created for all absences that fit to a given Data Replication Configuration, and not just for one single absence.
7. Set the *Exclude Contingent Workers* field to *Yes* if you don't want to replicate data assigned to contingent workers. Note that this setting overrules other filter criteria of this configuration object.

   > Example
   >
   > You want to replicate employees assigned to country/region Mexico and the *Exclude Contingent Workers* field is set to *Yes*, contingent workers aren't included in the time replication process.

   > Note
   >
   > In an Employee Central Payroll system, the recommended value for this field is *Yes* since contingent workers aren't included in the Master Data Replication process.
8. Define *Earliest Selection Date*.

   > Note
   >
   > The *Earliest Selection Date* is important here. Only absences with an end date on or after the *Earliest Selection Date* you specify in this step are considered for replication.
   >
   > For example, an approved absence for an employee exists for December 27 - January 02. You specify the *Earliest Selection Date* of January 01. Replication is performed in this case. However, if the *Earliest Selection Date* was on January 3, 2018 the absence wouldn't be replicated, because the end date of the absence is before the *Earliest Selection Date*.

   > → Tip
   >
   > Note that the format of the date depends on your logon language. Let's take the date from our example January 3, 2018 to illustrate it:
   >
   > - English UK: 03/01/2018
   > - English US: 01/03/2018
9. Set *Correction Phase Indicator*. The payroll cycle foresees a correction phase where a limited number of changes are performed before the actual payroll run is executed.

Your entire planned working times are replicated and saved in the payroll system, including those entries generated in any correction phase by selecting one of the following options:

- Set the Always Allow Replication In Payroll Correction Phase field to Yes
- Activate the `ONGO` switch:

Switch Name	Variable Choices	Use Case	Description
ONGO	Ongoing payroll (ignore correction phase)	Blank = Default X = Correction phase Indicator enabled	Blank: Payroll administrators can choose to replicate individual employees by navigating to the Data Replication Monitor and selecting individuals for scheduled replication. X: Any payroll relevant changes in Employee Central are replicated to payroll on the next schedule replication run. For more information, refer Payroll Control Record.

10. If there are absences that don't have proxies yet, for example because the absences were created before Data Replication Configuration was set up, choose *Yes* for *Execute Proxy Creation Job*. A job is started that creates proxies for the current configuration settings. This also creates proxies for time objects that have already been replicated, as of Earliest Selection Date.

> ⓘ Note
>
> Note that after saving, it switches automatically back to *No*, because the job is triggered directly during the save.

> ⓘ Note
>
> This feature is available when changing the *Data Replication Configuration* using *Manage Data*, but not when using *Import Data*.

11. Provide all the following information:

Setting	Description
Country/Region Assignment	Determines the country/region of the employees data you want to replicate. You can enter multiple country/region codes.
Company Assignment	Determines the company/legal entity of the employees you want to replicate. You can enter multiple company codes.
Pay Group Assignment	Determines the pay group assigned in the *Compensation Information* of the employees you want to replicate. You can enter multiple pay groups.
Employee Class Assignment	Determines the employee class of the employees you want to replicate. You can enter multiple employee classes.

Setting	Description
Time Type Assignment	If you have time types that aren't relevant to your payroll processes, use the *Time Type filter* to include only time types relevant to your payroll processes. Note that this filter applies to absences only. Recurring and ad hoc time accounts, time account snapshots, and time account payouts aren't filtered by time type filter. **Note** If you encounter a situation (that we aren't really expecting) where you have permanent and recurring or ad hoc time accounts for one employee, then for the scenario mentioned at 5, only absences are replicated for recurring or ad hoc time accounts. Use the *Time Type filter* to replicate only such time types used for recurring and ad hoc time accounts and not for permanent accounts. Otherwise, replication errors would occur because the permanent account isn't replicated for this scenario.

Changing these settings doesn't affect data from the past. However, there might be differences between Employee Central and an SAP payroll system because you've modified settings for the same object in the *Data Replication Configuration*. As a result, proxies are no longer available in Employee Central although they were created before modifying the settings in the *Data Replication Configuration*.

Let's take an example: An absence is replicated from Employee Central to an SAP payroll system. Later, you modify the settings in the *Data Replication Configuration* with the consequence that proxies are no longer generated for this absence. Then, let's assume that the same absence is deleted at a later date in Employee Central. The information about the deletion isn't replicated to an SAP payroll system. As a result, the absence remains in the SAP payroll system infotype 2001, although it does no longer exist in Employee Central.

12. Save your changes.

Results

You've successfully completed the configuration of absence data replication between your Employee Central and an SAP payroll system.

> **→ Remember**
>
> A single absence can only be replicated to one target system.

Related Information

Switches for Employee Central Payroll

5.2.2 Make Sure that External Codes Aren't Longer Than 32 Characters

Be careful when defining external codes in Employee Central for time objects that are relevant for time data replication to an SAP payroll system.

In Employee Central, the External Code of the Employee Time object can have 128 characters. However, in an SAP payroll system, it can only have 32 characters. Make sure that the External Code in Employee Central isn't longer than 32 characters. This is especially important when you upload absences to Employee Central by file import. If an external code is longer than 32 characters, replication fails and a corresponding error message is raised.

5.3 Configuring an SAP Payroll System for Time Data Integration

The following describes step-by-step how to configure an SAP payroll system so that it can communicate data to Employee Central Time Off.

Defining Customer-Specific Activities [page 37]
Find out about the Customizing settings you need to make in your SAP payroll system.

5.3.1 Defining Customer-Specific Activities

Find out about the Customizing settings you need to make in your SAP payroll system.

In the IMG structure, open *SAP Customizing Implementation Guide* > *Time Management* > *Time Data Recording and Administration* > *Absences*.

Absences are paid or unpaid planned working times during which the employee has not worked. They therefore represent a deviation to the employee’s work schedule.

Absences can be expressed in days, hours, or minutes in Employee Central. However, minutes are converted into hours and days in an SAP payroll system. For example, when you enter 30 minutes in Time Off, it is converted to 0.5 hours in an SAP payroll system.

Absences must be in sync with the absence types that are sent into Infotype 2001 from Time Off and Employee Central.

> → Remember
>
> Make sure that your time data configuration (for example holiday calendars, work schedules) is set up in the same way in both Employee Central and SAP payroll systems.
>
> If data configuration is not the same throughout the systems, it may lead to inconsistencies and unnecessary retro calculation.

Configuring Absences in an SAP Payroll System [page 38]

In Employee Central an absence can be recorded as clock times or as a duration (number of hours). Make the appropriate settings for the replication of Employee Central absences.

5.3.1.1 Configuring Absences in an SAP Payroll System

In Employee Central an absence can be recorded as clock times or as a duration (number of hours). Make the appropriate settings for the replication of Employee Central absences.

Procedure

- **Enabling the replication of durations**: Go to the Customizing for *Time Management* > *Time Data Recording and Administration* > *Permit Attendances/Absences to be Recorded Without Clock Times*.

> ⓘ Note
>
> **Replication of employees with full-day absences**
>
> It's important that the SAP payroll system doesn't try to fill in the clock times during the replication of these employees. To prevent this from happening, make sure that the value of the **HRSIF** feature is set to *1* in your SAP payroll system.

- **Time Evaluation Schema for Payroll Processing**: Make sure that you use the relevant schema and payroll sub schema in transaction **PE01** depending on the settings of absences in Employee Central:
  - Clock times: `TM00` and `TC00`.
  - Duration: `TM04` and `TC04`. Turn off function `KNTAG` in `TC04` or don't use time evaluation schemas at all.

  For more information, refer to the system documentation.

5.3.1.2 First Day/Last Day of Absences: Disabling Input Checks

Context

You should disable absence input checks to prevent error messages from being sent when first day and/or last day of the absence are non-working days. However, if all absence days are non-working days, it does make sense to send an error, in this case set E for Error message.

The idea behind this is that these kinds of error messages will already be sent to the user in Employee Central. As long as the Employee Central and SAP payroll system calendars and the work schedules are in sync, no errors will be sent anyway.

Procedure

1. In the IMG structure go to *Time Management* > *Time Data Recording and Administration* > *Time Data Recording and Administration* > *Absences* > *Absence Catalog* > *Define Absence Types*.
2. Choose the absence types you want to replicate from Employee Central to an SAP payroll system.
3. Make sure the fields for *First day is day off* and *Last day is day off* are empty.

5.3.1.3 Configuring Absences with End Date 31.12.9999

Here are the configuration instructions for the replication of absences with end date 31.12.9999 from Employee Central.

Context

In Employee Central it's possible to record an absence with an unknown end date. For example, the end date of the illness is undefined at the time the illness is entered in the system. In this case, the end date gets replicated as 31.12.9999.

Procedure

1. In an SAP payroll system, go to transaction `SM30`.

2. Enter the *V_T554S* view.
3. Select the relevant absence.
4. Specify **999** (No limit on the duration of the absence) in the *Maximum duration in days* field.

Results

You've done with the configuration and can now replicate the absences from Employee Central.

5.3.1.4 Disabling Collision Checks

Collision checks are run in Employee Central. Find out how to disable the checks in the SAP payroll system.

Context

To set up collision checks so that absences with overlapping dates can be automatically managed, you need to turn off several checks in the SAP payroll system. Note that this configuration is mandatory for *Concurrent Absences*. For more information on how to set up collision checks for concurrent absences in the Employee Central system, refer to Setting Up Collision Checks for Absences

Procedure

1. In the SAP payroll system, go to transaction `SPRO` and choose SAP Reference IMG.
2. Choose *Reaction to Overlapping Time Infotypes* in the Customizing for *Time Management* > *Time Data Recording and Administration* > *Specify System Reaction to Overlapping Time Infotypes*.
3. Make the following settings to disable collision checks according to the selected system.

System	Description
SAP ERP HCM	Disable the checks for the corresponding infotype by selecting *N* from the dropdown.
SAP HCM for SAP S/4HANA	Remove the relevant lines.

4. Save your changes.

5.3.1.5 Disable Quota Deduction

Context

Quota deductions and related deductions are done in Employee Central. As a consequence, there's no need to run parallel deductions in an SAP payroll system and, anyway, it isn't supported.

> **Note**
>
> It's important to keep the following in mind:
>
> - If you use the *Time Accounts and Related Information* replication scenario, quota deduction isn't allowed for time types that are replicated from Employee Central Time Off.
> - If you use the *Absences only* replication scenario, you can enable quota deduction in an SAP payroll system if there's a need for country/region-specific requirements not supported in Employee Central Time Off.
>
> > **Note**
> >
> > Make sure that you use different time types in Employee Central for each replication scenario. In an SAP payroll system, make also sure that you use one absence type for each time type replicated from Employee Central.

Procedure

1. Select the absence types you want to use for the integration from Employee Central to an SAP payroll system in the Customizing for *Time Management* > *Time Data Recording and Administration* > *Absences* > *Absence Catalog* > *Absence Counting* > *Assign Counting Rules to Absence Tpes*.
   Assign counting rules to the subtypes that don't support quota deductions and leave the *Quota deduction* checkbox empty.
2. Leave the *Rule for deduction sequence of quotas* field empty in the Customizing for *Time Management* > *Time Data Recording and Administration* > *Managing Time Accounts Using Attendance/Absence Quotas* > *Processing Absence Quotas in Payroll* > *Time Quota Compensation* > *Define Time Quota Compensation Methods*.

5.3.1.6 Overlapping Time Infotypes

Procedure

- In the IMG structure go to *Time Management* > *Time Data Recording and Administration* > *Specify System Reaction to Overlapping Time Infotypes*
- Change settings for each time constraint class and not for each subtype. Double-click the time constraint class and set the *Reaction Indicator* to **N** for all time constraint classes.

5.3.1.7 Leave of Absence

Absences entered in a leave of absence scenario are replicated to an SAP payroll system. When absence data is replicated from Employee Central to an SAP payroll system, the fact that an employee is inactive (this may be the case in an LoA scenario) or active isn't taken into account for the creation of infotype 2001.

> ⚠ Restriction
>
> In an SAP payroll system, absences for periods when the status of an employee is set to *Inactive* in the *Actions* (0000) infotype aren't allowed for most countries/regions: The `ACTIV` parameter of the *Read absences* (`RAB`) payroll function doesn't allow absences when the status of an employee is *Inactive*.
>
> This means that the payroll run fails for the corresponding employee each time a leave of absence is replicated to an SAP payroll system.

> → Tip
>
> If you want to prevent leaves of absence from being replicated to an SAP payroll system for some countries/regions, go to *Data Replication Configuration* and make sure that you don't include any leave of absence time type in the *Time Type Filter*. Note that all other absences that need to be replicated as usual are included in the *Time Type Filter*.

5.3.1.8 Assignment of Code Values

Context

In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication*.

Here you can see the code value mapping as it is delivered to you by default, maintain properties for code value mapping and maintain code value mapping itself.

Procedure

1. In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Display Code Value Mapping as Delivered by SAP*

   In this Customizing activity, you can display the code value mapping as it is delivered by default.
2. In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Maintain Properties for Code Value Mapping*

   In this Customizing activity you define for each *Data Type in Employee Central* the end and start date, alternative list IDs, the mapping mode, and whether or not the mapping is country/region-specific. You can also assign specific countries to data types.

   > → Remember
   >
   > If you assign country-dependency to a data type here, you also have to maintain the *ISO Code* for the corresponding code value mapping in Customizing activity *Maintain Code Value Mapping* (`T77SFEC_CVMAPC`).
3. In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Maintain Code Value Mapping*

   In this Customizing activity you can map the Employee Central code values to the SAP payroll system code values.

   > ⓘ Note
   >
   > The Employee Central code values can be up to 128 characters long.

Next Steps

For more information, refer to the Implementing Employee Central Payroll guide.

5.3.1.8.1 Employee Time Type Code

Procedure

- In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Maintain Properties for Code Value Mapping*

  Use this Customizing activity to map the Employee Time Type Code to the Absence types in infotype 2001.
- You can use the Time Types and Attendance and Absence Types Configuration and the Time Account Type and Wage Type Configuration reports to check if the mapping settings are correct:

5.4 Extensibility for Absences (Infotype 2001)

Find out how to use extensibility for absences in an SAP payroll system.

Extensibility allows you to create custom fields for the *Employee Time* object in Employee Central. In the SAP payroll system, you can map custom fields to standard fields of infotype 2001.

> ⓘ Note
>
> Before you begin to map Employee Central custom fields to standard fields of infotype 2001, it's important that you consider the country/region-specific aspects of payroll.

1. Configuring Custom Fields for Employee Time Object in Employee Central [page 45]
   Find out how to create custom fields in the *Employee time* object.
2. Mapping Employee Central Custom Fields to Standard Fields of Infotype Absences (2001) [page 46]
   You can map custom fields from Employee Central to standard fields of infotype Absences (2001) in the SAP payroll system.

5.4.1 Configuring Custom Fields for Employee Time Object in Employee Central

Find out how to create custom fields in the *Employee time* object.

Procedure

1. Go to *Admin Center* and choose *Configure Object Definitions*.
2. Select *EmployeeTime* as *Object Definition*.
3. Choose *Take Action* > *Make Correction*.
4. Specify the name of your custom field in the empty *cust_* field that is available on the UI.

   Provide the following information:

   a. Choose the *Data Type*.

      You can only use the following values:
      - Boolean
      - DateTime
      - Decimal
      - Int64
      - String
      - Time

   b. Specify the field length.

      Example of Custom Field

Field Name	Data Type	Length
`cust_DescriptionOfIllness`	*String*	`20`Corresponds to the length of the target field *UMSCH (Description of illness)* in infotype 2001.

5. Save your settings.

Next Steps

With this configuration, you can start the replication to the standard target fields of infotype 2001.

Task overview: Extensibility for Absences (Infotype 2001) [page 44]

Next task: Mapping Employee Central Custom Fields to Standard Fields of Infotype Absences (2001) [page 46]

5.4.2 Mapping Employee Central Custom Fields to Standard Fields of Infotype Absences (2001)

You can map custom fields from Employee Central to standard fields of infotype Absences (2001) in the SAP payroll system.

Procedure

1. In the SAP payroll system, go to transaction SPRO and choose SAP Reference IMG.
2. Choose *Define Extensibility of Field Assignment* (view `V_HRSFEC_EXTMAP`) under Customizing for *Integration Settings for SuccessFactors Employee Central Payroll* > *Extensibility*.

   Example

   Mapping of Employee Central Field cust_DescriptionOfIllness Where Data Type Is Empty

Employee Central Node Name	EC Element Name	Infotype	Field Name	Data Type in Employee Central
EmployeeTime	`cust_DescriptionOfIllness`	2001	*UMSCH (Desc. of illness)*	

   Example

   Mapping of Employee Central Field cust_absenceReason Where Data Type Is Filled

Employee Central Node Name	EC Element Name	Infotype	Field Name	Data Type in Employee Central
EmployeeTime	`cust_absenceReason`	2001	UMSKD (Code for description of illness)	Z_ABSENCE_REASON

   The prerequisite is that you made settings for the data type and code values in the Customizing for *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payrol* > *Assignment of Code Values* > *For Point-to-Point Replication*.
3. Save your settings.

Next Steps

This configuration enables the replication of custom fields from Employee Central to standard fields of infotype 2001, for example, to cover country/region-specific requirements.

Task overview: Extensibility for Absences (Infotype 2001) [page 44]

Previous task: Configuring Custom Fields for Employee Time Object in Employee Central [page 45]

5.5 Scheduling Replication of Time Data

Context

The Replication Report picks up the data from the OData API. The report runs as a batch job that you need to schedule.

Procedure

1. In the SAP payroll system, run transaction **HRSFEC_PTP_ABSE_REPL**.
2. Choose the replication target system, the respective countries/regions, and save.
3. Get a variant for the configuration by clicking the *Get a variant* icon.
   a. Choose an already existing variant or create a one.
   b. Save the variant and save the configuration.
4. Schedule a batch job for the variant. Run transaction **SM36**.
   a. Enter a job name and choose *Start Condition*.
   b. Choose the start time and mark the checkbox for *Periodic job*. (There's no *Periodic Job* checkbox if you choose the start time *AfterJob*.)
   c. Press *Period Values*.
   d. Choose *Other Period*.
   e. Enter the timeframe of your choice, for example **15** *minutes* and save.
   f. Save also *Start Time*.
5. In *Define Job*, click *Step*.
   a. In the *User* field, enter the Integration User.
   b. In the *Name* field of the *ABAP Program* box, enter **RP_HRSFEC_PTP_ABSENCE_REPL** and in the *Variant* field enter the variant you created.
   c. Press `Enter` and save.
   d. Go back by pressing. `F3` and save again.

   You get the status message *Job ABSENCE REPLICATION saved with status: Released*.

   The following mechanisms have been put in place to avoid unnecessary replication of time data from Employee Central because configuration errors aren't corrected into SAP payroll systems:

Scope of the Mechanism	Description
Applies to all SAP payroll systems	If the replication per employment and replication content type fails 100 times, the next replication is automatically rescheduled 1 hour later. Later on, the replication is restarted 24 times per day to replicate the time data again. If the replication fails again, the data is replicated only once a day (101–125 times failed: 1 replication per hour; > 125 times failed: 1 replication per day).
Applies only to SAP payroll non-productive systems	If the replication per employment and per content type fails 150 times, data is automatically rescheduled in 1000 years.

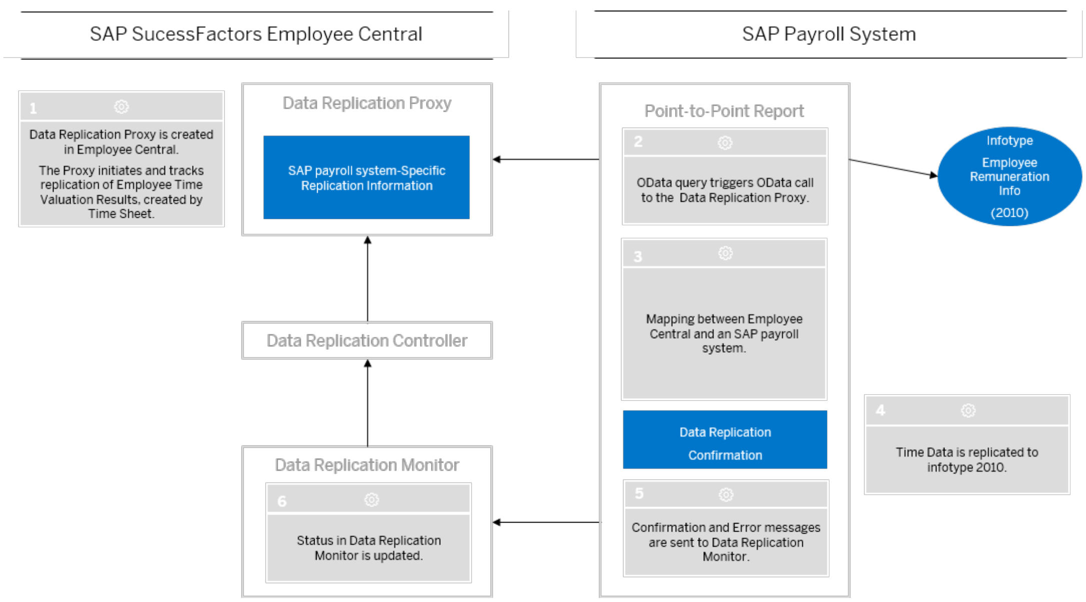
To return to the replication frequency of the employment and content type as previously scheduled in the SAP payroll system, resend the employment using the Data Replication Monitor.

6 Replication of Employee Central Time Sheet

Let's look at the replication process for individual employee time valuation results from Employee Central Time Sheet to an SAP payroll system.

Replication Overview

The graphic illustrates the overall replication process. The entire replication process is broken down into seven main phases, preceded by a preliminary phase where a time sheet is approved.



Example

The example focuses on the replication of a single Time Pay Type *Regular Pay*, within a replicated time valuation result for a single employee. In the following example, you see how eight hours of *Regular Time* recorded by the employee for Tuesday 26 May is replicated to an SAP payroll system, as part of a replicated Employee time valuation result.

Prior to the Replication Process: Time Sheet Approval and Creation of Employee Time Valuation Result in the Employee Central System

An employee records only overtime in their time sheet. They have a standard weekly working time (Time Pay Type: *Regular Time*) of Tuesday to Friday, eight hours per day, which is recorded automatically in their time sheet. In this week, they work ten hours overtime, which they record manually in their time sheet, 2.5 hours of which is paid at the basic overtime rate, and the remainder at a premium overtime rate.

This time sheet is approved by their assigned supervisor or manager and the time sheet status changes to *Approved*.

The status change for the time sheet from *To be Approved* to *Approved* triggers the Employee Central system to derive a time valuation result for this employee from the respective approved time sheet. A single time valuation result is created for Tuesday 26 May and replicated to the SAP payroll system.

A data replication proxy is created at this point if the posting target of the time valuation result is *Payroll*.

Phase 1: Create/Update Data Replication Proxy and Trigger Replication Process

A data replication proxy is created/updated after approval/cancellation of a time sheet in Employee Central and if a relevant Data Replication Configuration exists.

Phase 2: Collect Data Replication Proxy

The point-to-point report checks if there are data replication proxies available. If yes, it collects them from the Employee Central MDF object *DataReplicationProxy*, for each distinct employee time valuation result to be replicated. The data replication proxy in Employee Central tracks the status of employee time valuation results. Only Data Replication Proxies with status *Out of Sync* or status *Deleted* are selected for replication.

> ⓘ Note
>
> **What does status *Deleted* mean?**
>
> Status *Deleted* means, that the proxy is replicated, and the time information is deleted in an SAP payroll system accordingly.
>
> **Possible use cases for status *Deleted***
>
> Either users delete the object via *Manage Data*, or the status results from a recalculation run. In context of the recalculation run, an employee time valuation result (ETVR) is deleted and a new one created. Then, the proxy for the new ETVR has status *Out of Sync*, and the proxy for the previous ETVR has status *Deleted*.

Phase 3: Map Employee Central Time Pay Type to an SAP Payroll System Wage Type

Replication continues with mapping of the *Regular Pay* time pay type from the time sheet to the wage type *MI01* in the SAP payroll system.

Phase 4: Replicate Employee Time Valuation Result to Infotype 2010 in an SAP Payroll System

The complete time valuation result for the employee is replicated to an SAP payroll system.

Phase 5: Send Replication Status to Data Replication Monitor

The status of the replication to Infotype 2010 is sent from the SAP payroll system to the Data Replication Monitor in an SAP payroll system.

Phase 6: Update Data Replication Monitor

The Data Replication Monitor is updated with the status of the replication:

- *Successful*: The replication results are successful and the corresponding data replication proxy objects are set to inactive and deleted on a regular basis.
- *Failed*: The replication results are unsuccessful.

Phase 7: Retry for Unsuccessful Replication

Any replication with the status *Failed* is retried until the status *Successful* is achieved in the Data Replication Monitor. When replication is successful, the corresponding data replication proxy objects are deleted.

Replication of Time Sheet If There Are Two Employments?

A time sheet has been recorded for the employee in his or her current employment (PERNR). Due to an employment change, a new personnel number is created. As a consequence, your employee now has two personnel numbers, and the employee time valuation results generated from the time sheet are only stored in the first personnel number. To ensure a correct replication of employee time valuation results with the corresponding company and according to the validity of each employment, please proceed as follows:

1. Cancel manually the time sheet in the first employment (PERNR).
2. Create two time sheets for each employment (PERNR) according to the dates of each employment (PERNR).

Here is an illustration of the process with the global assignment replication scenario:

> **Example**
>
> Lisa Cooper recorded her time from Monday 01/15 to Friday 01/19. As of Wednesday 01/17, she is on a global assignment. To ensure a correct replication of the employee time valuation results with the corresponding company, proceed as follows:
>
> 1. Cancel manually the time sheet from 01/15 to 01/19.
> 2. Create two time sheets according to the validity period of each employment (PERNR):
>   1. PERNR 1: Time sheet from 01/15 to 01/16.
>   2. PERNR 2 - (Global assignment): Time sheet from 01/17 to 01/19.

For more information about the PERNR in an SAP payroll system, refer to Creating Personnel Numbers (PERNR).

6.1 Employee Remuneration Info (Infotype 2010)

The following table gives you an overview of all source MDF fields in Employee Central relevant for the replication of employee time valuation results from Employee Central and time sheet to an SAP payroll system, and their corresponding target destinations in the SAP payroll system.

The table also shows which fields you need to map manually. This is indicated in the column *Code mapping required ?*. Along with the table, you find descriptions on which mapping activities you need to do for which fields.

Employee Central MDF Field	Description	Mapping to the inbound message	Code mapping required?	Infotype	Infotype Field
Data Replication Proxy-Worker	Identifier for User	Employment - UserID			
Data Replication Proxy - Replication Content Type	Type of content to be replicated	Set to ECTVR		2010	AWTYP
Data Replication Proxy - Allow Replication in Correction Phase	Indicator whether data will be processed event if payroll is in correction phase	Employment - AllowReplicationInCorrectionPhase			
Data Replication Proxy - Company - externalCode	Unique identifier for Company	Employment - Time - LegalEntity			

Employee Central MDF Field	Description	Mapping to the inbound message	Code mapping required?	Infotype	Infotype Field
Data Replication - Proxy - External Code	Unique identifier for replication of Employee Time Valuation Result	Employment Time - DataReplicationProxyExternalCode			
Data Replication Proxy - sourceGenericObjectExternalCode	External code of referenced time object	Employment - Time - SourceGenericObjectExternalCode		2010	The first 10 digits are filled into AWREF
Time Valuation Result - Approval Status	Approval status of Employee Time Valuation Result (derived from the Employee Time Sheet)	Employment - Time - ApprovalStatus			
Data Replication Proxy- dataReplicationProxyStatus	Replication status of data replication proxy	Employment-Time - DataReplicationProxyStatus			
Time Valuation Result - Time Pay Type - External Code	External Code for Time Pay Type	Employment -Time - EmployeeTimeValuationResult - PayTypeName	Yes	2010	LGART
Time Valuation Result -Booking Date	Booking Date of Employee Time Valuation Result	Employment - Time - EmployeeTimeValuationResult-BookingDate		2010	BEGDA ENDDA
Time Valuation Result - Hours	Number of hours recorded (per Time Pay Type)	Employment -Time - EmployeeTimeValuationResult - Hours		2010	ANZHL
Time Valuation Result - Time Valuation Result - Cost Center	Cost Center	Employment - Time - EmployeeTimeValuationREsult - CostCenter		ASSOB	KOSTL

Note

Character length in an SAP payroll system is restricted to 128 characters for the PayTypeName.

6.2 Terminology

This table lists important differences in terminology between the Employee Central Time Sheet and an SAP payroll system.

Field/Entity in Employee Central	Field/Term in an SAP Payroll System
Time Pay Type	Wage Type
Time Type Group	Time Pay Type (Mapped to Employee Central wage type)

6.3 Configuring Employee Central

An overview of which settings you need to make in Employee Central to set up time sheet replication.

Data Replication Configuration for Time Sheet Replication [page 54]

Make Sure that External Codes Aren't Longer Than 32 Characters [page 57]
Be careful when defining external codes in Employee Central for time sheets that are relevant for time data replication to an SAP payroll system.

6.3.1 Data Replication Configuration for Time Sheet Replication

Procedure

1. In *Admin Center*, go to *Manage Data*.
2. From the *Create New* dropdown, choose *Data Replication Configuration*.
3. Give your configuration object and *External Name*.
4. Choose the respective *Replication Target System*.

   If you have several SAP payroll target systems for one single Employee Central system, make sure that each system has its own configuration, for example by company or country/region.
5. Choose *Replication Content Type*. For Time Sheet replication, choose *Time Pay Components*.
6. Set the *Exclude Contingent Workers* field to *Yes* if you don't want to replicate data assigned to contingent workers. Note that this setting overrules other filter criteria of this configuration object.

> **Example**
>
> You want to replicate employees assigned to country/region *Mexico* and the *Exclude Contingent Workers* field is set to *Yes*, contingent workers aren't included in the time replication process.

> **Note**
>
> In anEmployee Central Payroll system, the recommended value for this field is *Yes* since contingent workers aren't included in the Master Data Replication process.

7. Define *Earliest Selection Date*.

> **Note**
>
> The *Earliest Selection Date* is important here. Only time sheets with a booking date on or after the *Earliest Selection Date* you specify in this step are considered for replication.
>
> For example, an approved time sheet for an employee exists for December 27 - January 02. You specify the *Earliest Selection Date* of January 01. Replication is performed in this case. However, if the *Earliest Selection Date* were on January 3, 2018 the time sheet wouldn't be replicated, because the booking date of the time sheet is before the *Earliest Selection Date*.

> **→ Tip**
>
> Note that the format of the date depends on your logon language. Let's take the date from our example January 3, 2018 to illustrate it:
>
> - English UK: 03/01/2018
> - English US: 01/03/2018

8. Set *Correction Phase Indicator*. The payroll cycle foresees a correction phase where a limited number of changes are performed before the actual payroll run is executed.

   Your entire planned working times are replicated and saved in the payroll system, including those entries generated in any correction phase by selecting one of the following options:

   - Set the Always Allow Replication In Payroll Correction Phase field to Yes
   - Activate the `ONGO` switch:

Switch Name	Variable Choices	Use Case	Description
ONGO	Ongoing payroll (ignore correction phase)	Blank = Default X = Correction phase Indicator enabled	Blank: Payroll administrators can choose to replicate individual employees by navigating to the Data Replication Monitor and selecting individuals for scheduled replication. X: Any payroll relevant changes in Employee Central are replicated to payroll on the next schedule replication run. For more information, refer Payroll Control Record.

9. If you want to replicate time sheets that weren't replicated before you set up the integration itself, choose *Yes* for *Execute Proxy Creation Job*. A job is started that creates proxies for the current configuration settings. This also creates proxies for time objects that have already been replicated, as of Earliest Selection Date.

> ⓘ Note
>
> Note that after saving, it switches automatically back to *No*, because the job is triggered directly during the save.

> ⓘ Note
>
> This feature is only available when changing the Data Replication Configuration using *Manage Data*, but not when using *Import Data*.

10. Provide all the following information:

Setting	Description
Country/Region Assignment	Determines the country/region of the employees data you want to replicate. You can enter multiple country/region codes.
Company Assignment	Determines the company/legal entity of the employees you want to replicate. You can enter multiple company codes.
Pay Group Assignment	Determines the pay group assigned in the *Compensation Information* of the employees you want to replicate. You can enter multiple pay groups.
Employee Class Assignment	Determines the employee class of the employees you want to replicate. You can enter multiple employee classes.

Changing these settings doesn't affect data from the past. However, there might be differences between Employee Central and an SAP payroll system because you've modified settings for the same object in the *Data Replication Configuration*. As a result, proxies are no longer available in Employee Central although they were created before modifying the settings in the *Data Replication Configuration*.

Let's take an example: Time pay components are replicated from Employee Central to an SAP payroll system. Later, you modify the settings in the *Data Replication Configuration* with the consequence that proxies are no longer generated for the time pay components. Then, let's assume that the same time pay components are changed at a later date in Employee Central. The information about the change isn't replicated to an SAP payroll system. As a result, the time pay components remain in the SAP payroll system infotype 2010, although they were changed in Employee Central.

> ⓘ Note
>
> You don't make settings for the configuration of time sheet using Time Type Group.

11. Save your settings.

> → Remember
>
> A single employee time valuation result for Time Sheet replication can only be replicated to one target system.

Related Information

Switches for Employee Central Payroll

6.3.2 Make Sure that External Codes Aren't Longer Than 32 Characters

Be careful when defining external codes in Employee Central for time sheets that are relevant for time data replication to an SAP payroll system.

In Employee Central, the *External Code* of the Employee Time object can have 128 characters. However, in an SAP payroll system it can only have 32 characters. Make sure that the External Code in Employee Central isn't longer than 32 characters. This is especially important when you upload time sheets to Employee Centralby file import. If an external code is longer than 32 characters, replication fails and a corresponding error message is raised.

6.4 Configuring an SAP Payroll System for Employee Central Time Sheet Integration

The following describes step-by-step how to configure an SAP payroll system so that it can communicate data for the Employee Central Time Sheet.

6.4.1 Defining Customer-Specific Activities

Find out about the Customizing settings you need to make in an SAP payroll system.

The following outlines the customizing you must perform in the SAP payroll system to enable integration with the Employee Central Time Sheet.

Assignment of Code Values [page 58]

Cost Center Key Mapping [page 60]

6.4.1.1 Assignment of Code Values

Context

In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication*.

Here you can see the code value mapping as it is delivered to you by default, maintain properties for code value mapping and maintain code value mapping itself.

Procedure

1. In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Display Code Value Mapping as Delivered by SAP*

   In this Customizing activity, you can display the code value mapping as it is delivered by default.
2. In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Maintain Properties for Code Value Mapping*

   In this Customizing activity you define for each *Data Type in Employee Central* the end and start date, alternative list IDs, the mapping mode, and whether or not the mapping is country/region-specific. You can also assign specific countries to data types.

   > → Remember
   >
   > If you assign country-dependency to a data type here, you also have to maintain the *ISO Code* for the corresponding code value mapping in Customizing activity *Maintain Code Value Mapping* (`T77SFEC_CVMAPC`).

3. In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Maintain Code Value Mapping*

   In this Customizing activity you can map the Employee Central code values to the SAP payroll system code values.

   > Note
   >
   > The Employee Central code values can be up to 128 characters long.

Next Steps

For more information, refer to the Implementing Employee Central Payroll guide.

6.4.1.1.1 Time Pay Type Mapping

Time Pay Type is an attribute of the employee time valuation result. It is included in the replication of time sheet data to Infotype 2010 in the SAP payroll system.

If the Employee Central and SAP payroll system codes for Time Pay Type are the same, no further mapping is needed. If they are not, you need to map Time Pay Type values from the time sheet manually in an SAP payroll system.

Perform this mapping in Customizing, under *Personnel Management* > *Integration Settings for SuccessFactors SAP payroll system* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Maintain Code Value Mapping*.

> Note
>
> In Employee Central the Time Pay Type Code can have 255 characters. In an SAP payroll system, it can only have 128 characters. Make sure that the *External Code* for each of your Time Pay Type Codes in Employee Central is no longer than 128 characters. If it's longer than that, any characters after the 128th is cut off during data replication.

Related Information

Assignment of Code Values [page 43]

6.4.1.2 Cost Center Key Mapping

You need to perform cost center key mapping in Customizing, if the Cost Center IDs in the Employee Central system differ from the corresponding codes in an SAP payroll system. If the Cost Center ID in Employee Central has 10 characters and has the same value as in an SAP payroll system, no mapping is needed. If it is exactly 14 characters and after cutting off the first 4 characters it is still a valid 10-character value for a cost center in an SAP payroll system (length of key field KOSTL of CSKS), no mapping is required.

In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Key Mapping of Organizational Data* > *Assign External Cost Center Keys to Internal Cost Center Keys*, map the cost center external keys from the Employee Central system to the internal cost center keys from your SAP payroll system.

> Note
>
> You must perform mapping between the Employee Central and SAP payroll systems if you want to use cost centers from a company code not assigned within Infotype 0001. The system first tries to derive the cost center from the Employee Central system directly. However, if a cost center is entered in the Employee Central system that belongs to a different company code than assigned to Infotype 0001, and no mapping is maintained, the SAP payroll system takes the company code assigned to Infotype 0001. This might cause errors, where the entered cost center belongs to a different company code.
>
> Therefore, a mapping must be maintained from the Employee Central cost center to the SAP payroll system company code and cost center to avoid this potential error. The same situation may occur also for Infotypes 0015 and 0027, as described in the *Implementing Employee Central Payroll* guide.

6.5 Scheduling the Replication of Time Data

Context

The Replication Report picks up the data from the OData API. The report runs as a batch job that you need to schedule.

Procedure

1. In an SAP payroll system, run transaction **HRSFEC_PTP_ATTE_REPL**.
2. Choose the replication target system and save.
3. Get a variant for the configuration by clicking the *Get a variant* icon.
    a. Choose an already existing variant or create a new one.

b. Save the variant and save the configuration.

4. Schedule a batch job for the variant. Run transaction **SM36**.
   a. Enter a job name and choose *Start Condition*.
   b. Choose the start time and mark the checkbox for *Periodic job*. (There's no *Periodic Job* checkbox if you choose the start time*After Job*.)
   c. Press *Period Values*.
   d. Choose *Other Period*.
   e. Enter the timeframe of your choice, for example **15** *minute(s)* and save.

   > → Tip
   >
   > To prevent master data and time data from being locked during the replication process, we recommend that you schedule each report every 15 minutes and stagger the reports so that they run 5 minutes apart.
   >
   > > Example
   >
   > - Master Data: 9:00, 9:15, 9:30, 9:45, 10:00,...
   > - Time Off: 9:05, 9:20, 9:35, 9:50, 10:05, ...
   > - Time Sheet: 9:10, 9:25, 9:40, 9:55, 10:10,...

   f. Save also *Start Time*.
5. In *Define Job*, click *Step*.
   a. In the *User* field, enter the Integration User.
   b. In the *Name* field of the *ABAP Program* box, enter **RP_HRSFEC_PTP_TIMEPAYCOMP_REPL** and in the *Variant* field enter the variant you created.
   c. Press `Enter` and save.
   d. Go back by pressing `F3` and save again.

You get the status message *Job TIME PAY COMPONENT REPLICATION saved with status: Released*.

The following mechanisms have been put in place to avoid unnecessary replication of time data from Employee Central because configuration errors aren't corrected into SAP payroll systems:

Scope of the Mechanism	Description
Applies to all SAP payroll systems	If the replication per employment and replication content type fails 100 times, the next replication is automatically rescheduled 1 hour later. Later on, the replication is restarted 24 times per day to replicate the time data again. If the replication fails again, the data is replicated only once a day (101–125 times failed: 1 replication per hour; > 125 times failed: 1 replication per day).
Applies only to SAP payroll non-productive systems	If the replication per employment and per content type fails 150 times, data is automatically rescheduled in 1000 years.

To return to the replication frequency of the employment and content type as previously scheduled in the SAP payroll system, resend the employment using the *Data Replication Monitor*.

7 Replication of Planned Working Time

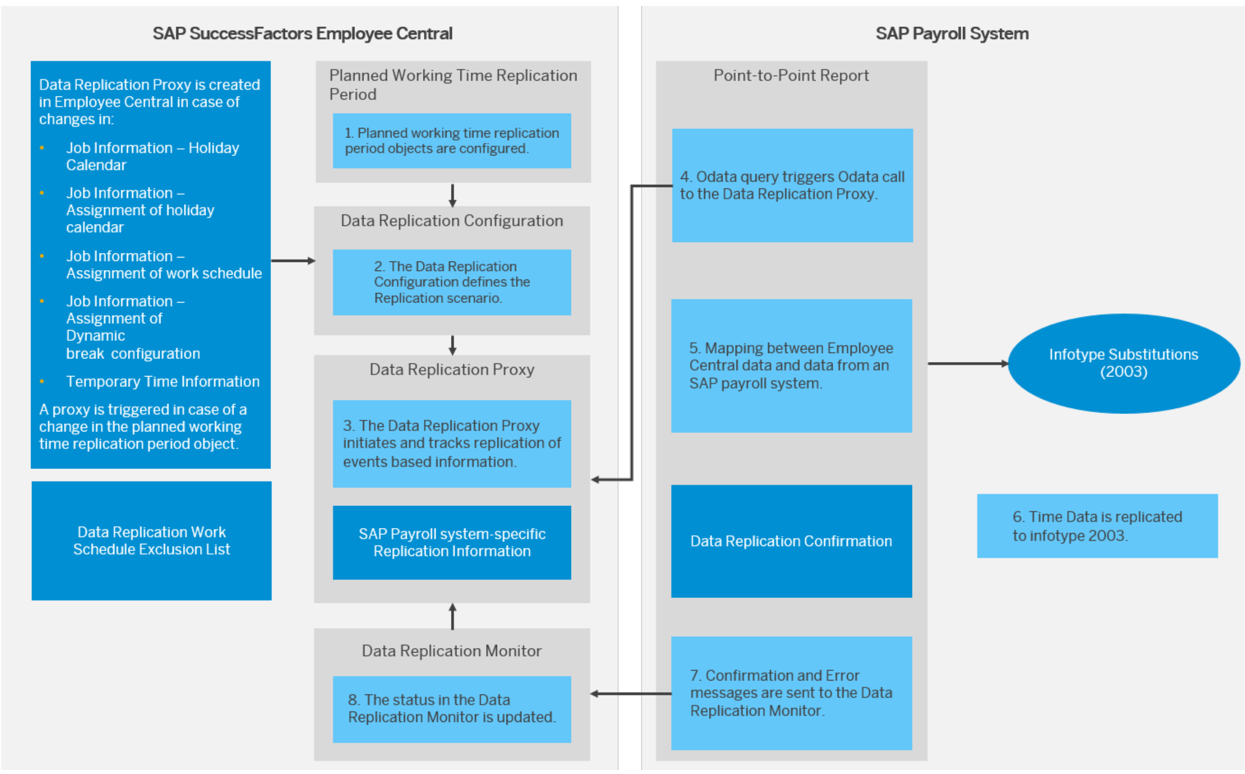
With this scenario, you can replicate planned working time from Employee Central Time Management to the *Substitutions* (2003) infotype in an SAP payroll system for each day of a year. Doing so, the business case for employee's working time that deviates from the planned working time and/or to be paid based on a different position/work center is covered.

⚠ Caution

You use this scenario to replicate planned working time only for active employees. Inactive employees like terminated employees and pensioners are out of scope.

ⓘ Note

We recommend that you create work schedules in the Employee Central system.



Prerequisites

Make sure that *Time Off for Leave of Absence Only* is switched off in Employee Central ▶ *Admin Center* ▶ *Manage Employee Central Settings* ◀. Otherwise, the replication of planned working times to an SAP payroll system is incorrect: Instead of replicating the correct planned working times, the system always replicates one hour of planned working time for each day. For more details about the switches in Employee Central Time Off and the prerequisite for replicating planned working time to an SAP payroll system, refer to Switching On Time Off and KBA 3050927.

Prior to the Replication Process

In Employee Central, planned working time is read in the following blocks:

- *Job Information*
- *Temporary Time Information*. You can create this information manually or upload it. For more information, refer to Upload of Temporary Time Information.

Phase 1: Create Planned Working Time Replication Period Object

Phase 2: Create Data Replication Configuration

Phase 3 and 4: Create/Update Data Replication Proxy and Trigger Replication Process

A proxy is generated in the following cases:

- Change in the planned working time replication period
- Event-based proxies:
  - Change of assignment of holiday calendar
  - Change in holiday calendar
  - Change of assignment of work schedule
  - Change of assignment of dynamic break configuration
  - Change of temporary time information

Phase 5: Customizing in an SAP Payroll System

The point-to-point replication of planned working time can be used to replicate the planned working times of an employee from the Employee Central system to the SAP payroll system. It means that you don't need to create an actual work schedule in the SAP payroll system, which would also require keeping this work schedule in sync with the corresponding work schedule in the Employee Central system.

However, infotype *Planned working time* (0007) requires that you specify a work schedule rule. Therefore, you must define a dummy work schedule in the SAP payroll system and assign its work schedule rule to employees via infotype 0007. For more information on how to handle infotype 0007, see KBA 2984800.

If you want to replicate only *Temporary Time Info*, refer to the steps described in Work Schedule Replication Exclusion List [page 70].

Phase 7: Update Data Replication Monitor

The Data Replication Monitor is updated with the status of the replication:

- *Successful*: The replication results are successful and the corresponding data replication proxy objects are set to inactive and deleted on a regular basis.
- *Failed:* The replication results are unsuccessful.

Phase 8: Retry for Unsuccessful Replication

Any replication with the status *Failed* is repeated until the status *Successful* is achieved in the Data Replication Monitor. When the replication is successful, the corresponding data replication proxy objects are deleted.

7.1 Terminology

Different Terminology Used in Employee Central Time and an SAP Payroll System

Employee Central Time	SAP Payroll System
Temporary Time Information	Substitution

Parent topic: Replication of Planned Working Time [page 62]

Next: Settings in Employee Central [page 64]

7.2 Settings in Employee Central

All the settings you need to make for the planned working time replication period object. This object is a prerequisite for the data replication configuration of planned working time.

Creating Data Replication Configuration for Planned Working Time [page 67]
The steps you need to take to create Data Replication Configuration for Planned Working Time replication from Employee Central to an SAP payroll system.

Work Schedule Replication Exclusion List [page 70]
You use this feature to create a list of work schedules for planned working times you want to exclude from the replication to infotype `2003`.

Parent topic: Replication of Planned Working Time [page 62]

Previous: Terminology [page 64]

Next task: Settings in an SAP Payroll System [page 71]

7.2.1 Setting Up Planned Working Time Replication Period

All the settings you need to make for the planned working time replication period object. This object is a prerequisite for the data replication configuration of planned working time.

Context

In general, planned working time is only replicated for the days within the planned working time replication period. Corrections of planned working time that are valid in the past, for example, before the planned working time replication period, are also replicated.

Procedure

1. Go to *Admin Center* and choose *Manage Data*.
2. Create a *Planned Working Time Replication Period* object.
3. Specify a unique *External Code*.
4. Enter a start date.
5. Enter at least one day in *Period Length in Days*.

   The end date is automatically determined based on the start date and the number of days that you've specified. 32 days are the default for the period length.

   > ⚠ Restriction
   >
   > The maximum number of days is 400. Thus, planned working time data can be included in the replication process for a maximum period of about one year plus one month.

6. Select the relevant number of months in the *Termination Offset* field.

   By default, planned working time is replicated until the end of the month (plus one day) after the termination date of an employee. You can specify how many additional months the replication should continue by entering a value between 0 and 12 months in this field: 0 is the default value.

   > → Tip
   >
   > We recommend that you set a termination offset of at least 1 month when using weekly or bi-weekly payroll periods.

   Note that this field controls how long the planned working time should still be replicated to the *Substitutions* (2003) infotype after the termination date of an employee. Proxies are created only based on the start and end dates of the *Planned Working Time Period*. If the period ends on March 25th and *Update Automatically* is enabled, the period is automatically shifted by one day per nightly job.

   > Example
   >
   > - An employee is terminated on June 18. You specify *0* month in the *Termination Offset* field. In this case, the replication continues until the end of June plus one day, which means July 1.
   > - An employee is terminated on June 18. You specify *3* months in the *Termination Offset* field. In this case, the replication continues until the end of September plus one day, which means October 1.

7. Save your settings.

   > Note
   >
   > The system runs checks on the period object and errors are raised in the following cases:
   > - The period length is empty.
   > - You want to delete a period object already used in a Data Replication Configuration.
   >
   > A warning message is raised if a time gap occurs, for example when the period object is moved too far into the past or into the future.

8. [Optional] Choose *Yes* for *Update Automatically*. We recommend that you enable this feature so that the period object is automatically shifted one day further in a nightly job. If this period object is used in a *Data Replication Configuration* object, it means that *Data Replication Proxy* objects are created each night for the relevant additional day.

Next Steps

In the *Data Replication Configuration*, select the *Planned Working Time Replication Period* object from the dropdown.

> Note
>
> You can define multiple planned working time replication periods according to your specific needs. Each data replication configuration object is assigned to a single period object. However, you can assign one single period object to several data replication configurations.

Related Information

Troubleshooting Accumulation of Unreplicated Proxies Due to the Planned Working Time Replication Period [page 141]

7.2.2 Creating Data Replication Configuration for Planned Working Time

The steps you need to take to create Data Replication Configuration for Planned Working Time replication from Employee Central to an SAP payroll system.

Prerequisites

You've defined your planned working time replication period.

Procedure

1. Go to *Admin Center* and choose *Manage Data*.
2. From the *Create New* dropdown, choose *Data Replication Configuration*.
3. Give your configuration object an *External Name*.
4. Choose the respective *Replication Target System*.

   If you have several SAP payroll target systems for one single Employee Central system, make sure that each system has its own configuration, for example by company or country/region.
5. In the *Replication Content Type* field, select *Planned Working Time*.
6. In the *Planned Working Time Replication Period*, select your period from the dropdown.

   A change in the period triggers a proxy creation.
7. Define the *Earliest Selection Date*.

   > ⓘ Note
   >
   > This date is important because only planned working times on or after the Earliest Selection Date you specify here are considered for replication.

   > → Tip
   >
   > It's important to familiarize yourself with the following behavior:
   >
   > - If the Earliest Selection Date for the Data Replication Configuration is set on January 15, 2020 and the start date of the planned working time replication period on January 1, 2020, the system takes into account the data of the date replication configuration.

- If the Earliest Selection date for the Data Replication Configuration is set on February 1, 2020 and the start date of the planned working time replication period on February 2, 2020, the system takes into account the start date of the planned working time replication period. It means that the minimum period is used when starting the proxy creation job from the data replication configuration.

→ Tip

Note that the format of the date depends on your logon language. Let's take the date from our example January 3, 2018 to illustrate it:

- English UK: 03/01/2018
- English US: 01/03/2018

8. Set *Correction Phase Indicator*. The payroll cycle foresees a correction phase where a limited number of changes are performed before the actual payroll run is executed.

   Your entire planned working times are replicated and saved in the payroll system, including those entries generated in any correction phase by selecting one of the following options:

   - Set the Always Allow Replication In Payroll Correction Phase field to Yes
   - Activate the `ONGO` switch:

Switch Name	Variable Choices	Use Case	Description
ONGO	Ongoing payroll (ignore correction phase)	Blank = Default X = Correction phase Indicator enabled	Blank: Payroll administrators can choose to replicate individual employees by navigating to the Data Replication Monitor and selecting individuals for scheduled replication. X: Any payroll relevant changes in Employee Central are replicated to payroll on the next schedule replication run. For more information, refer Payroll Control Record.

9. If you want to replicate planned working time that wasn't replicated before you set up the integration itself, choose *Yes* for *Execute Proxy Creation Job*. A job is started that creates proxies for all employees corresponding to the current data replication configuration. Start date and end date of the planned working time are defined by the planned working time replication period.

ⓘ Note

Note that after saving it switches automatically back to *No*.

ⓘ Note

This feature is only available when changing the Data Replication Configuration using *Manage Data*, but not when using *Import Data*.

10. Provide all the following information:

Setting	Description
Country/Region Assignment	Determines the country/region of the employees data you want to replicate. You can enter multiple country/region co-des.
Company Assignment	Determines the company/legal entity of the employees you want to replicate. You can enter multiple company codes.
Pay Group Assignment	Determines the pay group assigned in the *Compensation Information* of the employees you want to replicate. You can enter multiple pay groups.
Employee Class Assignment	Determines the employee class of the employees you want to replicate. You can enter multiple employee classes.

Changing these settings doesn't affect data from the past. However, there might be differences between Employee Central and an SAP payroll system because you've modified settings for the same object in the *Data Replication Configuration*. As a result, proxies are no longer available in Employee Central although they were created before modifying the settings in the *Data Replication Configuration*.

Let's take an example: Planned working times are replicated from Employee Central to an SAP payroll system. Later, you modify the settings in the *Data Replication Configuration* with the consequence that proxies are no longer generated for the planned working times. Then, let's assume that the same planned working times are modified at a later date in Employee Central. The information about this change isn't replicated to an SAP payroll system. As a result, the planned working times remain in the SAP payroll system infotype 2003, although they were changed in Employee Central.

Results

You've successfully completed the configuration of planned working time replication from the Employee Central system to the SAP payroll system. A proxy is generated whenever a change occurs in the following information:

- Holiday Calendar
- Assignment of a work schedule
- Temporary time information
- Assignment of dynamic break configuration
- Planned working time replication period

Related Information

Switches for Employee Central Payroll

7.2.3 Work Schedule Replication Exclusion List

You use this feature to create a list of work schedules for planned working times you want to exclude from the replication to infotype `2003`.

Prerequisites

This feature applies only to work schedules assigned to *Job Information*. You can't use this feature to create list for work schedules assigned to *Temporary Time Info*.

→ Tip

However, if you want to transfer only *Temporary Time Information* from Employee Central to an SAP payroll system, apply the following workaround:

1. In the SAP payroll system, define regular work schedule rules.
2. Assign the configured regular work schedule rules to the selected employees in infotype 0007.
3. In the Employee Central system, specify the Employee Central work schedules in the *Work Schedule Replication Exclusion List* to keep the data synchronized in both systems and prevent planned working time of regular work schedules assigned to *Job Information* from being replicated to infotype 2003. With this configuration, you make sure that only planned working times of *Temporary Time Information* are replicated to infotype 2003 in the SAP payroll system.

Context

The following is the list of work schedules in the Employee Central system that are defined in an equivalent way in the SAP payroll system. Another possible reason is that customers already defined work schedules in an SAP payroll system before planned working time replication was available. These customers possibly want to continue using partially their SAP payroll system work schedules.

You manually keep them in sync. When an employee is assigned to a work schedule from this list in the *Job Information* block, the corresponding work schedule in the SAP payroll system is assigned to that employee in infotype `0007`. For that reason, the planned working times of the work schedule in the *Job Information* block shouldn't be replicated to infotype `2003` in the Employee Central system. The replication of the planned working times gets prevented by registering a work schedule in this unique list.

Procedure

1. Go to *Admin Center* and choose *Manage Data*.
2. Create your list of work schedules in *Work Schedule Replication Exclusion List*.

   You can create only one list.

ⓘ Note

If you select *Import Data* in ▸ *Admin Center* ▸ *Import and Export Data* ▸ to create a *Work Schedule Replication Exclusion List*, make sure that you have set the *External Code* to 1, otherwise your list isn't considered in the replication process.

3. [Optional] If necessary, use the *Expert Mode* to add or remove work schedules from your list.

   A warning message is raised before you can proceed with the deletion.

7.3 Settings in an SAP Payroll System

See how you customize the replication of planned working times in an SAP payroll system.

Prerequisites

Make sure that you have added payroll function *Processing request for substitution* (P2003) to your payroll schema so that the replication of infotype 2003 is included in the payroll run of your employees. Otherwise, infotype 2003 isn't included in payroll.

Procedure

1. In the SAP Payroll system, go to transaction `SPRO` and choose SAP Reference IMG.
2. Check the standard delivery in *Display Code Value Mapping as Delivered by SAP* in Customizing for ▸ *Personnel Management* ▸ *Integration Settings for SuccessFactors Employee Central Payroll* ▸ *Assignment of Code Values* ▸ *For Point-to-Point Replication* ▸.

   Here you can see the code value mapping of Employee Central Data types as it is delivered by default.
3. Choose *Maintain Properties for Code Value Mapping* in Customizing for ▸ *Personnel Management* ▸ *Integration Settings for SuccessFactors Employee Central Payroll* ▸ *Assignment of Code Values* ▸ *For Point-to-Point Replication* ▸ to map the Employee Central code values to code values in the SAP payroll system.

Task overview: Replication of Planned Working Time [page 62]

Previous: Settings in Employee Central [page 64]

Next task: Scheduling Replication of Planned Working Time [page 80]

7.3.1 Defining Dummy Work Schedule

See how you customize dummy work schedule.

Procedure

1. In the SAP payroll system, go to transaction SPRO and choose SAP Reference IMG.
2. Choose *Maintain Code Value Mapping* in the Customizing for *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication*.
3. In the *EC data type* field, enter **WORK_SCHEDULE_RULE**. Enter the mapping for the rule code of the dummy work schedule.
   Please take the following mapping logic rules into consideration:

Employee Central	SAP Payroll System	Mapping logic
The employee isn't assigned to a work schedule.	The *Employee Central Code Value* field is empty.	Infotype 0007 is filled with the work schedule rule specified in the *ERP Code Value* field.
The employee is assigned to a work schedule.	The work schedule of the employee is mapped to a given work schedule rule.	Infotype 0007 is filled with the work schedule rule *ERP Code Value*
The employee is assigned to a work schedule.	The Employee Central work schedule doesn't have an explicit mapping: You entered ***** in the *ERP Code Value* field.	With this mapping logic, any work schedules without explicit mapping are mapped to the rule code of the dummy work schedule, and infotype 0007 is filled with this dummy work schedule rule.

7.3.1.1 Configuration Options for Dummy Work Schedule to Holiday Calendar Depending on Your Country/Region

Find out which configuration fits best your requirements.

Context

In Employee Central, the holiday calendar is independent of the work schedule. However, in an SAP payroll system, the holiday calendar is part of the work schedule because the holiday calendar ID is included in the key structure of the work schedule rule.

For that reason, you may link the dummy work schedule rule available in the SAP payroll system to a dummy holiday calendar containing no actual public holidays. However, in some cases, you might need to define actual holiday calendars in the SAP payroll system and keep them in sync with the holiday calendars defined in the Employee Central system.

For more information on how to define a work schedule in combination with a dummy holiday calendar, see KBA 2906872.

For more information on how to define a work schedule in combination with an actual holiday calendar, see KBA 2914265. By default, the replication of planned working time also replicates the holiday class into infotype 2003. KBA 2914265 describes how to avoid the replication of the holiday class.

Overview of Configuration Options Depending on Your Country/Region

Contry-specific Requirements	Configuration
Country/Region A - No replication of planned working time for all employees	Define actual work schedules in the SAP payroll system and manually keep them in sync with the corresponding ones in the Employee Central system. Set up the replication configuration in Employee Central to make sure that no planned working times are replicated for these employees.
Country/Region B - Replication of planned working time including the replication of holiday class for all employees	Set up a dummy work schedule with a dummy holiday calendar in the SAP payroll system. For more information, see KBA 2906872.
Country/Region C - Replication of planned working time excluding the replication of holiday class for all employees	Set up a dummy work schedule with an actual holiday calendar in the SAP payroll system. For more information, see KBA 2914265.
Country/Region D - Replication of planned working time including the replication of holiday class for most employees	In the Employee Central system, proceed as follows: 1. Set up a dummy work schedule with an actual holiday calendar. 2. Define actual work schedules as far as necessary, and manually keep them in sync with the corresponding ones in the Employee Central system. → Remember In the Employee Central system, you've included these Employee Central work schedules in the *Work Schedule Replication Exclusion List*. Fo more information, see KBA 2906872. There's no need to set up a dummy holiday calendar. Use an actual holiday calendar, for example, *AU* instead of *ZZ*.

Contry-specific Requirements	Configuration
Country/Region E - Replication of planned working time excluding the replication of holiday class for most employees	In the Employee Central system, proceed as follows: 1. Set up a dummy work schedule with an actual holiday calendar. 2. Define actual work schedules as far as necessary, and manually keep them in sync with the corresponding ones in the Employee Central system. → Remember In the Employee Central system, you've included these Employee Central work schedules in the *Work Schedule Replication Exclusion List*. For more information, see KBA 2914265.

7.3.2 Creating Dummy Daily Work Schedule FREE

Context

Your employee has a day off that is a planned working time of 0 hours in Employee Central. To replicate it to IT2003, you need to create a dummy daily work schedule `FREE` in an SAP payroll system.

> → Remember
>
> Don't enter `0` manually because the system runs standard checks on infotype 2003.

Procedure

1. In the SAP payroll system, go to transaction `SPRO` and choose SAP Reference IMG.
2. Choose *Maintain Code Value Mapping* in the Customizing for *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication*.
3. Map `TIME_FREE_DAILY_WORK_SCHEDULE` entered in field *EC data type* with the *ERP Code Value*.
4. Save your changes.

7.3.3 Mapping Substitution Type

Context

When replicating planned working times to infotype 2003, field *Substitution Type* (VTART) is required because it's used to determine the substitution type according to which an employee should work or be paid.

Procedure

1. In the SAP payroll system, go to transaction SPRO and choose SAP Reference IMG.
2. Choose *Maintain Code Value Mapping* in the Customizing for *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication*.
3. Map TIME_PLANNED_WORKING_TIME_TYPE entered in field *EC data type* with the *ERP Code Value*.

   Only substitution types configured in table T556 are allowed as ERP code values. Go to this table by specifying SM30 to make sure that fields *Personnel subarea grouping for substitution/availability types* (MOVER) and *Substitution Type* (VTART) are customized for your employees.

   > Example
   >
   > Settings for Australia
   >
   > Here is an overview of the settings for an Australian-specific substitution type:
   >
   > - Checking the settings of MOVER and VTART in view V_T556:
   >
   > | PSGpg (MOVER) | Substitution Type (VTART) | Time Constraint Class | Shift Change Compensation (NAAUS) | Reduced Hours Substitution (KUGKN) |
   > |---|---|---|---|---|
   > | 13 | 02 | 02 | Leave the checkbox unmarked. | Leave the checkbox unmarked. |
   >
   > - Mapping in table T777SFEC_CVMAPC:
   >
   > | EC Data Type | Country/Region ISO | ERP Code Value |
   > |---|---|---|
   > | TIME_PLANNED_WORKING_TIME_TYPE | AU | 02 |

7.3.4 Mapping of Public Holiday Information

The following describes the procedure for mapping SAP SuccessFactors Employee Central public holiday information in an SAP payroll system.

Prerequisites

Make sure that holiday planned working time is configured in SAP SuccessFactors Employee CentralTime Management. For more information, refer to Defining the Holiday Planned Working Time.

Context

SuccessFactors Time Management has introduced two objects, namely *Holiday Category* and *Holiday Work Pattern*. In an SAP payroll system, *Holiday Category* is replicated to *Public holiday class* and the combination of *Holiday Category* and *Holiday Work Pattern* are replicated to *Day Type* (TAGTY) of infotype 2003.

> Note
>
> For an SAP payroll system, Synchronization Support Package SPB9 must be installed in your system. Please note that you can't use the feature as a whole until the support package mentioned has been released. The full documentation will be made available then too.

General Considerations

Customer Type	Action
If you're a new customer for SAP SuccessFactors Employee Central and SAP SuccessFactors Employee Central Payroll or if you're a customer who has already implemented SAP SuccessFactors Employee Central and wish to implement SAP SuccessFactors Employee Central Payroll in the near future	Use the mapping procedure described in this section.
If you're a customer who has already implemented SAP SuccessFactors Employee Central and SAP SuccessFactors Employee Central Payroll	We recommend that you switch to the new mapping procedure. For more information, refer to KBA 3315379.

Mapping EC Holiday Category to Payroll Holiday Class [page 77]
Find out how to map the SAP SuccessFactors Employee Central *Holiday Category* in an SAP payroll system.

Mapping Holiday Category and Holiday Work Pattern to Payroll Day Type [page 78]
Find out how to set up the mapping of the SAP SuccessFactors Employee Central *Holiday Category* and *Holiday Work Pattern* in an SAP payroll system.

7.3.4.1 Mapping EC Holiday Category to Payroll Holiday Class

Find out how to map the SAP SuccessFactors Employee Central *Holiday Category* in an SAP payroll system.

Context

SAP SuccessFactors Employee Central Time Management has introduced new objects, namely *Holiday Category* and *Holiday Work Pattern*. In an SAP payroll system, you need to map the *Holiday Category* EC entity to the payroll entity *Holiday Class*

> Note
>
> To cover some country/region-specific requirements, you can maintain a holiday calendar in the SAP payroll system and synchronize it with the holiday calendar in Employee Central. In this case, you can decide not to replicate the holiday class into infotype 2003. For more information on how to avoid the replication of the holiday class, see KBA 2914265.

Procedure

1. In the SAP payroll system, go to transaction SPRO and choose SAP Reference IMG.
2. [MANDATORY] Choose *Maintain Properties for Code Value Mapping* in the Customizing for *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication*.

   Specify the properties for the `HolidayCategory` Employee Central entity to the payroll entity (ERP code value) `Holiday Class`. Select the mapping mode `Mapping via customer table`.
3. Save your changes.
4. Choose *Maintain Code Value Mapping* in the Customizing for *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication*.

   Specify the mapping of the `HolidayCategory` Employee Central entity to the Payroll entity (ERP code value)`Holiday Class`.
5. Save your changes.

7.3.4.2 Mapping Holiday Category and Holiday Work Pattern to Payroll Day Type

Find out how to set up the mapping of the SAP SuccessFactors Employee Central *Holiday Category* and *Holiday Work Pattern* in an SAP payroll system.

Context

SAP SuccessFactors Employee CentralTime Management has introduced new objects, namely *Holiday Category* and *Holiday Work Pattern*. In an SAP payroll system, map the combination of both EC entities *Holiday Category* and *Holiday Work Pattern* to the single payroll entity *Day Type* of infotype 2003.

Procedure

1. In the SAP payroll system, go to transaction `SPRO` and choose SAP Reference IMG.
2. Choose *Mapping of 2 Employee Central Entities to one single Payroll Entity* in the Customizing for *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication*.
   Choose the following subactivities:
   1. [MANDATORY] *Properties for Code Value Mapping Based on 2 Employee Central Entities*: Specify the properties for the code value mapping type *HDAYCAT_HWORKPTTRN_TO_DAYTYPE*: This configuration is required for the mapping of the *HolidayCategory* and *HolidayWorkPattern* Employee Central entities to the payroll entity (ERP code value) *Day Type*.
   2. Save your changes.
   3. *Code Value Mapping Based on Two Employee Central Entitie*: Specify the mapping for the *HolidayCategory* and *HolidayWorkPattern* Employee Central entities to the Payroll entity *Day Type*.
   4. Save your changes

   For more details, refer to the system documentation.

7.3.5 Mapping Shift Classification

For Employee Central Payroll, Synchronization Support Package SPD2 must be installed in your system. Please note that you can't use the feature as a whole until the support package mentioned has been released. The full documentation will be made available then too.

7.3.6 Disabling Collision Checks

Collision checks are run in Employee Central. Find out how to disable the checks in the SAP payroll system.

Context

To set up collision checks so that absences with overlapping dates can be automatically managed, you need to turn off several checks in the SAP payroll system. Note that this configuration is mandatory for *Concurrent Absences*. For more information on how to set up collision checks for concurrent absences in the Employee Central system, refer to Setting Up Collision Checks for Absences

Procedure

1. In the SAP payroll system, go to transaction `SPRO` and choose SAP Reference IMG.
2. Choose *Reaction to Overlapping Time Infotypes* in the Customizing for *Time Management* > *Time Data Recording and Administration* > *Specify System Reaction to Overlapping Time Infotypes*.
3. Make the following settings to disable collision checks according to the selected system.

System	Description
SAP ERP HCM	Disable the checks for the corresponding infotype by selecting *N* from the dropdown.
SAP HCM for SAP S/4HANA	Remove the relevant lines.

4. Save your changes.

7.3.7 Configuring Partial Period Remuneration

Find out how to customize partial period remuneration.

In situations when a change in a work schedule occurs during a payroll period for example:

- Transfer from full time to part time in the middle of a month
- Temporary assignment of a different work schedule for one week during a monthly period payroll

A split of `WPBP` is generated in an SAP payroll system and the employee's remuneration is processed for each partial period. Make sure that the employee's renumeration for that partial period is correctly calculated.

For more details on how to customize the partial period remuneration, refer to KBA 3050890.

7.4 Scheduling Replication of Planned Working Time

Context

The Replication Report picks up the data from the OData API. The report runs as a batch job that you need to schedule.

Procedure

1. In the SAP payroll system, run transaction **`HRSFEC_PTP_PWT_REPL`**.
2. Choose the replication target system and save.
3. Get a variant for the configuration by clicking the *Get a variant* icon.
   a. Choose an already existing variant or create a new one.
   b. Save the variant and save the configuration.
4. Schedule a batch job for the variant. Run transaction **`SM36`**.
   a. Enter a job name and choose *Start Condition*.
   b. Choose the start time and mark the checkbox for *Periodic job*. (There's no *Periodic Job* checkbox if you choose the start time *AfterJob*.)
   c. Press *Period Values*.
   d. Choose *Other Period*.
   e. Enter the timeframe of your choice, for example **`15`** *minutes* and save.
   f. Save also *Start Time*.
5. In *Define Job*, click *Step*.
   a. In the *User* field, enter the Integration User.
   b. In the *Name* field of the *ABAP Program* box, enter **`RP_HRSFEC_PTP_PLAN_WORK_TIME`** and in the *Variant* field enter the variant you created.
   c. Press `Enter` and save.
   d. Go back by pressing. `F3` and save again.

   You get the status message *Job PLANNED WORKING TIME REPLICATION saved with status: Released*.

   The following mechanisms have been put in place to avoid unnecessary replication of time data from Employee Central because configuration errors aren't corrected into the SAP payroll systems:

Scope of the Mechanism	Description
Applies to all SAP payroll systems	If the replication per employment and replication content type fails 100 times, the next replication is automatically rescheduled 1 hour later. Later on, the replication is restarted 24 times per day to replicate the time data again. If the replication fails again, the data is replicated only once a day (101–125 times failed: 1 replication per hour; > 125 times failed: 1 replication per day).
Applies only to SAP payroll nonproductive systems	If the replication per employment and per content type fails 150 times, data is automatically rescheduled in 1000 years.

To return to the replication frequency of the employment and content type as previously scheduled in the SAP payroll system, resend the employment using the Data Replication Monitor.

Task overview: Replication of Planned Working Time [page 62]

Previous task: Settings in an SAP Payroll System [page 71]

8 Country/Region-Specific Replication Scenarios

Here's a list of the countries/regions for which we deliver country/region-specific replication scenarios. Use the link to access detailed information on the scenarios:

8.1 Replicating country/region-specific Absence Data (Infotype 2001)

Country/region-specific fields can be replicated from Employee Central Time Off to the Absences (2001) infotype in an SAP payroll system. For Germany, for example, country/region-specific logic for relationship handling of Time Off records (linking of Absences) is supported.

Set up the `RP_HRSFEC_PTP_ABSENCE_REPL` report in an SAP payroll system to replicate country/region-specific fields.

- *Replication Target System*
  Enter the name of the system where the report is executed. The system name must be used as the external code of the MDF object *Replication Target System* in Admin Center of Employee Central.

- *Countries/Regions with specific fields*
  Enter the 3-letter ISO country codes for the country/region with specific fields.

  > ⓘ Note
  >
  > Only possible for Australia, Canada, Colombia, Germany, Mexico, the Netherlands, Poland, Spain, and the United States.

Related Information

Set Up Connection Between an Employee Central Payroll System and Employee Central [page 12]
Creating the Replication Target System Object Manually [page 23]

8.1.1 Absences (Infotype 2001) - Australia

An employee wants to request for advance payment for the leave in the upcoming days. If the leave spans across the change in the financial year, the employee can also split this payment across the financial year, due to changing tax implications in the new financial year. For information on configuring Employee Central Time Off, see Requesting for Advance Leave Payment as an Employee(ESS) .

> ⓘ Note
>
> The option to Split Pay Across Financial Year is applicable only for public sector employees in Australian payroll. For more information on what happens in Australia payroll in case of replication to an SAP payroll system, see SAP Note 2882536

Setting

You can set the value of the constant in the view V_T511K , via table maintenance (Transaction SM30) for EC-ECP Advance Payments (ECADV).

Object: Symbolic constant - value enumeration/constant

Using the value of this constant, the system will determine the behavior of the advance payment option available to the employee. The constant is available only for the SAP payroll system customers while executing the Create advance payments for Australia (RPCADVQ0) report.

You can set the constant to one of the following values:

- 0 – System will continue with the existing behavior where the advance payments will be created based on the absence of the employee.
  Note: This is the default value of this constant.
- 1 – If an Australian SAP payroll system customer wants to use the *Advance Leave Payment Allowed* and *Split Across Financial Year Allowed* fields in a time type, they must assign the value of this constant to 1.

ⓘ Note

The constant will be used in the create advance payments for Australia (*RPCADVQ0*) report to check if the fields *Advance Leave Payment Allowed* and *Split Across Financial Year Allowed* should be considered or not while creating the advance pay cluster.

The following table shows the value of FLAG1 in an SAP payroll system based on the selection in Employee Central Time Off fields:

Scenario	When the Leave advance payment is	When the field split across financial year is	Value of FLAG1
1	No	No	Blank
2	Yes	No	A
3	Yes	Yes	B

EC Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Comment
Request Advance pay	Flag for the leave type is advance payment type	-	2001	FLAG1	Reserved field	The value can be ‘A’, B’ or blank based on the incoming values
Split across Financial year	Flag to indicate that the payment should be split across the financial year	-	2001	FLAG1	Reserved field	The value can be ‘A’, B’ or blank based on the incoming values

8.1.2 Absences (Infotype 2001) – Canada

Here you find an overview of specific fields for Canada.

These fields for Absence Data of an employee are replicated from Employee Central into the Absences (2001) infotype in an SAP payroll system.

Employee Central Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Comment
disabilityPeriodOneEndDate	Duration of Disability Period One (in days)	-	2001	SPPE1	End date for continued pay	Indicates the End Date of the First Disability Period
disabilityPeriodTwoEndDate	Duration of Disability Period Two (in days)	-	2001	SPPE2	End date for continued pay	Indicates the End Date of the Second Disability Period

Employee Central Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Comment
disabilityPeriodThreeEndDate	Duration of Disability Period Three (in days)	-	2001	SPPE3	End date for continued pay	Indicates the End Date of the Third Disability Period
policyDeviation	Policy Deviation	-	2001	SPPIN	Indicator for manual modifications	Indicates, if there is deviation in any of the Disability Periods in the absence comparing to the Policy configured in Time Type Object in Employee Central Time

> **Note**
>
> To enable replication of the fields, please maintain the Customizing activity *Payroll USA* > *Absences* > *Short/Long-Term Disability (STD/LTD) Plans* > *Disable automatic STD period creation in IT2001"* accordingly.

8.1.3 Absences (Infotype 2001) - Colombia

Here you find an overview of specific fields for Colombia.

These fields for Absence Data are replicated from Employee Central into the Sickness or Accident subtype of the Absences (2001) infotype in an SAP payroll system.

Employee Central Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Comment
identicalSicknessGroup	Identical Sickness	-	2001	KENN1	Relationships(Indicator for repeated illness)	This field indicates that the sickness records are not original

> **Note**
>
> To link multiple absence records, in Employee Central, to create one of the absence records as original absence in an SAP payroll system. Time type of Original absence should be mapped to a subtype that is different to the subtype of subsequent absences in IT2001. Here, for all linked records, KENN1 is updated and for the subsequent absences LFZED is updated.

8.1.4 Absences (Infotype 2001) - Germany

Here you find an overview of specific fields for Germany.

Fields for Continued Pay in Employee Central are replicated into Absences (Infotype 2001) Illness with Certificate (subtype 0200) in an SAP payroll system. In addition, the specific logic for relationship handling of Time Off records (linking of Absences for identical or overlapping sicknesses) is supported.

Continued Pay and Linking of Absences

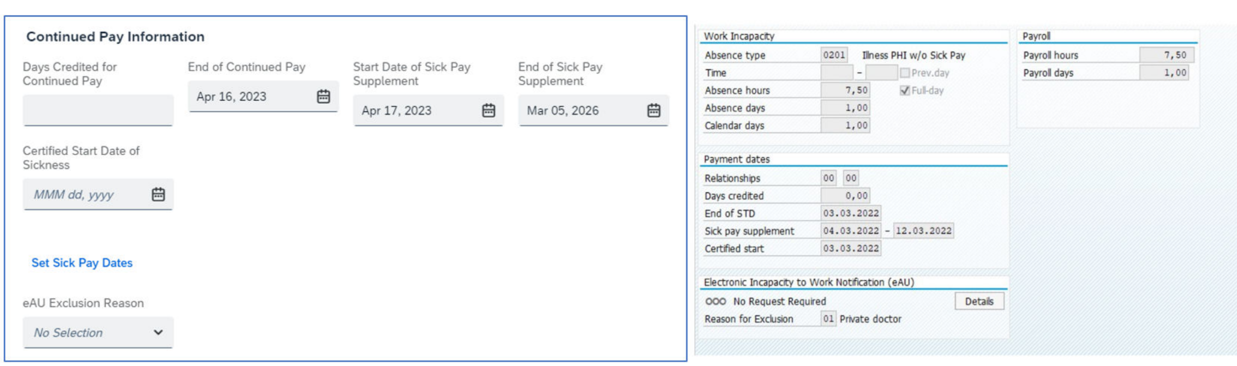
According to the German regulation Continued Remuneration Act (Entgeltfortzahlungsgesetz), employees who fall sick are entitled to continue to be paid by their employer while they are incapable of working for a period of up to 6 weeks (42 calendar days). If the sickness is longer than 42 days, the employee receives payment from the health insurance.

The HR administrator can link sickness records if (1) they are related, or not related but occur one after the other directly and (2) fall within the same period of time (less than six months in between).

- Case A: Employee sends a sickness certificate for 20 days. Then a new certificate comes **for the same sickness** for another 22 days.
  In this case, the two absences can be linked because the two sickness records happen one after the other directly. So the employee receives 6 weeks his normal payment. After 6 weeks, the health insurance takes care.
- Case B: Employee sends a sickness certificate for 10 days. Then he/she comes back and works for 2 weeks, and then he/she is sick again for a similar sickness and sends a new certificate for 20 days.
  In this case, according to the regulation from the health insurance, even though the employee has worked in between, sickness records that happen **within 6 months** shall be linked.

Replication to Absences (infotype 2001)

The table below shows you the Germany-specific fields for an employee's absence data in Employee Central. It also shows the equivalent fields in an SAP payroll system for Absences (Infotype 2001) Illness with Certificate (subtype 0200).



> ⓘ Note
>
> For identical and overlapping sicknesses, the records maintained in Employee Central Time Off are linked by the system-generated link index in an SAP payroll system. The link indexes are stored in the table `HRSFEC_LINK_IDX` in an SAP payroll system.

EC Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Commnent
continuedPayCreditedDays	Days Credited for Continued Pay		2001	ANRTG	Days Credited	Value in this field indicates the number of days off due to previous or repeated sickness.
continuedPayEndDate	End of Continued Pay		2001	LFZED	End of Continued Pay	The employee receives continued pay up to and including this date
identicalSicknessGroup	Identical Sicknesses		2001	KENN1	Relationships (Indicator for Subsequent Sickness)	This field indicates whether sickness records are logically related.
overlappingSicknessGroup	Overlapping Sicknesses		2001	KENN2	Relationships (Indicator for Repeated Sickness)	This field indicates whether sickness records follow on directly from one another.
paySupplementStartDate	Start Date of Sick Pay Supplement		2001	RMDDA	Sick pay supplement (start)	This field indicates the date of the day when the employer pays a sick pay supplement; typically it is the date of the day after the end of continued pay. The employer only pays a sick pay supplement if the sick pay is paid by the health insurance fund.
paySupplementEndDate	End of Sick Pay Supplement		2001	KRGED	Sick pay supplement (end)	This field indicates the date up to which a sick pay supplement is paid.
sicknessCertificateStartDate	Certified Start Date of Sickness		2001	KBBEG	Certified start	The field indicates the start date of the sickness as certified by the health insurance fund.
electronicSicknessCertificateExclusionReason	eAU Exclusion Reason		2001	UMSKD	Reason for Exclusion	This field specifies an exclusion reason that explains why an electronic certificate of incapacity to work (eAU) does not have to be submitted for an absence.

8.1.5 Absences (Infotype 2001) - Mexico

Here you find an overview of specific fields for Mexico.

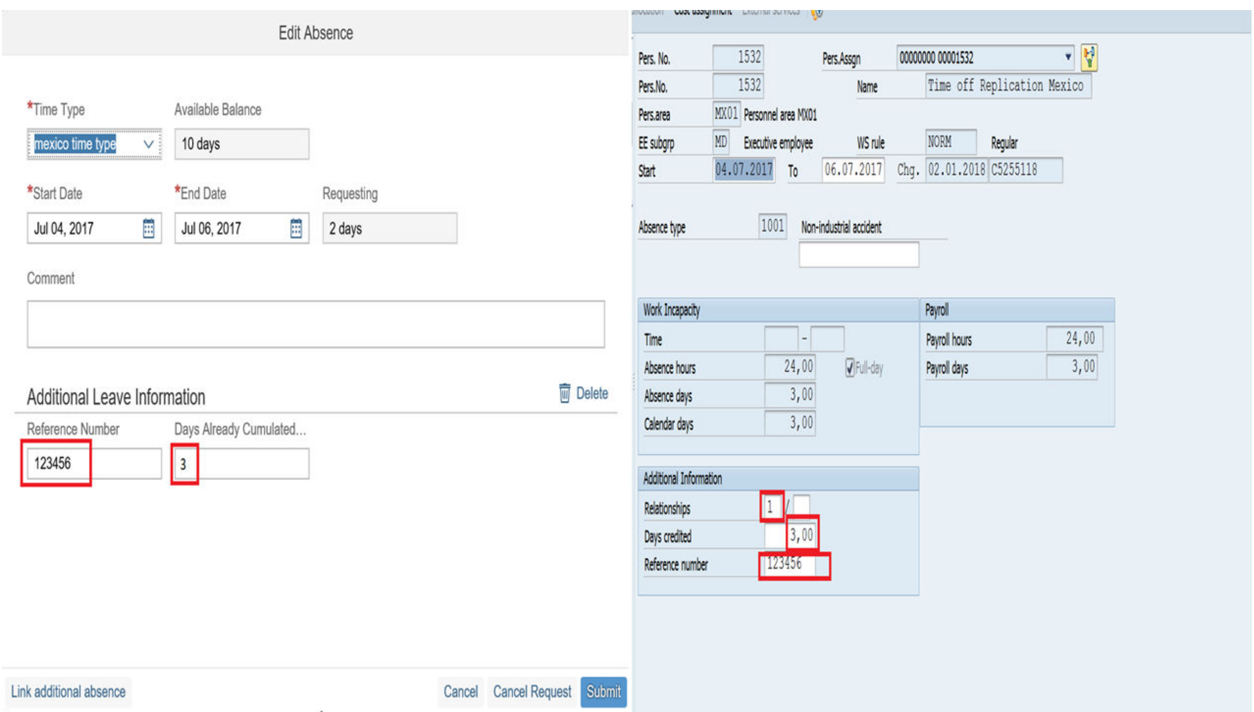
Fields for Time off Data are replicated from Employee Central into Absences (infotype 2001) Sickness or Accident subtype in an SAP payroll system.

In addition, the country-specific logic for relationship handling of Time Off records (linking of Absences for identical sicknesses) is supported.

> **Example**
>
> **Identical sickness (subsequent illness)**: An employee has an illness or accident for the first time. Then he or she comes back to work. After some time, the employee has another illness or accident that is related to the first one. In this case, sickness records shall be linked even though the employee has worked in between. The HR admin links them when creating the sick leaves for the employee. If the admin selects a Mexico-specific time type with the Sickness absence class, he or she can select the reason Identical and enter the reference number provided by the Social Security Institute. Then the admin can link the sick leaves.

Replication to the Absences (infotype 2001)

The table below shows you the Mexico-specific fields for an employee's absence data in Employee Central. It also shows the equivalent fields in an SAP payroll system for Absences (Infotype 2001).



EC Time off Field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Comment
identicalSicknessGroup	Identical Sicknesses		2001	KENN1	Relationships (Indicator for subsequent sickness)	This field indicates whether sickness records are logically related.
referenceNumber	Reference Number	No	2001	REFNR	Case reference number	Case reference number for reporting
daysAlreadyCummulatedForSameSickness	Days Already Cummulated for Same Sickness		2001	ANRTG	Days Already Cumulated for Same Sickness	This field is used to store the incapacity days for the same event.

8.1.6 Absences (Infotype 2001) - Netherlands

Here you find an overview of specific fields for the Netherlands.

The following field for Absence Data is replicated from Employee Central to an SAP payroll system.

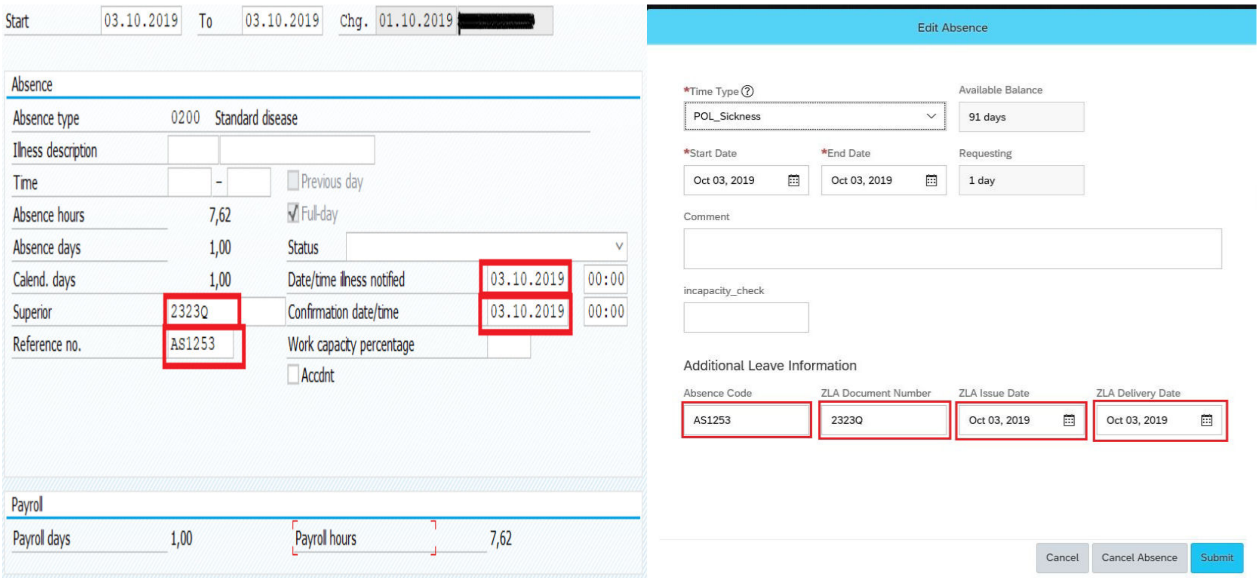
Employee Central Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Comment
workcapacity	Work Capacity	-	2001	P2001-PSARB	Work Capacity Percentage	This field is used for the Illness and Recovery messages to the authorities.

8.1.7 Absences (Infotype 2001) - Poland

Here you find an overview of specific fields for Poland.

Sickness specific fields for Poland would be replicated to Infotype 2001 to be compliant with the country’s sickness leave process of obtaining a Sickness Certificate (ZLA). ZLA number, ZLA code, ZLA issue data and ZLA delivery date fields would be replicated to the Sickness or Accident subtype of the Absences infotype 2001 from Employee Central. These fields for Absence Data are replicated from Employee Central into the Sickness or Accident subtype of the Absences (infotype 2001) in an SAP payroll system. The table below shows you the Poland-specific fields for an employee's absence data in Employee Central. It also shows the equivalent fields in an SAP payroll system for

Absences (Infotype 2001).



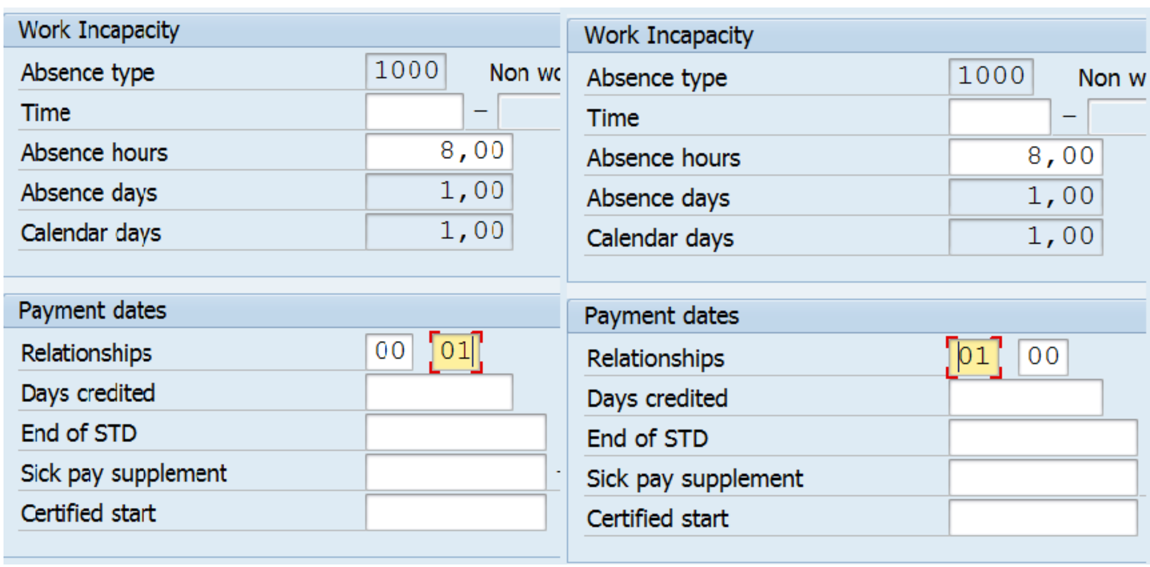
EC Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Comment
Absence Code	Reference code to the absence.	-	2001	REFNR	Superior	This is the reference code related to the absence
ZLA Document Number	ZLA sickness certificate number	-	2001	VORGS	Reference number	This is the document number from the ZLA sickness certificate
ZLA Issue Date	ZLA certificate issue date	-	2001	MLDDA	Date/Time Illness notified	This is the date on which the illness was reported and the sickness certificate was issued by the ZLA authority
ZLA Delivery Date	The date on which the ZLA was delivered by the employee to the employer	-	2001	RMDDA	Confirmation Date/Time	This is the start date of the sick pay supplement (The date on which the ZLA was delivered by the employee to the employer)

8.1.8 Absences (Infotype 2001) - Spain

Here you find an overview of specific fields for Spain.

Fields for an absence on an employee are replicated from Employee Central to Absences (Infotype 2001) in an SAP payroll system.

> **Note**
>
> If we have multiple absence records in EC and if we link them and make one of the absence records as original absence in EC then for the original absence record KENN1 field will be updated in ECP and for the subsequent absence records KENN2 will get updated in ECP.
>
> For example, assume A1, A2 are the sickness related Employee Times.
>
> A1 is from 01st March, 2018 – 03rd March, 2018– Original Absence based on date
>
> A2 is from 05th March, 2018 – 09thMarch, 2018 – Subsequent Absence
>
> Here Employee time A1 is original absence, for this record KENN1 field will be filled and for subsequent records A2 ‘KENN2’ will be filled.



EC Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Commnent
identicalSicknessGroup & originalAbsence(Yes)	Identical Sicknesses & Original Absence	-	2001	KENN1	Relationships (Indicator for Subsequent Sickness)	This field indicates whether sickness records are logically related and original

EC Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Commnent
identicalSicknessGroup & originalAbsence(No)	Identical Sicknesses & Original Absence	-	2001	KENN2	Indicator for repeated illness	This field indicates the sickness records are not original

8.1.9 Absences (Infotype 2001) – United States

Here you find an overview of specific fields for the United States.

These fields for Absence Data of an employee are replicated from Employee Central to the Absences (2001) infotype in an SAP payroll system. The country-specific logic for relationship handling of Employee CentralTime Off records (linking of absences for identical sicknesses) is also supported.

Employee Central Time Off field	Description	Code mapping required	Infotype	SAP IT Attribute	Infotype Field Name	Comment
disabilityPeriodOneEndDate	Duration of Disability Period One (in days)	-	2001	SPPE1	End date for continued pay	Indicates the End Date of the First Disability Period
disabilityPeriodTwoEndDate	Duration of Disability Period Two (in days)	-	2001	SPPE2	End date for continued pay	Indicates the End Date of the Second Disability Period
disabilityPeriodThreeEndDate	Duration of Disability Period Three (in days)	-	2001	SPPE3	End date for continued pay	Indicates the End Date of the Third Disability Period
policyDeviation	Policy Deviation	-	2001	SPPIN	Indicator for manual modifications	Indicates, if there is deviation in any of the Disability Periods in the absence comparing to the Policy configured in Time Type Object in Employee Central Time
identicalSicknessGroup	Identical Sicknesses	-	2001	KENN1	Relationships (Indicator for subsequent sickness)	This field indicates whether sickness records are logically related.

Note

To enable replication of the fields, please maintain the Customizing activity *Payroll USA* > *Absences* > *Short/Long-Term Disability (STD/LTD) Plans* > *Disable automatic STD period creation in IT2001"* accordingly .

8.2 Replication of Time Accounts and Related Information

All you need to know about setting up the replication of time accounts and related information from Employee Central to an SAP payroll system for Chile (CHL), Egypt (EGY), the Kingdom of Saudi Arabia (SAU), Mexico (MEX), Oman (OMN), Qatar (QAT), and the United Arab Emirates (ARE).

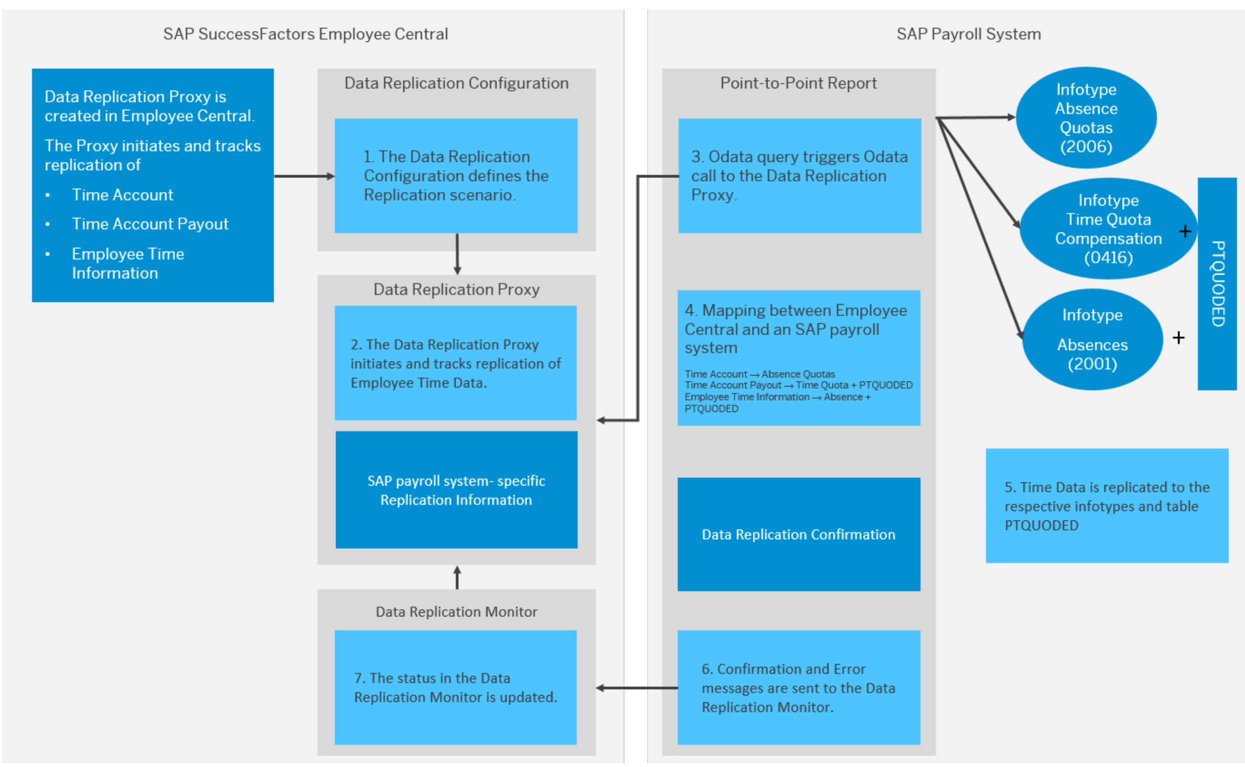
In the Employee Central system, you first maintain and generate the leave entitlements and absence quotas for your employees. In addition, you maintain and generate all accruals and deductions (for example, deductions of hours and days, sequence of deductions from different time accounts if applicable, for a time type). Finally, you process the payout of the leave balance during the year and the termination triggered from entitlements.

The post-process of this scenario is done in an SAP payroll system to cover the legal requirements of Chile (CHL), Egypt (EGY), the Kingdom of Saudi Arabia (SAU), Mexico (MEX), Oman (OMN), Qatar (QAT), and the United Arab Emirates (ARE).

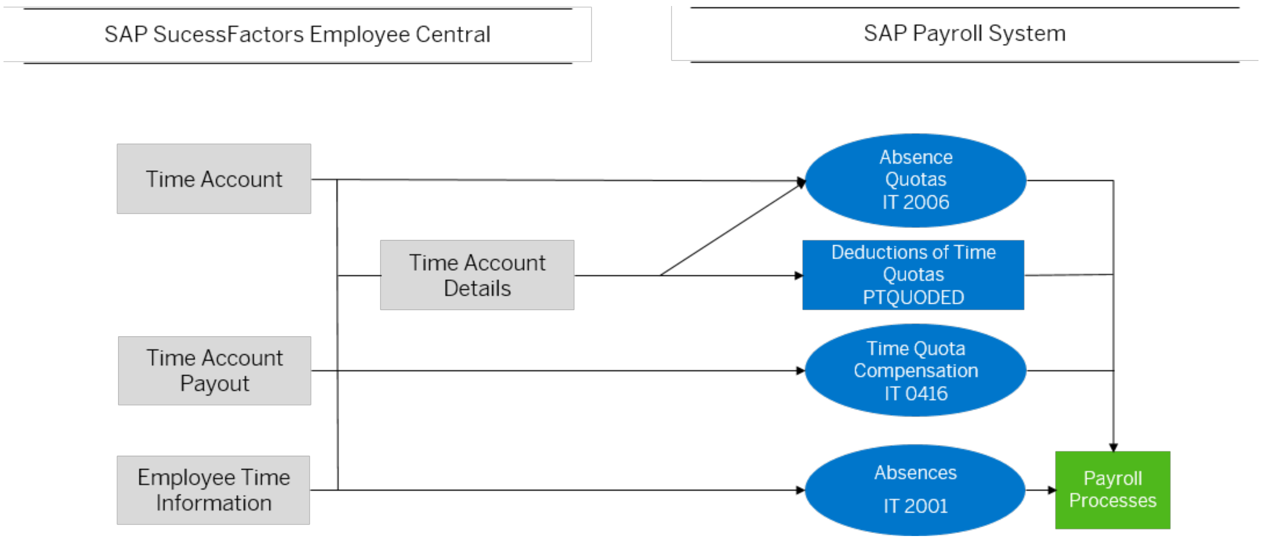
> **Note**
>
> You have implemented SAP Notes 2571684, 2573551 and for Mexico 2543435 2617476.

> **Example**
>
> In payroll Mexico, you need time data to run some payroll processes (vacation provision, for example) as well as the calculation of payout while simulating the termination of active employees.

Here's a graphic illustrating the detailed replication process for time accounts and related information between Employee Central and an SAP payroll system:



Here's a graphic giving an overview of the time accounts and related information replication process between Employee Central and an SAP payroll system.



Requirements

- Employee Central Time Off must be in *People Profile (PP3)*.
- The replication between Employee Central and an SAP payroll system must be up and running.

> **Restriction**
>
> The following scenarios are only supported for the local versions and the business processes listed here. Should you implement this scenario for another country/region, you're doing so at your own risk.
>
> - Calculation of Vacation Provisions: Only supported for Chile (CHL), Egypt (EGY), the Kingdom of Saudi Arabia (SAU), Mexico (MEX), Oman (OMN), Qatar (QAT), and the United Arab Emirates (ARE).
> - Calculation of Vacation Absences: Only supported for Chile (CHL), Egypt (EGY), the Kingdom of Saudi Arabia (SAU), Mexico (MEX), Oman (OMN), Qatar (QAT), and the United Arab Emirates (ARE).
> - Calculation of Vacation Payments: Only supported for Chile (CHL), Egypt (EGY), the Kingdom of Saudi Arabia (SAU), Mexico (MEX), Oman (OMN), Qatar (QAT), and the United Arab Emirates (ARE).
> - Calculation of Vacation Settlement: Only supported for Mexico.
> - Leave Liability Replication for Australia: Only supported for Australia. For more information, refer to Leave Liability Replication Scenario for Australia [page 117].
> - Calculation of Purchase Leave: Only supported for Public Sector Australia.For more information, refe to Purchase Leave Replication Scenario for Public Sector Australia [page 134].

8.2.1 Settings in Employee Central

An overview of which settings you need to make in Employee Central to set up time account information replication.

There are a few settings you will have to make in Employee Central *Admin Center* to set up replication.

8.2.1.1 Setting Up Time Type

The settings you need to make to the Time Type for the replication of time account information to an SAP payroll system.

Only the time type configurations relevant for this replication scenario are mentioned here. For more information about how to set up time type, refer to Time Type in the *Implementing Time Management in SAP SuccessFactors* guide.

> ⚠ Restriction
>
> The replication of quota deductions runs without errors only if you have set the *Allocation Strategy* of the time type used to *Simplex*. Note that *Simplex* is the default strategy when you create new time types.

8.2.1.2 Maintain Time Account Type for Time Accounts and Related Information Replication

The settings you need to make to the Time Account Type for the replication of time account information.

The time account type is the template regulating what user-specific time accounts should look like. You've probably already set up time account types when you set up Time Off initially. There are a few settings specific to the replication of time account information that you have to make sure have been done. Only the time account type replication configurations that are relevant for replication are mentioned here. For descriptions of all fields relevant for time account type, see Time Account Type.

- *Account Creation Type*
  - Choose value: **`Recurring`**
    This is required so that you have multiple time accounts, each valid for a specific period of time.

    > ⚠ Restriction
    >
    > You can only set up the replication of time account information using recurring time account types. Don’t choose value *Permanent* for *Account Creation Type*.

- Choose value **`Ad Hoc`** for purchase leave. When you select Ad Hoc, a number of additional fields are shown and must be maintained.

- *Entitlement Method*
    - Choose value: **`Entitled as Accrued`**

> ⚠ Restriction
>
> You can only use this entitlement method in this replication scenario, other entitlement methods aren't supported.

8.2.1.3 Data Replication Configuration for Time Accounts and Related Information Replication

The steps you need to take to create Data Replication Configuration for time accounts and related information replication from Employee Central to an SAP payroll system.

Context

In order to replicate time accounts and related information from Employee Central to an SAP payroll system, you have to create a *Data Replication Configuration* that defines the replication scenario. Use replication scenarios to more precisely specify which employee absence data is replicated to the payroll system.

There are three replication scenarios:

- *Absences Only*
  In this scenario, only absences created in Employee Central are replicated to infotype 2001 in an SAP payroll system.
- *Absences with Time Account Snapshots*
  In this scenario, employee absence data created in Employee Central is replicated to infotype 2001 and Time Account Snapshots are replicated to infotype 2010 in an SAP payroll system.
- *Time Accounts and Related Information*
  In this scenario, employee absence data including deduction information created in Employee Central is replicated to infotype 2001 and table *Deduction of Time Quotas* (PTQUODED), absence quotas are replicated to infotype 2006 and time accounts payouts are replicated to infotype 0416 and table `PTQUODED` in an SAP payroll system.

  > ⓘ Note
  >
  > For the calculation and replication of recurring and ad hoc time accounts to infotype 2006, you have to create at least one Data Replication Configuration with replication scenario *Time Accounts and Related Information*.

Procedure

1. In the Admin Center, go to *Manage Data*.
2. From the *Create New* dropdown, choose *Data Replication Configuration*.
3. Give your configuration object and *External Name*.
4. Choose the respective *Replication Target System*.

   If you have several SAP payroll target systems for one single Employee Central system, make sure that each system has its own configuration, for example by company or country/region.
5. For *Replication Content Type*, choose *Employee Absence Data*.
6. Choose Replication Scenario *Time Accounts and Related information*.
7. Set the *Exclude Contingent Workers* field to *Yes* if you don't want to replicate data assigned to contingent workers. Note that this setting overrules other filter criteria of this configuration object.

   > Example
   >
   > You want to replicate employees assigned to country/region *Mexico* and the *Exclude Contingent Workers* field is set to *Yes*, contingent workers aren't included in the time replication process.

   > Note
   >
   > In an SAP payroll system, the recommended value for this field is *Yes* since contingent workers aren't included in the Master Data Replication process.
8. Define *Earliest Selection Date*.

   > Note
   >
   > The *Earliest Selection Date* is important here. Only Time Accounts and Related information with a booking date on or after the *Earliest Selection Date* you specify in this step are considered for replication.
   >
   > For example, an approved Time Accounts and Related information for an employee exists for December 27 - January 02. You specify the *Earliest Selection Date* of January 01. Replication is performed in this case. However, if the *Earliest Selection Date* was on January 3, 2018 the Time Accounts and Related information wouldn't be replicated because the booking date of the Time Accounts and Related information is before the *Earliest Selection Date*.

   > → Tip
   >
   > Note that the format of the date depends on your logon language. Let's take the date from our example January 3, 2018 to illustrate it:
   > - English UK: 03/01/2018
   > - English US: 01/03/2018
9. Set *Correction Phase Indicator*. The payroll cycle foresees a correction phase where a limited number of changes are performed before the actual payroll run is executed.

   Your entire planned working times are replicated and saved in the payroll system, including those entries generated in any correction phase by selecting one of the following options:
   - Set the Always Allow Replication In Payroll Correction Phase field to Yes

- Activate the `ONGO` switch:

Switch Name	Variable Choices	Use Case	Description
ONGO	Ongoing payroll (ignore correction phase)	Blank = Default X = Correction phase Indicator enabled	Blank: Payroll administrators can choose to replicate individual employees by navigating to the Data Replication Monitor and selecting individuals for scheduled replication. X: Any payroll relevant changes in Employee Central are replicated to payroll on the next schedule replication run. For more information, refer Payroll Control Record.

10. If you want to replicate Time Accounts and Related information that weren't replicated before you set up the integration itself, choose *Yes* for *Execute Proxy Creation Job*. A job is started that creates proxies for the current configuration settings. This also creates proxies for time objects that have already been replicated, as of Earliest Selection Date.

> ⓘ Note
>
> Note that after saving, it switches automatically back to *No*, because the job is triggered directly during the save.

> ⓘ Note
>
> This feature is only available when changing the Data Replication Configuration using *Manage Data*, but not when using *Import Data*.

11. Provide all the following information:

Setting	Description
Country/Region Assignment	Determines the country/region in the *Job Information* of the employees you want to replicate. You can enter multiple country/region codes.
Company Assignment	Determines the company/legal entity in the *Job Information* of the employees you want to replicateyou want to replicate. You can enter multiple company codes.
Pay Group Assignment	Determines the pay group assigned in the *Compensation Information* of the employees you want to replicate. You can enter multiple pay groups.
Employee Class Assignment	Determines the employee class in the*Job Information* of the employees you want to replicate you want to replicate. You can enter multiple employee classes.

Setting	Description
Time Type Assignment	If you have time types that aren't relevant to your payroll processes, use the *Time Type filter* to include only time types relevant to your payroll processes. Note that this filter applies to absences only. Recurring and ad hoc time accounts, time account snapshots, and time account payouts aren't filtered by time type filter. ⓘ Note If you encounter a situation (that we aren't really expecting) where you have permanent and recurring or ad hoc time accounts for one employee, then for the scenario mentioned at 5, only absences are replicated for recurring or ad hoc time accounts. Please use the *Time Type filter* to replicate only such time types used for recurring and ad hoc time accounts and not for permanent accounts. Otherwise, replication errors would occur because the permanent account isn't replicated for this scenario.
Time Account Type Assignment	Time Account Type Assignment is only relevant for time accounts, time account payouts and time account snapshots.

Changing these settings doesn't affect data from the past. However, there might be differences between Employee Central and an SAP payroll system because you've modified settings for the same object in the *Data Replication Configuration*. As a result, proxies are no longer available in Employee Central although they were created before modifying the settings in the *Data Replication Configuration*.

Let's take an example: Employee absence data is replicated from Employee Central to an SAP payroll system. Later, you modify the settings in the *Data Replication Configuration* with the consequence that proxies are no longer generated for the Employee absence data. Then, let's assume that the same Employee absence data is changed at a later date in Employee Central. The information about the change isn't replicated to an SAP payroll system. As a result, Employee absence data remain in the SAP payroll system respective infotypes and table `PTQUODED`, although this data was changed in Employee Central.

12. Save your settings.

8.2.1.4 Setting up Time Account Payout

Besides the pay component restriction, there are no specific settings you need to make to set up the time account payout for the replication of time account information to an SAP payroll system. You can refer to the respective information in Creating a Time Account Payout Profile in the *Implementing Time Management in SAP SuccessFactors* guide.

> → Remember
>
> For the replication of time account information, you can only configure time account payouts if you are using Time Off in *People Profile (PP3)*.

⚠ Caution

During the creation of a payout for the employee, a spot bonus is also created. If you delete the payout, the spot bonus is also deleted. However, if you delete the spot bonus, the payout is not deleted.

⚠ Restriction

The replication of the payout to infotype 0416 runs without errors only if you use pay components of pay component type *Number* and map it to a wage type supporting number.

8.2.1.5 Make Sure that External Codes Aren't Longer Than 32 Characters

Be careful when defining external codes in Employee Central for time objects that are relevant for time data replication to an SAP payroll system.

In Employee Central, the External Code of the Employee Time Account and Time Account Payout object can have 128 characters. However, in an SAP payroll system it can only have 32 characters. Make sure that the External Code in Employee Central isn't longer than 32 characters. This is especially important when you upload time accounts and time account payouts to Employee Central by file import. If an external code is longer than 32 characters, replication fails and a corresponding error message is raised.

8.2.2 Settings in an SAP Payroll System

The following describes the settings you have to make in an SAP payroll system to set up the replication of time account information.

Enable the creation of Infotype 2006 [page 101]
How to enable the creation of time accounts for Chile (CHL), Egypt (EGY), the Kingdom of Saudi Arabia (SAU), Mexico (MEX), Oman (OMN), Qatar (QAT), and the United Arab Emirates (ARE).

Map Time Account Types to Absence Quota Types (Infotype 2006) [page 102]

8.2.2.1 Enable the creation of Infotype 2006

How to enable the creation of time accounts for Chile (CHL), Egypt (EGY), the Kingdom of Saudi Arabia (SAU), Mexico (MEX), Oman (OMN), Qatar (QAT), and the United Arab Emirates (ARE).

Context

Before mapping Time Account Types to the Absence Quota Types in infotype 2006, make sure that you have enabled the creation of infotype 2006.

> ⓘ Note
>
> In this replication process, the field *Deduction* (KVERB) is updated with the corresponding value in infotype 2006.

Procedure

Check if feature QUOMO supports the corresponding country grouping.

1. In an SAP payroll system, go to transaction **PE03**.
2. In the *Feature* field, specify **QUOMO** (Specification of Quota Type Selection Rule Group) and press *Display*.
3. In the *MOLGA Country Grouping* list that is displayed, make sure that your country grouping is listed. If it isn't, you can add it here by switching to edit mode.

Check if the employees' employee subgroup is supported.

4. Go to transaction **SM30**.
5. In *Table/View* enter **V_503_ALL** and press *Display*.
6. Enter the respective country grouping (for example 32 for Mexico) and press *Continue*.
7. Check the table to make sure the country Employee Subgroup (*ESgrp)* is configured for quota. If it isn't, you can edit the field Employee Subgroup Grouping for time quota types by switching to edit mode.

Make sure that Personnel Areas and Personnel Subareas are maintained.

8. Go to transaction **SM30**.
9. In *Table/View* enter **V_001P_ALL** and press *Display*
10. Specify the respective country and press *Continue*.
11. Check the table to make sure the Personnel Areas (*PA*) and Personnel Subareas (*PSubare*) are maintained correctly. If they aren't, you can do so here by switching to edit mode.

8.2.2.2 Map Time Account Types to Absence Quota Types (Infotype 2006)

Prerequisites

- Calendars and work schedules are set up:
    - Either in the same way in both Employee Central and an SAP payroll system
    - Or using the configuration for the planned working time replication scenario.
- You've enabled the creation of infotype 2006.

Context

Map the Employee Central Time Account Types to the Absence Quota Type that you want to use in infotype 2006.

Procedure

1. In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Maintain Code Value Mapping*
2. In the table, in the *Data type in Employee Central* column, enter **TIME_ACCOUNT_TYPE** and in the *Employee Central Code Value* column, enter the respective value.
3. Enter the country/region code in the *ISO code* column.
4. In the *ERP Code Value* column, enter the **Absence Quota Type** you want to use in infotype 2006.

8.2.3 Settings for Compensation Methods

The following describes the settings you have to make in an SAP payroll system to set up the replication of time quota compensation methods. Time quota compensation methods are subtypes of the *Time Quota Compensation* infotype (0416).

With time quota compensation, you can compensate entitlement to time off, in particular leave entitlement. Leave entitlement is maintained in absence quotas.

Create Compensation Methods [page 103]

Assign Wage Types to Compensation Methods [page 103]

Map Time Compensation Method [page 104]

8.2.3.1 Create Compensation Methods

Context

You need the compensation methods for the creation of infotype 0416.

Procedure

1. Go to transaction **SM30**.
2. In *Table/View* enter **V_T556U** and press *Display*.
3. In the Change View *Quota compensation types* enter the following information in the table:
   a. Create one entry for each Employee Subgroup Grouping for Time Quota (*ESG*) and Grouping of Personnel Subareas for Time Quota Types (*PSGpg*).

   > ⚠ Restriction
   >
   > Employees of one country have to have the same compensation method.

   > ⚠ Restriction
   >
   > To avoid any replication errors, leave the entries *Rule* and Quota type (*Qty*) empty.

8.2.3.2 Assign Wage Types to Compensation Methods

Prerequisites

You have created compensation methods.

Context

Since you might have different wages types per quota types for example, for further payroll calculation processing, you can map different wage types to compensation methods and quota types.

Procedure

1. Go to transaction **SM30**.
2. In *Table/View* enter **V_T556W** and press *Display*.
3. In the *Assign Wage Types to Quotas to be Compensated* view, assign a wage type to each compensation type you have maintained for each quota type in *V_T556U*.

   With SAP Note 2632988, you can use the following model wage types to create your own wage types to ensure the Mexico-specific replication scenario to work:
   - *Leave payment* (M418)
   - *Leave bonus payment* (M419)

8.2.3.3 Map Time Compensation Method

Prerequisites

You have created Compensation Methods in an SAP payroll system.

Context

You need the compensation methods for the creation of infotype 0416. However, there are no corresponding code values in Employee Central. You therefore have to create an entry for each country and map **space** to the compensation method you created in the change view *Quota compensation types* (V_T556U).

Procedure

1. In the IMG structure open *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Maintain Code Value Mapping*
2. In the table, create an entry for each country.
3. In the *Data type in Employee Central* column, enter **TIME_COMPENSATION_METHOD** and in the *ERP Code Value* column, enter the respective value of the compensation method you created in V_T556U.
4. In the *Employee Central Code Value* column, enter a space.

8.2.4 Disable Quota Deduction

Context

Quota deductions and related deductions are done in Employee Central. As a consequence, there's no need to run parallel deductions in an SAP payroll system and, anyway, it isn't supported.

> ⓘ Note
>
> It's important to keep the following in mind:
>
> - If you use the *Time Accounts and Related Information* replication scenario, quota deduction isn't allowed for time types that are replicated from Employee Central Time Off.
> - If you use the *Absences only* replication scenario, you can enable quota deduction in an SAP payroll system if there's a need for country/region-specific requirements not supported in Employee Central Time Off.
>
> > ⓘ Note
> >
> > Make sure that you use different time types in Employee Central for each replication scenario. In an SAP payroll system, make also sure that you use one absence type for each time type replicated from Employee Central.

Procedure

1. Select the absence types you want to use for the integration from Employee Central to an SAP payroll system in the Customizing for *Time Management* > *Time Data Recording and Administration* > *Absences* > *Absence Catalog* > *Absence Counting* > *Assign Counting Rules to Absence Tpes* .
   Assign counting rules to the subtypes that don't support quota deductions and leave the *Quota deduction* checkbox empty.
2. Leave the *Rule for deduction sequence of quotas* field empty in the Customizing for *Time Management* > *Time Data Recording and Administration* > *Managing Time Accounts Using Attendance/Absence Quotas* > *Processing Absence Quotas in Payroll* > *Time Quota Compensation* > *Define Time Quota Compensation Methods* .

8.2.5 Preventing Double Payments during Payroll Run

During the creation of a payout in Employee Central Time Off, a Spot Bonus is also created and then replicated to infotype `0015`. The payout is directly replicated to infotype 0416.

→ Tip

In this replication process, pay components used for Spot Bonus resulting from a time account payout are replicated only to infotype 0015. A replication of the payout to infotype 0267 is not foreseen from a purely business perspective because this infotype is designed to support off-cycle payments.

→ Tip

In an SAP payroll system, the currency is required in infotype 0015. To make sure that, during the replication of the spot bonus to infotype 0015, the currency is also replicated, please make the following settings:

- In Employee Central: You store the currency at the pay component level.
  OR
- In an SAP payroll system: You can overrule the currency in view `V_T588MFPROPC`.

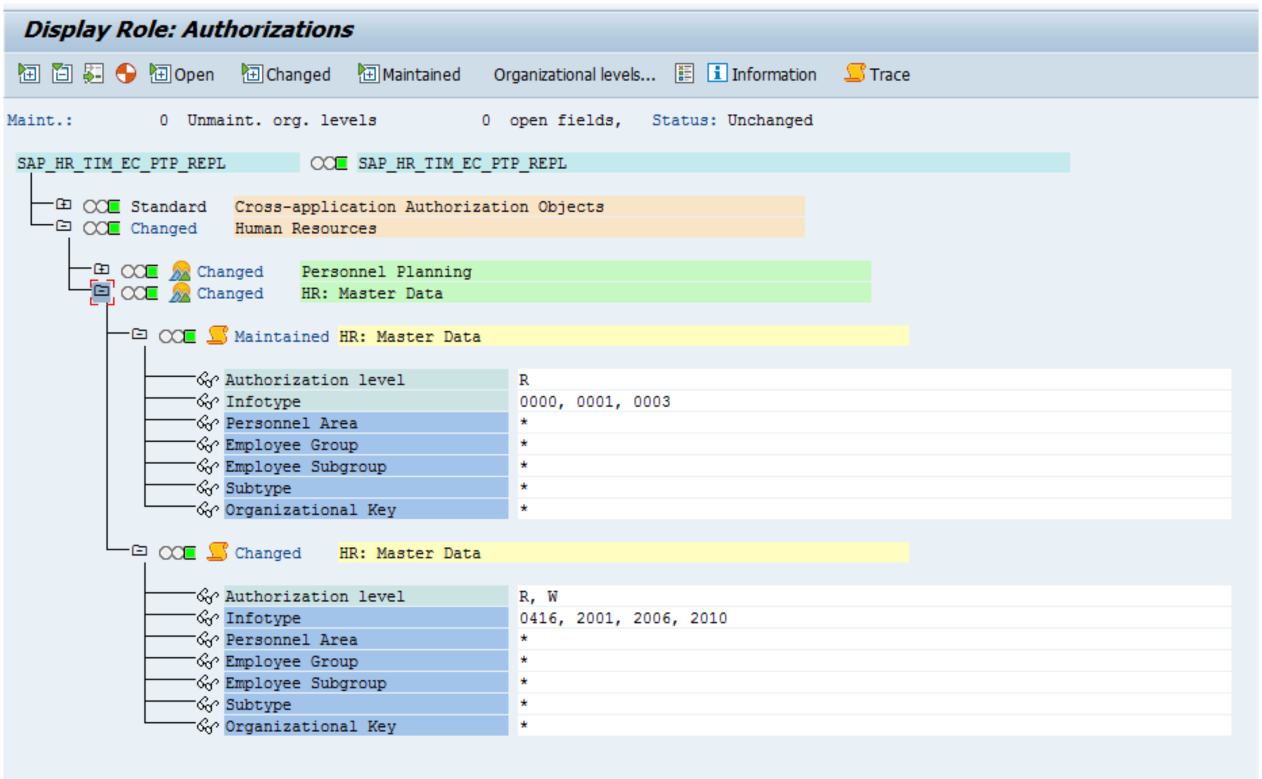
Here are your options for preventing double payments:

- Replicate the spot bonus to a dummy wage type that has no impact on the overall calculation, that is, gross, net, and tax.
- Set up payroll to ensure that **either** infotype `IT0015` **or** `IT0416` **not both** are evaluated. To make sure that entries in infotype 0015 are ignored in payroll, you must implement a custom payroll rule to be used in the `P0015` payroll function and ensure that you don't include payout wage types in the `IT` table.
- Alternatively, you can suppress the replication of specific subtypes and wage types for infotype 0015.

For more information about the replication of specific subtypes and wage types for infotype 0015, refer also the Pay Component Non-Recurring (Infotype 0015) and Additional Off-Cycle Payments (Inftotype 0267).

8.2.6 Enhance the Role of the Replication User in an SAP Payroll System

To enable the integration user to update infotypes 2006 and 0416, you need to enhance the role assigned to your replication user. Let's look at an example (template user `SAP_HR_TIM_EC_PTP_REPL`) of how the role can be enhanced.



For more information, see also Creating the Technical User (Integration User)

8.2.7 Using Admin Alert for Time Account Replication

With Admin Alert, you track errors and warnings that can occur during the replication process of Time Accounts.

You can access, process, and correct the alerts that have come up during the replication process in your system by choosing the appropriate action. For more information, refer to Admin Alert Versions.

Related Information

Granting Permissions for the Data Replication Configuration [page 10]

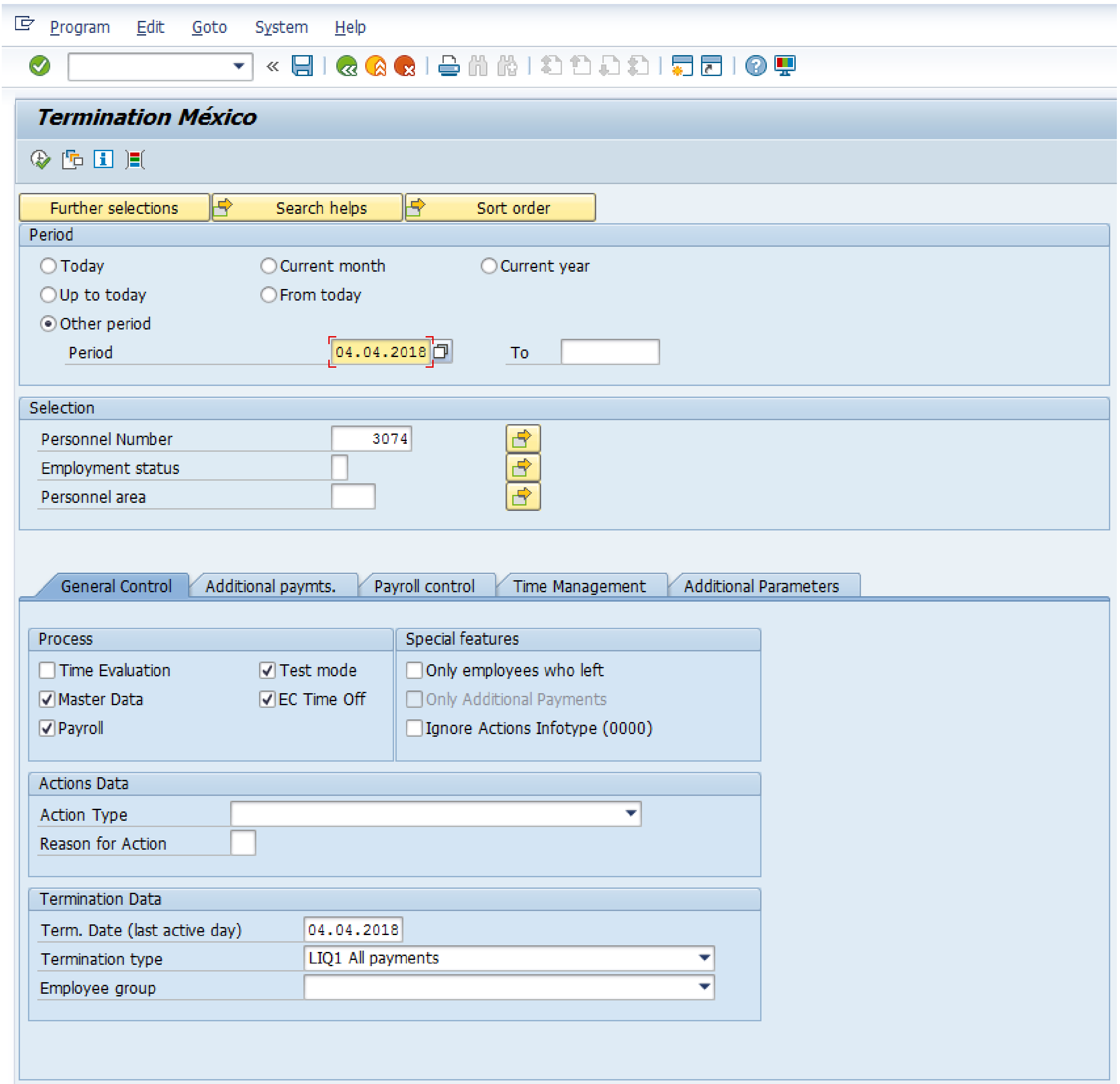
8.2.8 Using the Termination Organizer in Simulation Mode for Mexico

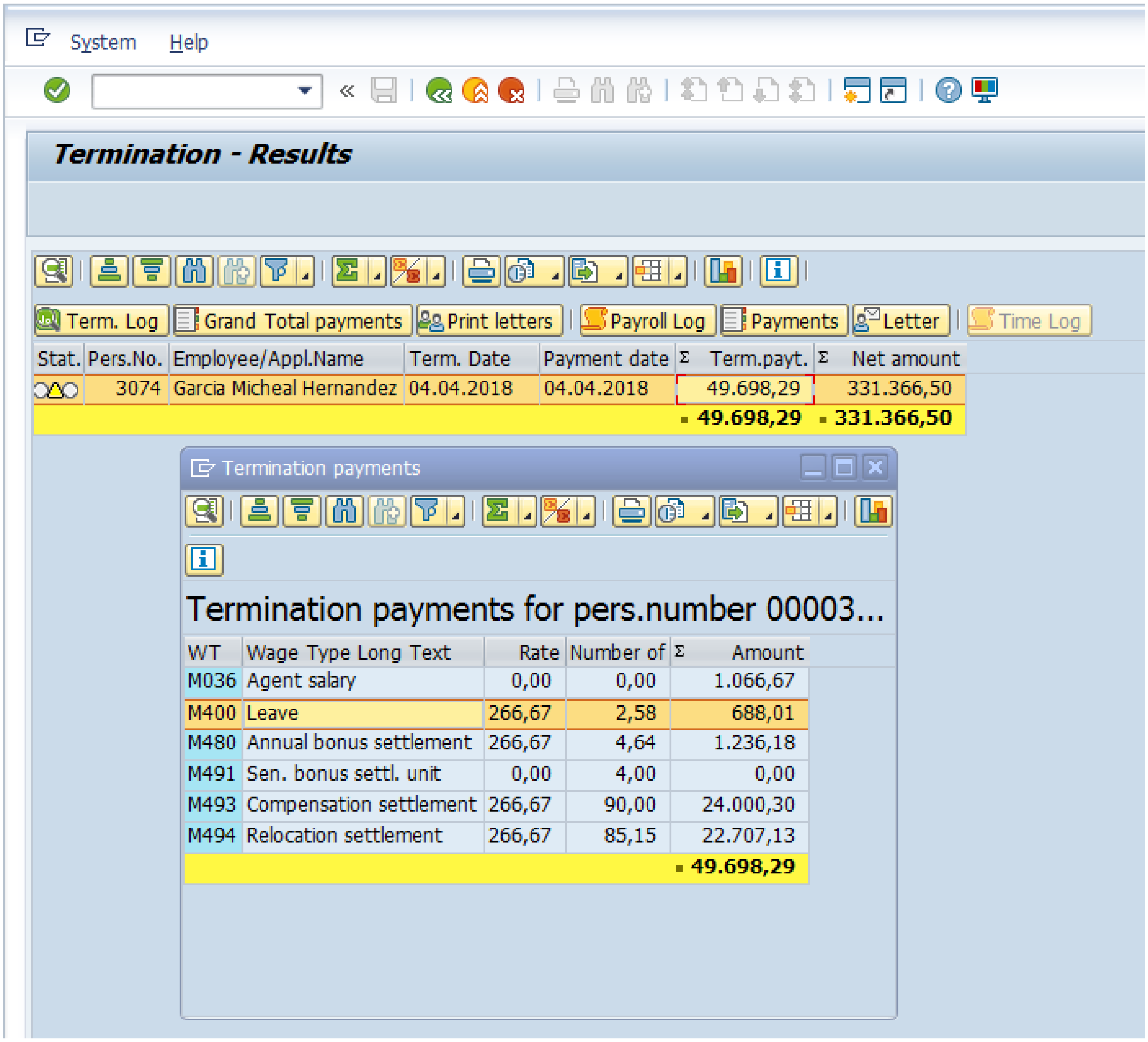
The Termination Organizer for Mexico has been enhanced to meet the needs of the replication scenario.

If you want to simulate how payouts would be processed for active employees, you run the *Termination Organizer* using transaction `PC00_M32_TRM0` in simulation mode by choosing ▶ *SAP Menu*

Human Resources > *Payroll* > *Americas* > *Mexico* > *Subsequent Activities* > *Period-independent* > *Evaluations* > *Termination (transaction PC00_M32_TRMO)*.

You must mark the checkbox *EC Time Off* to trigger the simulation process. First, it retrieves the balance from the time account in Employee Central then generates simulated entries in infotype `0416`. If the termination is actually done in Employee Central and a payout is specified for the employee in question, this information will be replicated to infotype `0416` and can be used in the follow-up payroll processes. When you run the Termination Organizer in productive mode, the checkbox is hidden.





Click *Payment* to display the wage type configured in the pay component. Here it is wage type `M400` for Mexico.

For more information about pay component, see the Pay component documentation in the Employee Central Payroll guide.

8.3 Replication of Termination for Australia

All you need to know to set up the replication of termination from Employee Central to an SAP payroll system for Australia.

This scenario is typically relevant for Australia.

Prerequisites

The following need to be set up in Employee Central Time Management:

- Time Recording Variant
- Work Schedule
- Time Profile
- Holiday Calendar
- Replication of Balances

In general, look at and keep in mind the following SAP Notes: 2365252, 2409763, 2433387.

Context

The termination of an employee is triggered by the user in Employee Central. The *Time Account Balance as of Termination Date* is calculated and displayed in hours or days. Employee Central creates a *Spot Bonus* for the payout of the time account balance that holds the number of hours/days.

The spot bonus is replicated to a designated wage type in an SAP payroll system and stored in infotype 0015. An SAP payroll system calculates the monetary value of the hours/days as replicated through the spot bonus. The terminated employee is replicated to the *Termination Organiser* in an SAP payroll system.

The Termination Organiser has a wrapper report that changes the employee status back to active so that the Termination Organiser can complete the termination process in an SAP payroll system. In the Termination Organiser, you can also simulate the termination of active employees.

Scope

This scenario includes the following:

- Calculation of severance pay
- Payout of leave accrual balances
- Leave entitlement balances.

8.3.1 Settings in Employee Central Time Off

There are few termination replication-specific settings you have to make in Employee Central Time Off. You may have already made some of these, but please make sure to double-check that they have been made.

8.3.1.1 Maintain Time Account Type for Termination

> **Note**
>
> **Prerequisite:** You have created pay components for Entitlement and Accruals of type Number

In order to replicate Termination data from Employee Central to an SAP payroll system, you have to enable the Time Account Type for Termination. The following time account type fields are relevant for the replication of termination.

- *Payout Eligibility*
  - Choose value **`Eligible`**
    In doing so, you determine that the time account type is relevant to payouts and other termination relevant fields become visible.
- *Pay Component Group*
  - This field only appears if you select **`Eligible`** in the *Payout Eligibility* field.
    The pay component group is used to calculate the standard hourly or daily payout rate.
    Don't use this field if you are setting up the replication scenario for Australia.
- *Pay Component*
  - This field only appears if you select **`Eligible`** in the *Payout Eligibility* field.
    The pay component is used to make a payout from Management Time Off.
    For termination, the pay component must be of type Number.
    This field is obligatory if you are setting up the replication scenario up Australia.
- *Pay Component Termination Accrual Separated*
  - This field only appears if you select **`Eligible`** in the *Payout Eligibility* field.
    Use this field to indicate which pay component should be considered for the time off accrual payout when an employee is terminated. Only use this field if the entitlement method is *Entitled as Transferred*.
- *Pay Component Termination*
  - This field only appears if you select **`Eligible`** in the *Payout Eligibility* field
    Use this field to indicate which pay component should be considered for the time off payout when an employee is terminated. This will be the entitlement balance if the accrual has been transferred to entitlement. It will be the total account balance if the entitlement is accrued.
- *Simulate Accruals*
  - Values: Enter **`Yes`**
    Choose Yes to allow the system to simulate future accruals when someone requests time off or reviews account balances.

    > → Tip
    >
    > Please double-check if and how the *Termination Rule* is set up. For more information, refer to Termination rule in the *Implementing Time Management in SAP SuccessFactors* guide.

8.3.2 Settings in an SAP Payroll System

In an SAP payroll system you have to set up the wage types so that the information sent by the spot bonus from Employee Central to Employee Central is stored in the respective wage types in infotype 0015.

Create new Wage Types [page 112]
For termination replication you have to create one or two new wage types. You may have already created these wage types during initial implementation. Please double-check to make sure.

Map Pay Components to Wage Types [page 113]
Map the Employee Central pay components to the wage types of infotype 0015 you created for termination in an SAP payroll system.

Map Wage Types to Absence Quota Types [page 113]
In an SAP payroll system, map the Wage Types you created to the corresponding Absence Quota Types.

8.3.2.1 Create new Wage Types

For termination replication you have to create one or two new wage types. You may have already created these wage types during initial implementation. Please double-check to make sure.

Context

If the scenario you are setting up is where absences are entitled as transferred, you have to create two wage types: create one for accruals and one for entitlements. If the scenario you are setting up is where the absence is entitled as accrued, you just have to create one wage type.

Procedure

1. In the IMG structure, *SAP Customizing Implementation Guide* > *Personnel Management* > *Personell Administration* > *Payroll Data* > *Employee Remuneration Information* > *Wage Types* > *Create wage type catalog*.
2. Choose *Copy* as the *Method of Maintenance*.

> Note
>
> You can only do so if you already have created wage types in your system. If you are starting from scratch you should go back to the Employee Central Payroll implementation guide in section Payroll Data - Basic Pay to find out how to do so.

3. Choose the respective Country.
4. Enter a *Custom value, Wage Type Long Text* and a text for the new Wage Type.

5. Press *Copy wage type* to create the new wage type.

8.3.2.2 Map Pay Components to Wage Types

Map the Employee Central pay components to the wage types of infotype 0015 you created for termination in an SAP payroll system.

Prerequisites

> → Remember
>
> Pay components must be of type Number

Procedure

In the IMG structure, *SAP Customizing Implementation Guide* > *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values* > *For Point-to-Point Replication* > *Maintain Code Value Mapping*.

For more information on Code Value Mapping, see the Employee Central Payroll implementation guide.

8.3.2.3 Map Wage Types to Absence Quota Types

In an SAP payroll system, map the Wage Types you created to the corresponding Absence Quota Types.

Procedure

1. In an SAP payroll system, go to `SM30`.
2. In the Table/View field enter `V_HRSFEC_T5QLM`
3. Press *Maintain*.
4. Use the change view *Leave payment mapping between EC and ECP system* to map the wage types to the Absence Quota Types (AQTyp).
5. For more detailed information, please see SAP Note 2365252.

8.3.3 Termination Organiser Australia for Private Sector

Here is how you can terminate or simulate the termination of employees in an SAP payroll system depending on your selected use case:

Terminating Employees - Private Sector [page 114]
See how you use the wrapper report to access the Termination Organiser to terminate employees in an SAP payroll system.

Terminating Employees - Concurrent Employment Private Sector [page 115]
See how you use the wrapper to access the Termination Organiser to terminate employees for Concurrent Employment Private Sector.

8.3.3.1 Terminating Employees - Private Sector

See how you use the wrapper report to access the Termination Organiser to terminate employees in an SAP payroll system.

Context

The *Interface to Submit EC Employees to Termination Organiser Australia* (*RP_HRSFEC_TERM_INTERFACE*) report is a wrapper needed to change the status of the terminated employee sent by Employee Central back to active by deleting the termination information from the the *Actions* (0000) infotype in an SAP payroll system.

It then submits the employee record to the Termination Organiser to complete the termination process in an SAP payroll system. It also adds back the deleted termination information in infotype 0000 for employees who couldn't be successfully terminated through the Termination Organiser.

Procedure

1. Go to the report by specifying transaction `HRSFEC_M13_CT03`.
2. Make your selections and choose Execute.

   For more details about the selection criteria and the output, see the documentation in the SAP payroll system.
3. You access the report *Termination Organiser Australia* (`RPCTO1Q0`) directly and you can then terminate your selected employees.

   > ⚠ Caution
   >
   > **Always** use the *Back* button to exit the report and the Termination Organiser. Even when you haven't made changes, haven't executed, or were using it in *Simulation* mode.

8.3.3.1.1 Simulating the Termination of Employees - Private Sector

See how you use the wrapper report to access the Termination Organiser to simulate the termination of Employees in an SAP payroll system.

Context

For employees that haven't yet been terminated, you can also run the report in simulation mode. In this case, the data isn't replicated to infotype 0015. The report in an SAP payroll system collects the information (number of hours/days) from Employee Central and passes it on to the Termination Organiser report (`RPCTO1Q0`). The information is temporarily stored in infotype 0701.

For more detailed information, see the system documentation of the report and the SAP Notes 2365252 and 2409763

Procedure

1. Go to the report by specifying transaction `HRSFEC_M13_CT03`.
2. Choose *Simulate for active employees* and *Execute*

> ⚠ Caution
>
> **Always** use the *Back* button to exit the report and the Termination Organiser. Even when you haven't made changes, haven't executed, or were using it in *Simulation* mode.

8.3.3.2 Terminating Employees - Concurrent Employment Private Sector

See how you use the wrapper to access the Termination Organiser to terminate employees for Concurrent Employment Private Sector.

Prerequisites

You have made the required settings in the SAP payroll system.

Context

Using the termination organiser allows you to calculate termination payments like leave payout, lump sum payment in the SAP payroll system for employees you've terminated in the Employee Central system.

For more information, see SAP Note 2887502.

Procedure

1. Go to the report by specifying transaction `HRSFEC_M13_CT03_CE`.
2. Make your selections and choose *Execute*.

   For more details about the selection criteria and the output, see the documentation in the SAP payroll system.
3. You access the report *Termination Organiser Australia* (`RPCTO1Q0`) directly and you can then terminate your selected employees.

   > ⚠ Caution
   >
   > **Always** use the *Back* button to exit the report and the Termination Organiser. Even when you haven't made changes, haven't executed, or were using it in *Simulation* mode.

8.3.3.2.1 Simulating the Termination of Employees - Concurrent Employment for Private Sector

See how to use the wrapper report in simulation mode for Concurrent Employment Private Sector.

Procedure

1. Go to the report by specifying transaction `HRSFEC_M13_CT03_CE`.
2. Choose *Simulate for active employees*.

   > ⚠ Caution
   >
   > **Always** use the *Back* button to exit the report and the Termination Organiser. Even when you haven't made changes, haven't executed, or were using it in *Simulation* mode.

8.3.4 Termination Organiser for Public Sector

Find out how to use the termination organiser for Public Sector.

You've terminated your employees in the Employee Central system. Employee Central Leave Balance information is required to complete the termination process of Public Sector employees in an SAP payroll system.

Accruals and entitlement are required to calculate the leave payment in the termination organiser. To replicate terminated employees, make sure that you configure the mapping of Employee Central Leave Balance Information to the corresponding wage types in your SAP payroll system. For more information, see SAP Note 2876931.

Then, specify the `PC00_M13_TERM_PS` transaction to get all payment-related information that is relevant for the termination of a specific employee. Note that this information can be retrieved as follows:

- For already terminated employees: From data replicated to the SAP payroll system.
- For termination simulation: Accruals and entitlement from Employee Central are retrieved and updated in the *Public Sector-specific Termination Workbench* in an SAP payroll system.

8.3.4.1 Mapping Leave Balance Information to Public Sector Wage Types

See how you customize Employee Central Leave Balance information to Public Sector wage types.

Procedure

1. In the SAP payroll system, go to transaction SPRO and choose SAP Reference IMG.
2. Choose *Map EC Leave Balance Info to ECP Wage Types for Termination Organiser* under the Customizing for *Payroll Australia* > *Australia Public Sector HCM* > *Termination & Redundancy* (`V_HREC_T5QPBSTLM`) to assign the `MC30` and `MC40` wage types based on the relevant absence quota types and leave balance type to the Employee Central leave balance hours.

8.4 Leave Liability Replication Scenario for Australia

All you need to know on how to configure the replication of Leave Liability from Employee Central to an SAP payroll system for Australia.

Leave Liabilities

The calculation and posting of leave liabilities is a general requirement in accounting. In most countries/regions, companies are required to calculate the value of open vacation entitlements (leave liabilities) at the end of the fiscal year and reflect them in their balance sheets. In some countries/regions, leave liabilities are calculated quarterly or even for every accounting period. The calculation of open vacation entitlements depends on the respective country/region or region-specific legislation. In Australia leave liability is calculated based on the balances of accruals and entitlements as of the end of the respective accounting period. Specific to the way leave liabilities are calculated in Australia is that probability factors are included in calculation, meaning the probability that an employee leaves the company in the next few years.

Leave Liabilities in an SAP Payroll System

Most SAP payroll system local versions have functionalities for the calculation of leave liabilities, however, implementation is highly country/region-specific .

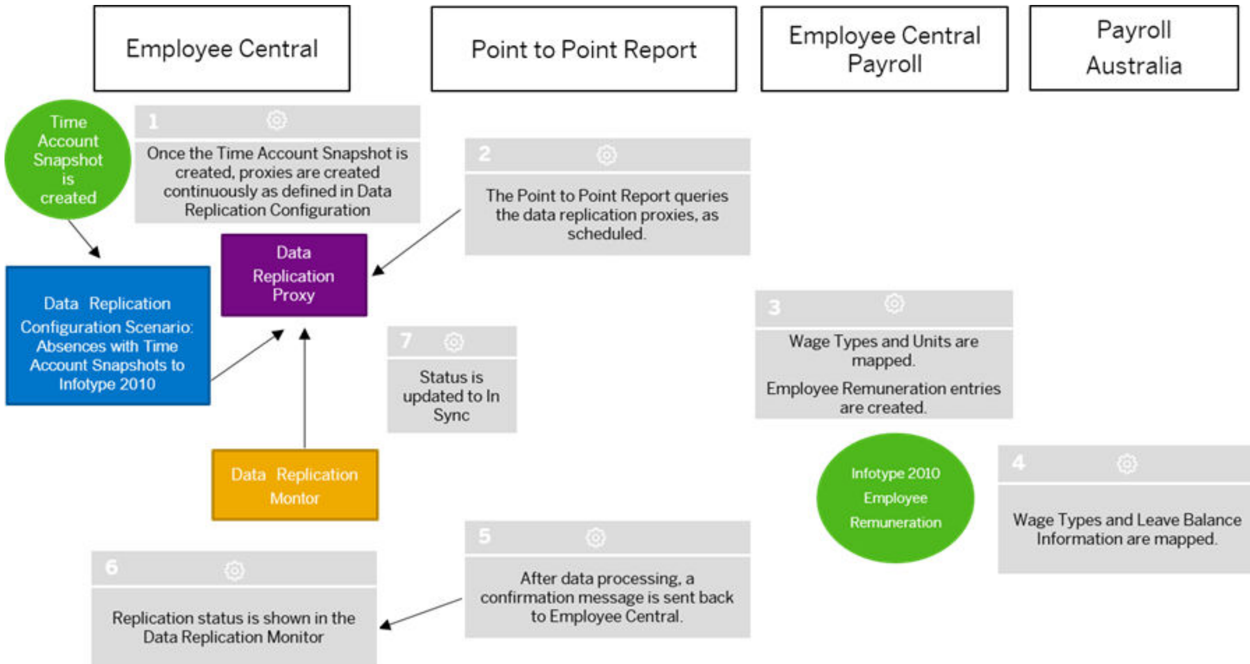
For Australia, an SAP payroll system supports only monthly accounting periods. In monthly payroll runs, leave liability calculation is done in every pay period. In payrolls that have a shorter pay frequency, such as weekly pay periods, leave liability calculation is done in one pay period per month. Which pay period is used, is configured in Customizing.

Displaying Balances of Accruals and Entitlements on the Employee Pay Statement

In Australia, it's legally required to print the balances of leave accruals and entitlements as of the end of the pay period on pay statements. You can create and replicate the balances and entitlements just as you can with leave liabilities, however, you have to do so as of the end of the pay period for every pay period, even if the pay period is shorter than one month.

8.4.1 Leave Liability Replication Scenario

This section gives you an overview of the leave liability replication scenario from Employee Central to an SAP payroll system.



Phase 1

A *Time Account Snapshot* is created in Employee Central by a Time Off calendar run. Data replication proxies are created continuously as determined in data replication configuration.

Phase 2

The SAP payroll system Replication Report (`RP_HRSFEC_PTP_ABSENCE_REPL`) checks if data replication proxies are available and collects them from the Employee Central MDF object *DataReplicationProxy*.

Phase 3

Wage types and units are mapped as defined in SAP payroll system Customizing and *Employee Remuneration* (Infotype 2010) entries are created accordingly.

Phase 4

Employee Central leave balance information is mapped to SAP payroll system wage types as defined in SAP payroll system and Payroll Australia Customizing.

Phase 5

A confirmation message containing the replication status is sent back to Employee Central.

Phase 6

The replication status is shown for replication content type *Employee Absence Data* in the *Data Replication Monitor*.

8.4.2 Settings in Employee Central

This section gives you an overview of which settings you need to make in Employee Central to set up leave liability replication.

There are a few settings you will have to make in Employee Central *Admin Center* to set up replication for leave liabilities.

Data Replication Configuration for Absences with Time Account Snapshots [page 121]
This section takes you through the steps of creating a Data Replication Configuration for leave liability replication from Employee Central to an SAP payroll system.

Maintain Time Account Type for Leave Liabilities [page 122]
This section describes the settings you need to make to the Time Account Type for the replication of leave liabilities.

Create Time Account Snapshot [page 124]
To determine the level of leave liability per employee, you need to create a time account snapshot for that employee.

8.4.2.1 Data Replication Configuration for Absences with Time Account Snapshots

This section takes you through the steps of creating a Data Replication Configuration for leave liability replication from Employee Central to an SAP payroll system.

Context

In order to replicate leave liabilities from Employee Central to an SAP payroll system, you have to create a *Data Replication Configuration* that defines the replication scenario. Use replication scenarios to more precisely specify which employee absence data is replicated to the payroll system.

There are three replication scenarios:

- *Absences Only*
  In this scenario, only absences created in Employee Central Time Off are replicated to infotype 2001 in an SAP payroll system.
- *Absences with Time Account Snapshots*
  In this scenario, employee absence data created in Time Off is replicated to infotype 2001 and Time Account Snapshots are replicated to infotype 2010 in an SAP payroll system.
  For the calculation and replication of leave liabilities you have to create at least one *Data Replication Configuration* with replication scenario *Absences with Time Account Snapshots*.
- *Time Accounts and Related Information*
  In this scenario, employee absence data including deduction information created in Employee Central is replicated to infotype 2001 and table *Deduction of Time Quotas* (PTQUODED), absence quotas are replicated to infotype 2006 and time accounts payouts are replicated to infotype 0416 and table `PTQUODED` in an SAP payroll system.

Procedure

1. In *Admin Center*, go to *Manage Data*.
2. From the *Create New* dropdown, choose *Data Replication Configuration*.
3. Give your configuration object an *External Name*.
4. Choose the respective *Replication Target System*.

   If you have several SAP payroll target systems for one single Employee Central system, make sure that each system has its own configuration, for example by company or country/region.
5. For *Replication Content Type*, choose *Employee Absence Data*.
6. Choose Replication Scenario *Absences with Time Account Snapshot*.
7. Set *Exclude Contingent Workers* to *Yes* if you want to exclude them from the time data replication process.
8. Provide all the following information:

Setting	Description
Country/Region Assignment	Determines the country/region of the employees data you want to replicate. You can enter multiple country/region codes.
Company Assignment	Determines the company/legal entity of the employees you want to replicate. You can enter multiple company codes.
Pay Group Assignment	Determines the pay group assigned in the *Compensation Information* of the employees you want to replicate. You can enter multiple pay groups.
Employee Class Assignment	Determines the employee class of the employees you want to replicate. You can enter multiple employee classes.
Time Type Assignment	If you have time types that aren't relevant to your payroll processes, use the *Time Type filter* to include only time types relevant to your payroll processes. Note that this filter applies to absences only. Recurring and ad hoc time accounts, time account snapshots, and time account payouts aren't filtered by time type filter. ⓘ Note If you encounter a situation (that we aren't really expecting) where you have permanent and recurring or ad hoc time accounts for one employee, then for the scenario mentioned at 5, only absences are replicated for recurring or ad hoc time accounts. Please use the *Time Type filter* to replicate only such time types used for recurring and ad hoc time accounts and not for permanent accounts. Otherwise, replication errors would occur because the permanent account isn't replicated for this scenario.
Time Account Type Assignment	Time Account Type Assignment is only relevant for time accounts, time account payouts and time account snapshots.

ⓘ Note

Changing these settings doesn't affect data from the past.

9. Save your settings.

8.4.2.2 Maintain Time Account Type for Leave Liabilities

This section describes the settings you need to make to the Time Account Type for the replication of leave liabilities.

The creation of the *Time Account Snapshot* needed for the calculation of leave liabilities is triggered by a Time Off calendar run. In order for this to be possible, you have to enable the creation of snaphots for the time account type. You can create new time account types or adjust existing time account types. The following time account type fields are relevant for the replication of leave liabilities:

- *Snapshots Allowed*
  - Values: Enter **Yes**.
  - Use this field to enable snapshots of time account information (Balance/Quota) as persisted records for further use in, for example, leave liability calculations.
- *Exclude Pending Requests When Calculating Balances*
  - Values: Enter **Yes**.
  - Choose Yes to exclude pending absences from the balance calculation for time account snapshots.
- *Accrual Frequency Period*
  - Values: Annually, Monthly, Twice Monthly, Weekly, Biweekly, Daily, Once Only.
  - The frequency period defines how often accruals are created. Note that “Once Only” is only available for time account types where *Account Creation Type* is set to **Permanent**.
    If you choose **Once Only**, the system uses 1/1/1900 as the accrual start date. Please consider this when defining the relevant accrual rules used for hire and/or terminate. The rules will be loaded with 1/1/1900 as the effective date.
- *Accrual Transfer Rule*
  Use this rule to transfer accruals to entitlements. You should define the rule in such a way that the entitlement is posted on the next transfer date, or on an ad hoc transfer date in the event of an ad hoc transfer.
  The current accrual balance is automatically set to zero after the transfer is made.
- *Initial Accrual Transfer Date Rule*
  Use this rule to determine and set the date for the first accrual transfer.
- *Accrual Transfer Date Rule*
  Each time a transfer takes place, use this rule to determine and set the date for the next transfer.
- *Simulate Accruals*
  - Values: Enter **Yes** or **No**.
  - Choose **Yes** to allow the system to simulate future accruals when someone requests time off or reviews account balances. If you choose **No**, only time off up to the accruals amount already posted can be requested.
  - Example: You have monthly accruals and it is May. The employee has accrued 10 days (2 days for each of the months January to May). If you choose **No** here, the employee can only request 10 days even for an absence planned for October. If you choose **Yes**, the employee can request 20 days, consisting of those 10 days plus 10 more simulated for the months June to October.
  - *Accruals Based On*
    - Values: Enter **Standard Times** or **Recorded Times**
    - If you choose Recorded Times as the basis for accruals, you will get all available information about recorded times in your accrual, hire, and termination rule. If you choose Standard, you will not get any further information.

    > Note
    >
    > This should **not** be changed later.
- *Account Creation Type*
  Values: **Permanent** or **Recurring**
  Choose **Permanent**.
- *Entitlement Method*

Values: **`Entitled as Accrued`** or **`Entitled as Transferred`**
Choose **`Entitled as Transferred`** The time off is accrued, but employees cannot use it until it is transferred to an entitlement.

8.4.2.3 Create Time Account Snapshot

To determine the level of leave liability per employee, you need to create a time account snapshot for that employee.

Time account snapshots record the state of an employee's time accounts and time account types at a particular time and are generated by running a Time Off calendar. There are some things you need to do first though.

Time Account Type

In the time account type, the *Snapshots Allowed* field must be set to **`Yes`**. It is then possible to generate snapshots for all the time accounts with this time account type. The snapshot will only include approved balances.

For more information about setting up the Time Account Type for Leave Liabilities, see the respective section.

Calendar Run

Snapshots are generated by creating and running a Time Off calendar. To do this, go to the Admin Center and choose *Manage Time Off Calendars*.

In the resulting screen, choose *New Calendar* and make the following entries:

- A name for the calendar.
- A *Start Date* and *End Date*.
  - For the replication of leave liabilities the enddate must be the last day of the month.
  - If you want balances to be displayed on the pay statement the end date must be the last day of the pay period.
- Enter **`Snapshot Creation`** as the *Change Scenario*.
- If you want to run the calendar on a particular day, enter the relevant date in the *Run Date* field.
- A *Pay Group*.
- *Snapshot Flags*
  - *Snapshots As Of Pay Period End*
    Select this if you want to have the relevant balance displayed on employee pay statements. You can select both this and *Snapshots As Of Accounting Period End*.
  - *Snapshots As Of Accounting Period End*
    Select this if you want your business's leave liability towards the employee calculated. You can select both this and *Snapshots As Of Pay Period End*.
  - *Outdated Only*
    If you select this, the other snapshot flags disappear and the snapshot will be of outdated records only. If you select this option, the start date and end date entered must be the same.

When you save your entries, the new calendar appears on the list of Time Off calendars. If you entered a run date, it will run on that date. Otherwise, when you're ready to run it, you can do so by choosing *Take Action* > *Run*.

There's a simulation option too if you want to see how the snapshot will look before committing yourself. To use it, choose *Take Action* > *Simulate*.

Take a look at *Calendars* in the *Implementing Time Management in SAP SuccessFactors* guide for full information on calendars and how to use them.

Time Account Snapshot

The calendar run generates the following information in the time account snapshot for each employee:

- *User*
- *As of Pay Period End*
  Yes if the relevant leave balance will appear on the user's pay statement and is replicated to an SAP payroll system.
- *As of Accounting Period End*
  Yes if the relevant snapshot is meant for leave liability reporting and is replicated to an SAP payroll system.
- *Time Account Type*
  This is the time account type that has been selected in the calendar rund and where the *Snapshots Allowed* feature is active.
  Take a look at the *Time Account Type* in the *Implementing Time Management in SAP SuccessFactors* guide for full details of how to work with time account types.
- *Balance Accrual Separated Not Considering Pending Requests*
  If the flag *Do Not Consider Pending Requests When Calculating Balance* in the time account type is set to **Yes**, this field contains the balance excluding pending absences. The field is filled in addition to the *Balance Accrual Separated* field mentioned above.
- *Balance*
  This is the balance of time accounts for the relevant time account type that are open and valid. If simulation is activated, the balance includes the simulated result as well.
- *Unit*
  Either **Hours** or **Days**. The unit must be the same as the unit entered for the relevant time account type.
- *Outdated*
  Indicates that the snapshot is out of date.
- *Balance Not Considering Pending Requests*
  Contains the balance excluding pending absences. The field is filled in addition to the *Balance* field mentioned above.

> Note
>
> No infotype 2010 entry is created for the following balances:
>
> - *Time account snapshot*: The balance not considering pending requests is zero for accruals or entitlements.
> - *As of Period End snapshot*: The balance not considering pending requests is less than 0.01 or
> - *As of Accounting Period End snapshot*: The balance not considering pending requests is less than 0.00001.

Related Information

Maintain Time Account Type for Leave Liabilities [page 122]

8.4.3 Settings in an SAP Payroll System

This section gives you an overview of which settings you need to make in an SAP payroll system to set up leave liability replication.

Create new Wage Types [page 126]

Map Time Account Types to Wage Types [page 129]
How to map Employee Central code values to SAP payroll system *Wage Types* for the replication of Leave Liabilities and Balances.

Mapping Wage Types to Leave Liability Information [page 133]
Find out how to map wage types to Leave liability information.

8.4.3.1 Create new Wage Types

Context

Create four new wage types. Create one for accruals and one for entitlements for each leave liability replication and balance replication respectively.

Procedure

1. In the IMG structure, *SAP Customizing Implementation Guide* > *Personnel Management* > *Personnel Administration* > *Payroll Data* > *Employee Remuneration Information* > *Wage Types* > *Create wage type catalog*
2. Choose *Copy* as the *Method of Maintenance*.

> **Note**
>
> You can only do so if you already have created wage types in your system. If you are starting from scratch you should go back to the Employee Central Payroll implementation guide to find out how to do so.

3. Choose the respective country.
4. Enter a Custom value, Wage Type Long Text, and a text for the new Wage Type.
5. Press *Copy wage type* to create the new wage type.

Configuring Wage Types for Leave Liability Replication [page 127]
See how to configure the wage types you created for leave liability so that the Unit and Amount fields are filled in infotype 2010 during the replication.

Configuring Wage Types for Balance Replication [page 128]
See how to configure the wage types for the replication of balances of accruals and entitlements so that the Unit and Number fields are filled in infotype 2010.

Check Permissability of Wage Types [page 129]

8.4.3.1.1 Configuring Wage Types for Leave Liability Replication

See how to configure the wage types you created for leave liability so that the Unit and Amount fields are filled in infotype 2010 during the replication.

Prerequisites

You have set the *Snapshots As Of Accounting Period End* flag when creating the snapshot creation calendar. For more information about the snapshot flags, see Create Time Account Snapshot.

Context

The replication of leave liabilities needs accuracy of 5 digits. In order to make this technically possible, the infotype 2010 (Employee Remuneration Information) field *Amount* is filled by replication. To reach 5-digit precision, the value replicated to the *Amount* field is multiplied by 1000.

Procedure

1. In the SAP payroll system, go to transaction SPRO and choose SAP Reference IMG.
2. Choose *Check wage type characteristics* under the Customizing for *Personnel Management* > *Personnel Administration* > *Payroll Data* > *Employee Remuneration Information* > *Wage Types* > *Check Wage Type Catalog*.
3. Specify the country/region.
4. Select an appropriate wage type.
5. In the *Wage Type Characteristics: Details* view, make sure the fields *Amount* and *Number/Unit* are filled with asterisks (*)
6. In the field *Time unit/meas.* enter the same unit used in the Time Account Type in Employee Central you want to map this wage type to. You can use either `Hours` or `Days`.

Task overview: Create new Wage Types [page 126]

Related Information

Configuring Wage Types for Balance Replication [page 128]
Check Permissability of Wage Types [page 129]

8.4.3.1.2 Configuring Wage Types for Balance Replication

See how to configure the wage types for the replication of balances of accruals and entitlements so that the Unit and Number fields are filled in infotype 2010.

Prerequisites

You have set the *Snapshots As Of Pay Period End* flag when creating the snapshot creation calendar. For more information about the snapshot flags, see Create Time Account Snapshot.

Context

Unlike the replication of leave liabilities, the replication of balances doesn't need an accuracy of 5 digits. In order to have balances of accruals and entitlements printed on the employee pay statement, you only need a 2-digit precision.

Procedure

1. In the SAP payroll system, go to transaction SPRO and choose SAP Reference IMG.
2. Choose *Check wage type characteristics* under the Customizing for *Personnel Management* > *Personnel Administration* > *Payroll Data* > *Employee Remuneration Information* > *Wage Types* > *Check Wage Type Catalog*.
3. Specify the country/region.
4. Choose an appropriate wage type.
5. In the *Wage Type Characteristics: Details* view, make sure that the *Amount* field is filled with a hyphen (`-`), the *Number/Unit* field with a period (`.`), and *Time unit/meas.* field with **`Hours`**.
6. In the *Time unit/meas.* field, enter the same unit used in the Time Account Type in Employee Central you want to map this wage type to. You can use either **`Hours`** or **`Days`**.

Task overview: Create new Wage Types [page 126]

Related Information

Configuring Wage Types for Leave Liability Replication [page 127]
Check Permissability of Wage Types [page 129]

8.4.3.1.3 Check Permissability of Wage Types

Procedure

1. Go to transaction **SM30**.
2. Enter table **V_511_B** and press *Display*.
3. Choose the respective Country Grouping.
4. Choose the respective Wage Type and press the *Details* icon.
5. Make sure *EE Subgroup grouping* and *Personnel subarea* are set appropriately.

Task overview: Create new Wage Types [page 126]

Related Information

Configuring Wage Types for Leave Liability Replication [page 127]
Configuring Wage Types for Balance Replication [page 128]

8.4.3.2 Map Time Account Types to Wage Types

How to map Employee Central code values to SAP payroll system *Wage Types* for the replication of Leave Liabilities and Balances.

Procedure

1. In the SAP payroll system, go to transaction SPRO and choose SAP Reference IMG.
2. Choose *Maintain Code Value Mapping* under Customizing for *Personnel Management* > *Integration Settings for SuccessFactors Employee Central Payroll* > *Assignment of Code Values For Point-to-Point Replication*.

   You map data types for leave liability as of accounting period end and balance as of pay period end as follows:

Employee Central Data Type	Description
TIME_ACCOUNT_TYPE_ACCRUAL	Accruals as of accounting period end
TIME_ACCOUNT_TYPE_ENTITLEMENT	Entitlements as of accounting period end
TIME_ACCT_TYPE_ACCR_PAY_PERIOD	Accruals as of pay period end
TIME_ACCT_TYPE_ENTI_PAY_PERIOD	Entitlements as of pay period end

> ⓘ Note
>
> If the end of accounting period and end of pay period fall on the same day, you have to map all time account types for accounting period and pay period to different wage types.

8.4.3.2.1 Checking Time Account Type and Wage Type Configuration - Leave Liability

Find out how to run `RP_HRSFEC_CHECK_TIMEACC_WT_LL` check report.

Prerequisites

Before using the report, please make sure that you establish an RFC destination in the running system by using the Configuration Report for an SAP payroll system. For more information, see Set Connection Data. If the RFC connection is not set up, it is displayed in the application log.

Context

You use the *Time Account Type and Wage Type Configuration - Leave Liability* check report to get an overview of the time account types from Employee Central, and the equivalent mapped wage types and absence quote types from an SAP payroll system.

> ⓘ Note
>
> Within the leave liability replication process between Employee Central and SAP payroll system, wage types and units are mapped as defined in SAP payroll system Customizing. Employee Remuneration (infotype 2010) entries are created accordingly. Employee Central leave balance information is mapped to SAP payroll system wage types as defined.

All the wage types in the payroll system are listed even if they are not mapped to Employee Central Time Account Types - and vice versa. The report can help you to find inconsistent data and check that the properties are set up correctly.

Procedure

1. Under *Country Grouping*, choose the relevant country of the time account types for Employee Central and of the SAP payroll system mapping and wage types.
2. In the *ES Grouping Time Quota Types* field, provide which employee subgroup grouping for time quota types in SAP payroll system should be used for the selection of the data.
3. In the *PS Grouping Time Quota Types* field, provide which grouping of personnel subareas for time quota types in SAP payroll system should be used for the selection of the data.
4. If you want to hide any entries that do not require any further changes, choose *Hide correct entries*. Please note the following:
    - Employee Central time account types and their pay component codes which are not mapped are displayed in the list and need further configuration.
    - All records with an error are displayed in the list.
    - Corresponding records belonging to the same pay component codes and wage types are still displayed for completeness.
5. (Optional) Select your own variant of this report under *Layout Variant*. You can use existing variants for including or excluding attendance and absence types.
6. Run the report.

Results

In the standard screen layout, the row color changes alternately for each time account type. The different column sections are highlighted in following colors:

- Blue (Validity Period):
  The time period displayed under *Start Date* and *End Date* is relevant for each row separately, including pay component, mapping, and payroll data.
- Green (Employee Central Data):
  Displays time account type properties for Employee Central including *External Code*, *External Name*, *Unit*, *Country*, *Entitlement Method*, and *Data type in Employee Central*.
- Yellow (SAP Payroll System Data):
  Displays wage type properties for SAP payroll system such as *Wage Type*, *Wage Type in T512W*, *Wage Type Text*, *Absence Quota Type*,, *Leave Balance Type Text*, *Functionality Text*, and *Wage Type assigned to IT2010*.
- Red (Error):
  The following errors are indicated in this block:

Error	Explanation
Wrong Functionality	Entitlement method "Entitled as transferred": The wage type mapped to time account type code must have an entry in `HRSFEC_T5QLM` data base table containing *“Functionality“ = “Leave Provision“*. (This column is relevant for Australia only.)

Error	Explanation
Wrong Leave Balance Type	• Entitlement method "Entitled as transferred": The wage type mapped to time account type code (Time Account Type Accrual) must have an entry in data base table `HRSFEC_T5QLM` containing *„Leave Balance Type“ = „Accrual“*. • The wage type mapped to time account type code (Time Account Type Entitlement) must have an entry in data base table `HRSFEC_T5QLM` containing *„Leave Balance Type“ = „Entitlement“.* (This column is relevant for Australia only.)
Absence Quota Type not identical	Entitlement method „Entitled as transferred": The found entries must have the same absence quota type in `HRSFEC_T5QLM` table. (This column is relevant for Australia only.)
Wage Type text is missing	Please provide an entry in data base table `T512T`.
Assignment to IT2010 not permitted	Check in data base table `T512Z`, if infotype 2010 is provided.
Wrong Input Combination	In data base table `T511` (`KOMBI` field), check if number / unit is set to required or optional.
Overlapping time validity	Shows, if the start and end date of a pay component or wage type change overlap. Please correct the data base table entry given in that column, so the report can process the other checks for this entry.
Pay Component Code too long for identical mapping	Time account type code is longer than four digits to be used as wage type in mapping mode "Identical Mapping". Please maintain `T77SFEC_CVMAPC` table with missing entry or change indicated digits to four.
Pay Component Code longer than maximum length 128	Time account type code is longer than maximum length 128 and a dummy entry in code value mapping table is not available. Please maintain `T77SFEC_CVMAPC` table with missing entry.

Check, if the time account types and wage types are maintained correctly. If any problems occur while importing the data, it is displayed in the application log. You can also download the report to Microsoft Excel.

8.4.3.3 Mapping Wage Types to Leave Liability Information

Find out how to map wage types to Leave liability information.

Procedure

1. In the SAP payroll system, go to transaction `SPRO` and choose SAP Reference IMG.
2. Choose *Map EC Leave Balance Info to ECP Wage Types* in the Customizing for *Payroll* > *Payroll: Australia* > *Leave Provisions and Payments (Leave Quotas)* > *Leave Provisions* to map the wage types you created for Leave Liability and/or Balances to the corresponding Leave Balance Types in Payroll Australia.

8.5 Leave Liability Replication Scenario for Public Sector Australia

The Leave Liability replication scenario is enabled for Public Sector Australia.

All Employee Central leave balance data is sent and stored in the *Employee Remuneration Info* (2010) infotype for further processing of leave liability projections in payroll. For more information, see SAP Note 2879775.

> **Restriction**
>
> The point-to-point replication of Leave Liability for Public Sector Australia is only supported in Employee Central Payroll.

Mapping Public Sector Wage Types to Leave Liability [page 133]
See how you customize leave liability for Public Sector.

8.5.1 Mapping Public Sector Wage Types to Leave Liability

See how you customize leave liability for Public Sector.

Context

Procedure

1. In the SAP payroll system, go to transaction `SPRO` and choose SAP Reference IMG.
2. Choose *Map EC Leave Balance Info to ECP Wage Types for Termination Organiser* under the Customizing for *Payroll Australia* > *Australia Public Sector HCM* > *Termination & Redundancy* (`V_HREC_T5QPBSTLM`) to assign the *PS: Accrual Annual Leave* (`MA60`) and `ME60` wage types based on the relevant absence quota types and leave balance type to the Employee Central leave balance hours.

8.6 Purchase Leave Replication Scenario for Public Sector Australia

See how to configure the replication of purchase leave from Employee Central to Employee Central Payroll for Australia.

Purchase Leave

Purchase leave request is an agreement between employee and employer where the employee may purchase additional leave by reducing his/her annual salary. For purchase leave, payroll requires the replication of ad hoc time account to infotype 2006.

> **Restriction**
>
> The point-to-point replication of Purchase Leave for Public Sector Australia is only supported in Employee Central Payroll.

Prerequisites: Implementing and Configuring in Employee Central

Before using purchase leave in Employee Central Payroll, check the following requirements:

1. The **`Ad Hoc`** time account type is set up for the purchase leave request. For more information, see *Setting Up Time Account Purchase*. We also recommend that you set up time accounts eligible for payouts to enable the integration with payroll.
2. In Employee Central Payroll, the replication from recurring deduction to IT0014 and time accounts to IT2006 is configured. In addition, if you want to replicate payouts for purchase leave, set up the replication to IT416.

   > **Note**
   >
   > The deduction amount is calculated in payroll. To ensure a correct calculation, make sure that the mapping of the deduction pay component to type number and unit of measure in Employee Central Payroll corresponds to the selected time account unit. For more information, see *Replication of Purchase leave*.

3. Create the data replication configuration as described in *Data Replication Configuration for Time Accounts and Related Information Replication*.

Using Purchase Leave in Employee Central Payroll

In your Employee Central Payroll system, check that the purchase deduction and time account of your employee are replicated to infotypes 0014 and 2006 using transaction `PA20`. For more information about the settings required to calculate purchase leave payment and its recovery for Australian public sector employees replicated from Employee Central, see SAP Note 2972473.

Related Information

Setting Up Time Account Purchase
Replication of Purchase Leave
Data Replication Configuration for Time Accounts and Related Information Replication [page 96]

8.7 Advance Leave Payment

Find out how advance leave payment works in the point-to-point Time Data Replication.

For Employee Central Payroll, Synchronization Support Package SPB9 must be installed in your system. Please note that you can't use the feature as a whole until the support package mentioned has been released. The full documentation will be made available then too.

In some countries/regions, it's legally binding that employers pay employees' vacation before vacation starts. Beyond this legal obligation, employees can also choose if they want to receive the leave payment in advance or not according to the relevant company rules. In an SAP payroll system, when a vacation is created in Employee Central and replicated to an SAP payroll system, it’s possible to create a vacation pay connected to such an absence using an off-cycle payroll run. Let's take Argentina as an example: The *off-cycle payroll run for vacation payment* (HARCVAC0) report fills the following fields of infotype *Absences* (2001) in order to generate the advance leave payment in the employee's payroll:

- *Payroll Type*
- *Payroll Identifier*
- *Payment Date*
- *Off-cycle reason*

9 Checking Time Data Replication Results

9.1 Using the Employee Central Data Replication Monitor When Replicating Employee Time Data

The Data Replication Monitor shows the replication status of individual employees.

The Data Replication Monitor shows the replication status of individual employments of an employee for the Replication Content Types *Employee Absence Data* and *Planned Working Time*. The monitor displays two statuses: *Successful* or *Failed*. Clicking the *Employee Name* leads you to the respective Employee File. Clicking the respective *Failed* replication status brings up further information about the error.

Manual Rescheduling

You can trigger a replication run for one or more employees in the Data Replication Monitor. This might be necessary for you after correcting errors like incorrect Time Type mapping.

Select the employees and choose *Reprocess*. The *Scheduled Replication Time* field is then set to the current time and the flag *Allow Replication in Correction Phase* is set for the respective employees. This means that the employee data is replicated during the next schedule cycle to the payroll system, even if it is in correction phase. In this case, the error message *Payroll area in correction phase* isn’t generated.

9.2 Monitoring Tools in the SAP Payroll System: Web Service Utilities and Application Log

On the SAP payroll system side, there are two monitoring tools that help you identify errors that occur during the replication of employee master and time data.

- Web Service Utilities
- Application Log

The tools cover different stages of the replication process.

Web Service Utilities

Replication messages are first received by the Web Service Framework. Here the system performs a technical check on the compliance of the received message with the XML schema required by the inbound service interface. The *error log* in the transaction `SRTUTIL` **(Web Service Utilities)** shows errors that come up in this check.

Application Log

Correct messages are passed on to the application logic that maps the data to the structures of the SAP payroll system employee infotypes and performs the updates on the HCM time data records. Numerous checks are performed here. Examples of errors are *unknown code values*, *missing mandatory field data*, or *editing locks* if records are currently being edited by another user. These errors can be monitored in transaction `SLG1` **(Application Log)**.

On the selection screen:

1. in field *Object* enter **`HRSFEC`**
2. in field *Subobject* enter **`EMPLOYEE_TIME`** for employment-specific information and **`EMPLOYEE_TIME_PTP`** for technical information
3. To search for all employments of an employee enter the *ExternalID* and asterisk (*)

To search for a specific employment per employee enter the *External ID* and *User ID* in that order separated by a slash (/).

It may be useful to look at the data of the replication message in detail to better understand why an error has occurred. Do so in the *message monitor* of transaction `SRTUTIL` (Web Service Utilities). On the selection screen, enter **`EmployeeTimeDataECToERPRequest_In`** for the input field *Interface Name* at the bottom of the screen and choose appropriate entries for the timestamp fields. Here, every received replication message is logged. You can display the content of a message by double-clicking the message. It can also be displayed as an XML.

10 Troubleshooting Time Data Replication

Here's how to troubleshoot time data replication from SAP SuccessFactors Employee Central Time Management to an SAP payroll system.

Troubleshooting Employee Central [page 138]
In the following, you can find some of the most common errors and how to prevent them in Employee Central.

Using the Check Tool to Solve Issues [page 142]
Get an overview of potential problems and errors in your configuration that you can try to solve yourself before you contact Product Support about an issue.

Using Admin Alerts for Planned Working Time [page 151]
With Admin Alert, you track errors and warnings that can occur during the replication process of planned working time.

Troubleshooting an SAP Payroll System [page 151]

10.1 Troubleshooting Employee Central

In the following, you can find some of the most common errors and how to prevent them in Employee Central.

10.1.1 How to Trigger Replication of Existing Time Data

Points out the possibilities to trigger explicitely the replication of time management data.

If there are time data without proxies yet, for example because absences, planned working time were created before the Data Replication Configuration was set up, choose *Yes* for *Execute Proxy Creation Job* at Data Replication Configuration. Note that after saving, it switches automatically back to *No*, because the job is triggered directly during the save.

Trigger Data Replication Proxy Creation Job

If you want to create *Data Replication Proxies* at a later date for specific users, go to *Manage Data*, choose *Trigger Data Replication Proxy Creation Job*, then enter the users for whom you require new proxies. You can enter an *Earliest Selection Date* other than the one specified for the Data Replication Configuration. However, make sure that you enter a date that is either the same as or later than the date of the Data Replication Configuration.

> → Remember
>
> Make sure that you have set up the *Trigger Data Replication Proxy Creation Job* permission.

ⓘ Note

Data Replication Proxies are created for all time data such as absences that fit to a given *Data Replication Configuration*, and not just for one single absence. To create a Data Replication Proxy for one single absence, change the absence, for example by adding a comment, instead of triggering a proxy creation job.

When using the *Import Data* in the *Admin Center*, it's only possible to import one *Trigger Data Replication Proxy Creation Job* record in an import file. This record contains a list of specific users. For more information on how to import data for the *Trigger Data Replication Proxy Creation Job* object, read the instructions described in KBA 3060860.

If the proxy creation job fails in the Employee Central system, and the Employee Central system is connected to a productive payroll system, refer to KBA 3018333 to find out how you can solve this problem.

⚠ Caution

It isn't possible to create *Data Replication Proxies* using *Import and Export Data* in the *Admin Center*. *Data Replication Proxies* can only be created using the object *Trigger Data Replication Proxy Creation Job* in the *Admin Center* > *Manage Data*.

Time-sheet-specific Option: Make Amendments to a Time Sheet Already Approved

This might also be necessary if the data replication configuration has been changed, or when time type groups, time pay types or employee master data (e.g. employee class) have been amended, where time sheets approved before such changes are still to be replicated. Amending a time sheet results in a new time sheet being created. After approval of the new time sheet, the original time sheet is canceled. You can make amendments to a time sheet that has already been approved directly from the time sheet itself:

1. Navigate to the approved time sheet you want to update and click *Make Amendment*.
   A new version of the time sheet is created and opened up for you to make your amendments. At this point, the time sheet has the status *Draft Amendment*.
2. Correct your time sheet and click *Resubmit*.
3. Check your amendments in the *Submit* popup and click *Submit*.
   Clicking *Submit* changes the time sheet status to *Amendment to be Approved* and resends the time sheet for approval.

⚠ Caution

You can only make amendments to time sheets with the status *Approved*.

10.1.2 How to Delete Data Replication Proxies

Find out how to delete Data Replication Proxies using *Trigger Data Replication Proxy Deletion* in Employee Central.

Prerequisites

The permission to access the *Trigger Data Replication Proxy Deletion* object is granted:

- Under *User Permissions*, select the *Payroll Integration Permission* category.
    - Select the checkboxes for *View*, *Edit* for the *Trigger Data Replication Proxy Deletion* permission.

Context

Sometimes you must delete *Data Replication Proxies*, when, for example, you accidentally have specified an incorrect replication target system in the *Data Replication configuration* and proxies were created for this configuration before you were able to correct it. As a result, you have proxies in your system that don't match any configuration.

Procedure

1. Go to *Admin Center* and choose *Manage Data*.
2. From the *Create New* dropdown, choose *Trigger Data Replication Proxy Deletion*.
3. Choose the respective option from the *Delete* dropdown:
    - *Delete all Data Replication Proxies with maximum delay (1000 years)*: This maximum delay can occur in nonproductive systems due to replication errors. For more information, refer to *Scheduling the replication of Time Data*.
    - *Delete all Data Replication Proxies not included in configuration*: All *Data Replication Proxies* that shouldn't exist according to the current configuration are deleted.
    - *Delete all confirmed Data Replication Proxies that are older than 72 hours*: All confirmed *Data Replication Proxies* for which the confirmation occurred more than 72 hours ago are deleted.
    - *Delete all Data Replication Proxies with Status "Out of Sync" that have no references"*: All *Data Replication Proxies* with Data Replication Status *Out of Sync* found with invalid references to time objects are deleted.
4. Save your settings.

Next Steps

With this object, all corresponding proxies are deleted. You can track the status and the number of deleted proxies in *Job Status* of the *Scheduled Job Manager*.

> Note
>
> Occasionally, it may be necessary to mass delete Data Replication Proxies according to more complex criteria. In such situations, you can use *Import and Export Data* in Employee Central. For more information about the different way to delete data replication proxies, refer to KBA 2757840. This KBA includes information about the deletion of proxies using *Import Data* in the Employee Central system.

10.1.3 Troubleshooting Accumulation of Unreplicated Proxies Due to the Planned Working Time Replication Period

How to manage the accumulation of unreplicated proxies in the *Planned Working Time Replication Period*.

Context

In the *Planned Working Time Replication Period*, you have set the *Update Automatically* flag to *Yes*. As a result, the *Planned Working Time Replication Period* is shifted one day further in a nightly job. This setting triggers in turn the creation of *Data Replication Proxies* for planned working times.

Now, let's assume that the Data Replication Proxies are not replicated because this set up exists in a test system or there are errors in the configuration of the payroll. After some time a large number of such Data Replication Proxies have accumulated.

The issue is caused because the system automatically sets the *Update Automatically* flag to *No* in the *Planned Working Time Replication Period*, and the *Planned Working Time Replication Period* is no longer shifted automatically.

> Note
>
> Here you can find a precise description of the logic for setting the *Update Automatically* flag to *No*:
>
> Data Replication Proxies are created for a group of users for which a certain *Planned Working Time Replication Period* applies. If the number of Data Replication Proxies for this group of users is more than 14 times the number of this group of users, then the flag for *Update Automatically* is set to *No*. This value corresponds approximately to letting replication errors accumulate for 2 weeks without solving them and without replicating the Data Replication Proxies. If such a group of users consists of 10 or less users, then this automatic change of the flag does not happen. The reason is that the number of Data Replication Proxies that may accumulate is not significant as to cause issues in the system.

Procedure

1. In the *Admin Alerts* > *Data Replication Proxy Creation* > *Planned Working Time Replication Period*, you receive the following message: *Update Automatically is off in the Planned Working Time Replication Period because of a high number of proxies. Replicate or clean up the relevant proxies before enabling Update Automatically*.

2. Correct the errors and replicate the proxies. If you determine that the proxies in fact should not be replicated at all, then clean up these proxies.
3. After having replicated the proxies, or otherwise having them cleaned up, you need to decide whether to set the flag *Update Automatically* back to *Yes*. If necessary, you can enable the replication of proxies by selecting *Update automatically* under *Action* in the *Admin Alerts*.

Related Information

Setting Up Planned Working Time Replication Period [page 65]

10.2 Using the Check Tool to Solve Issues

Get an overview of potential problems and errors in your configuration that you can try to solve yourself before you contact Product Support about an issue.

Prerequisites

- You've enabled the Metadata Framework.
- You have the following *Administrator Permissions* > *Check Tool* permissions:
    - *Access Check Tool* authorizes users to access the tool.
    - *Allow Configuration Export* authorizes users to attach configuration information to a ticket.
    - *Allow Check Tool Quick Fix* authorizes users to run quick fixes for the checks that have this feature. A quick fix can be used to immediately correct any issues found by that check.

  For more information about role-based permissions, refer to List of Role-Based Permissions.

> → Tip
>
> Refer to Guided Answers for the Check Tool for a guided navigation through the available check tool checks and more information on each check.

Context

The check tool provides an overview of the issues found in the system. New checks that are being added in a new release go through a first initial run to return a result. After the initial run, checks are run on a regular basis (at least monthly). We recommend you open the check tool after you upgrade to a new release to see whether issues have been found by new checks.

In addition to these runs performed by the system, you can also run individual checks after you make changes to the system, for example, after updating data models or picklists. For more information, refer to the application-specific documentation.

Procedure

1. Go to *Admin Center* > *Check Tool*.

   The *Check Tool* page opens displaying the results of the first tab **System Health**.
2. Depending on the check type of the check you're interested in, select the corresponding tab.

Tab	Description
System Health	Displays configuration checks that have returned errors or warnings after the last run. We recommend you solve these in a timely manner. To display all checks, select all result types in the *Result Type* search filter and select *Go*.
Migration	Displays the migrations that are still pending, either because the check tool couldn't automatically migrate all issues or because new issues have been found after the last run. We recommend you solve these in a timely manner. To display all checks, turn on the *Show completed migrations also* search filter and select *Go*.
Validation	Displays a list of all validation checks. Note Validation checks require one or more parameters for execution, therefore we can't run these checks automatically. You need to enter input parameters and run the corresponding check manually to get results.

3. To solve a check that returned issues, click it.

   The detail view opens to the right side of the screen with more information on the check and on how to solve the issue.
4. Evaluate the results and resolve the issues. If the check provides a quick fix that you can use to immediately correct issues found during a check run, select the *Quick Fix* button.
5. If you encounter an error you can't resolve, contact Product Support by creating a ticket.

Next Steps

To verify that you've solved the underlying issue, select the checkbox for the corresponding checks and choose *Run Checks*. You can also wait until the next automatic run to see if the issue has been solved.

> ⓘ Note
>
> If the check you selected requires one or more prechecks (checks that need to be run successfully first), the prechecks are run first even if you haven't selected them.

Related Information

Running Checks [page 144]
Using the Quick Fix Feature [page 148]

10.2.1 Benefits of the Check Tool

The SAP SuccessFactors check tool helps you identify and resolve issues when your system doesn’t work as you expect.

If your SAP SuccessFactors applications are behaving in unexpected ways, it is likely that it has a configuration or data conflict: you have some data that is inconsistent or a configuration error. The check tool quickly identifies these types of problems so that you can avoid support tickets. You might still need to create a support ticket if the problem is severe, but even in severe cases, the check tool can save you time because it can export the results of the check and your configuration for Product Support. The support engineer, therefore, can identify the issue more quickly.

When you open the check tool, you see:

- A list of issues in your configuration or data and the severity of each issue.
- A solution or recommendation to address the issue.

10.2.2 Running Checks

Trigger the execution of individual checks to find potential issues in the system, or to check if an issue has been solved in the meantime.

Prerequisites

- You've enabled the Metadata Framework.

- You have the following *Administrator Permissions* > *Check Tool* permissions:
    - *Access Check Tool*
    - *Allow Configuration Export*
    - *Allow Check Tool Quick Fix*

Context

In addition to the job runs performed automatically by the system, you can also run individual checks. For example:

- You want to check whether the issue has been solved.
- You want to run a check as a prerequisite or post-step of a task. For example, you made changes to the system (such as updating data models or picklists), and you want to verify that your changes didn't cause any new issues. For more information, refer to the application-specific documentation.
- Validation checks need to be run manually as they require input parameters.

Procedure

1. Go to *Admin Center* > *Check Tool*.

    The *Check Tool* page opens displaying the results of the first tab *System Health*.
2. Depending on the check type of the check you want to perform, select the corresponding tab.

    A list of checks is displayed in the results table according to the predefined selection criteria.
3. **Optional:** If the check you're searching for is not listed in the results table, adjust the selection criteria and choose *Go*.

    You get a list of checks that fulfill the selection criteria you've entered.
4. Select the corresponding checks, and choose *Run Checks* from the top right of the results table.

    > Note
    >
    > Please note that, for checks on the *Validation* tab, you can only select one row at a time. Execution of multiple checks at once is not possible.
    >
    > Also, for validation checks you need to enter the required input parameters when running a check.

    > Note
    >
    > If the check you selected requires one or more prechecks (checks that need to be run successfully first), the prechecks are run first even if you haven't selected them.

    The *Results* column displays any issues found.

Next Steps

Investigate and solve the underlying issue.

10.2.3 Check Types

Overview of the different check types and their purpose.

The check type groups those checks that have a common purpose. On the *Check Tool* page, each tab represents a check type.

Overview of Check Types

Check Type	Description	Automatic Job Runs
System Health	Checks that run without parameters and check configuration and data issues that need to be fixed. The predefined selection criteria displays only those that have returned errors or warnings after the last run. We recommend you solve these in a timely manner. To display all checks, select all result types in the **Result Type** search filter and select *Go*.	• Automatic initial run at the beginning of a new release • Periodic runs (usually monthly)
Migration	Checks that perform an automatic migration of features. When you open the page, only pending migrations are displayed. To display also the competed migrations, turn on the *Show completed migrations also* search filter and select *Go*.	• Automatic initial run at the beginning of a new release • Periodic runs (usually monthly)
Validation	Checks which need one or more parameters for execution, for example: • A specific template • A specific user • A specific time frame Validation checks can be triggered by single selection and choosing the *Run* button. A popup appears with input fields for the parameters. Execution of multiple checks at once is not possible.	Only triggered through user

10.2.4 Check Results

After you run checks in the check tool, it returns the results of the checks so that you can resolve the issues found.

The results of a check are displayed in the *Result* column. If you run the checks multiple times to see how you're resolving issues, you can select a previous result from the *History* dropdown list.

> ⓘ Note
>
> To display the *History* dropdown list, click a check. On the details screen that opens on the right side of the page, expand the header. The *History* dropdown list is directly below the check title.

Possible Results of Check Tool

Result	Action
No issues found	If the tool can't find issues, you see a green check mark in the *Result* column.
Issues found	If the tool finds issues, it reports the number of issues and a yellow warning icon or a red alarm icon. • The yellow icon indicates a low severity issue. The system proposes a solution. • The red icon indicates a high severity issue. You must take action, which could include creating a support ticket.
Pending migrations	If the tool finds pending migrations that need to be completed by the user, you can see a yellow warning icon or a red alarm icon in the *Status* column on the *Migration* tab.
Completed	If the tool finds no issues with migration, or the migration has already been completed, you see a green check mark in the *Status* column on the *Migration* tab.

> ⓘ Note
>
> - Select the *Export Results* button to download the check results. Ensure you run the check before exporting the check results. If not you can view only the first 100 check results.
> - The downloaded check result table can display a maximum number of 10,000 rows.

Related Information

Creating Product Support Tickets from the Check Tool [page 148]

10.2.5 Creating Product Support Tickets from the Check Tool

When the check tool reports a serious issue that you can't solve, you might need to contact Product Support. You can create a support ticket from within the check tool.

Prerequisites

You've run the check tool. You can find the check tool by going to *Admin Center* > *Check Tool*. You create the ticket from the details page of the tool.

Procedure

1. Click the check you can't solve.

   The detail view opens to the right side of the screen with more information on the check and on how to solve the issue.
2. On the *Result* tab, scroll down to the results table to look for the errors you want to report on.

   You usually contact Product Support for high severity issues not low severity issues.
3. On the *Check Information* tab, under *Need Assistance?*, copy the component ID.

   For example, LOD-SF-EC is the component ID for Employee Central.
4. Create a customer case in the relevant category.
5. When you create the ticket, paste the component ID into the ticket.

10.2.6 Using the Quick Fix Feature

The check tool includes a quick fix feature that you can use to immediately correct issues found during a check run.

Prerequisites

The checks you want to solve with a quick fix have run and provide a check result with error or warning.

Procedure

1. Go to *Admin Center* > *Check Tool*.

   The **Check Tool** page opens.

2. Click the check you want to fix.

   The details screen opens on the right side of the page with more information about the check. If the check includes a quick fix, the *Quick Fix* button is displayed on the *Result* tab, under *Proposed Solution*.
3. Choose *Quick Fix* to start fixing the issue.

   A third screen opens to the right side, with step 1, called *Select Correction*, that shows one or more corrections for the issue.
4. Select the correction you want to carry out and choose *Step 2* to proceed to *Final Approval*.

   In the *Final Approval* step, you can opt to change your mind and not carry out the fix.
5. If you want to proceed, choose *Step 3*.

   The system confirms that the fix is now running.
6. Choose *Close* to complete the procedure.

   After a short time, the system runs the check again to verify that the fix has run correctly.

10.3 Exports

10.3.1 Exporting Configuration Information

Export the configuration information from your system and attach it to the Support ticket created from the check tool. This information can help Support identify the issue of a check you can't solve yourself.

Prerequisites

You have the *Administrator Permissions* > *Check Tool* > *Allow Configuration Export* permission.

Context

> Note
>
> Not all applications have this feature enabled.

Procedure

1. Go to *Admin Center* > *Check Tool*.

   The *Check Tool* page opens with a list of all applications for which you can use the check tool..

2. Select the corresponding application.

   If the application has the export configuration feature enabled, you can see an information message at the bottom of the page with a link.
3. Choose the *Export Configuration* link in the information message.

Results

The system downloads a file with the configuration information for the application you've selected.

Next Steps

Attach the downloaded file to the Support ticket you created from the check tool.

10.3.2 Exporting Check Results

After you run checks in the check tool, you can export the results.

Context

- Ensure you run the check before exporting the check results. If you don't do this, you can view only the first 100 check results.
- The downloaded check result table can display a maximum number of 10,000 rows.

Procedure

On the *Result* tab, select the *Export Results* button to download the check results.

10.3.3 Exporting a List of All Checks

Get an overview of all checks available in the system by exporting a CSV file.

Procedure

1. Go to *Admin Center* > *Check Tool*.

   The *Check Tool* page opens.
2. In the top-right corner, select *Export all checks*.

   A CSV file with all checks available in the system is downloaded, including check descriptions and application area.

   > Note
   >
   > The list includes also checks that you can't access from the user interface if you don't have the corresponding applications set up, or if you lack the required permissions.

10.4 Using Admin Alerts for Planned Working Time

With Admin Alert, you track errors and warnings that can occur during the replication process of planned working time.

You can display the alerts that have come up during the replication process. Admin Alert Versions.

10.5 Troubleshooting an SAP Payroll System

In the following, you can find some of the most common errors and how to prevent them in an SAP payroll system.

Checking Time Types, Attendance and Absence Types Configuration [page 152]
Find out how to run RP_HRSFEC_CHECK_TIME_AABS_TYPE check report.

Checking Time Account Type and Wage Type Configuration [page 154]
Find out how to run RP_HRSFEC_CHECK_TIMEACC_WAGETY check report.

Checking Wage Type Characteristics [page 157]
For all wage types used in the replication of employee time valuation results, you must check the following.

Checking Entry Permissibility per Infotype [page 157]

Checking Time Pay Types and Wage Types Configuration [page 158]
Find out how to run RP_HRSFEC_CHECK_TIME_PAY_WAGET check report.

How to Solve Rounding Issues in Infotype 2010 [page 160]

10.5.1 Checking Time Types, Attendance and Absence Types Configuration

Find out how to run `RP_HRSFEC_CHECK_TIME_AABS_TYPE` check report.

Prerequisites

The RFC destination is established in the running system by using the Configuration Report for an SAP payroll system. For more information, see Set Connection Data. If the RFC connection is not set up, it is displayed in the application log.

Context

You use the *Time Types and Attendance and Absence Types Configuration Check* check report to get an overview of the time types (from SAP SuccessFactors Employee Central) and the equivalent mapped attendance and absence types (from an SAP payroll system). All the attendance and absence types in the payroll system are given even if they are not mapped to an Employee Central time type - and vice versa. The report can help you to find inconsistent data and check that the properties are set up correctly.

Procedure

1. Under *Country Grouping*, choose the relevant country of the time types for Employee Central and of the SAP payroll system mapping.

   > Note
   >
   > Note that country-independent attendance and absence types are processed.

2. In the *PS Grouping* field, provide which personnel subarea grouping for absence and attendance types in an SAP payroll system should be used for the selection of the data.
3. In the *Absence or Attendance Type* field, include or exclude absence and attendance types which should be used for the selection of the data.

   > Note
   >
   > Records belonging to the selected absence and attendance type are listed. Additionally, *Employee Central Time Types* are being displayed.

4. If you want to hide any entries that do not require any further changes, choose *Hide correct entries* correct entries. Please note the following:

- Employee Central time types which are not mapped are displayed in the list and need further configuration.
- All records with an error are displayed in the list.
- Corresponding records belonging to the same time types and attendance and absence types are still displayed for completeness.

5. (Optional) Select your own variant of this report under *Layout Variant*. You can use existing variants for including or excluding attendance and absence types.
6. Run the report.

Results

The standard screen layout is divided into different sections, which are highlighted in the following colors:

- Blue (Validity Period):
  The time period displayed under *Start Date* and *End Date* is relevant for each row separately, including attendance and absence types.
- Green (Employee Central Data):
  Displays time type properties for Employee Central including *External Code*, *External Name*, *Country*, *Classification*, and *Absence Class*.
- Yellow (SAP Payroll System Data):
  Displays attendance and absence type properties for an SAP payroll system such as *Attendance and Absence Type*, *Attendance*, and *Absence Typebavailable in T554S*, *Attendance and Absence Type Text* , and *Attendance and Absence Type Indicator*.
- Red (Error):
  The following errors are indicated in this block:
  - *A/A Type text missing*
  - *Wrong A/A Type Indicator*: An absence type of Employee Central is mapped to an attendance type of an SAP payroll system.
  - *Quota deduction through attendance/absence must not be set* (unless you are using a customer solution where a parallel quota deduction in an SAP payroll system is needed or wanted).
  - *Attendance or absence quota type must not be filled* (unless you are using a customer solution where a parallel quota deduction in an SAP payroll system is needed or wanted).
  - *Overlapping time validity*: Shows, if the start and end date of a pay component or wage type change overlap. Please correct the database table entry given in that column, so the report can process the other checks for this entry.
  - *Time type too long for identical mapping*: External code is longer than four digits to be used as attendance or absence type in *Mapping Mode* "Identical Mapping".
  - *Time type longer than maximum length 128*: The time type is longer than maximum length 128 and a dummy entry in the code value mapping table is not available.

If attendance and absence type properties have been changed in any of the systems, the system adds a row to the list, which shows the changed values.

You can also download the report to Microsoft Excel.

10.5.2 Checking Time Account Type and Wage Type Configuration

Find out how to run `RP_HRSFEC_CHECK_TIMEACC_WAGETY` check report.

Prerequisites

Before using the report, please make sure that you establish an RFC destination in the running system by using the Configuration Report for an SAP payroll system. For more information, see Set Connection Data. If the RFC connection is not set up, it is displayed in the application log.

Context

You use the *Time Account Type and Wage Type Configuration* check report to get an overview of the Time Account Types (from SAP SuccessFactors Employee Central), their included Pay Components and the equivalent mapped Wage Types and Absence Quote Types (from an SAP payroll system).

> ⓘ Note
>
> Pay Component, Pay Component Termination Accrual Separated and Pay Component Termination Types are attributes of the MDF object Time Account Types in the Employee Central system and are used within the termination process of an employee.

All the wage types in the payroll system are listed even if they are not mapped to an Employee Central *Pay Component*, a *Pay Component Termination Accrual Separated*, or a *Pay Component Termination Type* - and vice versa. The report can help you to find inconsistent data and check that the properties are set up correctly.

Procedure

1. Under *Country Grouping*, choose the relevant country of the time account types for Employee Central and of the SAP payroll system mapping and wage types.
2. In the *ES Grouping Time Quota Types* field, provide which employee subgroup grouping for time quota types in an SAP payroll system should be used for the selection of the data.
3. In the *PS Grouping Time Quota Types* field, provide which grouping of personnel subareas for time quota types in an SAP payroll system should be used for the selection of the data.
4. If you want to hide any entries that do not require any further changes, choose *Hide correct entries*. Please note the following:
    - Employee Central time account types and their pay component codes which are not mapped are displayed in the list and need further configuration.
    - All records with an error are displayed in the list.

- Corresponding records belonging to the same pay component codes and wage types are still displayed for completeness.

5. (Optional) Select your own variant of this report under *Layout Variant*. You can use existing variants for including or excluding attendance and absence types.
6. Run the report.

Results

In the standard screen layout, the row color changes alternately for each time account type. The different column sections are highlighted in following colors:

Next Steps

- Blue (Validity Period):
  The time period displayed under *Start Date* and *End Date* is relevant for each row separately, including time account data.
- Green (Employee Central Data):
  Displays time account type properties for Employee Central including *External Code*, *External Name*, *Unit*, *Country*, *Pay Component Label*, *Pay Component Code*, and *Entitlement Method*.
- Yellow (SAP Payroll System Data):
  Displays wage type properties for an SAP payroll system such as *Wage Type*, *Wage Type in T512W*, *Wage Type Text*, *Absence Quota Type*, *Absence Quota Type Text*, *Leave Balance Type Text*, *Functionality Text*, *Wage Type assigned to IT0015*, and *Wage Type permitted in IT0015*.
- Red (Error):
  The following errors are indicated in this block:

Error	Explanation
Wrong Functionality	Entitlement method "Entitled as transferred": The wage type mapped to time account type code must have an entry in `HRSFEC_T5QLM` data base table containing *“Functionality“ = “Termination Organizer“*. (This column is relevant for Australia only.)

Error	Explanation
Wrong Leave Balance Type	• Entitlement method "Entitled as accured": The wage type mapped to pay component code (Pay Component Termination) must have an entry in data base table `HRSFEC_T5QLM` containing *„Leave Balance Type“ = „Entitlement“*. • Entitlement method „Entitled as transferred": The wage type mapped to pay component code (Pay Component Termination) must have an entry in data base table `HRSFEC_T5QLM` containing *„Leave Balance Type“ = „Entitlement“*. • The wage type mapped to pay component code (Pay Component Termination Accrual Separated) must have an entry in data base table `HRSFEC_T5QLM` containing *„Leave Balance Type“ = „Accrual“*. (This column is relevant for Australia only.)
Absence Quota Type not identical	Entitlement method „Entitled as transferred": The found entries must have the same absence quota type in `HRSFEC_T5QLM` table. (This column is relevant for Australia only.)
Wage Type text is missing	Please provide an entry in data base table `T512T`.
Assignment to IT0015 not permitted	Assignment of infotype 0015 must also be provided in data base table `T512Z`.
Wrong Input Combination	In data base table `T511` (`KOMBI` field), check if number / unit is set to required or optional.
Overlapping time validity	Shows, if the start and end date of a pay component or wage type change overlap. Please correct the data base table entry given in that column, so the report can process the other checks for this entry.
Pay Component Code too long for identical mapping	The pay component code is longer than four digits to be used as wage type in *Mapping Mode "Identical Mapping"*. Please maintain `T77SFEC_CVMAPC` table with missing entry or change indicated digits to four.
Pay Component Code longer than maximum length 128	The pay component code is longer than maximum length 128 and a dummy entry in the code value mapping table is not available. Please maintain `T77SFEC_CVMAPC` table with missing entry.

Check, if the time account types, their included pay component codes and wage types are maintained correctly. If any problems occur while importing the data, it is displayed in the application log. You can also download the report to Microsoft Excel.

10.5.3 Checking Wage Type Characteristics

For all wage types used in the replication of employee time valuation results, you must check the following.

Procedure

- In the Customizing for *Personnel Management* > *Personnel Administration* > *Payroll Data* > *Employee Remuneration Information* > *Wage Types* > *Check Wage Type Catalog* > *Check wage type characteristics*,

  Under *Number/unit* fill the appropriate unit in the *Time unit/meas.* field:
  - Specify *Hours* to replicate hours.
  - The original Time Sheet record can be linked optionally to an *Allowance Type*. The *Allowance Type* determines if you're required to enter hours or a decimal number in the Time Sheet. This in turn determines the unit that you must specify:
    - Specify Hours if the *Allowance Type* requires specifying hours in the Time Sheet.
      OR
    - Specify the appropriate unit if the *Allowance Type* field requires a decimal number to be specified in the Time Sheet. The unit must correspond to the unit provided in the description of the *Allowance Type*.

      > Note
      >
      > The quantity is still replicated through the field *Employment -Time - EmployeeTimeValuationResult – Hours* of the Inbound Message, even though that field doesn't contain hours in this case.

10.5.4 Checking Entry Permissibility per Infotype

The wage types you have previously mapped to time pay types must be enabled so that they can be replicated on multiple occasions each day to the Employee *Remuneration Info* (2010) infotype.

This is because multiple entries of the same wage type can be replicated on the same day.

> Note
>
> Make this setting to avoid the following error message during replication: *Collision with other EE remuneration info*.

1. Open Customizing Activity
   In Customizing, choose *Personnel Management* > *Personnel Administration* > *Payroll Data* > *Employee Remuneration Information* > *Wage Types* > *Check Wage Type Catalog* > *Check entry permissibility per infotype*.
2. Customize using Country Groupings.
   Customize this setting per country grouping, by specifying a country.

3. Define Allowed Wage Types for Multiple Entries per Day.
   Select the radio button in the *Sev.times* field for all wage types you have previously mapped to time pay types.

10.5.5 Checking Time Pay Types and Wage Types Configuration

Find out how to run `RP_HRSFEC_CHECK_TIME_PAY_WAGET` check report.

Prerequisites

The RFC destination is established in the running system by using the Configuration Report for an SAP payroll system For more information, see Set Connection Data. If the RFC connection is not set up, it is displayed in the application log.

Context

You use the *Time Pay Types and Wage Types Configuration* report to get an overview of the time pay types from Employee Central and the equivalent mapped wage types from an SAP payroll system. Time pay type is an attribute of the employee time valuation result in Employee Central and is included in the replication of time sheet data to infotype 2010 in the SAP payroll system. In Employee Central, a time pay type is either an allowance type or a time type group with following attribute: `isPayComponent = YES`. All the wage types in the payroll system are given even if they are not mapped to an Employee Central time type group or allowance type - and vice versa. The report can help you to find inconsistent data and check that the properties are set up correctly.

Procedure

1. Under *Country Grouping*, select the relevant country of the allowance types for Employee Central and of the SAP payroll system mapping and wage types.

   > ⓘ Note
   >
   > Note that country-independent time type groups are processed.

2. In the *Wage Type* field, you can include or exclude wage types which should be used for the selection of the data.

   > ⓘ Note
   >
   > Records belonging to the selected wage type are listed. Additionally, Employee Central time pay types are being displayed.

3. If you want to hide any entries that do not require any further changes, choose *Hide correct entries*. Please note the following:

    - Employee Central time pay types which are not mapped are displayed in the list and need further configuration.
    - All records with an error are displayed in the list.
    - Corresponding records belonging to the same time pay types and wage types are still displayed for completeness.
4. (Optional) Select your own variant under Layout Variant. You can use existing variants to include or exclude wage types.
5. Run the report.

Results

The standard screen layout is divided into different sections, which are highlighted in the following colors:

- Blue (Validity Period):
  The time period displayed under *Start Date* and *End Date* is relevant for each row separately, including time pay types.
- Green (Employee Central Data):
  Displays the time pay type properties for Employee Central including *External Code*, *External Name*, *Is Pay Component*, *Time Category*, *Valuation Result Category*, and *Valuation Result Factor*. Columns *Unit* and *Country* are relevant for *MDF object = A (Allowance Type)* only.

  > **Note**
  >
  > In the *MDF object* column, the *Time Pay Type* (A = Allowance Type or T = Time Type Group) is displayed.

- Yellow (SAP Payroll System Data):
  Displays the wage type properties for an SAP payroll system such as *Wage Type*, *Wage Type in T512W*, *Wage Type Text*, and *IT2010 permitted*.
- Red (Error):
  The following errors are indicated in this block:
    - *Wage Type text missing*.
    - *Assignment to IT2010 not permitted*.
    - *Overlapping time validity*: Shows, if the start and end date of a pay component or wage type change overlap. Please correct the database table entry given in that column, so the report can process the other checks for this entry.
    - *Time Pay Type too long for identical mapping*: External code is longer than four digits to be used as wage type in Mapping *Mode Identical Mapping*.
    - *Time Pay Type longer than maximum length 128*: The time pay type is longer than maximum length 128 and a dummy entry in the code value mapping table is not available.

If the time pay types and wage types have been changed in any of the systems, the system adds a row to the list, which shows the changed values.

You can also download the report to Microsoft Excel.

10.5.6 How to Solve Rounding Issues in Infotype 2010

In Employee Central, time sheets are created in hours and minutes. This data is then stored in infotype 2010 during the replication to Employee Central Payrolll. However, time data is stored as fraction of hours with two decimals in Employee Central Payroll. That's why it can lead to rounding issues. Please read KBA 2846593 that provides a step-by-step solution.

11 Change History

Learn about changes to the documentation for Implementing Point-to-Point Time Data Replication in recent releases.

1H 2024

Type of Change	Description	More Info
New	The maximum limit of the planned working time replication period is 400 days.	Setting Up Planned Working Time Replication Period [page 65]
Added	Added information about the `ONGO` switch	Data Replication Configuration for Absences Replication [page 33] Creating Data Replication Configuration for Planned Working Time [page 67] Data Replication Configuration for Time Sheet Replication [page 54] Data Replication Configuration for Time Accounts and Related Information Replication [page 96]
Added	Added a note about the replication of employees with full-day absences	Configuring Absences in an SAP Payroll System [page 38]
Changed	Removed screenshot showing specific illnesses related to continued pay.	Absences (Infotype 2001) - Germany [page 86]

2H 2023

Type of Change	Description	More Info
November 10, 2023		
Added	Added a note about the configuration of HTTP proxy	Set Up Connection With an SAP Payroll System Other Than Employee Central Payroll [page 20]
October 20, 2023		
Added	We've added information about the replication of an absence that is a partial day absence with clock times specified within the flextime bandwidth.	Absences (Infotype 2001) [page 28]
Changed	We've moved the Change History to the end of the guide.	Implementing Point-to-Point Time Data Replication [page 5]

1H 2023

Type of Change	Description	More Info
September 15, 2023		
Added	We added information about setting up the connection with an SAP payroll system other than an Employee Central Payroll system.	Setting Up Connection With an SAP Payroll System Other Than Employee Central Payroll [page 15]
May 12, 2023		
New	We added information about Advance leave payment data.	Advance Leave Payment [page 135]
New	We added information about the mapping of public holiday information in an SAP payroll system.	Mapping of Public Holiday Information [page 76]
Added	We added the prerequisites for connecting with X.509 Certificate.	Set Up Connection With an SAP Payroll System Other Than Employee Central Payroll [page 20]
April 28, 2023		
Changed	The *Scheduled Job Manager* tool replaces the legacy *Monitor Job* tool.	How to Delete Data Replication Proxies [page 140]

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