Reference Data Management 2311

for SAP Master Data Governance

Installation and Upgrade

Version: 30.04.2024 / RDM 2311 SP1

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1 Introducing Reference Data Management

Note: Please read the complete Installation Guide before starting the installation or the upgrade and create backups of your systems.

Reference Data Management (RDM) for SAP MDG provides the harmonization (RDH) and governance (RDG) of reference data using pre-delivered reference data objects, user interfaces, workflows and the replication of reference data to business applications. For SAP based business applications (ERP or S/4 based) RDM delivers a local staging area which is installed on the business system and can be used as one option to receive and forward the reference data within the system landscape.

The sections and figures below provide an overview about the different deployment and connectivity scenarios. Important to understand is that RDM software components are installed on sender as well as receiver systems. The sender is not only restricted to SAP MDG but can be any SAP ERP, S/4 or non-SAP system and the receiver is not restricted to SAP ERP or SAP S/4, the SAP MDG system can be a receiver as well.

These scenarios are just listed to illustrate the possible scenarios and do not have an impact on the software components to be installed on SAP MDG and on SAP ERP or S/4 systems. There is a fixed set of four software components (ITO, ITR, ITU and ITG) to be installed on SAP MDG and a subset consisting of two software components (ITO and ITG) to be installed on the SAP Business Systems (ERP or S/4).

The figure below shows the components of RDM and their relation to components of SAP MDG. The Master Data Framework (MDF) builds the foundation and Reference Data Harmonization (RDH) and Reference Data Governance (RDG) deliver the main functionalities and possible scenarios are explained in more detail in the next chapters.

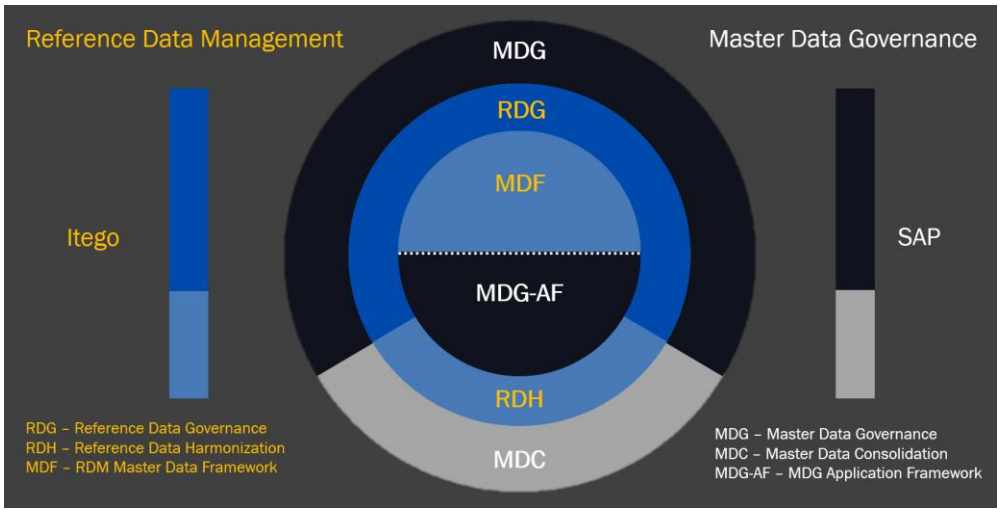


Figure 1: Components of Reference Data Management

1.1 Reference Data Harmonization (RDH)

Reference Data Harmonization (RDH) helps to create consolidated reference data which can be synchronized. It can be used without RDG on SAP MDG but it is recommended to use RDG on SAP MDG to take advantage of additional features for the controlled governance of reference data. In a first step reference data is consolidated in a central system which ideally is the SAP MDG system with RDM (consisting of RDG and RDH) installed as shown below. In this step the Business Systems are the senders and the SAP MDG system is the receiver.

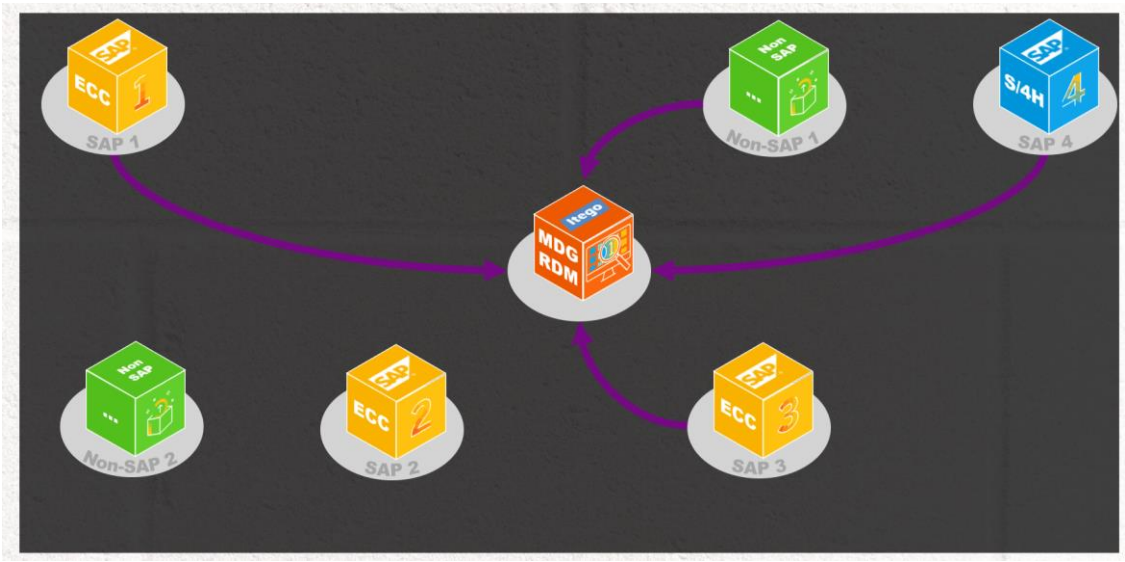


Figure 2: Harmonization Step 1 - Consolidation

In a second step reference data is synchronized (SAP MDG as the sender and Business Systems as receivers) and more data can be consolidated.

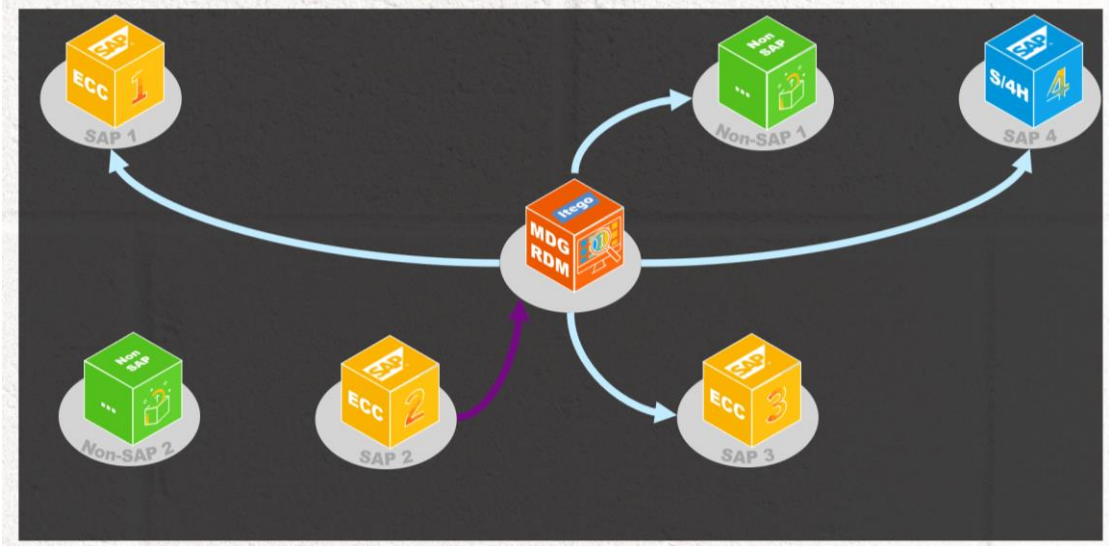


Figure 3: Harmonization Step 2 - Synchronization

The last figure below shows the deployment options with regards to development, test and productive systems.

The Sender Cockpit is installed on development systems and delivers functionalities for configuration, replication and monitoring. It is used for consolidation (as a sender of data that shall be consolidated in a receiver) as well as synchronization (as a sender of data that shall be replicated to consuming system that use this data as provided by the sender).

The Receiver Cockpit helps to consolidate reference data (as a receiver on a development system) or helps to activate data on consuming systems (on development systems).

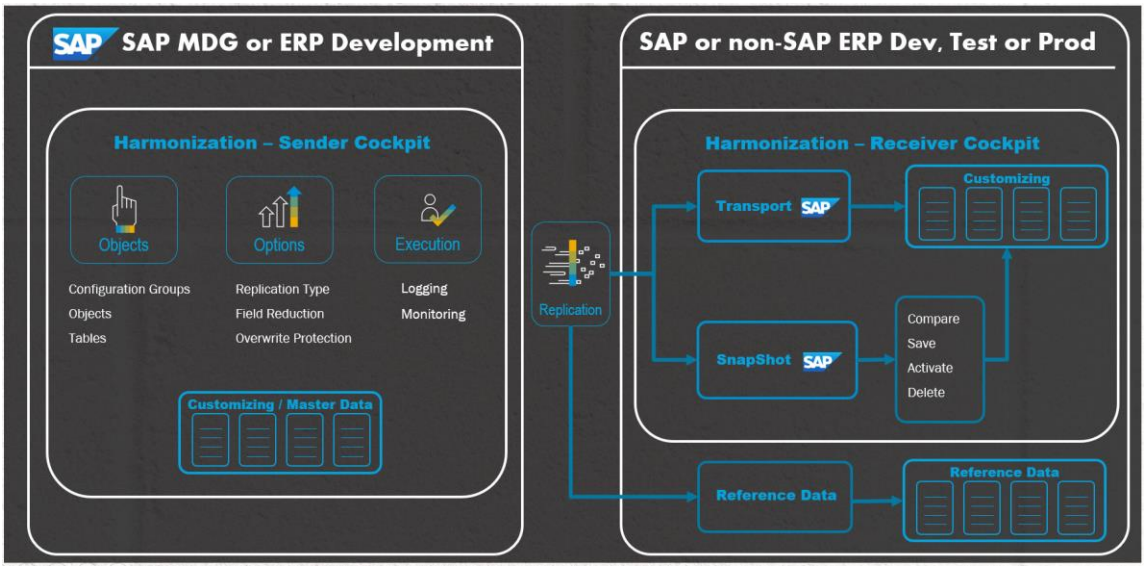


Figure 4: Harmonization – Deployments, Replication and Functions

On top of this RDM delivers functionalities to send reference data (in cases which are based on objects which are master data and not configuration or customizing data) directly to productive systems. Examples for the latter are Exchange Rates, Classification or any reference data object type which is replicated using the "Business Controlled Governance Alternative" (see following section about RDG).

1.2 Reference Data Governance (RDG)

Reference Data Governance (RDG) is based on SAP Master Data Governance (MDG) which provides a framework with functions for the (workflow driven) maintenance of master data and reference data.

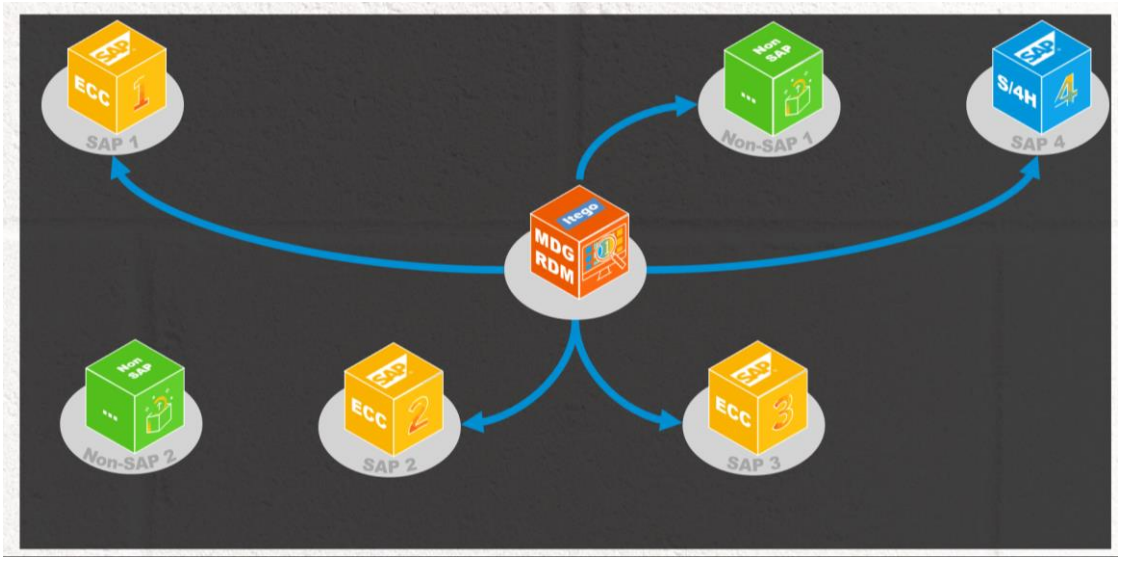


Figure 5: Governance – Workflow Driven Maintenance and Data Replication

Reference data is replicated either in a "Business Controlled Governance Alternative" which means to replicate reference data in the same fashion as master data. Mainly from the SAP MDG production system to productive business application systems but also to test or development systems if needed.

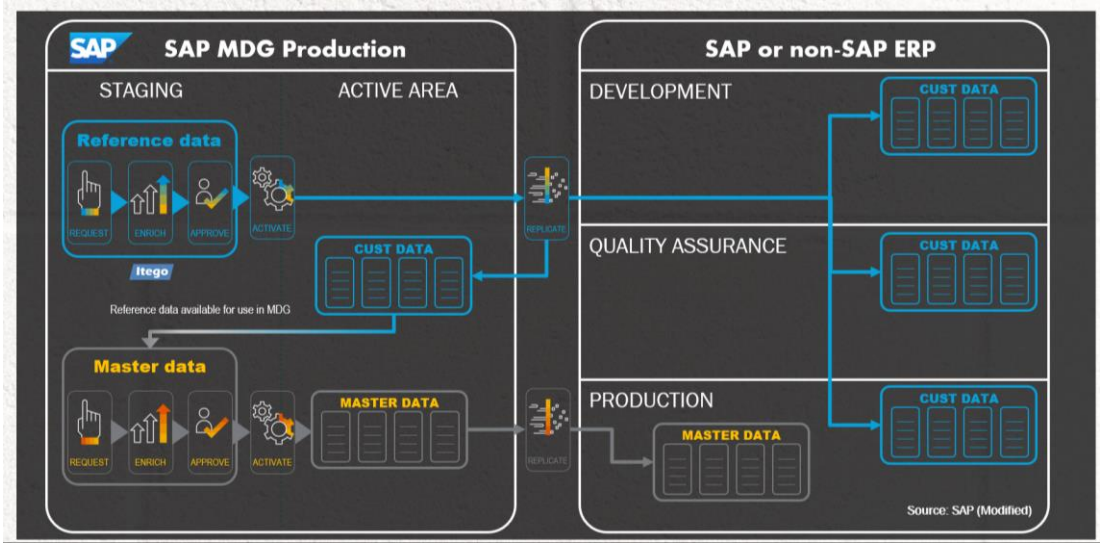


Figure 6: Governance – Business Controlled Governance Alternative

In the second scenario (Full IT Governance Alternative) data is sent to a Local Staging Area (delivered by RDM) installed on the SAP based receiving systems (development systems). From there SAP basis technology is used (SAP transports) to propagate the data from development to production systems.

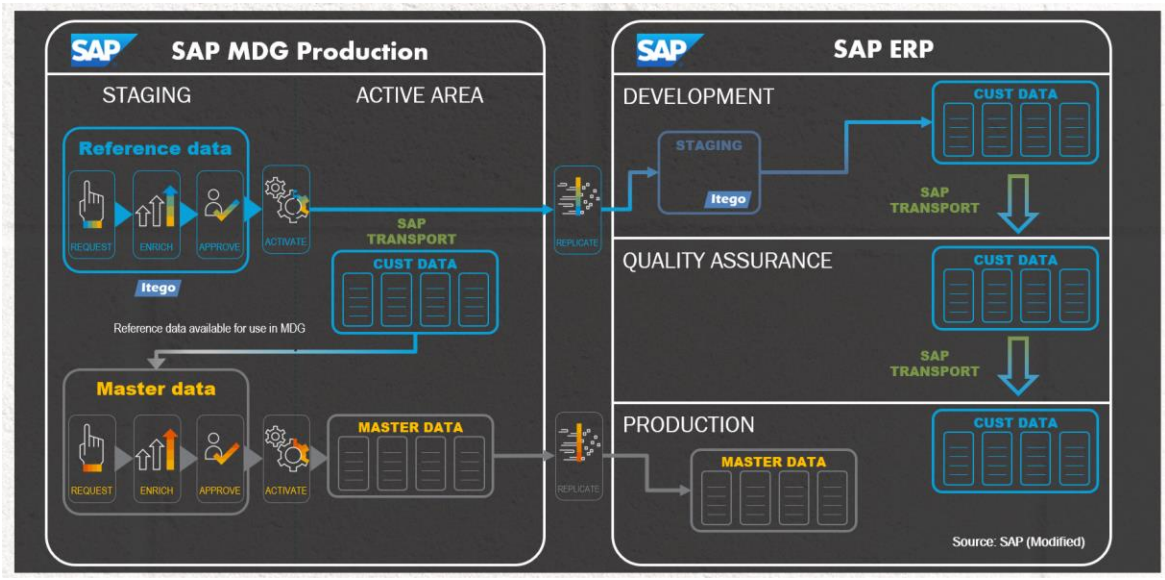


Figure 7: Governance – Full IT Governance Alternative

In order to orchestrate the propagation of data from development systems to production systems, the RDM integration to SAP Solution Manager can be used. In this scenario the SAP Solution Manager helps to control the roll-out of this data to all production systems.

This includes the SAP MDG system where reference data (of type configuration data) is stored in MDG only before it arrives via the SAP transport mechanism in the SAP Business Application Layer on the productive system. Only after this it also can be used as reference data for other applications that might be installed on the SAP MDG system.

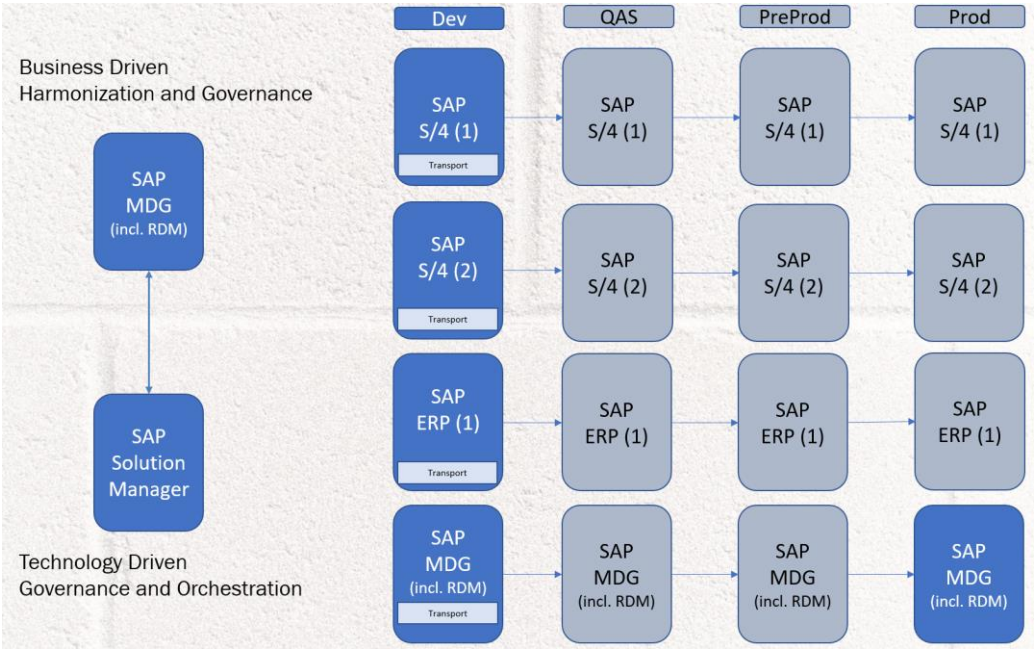


Figure 8: Harmonization and Governance – Solution Manager Integration

This scenario is not needed for reference data which is master data (for example Exchange Rates or Classification).

1.3 Software Components of Reference Data Management

RDM is installed as an SAP Add-On and contains four Software Components

- ITG, "Generic Framework"
  - installed on SAP MDG and on SAP based receiving systems
- ITU, "MDF Utility Objects"
  - installed on SAP MDG
- ITO, "Reference Data Management Local Staging"
  - installed on SAP MDG and on SAP based receiving systems
- ITR, "Reference Data Management",
  - installed on SAP MDG

All components need to be installed on the SAP MDG system and only a subset (ITO and ITG) need to be installed on the SAP Business Systems.

Language Support:

- English (EN)
- German (DE)

In order to obtain more information about planned language support or to request new languages please contact: support@itego.de - Subject: "RDM Languages".

2 Versions and Prerequisites

The following software component versions are delivered with RDM 2311 SP1:

- ITO 805, SP07, Reference Data Management Local Staging
- ITR 805, SP06, Reference Data Management
- ITU 805, SP01, MDF Utility Objects
- ITG 805, SP07, Generic Framework

Software Component version (minimum) required for RDM Software Component ITO

- SAP_BASIS 750, SP13

Software Component versions (minimum) required for RDM Software Component ITR

- SAP_BASIS 754, SP04
- MDG_FND 805, SP03
- MDG_APPL 805, SP03
- ITO 805, SP06

Software Component versions (minimum) for RDM Software Component ITU

- SAP_BASIS 754, SP04
- MDG_FND 805, SP00
- MDG_APPL 805, SP03

Software Component version (minimum) required for RDM Software Component ITG

- SAP_BASIS 750, SP13

3 Installation or Upgrade

The following section provides an overview of the installation and upgrade steps which have to be executed on the SAP MDG and the SAP Business Systems. Installation means to install all delivered files for all software component versions. Upgrade means to install all delivered files which are necessary to upgrade from the current software component versions to the target versions.

If you are missing the installation or upgrade archives please request them by contacting support@itego.de - Subject: "RDM Installation" or "RDM Upgrade". For an upgrade please specify which is the source and the target release.

Note: Please ensure that after the installation or upgrade necessary configuration steps are carried out based on the Configuration Guide for RDM. Even for an upgrade there are usually at least some additional BC Sets to be activated.

3.1 SAP MDG System

RDM installed on the SAP MDG (in contrast to RDM installed on SAP Business Systems described in the next section) require all delivered software components to be installed.

3.1.1 Upload Installation or Upgrade files

Installation or Upgrade files are delivered as archive files (using the SAR format). For the RDM components on the MDG system use the following archives: "RDM_MDG_805_R2311.SAR" and "RDM_MDG_805_R2311-01.SAR"

Using the correct archive files ensures the installation or upgrade of the correct software components and software component versions.

Upload the Installation to the installation directory of the Application Server (e.g. .../EPS/in).

3.1.2 Install ITG

Execute transaction SAINT and navigate to Installation Package -> Load Packages -> EPS Files from Application Server and confirm the Upload. After the Upload start the Installation process by clicking the "Start" button.

Choose „ITG" from the installable Add-on packages and click the „Continue" button and also continue the process by clicking the "Continue" button on the next screens ("Support Package Selection" and "Installation queue"). These screen should show the support package level and the OCS Package name.

Click "No" if you are prompted for "Modification Adjustment Transports" and confirm the installation process ("Add-On ITG ... is being installed") on the next screen.

Click "Finish" to complete the process after the software component has been installed.

3.1.3 Install ITU

Execute transaction SAINT and navigate to Installation Package -> Load Packages -> EPS Files from Application Server and confirm the Upload. After the Upload start the Installation process by clicking the "Start" button.

Choose „ITU" from the installable Add-on packages and click the „Continue" button and also continue the process by clicking the "Continue" button on the next screens ("Support Package Selection" and "Installation queue"). These screen should show the support package level and the OCS Package name.

Click "No" if you are prompted for "Modification Adjustment Transports" and confirm the installation process ("Add-On ITU … is being installed") on the next screen.

Click "Finish" to complete the process after the software component has been installed.

3.1.4 Install ITO

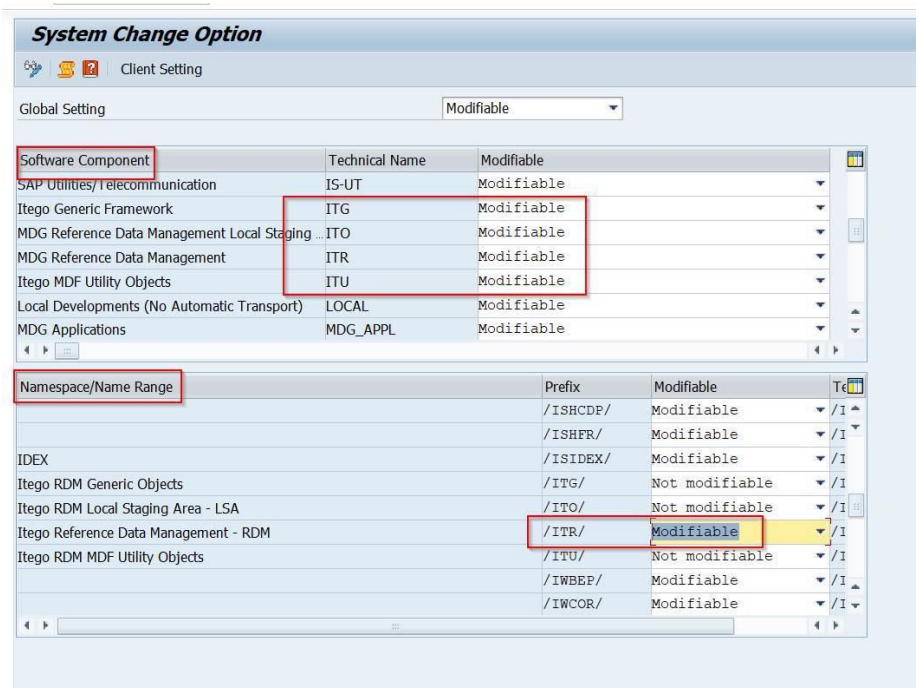
Execute transaction SAINT and navigate to Installation Package -> Load Packages -> EPS Files from Application Server and confirm the Upload. After the Upload start the Installation process by clicking the "Start" button.
Choose „ITO" from the installable Add-on packages and click the „Continue" button and also continue the process by clicking the "Continue" button on the next screens ("Support Package Selection" and "Installation queue"). These screen should show the support package level and the OCS Package name.

Click "No" if you are prompted for "Modification Adjustment Transports" and confirm the installation process ("Add-On ITO … is being installed") on the next screen.

Click "Finish" to complete the process after the software component has been installed.

3.1.5 Install ITR

Check in transaction SE03 if namespace /ITR/ is set to modifiable (see screenshot below). If not change the setting to modifiable and don't forget to press the SAVE button.



Execute transaction SAINT and navigate to Installation Package -> Load Packages -> EPS Files from Application Server and confirm the Upload. After the Upload start the Installation process by clicking the "Start" button.

Choose „ITR" from the installable Add-on packages and click the „Continue" button and also continue the process by clicking the "Continue" button on the next screens ("Support Package Selection" and "Installation queue"). These screen should show the support package level and the OCS Package name.

Click "No" if you are prompted for "Modification Adjustment Transports" and confirm the installation process ("Add-On ITR ... is being installed") on the next screen.

Click "Finish" to complete the process after the software component has been installed.

3.1.6 Verification

Please verify that the software component versions listed in section 2 "Versions and Prerequisites" have been installed.

3.1.7 Activate Business Functions

Please make sure that the necessary Business Functions are activated as described in the Configuration Guide in section “Activate Business Functions”.

Important Note: without this other system activities like Upgrading the SAP S/4 system might be affected.

3.1.8 Activate Data Model I1

Please make sure that the Data Model I1 is activated as described in the Configuration Guide in section “Activate Data Model I1”.

Important Note: without this other system activities like Upgrading the SAP S/4 system might be affected.

3.2 SAP Business Systems

RDM installed on SAP Business Systems (which are not MDG based) delivers functionalities which help to consolidate, synchronize and govern reference data. For consolidation the SAP Business system acts as a sender, for synchronization and governance it acts as a receiver.

Depending on the implementation scenario the Software Components ITG and ITO need to be installed on one or more SAP Business Systems. Execute the activities described below for each SAP Business System.

Important Note: Based on the reduced functionality of RDM on SAP Business Systems, software components ITR and ITU (which are SAP MDG based and deliver additional functionalities) are not required on any SAP Business System and must not be installed. Please use the correct installation file archives (SAR format). See next section for more details.

3.2.1 Upload Installation or Upgrade files

Installation and upgrade files are delivered as archive files (using the SAR format). For the installation or the upgrade of RDM on the business systems please use the following archives: “RDM_BUSSYS_805_R2311.SAR” and “RDM_BUSSYS_805_R2311-01.SAR”.

Using the correct archive files ensures the installation or upgrade of the correct software components and software component versions.

Upload the Installation to the installation directory of the Application Server (e.g. .../EPS/in).

3.2.2 Install ITG

Execute transaction SAINT and navigate to Installation Package -> Load Packages -> EPS Files from Application Server and confirm the Upload. After the Upload start the Installation process by clicking the "Start" button.

Choose „ITG" from the installable Add-on packages and click the „Continue" button and also continue the process by clicking the "Continue" button on the next screens ("Support Package Selection" and "Installation queue"). These screen should show the support package level and the OCS Package name.

Click "No" if you are prompted for "Modification Adjustment Transports" and confirm the installation process ("Add-On ITG … is being installed") on the next screen.

Click "Finish" to complete the process after the software component has been installed.

3.2.3 Install ITO

Execute transaction SAINT and navigate to Installation Package -> Load Packages -> EPS Files from Application Server and confirm the Upload. After the Upload start the Installation process by clicking the "Start" button.

Choose „ITO" from the installable Add-on packages and click the „Continue" button and also continue the process by clicking the "Continue" button on the next screens ("Support Package Selection" and "Installation queue"). These screen should show the support package level and the OCS Package name.

Click "No" if you are prompted for "Modification Adjustment Transports" and confirm the installation process ("Add-On ITO … is being installed") on the next screen.

Click "Finish" to complete the process after the software component has been installed.

3.2.4 Verification

Please verify that the software component versions listed in section 2 "Versions and Prerequisites" have been installed.

4 Deinstallation

4.1 Deinstallation from SAP MDG

Automated deinstallation of RDM software component ITR is not possible due to missing deinstallation support for SAP MDG Add-Ons. This also means that generally the software components ITO, ITG and ITU cannot be deinstalled from the SAP MDG system.

In order to obtain more information about this, please contact: support@itego.de - Subject: "RDM Deinstallation".

4.2 Deinstallation from SAP Business Systems

Deinstallation of RDM software components ITO and ITG is possible from SAP Business Systems.

Prerequisite: Ensure that the Local Staging Area has been cleared from any maintained reference data object. For this execute transaction /ITR/STAGING for all object types. Refer to "Reference Data Management for SAP MDG - Functional Documentation" for further details.

Start and finalize the deinstallation by using transaction "SAINT", selecting "Uninstallable components" -> ITO -> Start and selecting "Uninstallable components" -> ITG -> Start.

5 Installation Example

Example with an existing RDM 2210 installation and RDM 2301 or RDM 2307 to be installed.

To install Itego RDM Add-On and Support Packages you have to use the SAP transactions

- SAINT (SAP Add-On Installation Tool)
- SPAM (Support Package Manager)

Installed RDM 2301 on SAP release version 805, it looks like:

Component	Release	SP-Level	Support Package	Short Description of Component
ITG	805	0000	-	Itego Generic Framework
ITO	805	0000	-	MDG Reference Data Management Local Staging Area
ITR	805	0000	-	MDG Reference Data Management
ITU	805	0000	-	Itego MDF Utility Objects

After installation of RDM 2311 on SAP release version 805, it looks like:

Component	Release	SP-Level	Support Package	Short Description of Component
ITG	805	0005	SAPK-80505INITG	Itego Generic Framework
ITO	805	0006	SAPK-80506INITO	MDG Reference Data Management Local Staging Area
ITR	805	0004	SAPK-80504INITR	MDG Reference Data Management
ITU	805	0000	-	Itego MDF Utility Objects

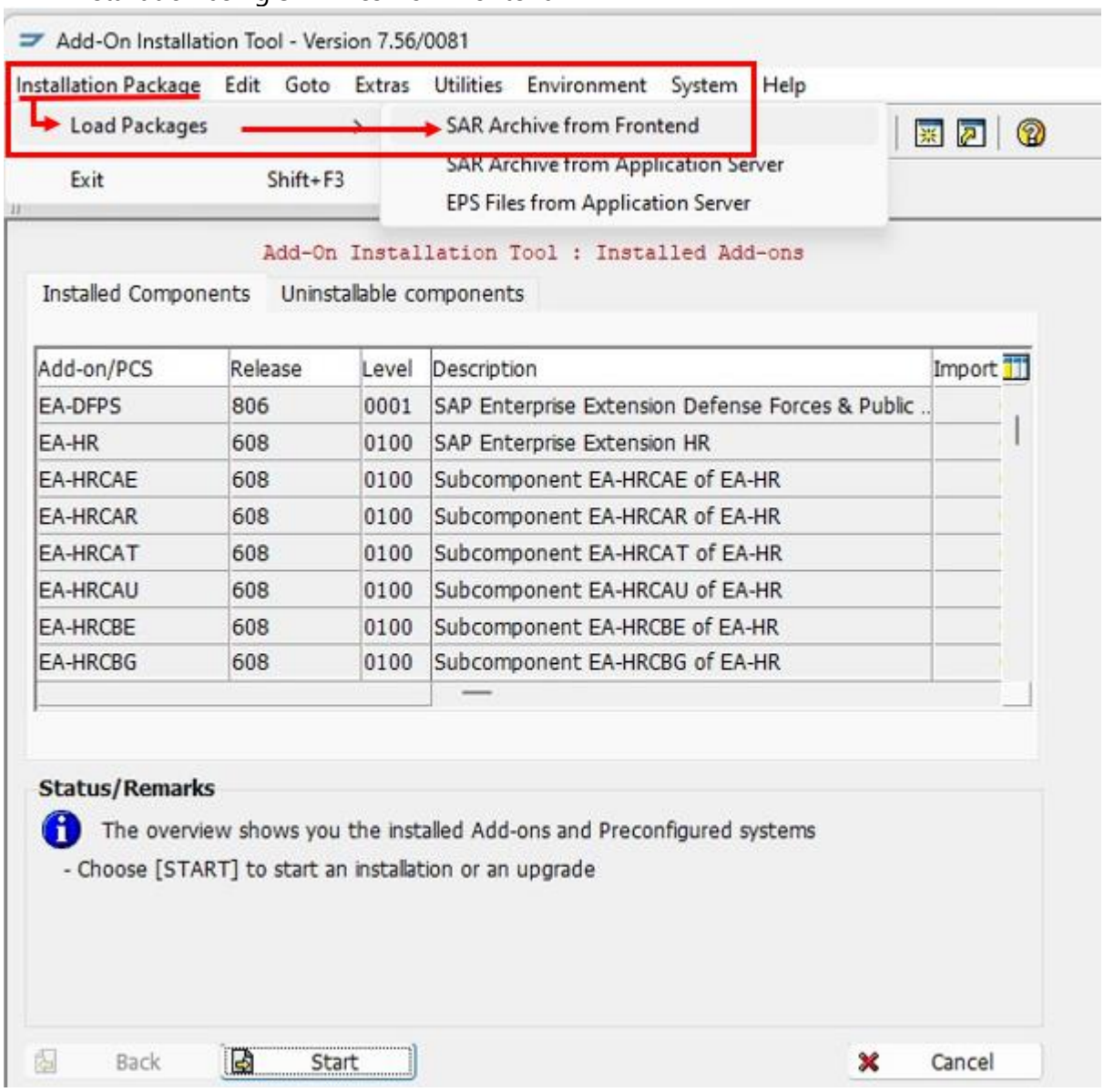
A RDM 2301 installation is not required to install RDM 2311. RDM 2311 can also installed on an initial (from the RDM point of view) system, as RDM 2311 includes RDM 2301 completely.

Example for an SAP MDG installation, which not yet has an RDM installed as Add-On:

Component	Release	SP-Level	Support Package	Short Description of Component
MDG_FND	805	0003	SAPK-80503INMDGFND	MDG Foundation
S4FND	105	0003	SAPK-10503INS4FND	Foundation
MDG_APPL	805	0003	SAPK-80503INMDGAPPL	MDG Applications

Transaction SAINT

RDM Installation using SAR Files from frontend



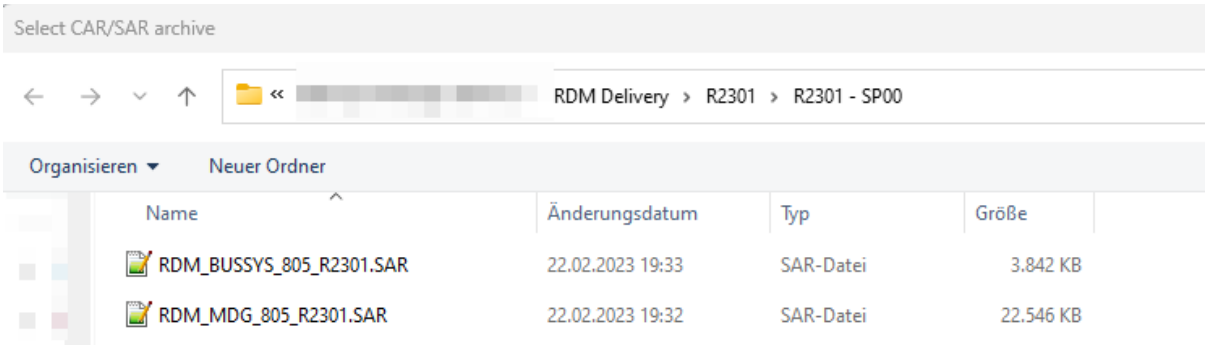
RDM installation comes with two SAR files for

- RDM Business Receiver System (ECC Backend System) with the following software components (listed in the order to be installed)
    1. ITG - Generic Framework
    2. ITO - Reference Data Management Local Staging

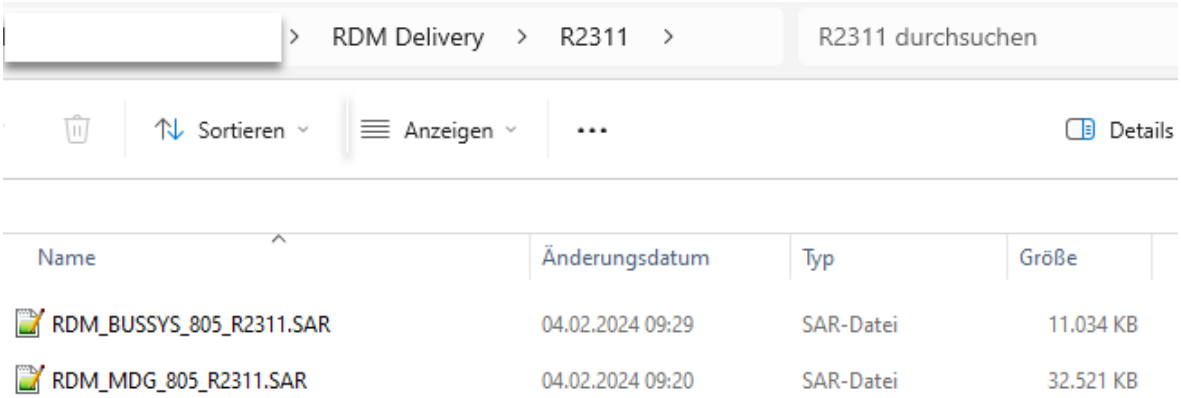
- RDM MDG System (with MDG installation) with the following software components (listed in order to be installed)
    1. ITG - Generic Framework
    2. ITU - MDF Utility Objects
    3. ITO - Reference Data Management Local Staging
    4. ITR - Reference Data Management

Naming convention of RDM SAR Files:

RDM R2301 SAR Files

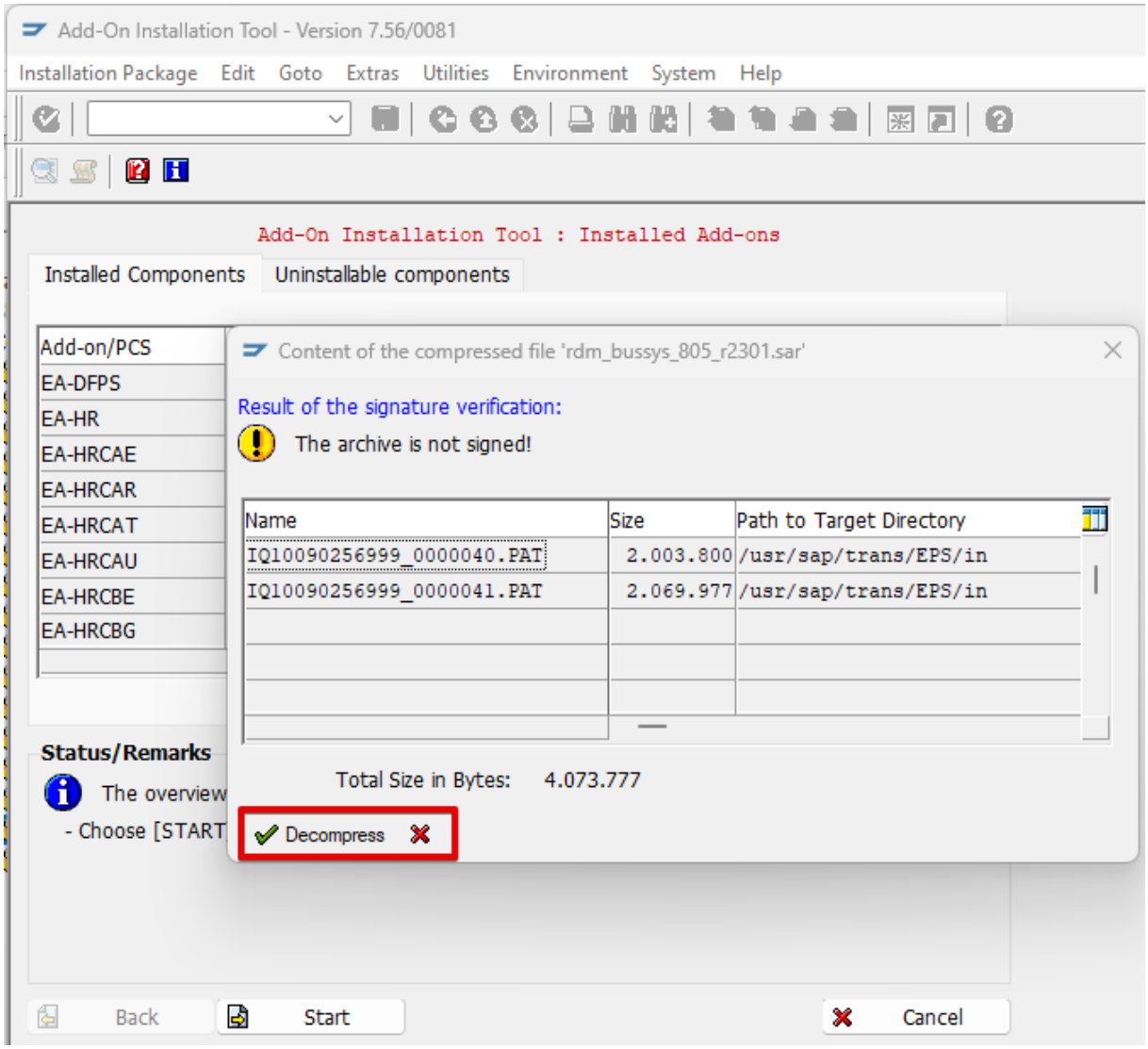


RDM R2311 SAR Files



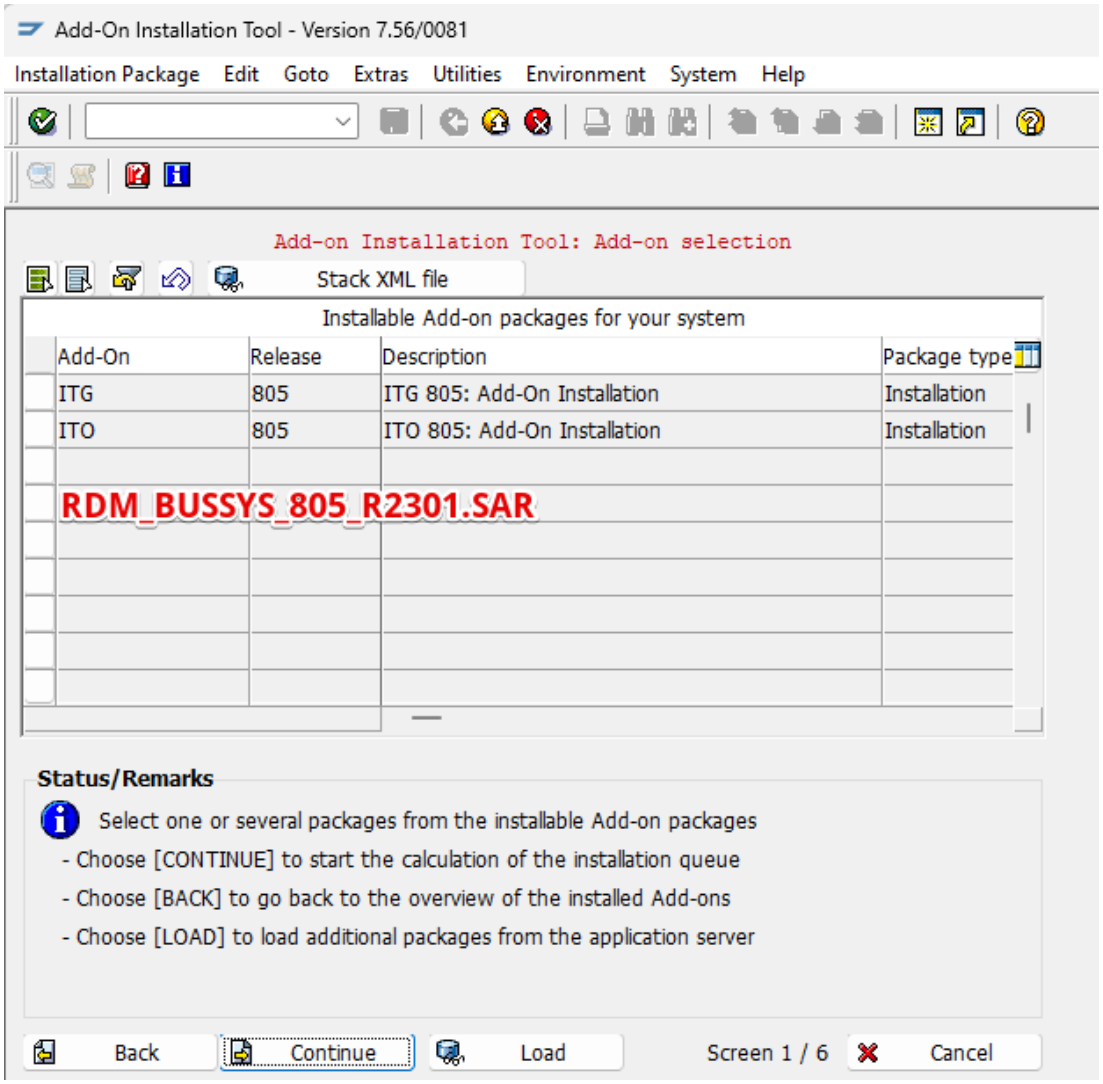
Installation on Receiver/Business System using SAR File RDM_BUSSYS_805_R2301.SAR

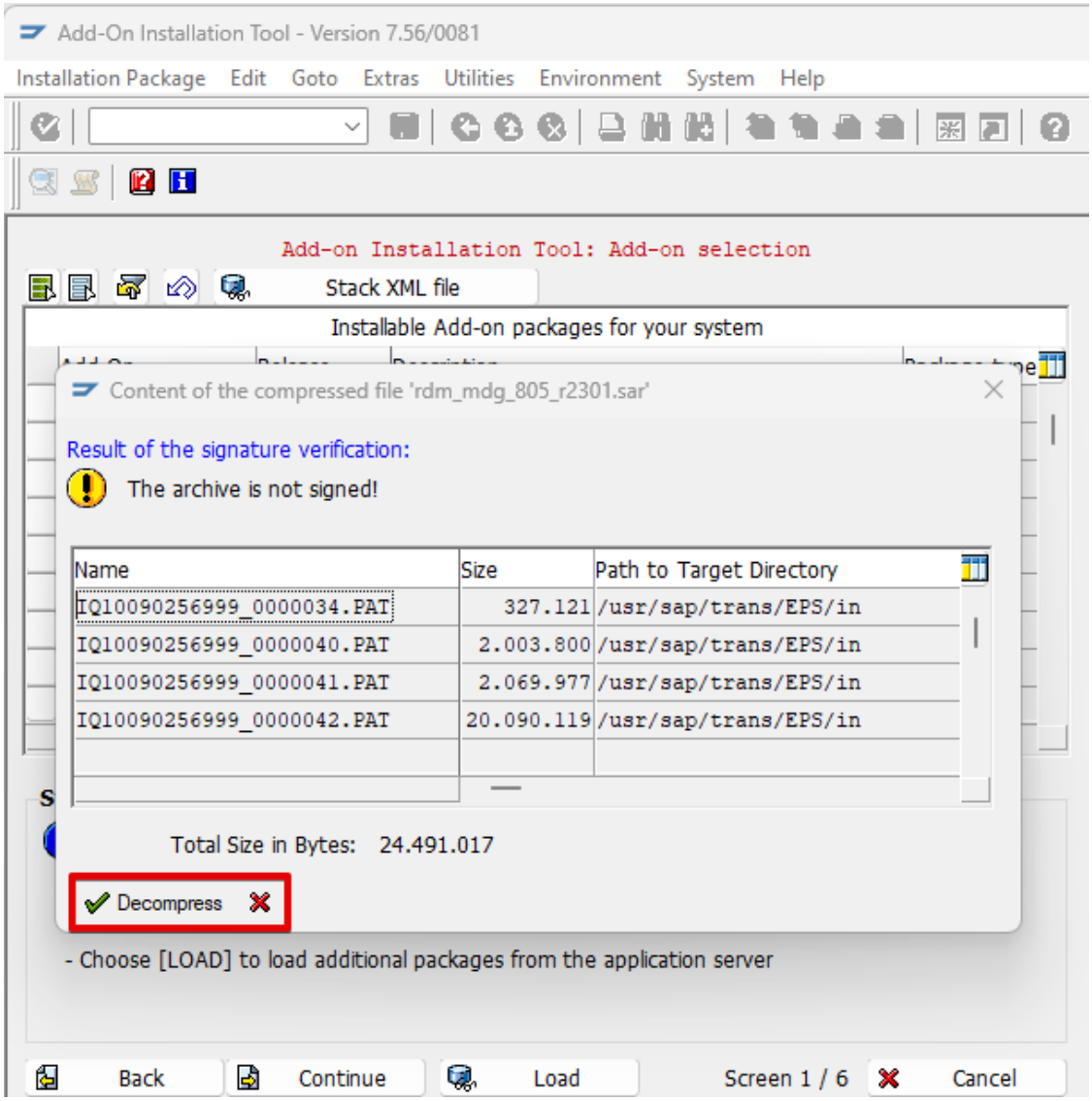
Note:
The shown PAT Files are just examples for this documentation – you will have PAT Files with other names.



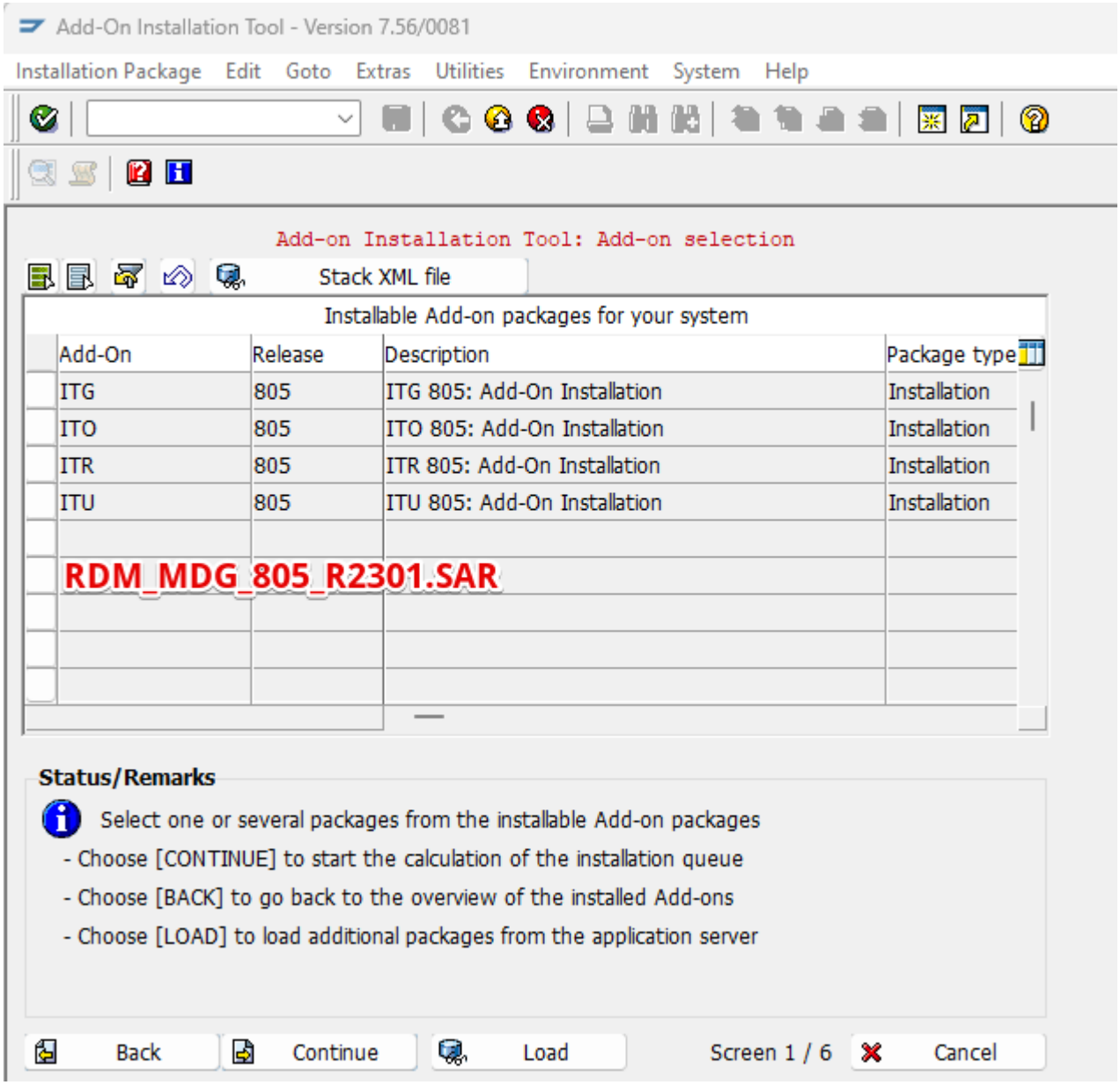
Decompress the PAT files and press the Start Button. After decompression the SAR files are deleted.

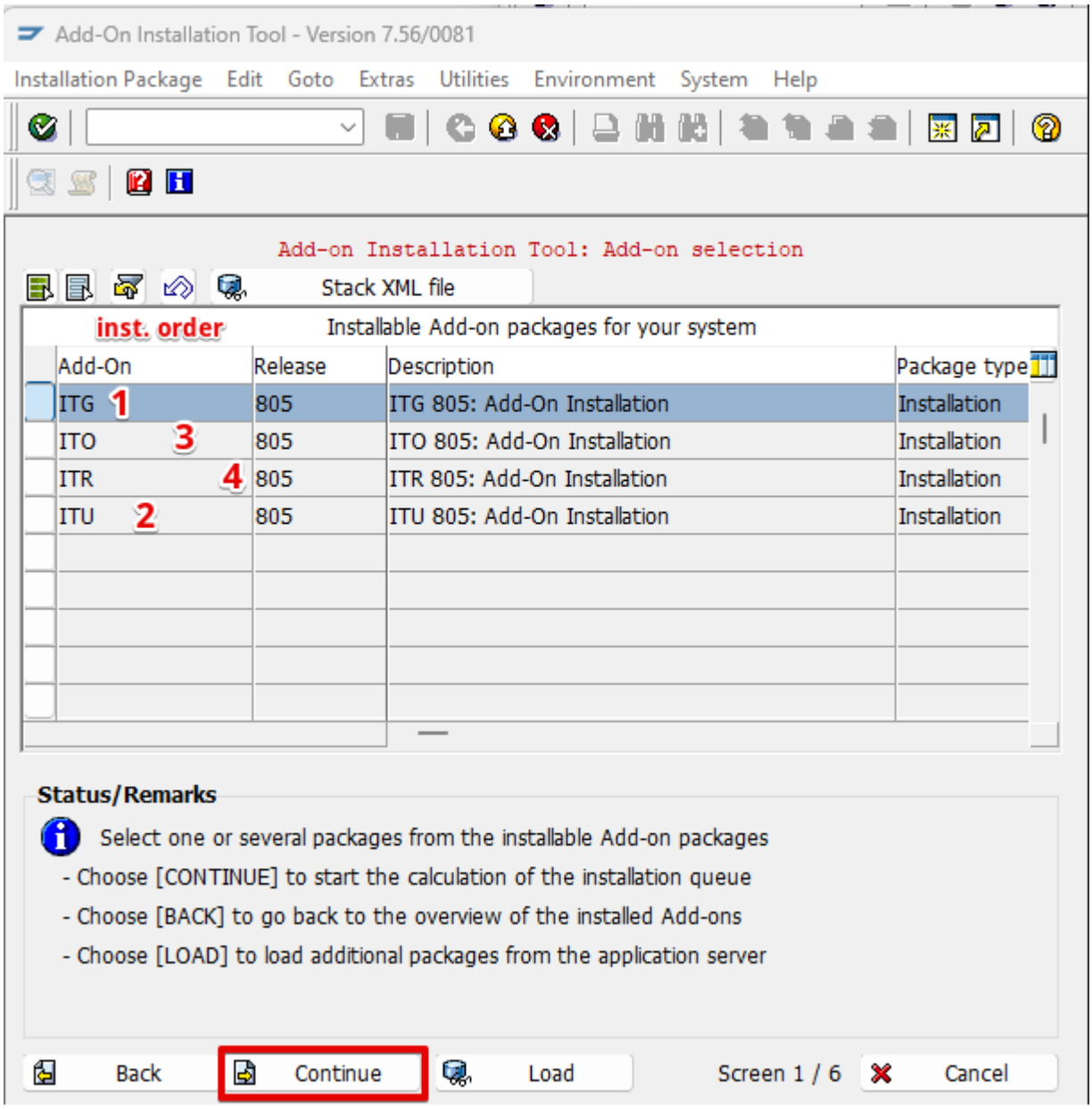
Select first software component (SWC) ITG and press button CONTINUE

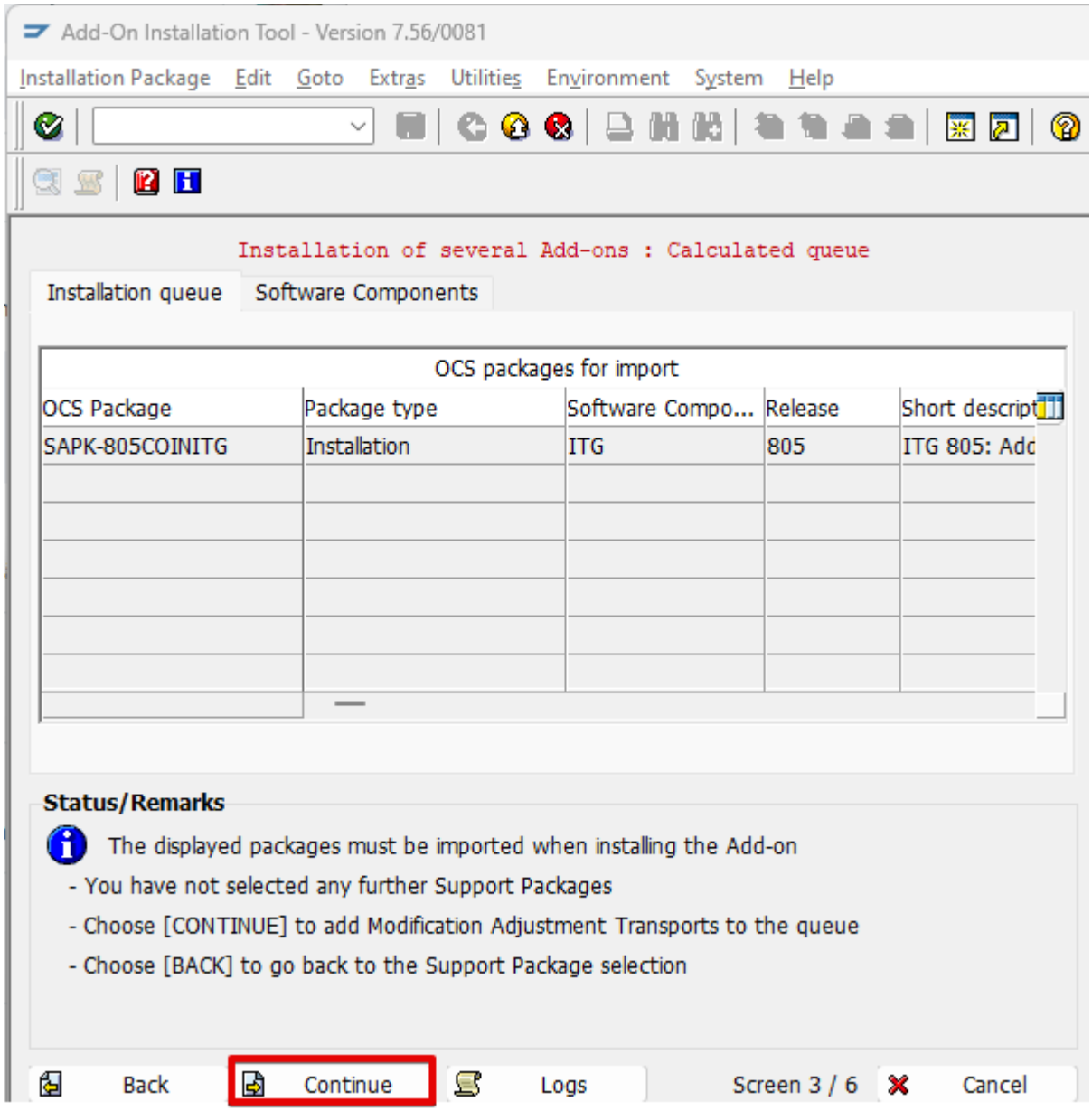



Add-On Installation Tool - Version 7.56/0081
Installation Package Edit Goto Extras Utilities Environment System Help
Add-on Installation Tool: Add-on selection
Stack XML file
Installable Add-on packages for your system
Content of the compressed file 'rdm_mdg_805_r2301.sar'
Result of the signature verification:
The archive is not signed!
Name Size Path to Target Directory
IQ10090256999_0000034.PAT 327.121 /usr/sap/trans/EPS/in
IQ10090256999_0000040.PAT 2.003.800 /usr/sap/trans/EPS/in
IQ10090256999_0000041.PAT 2.069.977 /usr/sap/trans/EPS/in
IQ10090256999_0000042.PAT 20.090.119 /usr/sap/trans/EPS/in
Total Size in Bytes: 24.491.017
Decompress
- Choose [LOAD] to load additional packages from the application server
Back
Continue
Load
Screen 1 / 6
Cancel

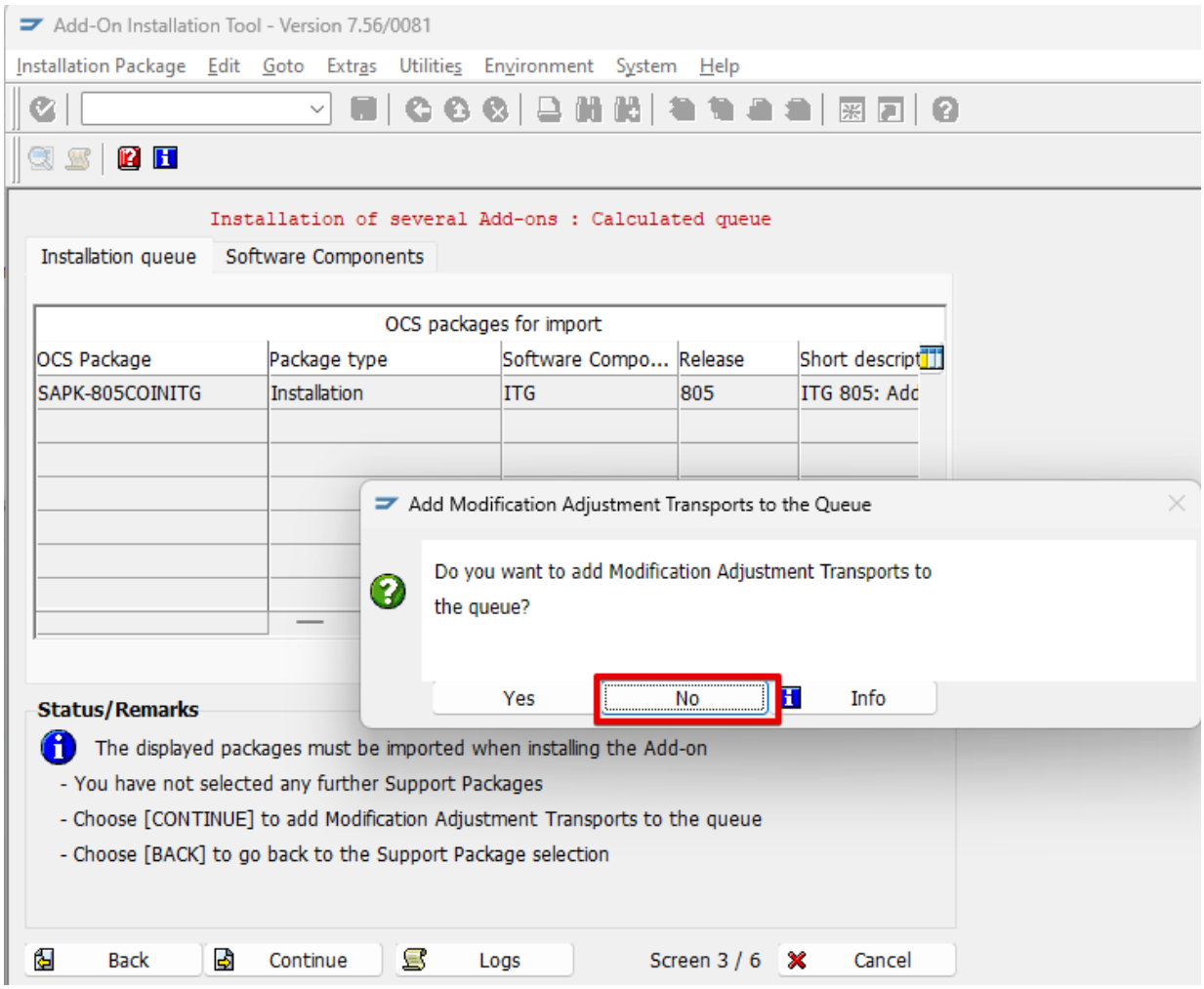
Installation on MDG system



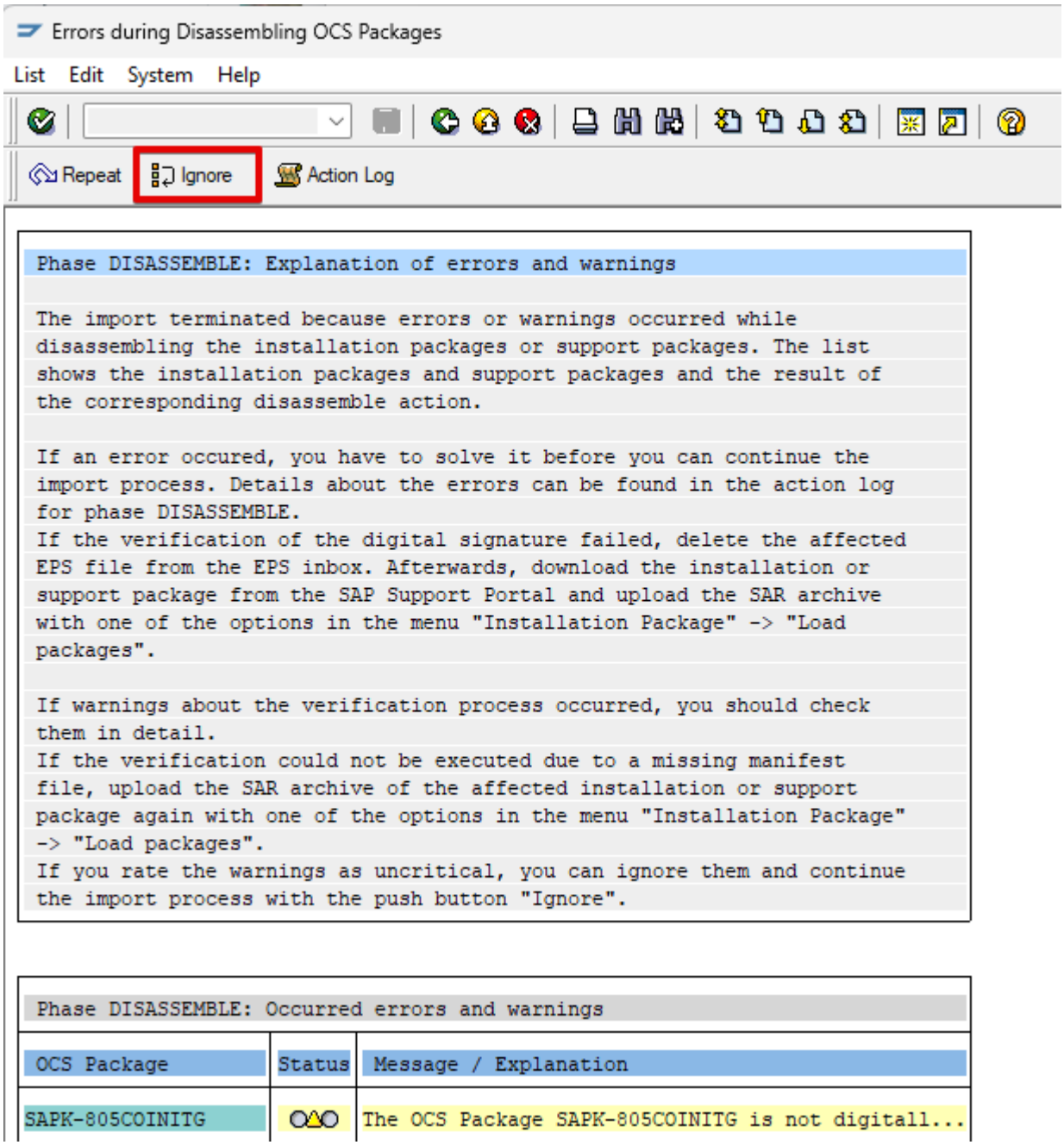

Add-On Installation Tool - Version 7.56/0081
Installation Package Edit Goto Extras Utilities Environment System Help
Add-on Installation Tool: Add-on selection
Stack XML file
inst. order
Installable Add-on packages for your system
Add-On Release Description Package type
ITG 1 805 ITG 805: Add-On Installation Installation
ITO 3 805 ITO 805: Add-On Installation Installation
ITR 4 805 ITR 805: Add-On Installation Installation
ITU 2 805 ITU 805: Add-On Installation Installation
Status/Remarks
Select one or several packages from the installable Add-on packages
- Choose [CONTINUE] to start the calculation of the installation queue
- Choose [BACK] to go back to the overview of the installed Add-ons
- Choose [LOAD] to load additional packages from the application server
Back
Continue
Load
Screen 1 / 6
Cancel


Add-On Installation Tool - Version 7.56/0081
Installation Package Edit Goto Extras Utilities Environment System Help
Installation of several Add-ons : Calculated queue
Installation queue
Software Components
OCS packages for import
OCS Package
Package type
Software Compo...
Release
Short descript
SAPK-805COINITG
Installation
ITG
805
ITG 805: Adc
Status/Remarks
The displayed packages must be imported when installing the Add-on
- You have not selected any further Support Packages
- Choose [CONTINUE] to add Modification Adjustment Transports to the queue
- Choose [BACK] to go back to the Support Package selection
Back
Continue
Logs
Screen 3 / 6
Cancel

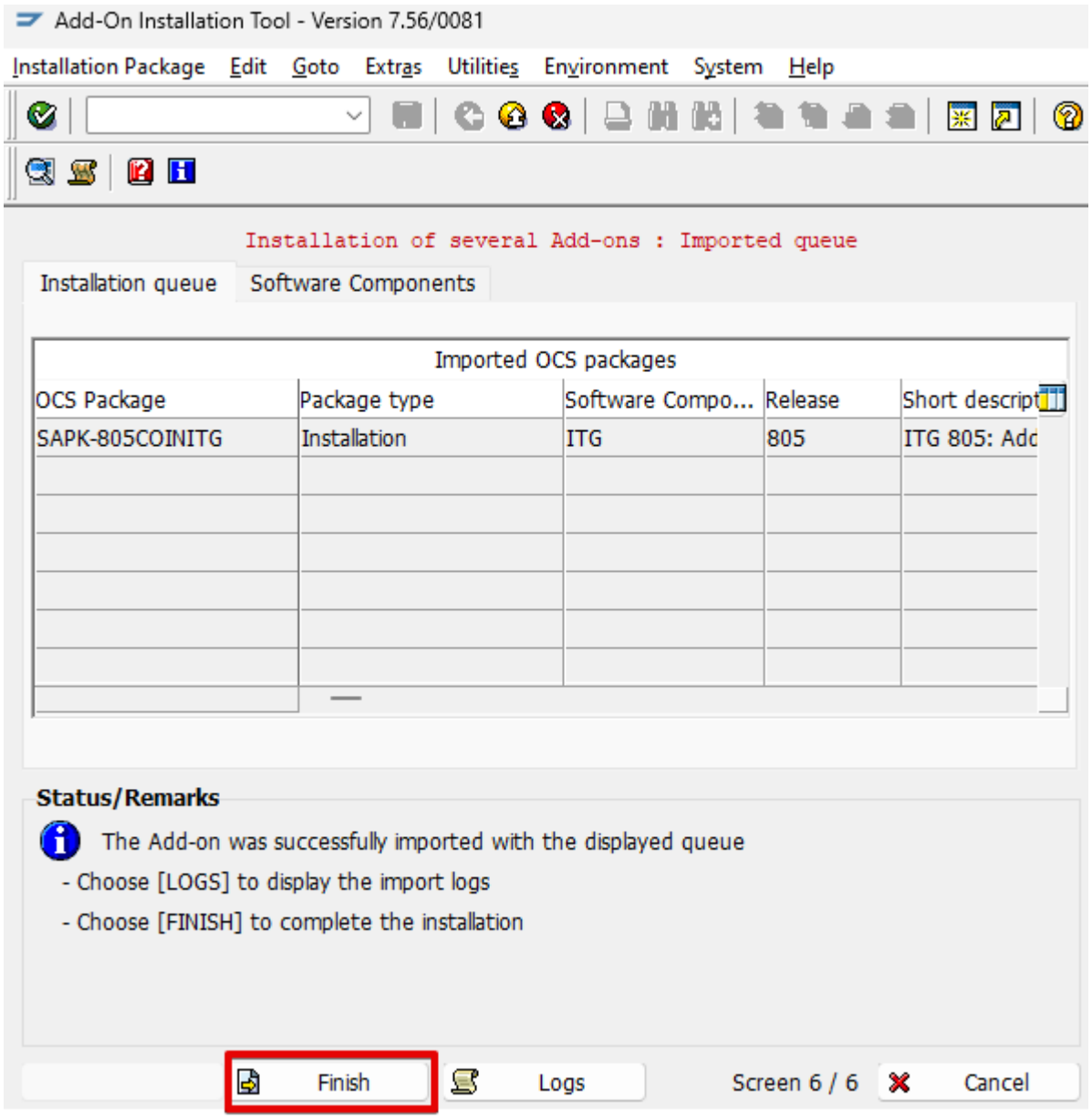
Select “No” for Modification Adjustments



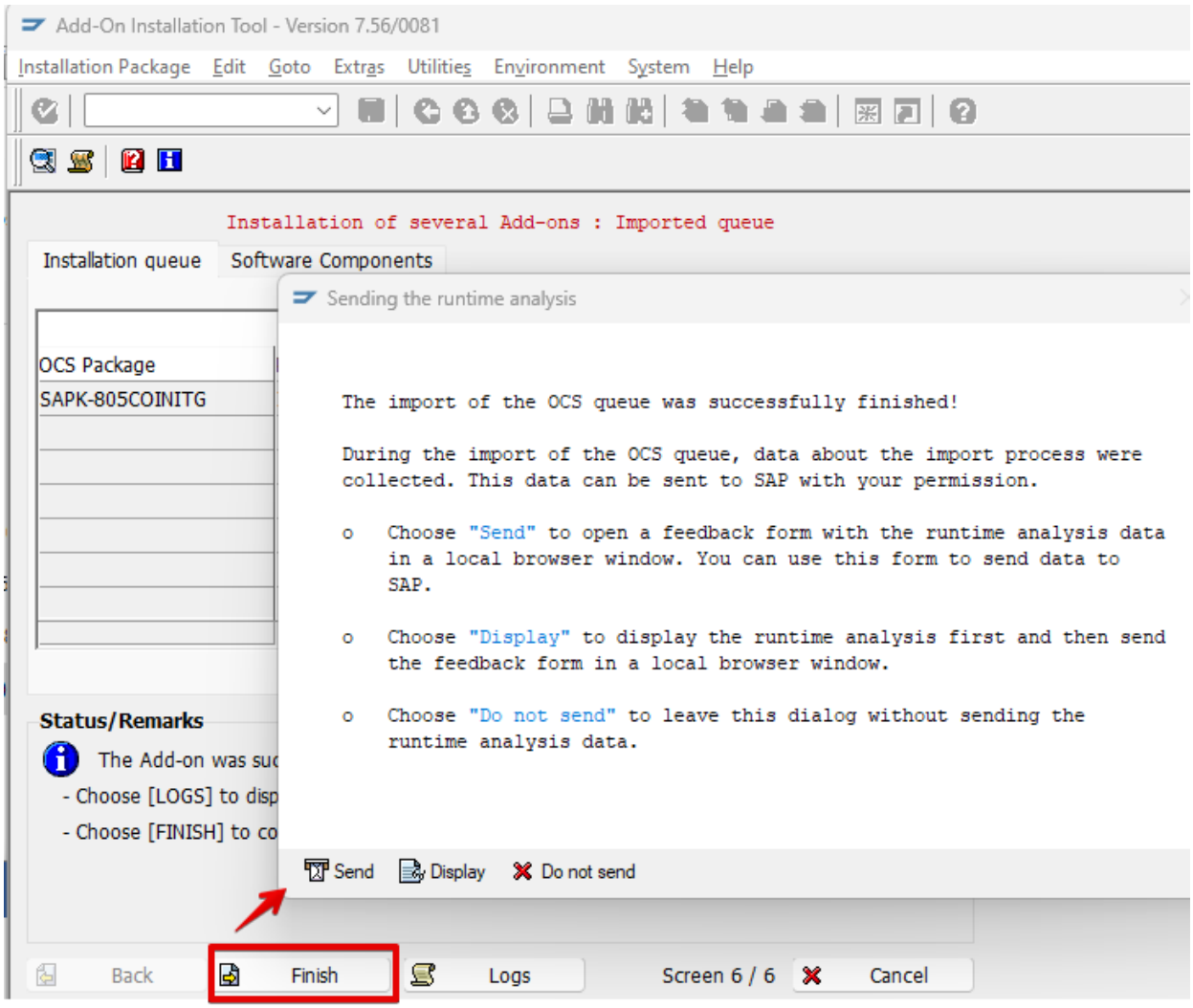
Please **ignore** this warning

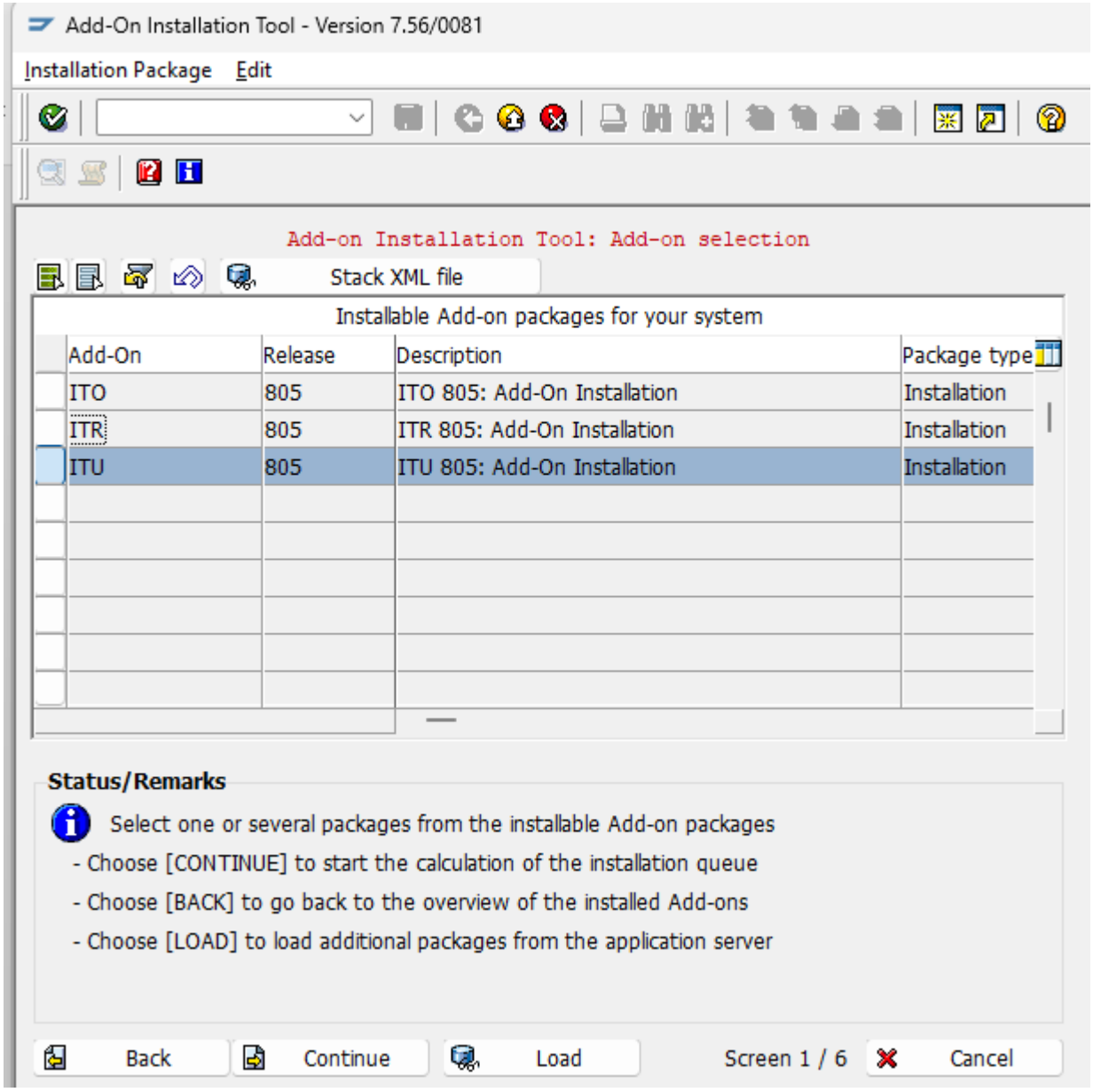


Once the installation is done, you have to confirm the installation of SWC with **"FINISH"**



Finishing the installation the system will provide you the following options:




Add-On Installation Tool - Version 7.56/0081
Installation Package
Edit
Add-on Installation Tool: Add-on selection
Stack XML file
Installable Add-on packages for your system
Add-On
Release
Description
Package type
ITO
805
ITO 805: Add-On Installation
Installation
ITR
805
ITR 805: Add-On Installation
Installation
ITU
805
ITU 805: Add-On Installation
Installation
Status/Remarks
Select one or several packages from the installable Add-on packages
- Choose [CONTINUE] to start the calculation of the installation queue
- Choose [BACK] to go back to the overview of the installed Add-ons
- Choose [LOAD] to load additional packages from the application server
Back
Continue
Load
Screen 1 / 6
Cancel

During the RDM installation you might face the following situation shown in the screenshot below. If there are existing non released transport requests containing objects of the RDM software component that you just want to install you will have a deadlock situation and user interaction is needed.

Phase OBJECTS_LOCKED_?: Explanation of Errors

The following objects are currently locked in requests. You can only import the queue when the objects are no longer locked.

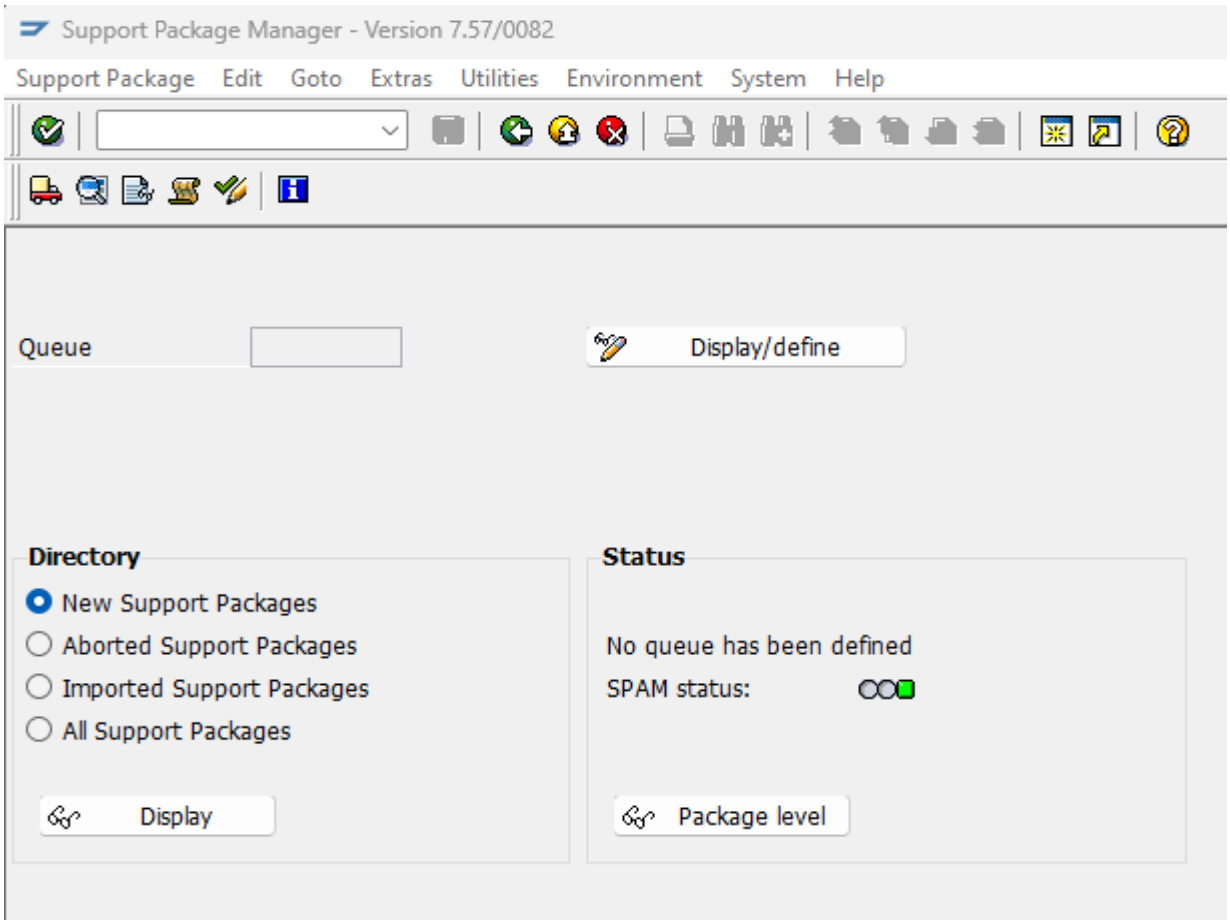
Proceed as follows:

- Choose one of the displayed requests to go to the maintenance screen of this request.
- Release the request and the corresponding tasks or ask the request owner to do so. It's also possible to use the workbench organizer (transaction SE01 / SE09) to release the requests.
- Repeat the import phase when all the requests are released. When no more locked objects are found, the import is continued.

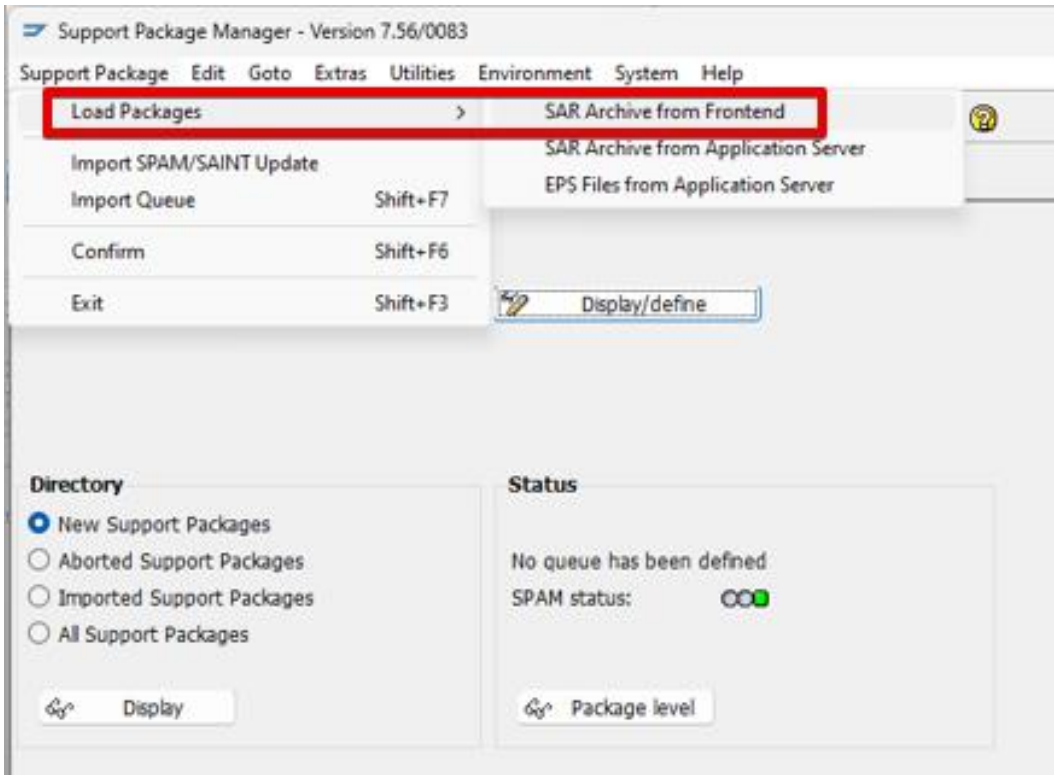
Phase OBJECTS_LOCKED_?: Objects Locked in Requests

Request	Names of Locked Transport Objects
S02K900074	R3TR WDCC /ITR/I1_LGORT_SEARCH_DQUERY 00

Transaction SPAM

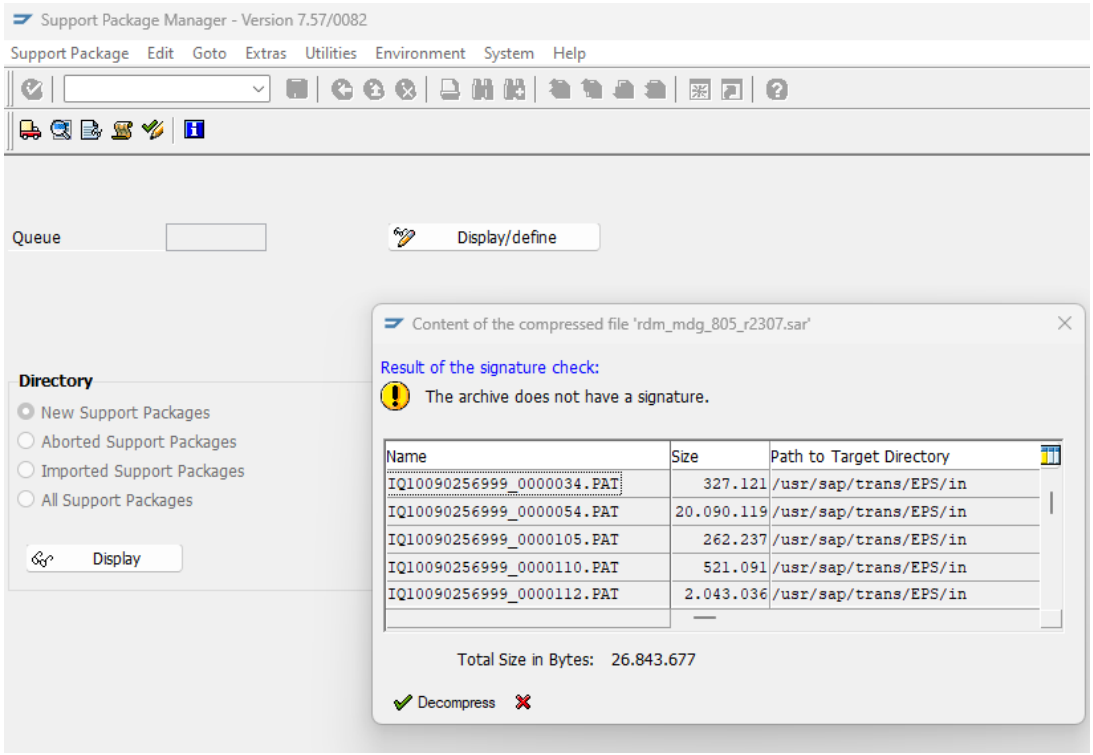


Here you have also the option of loading SAR files in order to install support packages

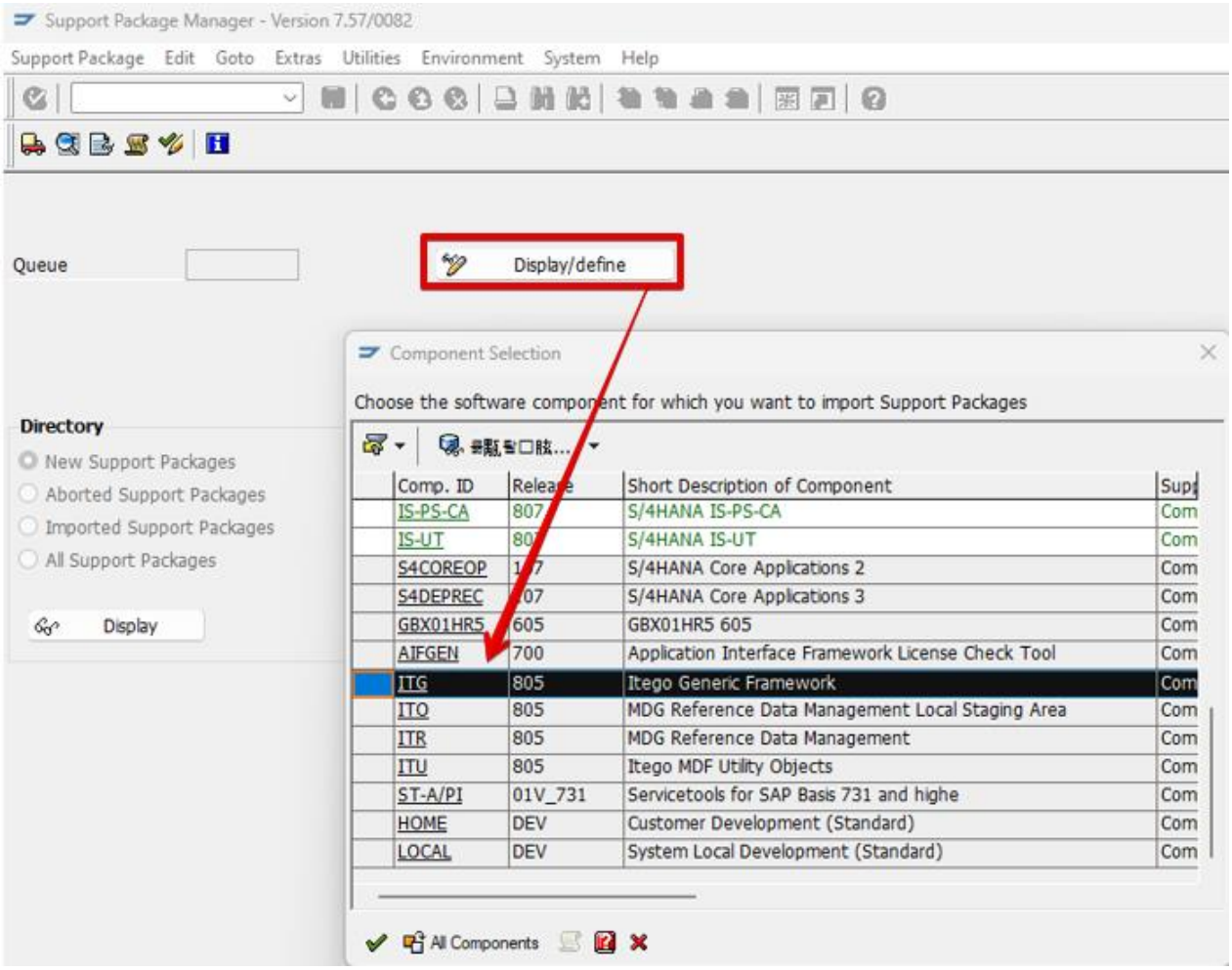
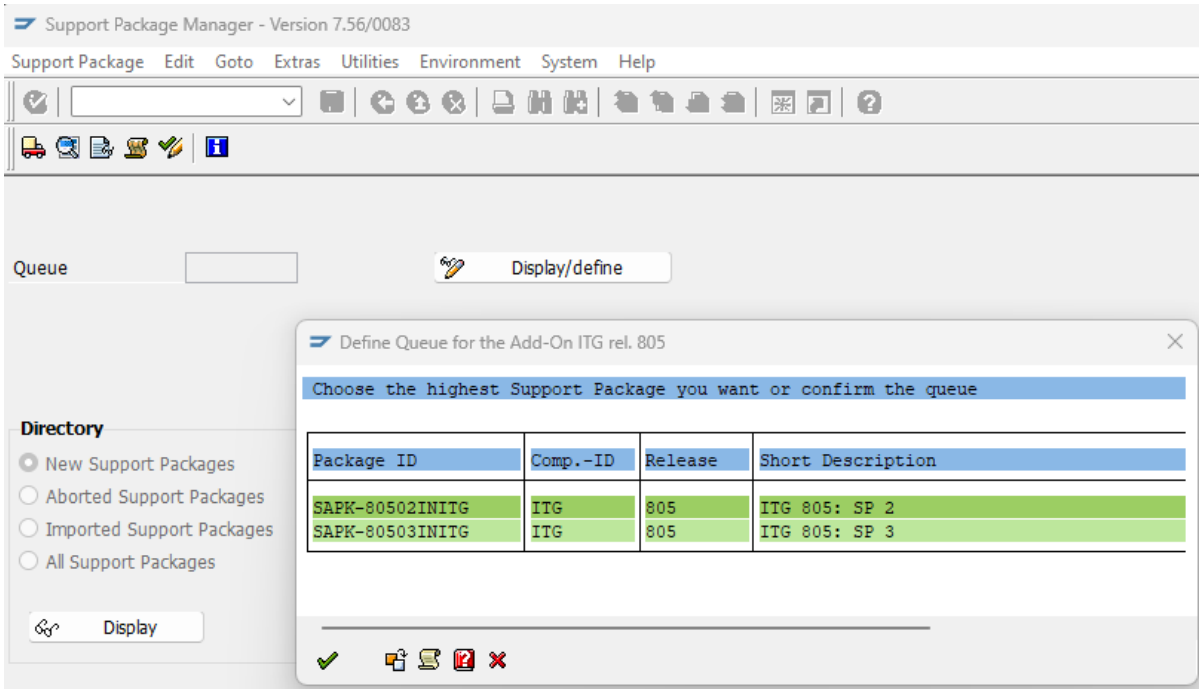


If the selected SAR file has not yet been loaded via SAINT, the assigned PAT files will be unpacked from the selected SAR file and the SAR file itself will be deleted.

Note:
The shown PAT Files are just examples for this documentation – you will have PAT Files with other names.



Hit button "Display/define" to select the software component for which you want to install the support packages



The system automatically selects all support packages for the selected software component. You can leave it like that or select individual support packages, taking the order into account.