

d.velop

d.velop Content Package for SAP
SuccessFactors: Administrator

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1. d.velop Content Package for SAP SuccessFactors: Administrator

1.1. Basic information on the application

This chapter provides notes about the product along with general information.

1.1.1. About d.velop Content Package for SAP SuccessFactors

d.velop Content Package for SAP SuccessFactors is part of d.velop integration service for SAP Solutions (dvplS). The package provides templates and information for connecting d.velop documents to SAP SuccessFactors. The package thus enables rapid integration of SAP SuccessFactors. The connection to SAP SuccessFactors is established via dvplS.

To set up the service and the connection between the systems, you require basic knowledge of SAP Business Technology Platform (BTP) and SAP SuccessFactors.

d.velop Content Package for SAP SuccessFactors supports the following functions:

- Creation of the personnel files in d.velop documents for existing employees ([Manual replication of employee data for personnel files](#)).
- Transfer of documents for existing employees ([Manual replication of attachments from SAP SuccessFactors](#)).
- Automatic creation of a new personnel file when a person is hired or when an employee's role changes ([Event-controlled creation or updating of personnel files](#)).
- Automatic detection of new file creations for employees and replication of the documents in d.velop documents ([Periodic replication of attachments from SAP SuccessFactors](#)).
- Switching from the SAP Employee Central People Profile to the personnel or employment file in d.velop documents ([Integrating the personnel file into the SAP Employee Central People Profile](#)).

Note

The term "personnel file" is used in this documentation since it is commonly used in the context of human resources. Within d.velop documents, however, these files are known as "employment files".

Since the configurations of personnel or employment files in d.velop documents are very customer-specific, and because existing personnel files can be integrated, the employment file in d.velop documents does not form part of d.velop Content Package for SAP SuccessFactors. Optionally, you can implement a template file during implementation.

- Provision of a sample customizing for dvplS via a content package.

1.2. Installing and Uninstalling

This chapter contains information on installing and uninstalling d.velop documents for Microsoft 365.

1.2.1. System requirements

The technical connection between SAP SuccessFactors and d.velop documents is established via d.velop integration service for SAP Solutions (dvplS). This gives rise to the following requirements:

- d.velop integration service for SAP Solutions: Install the software and configure it. More information: [d.velop integration service for SAP Solutions: Administrator](#)

- Global account for SAP Business Technology Platform (not a trial account)
- You require the following for each staging environment:
 - Subaccount with one space (Cloud Foundry)
 - SAP entitlements for:
 - Cloud Foundry runtime
 - Destination service
 - Connectivity service
 - PostgreSQL database service (at least the Standard plan)
 - Optional: SAP Event Mesh service (other event brokers may also be possible)
 - Optional: SAP Event Mesh subscription
- SAP SuccessFactors cloud tenant with OData interface and authentication via user name and password
- d.velop documents (cloud, hybrid or on-premises)

Further requirements for direct connections to d.velop documents on-premises

For a direct connection to d.velop documents on-premises, you also require the following:

- **SAP Connectivity service** entitlement (free)
- SAP Cloud Connector: Obtain the software directly from SAP SE. Install and implement the software.
- DMS API version 1.10.7 or higher

Additional requirements for the personnel file template

For the personnel file template, you also require halion business objects editor.

1.2.2. Installing d.velop Content Package for SAP SuccessFactors

You do not need to install any new software in order to install d.velop Content Package for SAP SuccessFactors. Instead, the content package is installed via the administration of d.velop integration service for SAP Solutions (dvplS). Obtain the file for the content package from your contact person at d.velop or from the d.velop service portal.

This is how it works

1. Start dvplS with administrative privileges in your browser.
2. Navigate to **Management** and click **Content packages**.
3. Click **Upload**.
4. In the upload wizard, click **File selection**.
5. Select the file with the content package.
6. Click **Next step**.
7. Click **Start import**.

The content package is installed and subsequently appears in the table.

1.2.3. Uninstalling d.velop Content Package for SAP SuccessFactors

Remove the content package via the administration of d.velop integration service for SAP Solutions (dvplS). The objects created for the configuration of SAP SuccessFactors can also be deleted in dvplS.

Warning

Note that the templates from the content package will no longer be available for BO definitions. Other items such as scenarios, jobs, etc. will also be deleted.

This is how it works

1. Start dvplS with administrative privileges in your browser.

2. Navigate to **Management** and click **Content packages**.
3. Click **Remove**.
4. Enter the ID of the content package.

The content package is now removed.

1.3. Configuring the connection between SAP SuccessFactors and d.velop documents

You configure the connection between SAP SuccessFactors and d.velop documents in SAP SuccessFactors and in d.velop integration service for SAP Solutions. The configuration involves the following steps:

Step 1: Connecting SAP SuccessFactors to SAP Event Mesh

More information:

- [Connecting SAP SuccessFactors to SAP Event Mesh via Eventing](#)
- [Connecting SAP SuccessFactors to d.velop integration service for SAP Solutions via REST](#)

Step 2: Configuring the user for API access to SAP SuccessFactors

More information: [Providing the integration user in d.velop integration service for SAP Solutions](#)

Step 3: Integrating the d.velop documents personnel file into the employee profile

More information: [Integrating the personnel file into the SAP Employee Central People Profile](#)

Step 4 (optional): Integrating the personnel file into the main menu or actions

More information:

- [Integrating the personnel file into the main menu](#)
- [Integrating the personnel file under "Take action" and "Go to"](#)

Step 5: Configuring d.velop integration service for SAP Solutions

More information: [Configuring the connection of d.velop integration service for SAP Solutions](#)

1.3.1. Configuring the connection in SAP SuccessFactors

Events are used in SAP SuccessFactors (SF). Data for the process of an event is sent to d.velop integration service for SAP Solutions via SAP Eventing or via the direct connection using the REST interface in the default CloudEvent.

In this section, you will learn how to make the necessary configurations in SAP SuccessFactors (SF).

More information about SAP SuccessFactors and SAP BTP can be found in the corresponding product documentation from SAP.

Connecting SAP SuccessFactors to SAP Event Mesh via Eventing

The connection between SAP SuccessFactors and d.velop integration service for SAP Solutions (dvplS) is established via Eventing.

In SAP SuccessFactors, events are sent to a queue of an event broker. The event broker then performs the lifecycle management for the events. dvplS registers with the event broker and subscribes to events from the queue to which SAP SuccessFactors sends events. The event broker and the protocols used ensure that no events are lost.

Creating a SAP Event Mesh service instance

Create a service instance for connecting to an event broker and for creating and receiving events.

Ensure that SAP Event Mesh is installed and configured.

This is how it works

1. Open the SAP BTP cockpit and select the subaccount in which you want to install the service instance. Ensure that you have the necessary entitlements to create an instance of SAP Event Mesh in the subaccount.
2. Follow the instructions in the SAP Event Mesh documentation for installing a service instance.

Note

In the configuration, use a suitable value for **namespace** and enter appropriate rules for **queueRules** and **topicRules**.

Recommendation: Use the value **default/dvelop.sf2dvp/1** for **namespace**. Use the value **\${namespace}/*** for **publishFilter**. Use the value of **subscribeFilter** for **queueRules** and **topicRules**.

Example configuration

```
{
  "options": {
    "management": true,
    "messagingrest": true,
    "messaging": true
  },
  "namespace": "default/dvelop.sf2dvp/1",
  "resources": {
    "units": "20"
  },
  "rules": {
    "topicRules": {
      "publishFilter": [
        "${namespace}/*"
      ],
      "subscribeFilter": [
        "${namespace}/*"
      ]
    },
    "queueRules": {
      "publishFilter": [
        "${namespace}/*"
      ],
      "subscribeFilter": [
        "${namespace}/*"
      ]
    }
  },
  "version": "1.1.0",
  "emname": "evtmesh_sf2dvp"
}
```

Creating a service key for the SAP Event Mesh service instance

The service key provides data for authentication and access points. This data is used by SAP SuccessFactors and d.velop integration service for SAP Solutions. You must create the service key.

This is how it works

1. Open the SAP BTP cockpit.
2. Open the subaccount in which you have created a SAP Event Mesh instance.
3. Click **Instances and Subscriptions**.
4. Click the SAP Event Mesh instance to open the configuration.
5. Under **Service Keys**, click **Create**.
6. Enter a name.

For the OAuth2 configuration, you require the authentication data of the service key. Note down the relevant data.

Noting the authentication data for the OAuth2 configuration – this is how it works

1. Click the three dots next to the created service key.
2. Click **View**.
3. Note down the values in the fields **clientid**, **clientsecret**, **tokenendpoint** and **uri** in the area under **messaging**, which is labeled with the value **httprest** in the **protocol** key. This data is required for the OAuth2 configuration of SAP SuccessFactors.
4. Note down the values in the fields **clientid**, **clientsecret**, **tokenendpoint** and **uri** in the area under **messaging**, which is labeled with the value **amqp10ws** in the **protocol** key. This data is required for the OAuth2 configuration of d.velop integration service for SAP Solutions.

Creating an OAuth2 configuration in SAP SuccessFactors

To use the API for the SAP Event Mesh service instance, enter the previously noted authentication data for the service key. More information about the authentication data: [Creating a service key for the SAP Event Mesh service instance](#)

This is how it works

1. Open SAP SuccessFactors.
2. Navigate to **Security Center**.
3. Click **Destination Settings**.
4. Click **OAuth2 Configurations**.
5. Click **Add**.
6. Configure the new entry as follows:
 - **Configuration Name:** SAP BTP EventMesh
 - **Description:** OAuth2 connection to SAP BTP Event
 - **OAuth Type:** OAuth 2.0
 - **Grant Type:** Client-Credentials
 - **Client ID:** Noted value from **clientid**.
 - **Client Secret:** Noted value from **clientsecret**.
 - **Token URL:** <Token-Service-URL>/oauth/token
 - **Token Method:** POST
7. Configure the **Custom Header** parameters as follows: **x-qos: 1**.
8. Click **Save**.

Configuring the Hire event in SAP SuccessFactors

In SAP SuccessFactors, configure which data is sent to which system in which format, for which event and with which authentication data. A template is provided for easier processing.

This is how it works

1. Open SAP SuccessFactors.
2. Navigate to **Integration Center**.
3. Click **My integrations**.
4. Click **Create**.
5. Click **Import an Integration Definition**.
6. In the installation folder under **resources**, select the file **Template_HireEvent_CloudEvents_by_Eventing_definition.icd**.
7. Click **Upload**.
8. Enter a name.
9. Click **Next**. You do not have to enter anything in the **Configure fields** step. All entries are preconfigured. This process for defining an event is more complex and is not required when using the template. You can also skip the **Response fields** and **filter** steps using **Next** until you reach the **destination settings** step.
10. Replace the value of **REST API URL** with the value of **url** from the service key for the SAP Event Mesh service instance. More information: [Creating a service key for the SAP Event Mesh service instance](#)
11. Under **OAuth-Configurations**, select the created OAuth2 configuration.
12. Click **Next** followed by **Save**.

Testing the configuration

Once you have completed all configuration steps, you can return to the configuration of the Hire event in SAP SuccessFactors under **Integration Center** and perform a test of the event creation. The data transferred for the test is selected by SAP Success Factors automatically. The event must be displayed in the specified queue in SAP Event Mesh.

This is how it works

1. Open SAP SuccessFactors.
2. Navigate to **Integration Center**.
3. Click **My integrations**.
4. Select the integration for the created Hire event.
5. Click **Edit integration** under **Actions** in the row for the integration.
6. Click **Review and run** followed by **Run now**.
7. Verify whether SAP Event Mesh receives an event by using the test tools in SAP Event Mesh to check the configured queue for received events.

If no event is processed, check the configuration steps again. Check whether the systems are reachable at the specified addresses.

Note

If Eventing is already configured in d.velop integration service for SAP Solutions (dvpIS), the event may already have been processed in dvplS before you can see it with the test tools. In this case, deactivate Eventing on the dvplS start page and repeat the test.

If an event is processed, check whether a message has been generated from the event in dvplS.

Checking the message – this is how it works

1. Open the dvplS administration interface.
2. Click **Messages**.
3. Check whether an entry for the event is listed in the table.

If no message has been generated, check the configuration steps again. Check whether the systems are reachable at the specified addresses.

Connecting SAP SuccessFactors to d.velop integration service for SAP Solutions via REST

If SAP Event Mesh is not available, you can send events directly to d.velop integration service for SAP Solutions (dvplS) using the Cloud Events API. You require a service user, which is assigned to the subaccount, and a service key.

Note

Note that with this connection, SAP SuccessFactors and dvplS communicate directly with each other. If dvplS is not available, e.g. for maintenance reasons, events cannot be received. You can check such situations using the monitoring tools of SAP SuccessFactors.

Providing the integration user in d.velop integration service for SAP Solutions

When connecting SAP SuccessFactors directly to d.velop integration service for SAP Solutions (dvplS) via REST, you specify a service user in the OAuth2 configuration. This must be a valid user for using dvplS with sufficient permissions (e.g. role collection **d-velop-integration-service-admin-collection** with administration rights).

This is how it works

1. Open the BTP cockpit.
2. Open the subaccount in which dvplS is installed.
3. Click **Users**.
4. Select an existing user or create a new user.
5. Click **Role Collections**.
6. Click **Assign Role Collection**.
7. Select a suitable d.velop role collection, e.g. **d-velop-integration-service-admin-collection**.

Use the user name and password of this user in the OAuth2 configuration for SAP SuccessFactors.

Creating a service key for the service instance

To allow SAP SuccessFactors to make direct use of the API for d.velop integration service for SAP Solutions (dvplS), you have to provide the data for authentication. SAP SuccessFactors uses this data to authenticate the requests. Create the service key.

This is how it works

1. Open the SAP BTP cockpit.
2. Select the subaccount and then the space in which you installed dvplS.
3. Click **d-velop_integration_service-srv**.
4. Note down the value under **Application Route**.
5. Navigate back to the overview and click **Instances and Subscriptions**.
6. Click **d-velop_integration_service-uaa**.
7. Under **Service Keys**, click **Create**.
8. Enter a name.

For the OAuth2 configuration, you require the authentication data of the service key. Note down the relevant data.

Noting the authentication data for the OAuth2 configuration – this is how it works

1. Click the three dots next to the created service key.
2. Click **View** followed by **Form**.
3. Note down the values of the fields **clientid**, **clientsecret**, **url** and **xsappname**.

Creating an OAuth2 configuration in SAP SuccessFactors

You must enter the previously noted authentication data for the service key in SAP SuccessFactors so that the data can be used for the API calls of d.velop integration service for SAP Solutions (dvplS). More information about the authentication data: [Creating a service key for the service instance](#)

This is how it works

1. Open SAP SuccessFactors.
2. Navigate to **Security Center**.
3. Click **OAuth Configurations**.
4. Click **Add**.
5. Configure the new entry as follows:
 - **Configuration Name:** d.velop integration service UAA
 - **Description:** OAuth2 connection to d.velop integration service for CloudEvents
 - **OAuth Type:** OAuth 2.0
 - **Grant Type:** Password:
 - **Client ID:** Noted value from `clientid`.
 - **Client Secret:** Noted value from `clientsecret`.
 - **Token URL:** <Value from "Application Route">/api/token/sf
 - **Token Method:** POST
 - **Username:** Name of the service or integration user
6. Configure the **Custom Header** parameters as follows:
 - **x-scope:** <Noted value from "xsappname">.administrator
 - **x-token-url:** Noted value from `url`.
7. Click **Save**.
8. Enter the password of the service user.

Configuring the Hire event in SAP SuccessFactors

In SAP SuccessFactors, configure which data is sent to which system in which format, for which event and with which authentication data. A template is provided for easier processing.

This is how it works

1. Open SAP SuccessFactors.
2. Navigate to **Integration Center**.
3. Click **My integrations**.
4. Click **Create**.
5. Click **Import an Integration Definition**.
6. In the installation folder under **resources**, select the file **Template_HireEvent_CloudEvents_by_REST_definition.icd**.
7. Click **Upload**.
8. Enter a name.
9. Click **Next**. You do not have to enter anything in the **Configure fields** step. All entries are preconfigured. This process for defining an event is more complex and is not required when using the template. You can also skip the **Response fields** and **filter** steps using **Next** until you reach the **destination settings** step.
10. Replace the value of **REST API URL** with the value of **Application Route**. More information: [Creating a service key for the service instance](#)
11. Under **OAuth-Configurations**, select the created OAuth2 configuration.
12. Click **Next** followed by **Save**.

Testing the configuration

Once you have completed all configuration steps, you can return to the configuration of the Hire event in SAP SuccessFactors under **Integration Center** and perform a test of the event creation. The data transferred for the test is selected by SAP Success Factors automatically.

This is how it works

1. Open SAP SuccessFactors.
2. Navigate to **Integration Center**.
3. Click **My integrations**.
4. Select the integration for the created Hire event.
5. Click **Edit integration** under **Actions** in the row for the integration.
6. Click **Review and run** followed by **Run now**.
7. Open the dvplS administration interface.
8. Click **Messages**.
9. Check whether an entry for the event is listed in the table.

If no message has been generated, check the configuration steps again. Check whether the systems are reachable at the specified addresses.

Integrating the personnel file into the SAP Employee Central People Profile

For the link to the d.velop personnel file, create a separate section in the SAP Employee Central People Profile. The integration is performed via the SAP SuccessFactors Metadata Framework (MDF).

Note

Create objects in SAP SuccessFactors in English and translate them with the SAP SuccessFactors translation function.

Creating an object definition

Object definitions can be used to store individual information in SAP SuccessFactors. You can extend the employee profile based on the definitions.

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Under **Search Tools**, open the **Configure Object Definitions** section.
3. Under **Create New**, select the entry **Object Definition**.
4. Enter the following data:
 - **Code:** `cust_dvelop_personnel_file` (SAP SuccessFactors enters **cust** prefix automatically.)
 - **Effecting Date:** **None**
 - **API Visibility:** **Editable**
 - **MDF Version History:** **No**
 - **Label:** `cust_dvelop_personnel_file`. (Click **Translations** to translate the field into the required languages.)
 - **Description:** **Object Definition for the d.velop personnel file integration into the People Profile.** (Click **Translations** to translate the field into the required languages.)
 - **Subject User Field:** **User:**
 - In the **Fields** section, rename the entry **external Code** to **User**. Change the entry under **Data Type** from **String** to **User**.
5. Click **Save**. Confirm the message regarding permissions with **OK**.

Creating a permission group

To provide access to functions and objects, such as object definitions, you need to assign permissions. These permissions are assigned to permission groups in SAP SuccessFactors. The first step is to create the permission group. Detailed information on permission control can be found in the SAP SuccessFactors documentation under Role-Based-Permissions (RBP).

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Navigate to **Search Tools > Manage Permission Groups**.
3. Click **Create New**. Alternatively, you can extend an existing group.
4. Add the following values:
 - **Group Name:** d.velop personnel file permission group
 - **Usertype:** Employee
5. Under **Choose Group Members > People Pool**, select the value **User**.
6. Enter the current user in the condition as follows: **User is = (equal to) <<user who has access>>**.
7. Click **Done**.
8. Optionally, you can extend the permission group.
9. Click **Done**.

Creating a permission role

With the permission role, you define which permissions the user has in SAP SuccessFactors. The permissions always refer to a target population.

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Use **Search Tools** to open the **Manage Permission Roles** section.
3. Click **Create New**. Alternatively, you can extend an existing role.
4. Add the following values:
 - **Role Name:** d.velop personnel file integration
 - **Description:** Permission role for the d.velop personnel file integration
5. Click **Permission**.
6. Click **Miscellaneous Permissions**.
7. Scroll to the entry **cust_dvelop_personnel_file** and activate the following options:
 - **View**
 - **Edit**
8. Click **Done**.
9. Click **Add** to assign the role to a group.
10. Under **Define whom you want to grant this role permission to**, click **Select**.
11. Select the permission group **d.velop personnel file permission group** and activate the option.
12. Optionally, you can assign the permission to other permission groups.
13. Click **Done**.
14. Under **Specify the target population whom the above granted users have permission to access**, select the option **Everyone**. Alternatively, you can specify your own target population.
15. Click **Done**.
16. Click **Save Changes**.

Note

Optionally, you can also create an additional permission role for employees who only have display permissions. To do this, create an additional permission role without the **Edit** permission and assign this permission role to the relevant employees via permission roles.

Creating a user interface

Create a user interface for an object definition that will later be displayed in the People Profile.

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Use **Search Tools** to open the **Manage Configuration UI** section.

3. Click **Create New**.
4. Add the following values:
 - **Id***: **dvelop_personnel_file_UI**
 - **Select Base Object**: **cust_dvelop_personnel_file**
5. Click **cust_dvelop_personnel_file** followed by **Edit Properties**.
6. In the **Title Type User Defined** field, replace the value **cust_personnel_file** with **d.velop personnel file**. Click **Translations** to translate the field into the required languages.
7. Click **OK**.
8. Hover over the input fields **externalCode**, **externalName** and **effectiveStartDate** and click **Add Link**.
9. Hover over the inserted entry **externalName** and click the X icon (**Delete**).
10. Hover over the inserted entry **Link Display Text** and click the pen icon (**Edit Properties**).
11. In the **Link Display Text** field, replace the value **Link Display Text** with **personnel file**. Click **Translations** to translate the field into the required languages.
12. In the **Enter URL** field, replace the value **http://www.successfactors.com/** with the d.velop documents search URL for the personnel file. The URL is structured as follows: **https:// <<d.velop cloud tenant>> .d-velop.cloud/dms/r/ <<Repository ID>> /sr/?objectdefinitionids=%5B%22 <<Category ID of the personnel file>> %22%5D&fulltext=&properties=%7B%22 <<Property ID of the user ID>> %22:%5B%22@p1%22%5D%7D&showdetails=true**

Note

Example link: **https:// sap-qs.d-velop.cloud/dms/r/4bea3c5c-ff46-469c-909c-4cc7c78be21b/sr/?object-definitionids=%5B%22a49ea54c-a0c1-4295-a784-90de12c31110%22%5D&full-text=&properties=%7B%22d8cf2d3d-39a1-4dce-8a6a-a071aa76a8ac%22:%5B%22@p1%22%5D%7D&showdetails=true**

More information can be found in the d.velop documents configuration for the personnel file.

13. Add the following values to the fields below the URL tokens:
 - **Token**: **"@p1"**
 - **Value Resolver**: **externalCode**
14. Click **OK**.
15. Click **Save**.

Setting the default user interface for an object definition

Once you have created the user interface for the object definition, you can set it as the default user interface in the object definition.

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Use **Search Tools** to open the **Configure Object Definitions** section.
3. Under **Search**, select the value **Object Definition**.
4. Enter **cust_dvelop_personnel_file** in the search field.
5. Click **Take Action** and select **Make Correction**.
6. Under **Default Screen**, enter the value **dvelop_personnel_file_ui**.
7. Click **Save**.

Integrating the user interface into the People Profile

Once you have created the object definition and the user interface, you can integrate these into the People Profile.

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Use **Search Tools** to open the **Configure People Profile** section.
3. Click **Add a new section**.
4. In the newly added section, click the **Untitled** block.
5. Replace **Untitled** with **personnel file**.
6. Click **Apply for All Languages** and confirm the subsequent message with **OK**.
7. Close the section via the X button after the text **Edit Subsection: personnel file**.
8. Under **Available Blocks**, enter the value **MDF** in the **Search** field.
9. Drag and drop the **Live Profile MDF Information** block onto the **Place Block here** field in the newly created section.
10. Under **MDF Screen ID**, select the value **d.velop_personnel_file_UI**.
11. Click **Save**.

Setting the People Profile permission

For the link to the personnel file to be displayed to employees in the People Profile, you must set the corresponding permission in the permission role.

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Use **Search Tools** to open the **Manage Permission Roles** section.
3. Click the permission role **d.velop personnel file integration**. Alternatively, you can extend another existing role.
4. Click **Permission**.
5. Click **Employee Views**.
6. Activate **dvelop personnel file**.
7. Click **Done**.
8. Click **Save Changes**.

Setting up automatic creation of MDF entries

For the link to the personnel file to be displayed in the People Profile for every employee, an entry must exist for each person in the individual MDF object. To ensure that these entries are also created for new employees, you can set up a job in the SAP SuccessFactors Integration Center that generates these entries automatically.

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Use **Search Tools** to open the **Integration Center** section.
3. Click **My Integrations**.
4. Click **Create** and select **More Integration Types**.
5. Select the following options:
 - **Trigger Type: Scheduled**
 - **Source Type: SuccessFactors**
 - **Destination Type: SuccessFactors**
 - **Format: OData v2**
6. Click **Create**.
7. Under **Search for Entities by Entity Name**, search for **User** and select the found entry.
8. Click **Select**.
9. Add the following values:
 - **Integration Name: d.velop personnel file: Upsert personnel file MDF**
 - **Description: Job to create MDF Entries for the object definition cust_dvelop_personnel_file**
10. Click **Next**.

11. Click the plug icon (**Switch to Field Mapping View**).
12. Click **User**.
13. Click the trash can icon (**Delete selected Entity**).
14. Click the plus icon (**Add Entity**).
15. Under **Search**, search for **cust_dvelop_personnel_file**.
16. Activate **cust_dvelop_personnel_file**.
17. Click **Add**.
18. Drag and drop the **User ID** field from the **Source Fields** section to the **externalCode** field under **Destination Fields**.
19. Click **Next**.
20. Optionally, you can configure the filter conditions to control for which users an entry is created.
21. Click **Next**.
22. Under **Scheduled Version Occurs**, specify when the entries are created. This applies particularly to new employees. Daily processing outside of business hours is recommended.
23. Click **Next**.
24. Click **Save** twice.
25. Click **Set Schedule**.
26. Click **OK**.
27. Optional: For the initial creation of the MDF entries, you can start the job manually via **Run Now**.

Integrating the personnel file into the main menu

You can switch directly to the personnel file from the main menu. To do this, you must create an individual navigation entry.

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Use **Search Tools** to open the **Configure Custom Navigation** section.
3. Enter the following values in the initial row at the end of the table:
 - **Menu Item Label:** d.velop personnel file
 - **ID:** Enter an ID number that has not yet been assigned.
 - **Link Type:** Select the value **External Link - New Tab/Window**.
 - **URL:** Enter the d.velop documents search URL for the personnel file. The URL is structured as follows: `https:// <<d.velop cloud tenant>> .d-velop.cloud/dms/r/ <<Repository ID>> /sr/?objectdefinitionids=%5B%22 <<Category ID of the personnel file>> %22%5D&fulltext=&properties=%7B%22@USER_ID@%22:%5B%22@p1%22%5D%7D&showdetails=true`

Note

Example link: `https://sap-qs.d-velop.cloud/dms/r/4bea3c5c-ff46-469c-909c-4cc7c78be21b/sr/?objectdefinitionids=%5B%22a49ea54c-a0c1-4295-a784-90de12c31110%22%5D&fulltext=&properties=%7B%22d8cf2d3d-39a1-4dce-8a6a-a071aa76a8ac%22:%5B%22@USER_ID@%22%5D%7D&showdetails=true`

More information can be found in the d.velop documents configuration for the personnel file.

- **Menu Location:** Select **Top Navigation**.
 - **Permissions:** Select the permission groups or roles to which the link should be displayed, e.g. "d.velop personnel file permission group (group)".
4. Click **Save**.

Integrating the personnel file under "Take actions" and "Go to"

You can switch directly to the personnel file via the menu items **Take action** and **Go to**. To do this, you must create an individual navigation entry.

This is how it works

1. Open SAP SuccessFactors followed by **Admin Center**.
2. Use **Search Tools** to open the **Configure Custom Navigation** section.
3. Enter the following values in the first row at the end of the table:
 - **Menu Item Label:** d.velop personnel file
 - **ID:** Enter an ID number that has not yet been assigned.
 - **Link Type:** Select **External Link - New Tab/Window**.
 - **URL:** Enter the d.velop documents search URL for the personnel file. The URL is structured as follows: `https:// <<d.velop cloud tenant>> .d-velop.cloud/dms/r/ <<Repository ID>> /sr/?objectdefinitionids=%5B%22 <<Category ID of the personnel file>> %22%5D&fulltext=&properties=%7B%22@USER_ID@%22:%5B%22@p1%22%5D%7D&showdetails=true`

Note

Example link: `https://sap-qs.d-velop.cloud/dms/r/4bea3c5c-ff46-469c-909c-4cc7c78be21b/sr/?objectdefinitionids=%5B%22a49ea54c-a0c1-4295-a784-90de12c31110%22%5D&fulltext=&properties=%7B%22d8cf2d3d-39a1-4dce-8a6a-a071aa76a8ac%22:%5B%22@PERSON_USER_ID@%22%5D%7D&showdetails=true`

More information can be found in the d.velop documents configuration for the personnel file.

- **Menu Location:** Select the desired links. You can use the following actions:
 - **Employee Profile - Jump To**
 - **Employee Profile - Employee Records**
 - **Person - Take Action**
 - **Person - Go To**
 - **Permissions:** Select the permission groups or roles to which the link should be displayed, e.g. "d.velop personnel file permission group (group)".
4. Click **Save**.

1.3.2. Configuring the connection of d.velop integration service for SAP Solutions

In SAP SuccessFactors, events are used to send data about the process of triggered events to d.velop integration service for SAP Solutions (dvplS) via SAP Eventing. Alternatively, the direct connection of dvplS via the REST interface can be used.

In the following sections, you will learn how to configure the connection of dvplS using SAP BTP.

Connecting d.velop integration service for SAP Solutions to SAP Event Mesh

SAP SuccessFactors sends data to SAP Event Mesh in the form of events. For this purpose, the application writes the data to a defined queue with a defined topic. d.velop integration service for SAP Solutions (dvplS) subscribes to the corresponding queue and thus receives the events sent by SAP SuccessFactors for subsequent processing.

This is how it works

1. In the case of a Hire event, ensure that SAP SuccessFactors correctly sends data in the form of events to SAP Event Mesh in the appropriate queues with the relevant topic. Use the corresponding tools provided by SAP Event Mesh to test this. More information: [Connecting SAP SuccessFactors to SAP Event Mesh via Eventing](#)

2. Create a destination for SAP Event Mesh in the BTP subaccount in which dvplS was installed. Use the XML templates from the dvplS installation directory in the **destinations** folder. In these XML templates, the various data required for different integration scenarios is marked with placeholders.
3. Start the BTP Cockpit and switch to your subaccount.
4. Select **Destinations**.
5. Click **Create**.
6. Select **From File**.
7. Select the file **SAP_Event_Mesh.props** as the template for connecting to SAP Event Mesh.
8. Select the newly created destination from the list of entries.
9. Enter the following values:
 - **Authentication:** **OAuth2ClientCredentials**
 - **Type:** **HTTP**
 - **Proxy-Type:** **Internet**
 - **URL:** URL for a service endpoint of the Event Mesh service (from the SAP service key)
 - **Client ID:** The client ID for the Event Mesh service (from the SAP service key)
 - **Client Secret:** The secret client key for the Event Mesh service (from the SAP service key)
 - **Token-Service URL:** URL for determining a JSON web token (from the SAP service key)
 - **Token-Service URL Type:** **Dedicated**
10. Add the following keys and values for the destination under **Additional Properties**:
 - **evtSource:** **queue:**<name of queue> (use the queue configured for SAP SuccessFactors)
 - **evtTarget:** **topic:**<name of topic> (use the topic defined for SAP SuccessFactors in the previous chapter)
11. Create a system of system type **evt** and API type **evt** in dvplS and assign the destination created in step 2. Based on the configuration of the destination and the assignment to a system in dvplS, dvplS automatically recognizes a connection to SAP Eventing. When dvplS starts, all events that are sent to the corresponding topic in the queue are registered with SAP Eventing.
12. Under **Environment instance > Event handling**, click **Inactive** or **Active** to briefly pause or reactivate Eventing.

Connecting d.velop integration service for SAP Solutions to SAP SuccessFactors

To allow d.velop integration service for SAP Solutions (dvplS) to read data from SAP SuccessFactors via the OData interface and map this data to documents and files as metadata in d.velop documents, corresponding access to the SAP SuccessFactors data is required.

Selecting the role with OData access permissions

This is how it works

1. Open the web interface of SAP SuccessFactors.
2. Navigate to **Admin Center**. If you cannot find this entry, check your permissions.
3. In the search field under **Tools**, search for **Manage Permission Roles**.
4. Select a role with OData access permissions for all required entities. Alternatively, you can create a new role with the necessary permissions and then assign this role to the desired user.

For more information, refer to the SAP SuccessFactors documentation.

Configuring authentication via user name and password (deprecated)

You can configure authentication via a user name and password to connect d.velop integration service for SAP Solutions to SAP SuccessFactors.

Warning

Note that SAP has deprecated authentication via user name and password. You can obtain further information from SAP. In the future, you will only be able to use authentication via OAuth 2.0 (OAuth2SAMLBearerAssertion).

Use authentication via OAuth 2.0 when configuring new connections and promptly switch existing user name and password authentications to the new method. More information: [Configuring authentication via OAuth 2.0](#)

This is how it works

1. Open the BTP Cockpit and switch to your subaccount.
2. Select **Destinations**.
3. Click **Create**.
4. Select **From File**.
5. Select the file **SAP_Successfactors.props** as the template for connecting to SAP SuccessFactors with a user name and password. Use a SAP SuccessFactors user with the permission to read data from SAP SuccessFactors via the OData interface.
6. Select the newly created destination from the list of entries. For the connection to SAP SuccessFactors, d.velop integration service for SAP Solutions uses authentication with a user name and password in conjunction with the **companyCode** value.
7. Enter the following values:
 - **Authentication:** **BasicAuthentication**
 - **Type:** **HTTP**
 - **Proxy-Type:** **Internet**
 - **User:** User name of the SuccessFactors user
 - **Password:** Password of the SuccessFactors user
 - **URL:** URL endpoint of the SAP SuccessFactors instance for OData queries
8. For the destination, add the corresponding code for the SAP SuccessFactors instance under **Additional Properties > companyCode**

Configuring authentication via OAuth 2.0

Configure authentication using OAuth 2.0 (SAMLBearerAssertion).

Determining the OAuth 2.0 client data – this is how it works

1. Open the BTP Cockpit and switch to your subaccount.
2. Click **Destination Trust**.
3. Copy the value of **Assertion Entity ID**.
4. Select **Export** to save the configuration file (**SAML IdP Trust Configuration**) locally.
5. Open the file in a text editor.
6. Copy the text between **BEGIN CERTIFICATE** and **END CERTIFICATE** (X.509 certificate) to the clipboard.

Setting up the OAuth 2.0 client in SAP SuccessFactors – this is how it works

1. Open the web interface of SAP SuccessFactors.
2. Navigate to **Manage OAuth2 Client Applications**. If you cannot find this entry, check your permissions.
3. Click **Register Client Application**.
4. Enter the following values in the form:
 - **ApplicationName:** Enter a meaningful name for the connection.
 - **Description:** Enter a meaningful description for the connection.
 - **Application URL:** Enter the URL **https://<Assertion Entity ID>** and replace the placeholder **<Assertion Entity ID>** with the corresponding value that you copied earlier.

- **X.509 Certificate:** Enter the previously copied text of the X.509 certificate.
5. Click **Register**. The **API Key** field then appears.
 6. Copy the value of **API Key**.

Setting up the destination in the BTP subaccount of d.velop integration service for SAP Solutions – this is how it works

1. Open the BTP Cockpit and switch to your subaccount.
2. Select **Destinations**.
3. Click **Create**.
4. Select **From File**.
5. Select the template file **SAP_SuccessFactors_o2.props**.
6. Select the newly created destination from the list of entries.
7. Enter the following values or replace the placeholders as follows:
 - **Token Service URL:** In the URL `https://sfapiurl/oauth/token?company_id=companyId`, replace the placeholders `sfapiurl` and `companyId` (without underscore) with the corresponding valid values.
 - **URL:** In the URL `https://sfapiurl/odata/v2`, replace the placeholder `sfapiurl` with the corresponding valid value.
 - **Client Key:** Enter the previously copied value of **API Key**.
 - **Assertion-Issuer:** In the URL `https://assertionEntityId`, replace the placeholder `assertionEntityId` with the previously copied value of **Assertion Entity ID**.
 - **Assertion-Recipient:** In the URL `https://sfapiurl/oauth/token`, replace the placeholder `sfapiurl` with the corresponding valid value.
8. Under **Additional-Properties**, enter the following values or replace the placeholders as follows:
 - **companyCode:** Enter the corresponding valid value of `companyId`.
 - **SystemUser:** For the placeholder `SfUser`, enter the user with OData permissions to be used for the integration. More information: [Selecting the role with OData access permissions](#)
 - **apiKey:** Enter the previously copied value of **API Key**.
 - **userId:** Enter the ID of **SystemUser**.

1.4. Using the content package

In this section, you will find out which functions and processes Content Package for SAP SuccessFactors supports and how to configure these functions and processes.

The following processes and integrations in Content Package for SAP SuccessFactors are provided in d.velop documents:

- Creating or updating personnel files
- Transferring documents from SAP SuccessFactors to d.velop documents according to adjustable criteria
- Synchronizing SAP SuccessFactors user entities

1.4.1. Using mappings for SAP SuccessFactors and d.velop documents

Using events, information about specific events in SAP SuccessFactors is automatically transferred to d.velop integration Service for SAP Solutions (dvplS). In this way, structured metadata for files or documents is entered (indexed) so that files and documents in an ECM system can be searched for and edited using metadata.

For this process to function effectively, it must be possible to identify and read the structured data from SAP SuccessFactors. In the next step, the required data from SAP SuccessFactors has to be mapped to the metadata for the required files and documents. This process is known as indexing. The unstructured document data may need to be stored in versioned form (storage).

Content Package for SAP SuccessFactors provides templates for business objects that, in a best-practice approach, already define source data from SAP SuccessFactors for mappings. In addition, the following data is provided specifically for the SAP SuccessFactors integration:

- The sources for personnel files and personnel documents (document types).
- The scenario **dvpdos_4_sfusers**, which contains all supplied flows for processes and functionalities.
- The jobs with job definitions for predefined automated or manual data indexing or data transfers.

1.4.2. Event-controlled creation or updating of personnel files

The event-controlled creation or updating of personnel files is a core function for using d.velop integration service for SAP Solutions (dvplS) in the context of SAP SuccessFactors. A new employee is hired in SAP SuccessFactors. The hiring triggers the Hire event in SAP SuccessFactors. You configure the Hire event so that it maps the process of creating and updating a personnel file. More information: [Configuring the Hire event in SAP SuccessFactors](#)

Using references and expands, it is also possible to create more complex mappings in order to save a central properties packet containing all relevant information from a wide variety of SAP SuccessFactors entities in the personnel file in d.velop documents.

If the user wants the data in the personnel file to be automatically updated when a property is changed in SAP SuccessFactors, the corresponding entities in SAP SuccessFactors must be monitored for changes and a new Hire event must be triggered. The metadata of the personnel file in d.velop documents is then updated.

Summary of the process flow

- A hire is made in SAP SuccessFactors.
- The configured Hire event is transferred from d.velop integration service for SAP Solutions (dvplS) via SAP Eventing or the REST web interface to dvplS.
- The event is received and checked by dvplS.
- The event is converted to a standardized message and assigned a status.
- The message is read by the standard job of dvplS for message processing and forwarded for type-specific further processing.
- The message is parsed by a job class of the content package and the associated business object is determined.
- The corresponding mapping is determined from the message, the business object class and the flow configuration.
- In the flow, properties of the SAP SuccessFactors entity from the SAP SuccessFactors source system are assigned to the business object class. These properties of the SAP SuccessFactors entity are read.
- The properties from SAP SuccessFactors are prepared by the mapping and possibly through defined methods and transferred to properties of the assigned file type of d.velop documents.
- If a file already exists, the determined properties are saved in d.velop documents. Otherwise a new file is created.
- Optionally, attachments (documents from the SAP SuccessFactors **Attachments** entity) can also be transferred to d.velop documents once the file has been created. Further business objects, document types and mappings may be needed for this.

Configuration steps for the process

You have configured the interface between SAP SuccessFactors and d.velop integration service for SAP Solutions (dvplS). A job for the processing of messages generated by incoming events in dvplS is already included by default. The following section lists the additional configuration steps required for creating or updating personnel files in accordance with best practice.

Configuring the source (category or document type) for the personnel file – This is how it works

1. Open dvplS in the browser.
2. Select **Sources**.
3. Carry out the appropriate step:
 - a. You use separate source mappings in d.velop documents:
 - a. Enable the entry with the ID **/dvpdmsbtp/sources/pakten**.
 - b. If necessary, change the name of the category to how it is to appear in the d.velop documents source mapping.
 - b. You do not use separate source mappings in d.velop documents:
 - a. Click **Create** to create a new category for the personnel file.
 - b. Follow the steps to select an existing category in d.velop documents as the source and have it created automatically.
 - c. In the **Active** column, enable the **On** option to activate the source.

Then create a business object from a template. As SAP SuccessFactors triggers the Hire event when creating an **EmpJob** entity, the business object in dvplS should ideally also be based on the **EmpJob** entity. For this business object, the template **sfsfEmpJob** is therefore provided in the content package.

Creating a business object from a template – this is how it works

1. Open dvplS in the browser.
2. Select **Business objects**.
3. Select **Show templates**.
4. In the list of business objects grouped by content packages, search for the template **sfsfEmpJob** from the group **PF4SFSF**.
5. Click on the plus icon in the corresponding row.
6. Enter a name for the new business object created from the template. It is recommended to use the same name and to capitalize the first letter, e.g. **SfsfEmpJob**.
7. Click **Create**.
8. Select **Hide templates**.
9. Find the business object you created in the list. Use the search function to do so if required.
10. Note that in the list, the value **Off** is selected in the **Active** column for the new business object. The business object is not yet active.
11. Click on the entry for the business object to edit the object.
12. Edit the assignments that were copied from the template. You can adapt the business object to suit your needs. For more information, see the [documentation for d.velop integration service for SAP Solutions](#). If necessary, create new references to data of other entities by creating new business objects or using the templates supplied.

The content package provides a scenario definition **dvpdos_4_sfusers** for integrating SAP SuccessFactors with some flows. You can use the predefined flow **dvpdos_4_sfhireevt** for processing messages from Eventing. You must adapt this flow to the installation. You use the flow to determine which data (business object) is to be transferred from which system (source system) to which system (target system) and in what way (activity and action).

Adapting the "dvpdos_4_sfhireevt" flow – this is how it works

1. Open dvplS in the browser.
2. Select **Scenarios**.
3. In the scenarios table, search for and select **dvpdos_4_sfuser** as the scenario for the SAP SuccessFactors integration.
4. In the flow table, select **dvpdos_4_sfhireevt**.

5. Activate the flow.
6. In the **Business object** column, select the business object you created previously.
7. In the **Source** column, select the source configured earlier.
8. In the **Source system** column, select the system that was configured for the SAP SuccessFactors source system in the **Systems** menu.
9. In the **Target system** column, select the system that was configured for the d.velop documents target system in the **Systems** menu.
10. For this specific flow, select the appropriate options for the Hire event using the button in the **Options** column. The evaluation of the flow options depends on the coding of the business object used. The evaluation of these options must be supported. The options are maintained in JSON format. The editor checks that the syntax is complied with. The semantics are not checked.

Options for scenario flow for the Hire event

Specifically for mapping the activity **Creation/updating of personnel files**, the scenario for SAP SuccessFactors integration in the flow **dvpdos_4_sfhireevt** includes the activity **HIRENEW** and the action **CR_P_DOS**. It defines the coding that is used to create and update personnel files, optionally with document attachments from SAP SuccessFactors.

The processing can be controlled using options. The following table shows the options and their usage:

Parameters	Meaning	Values
attRepl- cate	Optional: Defines whether attachments assigned to an employee in SAP SuccessFactors are to be transferred as individual documents after the personnel file is created in d.velop documents.	Default: 0 1=transfer 0=do not transfer
attOptions	This property can be an array or an individual object and defines: • Which attachments are to be transferred from SAP SuccessFactors to the employee • Whether the source document should be deleted following successful transfer from SAP SuccessFactors • Which business object from d.velop integration service for SAP Solutions (dvpIS) is used for mappings • Which flow is used that defines the source and target systems for the transfer	

The **attOptions** property is an array of objects or an individual object with the following properties:

Parameters	Meaning	Values
attFilter	Normally, all attachments that are assigned to the employee are selected. With this parameter, you can define additional restrictions for access to the attachments. A simple filter can be implemented in the form of a character string that defines an OData filter condition. To define more complex filter conditions, you can use an array. There you can implement multiple filter conditions using AND/OR operators and nesting. For details, see Using filter conditions for OData requests in JSON options	Example: module eq 'HRIS'
attBO	ID of the business object that defines the mapping if attachments are transferred.	Valid ID of a business object required
attFlow	ID of a flow for the scenario dvpdos_4_sfusers if attachments are transferred. Only the source and target system properties are used.	Valid ID of a flow for the scenario dvpdos_4_sfuser required

delSrcAtt	Optional: Defines whether transferred attachments in SAP SuccessFactors are to be deleted once they have been transferred.	Default:false true:delete original in SAP SuccessFactors no=do not delete original
Warning When attachments in SAP SuccessFactors are deleted, only the attachment itself is deleted, but not the references to the attachment. Therefore, an attachment may sometimes be displayed in SAP SuccessFactors even though this attachment has been deleted. Opening the attachments via the user interface will result in an error.		
doTest	Optional: Carries out processing without any saving operations if the value=1. Does not create any personnel files or transfer any attachments.	Default: 0 1=test mode 0=no test

These entries always form a set of parameters. If one set is sufficient to describe the attachments to be transferred, this set can be included in the flow configuration.

For version < 1.3

```
{
  "attBO": "SfsfAttachment4Job",
  "attFlow": "dvpdos_att4job",
  "attFilter": "( module eq 'HRIS')",
  "delSrcAtt": false
}
```

In certain cases, this single set of parameters is not sufficient, for example, because the filter conditions are too complex. From version 1.3, you can also define the set of parameters as an array in this case. All definitions are then taken into account one after the other when attachments are added after the personnel file has been created. From version 1.3, it is also possible to use values of the properties of the personnel data read from SAP SuccessFactors in the filter condition. To do so, use the name of the property in the filter condition in the form '{propertyname}'.

Note

Note that as of version 1.3, the relationship to the employee is no longer established automatically in the background in the filter condition. You must enter this relationship as well, e.g. using the filter string **ownerId eq '{userId}'**. This is required in order to use more complex and more flexible logical expressions.

From version 1.3

```
{
  "attReplicate" : 1,
  "attOptions" :
  [
    {
      "attBO": "SfsfAttachment4Job",
      "attFlow": "dvpdos_att_4_hireevt",
      "attFilter": "ownerId eq '{userId}' and module eq 'HRIS'",
      "delSrcAtt": false
    },
    {
      "attBO": "SfsfAttachment4Job",
      "attFlow": "dvpdos_att_4_hireevt",
      "attFilter": [
        {

```

```

        "filterStr": "ownerId eq '{userId}'",
        "op": "and"
      },
      {
        "filterStr": "module ne 'HRIS'"
      }
    ],
    "delSrcAtt": false
  }
]
}

```

1.4.3. Periodic replication of employee data for personnel files

In SAP SuccessFactors, the creation of personnel files in d.velop documents is triggered by an event. This ensures that a personnel file is created in d.velop documents promptly after an employee is hired. When data is changed in SAP SuccessFactors that should lead to an amendment of the metadata in the personnel file, a new Hire event should be triggered from SAP SuccessFactors. This is the preferred and recommended procedure.

Alternatively, you can use the **PersonalSync** job provided with Content Package for SAP SuccessFactors and adapt the options accordingly. This allows you to recognize changes to the **PerPersonal** entity (to the personnel data) in SAP SuccessFactors. The change and creation date of the entity is used to make a change visible.

Note

If the business object in d.velop integration service for SAP Solutions (dvplS) with the mapping for the SAP SuccessFactors entity also contains fields that are used for other business objects with the help of references, changes to these referenced entities cannot currently be recognized. The system only checks for changes to the source entity (**PerPersonal**).

Summary of the process flow

- The date and time of the last successful sync jobs are read.
- Along with other criteria, all persons that have been created or modified since the last successful job are selected in SAP SuccessFactors. The criteria can also be defined by users with the help of job options.
- The job options are used as the basis for determining which business object is responsible for the mapping and which flow provides the source, the target and the document type (source).
- In d.velop documents, the system checks whether there is already a matching personnel file for the keys.
 - If there is a matching personnel file, the existing file receives updated metadata from the mapping. Optionally, documents for employees are transferred according to the settings in the job options.
 - If there is no matching personnel file, a new personnel file with the metadata from the mapping is created in d.velop documents. Optionally, documents for employees are transferred according to the settings in the job options.
- The system checks in the job options whether attachments for employees are also to be replicated. These attachments can be restricted using filters. The attachments are then replicated for all employees.
- Once all selected personnel files have been created or updated successfully, the date and time of the job start for the last successful job is replaced with a new date and time for the job start. This defines a new period.
- If there were critical errors, the date of the last successful job is not replaced. This ensures that the same time period is selected for the next job, thus automatically triggering a new attempt. In this

process, all previously successfully transferred persons are reselected, and their personnel files are updated.

Warning

If a critical error prevents a new start window from being set, the time between the last successful start and the current job start will continue to increase. The system can be monitored using the available tools, and the cause of the error can be resolved.

Configuration steps for the process

You have configured the interface between SAP SuccessFactors and d.velop integration service for SAP Solutions (dvplS). The job **PersonalSync** for the implementation of the synchronization by dvplS and a flow definition for the scenario **dvpdos_4_sfusers** are provided with Content Package for SAP SuccessFactors. The following section details the configuration steps that are still required in accordance with best practice.

For each document type created in d.velop documents that is to be transferred, you must configure sources (category or document type).

This is how it works

1. Open dvplS in the browser.
2. Select **Sources**.
3. Carry out the appropriate step:
 - a. You use separate source mappings in d.velop documents:
 - a. Enable the entry with the ID **/dvpdmsbtp/sources/pakten**.
 - b. If necessary, change the name of the category to how it is to appear in the d.velop documents source mapping.
 - b. You do not use separate source mappings in d.velop documents:
 - a. Click **Create** to create a new category for the personnel file.
 - b. Follow the steps to select an existing category in d.velop documents as the source and have it created automatically.
 - c. In the **Active** column, enable the **On** option to activate the source.

Then create a business object from a template. When a person is hired, a personnel file is also created. The personnel data is saved in the **PerPersonal** entity. For this business object, the template **sfsfPerPersonal** is therefore contained in the content package.

This is how it works

1. Open dvplS in the browser.
2. Select **Business objects**.
3. Select **Show templates**.
4. In the list of business objects from the group **PF4SFSF**, find the template **sfsfPerPersonal**. The list is grouped by content packages.
5. Click on the plus icon in the corresponding row.
6. Enter a name for the new business object created from the template. It is recommended to use the same name and to capitalize the first letter, e.g. **SfsfPerPersonal**.
7. Click **Create**.
8. Select **Hide templates**.
9. Find the business object you created in the list. Use the search function to do so if required.
10. Note that in the list, the value **Off** is selected in the **Active** column for the new business object. The business object is not yet active. Enable the business object.
11. Click on the entry for the business object in order to edit it.

12. Edit the assignments that were copied from the template. You can adapt the business object to suit your needs. Generally, no assignment data from the business object **PerPersonal** is used. Only metadata is important for the purpose of this job. For more information about mappings, see the documentation for d.velop integration service for SAP Solutions. Also enable the required properties with the key values and all other required properties.

You must then configure the flow that defines the specific sources and targets for replicating personnel data to personnel files. The flow links the document type (source) and business object for communication.

This is how it works

1. Open dvplS in the browser.
2. Select **Scenarios**.
3. In the scenarios flow table, select **dvpdos_4_sfusers**.
4. In the scenarios flow table, select **dvpdos_persreplicate**.
5. In the **Business object** column, select the business object you created previously.
6. In the **Source** column, select the source configured earlier.
7. In the **Source system** column, select the specific SAP SuccessFactors source system.
8. In the **Target System** column, select the specific d.velop documents target system.

The content package provides the job to be used for transferring the documents.

This is how it works

1. Open dvplS in the browser.
2. Select **Jobs**.
3. In the job table, select **PersonalSync**.
4. Define a time period for when this job is to run periodically.
5. Check the options for the job and adapt these options to your requirements. The options are explained in more detail in the next chapter [Options for the job](#).

The content package provides a scenario definition **dvpdos_4_sfusers** for integrating SAP SuccessFactors with some flows. You can use the predefined flow **dvpdos_persreplicate** to transfer documents. You must adapt this flow to the installation. You use the flow to determine which data (business object) is to be transferred from which system (source system) to which system (target system) and in what way (activity and action).

This is how it works

1. Open dvplS in the browser.
2. Select **Scenarios**.
3. In the scenarios table, select **dvpdos_4_sfuser** as the scenario for the SAP SuccessFactors integration.
4. In the scenarios flow table, select **dvpdos_persreplicate**.
5. Activate the flow.
6. In the **Business object** column, select the business object you created previously.
7. In the **Source** column, select the source configured earlier.
8. In the **Source system** column, select the system that was configured for the SAP SuccessFactors source system in the **Systems** menu.
9. In the **Target system** column, select the system that was configured for the d.velop documents target system in the **Systems** menu.

Options for the job

You can control the job for synchronizing and replicating personnel data from SAP SuccessFactors to personnel files in d.velop documents using the following options:

Property	Description	Value
default-Start-Date	This value defines the date and time from which changes to personnel data from SAP SuccessFactors are to be selected if no saved value for an earlier successful job is found. The date and time are entered in ISO format (YYYY-MM-DDTHH:mm:ssZ). Z here refers to consideration of the time zone.	Example: 2025-12-31T23:59:59Z
filter	In the simplest case, an array with one or more filterStr items. Nesting and more complex filters can be created using chaining operators. For details regarding their use, see Using filter conditions for OData requests in JSON options	Example [{"filterStr": "userId eq '4711'" }]
jobBO	Business object in d.velop integration service for SAP Solutions (dvplS) for the EmpJob entity from SAP SuccessFactors that is to be used. This business object defines the mapping of properties to d.velop documents that is to be used.	Example: SfsfEmpJob (generated from template "sfsfEmpJob")
doTest	Optional: Indicates whether the job is to be executed in test mode. This means that all steps of the job will be completed. Only the transfer of the actual data to d.velop documents does not take place. Test mode helps you to estimate how much data is selected, e.g. via filter conditions.	Default: 0 0=no (no test mode) 1=yes (test mode activated)
doPage	Optional: Indicates whether paging is to be used for reading. The aim of paging is to avoid blocking the service process for long periods and to divide processing into several smaller blocks. For this purpose, the job is provided with packages using the parameters top and skip (see below).	Default: 0 0=no 1=yes
top	Optional: Used for page-by-page reading if doPage has been set. Indicates how many data records are to be read in a request (page). Start with a value that seems appropriate based on the expected data. You can change the value later.	Default: 10 Example: top=10 (reads the first ten data records of the result)
attOptions	Optional: Defines the options for the attachments that are to be transferred from SAP SuccessFactors to a personnel file as personnel documents. The structure of attOptions is shown in the table below. attOptions is an array with individual attachment options.	

Details for an **attOptions** entry:

Property	Description	Value
attBO	Business object in dvplS for the Attachment entity that is to be used. This business object defines the mapping of properties to d.velop documents that is to be used.	Example: SfsfAttachment
attFlow	Flow definition with definition of the document category, source and target system.	Example: dvpdos_att4job
attFilter	Filter definition for limiting the attachments to be replicated.	See Using filter conditions for OData requests in JSON options
delSrcAtt	Deletion of the source document in SAP SuccessFactors.	Default: false
doTest	If this property is set, data is read from SAP SuccessFactors. However, no documents are created or updated in d.velop documents.	Default: 0 0=no test 1=test

Example with filter object:

```
{
  "defaultStartDate" : "2025-12-31T23:59:59Z"
  "jobBO": "SfsfEmpJob",
  "filter": [
    {
      "filterStr": "personalIdExternal ge '10000' and
personalIdExternal le '10100'"
    },
    {
      "filterStr": "personalIdExternal eq '103194'"
    }
  ],
  "attOptions" : [
```

```

    {
      "attBO": "SfsfAttachment4Job",
      "attFlow": "dvpdos_att4job",
      "attFilter": [
        {
          "filterStr": "ownerId eq '{userId}'",
          "op": "and"
        },
        {
          "attFilter": [
            {
              "filterStr": "module eq 'HRIS'",
              "op": "or"
            },
            {
              "attFilter": [
                {
                  "filterStr": "module eq
'EMPLOYEE_PROFILE'",
                  "op": "and"
                },
                {
                  "filterStr": "documentCategory eq
'BACKGROUND_CERTIFICATES'"
                }
              ],
              "op": "or"
            },
            {
              "attFilter": [
                {
                  "filterStr": "module eq
'EMPLOYEE_PROFILE'",
                  "op": "and"
                },
                {
                  "filterStr": "documentCategory
eq 'BACKGROUND_EDUCATION' or documentCategory eq
'BACKGROUND_OUTSIDEWORKEXPRIENCE'"
                }
              ],
              "op": "or"
            }
          ]
        }
      ],
      "delSrcAtt": false,
      "doTest": 0
    },
    ],
    "top": 5,
    "doPage": 1,
    "doTest": 0
  }
}

```

1.4.4. Periodic replication of attachments from SAP SuccessFactors

In SAP SuccessFactors, attachments for entities are saved in the **Attachment** entity. This entity has properties that enable documents to be classified and these documents to be mapped to different internal entities. When creating a personnel file via the Hire event in SAP SuccessFactors, you can configure whether and, if so, which attachments for employees are to be transferred. This is a one-time process at this point. Subsequently, new documents relating to the employee will be continually added. Many users therefore require these documents to be transferred to d.velop documents.

At present, there is no event in SAP SuccessFactors that can be used as a trigger for the transfer of an attachment from SAP SuccessFactors to d.velop documents. Therefore, a polling method was developed in d.velop integration service for SAP Solutions (dvplS) that detects new documents within time periods and triggers their transfer.

The following sections explain the process flow. In addition, the necessary configuration steps are explained so that you can use this process

Summary of the process flow

- The date and time of the last successful sync jobs are read.
- Along with other criteria, all attachments that have been created or modified since the last successful job are selected in SAP SuccessFactors. The criteria can also be defined by users with the help of job options.
- The job options are used as the basis for determining which business object is responsible for the mapping and which flow provides the source, the target and the document type (source).
- In d.velop documents, the system checks whether there is already a matching document for the keys.
 - If there is a matching document for the keys, the existing document receives updated metadata from the mapping. Depending on the editing status of the document in d.velop documents, the document content from SAP SuccessFactors is either updated or saved as a new version.
 - If there is no matching document for the keys, a new document is created in d.velop documents. The document contains the document content from SAP SuccessFactors and the properties that were determined via the mapping.
- Once all selected documents have been saved or updated successfully, the date and time of the job start for the last successful job is replaced with a new date and time for the job start.
- If there were critical errors, the date of the last successful job is not replaced. This ensures that the same time period is selected for the next job, thus automatically triggering a new attempt. In this process, all successfully transferred documents are reselected and transferred.

Warning

If a critical error prevents a new start window from being set, the time between the last successful start and the current job start will continue to increase. The system can be monitored using the available tools, and the cause of the error can be resolved.

Configuration steps for the process

You have configured the interface between SAP SuccessFactors and d.velop integration service for SAP Solutions (dvplS). The job **AttSync** for the implementation of the synchronization by dvplS and a flow definition for the scenario **dvpdos_4_sfusers** are provided with Content Package for SAP SuccessFactors. The following section details the configuration steps that are still required in accordance with best practice.

You have to configure sources (category or document type) for each document type that has been created in d.velop documents for a personnel document and that is to be transferred.

Note

It is best practice to use a single document type in d.velop documents and to differentiate between different types of personnel documents using properties in the document type. From version 1.3, you can also use multiple document types in d.velop documents.

This is how it works

1. Open dvplS in the browser.
2. Select **Sources**.
3. Carry out the appropriate step:
 - a. You use separate source mappings in d.velop documents:
 - a. Enable the entry with the ID **/dvpdmsbtp/sources/pdoks**.
 - b. If necessary, change the name of the category to how it is to appear in the d.velop documents source mapping.
 - b. You do not use separate source mappings in d.velop documents:
 - a. Click **Create** to create a new category for a personnel document.
 - b. Follow the steps to select an existing category in d.velop documents as the source and have it created automatically.
 - c. In the **Active** column, enable the **On** option to activate the source.

Then create a business object from a template. Documents and attachments with the associated metadata are provided in SAP SuccessFactors in the **Attachment** entity. For this business object, a template **sfsfAttachment** is therefore provided in the content package.

This is how it works

1. Open dvplS in the browser.
2. Select **Business objects**.
3. Select **Show templates**.
4. In the list of business objects from the group **PF4SFSF**, find the template **sfsfAttachment**. The list is grouped by content packages.
5. Click on the plus icon in the corresponding row.
6. Enter a name for the business object created from the template. It is recommended to use the same name and to capitalize the first letter, e.g. **SfsfAttachment**.
7. Click **Create**.
8. Select **Hide templates**.
9. Find the business object you created in the list. Use the search function to do so if required.
10. Note that in the list, the value **Off** is selected in the **Active** column for the new business object. The business object is not yet active. Enable the business object.
11. Click on the entry for the business object in order to edit it.
12. Edit the assignments that were copied from the template. You can adapt the business object to suit your needs. For more information, see the documentation for d.velop integration service for SAP Solutions. If necessary, create new references to data of other entities by creating new business objects or using the templates provided. Enable the required properties with the key values and all other required properties.
13. If the template already contains references to other templates, you will also need to create business objects for these references later. You then need to replace the reference in the created business object accordingly.

Note

Note that SAP SuccessFactors also stores the document content itself in a property. The corresponding property in the dvplS business objects contains the value **File content** in the **Content** column. dvplS stores the value as document content and not as a value for a property of the document type. This property does not have a value in the mapping of d.velop documents. The same applies to the file name. This is already taken into account in the **sfsfAttachment** template.

The content package provides a scenario definition **dvpdos_4_sfusers** for integrating SAP SuccessFactors with some flows. You can use the predefined flow **dvpdos_4_attreplicate** to transfer documents. You must adapt this flow to the installation. You use the flow to determine which data (business object) is to be transferred from which system (source system) to which system (target system) and in what way (activity and action).

This is how it works

1. Open dvplS in the browser.
2. Select **Scenarios**.
3. In the scenarios table, search for and select **dvpdos_4_sfuser** as the scenario for the SAP SuccessFactors integration.
4. In the scenarios flow table, search for and select **dvpdos_4_attreplicate**.
5. Activate the flow.
6. In the **Business object** column, select the business object you created previously.
7. In the **Source** column, select the source configured earlier.
8. In the **Source system** column, select the system that was configured for the SAP SuccessFactors source system in the **Systems** menu.
9. In the **Target system** column, select the system that was configured for the d.velop documents target system in the **Systems** menu.

The content package provides the job to be used for transferring the documents.

This is how it works

1. Open dvplS in the browser.
2. Select **Jobs**.
3. Search for and select **AttSync**.
4. Define a time period for when this job is to run periodically.
5. Check the options for the job and adapt the options to your requirements. More information:
[Options for the job](#)

Options for the job

You can control the job for synchronizing and replicating documents from SAP SuccessFactors to d.velop documents using the following options:

Property	Description	Value
default-Start-Date	This value defines the date and time from which attachments from SAP SuccessFactors are to be selected if no saved value for an earlier successful job is found. The date and time must be entered in ISO format (YYYY-MM-DDTHH:mm:ssZ). Z here refers to consideration of the time zone.	Example: 2025-12-31T23:59:59Z
filterStr	Optional: Contains a valid OData filter condition for properties of the Attachment entity in SAP SuccessFactors in addition to the date and time of the last successful job.	Example: userId eq '4711'

filter	Optional: In the simplest case, an array with filterStr items. You can create more complex filters using chaining operators and nesting. For details regarding their use, see Using filter conditions for OData requests in JSON options	Example [{filterStr: userId eq '4711'}]
Note This property is prioritized over a single filter in the property filterStr. This single filter is then not evaluated.		
delSrcAtt	Optional: Deletion of attachments in SAP SuccessFactors after the transfer.	Default: 0 0=no 1=yes
Warning When attachments in SAP SuccessFactors are deleted, only the attachment itself is deleted. The references to the attachment are not deleted. Therefore, an attachment may be displayed in SAP SuccessFactors even though it has been deleted. Opening this attachment via the user interface will result in an error.		
user-BO	Optional: Business object in dvplS for the User entity from SAP SuccessFactors that is to be used. Only specify if you want the system to check whether an attachment is mapped to employees. For example, attachments selected via filters that are not assigned to any user would not be transferred. If you do not specify a value for this property, all selected attachments are transferred.	Example: SfsfUser (generated from template sfsfUser)
doTest	Optional: Indicates whether the job is to be executed in test mode. This means that all steps of the job will be completed. Only the transfer of the actual data to d.velop documents does not take place. Test mode helps you to estimate how much data is selected, e.g. via filter conditions.	Default: 0 0=no (no test mode) 1=yes (test mode activated)
doPage	Optional: Indicates whether paging is to be used for reading. The aim of paging is to avoid blocking the service process for long periods and to divide processing into several smaller blocks. For this purpose, the job is provided with packages using the parameters top and skip (see below).	Default: 0 0=no 1=yes
top	Optional: Used for page-by-page reading if doPage has been set. Indicates how many data records are to be read in a request (page). Start with a value that seems appropriate based on the expected data. You can change the value later.	Default: 10 Example: top=10 (reads the first ten data records of the result)

Example with a single simple filter as a string:

```
{
  "defaultStartDate": "2023-02-01T00:00:00Z",
  "filterStr": "createdDate gt '2023-01-01T00:00:00Z'",
  "delSrcAtt": 0,
  "userBO": "SfsfUser"
}
```

Example with a filter object:

```
{
  "defaultStartDate": "2023-02-01T00:00:00Z",
  "filter": [
    {
      "filterStr": "createdDate gt '2023-04-01T00:00:00Z' and userId eq '103194'"
    },
    {
      "filterStr": "createdDate gt '2023-05-01T00:00:00Z' and userId eq '103194'"
    }
  ],
  "delSrcAtt": 0,
}
```

```
"userBO": "SfsfUser"
}
```

The value for the date and time of the last successful job for selecting attachments over the creation and modification period is stored in the service settings. It is saved as a key in the settings in the form **Job:<jobname>:lastrun** as a string in ISO format. The key for the provided job AttSync is **Job:AttSync:lastrun**.

The value for the date and time of the start date for the selection of attachments over the creation and modification period is determined in the following order:

- Saved value of the last successful job from the service settings
- Value of the option **defaultStartDate**.

If both options are missing, the job will be cancelled.

Use the job **AttSync** along with appropriate filters for **createdDate** and **lastModifiedDateTime** in order to transfer attachments from a specific time period again.

If the properties **filterStr** and **filter** are used in the options, the array with **filter** is always prioritized. In this case, the property **filterStr** is not used.

1.4.5. Manual replication of attachments from SAP SuccessFactors

In principle, the transfer of attachments or the indexing of attachments is very similar to the time-controlled transfer described under [Periodic replication of attachments from SAP SuccessFactors](#). Apart from the exceptions described in this chapter, the same descriptions, processes, configurations, etc. apply as for automatic transfer.

Deviations:

- The job provided in the content package has the ID **AttReplicate**.
- The job does not necessarily have to and should not run periodically.
- The job option **defaultStartDate** is omitted, as this job does not need to cover a time period.
- The steps required to map the period to be checked for the periodic transfer of attachments are omitted.

1.4.6. Manual replication of employee data for personnel files

In SAP SuccessFactors, employee data is stored across various entities. For a natural person, for example, the actual and private personal data exists in a special entity. Address data, employment information, specific jobs, user data for self-service and other information are stored in additional related entities. d.velop integration service for SAP Solutions (dvplS) brings these dependencies together, enabling the desired metadata to be determined in a personnel file. The personnel file can consist of lots of different metadata from the different entities in SAP SuccessFactors. In addition, related attachments can be replicated as documents and provided with metadata. Furthermore, through individual customizing, the attachments of successful applications can subsequently be transferred to d.velop documents and assigned to the corresponding personnel files.

Replication is performed manually using the **PersonalReplicate** job from the content package. This job is also used for the one-time replication of employee data for personnel files in a project.

The following sections explain the process flow. The necessary configuration steps are also explained.

Summary of the process flow

- The technical implementation of the replication is performed using a job. A job template for the job **PersonalReplicate** is provided in the content package.
- For the job, users define filter criteria for the selection of employees. To do so, you can access the attributes of the **PerPersonal** entity.

- The job options are used as the basis for determining which business object is responsible for the mapping and which flow provides the source, the target and the document type (source).
- In d.velop documents, the system checks whether there is already a matching personnel file for the keys.
 - If there is a matching personnel file for the keys, the existing file receives updated metadata from the mapping.
 - If there is no matching personnel file for the keys, the personnel file is created with metadata from SAP SuccessFactors.
- Once the personnel file has been saved or updated for all selected persons, attachments relating to the person and to resulting employees can optionally be selected and replicated as a document.

Configuration steps for the process

You have configured the interface between SAP SuccessFactors and d.velop integration service for SAP Solutions (dvplS). The jobs **PersonalReplicate** and **PersonalSync** for the implementation of replication or synchronization by dvplS and a flow definition for the scenario **dvpdos_4_sfusers** are provided with Content Package for SAP SuccessFactors. The following section details the configuration steps required in accordance with best practice.

For each personnel file created in d.velop documents, you must configure sources (category or document type).

This is how it works

1. Open dvplS in the browser.
2. Select **Sources**.
3. Carry out the appropriate step:
 - a. You use separate source mappings in d.velop documents:
 - a. Enable the entry with the ID **/dvpdmsbtp/sources/pakten**.
 - b. If necessary, change the name of the category to how it is to appear in the d.velop documents source mapping.
 - b. You do not use separate source mappings in d.velop documents:
 - a. Click **Create** to create a new category for a personnel file.
 - b. Follow the steps to select an existing category (**Dossier** type) in d.velop documents as the source and have it created automatically.
 - c. In the **Active** column, enable the value **On** to activate the source.

Then create a business object from a template. The creation of the personnel file is linked to a Hire event for a job and thus to the entity **EmpJob**. For this entity, a template for **sfsfEmpJob** is provided for a business object in the content package.

This is how it works

1. Open dvplS in the browser.
2. Select **Business objects**.
3. Select **Show templates**.
4. In the list of business objects from the group **PF4SFSF**, find the template **sfsfEmpJob**. The list is grouped by content packages.
5. Click on the plus icon in the corresponding row.
6. Enter a name for the business object created from the template. It is recommended to use the same name and to capitalize the first letter, e.g. **SfsfEmpJob**.
7. Click **Create**.
8. Select **Hide templates**.
9. Find the business object you created in the list. Use the search function to do so if required.
10. Note that in the list, the value **Off** is selected in the **Active** column for the newly created business object. The business object is not yet active. Enable the business object.

11. Click on the entry for the business object to edit the object.
12. Edit the assignments that were copied from the template. You can adapt the business object to suit your needs. For more information, see the [documentation for d.velop integration service for SAP Solutions](#). If necessary, create new references to data of other entities by creating new business objects or using the templates provided. Enable the required properties with the key values and all other required properties.
13. If the template contains references to other templates, you will also need to create business objects for these references later. The reference in the previously created business object must be replaced accordingly.

The content package provides a scenario definition **dvpdos_4_sfusers** for integrating SAP SuccessFactors with some flows. You can use the predefined flow **dvpdos_4_persreplicate** to transfer personnel files. You must adapt this flow to the installation. You use the flow to determine which data (business object) is to be replicated from which system (source system) to which system (target system) and in what way (activity and action).

This is how it works

1. Open dvplS in the browser.
2. Select **Scenarios**.
3. In the scenarios table, select **dvpdos_4_sfuser** as the scenario for the SAP SuccessFactors integration.
4. In the scenarios flow table, select **dvpdos_persreplicate**.
5. Activate the flow.
6. In the **Business object** column, select the business object you created previously.
7. In the **Source** column, select the source configured earlier.
8. In the **Source system** column, select the system that was configured for the SAP SuccessFactors source system in the **Systems** menu.
9. In the **Target system** column, select the system that was configured for the d.velop documents target system in the **Systems** menu.

The content package provides the job to be used for replicating personnel files.

This is how it works

1. Open dvplS in the browser.
2. Select **Jobs**.
3. In the job table, search for and select **PersonalReplicate**.
4. Check the options for the job and adapt these options to your requirements. More information: [Options for the job](#)

Options for the job

You can control the jobs for synchronizing (**PersonalSync**) and replicating (**PersonalReplicate**) personnel files from SAP SuccessFactors to d.velop documents using the following options:

Property	Description	Value
filter	In the simplest case, an array with one or more filterStr items. You can create more complex filters using chaining operators and nesting. For details regarding their use, see the chapter Using filter conditions for OData requests in JSON options This property is prioritized over a single filter in the property filterStr . This single filter is then not evaluated.	Example [{filterStr: userId eq '4711'}]
jobBO	Business object in d.velop integration service for SAP Solutions (dvplS) for the EmpJob entity from SAP SuccessFactors that is to be used. This business object defines the mapping of properties to d.velop documents that is used.	Example: SfsfEmpJob (generated from template sfsfEmpJob)

doTest	Optional: Indicates whether the job is to be executed in test mode. This means that all steps of the job will be completed. Only the transfer of the actual data to d.velop documents does not take place. Test mode helps you to estimate how much data is selected, e.g. via filter conditions.	Default: 0 0=no (no test mode) 1=yes (test mode activated)
doPage	Optional: Indicates whether paging is to be used for reading. The aim of paging is to avoid blocking the service process for long periods and to divide processing into several smaller blocks. For this purpose, the job is provided with packages using the parameters top and skip (see below).	Default: 0 0=no 1=yes
top	Optional: Used for page-by-page reading if doPage has been set. Indicates how many data records are to be read in a request (page). Start with a value that fits with the expected data. You can change the value later.	Default: 10 Example: top=10 (reads the first ten data records of the result)
attOptions	Optional: Defines the options for the attachments that are to be transferred from SAP SuccessFactors to a personnel file as personnel documents. The structure of attOptions is shown in the table below. attOptions is an array with individual attachment options.	

Details for an **attOptions** entry:

Property	Description	Value
attBO	Business object in dvplS Attachment entity that is to be used. This business object defines the mapping of properties to d.velop documents that is to be used.	Example: SfsfAttachment
attFlow	Flow definition with definition of the document category, source and target system.	Example: dvpdos_att4job
attFilter	Filter definition for limiting the attachments to be replicated.	See Using filter conditions for OData requests in JSON options
delSrcAtt	Deletion of source documents in SAP SuccessFactors.	Default: false
doTest	If this property is set, data is read from SAP SuccessFactors. Documents are not created or updated in d.velop documents.	Default: 0 0=no test 1=test

Example with filter object:

```
{
  "jobBO": "SfsfEmpJob",
  "filter": [
    {
      "filterStr": "personalIdExternal ge '10000' and
personalIdExternal le '10100'"
    },
    {
      "filterStr": "personalIdExternal eq '103194'"
    }
  ],
  "attOptions" : [
    {
      "attBO": "SfsfAttachment4Job",
      "attFlow": "dvpdos_att4job",
      "attFilter": [
        {
          "filterStr": "ownerId eq '{userId}'",
          "op": "and"
        },
        {
          "attFilter": [
```

```

        {
            "filterStr": "module eq 'HRIS'",
            "op": "or"
        },
        {
            "attFilter": [
                {
                    "filterStr": "module eq
'EMPLOYEE_PROFILE'",
                    "op": "and"
                },
                {
                    "filterStr": "documentCategory eq
'BACKGROUND_CERTIFICATES'"
                }
            ],
            "op": "or"
        },
        {
            "attFilter": [
                {
                    "filterStr": "module eq
'EMPLOYEE_PROFILE'",
                    "op": "and"
                },
                {
                    "filterStr": "documentCategory
eq 'BACKGROUND_EDUCATION' or documentCategory eq
'BACKGROUND_OUTSIDEWORKEXPRIENCE'"
                }
            ],
            "op": "or"
        }
    ]
},
{
    "delSrcAtt": false,
    "doTest": 0
},
{
    "top": 5,
    "doPage": 1,
    "doTest": 0
}
}

```

1.4.7. Tips and tricks

This topic contains further options that the application offers to help you achieve your goal more quickly.

Using filter conditions for OData requests in JSON options

At various points in d.velop integration service for SAP Solutions (dvplS) and particularly in Content Package for SAP SuccessFactors, filter conditions for the selection of source data are required to limit the volume of data.

Simple: single filter

Use the **filterStr** property for a single, simple filter condition.

```
{
  "filterStr": "attachmentId eq '9137'",
}
```

Medium: several filters with OR/AND link

Use the **filter** property for an array of filter strings.

```
{
  "filter": [
    {
      "filterStr": "createdDate gt '2022-04-01T00:00:00Z' and userId eq 'meyer'"
    },
    {
      "filterStr": "createdDate gt '2022-05-01T00:00:00Z' and userId eq 'mueller'"
    }
  ]
}
```

In the example, two filters are linked using the OR operator. This means that all items created after 4/1/2022 (**createdDate** property) and whose **userId** property is **meyer** as well as all items created after 5/1/2022 (**createdDate** property) and whose **userId** property is **mueller** are read. This means that all items that are defined by one of these two conditions are filtered.

If several individual conditions need to be met at the same time, you can enter additional operators for each filter entry. The default is the OR operator.

An entry for the AND operator may look as follows:

```
{
  "filter": [
    {
      "filterStr": "createdDate gt '2022-04-01T00:00:00Z'",
      "op": "and"
    },
    {
      "filterStr": "birthDate gt '2000-01-01T00:00:00Z'"
    }
  ]
}
```

The **op** (Operator) property defines how a filter is linked to another filter. Optionally, you can specify the **OR** operator for a clear representation. However, this operator is used by default. This means you can also define the filter from the first example as follows:

```
{
  "filter": [
    {
      "filterStr": "createdDate gt '2022-04-01T00:00:00Z' and userId eq 'meyer'",
      "op": "or"
    },
    {
      "filterStr": "createdDate gt '2022-05-01T00:00:00Z' and userId eq 'mueller'"
    }
  ]
}
```

```
]
}
```

More complex: several nested filters

In order to reduce complex filter strings, you can nest filters. When doing so, you can use operators to show how the filters are linked.

```
{
  "filter": [
    {
      "filterStr": "createdDate gt '2022-04-01T00:00:00Z' and userId
eq 'meyer'",
      "op": "and"
    },
    {
      "filter" : [
        {
          "filterStr": "createdDate gt '2022-04-01T00:00:00Z' and
userId ne 'doe'",
          "op": "and"
        },
        {
          "filterStr": "createdDate gt '2022-05-01T00:00:00Z' and
userId ne 'schmidt'"
        }
      ],
      "op" : "and"
    },
    {
      "filterStr": "createdDate gt '2022-05-01T00:00:00Z' and userId
eq 'mueller'"
    }
  ]
}
```

1.5. Frequently asked questions

You can find answers to frequently asked questions in this section.

1.5.1. The area for the link to the d.velop documents personnel file is displayed in the employee profile, however, the "personnel file" entry is missing. What can I do?

If the **personnel file** entry is missing, check the following points:

- Check the basic configuration and permission for the link to the employee profile.
- Via **Admin Center > Manage Data**, check whether there is an entry for the corresponding person in the Metadata Framework (MDF) for the Object Definition.
- Check whether automatic generation of MDF entries is set up correctly. More information: [Automatic generation of MDF entries](#).

1.5.2. Why is the link to the d.velop documents personnel file not shown?

There may be various reasons why the link to the d.velop documents personnel file is not shown. As a general rule, the administrator will need to check the reason for this.

Possible causes:

- The user does not have display authorization for the link to the d.velop documents personnel file.

- The link to the d.velop documents personnel file has not been set up. The configuration of the link can be customized.

1.6. Additional information sources and imprint

If you want to deepen your knowledge of d.velop software, visit the d.velop academy digital learning platform at <https://dvelopacademy.keelelearning.de/>.

Our E-learning modules let you develop a more in-depth knowledge and specialist expertise at your own speed. A huge number of E-learning modules are free for you to access without registering beforehand.

Visit our Knowledge Base on the d.velop service portal. In the Knowledge Base, you can find all our latest solutions, answers to frequently asked questions and how-to topics for specific tasks. You can find the Knowledge Base at the following address: <https://kb.d-velop.de/>

Find the central imprint at <https://www.d-velop.com/imprint>.