



Installation and Upgrade Guide

APS for Abas 2024.Q3

EDITION: Professional

VERSION: APS2200R8N02

UPDATED: 24.09.2024

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1 NOTE



This guide contains the instructions for installing and updating APS for Abas in **one** document. Please note the additional requirements for upgrades in the gray panels.

EXAMPLE



Upgrade-Hinweis

Bitte beachten Sie, dass die APS für Abas 2100r8n01, die Installation directory hat been renamed from **allinstall** to **allinstall** (without "s").



This document often refers to the name of the APS installation directory and installation package. Ensure that you use the correct name when you use commands that contain it.

Generic notation

allinstall/aps- <Version> - <Edition>

Notes:

- As of APS for Abas 2100r8n01, the installation directory has been renamed from **allinstall** to **allinstall** (without "s").
- APS is available in the following editions: Basic ("basic"), Advanced ("advanced") and Professional ("pro").
- Ensure that everything is written in lower case.

EXAMPLE: Version-based notation

allinstall/aps-2200r8n02-pro

2 REQUIREMENTS

The following system requirements must be met for the installation:

- Abas client version 2200r8n14 or higher
- The **gawk** and **xsltproc** programs usually included in the Linux distribution must be installed.
- Configured EDP server
- Administrator permissions on the server
- Only for first time APS installations: Two free additional tables with twenty groups. If the Nr. 71 and Nr. 72 standard databases are occupied, the program will request free database numbers during the installation.
- An active Abas password data record with
 - System permissions
 - Permissions for the following workspaces: allspro, allsstd (for upgrade), allspp (**in this sequence**)
 - Write permissions in the master data database (either 71 or substitute)

If PDC is activated for the client, you require write permissions for that database (V-17-01)

The installation includes **customized standard** screens with the required variables. The customized screens are based on the standard Abas screens in the version mentioned above.

2.1 Identity number

The installation uses fixed identity numbers. In the following database, existing objects will be renamed according to the following template:

Database name		Template	Example
Data export	V-87-09	4913nnn	4913007
Enumerations	V-107-01	4913nnn	4913007
Value set	V-109-02	4913nnn	4913007
Company (key table)	V-12-31	9FPnnnn	9FP0007

Within APS additional tables, the objects included in delivery use ID numbers with the template **9FPnnnn**.

3 LICENSING

Contact Forterro Deutschland Abas GmbH for the relevant licenses for your edition.

4 UPGRADE NOTE



Upgrade note

Use the same file in the installation package for performing the upgrade as for the new installation. This file is for upgrades from an APS Professional version 2015n00 or higher. To upgrade from older versions, contact the support team at Forterro Deutschland Abas GmbH.

4.1 Upgrade: Preparation

4.1.1 *Preparing installed versions before 2017r4n01p07 or before 2018r4n00p05*



Upgrade note



As of version 2017r4n01p07 and 2018r4n00p05 changes have been made to the resource link and resource set structure. To perform an upgrade as of these versions ⁽¹⁾ you first need to run a data check and if applicable, correct the old structure of the resource links and sets. How long this correction takes depends on the data and can take several hours. For this reason you should **perform the check several days before the actual upgrade** (you do not have to be the only user in the system).

⁽¹⁾ Affected versions:

Range	Upgrade as of affected APS version:
2015r4	All 2015r4 versions
2016r2	All 2016r2 versions
2016r4	All 2016r4 versions
2017r4	2017r4n00 to 2017r4n01p06
2018r4	018r4n00 to 2018r4n00p04

Procedure:

1. Login to the help and open the client shell: (Help menu > Maintenance programs for a client > <Select client> > Shell).
2. Copy the installation archive to the client directory and unzip the client directory:

```
bash-4.1$ tar xvzf aps-<Version>-<Ausprägung>.tgz
```

3. Start the script with the following call:

```
allinstall/aps-<Version>-<Ausprägung>/install-APS.sh -c -s
```

4. Follow the instructions in the shell:
If a manual data check and subsequent data correction is required, you will be informed at this point.

4.2 Upgrade: Requirements



Upgrade note

The same general requirements apply for APS upgrades as for APS installations (see [Installation](#)).

The following specific upgrade requirements also apply:

- All APS customizing must be made in accordance with the Customizing rules. See the Customizing rules manual in the installation package.
Note especially the **Upgrade notes** chapter in the **Customizing rules**.
- The **vartabs**, **fop.txt**, infosystems, keys and FOPs are updated during the upgrade. These elements must have the **original state** of the **original version** for a seamless APS upgrade process, before starting the APS installation script.
The following is valid for the genuine upgrade: The APS upgrade must be performed directly after the Abas upgrade, before performing other post-installation tasks such as importing **vartabs**, **fop.txt** or screens from the upgrade test client. Otherwise errors may occur or the installation may abort.
Test upgrades can generally be performed when other customizing steps have been carried out in the upgrade test client.

4.3 Upgrade: Performing the upgrade



Upgrade note

The same steps are required for the upgrade as for a new installation, as described in this guide.

4.4 Upgrade: Post-upgrade tasks



Upgrade note



This step is only required when updating from a version before 2018r4n02.

The resource links and sets have been completely reworked as of APS version 2018r4n02. To copy the old resource links and sets to the new database objects, start the following FOP once after the upgrade:

```
allspro/FP.APS2018R4N02.CP.OLD.RESLINK.FO
```

Please note that customized fields and field contents in old database objects are not copied to the new database objects.

4.4.1 Post upgrade tasks for custom simulation logic



Upgrade note

Customized simulation logic that varies from the standard logic must be checked in the course of the upgrade and adapted to suit the new version. This manual task must generally be performed by the one who implemented the customization (normally Forterro Deutschland Abas GmbH).

The upgrade routine automatically detects customized simulation logic and displays a notification.

```
#####
Individualisierungen in Settings und/oder Simulationsskripten gefunden. Nacharbeiten
erforderlich. / Customized settings/scripts found. These require reworking after the
installation.
#####
```

If the simulation logic has been customized, the programs located in the client's Windows share (Modeler/Planner/scripts) and the interface (settings) are not automatically upgraded, but must be upgraded manually in the course of upgrade tasks.



If you have custom simulation logic, please contact Forterro Deutschland Abas GmbH in time, so that manual tasks required for the upgrade can be planned in advance.



All APS customizing must be made in accordance with the Customizing rules. See the Customizing rules manual in the installation package.

Note especially the **Upgrade notes** chapter in the **Customizing rules**.

5 INSTALLATION

5.1 Preparing the installation



Ensure that there are no prepared types, vartabs, keys or defective keys in the system and reorganize them beforehand.

The installation script automatically creates the **\$MANDANTDIR/win/simcron** directory during the installation.

If an error occurs because the win directory cannot be written to, you must create the \$MANDANTDIR/win/simcron directory manually.

Login to the help and open the client shell: (**Help menu** > **Maintenance programs for a client** > <Select client> > **Shell**.

Copy the installation archive to the client directory and unzip the client directory:

```
bash-4.1$ tar xvzf aps-<Version>-<Ausprägung>.tgz
```

Ensure that no other users are currently logged on.

5.2 Performing the installation

Do not perform the installation without first creating a backup of the system!

Make sure you are in the client directory:

```
bash-4.1$ cd $MANDANTDIR
```

Start the installation with the following call:

```
bash-4.1$ allinstall/aps-<Version>-<Ausprägung>/install-APS.sh
```

The installation script checks the system requirements, and aborts if they are not fulfilled. If the installation aborts, you can start it again after removing the cause. The installation will continue where it stopped.

If the installation was successful, the installation script ends with the notification **Installation completed** and the **Exit status 0**.

The installation creates the following protocol files in the \$MANDANTDIR/Messages directory:

Standard output	siminstall<version>.log
Error output	siminstall<version>.err.log
Instructions and EDP notifications	siminstall<version>.notes.log

To finish, the installation routine installs the English user language.

6 CONFIGURATION

The following configuration is required for working with APS Professional.

6.1 Assigning workspaces to users

The following workspaces are required for working with APS Professional (in this sequence):

- allspro
- allspp

The workspaces must be assigned to permissions records.

6.2 Configuring user permissions

Before you can configure and use APS für Abas you must assign a permission record to the passwords, containing all the files and groups required for the particular edition are using.

6.2.1 Permissions for the APS application

The following permissions are required for using APS Professional:

Type commands

- Type command 8: Scheduling
- Type command 12: System
- Type command 38: Infosystem

Database commands

Database number/name	Required permissions
0 – Customer 1 – Vendor 2 – Part 3 – Sales 4 – Purchasing 5 – Account 7 – Operation 8 – Capacity 9 – Work order 11 – Employee 12 – Company 28 – Mallocation 39 – Warehouse 194 – SchedulingConfiguration	view, empty, modify, select
65 – Infosystem	Call
71 – Detailed planning Caution: This database number can change after each installation	view, empty, modify, select
72 – ResAlternatives Caution: This database number can change after each installation	View, edit, new, empty, modify, select
86 – Operation 87 – Data export 106 – Packing instructions 109 – Value set 121 – Value sequence 137 – Calendar 192 – Lock configuration	view, empty, modify, select

Database number/name	Required permissions
If using the Abas Service module: 115 – Service assignment 116 – Service product 117 – Service employee 118 – Service reservation	view, empty, modify, select
If using Abas Project Management: 149 – ProjectSuitePlanning 150 – ProjectSuiteMasterdata 154 – ProjectSuiteValuedata	view, empty, modify, select

6.2.2 Permissions for interacting with and writing back to abas from APS

The following *additional* permissions are required for actions such as: shifting operations, releasing work order suggestions, writing production plans etc.:

Additional commands

- Additional commands 3: edit parts list

Database commands

Database number/name	Required additional permissions
3 – Sales 4 – Purchasing	Edit
9 – Production order	release, edit

6.2.3 Permissions for master data related to planning

In order to administer the master data in the production planning we recommend at least the following permissions:

Database number/name	Required permissions
2 – Part 7 – Operation 8 – Capacity 11 – Employee	View, edit, new, empty, modify, select
71 – Detailed planning 72 – ResAlternatives Caution: These database numbers can change after each installation!	View, edit, new, empty, modify, select

6.3 APS user menu

During installation, a workgroup menu is created for each edition. This menu must be entered in the password record of each user.

The ucm files included in the installation are located in the **\$MANDANTDIR/win/simcron/Resources/Templates/ucm** directory.

6.4 Screens

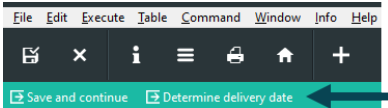
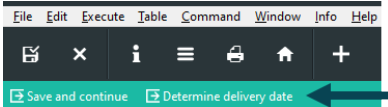
If the standard Abas screens were not imported during the installation, they must be prepared manually. The installation package contains template screens as tgz files for importing into the variable tables (**\$MANDANTDIR/win/simcron/Resources/Templates/Screens-tgz-Import**).

The following section lists the screens and the customized variables.

If the **individual help chapters** field in the screen already contains values (i.e. from Abas PM), add the APS help chapter after a comma.

Database : Group	Variable	Help chapter	Screen template
Customer : Customer V-00-01 Screen number 0 (Priority D)	yfpcolor (always write-protected) yfpbucolor	950.s.0.1	On a separate APS tab
Part : Product V-02-01 Screen number 2 (Priority D)	Header: yfpcolor (always write-protected) yfpbucolor yfppkz	950.s.2.1	On a separate APS tab
Part : Product V-02-01 Screen number 2 (Priority D)	Table: yfppreslink (always write-protected) yfpbureslnew yfpplactiveresltyp (always write-protected) yfppiactiveresltyp (always write-protected) yfpbapsignore	950.s.2.1	In the table as columns (see example below)

Database : Group	Variable	Help chapter	Screen template
	Line zoom: apzsumgr apspaketschl yfpproz yfpbapsignore yfppreslink (always write-protected) yfptreslink (always write-protected) pbureslremove yfpbureslnew yfpbureslcopy yfppreslinktmpl yfptreslinktmpl (always write-protected) yfptactiveresltyp (always write-protected) yfppiactiveresltyp (always write-protected) yfppactiveresl (always write-protected) yfptactiveresl (always write-protected)		In the line zoom, on a separate APS tab (see example below)
Operation : Operation V-07-00 Screen number 7 (Priority A)	yfppreslink yfptreslink (always write-protected) yfpbureslnew	950.s.7.0	On a separate APS tab
Product : Means of Production V-02-02 Screen number 27 (Priority D)	yfpruestzeit yfpte fppproduct1 yfpnumber1 yfppproduct2 yfpnumber2 yfppproduct3 yfpnumber3 yfppproduct4 yfpnumber4 yfppproduct5 yfpnumber5	950.s.2.2	On a separate APS tab
Employee : Employee V-11-01 Screen number 11 (Priority D)	yfpzpl	950.s.11.1	On a separate APS tab

Database : Group	Variable	Help chapter	Screen template
Sales : Quotation V-03-01 Screen number 31 (Priority A)	Action bar: yfpbudgetdelivdate		In the action bar 
Sales : Quotation V-03-02 Screen number 31 (Priority A)	Line zoom: ysimeterm (always write-protected) yfpdtsysimeterm (always write-protected) apssimterm (always write-protected) yfpdtsapsterm (always write-protected) apsfprio	950.s.3.2	In the line zoom, on a separate APS tab
Sales: Order V-03-01 Screen number 32 (Priority A)	Action bar: yfpbudgetdelivdate		In the action bar 
Sales: Order V-03-02 Screen number 32 (Priority A)	Line zoom: apsfprio ysimeterm (always write-protected) yfpdtsysimeterm (always write-protected) apssimterm (always write-protected) yfpdtsapsterm (always write-protected) apstermok	950.s.3.2	In the line zoom, on a separate APS tab
Purchasing : Purchase order suggestions V-04-02 Screen number 41 (Priority A)	yfpstart (always write-protected) yfpende (always write-protected)	950.s.4.2	In the line zoom, on a separate APS tab
Purchasing : Relocation suggestions V-04-02 Screen number 482 (Priority A)	yfpstart (always write-protected) yfpend (always write-protected)	950.s.4.2	In the line zoom, on a separate APS tab

Database : Group	Variable	Help chapter	Screen template
Purchasing : Subcontracting suggestions V-04-02 Screen number 801 (Priority A)	yfpstart (always write-protected) yfpend (always write-protected)	950.s.4.2	In the line zoom, on a separate APS tab
Purchasing : Work order suggestions V-04-11 Screen number 40 (Priority A)	Table: yfpbnoaps	950.s.4.5	In the table as columns
Purchasing : Work order suggestions V-04-11 Screen number 40 (Priority A)	Line zoom: yfpbnoaps rushorder fprio apskonfiginfo ysimnotiz apsgeplant yfpstart (always write-protected) yfpend (always write-protected)	950.s.4.5	In the line zoom, on a separate APS tab
Work order : Completion Confirmations V-09-02 Screen number 44 (Priority A)	Header: ytime	950.s.9.2	To the right of the Date (from) field
Capacity : Work center V-08-02 Screen number 80 (Priority A)	apsplanmgr apspaketmin apspaketbildfrist yfpzpl yfpproz apsfrozenzone yfppreslink yfptreslink (always write-protected) yfpbureslnew	950.s.8.2	On a separate APS tab
Company : Daily schedule V-12-20 Screen number 93 (Priority D)	Header: yfpanfzeit yfpendzeit	950.s.12.20	

Database : Group	Variable	Help chapter	Screen template
Purchasing : Reservations V-04-04 Screen number 113 (Priority A)	Table: yfpreslinkidaul (always write-protected) yfpbureslnew yfpplactiveresltyp (always write-protected) yfpptactiveresltyp (always write-protected) yfpbapsignore	950.s.4.4	In the table as columns (see example below)
Purchasing : Reservations V-04-04 Screen number 113 (Priority A)	Line zoom: apszusmgr apspaketschl yfpproz yfpbapsignore yrmtime (always write-protected) yrmmgr (always write-protected) ysimnotiz apskonfiginfo (always write-protected) yfpstart (always write-protected) yfpnd (always write-protected) yfpmgr (always write-protected) yfpreslinkidaul (always write-protected) yfpptreslinkidaul (always write-protected) yfpbureslremove yfpbureslnew yfpbureslcopy yfpreslinktmpl yfpptreslinktmpl (always write-protected) yfpreslink (always write-protected) yfpptreslink (always write-protected) yfpptactiveresltyp (always write-protected) yfpactiveresltyp (always write-protected) yfpactiveresl (always write-protected) yfpptactiveresl (always write-protected)	950.s.4.4	In the line zoom, on a separate APS tab (see example below)

Database : Group	Variable	Help chapter	Screen template
Production list : Production list V-128-01 Screen number 811 (Priority A)	As table fields and line zoom from: Part,Product V-02-01 Screen number 2	950.s.2.1	
Value set : Identifier V-109-02 Screen number 826 (Priority A)	yfptpvgroup yfptpvscope yfptpvffop yfptpvfvop yfptpvfxop	950.s.109.2	On a separate APS tab
Calendar : Available capacity V-137-02 Screen number 898 (Priority A)	Table variables: yzvon yzbis yaktiv ydeaktiv apssplan	950.s.137.2	

EXAMPLE - Suggested field arrangement for resource links

Part : Product, V-02-01, Screen number 2, Table

Masch	Bezeichnung Maschiner	Ressourcenverknüpfung an Fertigungslistenzeile	Neu	Bezugsobjekt für gültige Ressourcen	Mani	Entn
						<input type="checkbox"/>
						<input type="checkbox"/>
109	↗ Montageplatz1	↗ 18	↗	✚ Fertigungsliste	↗	<input type="checkbox"/>
112	↗ Qualitätsprüfung Montage	↗		✓ Arbeitsgang	↗	<input type="checkbox"/>
113	↗ Versand	↗				<input type="checkbox"/>

Part : Product, V-02-01, Screen number 2, Table (Line zoom)

Fertigungsliste

Umrechnung

Ein-/Auslauf

Kundenservice

APS

APS Zusatzmaschinengruppe

APS Arbeitspaketschlüssel

Prozess-Kennzeichen

Arbeitsgang in APS ignorieren

☐

RESSOURCENVERKNÜPFUNG

Ressourcenverknüpfung an Fertigungslistenzeile

1122

FERTIGUNGSTEIL1 - QVORFERTIGUNG

Entfernen

Neu

Neu aus Kopiervorlage

Bezugsobjekt für gültige Ressourcenverknüpfung









Fertigungsliste

Gültige Ressourcenverknüpfung


1122

FERTIGUNGSTEIL1 - QVORFERTIGUNG

Purchasing : Reservations, V-04-04, Screen number 113, Table

MaschGrp		Ressourcenverknüpfung an Auftragsfertigungslistenzeile		Neu	Bezugsobjekt für gültige Ressourcenverknüpfung		Manuelle Entnahme
							<input type="checkbox"/>
							<input type="checkbox"/>
109		18			Reservierung		<input type="checkbox"/>
112					Arbeitsgang		<input type="checkbox"/>
113							<input type="checkbox"/>

Purchasing : Reservations, V-04-04, Screen number 113, Table (Line zoom)

Fertigungsliste	Umrechnung	Ein-/Auslauf	Kundenservice	Packmittel	APS
APS Zusatzmaschinengruppe		<input type="text"/>			
APS Arbeitspaketschlüssel		<input type="text"/>			
Prozess-Kennzeichen		<input type="text"/>			
Arbeitsgang in APS ignorieren		<input type="checkbox"/>			
Letzte Rückmeldung		<input type="text"/>			
Maschinengruppe der letzten Rückmeldung		<input type="text"/>			
Notiz		<input type="text"/>			
Allgemeine Info		<input type="text"/>			
Simulierter Start-Termin		<input type="text"/>			
Simulierter End-Termin		<input type="text"/>			
Simulierte Maschinengruppe		<input type="text"/>			
RESSOURCENVERKNÜPFUNG					
Ressourcenverknüpfung an Auftragsfertigungslistenzeile		<input type="text"/> <input type="text"/> <input type="button" value="Entfernen"/>			
		<input type="button" value="Neu"/>			
		<input type="button" value="Neu aus Kopievorlage"/> <input type="text"/> <input type="text"/>			
Ressourcenverknüpfung aus Fertigungslistenzeile		<input type="text"/> <input type="text"/>			
Bezugsobjekt für gültige Ressourcenverknüpfung		<input type="text"/> <input type="text"/>			
Gültige Ressourcenverknüpfung		<input type="text"/> <input type="text"/>			

6.5 APS configuration

The program is delivered with a basic configuration. This must be customized to suit the specific operating environment.

See the command overview for the settings:

APS Professional > Settings > Configuration > General tab

Many database tasks are performed in the background via batch. This function requires a password in the configuration. The password must have full permissions for the additional tables configured during installation, and have the "can be used externally" property.

The default file paths do not usually require editing.

6.6 Data interface

See the command overview for the settings:

APS Professional > Settings > Data interface > General tab

A data interface is included in the scope of supply.

It must be activated. The configuration contains the communication file paths for the simulator and the APS Planner as of APS version 2017r2n00.

6.7 Checking the Simulation Administration Data

See the command overview for the Simulation Administration Data settings:

APS Professional > Settings > Simulation Administration Data

- Check the settings in the Simulation Administration Data screen
- Set the colors as required

6.8 Business Apps and Abas DMS (optional)

APS for Abas supports the connection with Abas Business Apps and Abas DMS. The client must have **JavaFX** from **gluon** installed, and the bin directory for the **JavaFX installation** in the path environment variable for the user or the system:

<https://gluonhq.com/products/javafx/>

Restart the Abas GUI on the client after installing JavaFX.

6.9 Abas WebUI (optional)

Some additional steps are required to run the application in the Abas WebUI. Skip this paragraph, if you are running the application in the native Abas GUI.

Register the URL of the client in the file **s3/mandantdir.env: ALLWEBUIURL= <URL>**

Reconfigure the environment as **s3** via **envmake -B**

Every user who wants to start APS via the Abas WebUI must register APS for Abas once using their Windows login on their terminal device by running the following file:

```
\\<host>\<mandant>\simcron\Resources\RegisterAPSCClient.exe
```

6.10 Generating the online help

Install the online help using the **aps-helpgen.sh** script. Call the program from the client directory using the following command:

```
/allinstall/aps-<Version>-<Ausprägung>/aps-helpgen.sh
```

Possible parameters include:

-m	Install APS help in the client
-h	Install APS help in the home directory
-d	Install the German APS help
-e	Install the English APS help

6.11 Running the application using the Abas mini GUI

If you are using the Abas Mini GUI to access APS, it must be set up as follows:

- Copy the \$MANDANTDIR/win/productionplanner folder to the local GUI directory
- Copy the \$MANDANTDIR/win/simcron folder to the local GUI directory
- Set the checkbox for filling the Planner database (ywebgui) in the APS configuration
- To automatically read the data connection to Abas: Copy the \$MANDANTDIR/win/mandant.ini file to the local GUI directory

6.12 Java environment

The Java environment for the Planner components in APS can be configured via the entries in this file:

```
$MANDANTDIR/win/simcron/Planner/productionplanner.l4j.ini
```

The following options are available:

1. -Xms1024m

Initial size of the heap for the application.

Defines the amount of memory that is initially occupied by the application. The larger the heap, the more objects can be loaded without the application becoming sluggish due to garbage collection. However, the main memory on the target computer must also be available (as a contiguous block), otherwise the

application will not start. In this case no error message is displayed. If this occurs, then the Xms and Xmx values in productioctionplanner.l4j.ini must be lowered.

2. -Xmx2048m

Maximum size of the heap for the application.

Defines the maximum amount of memory that is occupied by the application. (For further descriptions see Xms)

3. -noverify

Causes the JVM to not verify the bytecode when loading the classes.

This will speed up the application startup process. If there are security concerns, the parameter can be deleted from the file. Bytecode verification is usually only necessary for programs from unprotected sources.

4. -Djava.locale.providers=COMPAT,JRE,CLDR

Defines sources from which language-specific style sheets are obtained.

This parameter is required for technical reasons and must not be changed or removed.

5. --add-exports java.desktop/com.sun.java.swing.plaf.windows=ALL-UNNAMED

Allows the application to modify standard graphical elements from the Java Look and Feel for Windows.

This parameter is required for technical reasons and must not be changed or removed.

7 INSTALLING THE ENGLISH USER LANGUAGE

APS can be translated into other languages by importing the dictionaries.

The following conditions apply for installing a language:

1. The language is activated in the respective client.
2. The dictionaries exist.

The following language dictionaries are contained in scope of supply:

- American English
- British English



The dictionaries are provided by Abas in the standard dictionary format.

Each language directory contains a **msg.twb** file, along with the partial dictionaries (msg.lg, msg.ma, msg.me, msg.pr, msg.tx und msg.vt).

The **msg.twb** file is comprised of all the texts in the partial dictionaries. This file does not contain any duplicates, as is the case with multiple partial dictionaries.

If there is a **msg.twb** file, future installations will only use this file for importing the texts into all Abas dictionaries. This means that in the context of importing the dictionary, the whole dictionary with all texts is always imported. Texts in a partial dictionary that are not relevant are not automatically copied.

If the **msg.twb** file is missing, the classic partial dictionaries (msg-lg, msg.ma, ...) are installed in the respective Abas dictionary. In this case, only the texts from the respective files are imported. The individual dictionaries are parts of the overall dictionary, and can include duplicates. These files can be used to import individual files into the Abas dictionary.

Future translations are performed using the whole dictionary in the **msg.twb** file or using the individual partial dictionaries, depending on the required output.

The languages are installed automatically at the end of the APS installation/upgrade routine. They can be added later using the following method:

Login to the help and open the client shell:

- **Help menu > Maintenance programs for a client > <Select client> > Shell**

Make sure you are in the client directory:

```
bash-4.1$ cd $MANDANTDIR
```

Start the installation with the following call:

```
bash-4.1$ allinstall/aps-<Version>-<Ausprägung>/install-trans.sh
```

```
#####
Installation der Woerterbuecher fuer APS fuer Abas ERP 2100r8n01, 20220519-125752
Installation of language pack for APS fuer Abas ERP 2100r8n01, 20220519-125752
#####Pruefe
Vorbedingungen / Checking preconditions ...
Abas Version: 2100r8n02
```

Follow the instructions for entering the Abas password and confirm the installation of the languages.

The installation creates the following protocol files in the **\$MANDANTDIR/Messages** directory:

Standard output	siminstall<version>.trans.log
Error output	siminstall<version>.trans.err.log
Instructions and EDP notifications	siminstall<version>.trans.notes.log

The languages available are installed without requesting individual confirmation. Installing a user language overwrites any existing translations. If you do not want this to happen, you must perform the translation manually.

To overwrite the existing dictionaries with the standard translation, merge the partial dictionaries manually:

1. Copy the partial dictionary from the **\$MANDANTDIR/allinstall/aps-<Version>-<Ausprägung>/trans** directory to **\$HOMEDIR**.
2. Then enter the partial dictionaries using the **TRANS** infosystem, by selecting the **complete** option.

7.1 Installing additional languages

7.1.1 Abas dictionaries

You can install additional languages as follows:

1. After you have unzipped the installation package, there are multiple directories in the `allinstall/aps-<Version>-<Edition>/trans/<language>` directory.
2. Each language directory is named using the Abas language code (LC column on the Languages tab in the Abas configuration: i.e. American English = A, English = E, French = F, Turkish = T), and contains the dictionaries for the respective language.
3. If the language directory has a **msg.twb** file, containing all texts, then only this file will be considered in the import. If this file does not exist, the partial dictionary import into the Abas dictionaries will be performed using the individual files (msg.lg, msg.ma, msg.me, msg.pr, msg.tx und msg.vt). Consider the notes in the [Installing the English user language](#) section.
4. Place the complete dictionary (msg.twb) or the partial dictionaries of the desired language (for example French partial dictionaries: msg.lg, msg.ma, msg.me, msg.pr, msg.tx and msg.vt) in the **\$MANDANTDIR/allinstall/aps-<version>-<edition>/trans/<language>** directory.
5. Perform the steps listed in section [Installing the English user language](#).
6. If some translations are missing, complete the partial dictionary and run the translation again.

7.2 Translating user menus (ucm)

The standard user menu for APS is provided in the installation routine. The standard file is in the German user language.

7.2.1 User commands in other languages

If you are using a different user language, the user command menu will be translated automatically as long as the dictionary for the languages is available.

The installation routine translates the command menu into the following languages:

- American English
- British English

If these languages are activated in the client, the translations will be saved in the client dictionaries during the installation routine (install-trans.sh). These languages are then directly available for the command menu if installed accordingly.

You can add other languages or change the command menu text by entering the translations in the Abas dictionaries.

7.2.2 Customizing the user menu

The standard APS user menu should not be edited as it will be overwritten during the next APS installation.

Perform the following steps to customize the user menu in other languages:

- Right click the standard command menu in the selected language and select **save as**. Save it as a new menu or .ucm file.
- Make the required changes to the menu
- Permit the new command menu in the password data record.

In this way, you can create command menus for specific languages, even though the standard command menu is in German, as long as the Abas dictionaries have been correctly amended.



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