



Administration Guide | PUBLIC  
2021-06-21

# SAP S/4HANA Foundation

# Content

- 1 Introduction. . . . . 3**
- 2 SAP S/4HANA Foundation. . . . . 4**
  - 2.1 Documentation, Tools, and SAP Notes for the Conversion. . . . . 4
  - 2.2 Overview of the Conversion Process. . . . . 5
    - Preparing the Conversion. . . . . 6
    - Realizing the Conversion. . . . . 9

# 1 Introduction

Information in this section is relevant only for SAP Access Control 12.0 for SAP S/4HANA Foundation.

## 2 SAP S/4HANA Foundation

SAP S/4HANA foundation is the next-generation Business Suite foundation platform and is fully built on the most advanced in-memory platform existing today: SAP HANA. With SAP S/4HANA foundation, SAP helps businesses to run simple in the digital economy, including such topics and principles as the Internet of things, Big Data, business networks, and mobile-first. The software component uses modern design principles with the SAP Fiori user experience (UX) as well as a new role-based user experience concept.



### i Note

SAP S/4HANA foundation is not allowed to be used standalone but only as a foundation in combination with an ABAP add-on.

## 2.1 Documentation, Tools, and SAP Notes for the Conversion

### Required Documents, Tools, and SAP Notes

You require the following conversion assets to prepare and run a conversion project.

Document	Available at	Comment
System Conversion to SAP S/4HANA using SUM 2.0 SP <latest version> (incl. DMO)	<a href="#">▶ Software Logistics Toolset (SL Toolset ▶ System Maintenance ▶ System Conversion to SAP S/4HANA using SUM 2.0 &lt;latest SP&gt;</a> 	Describes how to prepare the system for running the Software Update Manager, how to use it, and what general follow-up steps are required.
Maintenance Planner User Guide	<a href="http://help.sap.com/maintenanceplanner">http://help.sap.com/maintenanceplanner</a>	Describes how to use the Maintenance Planner for calculating and downloading the required stack.xml file and software packages.
SAP S/4HANA foundation: Release Information Note	<a href="https://support.sap.com">https://support.sap.com</a>  To find the release information note for your target product version, search for <a href="#">SAP S/4HANA FOUNDATION Release Information Note</a> .	The Release Information Note for a specific product version of SAP S/4HANA foundation provides valuable information, e.g. about supported ABAP Add-Ons and about supported start releases

## Additional Information and SAP Notes

The following table lists important additional documents and SAP Notes.

Document	Available at	Comment
SAP S/4HANA foundation: Always-Off Business Functions	SAP Note <a href="#">2240359</a>	-
SAP S/4HANA foundation: Always-On Business Functions	SAP Note <a href="#">2240360</a>	-
Uninstalling ABAP Add-Ons	SAP Note <a href="#">2011192</a>	-

## 2.2 Overview of the Conversion Process

### Preparation Phase

SAP provides a process for the conversion to SAP S/4HANA foundation. Before starting the realization phase of the conversion process, you have to do the following preparatory activities:

1. Planning  
You need to gain an idea of the project steps and necessary preparations. Use the Roadmap Viewer to familiarize yourself with the project steps required for the transition to SAP S/4HANA foundation. For more information, see <https://roadmapviewer-supportportal.dispatcher.hana.ondemand.com/>.
2. System requirements  
You need to be aware of system requirements, start releases, conversion paths, and data volume. See the following sections for more information:
  - o [System Requirements \[page 6\]](#)
  - o [Supported Start Releases \[page 7\]](#)
3. Maintenance Planner  
You need to run the Maintenance Planner tool as a first step in the conversion process. It checks your components, add-ons, and business functions to ensure compatibility with SAP S/4HANA foundation and also creates the stack file used for the actual conversion process (done by the Software Update Manager tool). For more information, see [Maintenance Planner \[page 7\]](#).

#### i Note

This step is mandatory, because the Software Update Manager requires the stack file for the conversion process.

The Maintenance Planner has replaced the Maintenance Optimizer, which is not supported by SAP S/4HANA foundation.

4. Cross-application preparation activities

In addition to the general preparation steps described above, you also need to do some cross-application preparations. For more information, see [Cross-Application Preparations \[page 8\]](#).


## Realize Phase

After you have executed the steps in the preparation phase, you can continue with the activities of the realize phase using the Software Update Manager (SUM). The Software Update Manager does the database migration (if required), the actual software update, and the data conversion. For more information, see [Realizing the Conversion \[page 9\]](#).

### 2.2.1 Preparing the Conversion

For the conversion to SAP S/4HANA foundation you have to prepare an overall project plan and schedule the tasks. The preparation activities described in this section give you an idea of what is involved.

#### i Note

In addition, review the planning section of the Software Update Manager guide System Conversion to SAP S/4HANA using SUM 2.0 <latest version> at <https://support.sap.com/sltoolset>  [Software Logistics Toolset \(SL Toolset\)](#) > [System Maintenance](#) >.

#### 2.2.1.1 System Requirements

##### Unicode

As a prerequisite for the conversion, your system needs to be a Unicode system. If your system is still non-Unicode, you can follow a two-step conversion approach: First, perform a combined upgrade and Unicode conversion with one of the supported start releases as target, then perform the conversion to SAP S/4HANA foundation.

For additional information, see [Unicode Conversion Overview](#)  (on SAP SCN).

##### Application Server ABAP Only

Your system has to be an AS ABAP only system. Dual stack systems (AS ABAP and AS Java combined in one system) are not supported for the conversion. If your system is a dual-stack system, you have to split it before doing the conversion.

For additional information on how to perform a dual-stack split, see:

- SAP Note [1655335](#)
- Guide at <https://support.sap.com/sltoolset> > [System Provisioning](#) > [System Provisioning Scenarios](#) > [Split a System using Software Provisioning Manager 1.0](#) > [Dual Stack Split Guides](#)
- [Dual Stack Split](#)

## 2.2.1.2 Supported Start Releases

A one-step conversion from a minimum released level is supported in SAP S/4HANA foundation.

SAP S/4HANA foundation is not allowed to be used standalone but only as a foundation in combination with an ABAP add-on.

Therefore, the supported start releases for a conversion of SAP S/4HANA foundation also depend on the source and target stack of the installed add-on. For more information, see the add-on specific conversion information in which the SAP *S/4HANA Foundation* chapter is included.

Check the release information note for the target product version of SAP S/4HANA foundation for the supported start releases with regard to the foundation and the required feature package stack equivalencies. For more information, see [Documentation, Tools, and SAP Notes for the Conversion \[page 4\]](#).

## 2.2.1.3 Maintenance Planner

### Overview

The Maintenance Planner generates the download files (add-ons, packages, DBDs, and the stack configuration file) that the Software Update Manager (SUM) uses to do a conversion or an upgrade. In particular, the Maintenance Planner checks if the following items are supported:

- Add-ons to your system
- Active business functions in your system

The Maintenance Planner checks whether there is a valid path for any of the items listed above (for example, an add-on is not released for the conversion or the upgrade yet). After the check, the Maintenance Planner creates the stack configuration file (stack.xml).

#### i Note

In order to generate the stack.xml, you need to have valid licenses of the target SAP products. You can do the above checks without a license, but you cannot create a stack.xml with the Maintenance Planner without a license.

For more information, see the Maintenance Planner User Guide at <http://help.sap.com/maintenanceplanner>. For specific preparatory steps, see also [Cross-Application Preparations \[page 8\]](#).

## Business Functions

Business functions can have the following status: `always on`, `customer switchable`, and `always off`. This results in the following behavior during the process:

- If a business function was switched on in the start release system but defined as `always off` in the target release, then a system conversion or upgrade is not possible with this release.
- If a business function was switched off in the start release system but defined as `always on` in the target release, then the business function will be activated during the process.
- If a business function is defined as `customer switchable` in the target release, it will keep the state defined in the source release during the upgrade.

For more information about `always off` and `always on` business functions in SAP S/4HANA foundation, see SAP Notes [2240359](#) and [2240360](#).

## Add-Ons

Add-ons are either merged into SAP S/4HANA foundation or deleted during the process if no successor is available. Some add-ons may be included without being fully functional.

For a list of supported add-ons in the target stack, see the respective Release Information Note for the product version of SAP S/4HANA foundation in the target stack.

For information about uninstalling add-ons, see SAP Note [2011192](#).

### 2.2.1.4 Cross-Application Preparations

Before starting the process, you need to do the preparatory activities described in the next sections.

## Prepare the Use of the Maintenance Planner

### Context

Besides the general preparation described in the Maintenance Planner User Guide, you have to make the following specific preparatory steps:

### Procedure

1. Setup the Maintenance Planner as described in the Maintenance Planner User Guide available at <http://help.sap.com/maintenanceplanner>.
2. Check the SPAM/SAINT version in your source release system.

#### i Note

SPAM/SAINT patch 66 (or higher) is required.

3. Apply SAP Note [2186164](#) to your SAP Solution Manager system.
4. Create an RFC connection between your source release system and SAP Solution Manager:
  1. In SAP Solution Manager, choose **SOLMAN\_WORKCENTER** > *Solution Manager Administration* > *Landscape (Technical Systems)*.
  2. Click **RFC connections** > *Start New Window*.
  3. Select client 000 and choose *Advanced Mode*.
  4. Under *Export Options*, fill in the field *Create SM\_<SID>CLNT<CLNT>\_READ*.
  5. Under *Communication RFCs*, select *Create SM\_<SID>CLNT<CLNT>\_READ*.
  6. Select *Create New User*.
  7. Enter a password.
  8. Enter a user and password under *Managed System Setup Administrator*, and choose *Test Login* in the group *Administration Users* to check that it works.

## Remove Client 066

### Context

Client 066 is the Early Watch client which was set up during the installation of your system. This client is not used in SAP S/4HANA foundation. To prevent issues, for example, with job scheduling, you have to remove it before starting the process.

### Procedure

To remove client 066, proceed as described in SAP Note [1749142](#).

## 2.2.2 Realizing the Conversion

After the preparation phase, you start with the realization of the conversion to SAP S/4HANA foundation using the Software Update Manager (SUM) tool.

Software Update Manager (SUM) is the technical tool used for the system conversion to SAP S/4HANA foundation.

### i Note

You have to run the Maintenance Planner before the SUM, because the SUM requires the `stack.xml` generated by the Maintenance Planner as an input. For more information, see [Maintenance Planner \[page 7\]](#).

Within the SUM process the following steps are done in a one-step procedure (for dedicated start releases):

1. Database migration (optional)  
If your source system is not yet running on the SAP HANA database, use the database migration option (DMO) of the Software Update Manager to migrate your database to SAP HANA during the conversion.
2. Installation of the SAP S/4HANA foundation software

3. Conversion of your data into the new data structure used by SAP S/4HANA foundation (this is the automated part of the data migration).



For all information about using the SUM, see the System Conversion Guide available at <http://help.sap.com/sltoolset> ► *Software Logistics Toolset* ► *System Maintenance* ► *System Maintenance Scenarios* ► *System Conversion to SAP S/4HANA using SUM 2.0 <latest SP>* ►.

# Important Disclaimers and Legal Information

## Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.

About the icons:

- Links with the icon : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon : You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

## Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

## Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.

The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

## Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

## Bias-Free Language

SAP supports a culture of diversity and inclusion. Whenever possible, we use unbiased language in our documentation to refer to people of all cultures, ethnicities, genders, and abilities.

© 2021 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company. The information contained herein may be changed without prior notice.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

Please see <https://www.sap.com/about/legal/trademark.html> for additional trademark information and notices.