

d.velop

d.velop ecm services for SAP
Solutions: Administrator

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1. d.velop ecm services for SAP Solutions: Administrator

1.1. Notes on the update

Version 2.0.0.0

Consider the following notes when updating d.velop ecm services for SAP Solutions to version 2.0.0.0:

- The version d.velop ecm services for SAP Solutions 2.0.0.0 provides some fundamental changes compared to the legacy versions.
- The development package in which the product is delivered is new. The product technology changed but the functionalities are kept or expanded.
- Customizing entries are delivered with the new package /DVELOP/DMS. Delete all entries from the table /DVELOP/WSS_CUST to avoid duplicate entries in the d.velop Customizing.
- You can use the old webservice technology in parallel with version 2.0.0.0. The technologies are listed in the d.velop Customizing under the entry **d.velop ecm services for SAP Solutions 2.0.0.0**. They are independent from each other.

1.2. Introduction

1.2.1. About d.velop ecm services for SAP Solutions

The product d.velop ecm services for SAP Solutions provides the d.3 webservices functionalities for various SAP scenarios. Using these functionalities, you can respond to SAP processes and trigger actions in the ecm system.

The transport requests provide the reports and function modules for the following functionalities:

- Creating folders (including attributes) and creating list items in SharePoint Online.
- (Downstream) attribution of created folders or documents with d.velop ecm services for SAP Solutions or with created list items.

The SAP reports offer various configuration options and SAP GUI interfaces. The interfaces allow for a targeted processing or for planned processing as a SAP job for the periodic processing in the background.

The function modules can be accessed from external systems via tRFC and have been defined to be hooked in to user exits/BADIs or enhancement spots.

The attribution functionality uses attribution or indexing from the d.velop archivelink for SAP Solutions 3.0 and this is required on the SAP target system. The product d.velop archivelink for SAP Solutions allows you to map and use attributes for the folders or documents via the web interface of the d.velop archivelink for SAP Solutions interface.

d.velop ecm services for SAP Solutions has been developed in the protected SAP namespace of d.velop AG and is provided in the form of external SAP transports.

1.2.2. Prerequisites

This manual describes the administration of the application d.velop ecm services for SAP Solutions.

In order to fully comprehend the information in this document, it is advisable to have basic knowledge of SAP and especially of the SAP ArchiveLink customizing.

The product is fully integrated in the SAP system and developed in the protected namespace of d.velop AG.

1.3. Installation

This chapter provides you with information on the installation of d.velop ecm services for SAP Solutions.

1.3.1. System requirements

To use the d.velop ecm services for SAP Solutions, you need d.3one version 1.8.0 Rising 1 or later, the registered DMSApp and d.velop archivelink for SAP Solutions version 3.0 or later.

d.velop ecm services for SAP Solutions requires at least the following SAP components:

- SAP NetWeaver 7.40 Service Patch 4
- SAP ERP ECC 6.0 EHP 7
- d.velop connect for Microsoft SharePoint (only for the connection to SharePoint Online)

You can also install the product d.velop ecm services for SAP Solutions on an S4/HANA system (Release 1610, 1709, 1809).

1.3.2. Activating the license

The licensing of d.velop ecm services for SAP Solutions was changed to the new license version 3.0 with version 1.0.1.0. The licensing of the product is described in the documentation of d.velop customizing for SAP Solutions.

1.3.3. Loading the SAP transports

d.velop ecm services for SAP Solutions is integrated into the central /DVELOP/ SAP Customizing, so you have to ensure that d.velop Customizing is loaded before loading the transports.

d.velop Customizing consists of the following transports:

- A workbench transport that contains all authorization objects.
- A workbench transport that contains the Customizing.
- A Customizing transport.

d.velop ecm services for SAP Solutions accesses the indexing of d.velop archivelink for SAP Solutions. This is why the interface d.velop archivelink for SAP Solutions (/DVELOP/ARC package) is mandatory for using d.3ecm services for SAP Solutions.

d.velop ecm services for SAP Solutions 2.1.0 consists of three SAP transports:

- Basic workbench transport. Contains the main classes, tables, routines, etc.
- Workbench advanced Indexing Transport. Contains routines for attribute assignment. Based on the product d.velop archivelink for SAP Solutions.
- Customizing transport.

All the transports that are required are provisioned with a ZIP archive.

You can see the transport order in the list above.

1.4. HTTPS connection to an external HTTP server

The following steps are recommended for establishing an HTTPS connection to an external HTTP server:

1. Importing the server certificates in the transaction STRUST
2. Creating a RFC destination with the transaction SM59

You have to embed the d.velop HTTP Gateway from an SAP system (client) with HTTPS.

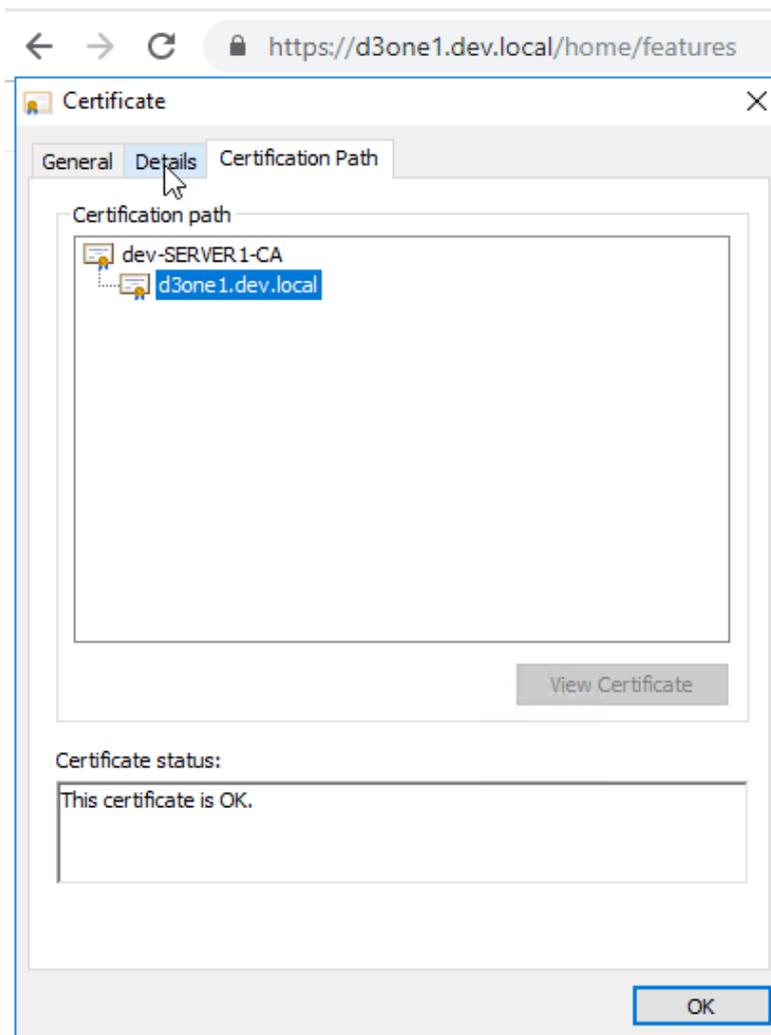
The gateway app currently supports TLS 1.0, 1.1 and 1.2. You can see which Cipher Suites are active in the HTTP gateway in the configuration file in the directory C:\d3\d.ecs http gateway\webserver\conf\extra\httpd-d3ps-ssl.conf.

1.4.1. Importing certificates

Before you can import certificates, you have to download the certificates from your target server. Open the d.3one start page, click on the lock and select **Certificate**.

Change to the tab **Certificate Path** in the following dialog.

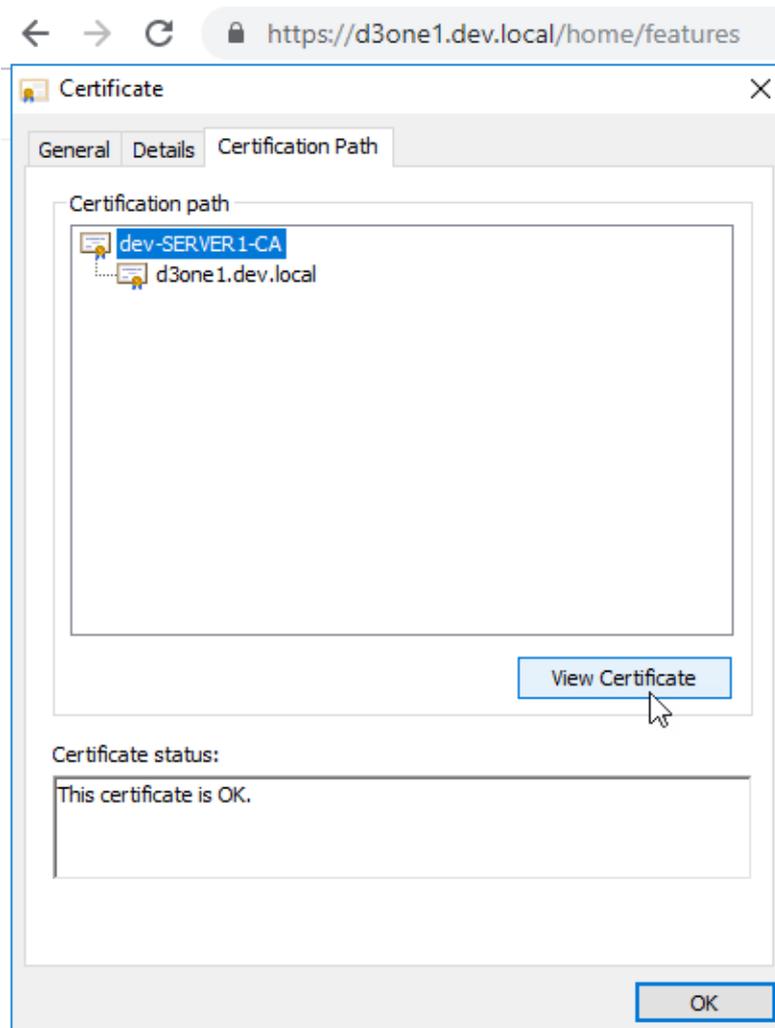
There is a ROOT certificate in addition to the certificate for the server domain (in this case d3one1.dev.local). Depending on the used servers, more or less certificates can be displayed. Please consider every certificate.



You can download the certificate for the domain as a file in the tab **Details**.

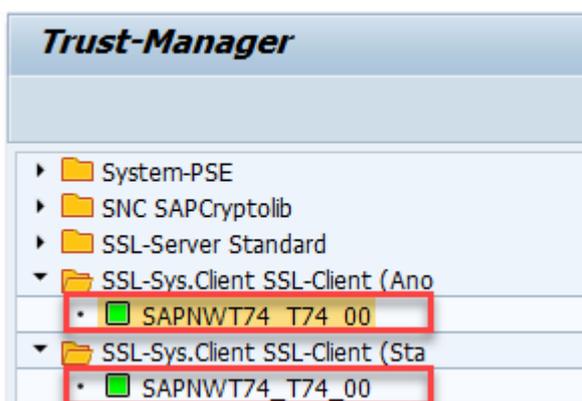
When exporting, please check that the format **Base-64 encoded X.509 (.CER)** is selected.

You can display the ROOT certificate with the certificate path and then download it in the same way as the other certificate.

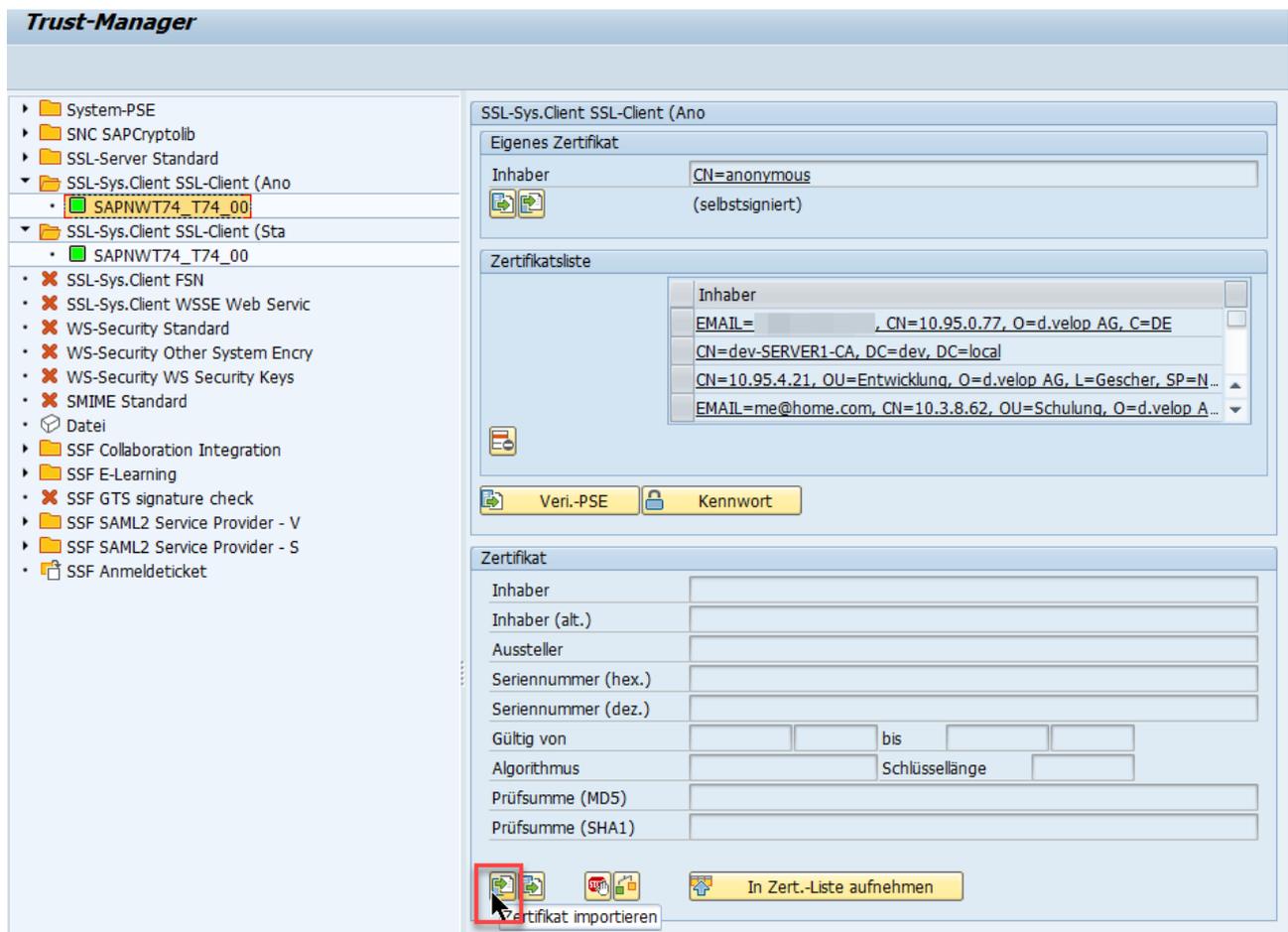


Importing certificates in your SAP system

You can import the certificates with the transaction STRUST, to trust the HTTP Server.



Map both certificates (the ROOT certificate and the domain certificate) with the SSL-Sys.Client SSL-Client Anonymous and SSL-Sys.Client SSL-Client Standard. The selection is performed with a double click on the corresponding entry from the application server. Upload the certificate with the button **Import certificate**.



After having selected the file, you have to add the certificate with the button **Add to Certificate List**. Save the change afterwards.

1.4.2. Setting up an RFC connection to an external server

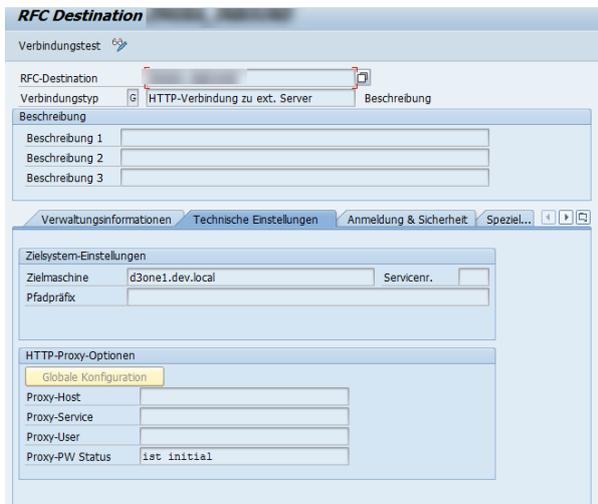
To access an external HTTP server from the ABAP workbench, it is not absolutely necessary to create an RFC connection. With the RFC connection you can check if the HTTPS connection is functional.

You can create the RFC connections with the transaction SM59.



An HTTP connection to an external server is needed (type G).

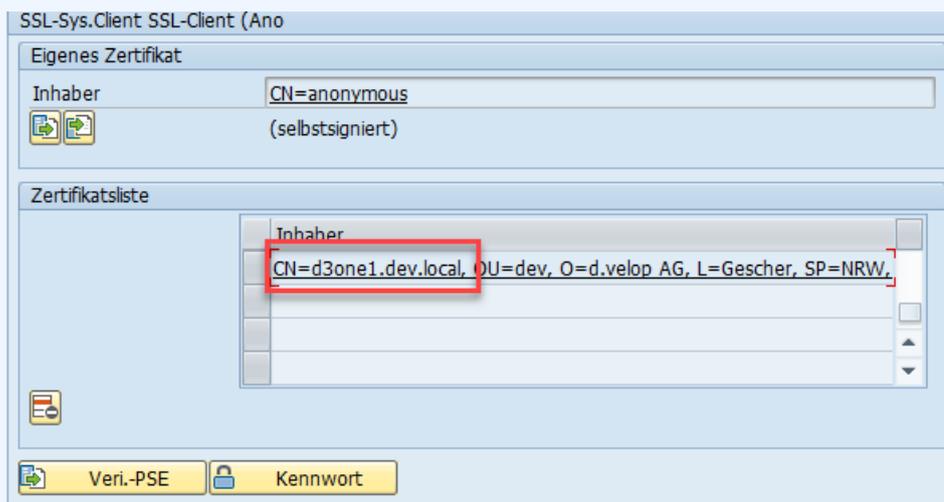
Use the button **Create** to create a new connection. The target server address is then entered in the field **Target Host**.



The screenshot shows the 'RFC Destination' configuration window. The 'Verbindungstyp' (Connection Type) is set to 'HTTP-Verbindung zu ext. Server'. The 'Zielsystem-Einstellungen' (Target System Settings) section shows 'Zielmaschine' (Target Machine) set to 'd3one1.dev.local'. The 'HTTP-Proxy-Optionen' (HTTP Proxy Options) section is visible, with 'Proxy-PW Status' set to 'ist initial'.

Note

Enter the same address which is defined in the certificate.



The screenshot shows the 'SSL-Sys.Client SSL-Client (Ano)' configuration window. The 'Eigenes Zertifikat' (Own Certificate) section shows 'Inhaber' (Owner) set to 'CN=anonymous (selbstsigniert)'. The 'Zertifikatsliste' (Certificate List) section shows a list of certificates, with the first entry highlighted: 'Inhaber: CN=d3one1.dev.local, OU=dev, O=d.velop AG, L=Gescher, SP=NRW'. The 'Veri.-PSE' (Verify PSE) and 'Kennwort' (Password) buttons are visible at the bottom.

You have to maintain the security options in the tab **Logon & Security**.

RFC Destination

Verbindungstest

RFC-Destination

Verbindungstyp HTTP-Verbindung zu ext. Server Beschreibung

Beschreibung

Beschreibung 1

Beschreibung 2

Beschreibung 3

Verwaltungsinformationen Technische Einstellungen **Anmeldung & Sicherheit** Spezial...

Anmeldeverfahren

Anmeldung mit Benutzer

Keinen Benutzer verwenden

Basic Authentication

Benutzer

PW-Status

Anmeldung mit Ticket

Kein Anmeldeticket senden

Anmeldeticket ohne Bezug zu einem Zielsystem senden

Assertionticket für dediziertes Zielsystem senden

System-ID

Mandant

Sicherheitsoptionen

Status des sicheren Protokolls

SSL inaktiv aktiv

SSL-Zertifikat Zert. Liste

Berechtigung für Destination

After saving, you can check the RFC connection with the connection test.

Note

If the connection test returns the error ICM_HTTP_HOST_UNKNOWN, the IP cannot be resolved. In this case, you have to edit the HOSTS file on the SAP server.

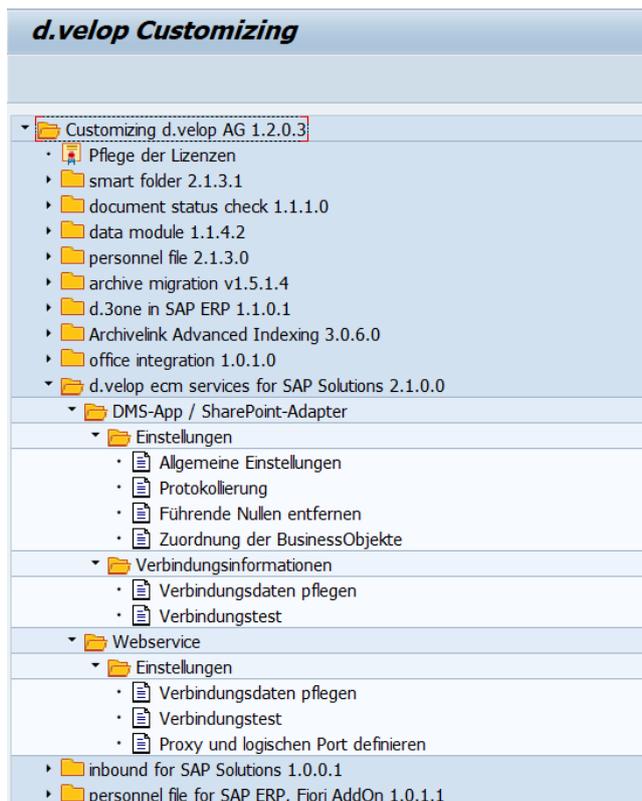
1.5. Customizing

The customizing for d.velop ecm services for SAP ERP is applied via the SAP transaction /DVELOP/CUS.

Using the menu option **d.velop ecm services for SAP Solutions**, you navigate to the settings for testing and maintaining the connections. Since version 2.0.0.0 d.velop ecm services for SAP Solutions uses a new technology (DMS app). If required, you can use the DMS app and d.3 webservices parallely. The webservices technology did not change since the previous version.



If you expand both folders, you can see the following menu options:



1.5.1. DMS app and SharePoint adapter

General settings

You can enter the indexing type and the ICF service using the menu option **General settings**. The settings are maintained depending on the Content Server ID. You can select which ECM system should be used under **ECM system**. You can choose between d.3one and SharePoint Online.

Sicht "d.velop Customizing für die ecm services" ändern: Übersicht

Neue Einträge

| Content Server ID | Indexierungstyp | ECM-System |
|--|---------------------------|------------------|
| {09F0B217-E05B-4785-9A76-997835DFB59B} | adv. Indexing ArchiveLink | d.3one |
| | | d.3one |
| | | SharepointOnline |

Make sure that only one line is marked with **Active** for every SAP system ID.

Note

As of version 2.4.0, the SAP system ID must be maintained.

The indexing type is responsible for the indexing (attribution) and can be changed via the drop-down menu. Currently, only indexing **adv. Indexing ArchiveLink** is available. The index data is determined by the product d.velop archivelink for SAP Solutions.

Sicht "d.velop Customizing für die DMSApp" ändern: Übersicht

Neue Einträge

| Content Server ID | Indexierungstyp | SICF Node Sources |
|--|--|---------------------|
| {1EC8E1A2-AD0F-4DB2-B5B5-541ACE343B6D} | adv. Indexing ArchiveLink | /dvelopdms/sources/ |
| | adv. Indexing ArchiveLink | |
| | DMS_App Indexing (nicht implementiert) | |

Creating the ICF services

You can perform the next steps only manually with transaction **SICF**. The ICF services ensure that the assignment options are provided for the d.velop DMS app configuration.

Create a service for the DMS app of d.velop AG and use the name **dvelopdms** for this service. Select the menu option **New Sub-Element** from the context menu of **default_host**.

Pflege der Services

Host/Service anlegen

Filterangaben

Virtueller Host: Service-Pfad:

Servicename:

Beschreibung:

Sprache: Deutsch Ref-Service:

Anwenden Zurücksetzen Verfeinern

| Virtuelle Hosts / Services | Dokumentation | Referenzservice |
|----------------------------|--------------------------------------|-----------------|
| default_host | VIRTUELLER DEFAULT HOST | |
| Neues Subelement | d.velop AG service | |
| Virt. Host anzeigen | ensraum; SAP verpflichtet sich, k... | |
| Virt. Host löschen | ainer-Engine für Java-Anwendungen | |

To set up the ICF service, the credentials and a suitable description must be added. Use a communication user for the credentials.

As a last step, select the tab **Handler List** and enter the class **/DVELOP/DMS_HTTP_HANDLER**, which is delivered with the d.velop workbench transport.

Anlegen/Ändern eines Services

Pfad
 Service-Name Service (inaktiv)
 Sprache (nicht gepflegt) [andere Sprachen](#)

Beschreibung

Beschreibung 1
 Beschreibung 2
 Beschreibung 3

Service-Daten | Anmelde-Daten | **Handler-Liste** | Fehlerseiten | Administration

Handler-Liste (in Ausführungsreihenfolge):

| N. | Handler |
|----|---|
| 1 | <input type="text" value="/DVELOP/DMS_HTTP_HANDLER"/> |
| 2 | <input type="text"/> |
| 3 | <input type="text"/> |
| 4 | <input type="text"/> |
| 5 | <input type="text"/> |
| 6 | <input type="text"/> |
| 7 | <input type="text"/> |

A second service is created as a sub element named **"sources"** under the just created ICF service **dvelopdms**. Enter the description, the credentials and the class **/DVELOP/DMS_HTTP_HANDLER**.

Anlegen/Ändern eines Services

Pfad
 Service-Name Service (inaktiv)
 Sprache (nicht gepflegt) [andere Sprachen](#)

Beschreibung

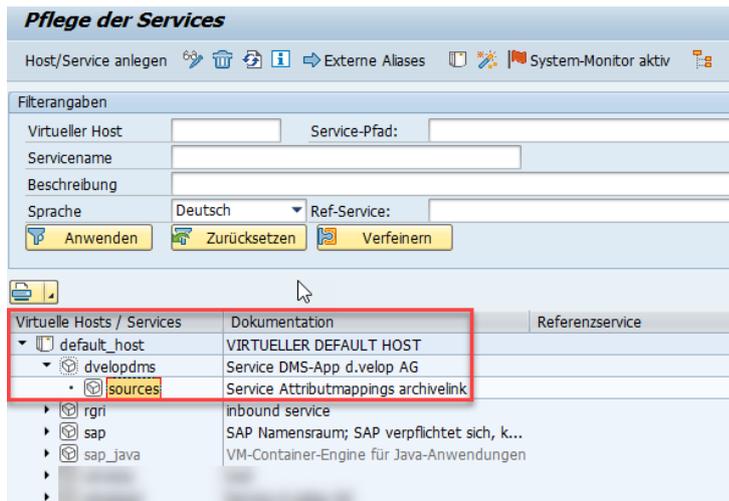
Beschreibung 1
 Beschreibung 2
 Beschreibung 3

Service-Daten | Anmelde-Daten | **Handler-Liste** | Fehlerseiten | Administration

Handler-Liste (in Ausführungsreihenfolge):

| N. | Handler |
|----|---|
| 1 | <input type="text" value="/DVELOP/DMS_HTTP_HANDLER"/> |
| 2 | <input type="text"/> |
| 3 | <input type="text"/> |
| 4 | <input type="text"/> |
| 5 | <input type="text"/> |
| 6 | <input type="text"/> |
| 7 | <input type="text"/> |

Activate both services and ensure the following hierarchy: **default_host > dvelopdms > sources**.



Enter the path `"/dvelopdms/sources/"` in the general settings in the column **SICF Node Sources**.

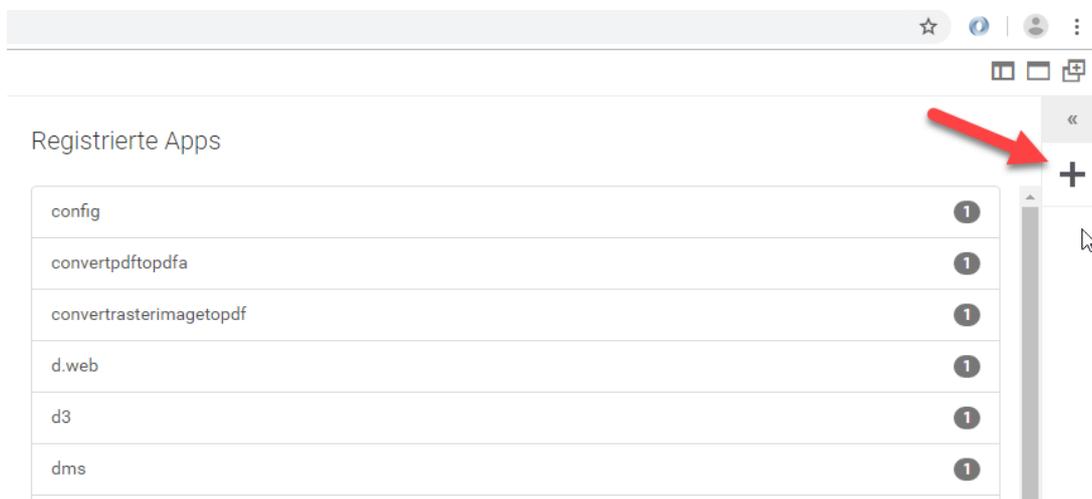
Note

Note the hierarchy when defining the path. Assigning the ICF service **dvelopdms** to a lower-level position is currently not applicable.

Connecting the ICF service with the reverse proxy

Register your ICF service as an app in d.ecs http gateway, in order to configure mappings in d.3one. The sources are provided from the SAP system.

Open `<Base-URL>:4200` and select the tile **Registered apps**



You can enter the ICF Service using the context action **Add instance** (plus symbol). Enter the name **dvelopdms** as app.

Neue App-Instanz registrieren

App:

dvelopdms

Ziel-URL:

http://:50000 dvelopdms

Sticky Session

Registri...

The app name must match the ICF service name. You can see the target URL by selecting the option **Test service** from the context menu of the ICF service **dvelopdms** (Transaktion **SICF**). Make sure that the customizing entry **SICF Node Sources** is filled in.

You can see the URL in the address bar of your browser. Copy the URL and insert it as target URL without the addition **?sap-client=XXX**.

← → ↻ 🏠 ⓘ Nicht sicher | 50000/dvelopdms?sap-client=100

```
{"_links":{"sources":{"href":"/dvelopdms/sources"}}}
```

Logging

This option allows you to configure the logging. There are three different parameters you have to maintain according to the system ID.

Sicht "d.velop Customizing für die Protokollierung" ändern: Übersicht

Neue Einträge

| SAP-System-ID | Stufe | Tage | Aktiv |
|---------------|--|------|-------------------------------------|
| S4H | hoch (alle funktionalen Prozesse & Fehler) | 10 | <input checked="" type="checkbox"/> |

- **SAP system ID** The SAP system ID specifies for which SAP system the logging data applies.
- **Level:** Using this parameter, you can specify which processes are included in the logging. You can select three different levels.
- **Days:** Specify the retention period in days.
- **Active:** Use this option to enable or disable the logging.

Sicht "d.velop Customizing für die Protokollierung" ändern: Übersicht

Neue Einträge

| SAP-System-ID | Stufe | Tage | Aktiv |
|---------------|--|------|-------------------------------------|
| S4H | hoch (alle funktionalen Prozesse & Fehler) | 10 | <input checked="" type="checkbox"/> |
| | gering (fatale Fehler) | | |
| | mittel (Warnungen) | | |
| | hoch (alle funktionalen Prozesse & Fehler) | | |

Note

In order to automatically clean up the log according to your requirements, you have to plan the report /DVELOP/DMS_DEL_LOG as a job for deleting log entries which are no longer needed. The report cleans up both the table for assigning a unique ID to the SAP document and the table for jobs. Jobs are deleted based on the customizing.

Remove leading zeros

In this overview, you can specify specific table fields for which leading zeroes are removed during the attribute transfer to the d.3ecm environment.

Sicht "d.velop AG - Führende Nullen entfernen" ändern: Übersicht

Neue Einträge

| Objekttyp | Tabellenname | Feldname | entf. Null |
|-----------|--------------|----------|-------------------------------------|
| KNB1 | KNA1 | KUNNR | <input checked="" type="checkbox"/> |

Notes for the table fields

- **Object type:** Business object.

- **Table name:** SAP table.
- **Field name:** Name of the table field in which leading zeroes should not be transferred.
- **rem. zero:** Option to determine if leading zeroes should be removed.

Allocating the business objects

You can configure per business object which repository should be used. If your organization uses multiple repositories, you should maintain the mappings, since the repository ID cannot be assigned according to the mapping when using the functionalities.

If you use more than one repository per SAP system, you have to enter the repository ID. If you do not configure any mapping, the repository which is found first is used.

Sicht "d.velop AG - Zuweisung Business Objekt - Repository ID" ändern:

Neue Einträge

| d.velop AG - Zuweisung Business Objekt - Repository ID | | |
|--|-----------|--------------------------------------|
| System-ID | Objekttyp | Repo-ID |
| S4H | BUS1065 | 7813C542-F572-557C-90BA-A2BA837A466B |

Job processing

You can enable job processing, depending on the SAP system ID. A job is created for each interaction, such as file creation or post-attribution.

If errors occur during an interaction with the ECM system, the created job can be used to restart the attempt. This restart is automated and does not require manual intervention.

In order for the unique job ID to be assigned, you must maintain the interval from the corresponding number range object.

- To do this, go to transaction **SNUM**.
- Maintain the number range object **/DVELOP/JE**.
- Enter the following interval:
 - Number range number: 01
 - from number: 0000000001
 - to number: 9999999999
- Save the changes afterwards.

To do this, schedule the **/DVELOP/DMS_JOB_PROCESSING** report in the background. The report starts at your requested interval and can re-run the error cases based on the job management.

You can maintain the following parameters under the Customizing menu item **Job processing** :

- **SAP system ID:** ID of the SAP system
- **Threads:** Specifies the number of threads to run job processing. Thus, the processing of jobs to be repeated can be parallelized.
- **Jobs per thread:** Specifies the number of jobs to be processed per thread.
- **Trials:** Specifies the number of times a job is repeated in a error case
- **Active:** When enabled, jobs are written to the corresponding job table.

Jobs management

You can have the job table cleaned up automatically. To do this, switch to the menu item **Administration of jobs** in d.velop customizing.

If you have already scheduled the `/DVELOP/DMS_DEL_LOG` report in the background and also enabled and configured automated deletion, the job table will be cleaned up.

The configuration is dependent on the SAP system ID. If you have maintained the Customizing for an SAP system, you can jump to the details by double-clicking on the SAP system ID.

You can maintain the following parameters:

- **Active:** Enable the cleaning of the job table.
- **Jobs (older than, in days):** Specify the days after which the jobs should be deleted. The reference date is the creation date of the job. By default, the value is set to 180.

You can then specify which jobs should be deleted.

You can choose between successfully processed jobs or all created jobs.

In addition, you can restrict the type. Update jobs as well as create jobs can be deleted. Enable the corresponding options for this purpose.

Maintaining connection data

Specify the base URL of the d.3one environment in the view for maintaining the connection parameters.

Sicht "d.velop AG - Pflagetabelle für die Verbindungsparameter" ändern

Neue Einträge

| d.velop AG - Pflagetabelle für die Verbindungsparameter | |
|---|--------------------------|
| SAP-System-ID | Basis-URL |
| S4H | https://d3one1.dev.local |

Additionally, you have to enter the bearer token for the authentication.

Sicht "d.velop AG - Pflagetabelle für die Verbindungsparameter" ändern

Neue Einträge

| d.velop AG - Pflagetabelle für die Verbindungsparameter | |
|---|---|
| SAP-System-ID | Token |
| S4H | Bearer QWimCshI51CeWyeDwLR50nAh1K5VvC9kR+Jy50Fzeq0kMYMKdKg04ypitHNutonq+vvQyt+7 |

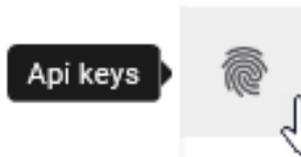
Note

The bearer token has a length of over 200 characters. You cannot display the full length in the view with the transaction **SE16** (n). You explicitly have to use the maintaining view which you can open with the menu option **Maintain connection data**.

You can generate the token in the d.3one feature **Configuration**. Select the entry **Identity Provider Configuration** and use the context action with the fingerprint icon to generate a token.

Note

The token is called API key in the d.3one environment.



Select a user, add a description and create the token.

Api key

Create new api key

User

Label



Afterwards, copy the token with the marked button () and insert it in the customizing under the column **Token**.

Note

After inserting the token in the column, enter the word **Bearer** (with a blank space) before the token.

Connection test

The menu option **Connection check** allows you to check the connection to your repository.

The established system ID and the base URL of the d.3one environment are read and the connection is checked. The test checks if a repository is generally available.

```
d.velop AG - Verbindungstest
d.velop AG - Verbindungstest
SAP-System : S4H
Basic-URL  : https://d3one1.dev.local
Lizenz     : X
Verbindung d.3 Repository: X
```

The connection is established right after opening the menu option. Additionally, you are informed if the saved license is valid.

```

d.velop AG - Verbindungstest

d.velop AG - Verbindungstest

SAP-System : S4H
Basic-URL  : https://d3one1.dev.local
Lizenz    : X
Verbindung d.3 Repository:

```

File and list item creation as well as updating will only work if the repository is accessible and the license is valid.

Managing mappings

A mapping is mandatory to be able to create or update a folder in the d.3ecm environment. The folders are created according to the configured mappings. To create a mapping, switch to the d.3one start page.

Select the tile **Mappings**. Create a new mapping with the plus symbol. Afterwards, you can enter a name. The drop-down menu of sources lists all property mappings configured in the Admin Launchpad of the product d.velop archivelink for SAP Solutions.

Home < d.3one > Zuordnungen > Details der Zuordnung

Zuordnungen in Archiv (A)

- BUS2032_S4H
- BUS2032_S4H_Auftragsakte (BUS2032_S4H_Auftragsakte)
- Lieferantenakte

Neue Zuordnung

Name *

Kundenakte

Quelle *

- BUS2012_S4H_ZDV_INTERN
- BUS2012_S4H_ZDV_LIEF
- BUS2032_S4H
- BUS2032_S4H_SCHR
- d.ecs inbound
- DMS_Akte
- Kundenakte**
- LFA1_S4H_Folder
- Lieferantenakte
- PREL_ZDV_01D01
- VBK_S4H

Note

The sources URL is composed of the names of the property mappings. All blank spaces in the URL are replaced by the character '_' as an URL cannot have blank spaces. Avoid combinations which correspond to the following sample:

- DMS_folder <> DMS folder
- BUS2032_S4H <> BUS2032 S4H
- Property_Mapping <> Property Mapping

The property mappings are the basis for the indexing type **adv. Indexing ArchiveLink**. You can only map properties which you have configured for the selected sources. If you want to transfer properties that you cannot currently select, you must first extend the corresponding property mappings in the administration interface of d.velop archivelink for SAP Solutions.

Neue Zuordnung

Name *

Kundenakte

Quelle *

Kundenakte

Kategorien

Quelle *

KNB1.ZRGRLTEST

Ziel *

Kundenakte

Zeile hinzufügen

Eigenschaften

Quelle *

Debitorennummer

Ziel *

Kundennummer (7)

Regex

 Groß-/Kleinschreibung ignorieren

Zeile hinzufügen

Speichern

The sources of the categories are provided from the SAP system and are build as follows: **<Business object>**.**<Document type>**. You have to map categories from the SAP system with a d.3ecm category. Afterwards, you can map properties which should be transferred when creating or updating folders.

After a successful save, the functions **Create** and **Update** are functional.

Warning

To avoid duplicate dossiers, the property **property_document_number** must be assigned to the target property **document_number**. The target property is a general field and exists in every category. **property_document_number** is added to the source automatically and can be selected directly. **property_document_number** is a uniquely generated ID from the SAP system.

Note

If the described mapping is not configured or if no properties are saved for a mapping, errors can occur during the creation of dossiers or the retrospective attribute assignment.

Managing mappings for the SharePoint Online connection

If SharePoint online is used as ECM, you must first install the product **d.velop connect for Microsoft SharePoint**. The installation automatically registers the sharepoint adapter app. Afterwards, the configuration options for the product are available in the tile **Configuration**.

d.velop connect for Microsoft SharePoint contains two menu options in the configuration tile which are essential for using d.velop ecm services. The relevant SharePoint connection information is entered

under **Manage repositories** (for example the tenant directory ID). The information can be gathered in the Azure portal. The repository ID is then automatically generated.

The mappings are almost identical to the mapping tile in the d.3 environment. Note that the product d.velop ecm services for SAP Solutions only supports Lists and that the content type Item must be used. This applies only to the use of the adapter to connect SharePoint Online.

The screenshot displays the configuration interface for d.velop ecm services. The main content area is titled 'Konfiguration' and contains several configuration tiles. A red arrow points to the 'Microsoft SharePoint-Anbindung' tile, which is titled 'd.velop connect for Microsoft SharePoint'. The right sidebar shows the 'Zuordnung bearbeiten' (Edit Mapping) form, which includes fields for 'Name*' (BUS2032), 'Quellsystem*' (BUS10), 'Kategorien' (PREL.ZRGRI_TEST), and 'Eigenschaften' (Personnel number).

Warning

Make sure that the following settings are configured in SharePoint Online.

Select **list settings** for the corresponding list via the cogwheel. Answer the question **Create a new version every time an item in the list is edited?** with the answer **Yes**.

Enter the value 5000 in the field **Keep the following number of versions:** and confirm with **Ok**.

Programs

In the menu item **Programs** you can directly access helpful functions in d.velop customizing.

Among other things, you can select the **Log View** program to view log entries. At startup, a selection area opens to limit the results of the log entries.

In the table display, the error texts may be truncated. You can view the error text in full by double-clicking the corresponding exception or using the **context menu > Log message**.

Using the job monitor you can get an overview of all jobs. At startup, a selection area opens to limit the results of the jobs.

The most recent log message is not written directly to the job table and is instead symbolized with a small icon. To view the message, double-click the icon of the **Message** column or select the **View Log Message** context menu item.

Alternatively, you can switch to the log view from the job monitor. To do this, select the **View all log messages** context menu item. The log view then opens with all entries for the corresponding SAP document.

User

You will need an SAP dialog user with the following permissions to configure the Customizing settings in the DMS app in SAP:

S_TCODE

- TCD: /DVELOP/CUS

S_TABU_DIS

- DICBERCLS: ZARC (d.velop archiving)
- ACTVT: 02 (Change), 03 (Display)

ZDV_CUS_DS

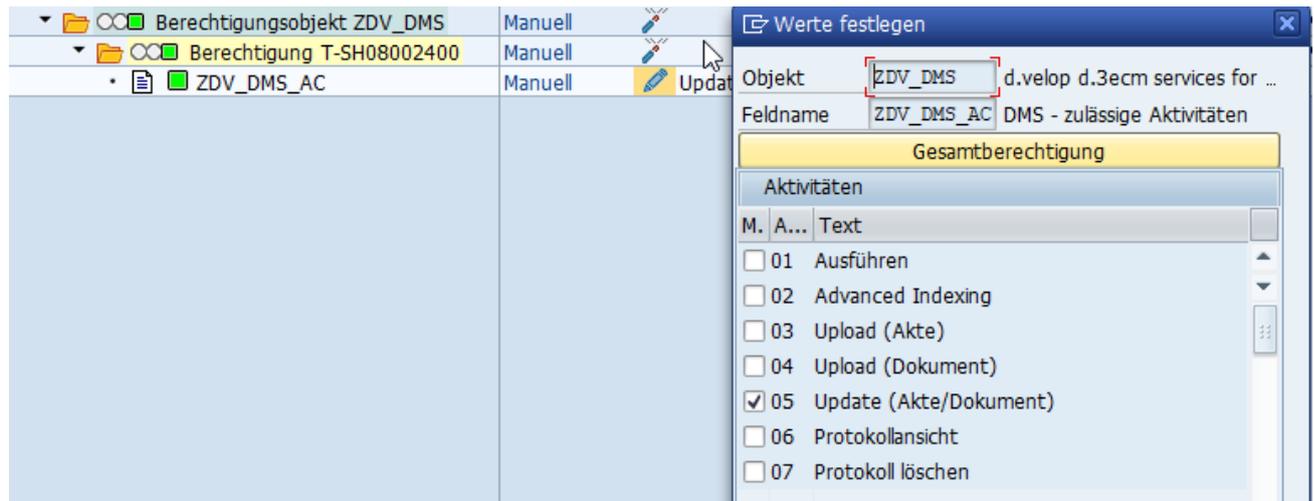
- ACTVT: 16 (Execute)

Additionally, you can limit the functionalities of d.3ecm services for SAP Solutions 2.0.0.0. Behind the authorization object ZDV_DMS, which is included in the delivery, there is a dedicated domain with fixed values of activities that you can enable by checking a check box in role maintenance.

ZDV_DMS

You can enable the following permissions for the domain ZDV_DMS_AC:

- 01 Execute
- 02 Advanced Indexing
- 03 Upload (folder)
- 04 Upload (document)
- 05 Upload (folder/document)
- 06 Logging display
- 07 Delete logging



1.5.2. Webservice

As of version 2.0.0.0 of d.3ecm services for SAP Solutions, the customizing for the webservice technology can be found under the menu option **Webservice**.

Warning

Please note that the web service connection is based on the d.3 API. The d.3 API support will officially be guaranteed by d.velop AG only until 10/15/2023.

Further information can be found at <http://www.d-velop.com> or <https://portal.d-velop.de/dev/en/abkuendigung-der-d-3-api-und-aller-zugriffs-schnittstellen-einschliesslich-dem-soap-webservice-zum-15-oktober-2023>

Maintaining the connection data

The menu option **Maintain connection data** allows you to enter the connection settings for the webservice connection. You can maintain all connections according to the system ID.

Sicht "d.velop Verbindungstabelle für die Webservicekonfiguration"

Neue Einträge

| d.velop Verbindungstabelle für die Webservicekonfiguration | | | | | | |
|--|------------|------|------------|--------|----------|---|
| SAP-System-ID | IP Adresse | Port | Repository | User | Passwort | |
| I74 | 10.95.0.80 | 3400 | P | D3_WEB | ROVIRUIN | ▲ |
| T74 | 10.95.0.81 | 3400 | P | d3_WEB | ROVIRUIN | ▼ |

You can maintain the connection data in the table view. Switch to the individual view with the button **New entries** or by double-clicking on the row.

Sicht "d.velop Verbindungs"

Neue Einträge

SAP-System-ID: T74

d.velop Verbindungstabelle für di

| | |
|-------------|------------|
| IP Adresse | 10.95.0.81 |
| Port | 3400 |
| Repository | P |
| User | d3_WEB |
| Passwort | ROVIRUIN |
| d.3 Sprache | 049 |

Notes on the link table

- The **SAP system ID** specifies for which SAP system the connection data applies. The ID allows you to directly create the customizing for different SAP systems and to transport it.
- **IP address:** Specify the IP address of the application server on which d.3 is installed.
- **Port:** The d.3 system d.3 port.
- **User:** Specify the technical d.3 user for the login to the d.3 system.
- **Password:** The password for the technical d.3 user.
- **d.3 language:** The login language in the d.3 system ('049' = German, '001' = English).

Note

After saving, the password of the d.3 user is coded and automatically replaced by the coded value in the display.

The decoding is processed automatically when establishing a connection with d.3 web-service.

Defining a proxy and a logical port

You can use an individual proxy class or the delivered /DVELOP/ proxy classes for connecting with the d.velop web webservice using the menu option **Define customizing proxy and logical port**.

The chosen proxy class depends on the used d.velop web webservice version.

The following table shows the /DVELOP/ proxy classes and their dependencies for the d.velop web webservice version.

| d.velop webservice | d.velop d.3ecm services for SAP ERP proxy (class) |
|--------------------|---|
| [de] 2.3 | /DVELOP/CO_WS23_D3WSERVICE_POR |
| [de] 2.4 | /DVELOP/CO_WS24_D3WSERVICE_POR |

Configuring the connection requires a logical port which establishes the connection between the SAP ERP system and the d.velop d.3ecm system. You can choose the port freely.

Configuring the logical port

You specify the logical port in the SOA management portal. Open the portal with the SAP transaction **SOAMANAGER** and enter your SAP credentials again in your browser.

Open the dialog for selecting the proxy classes in the portal with the menu option **Web service configuration**.

SOA-Management (R3_800;I74;800)

Service-Administration | Technische Administration | Protokolle u.Traces | Managementvert

- Identifiable Business Context**
Identifiable Business Contexts (IBCs) definieren
- Identifiable-Business-Context-Referenz**
Identifiable-Business-Context-Referenzen (IBC-Referenzen) definieren
- Designzeit-Cache**
Zentralen Designzeit-Cache anzeigen
- Web-Service-Konfiguration**
Service-Definitionen, Consumer-Proxys und Service-Gruppen konfigurieren
- Vereinfachte Web-Service-Konfiguration**
Service-Definitionen für Web-Service-Consumer mit eingeschränkter Funktionalität konfigurieren

For d.velop webservice for SAP ERP, you can search with the keyword ***dvelop***.

Web-Service-Konfiguration (R3_800;I74;800)

Designzeit-Objektsuche | Konfigurationssuche

Suchkriterien

Objekttyp is Alle

Objektname ist *dvelop*

Maximale Anzahl von Ergebnissen: 100 Gesicherte Suche:

Suchen Werte löschen Suchkriterien zurücksetzen

The result set should contain the entry for the internal name `/DVELOP/CO_WS_<version number>_S_D3WEBSERVICE_POR`. You can open the entry by clicking on the internal name.

Web-Service-Konfiguration (R3_800;I74;800)

Designzeit-Objektsuche | Konfigurationssuche

Suchkriterien

Objekttyp is Alle

Objektname enthält *dvelop*

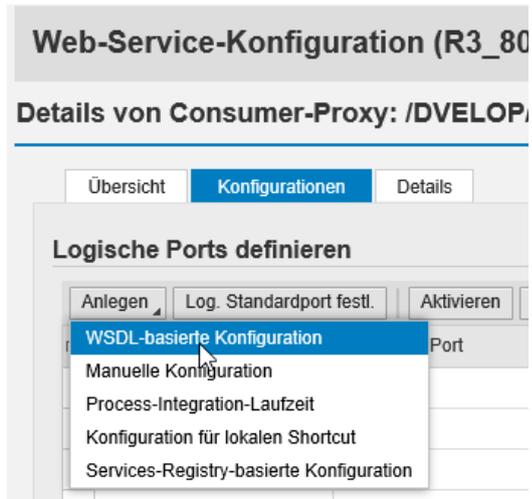
Maximale Anzahl von Ergebnissen: 100

Suchen Werte löschen Suchkriterien zurücksetzen

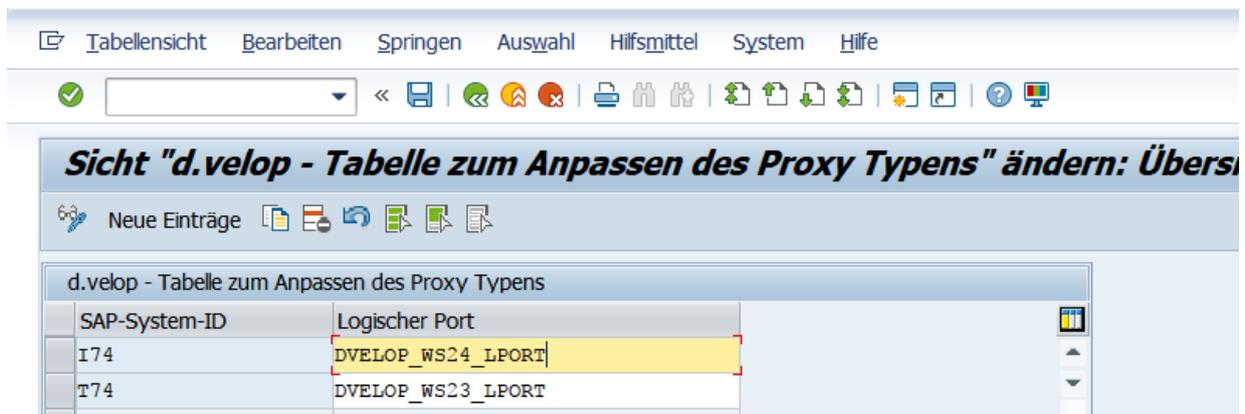
Suchergebnis

| Interner Name | Typ | Name |
|--|----------------|---------------|
|  /DVELOP/CO_WS23_D3WEBSERVICE_POR | Consumer-Proxy | D3WebServiceP |
|  /DVELOP/CO_WS24_D3WEBSERVICE_POR | Consumer-Proxy | D3WebServiceP |

Afterwards, you can configure the logical port for the proxy class. Select the option **WDSL-based configuration** from the drop down menu **Create**.

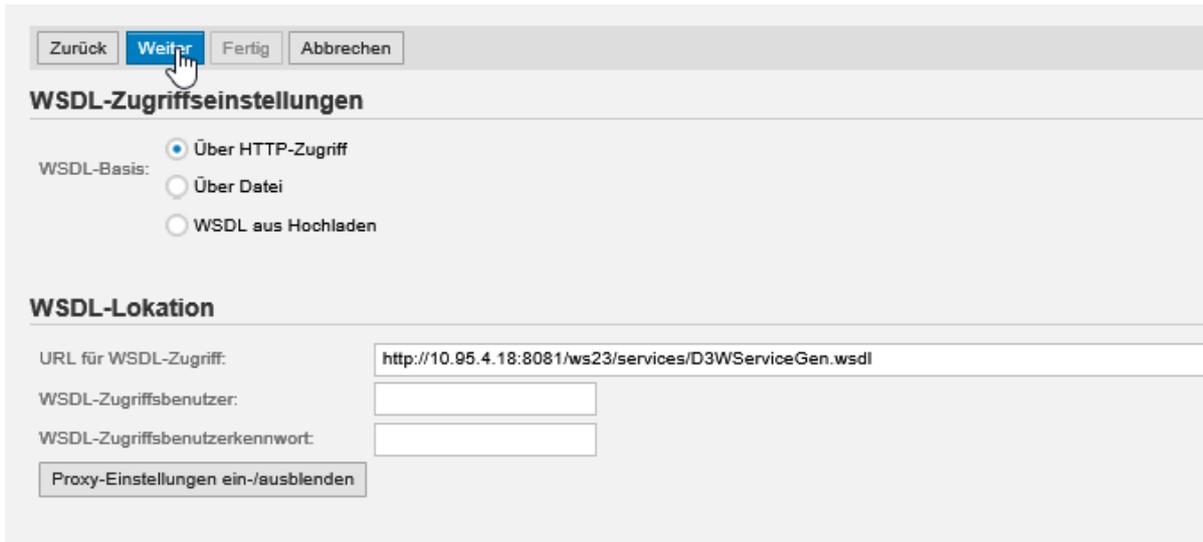


You should configure the logical port with the name DVELOP_WS<version number>_LPORT. The port must match the entered logical port in the customizing.



Afterwards, you can enter the URL for the WSDL acces.

The URL is build from the IP (including the port '8081') of the system hosting the webservice and the URL /services/D3WServiceGen.wsdl, e.g. <https://10.95.4.18:8081/ws23/services/D3WServiceGen.wsdl>.



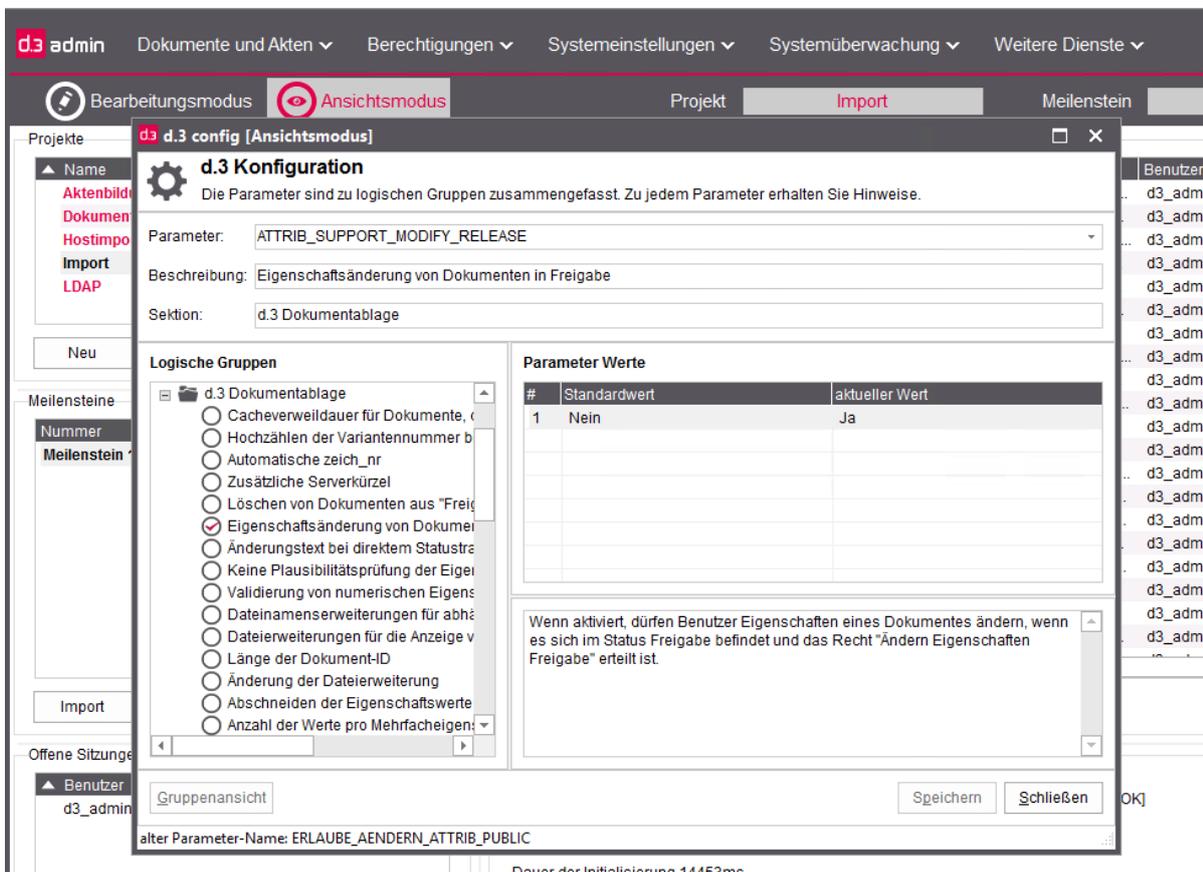
Using HTTPS

From d.velop web webservice version 2.4, it is also possible to call a connection via an HTTPS URL. This function requires d.velop web webservices and the SAP system to trust the same certificate.

For more information, see the documentation of d.velop web webservice and the SAP SDN.

Updating attributes when releasing

Changing properties of released documents may be disabled in the d.3ecm system. You can adjust the setting with the switch ATTRIB_SUPPORT_MODIFY_RELEASE in d.3 admin.



Use the button **Next** until you can confirm and save the customizing with **Done**.

Transport-Binding

* URL-Zugriffspfad: /ws22/services/D3WServiceGen

Rechnername der Zugriffs-URL: 10.95.4.18

Portnummer der Zugriffs-URL: 8081

Protokollinformation der URL: HTTP

Anmeldesprache: Sprache des Benutzerkontextes

Name des Proxy-Rechners:

Portnummer des Proxy-Rechners:

Benutzername für Proxy-Zugriff:

Kennwort des Proxy-Benutzers:

Lokalen Aufruf durchführen: Kein systemlokaler Aufruf

* Transport-Binding-Typ: SOAP 1.1

Maxim. Wartezeit WS-Consumer: 0

Optimierter XML-Transfer: Keine

HTTP-Message komprimieren: Inaktiv

Response komprimieren: Wahr

At the end of the configuration, the logical port is saved and activated for the webservice and it appears as an entry in the overview.

| Aktionen | Logischer Port | Zustand | Logischer Port ist Standard | Beschreibung | Erstellungstyp |
|----------|-----------------|---------|-----------------------------|--------------------------------|------------------|
| | DVELOP_WS_LPORT | Aktiv | | d.velop Webservice for SAP ERP | Manuell angelegt |

To check the customizing, you can check the connection with the report `/DVELOP/WS_CUST_CCHECK`.

You can use the transaction `/DVELOP/WS_CCHECK` which you can also access in the customizing and with the menu option **Connection check**.

Connection test

The menu option **Connection check** allows you to check the connection for the respective system IDs with the d.3 system.

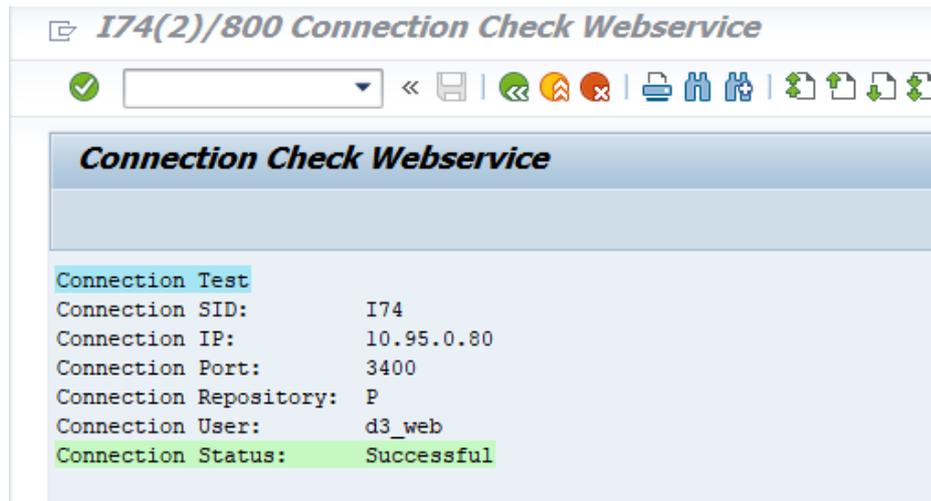
Enter the configured system ID in the parameter field and start the check with the button **Execute** or with the key F8.

Connection Check Webservice

SAP Systemauswahl

System ID: I74

Depending on the result, you either see a successful processing or a faulty processing with a technical explanation.



1.6. Application manual

The following subchapters provide you with further information on the SAP report /DVELOP/DMS_AL_FOLDER_MGMT for creating folders and on the SAP report /DVELOP/DMS_AL_UPDATE_MGMT for the application.

Moreover, using the function modules is described in customer-specific extensions.

1.6.1. SAP GUI reports

The following subchapters refer to the two reports d.velop attribute update for SAP ERP for the attribute update and d.velop folder management for SAP Solutions for the folder creation.

DMS technology

This chapter provides you with information on the DMS app report for updating attributes and for creating folders or list items.

/DVELOP/DMS_FM - d.velop folder management for SAP Solutions

You can use the automatic folder creation with the report /DVELOP/DMS_AL_FOLDER_MGMT, to create dossiers with properties in the d.3 system.

The report offers you the option of automatically creating folders. You can choose which folders are created on the SAP GUI interface via selection.

d.velop ecm services for SAP Solutions supports the following business objects for creating folders:

- LFB1 - Supplier folder
- KNB1 - Creditor folder
- MARA - BUS1001006 - Material folder
- PREL - Personnel file
- BUS2032 - Order folder
- BUS2012 - Purchase order record
- EQUI - Equipment folder
- BUS2080 - Service notification folder
- BUS2054 - Project folder

The d.velop folder management for SAP Solution interface is built dynamically and is divided into three sections.

1. Attribute set selection and settings options
2. Dynamic selection which is generically called on selecting the business object.
3. Section for the display of the processed sets and the logging

d.velop foldermanagement for SAP Solutions

Attributsetauswahl

Attributset ID TOA-Verknüpfungseinträge anlegen
 Bestehende Akten ignorieren

ContRepID Objekttyp
d.3 Dokuart (kurz) Dokumentart

Selektionsparameter

Lieferant bis 
Buchungskreis bis 

Ergebnisview

d.velop

In the first section you select the corresponding attribute set which is defined in the content server.

Note

This report shows all defined attribute sets from the content server, but you can only use folder assignments. This is why the attribute sets should always be maintained accordingly.

Attribute sets which rely on wild card definitions are not displayed.

An attribute set contains all mapped attributes for the respective folder and all connection information required for the generation on the target system.

The selection **Generate TOA link entries** allows you to automatically generate a link entry in the TOA tables for each folder. Using this link entry allows you to jump from the attachment list, from the object services.

If you deactivate the checkbox **Ignore existing folders**, the application checks in this context, if a folder was already generated. The application searches for an existing link entry in the table /DVELOP/DMS_TOA. If the link entry already exists, no new folder is generated.

Note

The table /DVELOP/DMS_TOA is only delivered with the version 2.0.0.0. The report /DVELOP/DMS_AL_FOLDER_MGMT checks existing folders regardless with which version they were stored.

| Attributsetauswahl | | | |
|--------------------|--|--------------------------|---|
| Attributset ID | <input type="text" value="Lieferantenakte"/> | <input type="checkbox"/> | TOA-Verknüpfungseinträge anlegen |
| | | <input type="checkbox"/> | Bestehende Akten ignorieren |
| ContRepID | <input type="text" value="M3"/> | Objektyp | <input type="text" value="LFB1"/> |
| d.3 Dokuart (kurz) | <input type="text" value="KUND"/> | Dokumentart | <input type="text" value="ZRGRI_TEST"/> |

Having selected the respective attribute set, the mandatory parameters are displayed:

- Content repository ID
- SAP object
- d.3 document type (short)
- SAP document type

The used business object affects the structure of the selection section, in which you can define the restriction for the folders to be created. The selection supplier **1700000** to **17300099** e.g. only generates the corresponding folders for the existing creditors in the scope 1700000-17300099.

| Selektionsparameter | | | |
|---------------------|---------------------------------------|-----|---------------------------------------|
| Lieferant | <input type="text" value="17300000"/> | bis | <input type="text" value="17300099"/> |
| Buchungskreis | <input type="text" value="1710"/> | bis | <input type="text"/> |

Before starting the report with the button **Execute (F8)**, you can analyze the selection section with the middle button. Affected entries are counted in the analysis.

d.velop foldermanagement for SAP Solutions



A Pop-Up appears which shows you the number of entries.

You can then see the result in the section **Results**. It is displayed as a formatted ALV Grid.

d.velop foldermanagement for SAP Solutions

Attributsetauswahl

Attributset ID: Lieferantenakte TOA-Verknüpfungseinträge anlegen

ContRepID: M3 Bestehende Akten ignorieren

d.3 Dokuart (kurz): KUND Objekttyp: LFB1 Dokumentart: ZRGRI_TEST

Selektionsparameter

Lieferant: 17300000 bis: 17300090

Buchungskreis: bis:

Ergebnisview

11 Akte(n) wurden angelegt.

| Objektyp | SAP Objekt-Ident | ContRepID | Dokument-Id | Dokumentart | Ablagedatum | Status Rückmeldung | Erstelldat |
|----------|------------------|-----------|-------------|-------------|-------------|----------------------------|------------|
| LFB1 | 00173000901710 | M3 | A000001759 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000021710 | M3 | A000001760 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000061710 | M3 | A000001761 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000071710 | M3 | A000001762 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000311710 | M3 | A000001763 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000801710 | M3 | A000001764 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000811710 | M3 | A000001765 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000821710 | M3 | A000001766 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000831710 | M3 | A000001767 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000011710 | M3 | A000001768 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |
| LFB1 | 00173000301710 | M3 | A000001769 | ZRGRI_TEST | 15.08.2019 | Akte erfolgreich angelegt. | Thu, 15 / |

All results are logged and stored in the table /DVELOP/DMS_LOG. You can also access the results with the report /DVELOP/DMS_LOG or with the jumping point on the interface.

d.velop foldermanagement for SAP Solutions

/DVELOP/DMS_UA - d.velop attribute update for SAP Solutions

The automatic attribution with the report/DVELOP/DMS_AL_UPDATE_MGMT is used to index documents or folders in the d.3 system.

You can call the application with the transaction /DVELOP/DMS_UA. It allows you to assign attributes to documents or folders that have already been indexed or have not been indexed yet, using a GUI interface. You can update the corresponding list items for the SharePoint Online connection.

With this report, you can use all attribute sets configured in d.velop archivelink for SAP Solutions. In the first section you select the corresponding attribute set which is defined in the content server.

Note

You can update all objects, which have been stored with d.velop archivelink for SAP Solutions or d.velop ecm services for SAP Solutions (DMS).

You have to expand the corresponding source with the document number in the tile **Mappings**, if documents should be attributed retrospectively with the DMS app. You only have to configure this expansion for the distinct mapping. Note that no document number or ARC_DOC_ID can be mapped in the admin launchpad.

Make sure that the properties **Document number** are mapped under the corresponding property mapping. Otherwise, documents stored with d.velop archivelink for SAP Solutions cannot be updated.

| Kategorien | | |
|--------------------|---------|--|
| Quelle * | Ziel * | |
| BUS2032.ZRGRI_TEST | Auftrag | |
| Zeile hinzuf. | | |

| Eigenschaften | | |
|---|-------------|-------|
| Quelle * | Ziel * | Regex |
| Dokumentnr. | Dokumentnr. | |
| <input type="checkbox"/> Groß-/Kleinschreibung ignorieren | | |

The d.velop attribute update for SAP Solutions interface is identical to folder management:

1. Attribute set selection and settings options
2. Dynamic selection which is generically called on selecting the business object.
3. Section for the display of the processed sets and the logging

d.velop attribute update for SAP Solutions

Attributsetauswahl

Attributset ID

ContRepID Objekttyp

d.3 Dokuart (kurz) Dokumentart

Selektionsparameter

Lieferant bis 

Buchungskreis bis 

Ergebnisview

d.velop

In the section **Attribute set selection** you select the corresponding attribute set which is defined in the content server. The application then displays the mandatory fields of the property mappings in the first section and the second section is built.

The used business object determines the structure of the second section. The second section dynamically generates the selection section, in which you can define the limitation for the documents or folders to be attributed. The selection Creditor **17300000** to **17300099** e.g. only applies the attribution for the existing creditors in the scope 17300000-17300099.

Selektionsparameter

Lieferant bis 

Buchungskreis  bis 

Before starting the report with the button **Execute (F8)**, you can analyze the selection section with the middle button. Affected entries are counted.

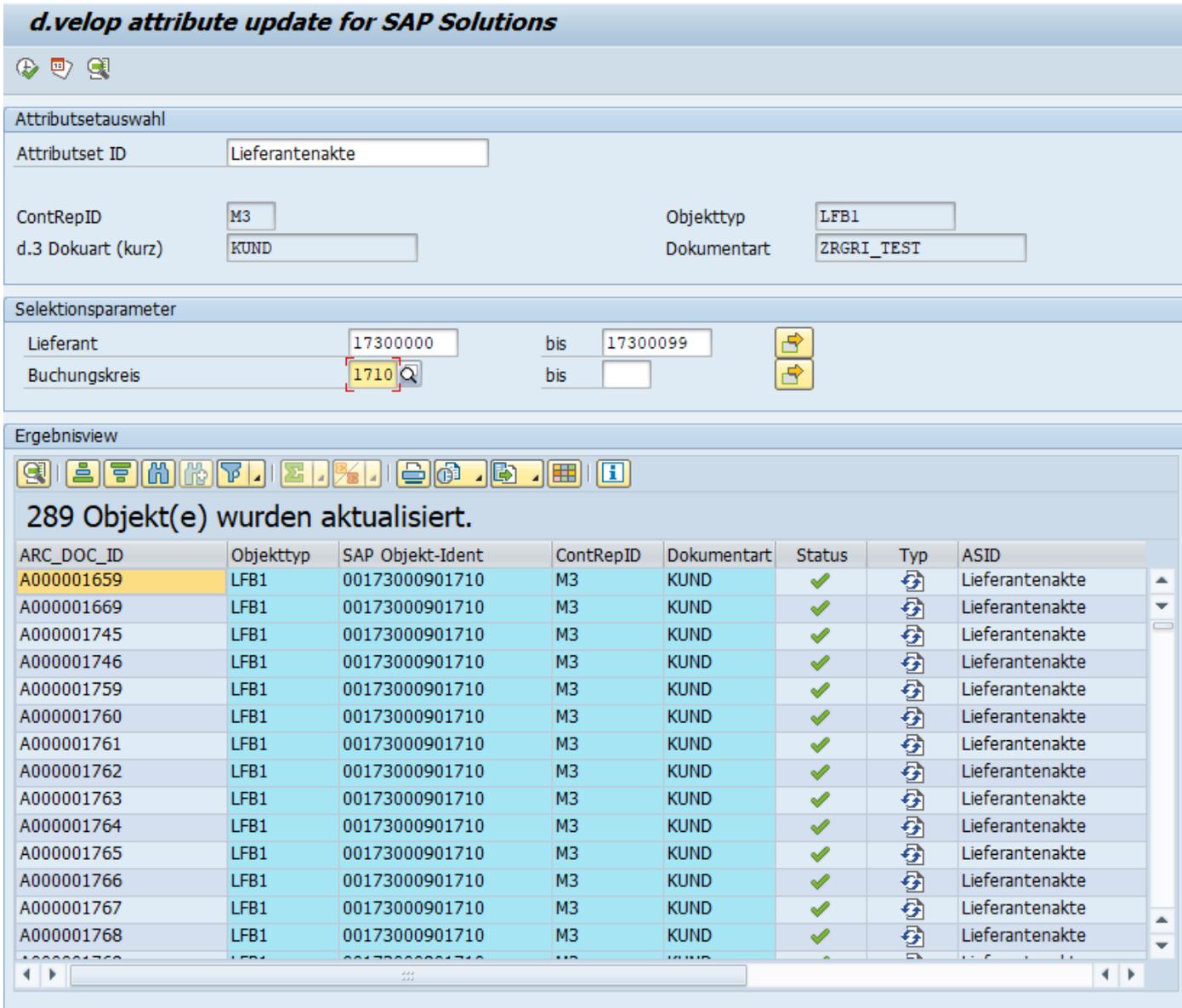
d.velop attribute update for SAP Solutions



A Pop-Up appears which shows you the number of entries.

You can display the result after executing the report in the section **Results**. It is displayed as a formatted ALV Grid.

d.velop attribute update for SAP Solutions



Attributsetauswahl

Attributset ID: Lieferantenakte

ContRepID: M3 Objekttyp: LFB1

d.3 Dokuart (kurz): KUND Dokumentart: ZRGRI_TEST

Selektionsparameter

Lieferant: 17300000 bis: 17300099

Buchungskreis: 1710 bis:

Ergebnisview

289 Objekt(e) wurden aktualisiert.

| ARC_DOC_ID | Objekttyp | SAP Objekt-Ident | ContRepID | Dokumentart | Status | Typ | ASID |
|------------|-----------|------------------|-----------|-------------|--------|-----|-----------------|
| A000001659 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001669 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001745 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001746 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001759 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001760 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001761 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001762 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001763 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001764 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001765 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001766 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001767 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |
| A000001768 | LFB1 | 00173000901710 | M3 | KUND | ✓ | 🔗 | Lieferantenakte |

All results are logged and stored in the table /DVELOP/DMS_LOG. You can also access the results with the report /DVELOP/DMS_LOG or with the jumping point on the interface.

d.velop attribute update for SAP Solutions



WS technology

This chapter provides you with information on the webservice report for updating attributes and for creating folders.

/DVELOP/WS_FM - d.velop folder management for SAP ERP (Webservice)

You can use the automatic folder creation with the report /DVELOP/WS_FOLDER_MANAGEMENT, to create folders with properties in the d.3 system.

The report offers you the option of automatically creating folders. You can choose which folders are created on the SAP GUI interface via selection. Additionally, you can plan this report with a variant as a background job and enable a periodic processing.

d.3ecm services for SAP ERP supports the creation of folders for the following business objects:

- LFB1 - Supplier folder
- KNB1 - Creditor folder
- MARA - BUS1001006 - Material folder
- PREL - Personnel file
- BUS2032 - Order folder
- BUS2012 - Purchase order record
- EQUI - Equipment folder
- BUS2080 - Service notification folder
- BUS2054 - Project folder

The d.velop folder management for SAP ERP interface is built dynamically and is divided into three sections.

1. Attribute set selection and settings options
2. Dynamic selection which is generically called on selecting the business object.
3. Section for the display of the processed sets and the logging

In the first section you select the corresponding attribute set which is defined in the content server.

This report shows all defined attribute sets from the content server, but you can only use folder assignments. This is why the attribute sets should always be maintained accordingly.

An attribute set contains all mapped attributes for the respective folder and all connection information required for the generation on the target system.

The selection **Generate TOA link entries** allows you to automatically generate a link entry in the TOA tables for each folder. Using this link entry allows you to jump from the attachment list, from the object services.

If you deactivate the checkbox **Ignore existing folders**, the application checks in this context, if a folder was already generated. For this effect, an existing link entry is searched in the TOA tables. If the link entry already exists, no new folder is generated.

Having selected the respective attribute set, the mandatory parameters are displayed:

- Content repository ID
- SAP object
- d.3 document type (short)
- SAP document type

The used business object affects the structure of the selection section, in which you can define the restriction for the folders to be created. The selection creditor "1000" to "1200" e.g. only generates the corresponding folders for the existing creditors in the scope 1000-1200.

You can then see the result in the result view section. It is displayed as a formatted ALV Grid.

All results are logged and stored in the table /DVELOP/WS_FM. You can also access the results with the report /DVELOP/WS_FML or with the jumping point on the interface.

/DVELOP/WS_UA - d.velop attribute update for SAP ERP (Webservice)

Use the automatic attribution with the report /DVELOP/WS_UPD_ATTRIBUTES to index documents or folders in the d.3 system.

Call the application with the transaction /DVELOP/WS_UA. The program allows you to assign attributes to documents or folders that have already been indexed or have not been indexed yet, using a GUI interface.

You can transfer this report with variants in the background or job processing with the GUI interface. This allows you to plan this report periodically.

With this report, you can use all attribute sets configured in d.velop archivelink for SAP Solutions.

The d.velop attribute update for SAP ERP interface is partly built dynamically and is divided into the following sections:

1. Selection section for the documents
2. Dynamic selection area, which is called generically depending on the selected radio buttons
3. Section for the display of the processed sets and the logging

Select the documents to be attributed in the first section. You can either select with the ArchiveLink parameters, just like in the TOA link table, or you can select one of the entered business objects.

The used business object then determines the structure of the second section. The second section dynamically generates the selection section, in which you can define the limitation for the documents or folders to be attributed. The selection creditor "1000" to "1200" e.g. only applies the attribution for the existing creditors in the scope 1000-1200.

The following business objects are used:

- BKPF
- LFB1
- KNB1

The application only runs an attribution in d.3, if you activate the checkbox **Update run** and a webservice call is ensued.

If the checkbox is disabled, you get an overview of the selected data records instead.

You can then see the result in the result view section. It is displayed as a formatted ALV Grid.

All results are logged and stored in the table /DVELOP/WS_UA. You can also access the results with the report /DVELOP/WS_UAL or with the jumping point on the interface.

1.6.2. tRFC function modules

DMS app

The tRFC function modules listed below can be implemented in user exits, BAdIs and enhancement spots to supplement processes with post-attributes or automatic folder creations. In contrast to the previous version, there is only one version for each function module.

- /DVELOP/DMS_ALCR_FOL - d.velop folder creation
- /DVELOP/DMS_ALCR_FOL - d.velop (post) attribute assignment

The function modules are solely a method for creating folders or for retrospective attribute assignments. You can use the function modules for BADIs and user exits. When you call the function module and an error occurs, an error message is returned by the exception class.

The RFC function modules additionally return a BAPRIRET2 return value (ES_RETURN), in which the return from the class exit is encapsulated. This static parameter structure can be used to mark the function modules as remote-enabled.

This allows you to call these function modules e.g. with a java script or a d.3 system per hook.

You can find further information on how to fill the attributes manually in the chapters on the function modules:

- [/DVELOP/DMS_ALAT_UPD d.velop update function module](#)
- [/DVELOP/DMS_ALCR_FOL d.velop folder creation or list item creation](#)

Webservices

The tRFC function modules listed below can be implemented in user exits, BADIs and enhancement spots to supplement processes with post-attributes or automatic folder creations. There are two versions of each function module.

- /DVELOP/WS_UPD_ATTR - d.velop update function module
- /DVELOP/WS_UPD_ATTR RFC - d.velop update function module (RFC)
- /DVELOP/WS_IMP_FOL - d.velop webservice - folder creation
- /DVELOP/WS_IMP_FOL RFC - d.velop folder creation (RFC)
- /DVELOP/WS_IMP_FOL_CUST_ATTR - sample FC - d.velop webservice - folder creation with individual attributes

The function modules are divided into two groups. You can use the function modules without attachments for BADIs and user exits. When you call the function module and an error occurs, an error message is returned by the exception class.

The RFC function modules instead return a BAPRIRET2 return value (ES_RETURN), in which the return from the class exit is encapsulated. This static parameter structure can be used to mark the function modules as remote-enabled.

This allows you to call these function modules e.g. with a java script or a d.3 system per hook.

You can also use the RFC function modules in the BADIs or user exits. The error handling is already preprogrammed for these function modules so that the error message can be read.

The function module /DVELOP/WS_IM_FOL_CUST_ATTR is an alternative solution which allows you to adjust and process the attributes before creating a folder.

You can find further information on how to fill the attributes manually in the chapters on the function modules:

- [/DVELOP/WS_IMP_FOL RFC d.velop folder creation \(RFC\)](#)
- [/DVELOP/WS_UPD_ATTR RFC d.velop update function module \(RFC\)](#)

DMS FM

The following chapter contains further information on the function modules for the DMS app.

/DVELOP/DMS_ALAT_UPD d.velop update function module

Call the function module /DVELOP/DMS_ALAT_UPD to retrospectively assign attributes to folders, documents or list items (SharePoint Online).

The function module has five import parameters you have to fill in to assign the attribution retrospectively:

- **ID_SAP_OBJECT**: SAP ArchiveLink: Object type of the business object, e.g. BKPF.
- **ID_OBJECT_ID**: SAP ArchiveLink: Object ID (object identifier), e.g. 100019000000332016.
- **ID_ARCHIV_ID**: Content repository from the OACO e.g. PP.
- **ID_AR_OBJECT**: SAP document type e.g. ZFIINVOICE.
- **ID_ARC_DOC_ID**: Unique document ID in d.3.

You can transfer the import parameter data from the already defined attribute sets of the content server.

The attribute sets are saved in the table /DVELOP/ARC_ASKO. You can display the attribute sets with the transaction **SE16N**. The content server ID is taken from the customizing. The document ID **ARC_DOC_ID** is saved in the table /DVELOP/DMS_TOA, if the folder was created with the DMS app. If documents stored with the product d.velop archivelink for SAP Solutions should be updated, you can see the respective document ID **ARC_DOC_ID** in the corresponding link table (TOAxx).

Note

You have to expand the corresponding source with the document number in the tile **Mappings**, if documents should be attributed retrospectively with the DMS app. You only have to configure this expansion for the distinct mapping. Note that no document number or **ARC_DOC_ID** can be mapped in the admin launchpad.

Make sure that the properties **Document number** are mapped under the corresponding property mapping. Otherwise, documents stored with d.velop archivelink for SAP Solutions cannot be updated.

The screenshot shows the 'Kategorien' configuration interface. The 'Eigenschaften' section is highlighted with a red border. It contains two dropdown menus for 'Quelle' and 'Ziel', both set to 'Dokumentnr.'. Red arrows point to these dropdowns. To the right, there is a 'Regex' field and a checkbox labeled 'Groß-/Kleinschreibung ignorieren'.

The function module has the following export parameters:

- **ET_RESULT**: Folder creation result.
- **ET_ERROR**: Table with error messages.
- **ES_RETURN**: Subroutine return code.

After the execution, the parameters **ET_RESULT**, **ET_ERROR** and **ES_RETURN** are returned:

The field **Type** in the parameter **ES_RETURN** is filled in dependent on the processing status with **S** (successful) or **E** (error).

The text message is returned in the field **MESSAGE**. If the update was successful, a status from the ECM environment, a date and the update are displayed in the export parameter **ET_RESULT**.

Check the table **ET_RESULT** for the HTTP status and the status **ES_RETURN-TYPE** for the flag **S**.

Example for a retrospective attribution of a customer folder:

```
CALL FUNCTION '/DVELOP/DMS_ALAT_UPD'
  EXPORTING
    id_archiv_id = ld_archiv_id
    id_sap_object = ld_sap_object
    id_object_id = ld_object_id
    id_ar_object = ld_ar_object
    id_arc_doc_id = ld_arc_doc_id
  IMPORTING
    et_result = lt_result
    et_error = lt_error
    es_return = ls_return.

BREAK-POINT.
```

Warning

Multiple attribute sets which have been saved with the same SAP object and the same SAP document type in the content server always result in a faulty attribution.

In the following example, the marked row is created correctly with respect to the primary keys in the table. However, the attribution cannot differentiate which attribute set needs to be selected. In this case the application uses an incorrect attribute set and the attribution is faulty.

| /DVELOP/ARC_ASKO: Anzeige der gefundenen Einträge | | | | | | | | |
|---|-------------|---------|----------|-------------|------------|-----------|-----------------|--|
| Zu durchsuchende Tabelle <input type="text" value="/DVELOP/ARC_ASKO"/> ARC - Attribution Set Kopf | | | | | | | | |
| Anzahl Treffer <input type="text" value="6"/> | | | | | | | | |
| Laufzeit <input type="text" value="0"/> Maximale Trefferzahl <input type="text" value="500"/> | | | | | | | | |
| Content Server ID | HTTP-Script | ContRep | Objektyp | Dokumentart | Workf.comp | EcDocType | ID | |
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74 | MO | BUS2017 | MMIDELNT | | D3MM | ATTR_MMIDELNT | |
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74 | MO | BUS2017 | MMIDELNTOR | | D3MTO | ATTR_MMIDELNTOR | |
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74 | MO | BUS2032 | ZBONUS | | D3BON | ATTR_ZBONUS | |
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74 | MO | BUS2032 | ZDV_AUKOR | | D3AUK | ATTR_AUKOR | |
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74MM | MO | BUS2032 | ZDV_AUKOR | | D3TEST | ATTR_TEST | |

/DVELOP/DMS_ALCR_FOL d.velop folder creation or list item creation

Call the function module /DVELOP/DMS_ALCR_FOL for creating folders or list items with attributes.

The function module has four import parameters you have to fill in for the successful creation:

- **ID_SAP_OBJECT**: SAP ArchiveLink: Object type of the business object, e.g. BKPF.
- **ID_OBJECT_ID**: SAP ArchiveLink: Object ID (object identifier), e.g. 100019000000332016.
- **ID_ARCHIV_ID**: Content repository from the OAC0 e.g. PP.
- **ID_AR_OBJECT**: SAP document type e.g. ZFIINVOICE.

You can transfer the import parameter data from the already defined attribute sets of the content server.

The attribute sets are saved in the table /DVELOP/ARC_ASKO. You can display the attribute sets with the transaction **SE16N**. The content server ID is taken from the customizing.

The function module has the following export parameters:

- **ET_RESULT**: Folder creation result.
- **ET_ERROR**: Table with error messages.
- **ES_CON_ENTRY**: Link entry from the table /DVELOP/DMS_TOA.
- **ES_RETURN**: Subroutine return code.

After the execution, the parameters **ET_RESULT**, **ET_ERROR**, **ES_CON_ENTRY** and **ES_RETURN** are returned:

The field **Type** in the parameter **ES_RETURN** is filled in dependent on the processing status with **S** (successful) or **E** (error).

The text message is returned in the field **MESSAGE**. If the creation was successful, a status from the d.3ecm environment, a date and the storage URL of the folder or the list item are displayed in the export parameter **ET_RESULT**.

Check if the column **location** in the table **ET_RESULT** has an entry and if the status **ES_RETURN-TYPE** contains the flag **S**.

Exemplary creation of the order folder:

The screenshot shows two parts: ABAP code on the left and a runtime variable table on the right.

```

21:
22: CALL FUNCTION '/DVELOP/DMS_ALCR_FOL'
23:   EXPORTING
24:     id_archiv_id      = ld_archiv_id
25:     id_sap_object     = ld_sap_object
26:     id_object_id     = ld_object_id
27:     id_ar_object     = ld_ar_object
28:   IMPORTING
29:     ET_RESULT        = lt_result
30:     ET_ERROR         = lt_error
31:     ES_CON_ENTRY     = ld_conentry
32:     ES_RETURN        = ls_return
33:   .
34:
35: BREAK-POINT.

```

The variable table on the right shows the following data:

| S... | Variable | W.. | Wert |
|------|----------------|-----|-------------------------|
| | LD_ARCHIV_ID | | M3 |
| | LD_SAP_OBJECT | | BUS2032 |
| | LD_OBJECT_ID | | 0000000099 |
| | LD_AR_OBJECT | | ZSDOORDFOL |
| | LT_RESULT | | [4x3(596)]Standard Tabl |
| | LT_ERROR | | [0x1(8)]Initial Standar |
| | LD_CONENTRY | | BUS2032 0000000099 |
| | LS_RETURN-TYPE | | S |

Warning

Multiple attribute sets which have been saved with the same SAP object and the same SAP document type in the content server always result in a faulty attribution.

In the following example, the marked row is created correctly with respect to the primary keys in the table. However, the attribution cannot differentiate which attribute set needs to be selected. In this case the application uses an incorrect attribute set and the attribution is faulty.

/DVELOP/ARC_ASKO: Anzeige der gefundenen Einträge

Zu durchsuchende Tabelle: /DVELOP/ARC_ASKO ARC - Attribution Set Kopf
 Anzahl Treffer: 6
 Laufzeit: 0 Maximale Trefferzahl: 500

| Content Server ID | HTTP-Script | ContRep | Objektyp | Dokumentart | Workf.comp | EcDocType | ID |
|--|-------------|---------|----------|-------------|------------|-----------|-----------------|
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74 | MO | BUS2017 | MMIDELNT | | D3MM | ATTR_MMIDELNT |
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74 | MO | BUS2017 | MMIDELNTOR | | D3MTO | ATTR_MMIDELNTOR |
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74 | MO | BUS2032 | ZBONUS | | D3BON | ATTR_ZBONUS |
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74 | MO | BUS2032 | ZDV_AUKOR | | D3AUK | ATTR_AUKOR |
| {A99F5471-BBDC-4888-B871-E236FB34E5D7} | HTTP-I74MM | MO | BUS2032 | ZDV_AUKOR | | D3TEST | ATTR_TEST |

/DVELOP/DMS_DIRAT_UPD d.velop update function module (document info record)

Call the function module /DVELOP/DMS_ALAT_UPD to retrospectively assign attributes to folders, documents or list items (SharePoint Online).

The function module has five import parameters you have to fill in to assign the attribution retrospectively:

- **ID_DOKNR:** Document number
- **ID_DOKAR:** Document type
- **ID_DOKTL_D:** Partial document
- **ID_DOKVR:** Document version

You can take the data for the import parameters from the table **DMS_DOC2LOIO**. All associated documents are attributed to the document info record.

You need to create the corresponding source in the **Mappings** tile.

The function module has the following export parameters:

- **ES_RETURN:** Subroutine return code

After the execution, the parameter **ES_RETURN** is returned. The field **Type** in the parameter **ES_RETURN** is filled in dependent on the processing status with **S** (successful) or **E** (error).

/DVELOP/DMS_DMSAT_UPD d.velop update function module (KPro document)

Call the function module /DVELOP/DMS_ALAT_UPD to retrospectively assign attributes to folders, documents or list items (SharePoint Online).

The function module has one import parameter you have to fill in to assign the attribution retrospectively:

- **ID_PHIO_ID:** Physical document.

You can take the data for the import parameters from the table **DMS_PH_CD1**.

You need to create the corresponding source in the **Mappings** tile.

The function module has the following export parameters:

- **ET_RESULT:** Folder creation result
- **ET_ERROR:** Table with error messages

- **ES_RETURN**: Subroutine return code

After the execution, the parameters **ET_RESULT**, **ET_ERROR** and **ES_RETURN** are returned:

- The field **Type** in the parameter **ES_RETURN** is filled in dependent on the processing status with **S** (successful) or **E** (error).
- The text message is returned in the field **MESSAGE**. If the update was successful, a status from the ECM environment, a date and the update are displayed in the export parameter **ET_RESULT**.
- Check the table **ET_RESULT** for the HTTP status and the status **ES_RETURN-TYPE** for the flag **S**.

Webservices FM

The following chapter contains further information on the function modules for the webservice.

/DVELOP/WS_IMP_FOL_RFC d.velop folder creation (RFC)

Call the function module /DVELOP/WS_IMP_FOL_RFC for creating folders with attributes.

The function module has eight import parameters you have to fill to create folders:

- **ID_DOC_TYPE_SHORT**: d.3 document type short name, e.g. 'FRECH'
- **ID_DOC_STATUS**: d.3 document status, e.g. 'FR'
- **ID_DOC_EXTENSION**: d.3 file type e.g. (FOL, etc.)
- **ID_CONID**: ARC - content server ID (from the table /DVELOP/ARC_ASKO-CONID)
- **ID_SAP_OBJECT**: SAP ArchiveLink: Object type of the business object, e.g. BKPF.
- **ID_OBJECT_ID**: SAP ArchiveLink: Object ID (object identifier), e.g. 100019000000332016
- **ID_ARCHIV_ID**: Content repository from the OAC0 e.g. PP.
- **ID_AR_OBJECT**: SAP document type ZFIINVOICE.

You can transfer the import parameter data from the already defined attribute sets of the content server.

The attribute sets are saved in the table /DVELOP/ARC_ASKO. You can display the attribute sets with the transaction SE16N.

- **ID_CONID**: Content server ID
- **ID_ARCHIV_ID**: ContRepld
- **ID_SAP_OBJECT**: Object type
- **ID_DOC_TYPE_SHORT**: EcmDocType

The function module has the following export parameters:

- **ED_RETURN**: Subroutine return code.
- **ED_D3DOC_ID**: d.3 document ID

After the execution, the parameters **ES_RETURN** and **ED_D3DOC_ID** are returned.

The field **Type** in the parameter **ES_RETURN** is filled in dependent on the processing status with **S** = Successful or **E** = Error.

The text message is returned in the field **MESSAGE**. The new d.3 document ID of the created folder is displayed in the export parameter **ED_D3DOC_ID**.

Check if the field **Dok_ID** of the ID **ED_D3DOC_ID** has an entry and if the status **ES_RETURN-TYPE** contains the flag 'S'.

Exemplary creation of the supplier folder:

Warning

Multiple attribute sets which have been saved with the same SAP object and the same SAP document type in the content server always result in a faulty attribution.

In the following example, the marked row is created correctly with respect to the primary keys in the table. However, the attribution cannot differentiate which attribute set needs to be selected. In this case the application uses an incorrect attribute set and the attribution is faulty.

/DVELOP/WS_UPD_ATTR_RFC d.velop update function module (RFC)

Call the function module /DVELOP/WS_UPD_ATTR_RFC to attribute d.3 documents and folders.

The call parameters consist of an SAP link record from the TOA tables:

- IS_TOA Structure with the TOA01 table structure (SAP_Object, Object_ID,...).

You can select the data records for the attribute assignment with a select on the SAP TOA link tables. You can then transfer the parameters and the function is executed.

In order to determine the correct attribute set, the application determines the corresponding attribute set from the table /DVELOP/ARC_ASKO from the combination of SAP business object and SAP storage document type.

The function module has the following export parameters:

- **ES_RETURN:** BAPIRET2

The return value in the export parameter ES_RETURN can contain an S for successful or an E for error in the field **TYPE**. Additional information are returned in the variable **MESSAGE** and can be analyzed.

Warning

Multiple attribute sets which have been saved with the same SAP object and the same SAP document type in the content server always result in a faulty attribution.

In the following example, the marked row is created correctly with respect to the primary keys in the table. However, the attribution cannot differentiate which attribute set needs to be selected. In this case the application uses an incorrect attribute set and the attribution is faulty.

1.7. 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>.