

SAP S/4HANA Migration Cockpit

SAP S/4HANA 2021

June, 2022

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SAP S/4HANA Migration Cockpit SAP S/4HANA Cloud, 2202

January, 2022



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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

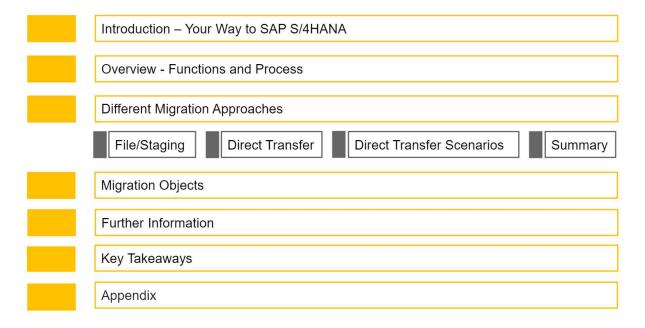
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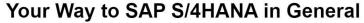
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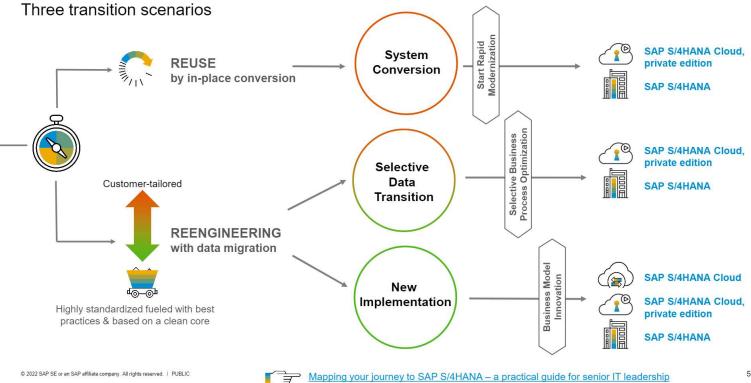
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

Introduction - Your Way to SAP S/4HANA







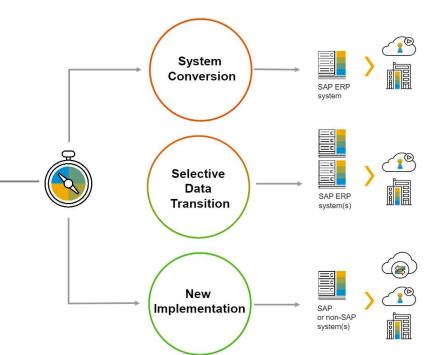
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Your Way to SAP S/4HANA Detailed



Bring your business processes to the new platform

- A complete technical in-place conversion of an existing SAP ERP system to SAP S/4HANA
- Adopt new innovations at your speed
- → Delivery model: included in SAP S/4HANA shipment

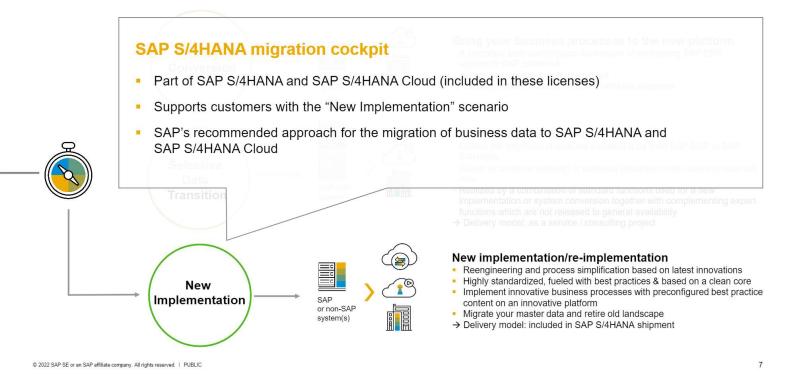
Partly re-use, partly re-implementation

- Covers the migration of relevant business data from SAP ERP to SAP S/4HANA
- Allows to combine redesign of business processes with retaining historical data
- Realized by a combination of standard functions used for a new implementation or system conversion together with complementing expert functions which are not released to general availability
- → Delivery model: as a service / consulting project

New implementation/re-implementation

- Reengineering and process simplification based on latest innovations
- Highly standardized, fueled with best practices & based on a clean core
- Implement innovative business processes with preconfigured best practice content on an innovative platform
- Migrate your master data and retire old landscape
- → Delivery model: included in SAP S/4HANA shipment

Your Way to SAP S/4HANA



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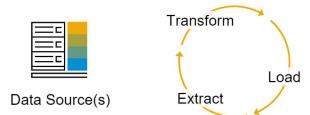
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Introduction to Data Migration

Your SAP S/4HANA migration requirements

- Migrate data from SAP systems and non-SAP systems to SAP S/4HANA and SAP S/4HANA Cloud
- Provide a comprehensive migration solution with no programming required by the customer
- Include mapped data structures between source and target systems
- Reduce test effort
- Make the migration solution auditable





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SAP S/4HANA Migration Cockpit

Overview – Functions and Process



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SAP S/4HANA Migration Cockpit at a Glance

Data migration to SAP S/4HANA: Easy, safe, and accelerated

Key facilitators

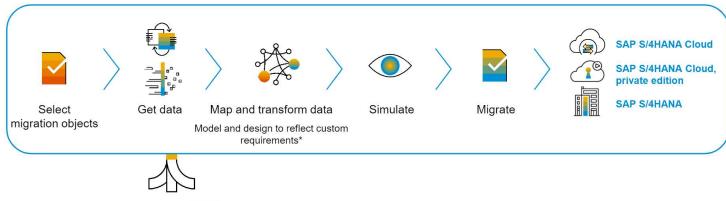
- Out-of-the-box, available for SAP S/4HANA and SAP S/4HANA Cloud, included in licenses
- Preconfigured migration objects and mapping
- No developer skills required
- Step-by-step guidance through the migration process
- Automatized cross-object value mapping
 - Migration object modeler for custom requirements
 - Powerful and easy-to-use state-of-the-art modeling environment



Data Migration Process for New Implementation

Data migration

- This is one key task during the transition to SAP S/4HANA
- Make sure to understand your requirements early and plan for them accordingly





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*Migration object modeler available for SAP S/4HANA and SAP S/4HANA Cloud, private edition only

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SAP S/4HANA Migration Cockpit

In detail: Preconfigured migration content



- Content (= migration objects) covers all best practice migration objects for master data and transactional data*
- Automated mapping between source and target structure
- Migration programs are automatically generated no programming required by the customer
- Standard APIs are used to post the data to SAP S/4HANA system
- *Examples transactional data:
- FI: open items, balances
- · LO: inventory

no historical data

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SAP S/4HANA Migration Cockpit

In detail: Migration object modeler



Flexible and extendable



Easily integrate custom objects and enhancements into the migration project

- Customer-specific enhancements to SAP standard objects delivered with the SAP S/4HANA migration cockpit
 - Easily adjust input structure
 - Map structures and fields
 - Add or change migration object selection criteria (Direct Transfer)
- Integration of newly created objects
 - Custom objects
 - SAP standard objects that are not yet in the scope of the SAP S/4HANA migration cockpit
 - Use standard APIs or code your function module





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SAP S/4HANA Migration Cockpit **Different Migration Approaches**



SAP S/4HANA Migration Cockpit

Migration approaches until SAP S/4HANA 1909 - recap



Transfer data using files

- Download template file for relevant migration object
- Populate file with relevant business data
- Upload file to the SAP S/4HANA migration cockpit



Transfer data using Staging Tables

- Staging Tables are created automatically (in an SAP HANA DB schema)
- Populate Staging Tables with business data
- Transfer data from Staging Tables to target SAP S/4HANA system



Transfer data directly from SAP System (new with SAP S/4HANA 1909)

- Transfer data from SAP ERP source system to target SAP S/4HANA system
- Access source system through RFC connection
- Supports data migration scenarios from other applications

for example, from SAP Apparel and Footwear (SAP AFS) to SAP S/4 Fashion and Vertical Business, SAP Extended Warehouse Management (SAP EWM) to Decentralized EWM

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SAP S/4HANA Migration Cockpit

Migration approaches from SAP S/4HANA 2020 onwards



Migrate Data Using Staging Tables

Staging tables are created automatically (either locally or in a remote system)

You can populate Staging Tables with business data

- Using XML template files
- Using SAP or third-party ETL tools

And then transfer data from the staging tables to the target SAP S/4HANA system



Migrate Data Directly from SAP System

Transfer data from SAP ERP source system to target SAP S/4HANA system Access source system through RFC connection

Supports data migration scenarios from other applications for example from SAP Apparel and Footwear to SAP S/4HANA for fashion and vertical business, SAP Extended Warehouse Management (SAP EWM) to decentralized EWM



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SAP S/4HANA Migration Cockpit Migrate Data Using Staging Tables



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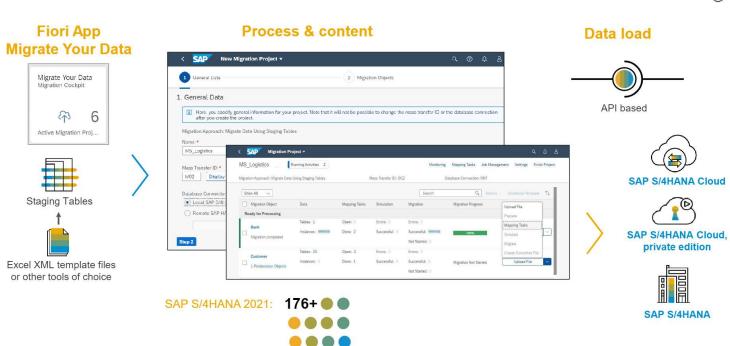
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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables



Migration objects

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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Process flow





mapped correctly.

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tables.

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preferred tools to populate the staging

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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Populate data

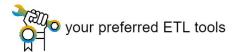


You can fill the staging tables by using:



XML files

or



be posted to the target SAP

S/4HANA system.

Your choice depends on:

- Deployment option (SAP S/4HANA or SAP S/4HANA Cloud)
- System set up (local SAP S/4HANA database schema or remote SAP HANA database schema)
- Licenses you need for the particular ETL tool

We therefore recommend that you look at the following materials and decide how you would like to populate the staging tables:

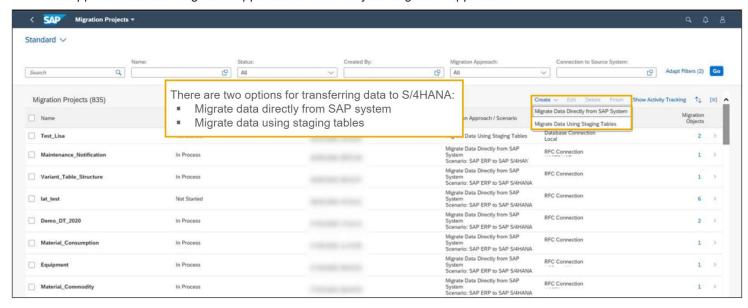
- Methods for populating the staging tables Part 1
- KBA 2733253 FAQ Migrate Data Using Staging Tables
- Matrix Data Load into Staging Tables

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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Create a new project



The Fiori App includes both migration approaches. Choose your migration approach.



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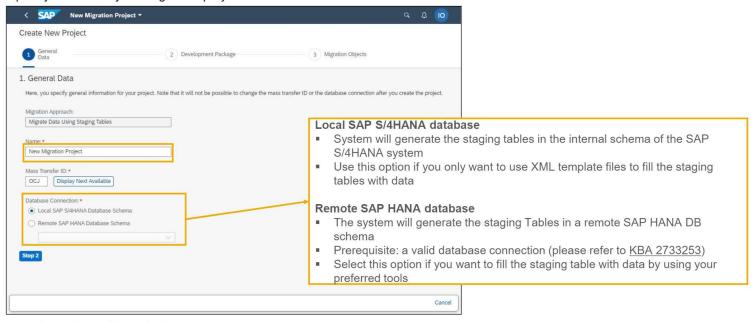
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Create new project – 1. General data

Specify details for your migration project.

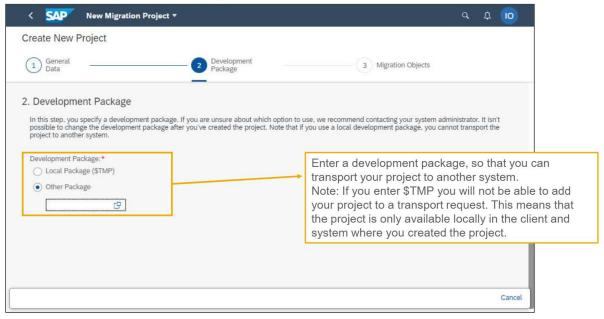


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Create new project – 2. Development package

Specify details for your migration project.



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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables



Transport functionality – Basic facts

- The transport functionality used in the migration cockpit is designed to transport content from one system to another.
- The functionality is available with SAP S/4HANA 2021 onwards for the approach Migrate Data Using Staging Tables.
- You assign a development package while creating a project (SAP Fiori app). This assignment cannot be changed later.
- You can add projects, migration objects, and rules to a transport request in transaction LTMOM.
- It is not possible to create or edit projects in non-modifiable systems, they can only be executed. Usually, non-modifiable systems are quality and production systems. For more information about non-modifiable systems, see slide 12 in Transport Concept-Migrate Data Using Staging Tables.



More details in SAP Note 3104790



Note that instances already uploaded to the staging tables will not be transported.

Only the definition of a rule, fixed value, translation object or variable is added to a transport request and transported. No values, for example mapping values, are included.

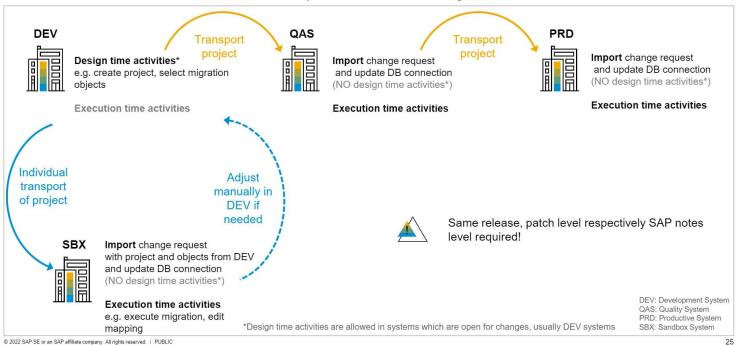
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Transport Functionality - Concept

Separation between design time and execution time activities



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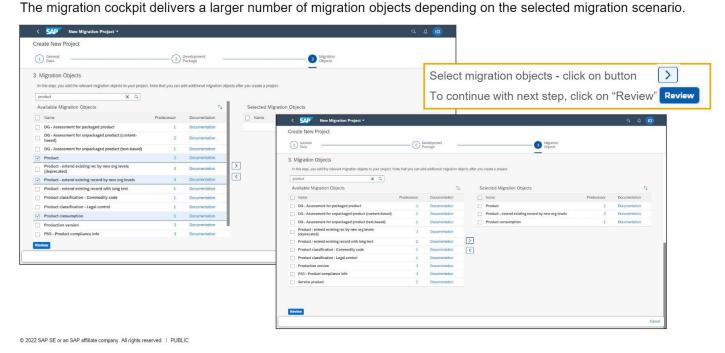
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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Create new project – 3. Migration objects



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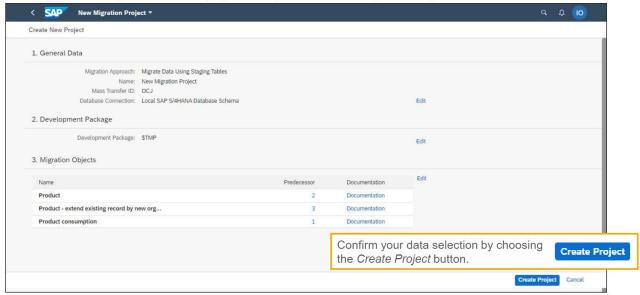


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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables

Create new project - confirm

The migration cockpit creates the project with your selected migration objects.



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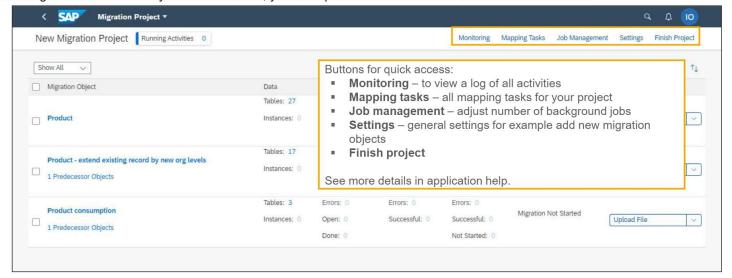
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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Migration project screen – more buttons



mgration project coroon more batterie

On the **migration project** screen, you trigger all the steps that are required to transfer the data for each migration object to the target SAP S/4HANA system. In addition, you can quick access additional information and tasks.

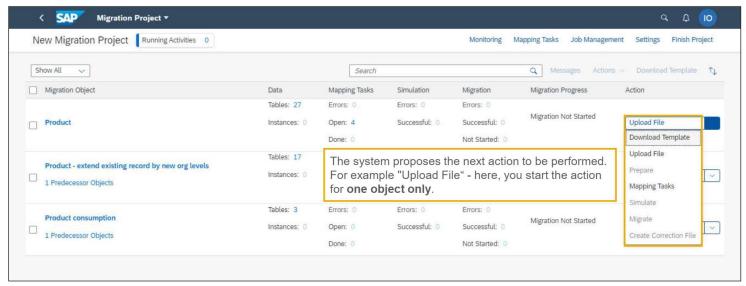


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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables

Trigger actions using drop-down list

The migration cockpit guides you through the various steps of the data migration. You can also flexibly choose which steps you want to do next (select, mapping tasks, simulate, migrate).



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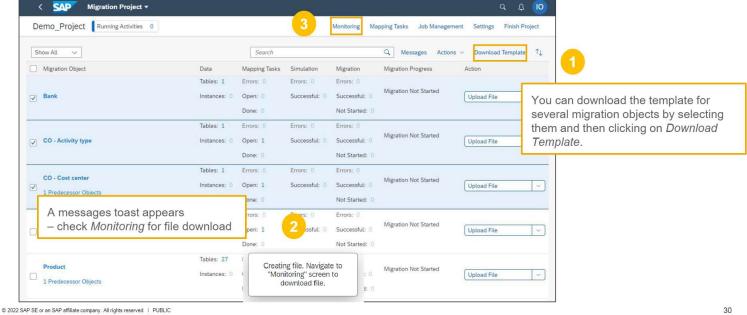
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Download XML templates for multiple migration objects

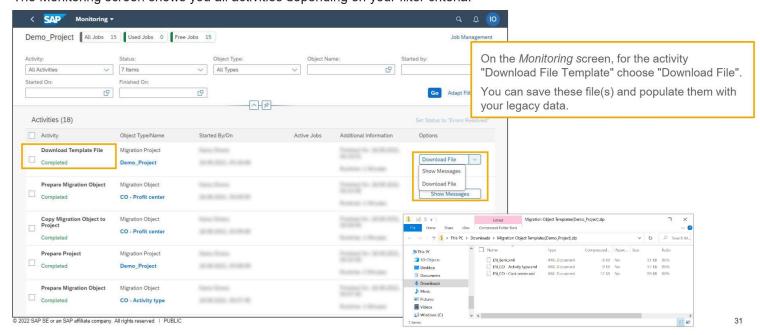
The migration cockpit provides XML template files for all delivered migration objects.



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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Download XML templates for migration objects

The Monitoring screen shows you all activities depending on your filter criteria.



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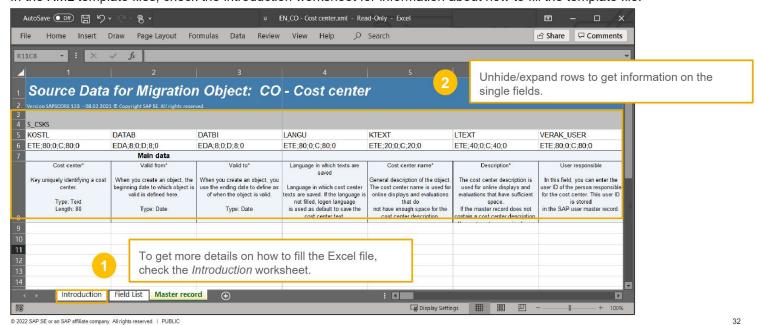
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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Populate the XML template file with data



In the XML template files, check the introduction worksheet for information about how to fill the template file.



SAP S/4HANA Migration Cockpit – XML Template





Important information

- Enter legacy data in generated XML file template for the selected migration object
- Default size limit for each uploaded XML or ZIP file is 100 MB
- The knowledge base article <u>KBA 2719524</u> contains further information about increasing file size limits for SAP S/4HANA and zipping files for SAP S/4HANA Cloud and SAP S/4HANA



Recommendations

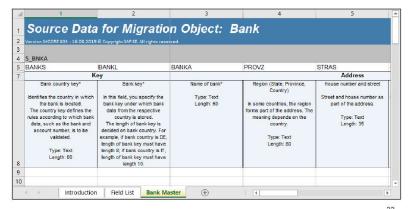
- Read introduction and check field list before starting filling the template
- Unhide and read the tooltips (line 8)
- Copy and paste values only using the following options:
 - Paste option then Values (V) within XML file

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- Paste special and then choose Text from somewhere else
- Paste option then keep text only from notepad/text editor

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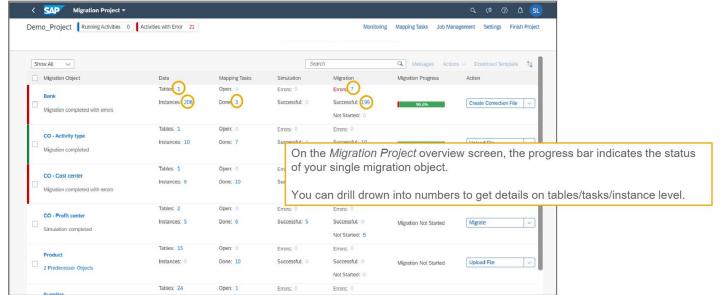
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Migration objects listed in Migration Project overview screen

The migration cockpit provides details in the overview screen.

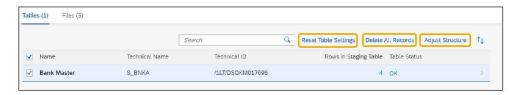


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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables

Migration object tables screen

- Migration Cockpit driven data operations for staging tables
 - Reset Table Settings. To unlock the staging tables and reset to 0 the number of instances simulated successfully and the number of instances for which errors exists. (See more details in next slide)
 - Delete all records. Note: usually, already migrated instances will be deleted from the staging tables. However, if the system is not released for changes (e.g. in the production system), deletion is not possible and results in an error message.
 - Adjust Structure. To reflect the latest version of the migration object provided by SAP (e.g. if the staging tables were adjusted or dropped by error)



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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables



Migration object tables screen – reset table settings

- Reset Table Settings:
 - The current transfer status will be reset. This unlocks the staging tables so that you can adjust data again (freeze triggers will be deleted).
- For example, to unlock the tables after a user cancelled jobs manually, or if an unexpected event occurred.



 On the Migration Project screen, the system resets the number of instances that have been simulated successfully and the number of instances for which errors exists to 0. The number of migrated instances is not adjusted.

SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables

Details - Freeze triggers

Freeze triggers prevent that during the transfer of data, changes can be done on any data in the staging table

In the database, you can see three triggers for each staging table:



If you want to insert data in the staging table, when the freeze triggers are set, you will get the following database error:

```
Could not execute 'insert into "DB_ACCESSER"."/ILT/DSCCF000067" ...' in 237 ms 710 µs .

SAF DBTech JDBC: [12000]: user-defined error: "DB_ACCESSER"."/1LT/DSCCF000067FRI": line 2 col 145 (at pos 282): [12000] (range 3) user-defined error exception: no table change allowed
```

To delete the freeze triggers, you have two options:

- Finish the transfer: after transfer is finished the freeze triggers will automatically be dropped.
- 2. Use the Reset Table Settings button in the Migration Object Tables Screen.

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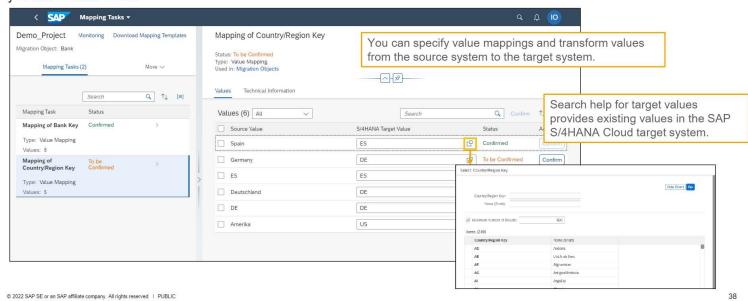
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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Mapping tasks - specify mapping values



On the *Mapping Tasks* screen, you can view all the mapping tasks, you can maintain the value mapping and you can confirm them.

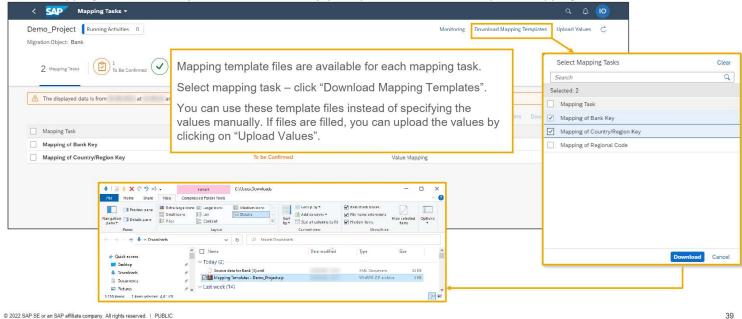


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Download mapping XML templates

On the Mapping Tasks screen, you can download empty templates or download / upload mapping values.



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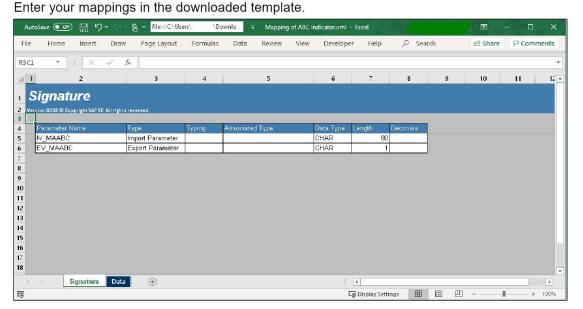
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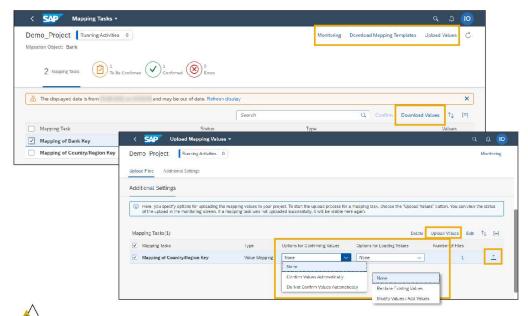
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SAP S/4HANA Migration Cockpit - Mapping Tasks

Handling of insert/delete mapping value



Note that for SAP S/4HANA 2020 it is not possible to delete all mapping values.



 In very early releases, it was possible to add/delete by using buttons like "Insert Row"



 In Fiori App this is not possible right now.

Procedure:

- Download values
- Edit in XML file
- Upload again Check additional settings



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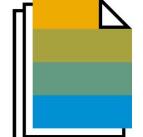
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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Different message analysis capabilities

Simulation run no. 4 View: Which Instance 111 messages occurred Message AA123 for one instance? Instance 112 Message BB444 Instance 113 Message HJ123 Instance 114 Message UU555 View: Which instances Message ZZ333 Instance 115 are relevant for one Instance 116 message?

View: which messages occurred for an activity?



Simulation run no. 1

Simulation run no. 2

Simulation run no. 3

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SAP S/4HANA Migration Cockpit – Error Handling

Different ways to check error messages - overview

- 1. On migration object instance level
 - find errors for the selected instance(s)
 - on latest action (latest simulation run, latest migration run)
 - no history
- On migration object level history tab
 - find all messages for the selected migration object and action
 - different views: default (no grouping) vs. group by message ID
 - drill down to every single error message
- On migration object level all messages project view
 - find all messages for the selected migration object(s)
 - select from recent actions (different simulation/migration runs)
 - drill down to every single error message and instance



 Different possibilities to analyze (error) messages

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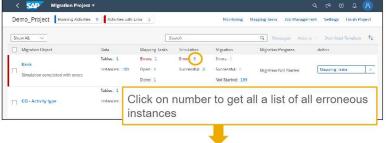
SAP S/4HANA 2021

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

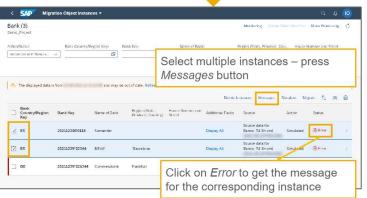
SAP S/4HANA Migration Cockpit – Error Handling

1. Messages on migration object instance level





- Free text search
- Group, sort
- Download to MS Excel

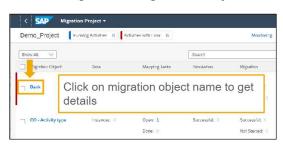


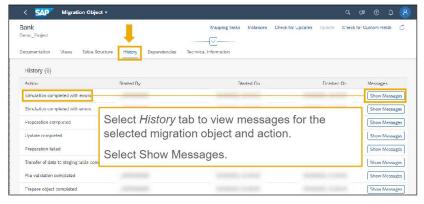
All messages referring to this single instance

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SAP S/4HANA Migration Cockpit – Error Handling

2. Messages on migration object level – history tab (1/2)





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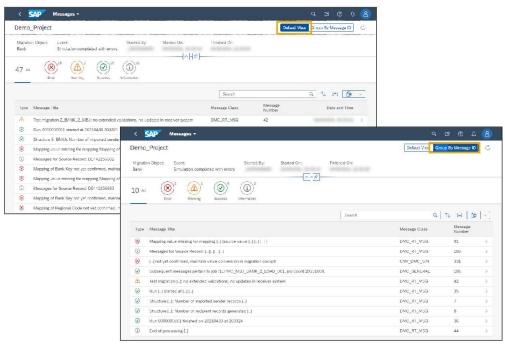
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit – Error Handling

2. Messages on migration object level – history tab (2/2)

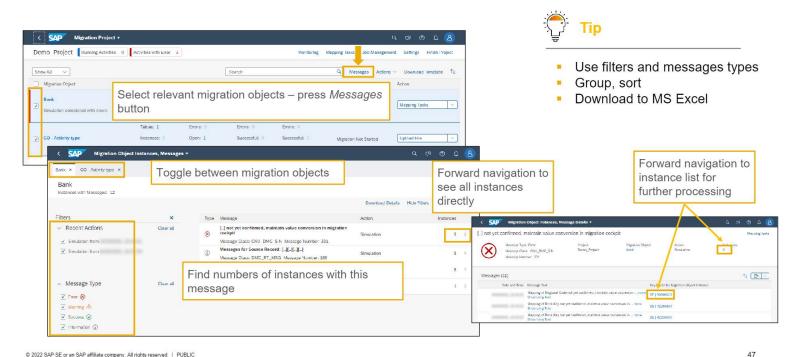






SAP S/4HANA Migration Cockpit – Error Handling

3. Messages on migration project level



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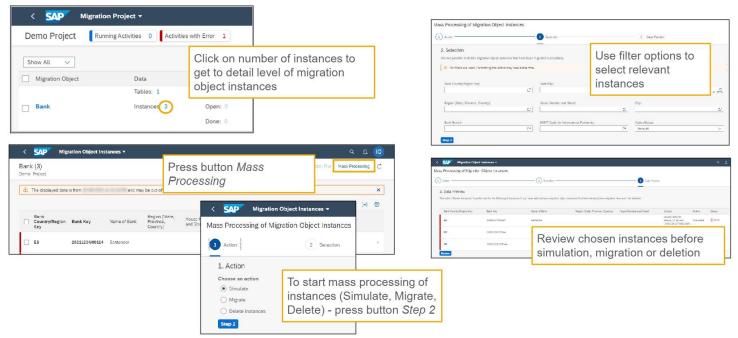
SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables



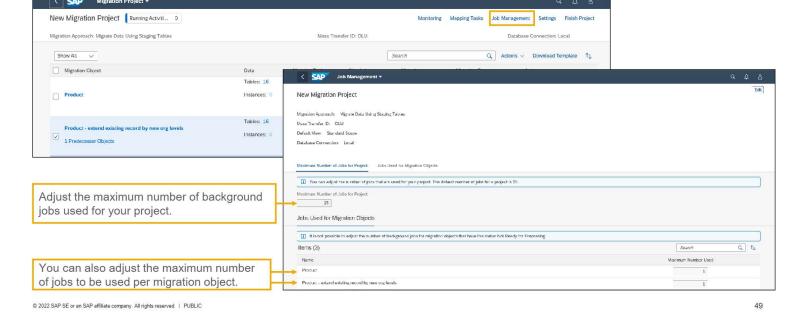
Instance-based deletion through mass processing



SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables

Job management - improving performance

On the Migration Project screen, use the button Job Management to adjust job settings.



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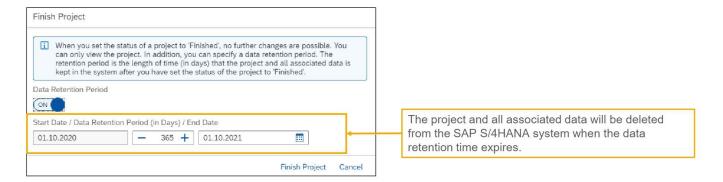
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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables Finish project - data retention time

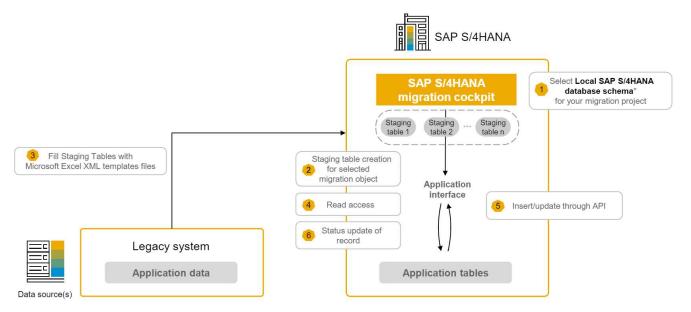


When you set the status of a project to "Finished" you can specify a data retention period.



SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables

System setup SAP S/4HANA local SAP S/4HANA database schema



* Staging Tables reside within the SAP S/4HANA schema

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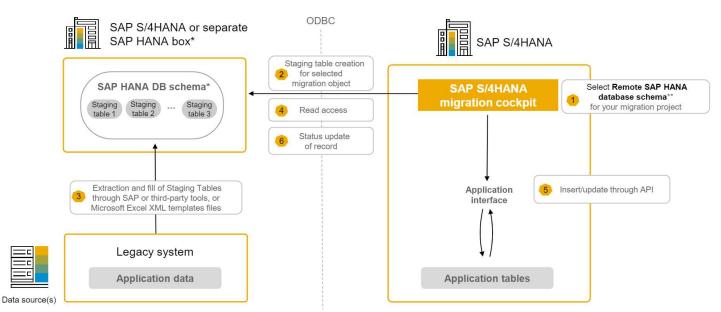
SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA 2021

SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables



System setup SAP S/4HANA remote SAP HANA database schema



- * Separate SAP HANA database schema is required, can also be on SAP S/4HANA target system
- ** Prerequisite: established secondary database connection

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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables

Tips & tricks





How can I populate the staging tables?



To extract data from the source systems you can use either SAP tools or third-party tools. The staging tables have to be filled in a ready-to-load data format, i.e. the format expected by SAP S/4HANA.

- SAP Smart Data Integration to fill staging tables from Excel files (more details in SAP Note 2091095)
- ABAP to fill staging tables from an SAP ERP 6.0 system
- SAP Data Services to fill staging tables from an external database
- SAP Agile Data Preparation (ADP)
- Third-party tools to fill staging tables
- Manual entry in SAP HANA studio to fill staging tables (using SQL statement)

Note: ETL Third-party or SAP Tools to populate the staging tables can be used for the **remote SAP HANA database schema**. Additional costs may apply when using the remote SAP HANA database schema option and ETL Tools to fill the staging tables.

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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables

How to fill Staging Tables – blogs in SAP community



- To fill the staging tables, you can either use an ETL tool or fill the data directly on the SAP HANA database. You can also
 use SAP HANA Studio to fill the data.
- There are several blogs listed below that explain the different methods to load data into the staging tables:
 - Part 1: Migrate your Data Migration Cockpit, Migrate data using staging tables and methods for populating the staging tables with data (from SAP S/4HANA 2020, SAP S/4HANA Cloud 2008, Fiori UI)
 - Part 1: Migrating data using staging tables and methods for populating the staging tables (Old WebDynpro UI)
 - Part 2: Using SAP data services to load data to the staging tables
 - Part 3: Using SAP HANA Smart Data Integration (SDI) to load data to the staging tables
 - Part 4: Using SAP HANA Studio to load data to the staging tables
 - SAP S/4HANA migration cockpit creating and using synonyms for renaming staging tables

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SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables

Example: Filling the staging tables using the SAP HANA studio

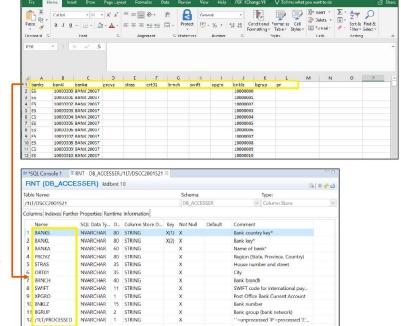
Main Steps

- Create your flat file (.csv, .xls or .xlsx)
- In the SAP HANA studio:
 - 1. Choose File and then Import from the menu
 - 2. Select Data from Local File option
 - 3. Select target system where you want to load data
 - 4. Select the source file to upload
 - 5. Enter required information under File Details
 - 6. Map source fields to the target fields under Manage Table Definition and Data Mappings
 - Choose finish to confirm mapping and to upload the data from the flat file to the staging tables.

Note: The flat file must have one of the extensions .csv, .xls, or .xlsx, and must correspond to the table definition.



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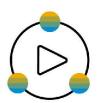
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Video

Migrate Data Using Staging Tables



SAP S/4HANA Migration Cockpit (File/Staging)

What's new?

New with SAP S/4HANA 2021:

- Delete a mapping task by uploading a file with empty values
- Transport projects from one system to another
 Add projects, migration objects, rules, fixed values, translation objects, and variables to a transport request with the help of the SAP S/4HANA migration object modeler
- Non modifiable systems / productive systems:
 - It is not possible to modify projects in non-modifiable / productive systems. If you need to make adjustments (for example delete a migration object), you can adjust the project in the development system and transport it to the quality and productive system.
- Transaction LTMC is deprecated with SAP S/4HANA 2021
 existing projects in LTMC will be still available in display mode no creation of
 new projects possible



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SAP S/4HANA Migration Cockpit – Development News

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

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SAP S/4HANA Migration object modeler – what's new with SAP S/4HANA 2021



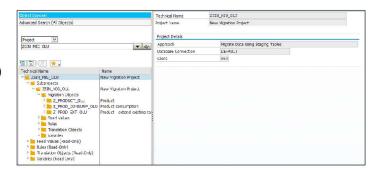
Flexible and extendable

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- Copy migration objects
- Adjust standard migration objects (for example add fields)
- Simulate / debug import of data from staging tables
- Create user defined migration objects
- Use standard APIs or code your function module
- Create or edit translation objects and rules
- Use project in a different client
- Reset transfer status
- New: Transport one project from one system to another
- New: Re-apply customer adoptions after content upgrade*

*Customer specific enhancements are available after upgrade without additional user activity. This currently applies for added new fields.





This currently applies for added new fields.

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Release Overview

Migration Cockpit (Fiori)

Feature	1909	2020	2021
Transaction LTMC	X	Available but not recommended	- Only display mode
Fiori App Migrate Your Data	-	X	X
Transport Concept (via CTS)	-	u	X
View migration results	-	-	X
Download migration results	-	H	X (FPS1)
Mapping Down/Upload	-	x	X
Delete mapping / Clean mapping task	-	-	X
Cancel button (Monitor Screen, e.g. cancel simulation)	-	u	X
Finished project can not be touched	-	-	X
Copy projects	-	-	X*
Message download customizable	\ -	-	X (FPS1)
Setting data retention time (to delete the project and associated data)	-	X	Х

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

Release Overview

LTMOM

Feature	1909	2020	2021
Reset Transfer Status	-	Х	Х
Copy and delete objects	-	Х	X
Use project in different client	-	X	х
Client dependency (e.g. staging tables)	-	Х	Х
System check on modifiable/non-modifiable	-	Х	X
Export/import projects	X (LTMC)	х	x (FPS0) - (FPS1 onwards)
Re-apply customer extensions after content upgrade			Х

^{*} Check further details in this slide deck 59

SAP S/4HANA Migration Object Modeler (File/Staging)

Deep dive slides





SAP S/4HANA Migration Object Modeler (file/staging)

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

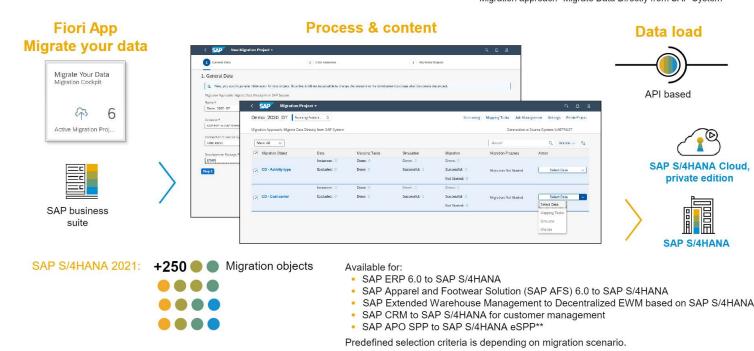
SAP S/4HANA Migration Cockpit Migrate Data Directly from SAP System



SAP S/4HANA Migration Cockpit – Direct Transfer*



* Migration approach "Migrate Data Directly from SAP System"



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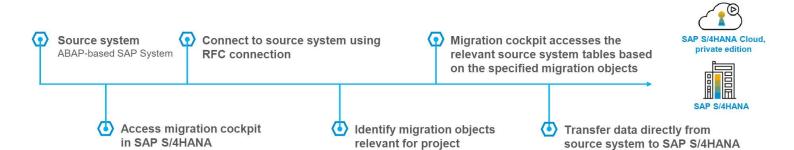
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

**new in SAP S/4HANA 2020, FPS01

SAP S/4HANA Migration Cockpit – Direct Transfer

Migrate data directly from SAP source system

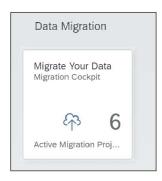


- Suitable for ABAP-based SAP source systems only
- Five migration scenarios supported
- SAP ERP to SAP S/4HANA
- SAP Apparel and Footwear to SAP S/4HANA
- SAP EWM to decentralized EWM based on SAP S/4HANA
- SAP CRM to SAP S/4HANA for customer management (SAP S/4HANA 1909 FPS01 onwards)
- SAP APO SPP to SAP S/4HANA eSPP (SAP S/4HANA 2020 FPS01 onwards)

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SAP S/4HANA Migration Cockpit – Direct Transfer

Start the app



Start the "Migrate Your Data" App

- The SAP S/4HANA migration cockpit facilitates the transfer of business data from an SAP source system to SAP S/4HANA.
- The SAP S/4HANA migration cockpit is designed for an **initial load of data**, specifically for the SAP S/4HANA new implementation scenario.
- It is not designed to keep data in sync between systems, to realize a continuous exchange or flow of data, or to establish an integration scenario.
- SAP S/4HANA systems are currently not supported as source systems.

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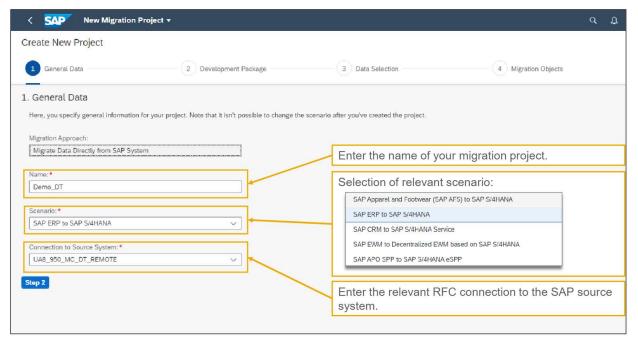
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit – Direct Transfer

Create new migration project - general data

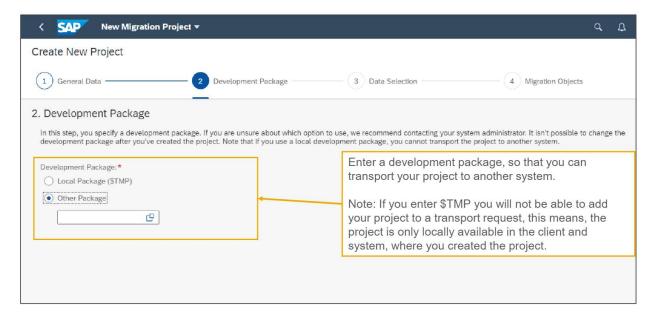


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Create new migration project - development package



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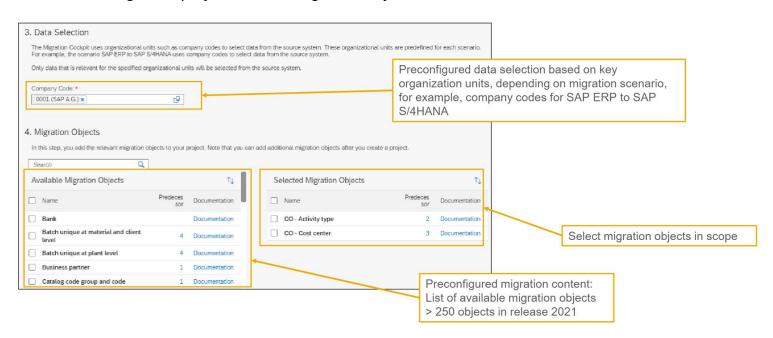
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SAP S/4HANA Migration Cockpit – Direct Transfer

Create new migration project - select migration objects

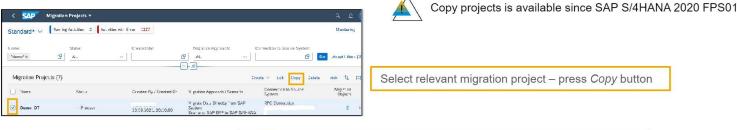


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Copy projects

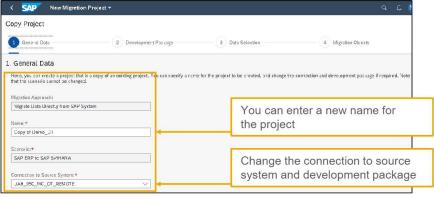
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Change the selection criteria, for example company codes. Add migration objects (after copy is finished). Remove migration objects in transaction LTMOM

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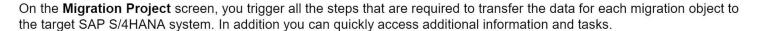
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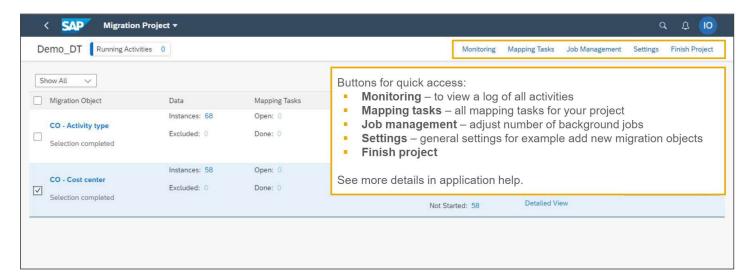
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Migration project screen





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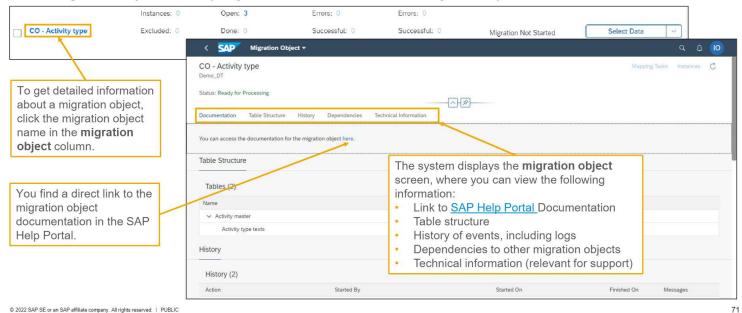




SAP S/4HANA Migration Cockpit – Direct Transfer

Migration object screen - overview

On the Migration Object screen, you get detailed information about a migration object.



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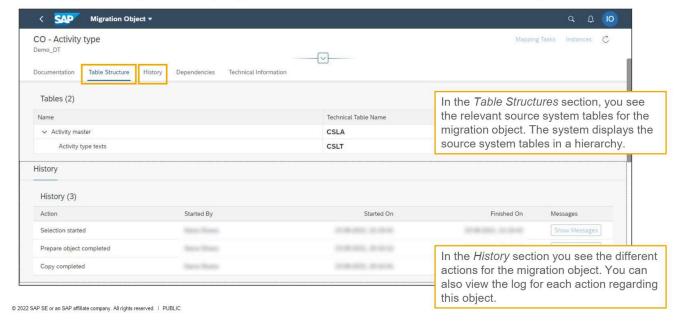
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Migration object screen - table structure and history

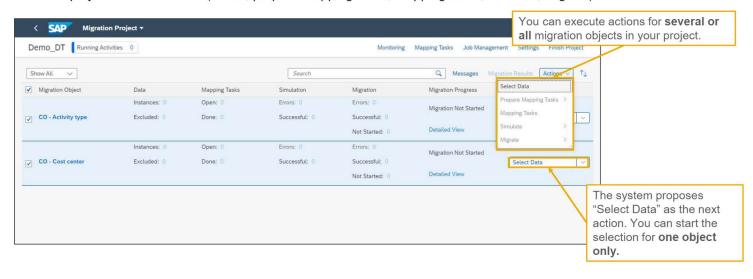
On the Migration Object screen, you get information on the table structure and the history.



SAP S/4HANA Migration Cockpit – Direct Transfer

Migration process

The migration cockpit guides you through the various steps of the data migration. You can also flexibly choose which steps you want to do next (select, prepare mapping tasks, mapping tasks, simulate, migrate).



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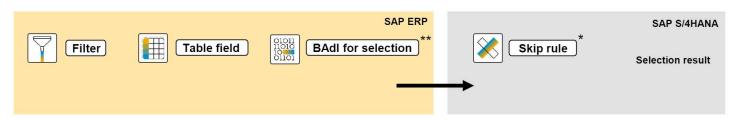
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SAP S/4HANA Migration Cockpit - Direct Transfer

Excursus: influence the selection in LTMOM (modelling environment)

In the Fiori App, you can choose the organizational unit (e.g. company code) and the migration objects. The modelling environment (transaction LTMOM in the S/4 backend) provides more possibilities to influence the selection from the source system.



Find BAdI details in KBA 3092921



Find more details in the LTMOM slide deck

*new with 2020

**new with 2021

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SAP S/4HANA Migration Cockpit – Direct Transfer

Selection/Reselection of data

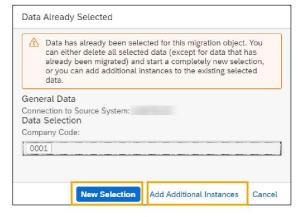
If you have already selected data and choose the selection button again, you have the possibility to reselect the data.

Reselection of data

- New Selection: Deletes former selection and selects completely new (available as of SAP S/4HANA 2020).
- Add Additional Instances: Adds new instances from the source system to already selected instances (available since SAP S/4HANA 1909 – default behavior); no update of already selected instances.



If you have **changed** data in the source, use the new selection button to delete the formerly selected instances and start a completely new selection.





If you work with SAP S/4HANA 1909, you can use the report mentioned in the following <u>SAP Note 2857598</u> to delete the former selection and repeat the select of data.

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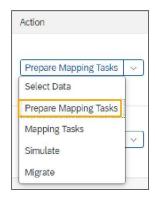
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Prepare mapping tasks (new from SAP S/4HANA 2021)



A new step has been introduced: Prepare Mapping Tasks

Select Data creates the migration object instances

Prepare Mapping Tasks fills the mapping tasks with proposal values: source value = target value

Why is this separate step introduced?

- Optimized downtime. If you want to upload mapping values using Microsoft Excel, you can skip the activity Prepare Mapping Tasks.
- More flexibility in the setup phase when fine-tuning the data selection and finding the right selection criteria, or when developing your own mapping rules. Select Data now only selects the data.
- More transparency about the activity that the system is currently running.



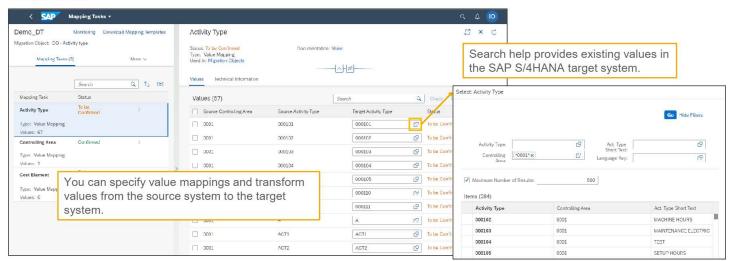
Up to release 2020, the step Select Data always executed the step Prepare Mapping Tasks implicitly

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Maintain value mapping

On the **Mapping Tasks** screen, you can view all the mapping tasks, you can maintain the value mapping and you can confirm them.



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The mapping tasks will be filled with values only after the system has selected the data from the source system. Without selection, the mapping tasks will be empty.

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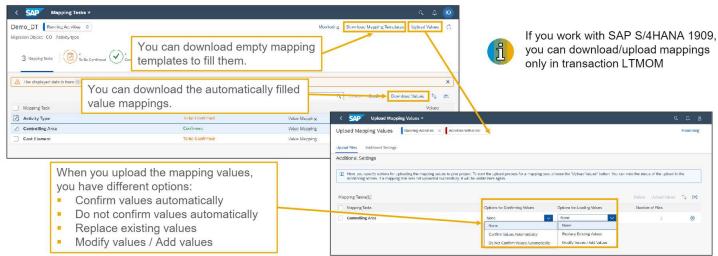
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Mapping upload download

On the Mapping Tasks screen, you can download empty templates or download / upload mapping values.



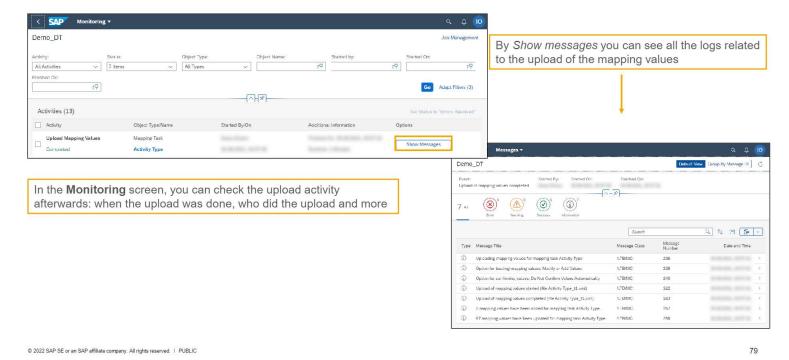
Note that the files may contain target values that were created automatically (for example internal numbering).

Ensure that you adjust the target values (or remove them completely in the files) before uploading the file to another system.

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SAP S/4HANA Migration Cockpit – Direct Transfer

Mapping download/upload - check information



https://www.sap.com/documents/2017/07/26113ac0-c47c-0010-82c7-eda71af511fa.html

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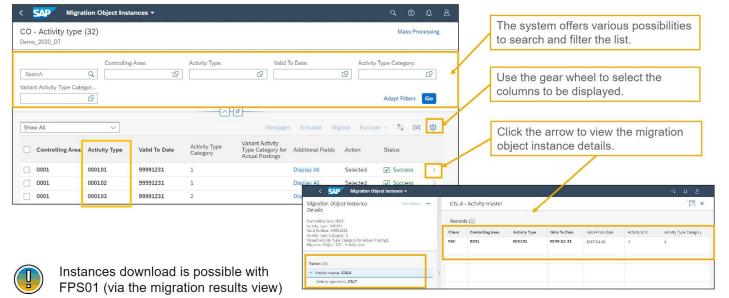
SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

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SAP S/4HANA Migration Cockpit – Direct Transfer

Migration object instances list

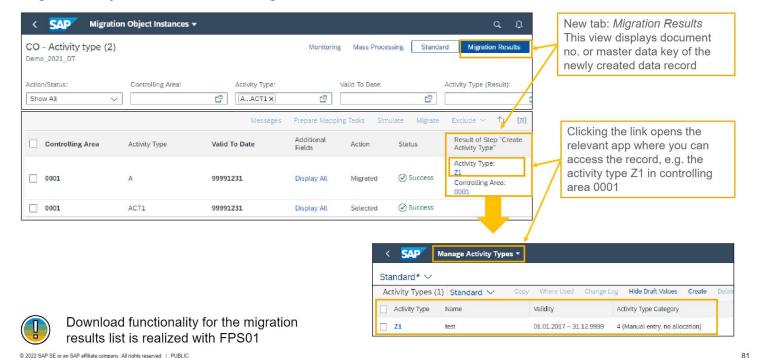
On the Migration Object Instances screen, you can view the records for each migration object instance.



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SAP S/4HANA Migration Cockpit – Direct Transfer

Migration object instances list - migration results view



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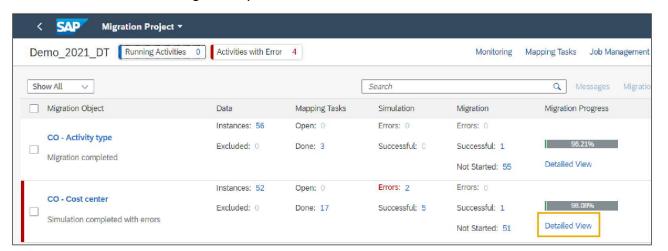
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit – Direct Transfer

A detailed view of the migration process



The detailed view of the migration progress gives more control over the migration process

SAP S/4HANA 2021



SAP S/4HANA Migration Cockpit – Direct Transfer

A detailed view of the migration process



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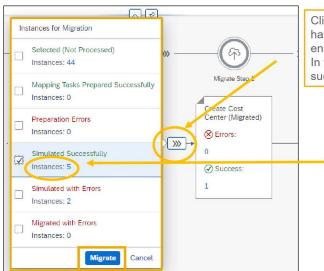
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA 2021

SAP S/4HANA Migration Cockpit - Direct Transfer

A detailed view of the migration process



Clicking on the arrow opens a popup. You view object instances that have been processed successfully as well as any instances which ended with errors in the previous activities.

In this example, the migration will only be started for the 5 successfully simulated instances.

> You can navigate to the Migration Object Instances screen by clicking on the number of instances (e.g. 5).

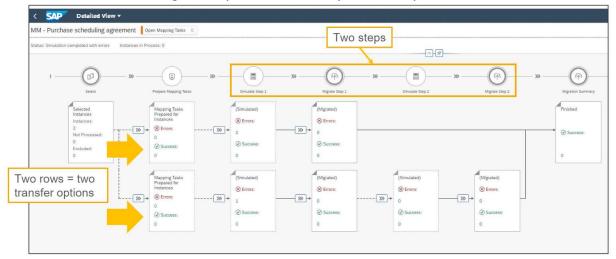


An instance can only have one status at a time. This means, for example, if an instance has been simulated successfully, it no longer appears under Mapping Tasks Prepared Successfully.

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SAP S/4HANA Migration Cockpit – Direct Transfer

A detailed view of the migration process – Complex example



The Detailed View provides

- A more detailed representation of the migration process in form of a process flow graph
- The ability to execute actions for specific transfer steps, e.g. execute only one migration step of a multistep migration object

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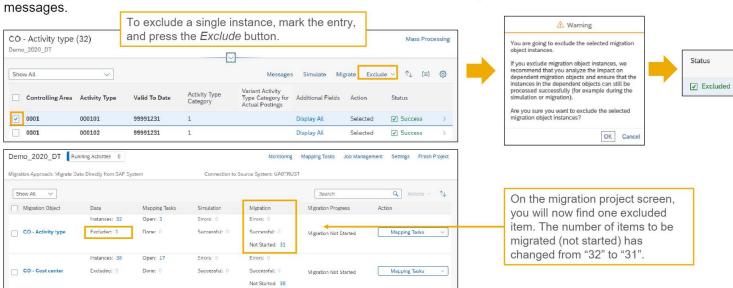
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA 2021 SAP S/4HANA Migration Cockpit – Direct Transfer

Single instance processing

On the Migration Object Instances list you can simulate, migrate or exclude single instances or have a look at the error

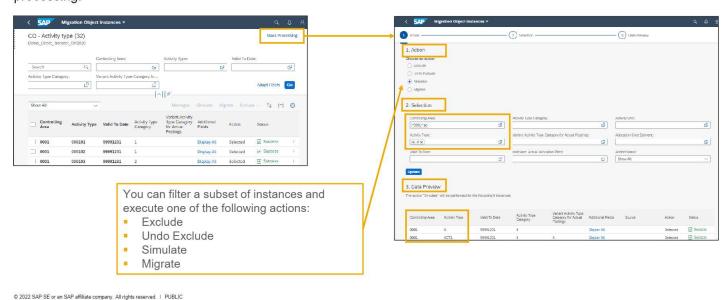


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Migration object instances - mass processing

On the **Migration Object Instances** list you can exclude, undo exclude, simulate and migrate instances in a mass processing.



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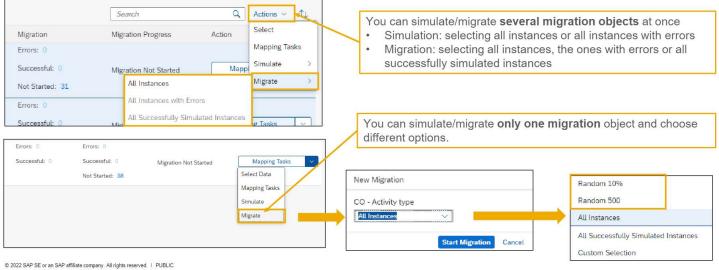


SAP S/4HANA Migration Cockpit – Direct Transfer

Simulation / migration

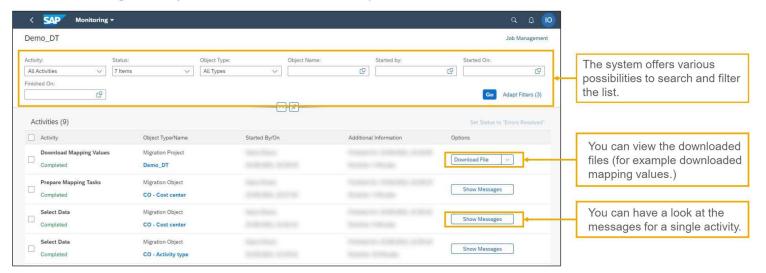
On the **Migration Project** screen, you can choose, which items you want to simulate / migrate.

Example migration: migrate single items (on the migration object screen), migrate random 10% or random 500 items, migrate only instances with errors, migrate all successfully simulated instances or migrate all instances.



SAP S/4HANA Migration Cockpit – Direct Transfer Monitoring

On the **monitoring** screen, you can view the active and completed activities.



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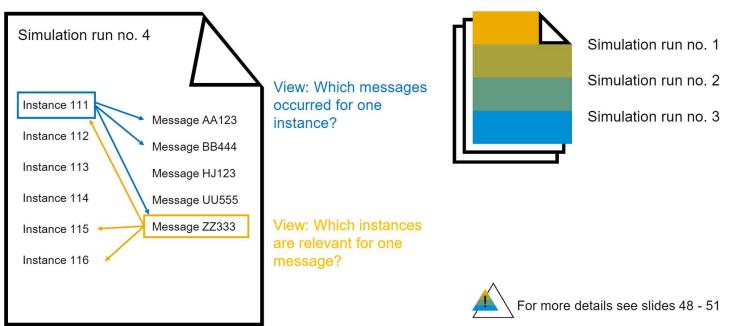
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Different message analysis capabilities

View: which messages occurred for an activity?



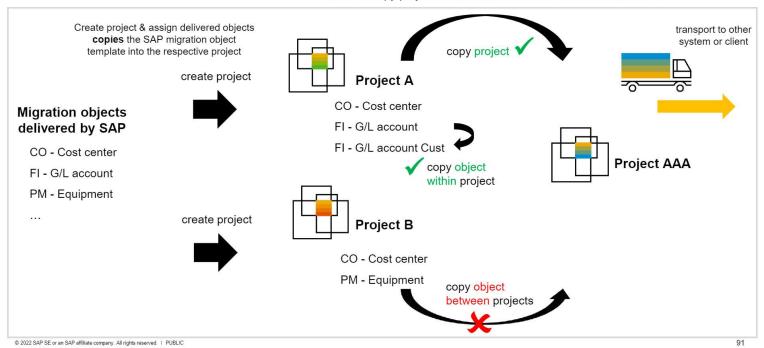
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SAP S/4HANA Migration Cockpit – Direct Transfer

How to create project "templates"?



Transport is available since SAP S/4HANA 2020 => more details Copy projects is available since SAP S/4HANA 2020 FPS01



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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit – Direct Transfer

How to tailor the projects?

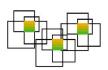
Use only one project





- Mapping is known between the objects
- In case you need different selection criteria for one MO (e.g. only material category A, then material category B), you can add it several times to a project => LTMOM, project, create migration object from template
- Central overview and control of the migration

Use several projects



It might seem as if one project per application may lead to a better progress overview for a dedicated area but:

- You must keep mapping in sync between the projects => effort & error-prone!
 - If you use internal numbering for a MO. you can only upload this mapping after it has been created
 - Executing projects in parallel does **not** improve the performance! See KBA 3056885





SAP S/4HANA Migration Cockpit – Direct Transfer

Impact of release upgrade



Note: Avoid upgrading to a newer release during a migration project if possible!

What is the impact of upgrading to a newer release <u>during</u> a migration project using the Direct Transfer approach?

Though SAP tries to avoid incompatible changes between releases, it **cannot** be guaranteed that migration objects delivered by SAP work after the upgrade.

Same applies to migration objects adapted or created by the customer.

Recommendation

- Projects need to be created and executed within the same release, or in other words:
 Do <u>not execute</u> projects which have been created before the system was upgraded
- Custom MOs or extended MOs need to be created in the higher release again

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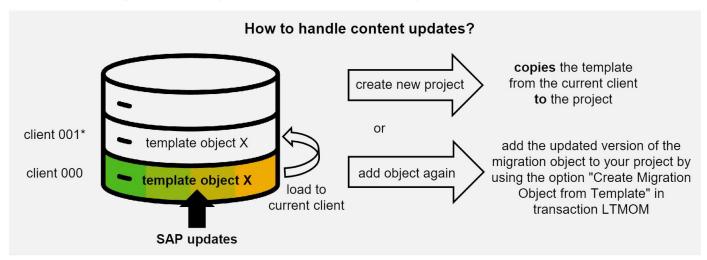


SAP S/4HANA Migration Cockpit – Direct Transfer

Impact of FPS and TCI notes

Migration object updates can also come into your system by:

- a feature package (FPS) or support package (SP) or
- by a so-called TCI note (SAP Note transport-based correction instructions)



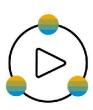
^{*} Execute program CNV_PE_MC_LOAD_OBJECTS to update the template SAP migration objects in current client 001 (see SAP Note 2870546)

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Video

Migrate Data Directly from SAP Source System



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SAP S/4HANA 2021

SAP S/4HANA Migration Cockpit – Direct Transfer

Technical preconditions

Technical preconditions

- SAP ERP to SAP S/4HANA, the lowest supported ERP release is ERP 6.0 (SAP NetWeaver 7.0),
- SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA, the supported release is AFS 6.0,
- SAP EWM to decentralized EWM, the lowest supported EWM release is EWM 5.1 (SAP NetWeaver 7.0).
- SAP CRM to SAP S/4HANA for customer management, lowest supported release is SAP CRM 7.0
- SAP APO SPP to SAP S/4HANA eSPP, recommended source system release is SCM 7.0

Note: The SAP S/4HANA Migration Cockpit does not support the migration of data from SAP S/4HANA systems to other SAP S/4HANA systems. SAP S/4HANA Finance systems (previously known as SAP Simple Finance) are classified as SAP S/4HANA systems.

Necessary preparations in the system landscape

- The add-on DMIS_2011 SP19 or higher needs to be installed in the source system (included in the license for SAP S/4HANA 2021)
- RFC connection from ERP/AFS/EWM/CRM/APO SPP source to SAP S/4HANA target system*
- Setup FIORI
- Apply necessary notes: start with Composite SAP Note 2747566
- Check customizing: relevant customizing in the target must be available (for example, organizational units, define document type for migration, define accounts for migration, remove account blocks)
- Ensure availability of required authorizations
- For required roles, please check the installation guide (chapter 7)



*Caution: It is not supported to use RFC connections with trusted log on.

SAP S/4HANA Migration Cockpit – Direct Transfer

Process-related preparations

Define a mapping strategy between SAP source and SAP S/4HANA target

- Standard APIs are used to load the data into SAP S/4HANA target system
- Where configuration in the source deviates from the configuration in the target, adequate mappings have to be defined upfront, such as rename of organizational units, cost centers, document types,
- In case of questions carefully check the object-related documentation

Test and productive migration

- First create a project in a development system and then transport the project to a test system, which is a copy of the production system.
- The more the data in the test system resembles the data in the production system, the more precise the test.
- Several test data migrations are required before you transfer data to the SAP S/4HANA production system.
- For each new test data migration, you transport a migration project that includes any corrections or refinements.



- You transport your project from the development system to your productive system once the tests have been executed successfully
- Mapping value download and upload
 - You can download mapping values of your previous test and upload them into your new project. Note, that you might need to adapt the
 mapping values before you upload them to the new system for example so that you do not upload value mapping from internal
 numbering.

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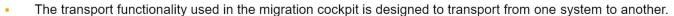
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SAP S/4HANA Migration Cockpit – Direct Transfer

Transport functionality – Basic facts



- Introduced with SAP S/4HANA 2020.
- You assign a development package while creating a project (SAP Fiori app). Note that it is not possible to change this assignment later.
- You have the possibility to add projects, migration objects, and rules to a transport request in transaction LTMOM.
- It is not possible to create or edit projects in non-modifiable systems, they can only be executed. Usually, non-modifiable systems are quality and production systems. For more information about non-modifiable systems, see slide 10 in Transport concept Migrate Data Directly from SAP System.
- For information about how to transport from client to client within one system, see slide 8 in <u>Transport concept</u> <u>Migrate Data Directly from SAP System.</u>



More details in SAP Note 3043614



Selected instances and mapping values are not transported!

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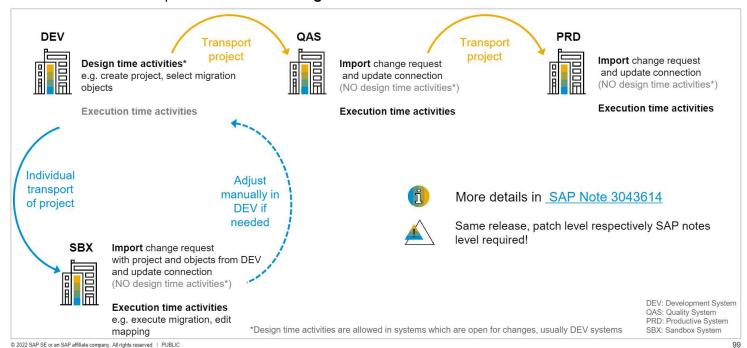
Transport Concept



Transport is available since SAP S/4HANA 2020 => more details



Separation between design time and execution time activities



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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit – Direct Transfer

What's new in SAP S/4HANA 2021?

- New step Prepare Mapping Tasks
- The Migration Results view
- A detailed view of the migration process
- A detailed view of the migration process complex example
- LTMOM: BAdI selection exit for custom selection
- Use BAdI selection exit or skip rule?
- Additional changes and enhancements
- Migration object modeler news



See more details in:

SAP S/4HANA Migration Cockpit – Development News



SAP S/4HANA Migration Cockpit – Direct Transfer

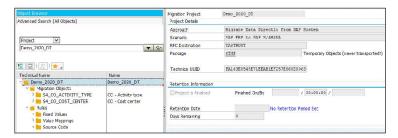
SAP S/4HANA Migration object modeler



Flexible and extendable



- Create user defined migration objects using a wizard
- Add customer tables or fields to a standard migration object or to a new migration object
- Add or change selection criteria of standard migration objects or user defined migration objects
- Possibility to add projects, migration objects, and rules (mapping tasks) to a transport request
- Debug the transformation and/or the posting process
- Use standard APIs or code your function module
- Copy migration objects
- Create or edit transformation rules



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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

Release overview

Migration Cockpit (Fiori)

The approach "Migrate data directly from SAP system" is available since release 1909. Find below **important** new features.

Feature / Migration Cockpit (Fiori)	With 2020	With 2021
Transport projects and project elements	X	
Mapping download/upload in Fiori	X	
Additional view on messages (instances concerned by message)	x (FPS1)	
Copy projects	x (FPS1)	
Step selection split into: selection and prepare mapping tasks		X
Migration results view – display document no./record ID of migrated item		X
Detailed view on migration process (multi-step objects, error case)		X
Cancel function in MC monitor		x (FPS1)
Download migration results		x (FPS1)
Download selected items		x (FPS1)
Message download customizable		x (FPS1)

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SAP S/4HANA Migration Object Modeler

Deep dive slides





SAP S/4HANA Migration Object Modeler (Direct Transfer)

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Release overview

LTMOM

The approach "Migrate data directly from SAP system" is available since release 1909. Find below **important** new features.

Feature / LTMOM	With 2020	With 2021
Copy objects	Х	
Delete objects	Х	
Selection – skip rule	Х	
Mapping – custom-own source code rules	X	
Mapping download/upload disabled in LTMOM – now in Fiori only	x (FPS1)	
Create migration object from template – copy an (updated) standard SAP migration object into your project (a second time if needed)	Х	
Selection – BAdI for selection		Х

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SAP S/4HANA Migration Cockpit

Migrate Data Directly from SAP System – Migration Scenarios



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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA 2021

SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA

SAP S/4HANA migration cockpit - migrate data directly from SAP system



Migrate data directly from SAP System

Selection of data from SAP source system through RFC

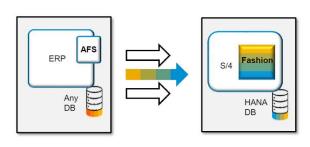
Data Selection based on company code



73 Pre-defined AFS specific migration objects are supported



Capability to derive complex selection criteria automatically from company code



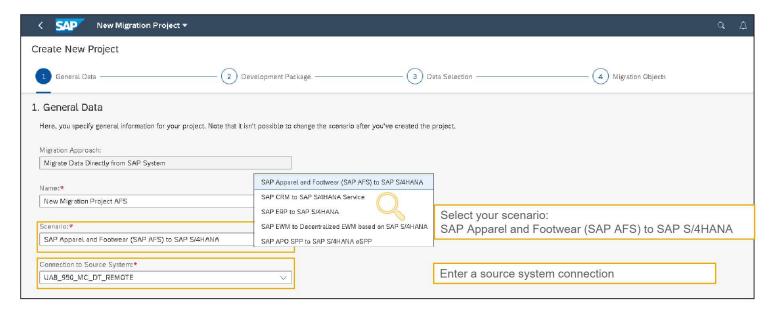
AFS standalone system*

S/4HANA with fashion module integrated

*Prerequisite for transfer data directly from SAP System: DMIS installation in source

SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA

SAP S/4HANA migration cockpit – create new migration project



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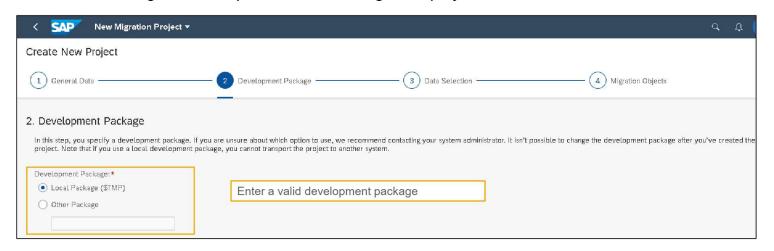
SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA 2021

SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA

SAP S/4HANA migration cockpit – create new migration project

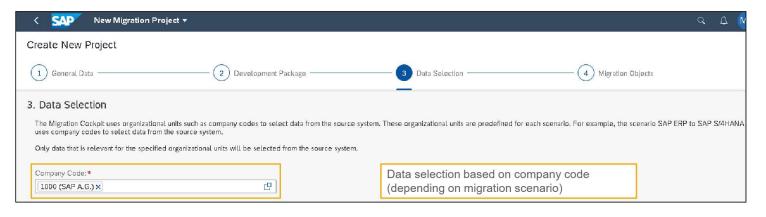




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SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA

SAP S/4HANA migration cockpit - create new migration project



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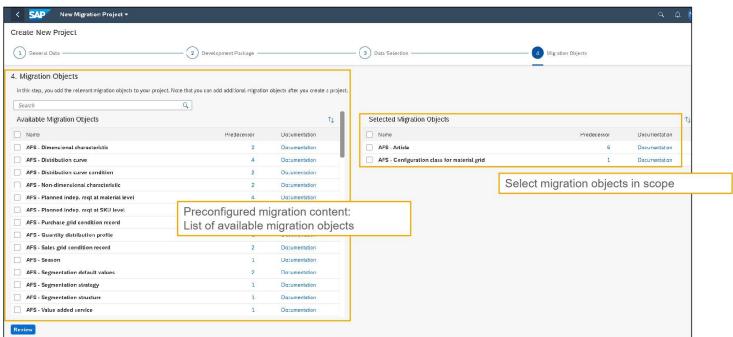
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA 2021

SAP Apparel and Footwear (SAP AFS) to SAP S/4HANA

SAP S/4HANA migration cockpit – select migration objects



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SAP EWM to Decentralized EWM Based on SAP S/4HANA

SAP S/4HANA migration cockpit - migrate data directly from SAP system





Migrate data directly from SAP system

Selection of data from SAP source system through RFC

Data Selection based on warehouse number







SAP Business Suite EWM*

Decentral EWM based on S/4HANA

Preconfigured migration objects

- Material flow system
- Physical inventory settings
- Production supply area
- Resource and user maintenance
- Resource execution settings
- Resource group and queue settings
- **RFID Settings**
- Shipping and receiving settings
- Sample-Drawing Procedure
- Warehouse application log settings
- Warehouse fixed bin assignment log settings
- Warehouse storage bin sorting
- Warehouse product
- Warehouse stock
- Warehouse storage bin
- Wave templates
- Miscellaneous EWM settings
- Quality inspection rules

- Quality inspection rules (cross-warehouse)
- Work center dependent settings
- Work center determination
- Route
- Zone
- Zone Hierarchy
- Carrier profile
- Condition Records (warehouse-independent)
- Condition Records (warehouse-dependent)

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA 2021

SAP SCM (APO/ SPP) to eSPP Based on SAP S/4HANA

SAP S/4HANA migration cockpit - migrate data directly from SAP system



Migrate data directly from SAP system

Selection of data from SAP source system through RFC

Data Selection based on plant







SAP Business Suite SCM*

APO eSPP based on S/4HANA

Preconfigured migration objects

- Bill of Distribution (BoD)
- Location Location Product MRP Area

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- Product
- Product BoD Assignment
- Transportation Lane

**Related support component for content: SCM-APO-SPP

Recommended source system release SCM 7.14

^{*}Prerequisite for Migrate data directly from SAP System: DMIS installation in source

^{*}Prerequisite for Migrate data directly from SAP System: DMIS installation in source

SAP CRM to SAP S/4HANA for Customer Management

SAP S/4HANA migration cockpit - migrate data directly from SAP system



Migrate data directly from SAP system

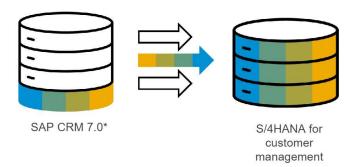
Selection of data from SAP source system through RFC

Data Selection based on Sales Organization



Preconfigured migration object

Activities



*Prerequisite for transfer data directly from SAP System: DMIS installation in source

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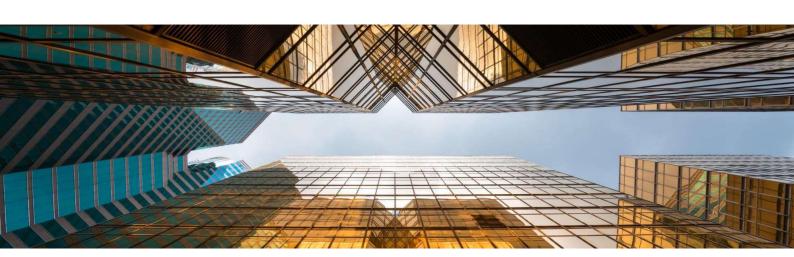
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit Summary Migration Approaches



SAP S/4HANA Migration Cockpit – Comparison of Migration Approaches SAP S/4HANA 1909

	Transfer data using files	Transfer data using Staging Tables	Transfer data directly from SAP system
Availability	SAP S/4HANA Cloud SAP S/4HANA	SAP S/4HANA Cloud SAP S/4HANA	SAP S/4HANA
Source system	Any source system (SAP or non-SAP)	Any source system (SAP or non-SAP)	ABAP-based SAP source systems
Data volume	Small and medium volumes of data	Large volumes of data	Any volumes of data
Data provisioning	XML template files filled by customers	Staging Tables filled by customers (using for example SAP Data Services, SDI, SAP HANA Studio, open SQL, or any 3rd party ETL Tools)	Data selected and extracted directly from SAP system
Data cleansing	Before starting the migration project, or in the XML template files	Before starting the migration project, or in the Staging Tables	Before starting the migration project. Note that you can always adjust the selection of data by using the migration object modeler

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit – Comparison of Migration Approaches SAP S/4HANA 2020 onwards

	Migrate data using Staging Tables	Migrate data directly from SAP system
Availability	SAP S/4HANA Cloud, private edition SAP S/4HANA	SAP S/4HANA Cloud, private edition SAP S/4HANA
Source System	Any source system (SAP or non-SAP)	ABAP-based SAP source systems
Data Provisioning	 XML template files filled by customers Staging Tables filled by customers (using for example SAP Data Services, SDI, ABAP, or any 3rd party ETL tool) 	Data selected and extracted directly from SAP system
Data cleansing	Before starting the migration project, in the XML template files in the Staging Tables	Before starting the migration project. Note that you can always adjust the selection of data by using the migration object modeler



SAP S/4HANA Migration Cockpit

Migration Objects



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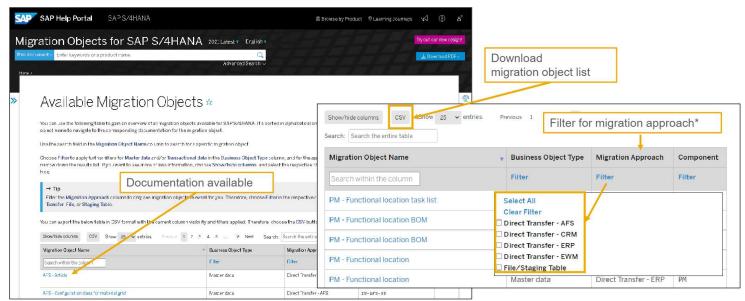
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit

Preconfigured migration objects SAP S/4HANA





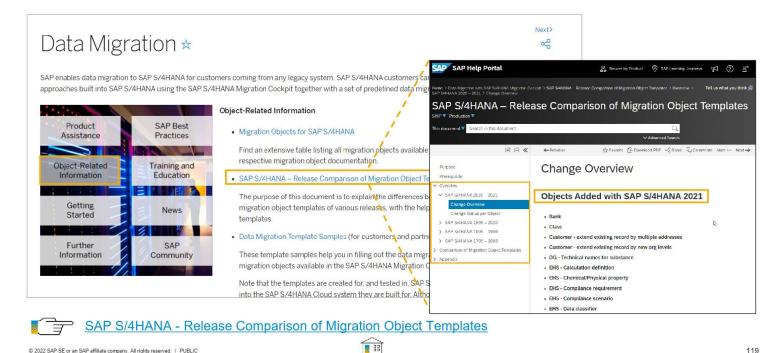
Migration object list in SAP Help Portal (SAP S/4HANA)

* Filter depending on selection SAP S/4HANA or SAP S/4HANA Cloud*

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SAP S/4HANA Migration Cockpit

Check migration object changes in release comparison - available for File/Staging



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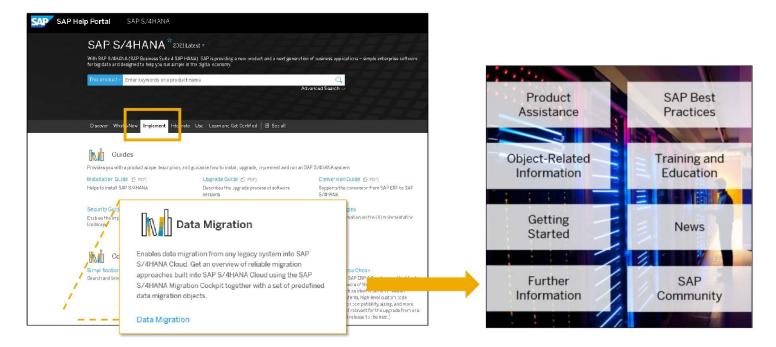
SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit

Further Information



Data Migration Landing Page on SAP S/4HANA SAP Help Portal



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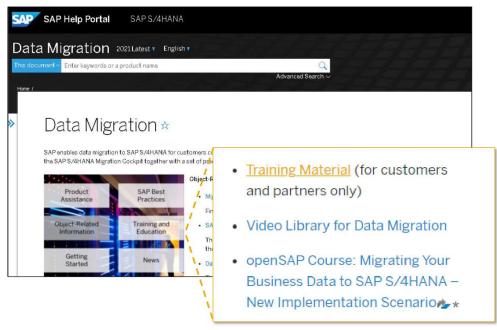
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit – Further <u>Training Material</u>



Training Material ☆

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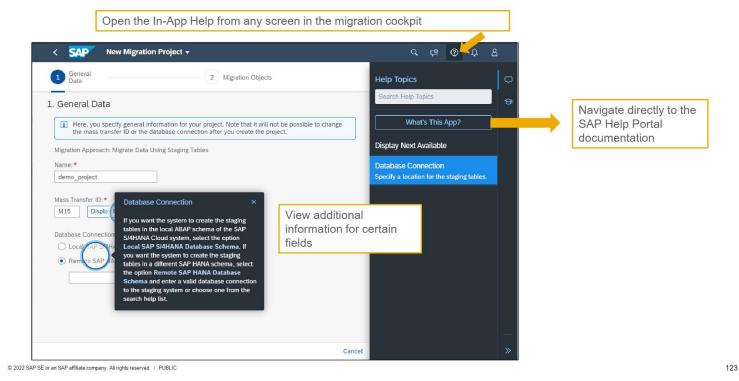
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^{*} openSAP Course based on 1909

SAP S/4HANA Migration Cockpit - In-App Help Now Available



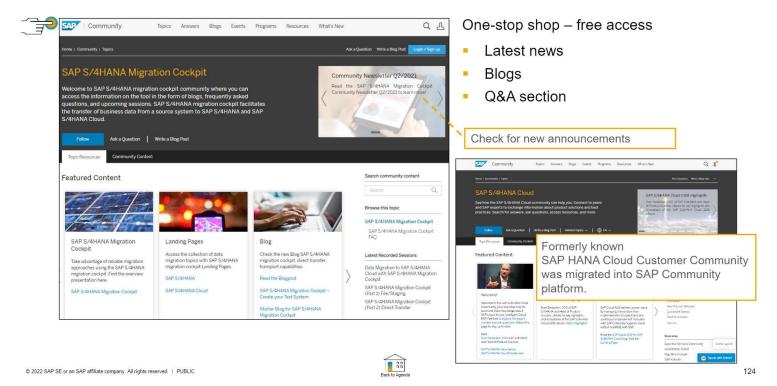
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit Community



Preconfigured SAP S/4HANA Sandbox System

Demo scripts for SAP S/4HANA migration cockpit available



Based on SAP S/4HANA 2021



SAP S/4HANA trial system (external link):

https://www.sap.com/cmp/oth/crm-s4hana/s4hana-on-premise-trial.html

Joerg Wolf w

April 23, 2019 | 8 minute read

SAP S/4HANA Fully-Activated Appliance: Demo Guides

This blog gives information on the pre-configured sample demo scenarios in the SAP S/4HANA Fully-Activated Appliance. If you stumbled across this blog "by accident" and are interested in bringing up your own preconfigured SAP S/4HANA sandbox system within a few hours, please see this overview for the SAP S/4HANA Fully-Activated Appliance.

Direct links to the most recent appliance releases in SAP CAL are: 2021 SP00 / 2020 FPS02 / 2020 FPS01 / 2020 SP00 / 1909 FPS02 / 1909 FPS01 / 1909 SP00

Demo scripts for SAP S/4HANA migration cockpit (based on 2021 SP00)

- File approach (bank)
- File approach (material)
- LTMOM file approach (cost center texts)
- Staging approach (G/L accounts)
- Direct Transfer approach (cost centers and activity types)
- LTMOM Direct Transfer approach (cost center texts)
- Direct Transfer approach (material)
- Direct Transfer approach (vendor, CVI)



https://blogs.sap.com/2020/04/27/sap-s-4hana-migrationcockpit-create-your-test-system/

System access for externals

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External CAL: https://cal.sap.com/catalog#/solutions/b8a9077c-f0f7-47bd-977c-70aa6a6a2aa7

https://www.sap.com/documents/2017/07/26113ac0-c47c-0010-82c7-eda71af511fa.html

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit

SAP Notes and KBAs

Run Report DMC_NOTE_ANALYZER Check SAP Note 3016862



Composite SAP Note for migration cockpit CA-LT-MC

2780378 Composite SAP Note for SAP S/4HANA migration cockpit (all releases)



SAP S/4HANA

Collective SAP Note for **Direct Transfer** CA-LT-MC

2747566

SAP S/4HANA migration cockpit Composite Note for Transfer Data Directly from SAP System



Collective SAP Notes for File/Staging **CA-GTF-MIG**

2538700 Collective SAP Note and FAQ for SAP S/4HANA migration cockpit File/Staging (SAP S/4HANA Cloud)

2537549 Collective SAP Note and FAQ for SAP S/4HANA migration cockpit File/Staging (SAP S/4HANA)



SAP S/4HANA Cloud

SAP S/4HANA



SAP S/4HANA Migration Cockpit

Key Takeaways



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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit Key Takeaway



Included in the licenses for all SAP S/4HANA deployment options



Preconfigured SAP S/4HANAspecific migration content



Automated mapping between source & target



Guidance and simulation for the migration process



Integrated into SAP Activate methodology



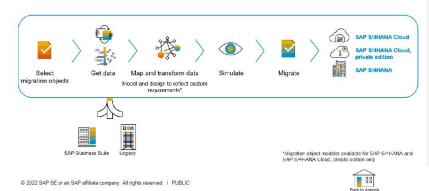
Lower migration time and costs

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Key Takeaways

SAP S/4HANA migration cockpit – the next-generation data migration software

- Included in SAP S/4HANA and SAP S/4HANA Cloud license and shipment
- Made for migrating data from SAP and non-SAP sources into SAP S/4HANA and SAP S/4HANA Cloud
- Guided procedure takes users through the migration process:
 Easy and safe, no programming required
- Flexible for integration of custom business data including data transformations



Migration approaches

Data Transfer



Migrate data using Staging Tables



Migrate data directly from SAP system

Predefined SAP S/4HANA-specific migration content facilitates and accelerates your data migration

- Preconfigured content and mapping
- Automated mapping between template and target structure
- Migration programs generated automatically

Customer-specific migration content can be flexibly included

- Integration of customer-built objects
- Customer-specific enhancements to SAP standard objects (for example: add new fields)

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

Thank you.

Standard slide deck SAP S/4HANA: Migrate Your Data to SAP S/4HANA – SAP S/4HANA Migration Cockpit

Standard slide deck SAP S/4HANA Cloud: Migrate Your Data to SAP S/4HANA Cloud - SAP S/4HANA Migration Cockpit

Video: <u>Migrate Data Using Staging Tables</u>

Video: <u>Migrate Data Directly from SAP System</u>

Data migration landing pages http://help.sap.com/S4 OP DM or <a href="http://

Community topic page https://community.sap.com/topics/s4hana-migration-cockpit/

Click through tutorials SAP S/4HANA migration cockpit

Classroom Training S4D445 Data Migration using the SAP S/4HANA Migration Cockpit (based on 1909; chargeable)

SAP S/4HANA migration cockpit: sap s4hana migration cockpit@sap.com

Find a comprehensive FAQ list in the SAP S/4HANA migration cockpit Community: https://community.sap.com/topics/s4hana-migration-cockpit



SAP S/4HANA Migration Cockpit

Appendix



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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit

Appendix Contents

- Miscellaneous
- Project Setup
- Re-cap What was new with 2020?



SAP S/4HANA Migration Cockpit

Appendix Miscellaneous



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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit

Product road map overview

Recent innovations

SAP S/4HANA, SAP S/4HANA Cloud

- More flexible error reporting
- Additional in-app help capabilities

SAP S/4HANA

- Direct Transfer:
- New migration scenario: SAP APO SPP to SAP S/4HANA eSPP (APO extended Service Parts Planning)

2021 - Q3/Q4

SAP S/4HANA, SAP S/4HANA Cloud

Additional migration objects

SAP S/4HANA

- File/Staging:
 - Transport content from one system to another
 - Mass processing select and process multiple instances
- Direct Transfer:
 - View the created records and navigate directly to the relevant SAP Fiori app
 - A detailed view of the migration process that gives you more control over the migration

SAP S/4HANA Cloud

- Migration object modeler (add released API fields to an existing migration object)
- Possibility to use staging tables functionality for SAP HANA Cloud on the SAP Business Technology Platform (BTP)

2022 - Product direction

SAP S/4HANA, SAP S/4HANA Cloud Additional migration objects

- Enhancement of migration scenario EWM
- Enhanced mapping functionality
- File/Staging:
- Support for additional file formats to populate staging tables Functionality to keep custom
- adjustments after content upgrade View the created records and
- navigate directly to the relevant SAP Fiori app

SAP S/4HANA

- Direct Transfer:
 - Show selection results in detail
 - Access to selected data and transformed data in order to facilitate analysis

SAP S/4HANA, SAP S/4HANA Cloud

- Additional migration objects
- Additional migration scenarios
- Improved authorization concept for projects and objects
- Increased flexibility for managing custom content

SAP S/4HANA Cloud

- Direct Transfer for SAP S/4HANA Cloud
- Enhanced functionality in the migration object modeler for both approaches
- Migration object modeler
 - File/Staging: Wizard for structure and field mapping

This is the current state of planning and may be changed by SAP at any time.

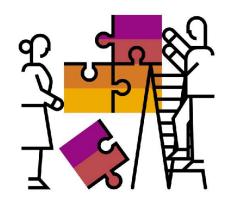
Additional SAP Offerings for Data Migration

Complementing data migration offerings in the SAP portfolio

For complementing requirements, SAP portfolio includes additional data migration offerings. For example

- SAP Data Services Extract, transform, and load data, particularly for non-SAP sources and intense data quality improvements
- SAP Advanced Data Migration by Syniti for the orchestration of large data migration projects and a workflow-like tracking of activities

Unit 3 of this week introduces additional migration features for SAP S/4HANA Cloud





Mapping Your Journey to SAP S/4HANA - A Practical Guide for Senior IT Leadership

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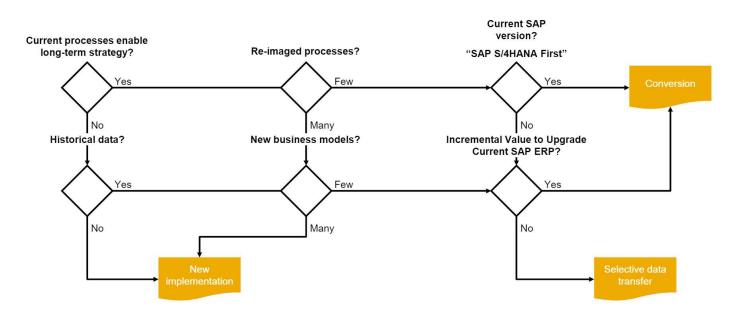
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

Decision Path to S/4HANA

Influencing factors



Facilitate Migration Projects with SAP S/4HANA Migration Cockpit



1 Tool of choice for migration to SAP S/4HANA

- Part of SAP S/4HANA and SAP S/4HANA Cloud (included in these licenses)
- Ready-to-use solution
- Support for customers with new implementations



2. Preconfigured migration content specific to SAP S/4HANA

- Comprehensive set of preconfigured migration objects, such as customers, suppliers, and so on
- Automated mapping between source data and SAP S/4HANA target values



3. Integrated in SAP Activate methodology

- Proven methodology integrated in SAP Activate road map
- Best practices



4 Easy and safe migration

- Two migration approaches
- Step-by-step guidance through the migration process
- Preconfigured migration objects
- Data validation to ensure high-data quality and consistency



5. Flexible and extendable

- Migration object modeler for custom requirements
- Ability to extend existing SAP migration objects
- Integration of custom objects



6. Outlook

- Improved functionality to plan, track and document the data migration
- · Provide additional migration content
- Enhanced content upgrade merge modified migration objects with updates on predefined migration objects
- Direct Transfer for SAP S/4HANA Cloud

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

Matrix - Data Load into Staging Tables - Recommendation

Connection	Staging Tables located	HANA Enterprise Edition	HANA Runtime License (REAB)
Local SAP S/4HANA DB Schema	Staging tables will be created in same HANA DB schema as SAP S/4HANA.	Fill tables via* XML Template files ABAP programming	Fill tables via* XML Template files ABAP programming
Remote SAP HANA Database Schema	Staging tables will be created in a separate HANA DB Schema.	Tables can be filled by all tools of choice – incl. 3 rd party (staging tables can be accessed via DB layer)	Tables can be filled via** XML Template files ABAP programming Data Services SLT 3rd Party Tools

^{*} This is SAP's recommendation. In case system administrator provides users and access, technically all tools listed for remote HANA DB schema are possible. Keep auditing process in mind. This is pure on SAP customer side.

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^{**} staging tables can not be filled directly on database layer, for example with SAP HANA Studio (SUR Software Usage Rights)

Legal Statement on Use of 3rd Party Tools to Fill Staging Tables in REAB

In addition to the standard options of using either a full-use-version of SAP HANA (i.e. SAP HANA, enterprise edition) or the SAP tools provided as Runtime Software with SAP HANA, runtime edition, it is possible to utilize a 3rd party ETL tool to populate the staging tables for the SAP S/4HANA migration cockpit.

In this case, the staging tables will be created by the SAP S/4HANA migration cockpit in a dedicated schema, either in the same database tenant where SAP S/4HANA is installed or a separate dedicated database tenant. Such a schema can then be configured as a remote database connection enabling connectivity and filled by a 3rd party ETL tool solely for the purpose of consumption by the S/4HANA migration cockpit.

For the avoidance of doubt, the tables may not be used for any kind of processing by SAP HANA outside of SAP S/4HANA migration cockpit, including, but not limited to, calculation view modeling, custom SAP HANA Extended Application Services (XS) applications, and other processing by SAP HANA engines. Furthermore, the use of such 3rd party tools to populate staging tables shall be limited to the timeframe during which a migration project is active in the SAP S/4HANA system installed in the same SAP HANA database tenant.

*This information is officially published on help.sap.com – Data Migration Landing Page – Further Information (as of 2020 FPS02)

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit

Appendix Project Methodology and Setup



Key Questions to Understand Your Data Migration Requirements

What deployment option is the target / receiver of the data?

SAP S/4HANA or SAP S/4HANA Cloud

Which data is needed from sources to operate S/4HANA the way you want? Customizing? Master data? Open items? Balances?

What are the sources / sender systems of the data? Number and type of source systems? Central master data management active?

Migrate data "as is" or transform on the fly?

Data transformations needed? Data quality improvement necessary?

Who needs to be involved?

Decisions to be taken? Major stakeholder?



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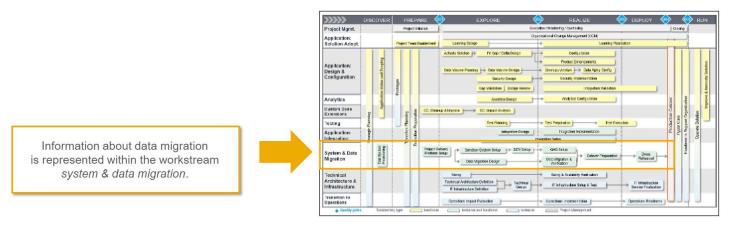
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

Data Migration in SAP Activate Roadmap



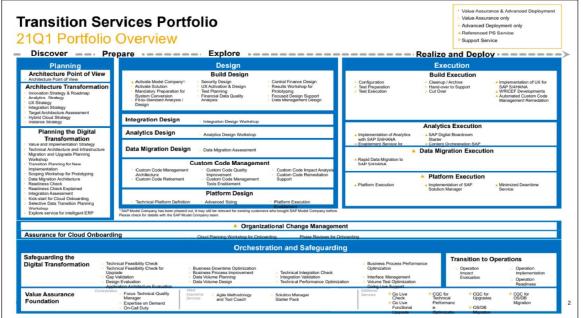
What needs to be done?
When do I have to take care?



SAP Activate roadmap viewer

https://go.support.sap.com/roadmapviewer/

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SAP Implementation
Service Packages |
SAP Value Assurance

SAP Value Assurance
Availability Extended to
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Contact Thomas Wolf

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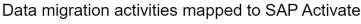
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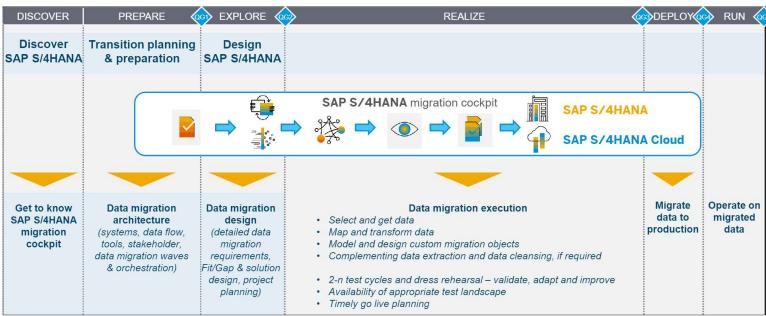
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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

Additional SAP Offerings for Data Migration







SAP Activate Roadmap Viewer: https://go.support.sap.com/roadmapviewer/

Business Data Migration to SAP S/4HANA

Key roles and tasks in customer's project team

Project lead*

- Drives the data migration project at customer side
- Responsible for all aspects affecting project setup and project planning
- ٠..

System administrator / Basis lead*

- Drives software download, software installation, installation of notes, system settings and more
- Responsible to fulfill technical prerequisites such as provision of test landscape, RFC connections, system access & authorizations and more
-

Data migration expert

- Uses the SAP S/4HANA migration cockpit and complementing tools (if any)
- Responsible to execute data migration and track progress
- ř.,

Application / business contacts

- Act as key contacts for all application-related questions and represent business departments
- Clarify business requirements, for example define selection criteria and mappings
- Conduct functional testing and validate migration result

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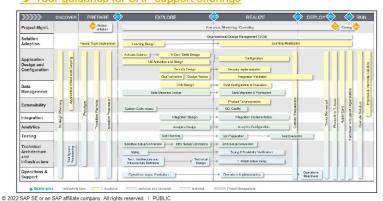
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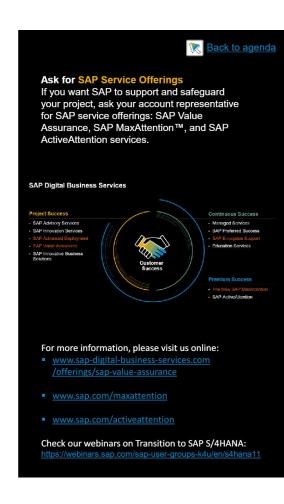
SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP Supports You on Your Way to SAP S/4HANA

"Transition to SAP S/4HANA" road map:

- Best Practices project documentation in the Roadmap Viewer for all SAP customers to transition to SAP S/4HANA on-premise
- Graphical overview and structured end-to-end documentation of an implementation or conversion project, including project file templates
- Helps customers, partners, and SAP to prepare and run transition projects according to SAP Best Practices
- Accelerators link to more detailed information, blogs, templates, training
- Links from project activities and tasks to services
 Your guidance for SAP support offerings





^{*} Roles may differ on Cloud context

SAP S/4HANA Migration Cockpit

Appendix

Re-cap - What was new with 2020?



https://www.sap.com/documents/2017/07/26113ac0-c47c-0010-82c7-eda71af511fa.html

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit (File/Staging)

What was new in SAP S/4HANA 2020?



- One harmonized user experience using SAP Fiori UI for all approaches
- Possibility to process multiple objects at once
- Instance-based status tracking and messages
- Progress tracking during simulation/migration (monitoring)
- Mapping upload/download in SAP Fiori app templates or with populated values
- Projects created using old app transaction LTMC (Web Dynpro) cannot be converted to new SAP Fiori app but will be available as read-only from SAP S/4HANA 2021 onwards.



SAP S/4HANA Migration Cockpit (File/Staging)

What was new in SAP S/4HANA 2020 FPS01

- Additional view on messages
- Instance-based deletion from mass processing
- Screen refresh function
- Activity monitoring

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SAP S/4HANA 2021



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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA 2021

SAP S/4HANA Migration Cockpit – Migrate Data Using Staging Tables



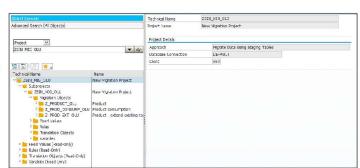
SAP S/4HANA Migration object modeler – what was new with SAP S/4HANA 2020



Flexible and extendable



- Copy migration objects
- Adjust standard migration objects (for example add fields)
- Simulate / debug import of data from staging tables
- Create user defined migration objects
- Use standard APIs or code your function module
- Create or edit translation objects and rules
- New*: Export / import a project from one system to another system
- New*: Use project in a different client
- New*: Reset transfer status





*This does not apply for projects created with LTMC.

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SAP S/4HANA Migration Cockpit – Direct Transfer



SAP S/4HANA 2021

What was new in 2020?

- One harmonized user experience using Fiori UI for all approaches
- Migration object documentation available on help.sap.com
- Transport concept
- Transport of projects between systems
- Reselection of data functionality integrated in Fiori
- Mapping download/upload in Fiori templates or with populated values
- Migration object instances mass processing
- Monitoring functionality

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

SAP S/4HANA Migration Cockpit – Direct Transfer

What was new in 2020 FPS01?

- Additional view on messages
- Copy projects
- Screen refresh function





SAP S/4HANA Migration Cockpit – Direct Transfer

SAP S/4HANA Migration object modeler – what was new in 2020?

- 1. One harmonized user experience using SAP GUI UI for all approaches
- Transport: add projects, objects and rules to transport requests
- Copy and delete migration objects
- Selection: skip rule; inherit restrictions within the data model
- 5. Create source code rules; custom-created mapping rules automatically filled with mappings
- Debugging capabilities for transformation and simulation (since 1909)
- 7. Finished projects in display mode only

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SAP S/4HANA Migration Cockpit - Migrate your Data to SAP S/4HANA

Thank you.

Standard slide deck SAP S/4HANA: Migrate Your Data to SAP S/4HANA – SAP S/4HANA Migration Cockpit

Standard slide deck SAP S/4HANA Cloud: Migrate Your Data to SAP S/4HANA Cloud - SAP S/4HANA Migration Cockpit

Video: <u>Migrate Data Using Staging Tables</u>

Video: <u>Migrate Data Directly from SAP System</u>

Data migration landing pages http://help.sap.com/S4 OP DM or <a href="http://

Community topic page https://community.sap.com/topics/s4hana-migration-cockpit/

Click through tutorials SAP S/4HANA migration cockpit

Classroom Training S4D445 Data Migration using the SAP S/4HANA Migration Cockpit (based on 1909; chargeable)

SAP S/4HANA migration cockpit: sap s4hana migration cockpit@sap.com

Find a comprehensive FAQ list in the SAP S/4HANA migration cockpit Community: https://www.sap.com/documents/2020/12/ec514ba3-c37d-0010-87a3-c30de2ffd8ff.html



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