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# Conversion Guide for SAP S/4HANA 2025

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# Document History

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# 1 Conversion Guide for SAP S/4HANA

SAP S/4HANA is the next-generation business suite. It is fully built on the most advanced in-memory platform existing today: SAP HANA. The product uses modern design principles with the SAP Fiori user experience (UX) as well as a new role-based user experience concept. With the move to SAP S/4HANA, you are benefitting from continuous application innovations such as:

- Application optimizations specific for SAP HANA in-memory platform
  With SAP S/4HANA, SAP optimizes the application to make best use of the capabilities of the SAP HANA database. For example, we removed aggregates, and reduced the data footprint.
- Responsive user experience design
  With SAP S/4HANA, SAP designs the application with the latest role-based user experience (UX).
- Unifying functionality in the core
  With SAP S/4HANA, SAP removes redundancy by providing one functionality for one objective.

With SAP S/4HANA, 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.

This guide explain the conversion process with which you can move from your existing SAP Business Suite to the next-generation business suite: SAP S/4HANA.

# 2 Getting Started

Read this guide carefully to get an overview of how to convert an existing SAP Business Suite system to SAP S/4HANA 2025.

This guide has to be used together with the following documents and tools:

- Simplification Item Catalog
  This tool allows you to search and browse simplification items online.
- *System Conversion to SAP S/4HANA using SUM 2.0 SP <latest version>*
- *Maintenance Planner User Guide*
- SAP Readiness Check
  This tool analyzes your SAP ERP 6.0 system and highlights important aspects of the conversion to SAP S/4HANA, such as identification of relevant simplification items, high-level custom code analysis, add-on compatibility, sizing, and more.

  > → Recommendation
  >
  > Although not mandatory, this tool is highly recommended.

- ASU Toolbox Application Conversion Assistant
  The ASU Toolbox focuses on the application view, and is therefore a complement to the more technically-oriented conversion tools mentioned in this guide. It's content is regularly updated and is intended to help you achieve the conversion as efficiently as possible. For information about the tool, see SAP Note 3008338.

  > → Recommendation
  >
  > Although not mandatory, this tool is highly recommended.

- *Custom Code Migration Guide for SAP S/4HANA 2025*

You find more information about these tools and guides (including where to find them), as well as additional important documents and SAP Notes relevant for the conversion in the section Documentation and SAP Notes for the Conversion [page 7].

The section Overview of the Conversion Process [page 10] provides information about the different phases of the conversion and the tools involved.

The sections Preparing the Conversion [page 18] and Realizing the Conversion [page 32] provide details for those conversion phases.

For an overview of all function available with SAP S/4HANA 2025, see the *Feature Scope Description* at https://help.sap.com/s4hana_op_2025 *Discover*.

# 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 |
| --- | --- | --- |
| Simplification Item Catalog<br><br>This tool enhances and replaces the *Simplification List for SAP S/4HANA* (PDF). The PDF is still available, but we recommend using the catalog. | https://help.sap.com/s4hana_op_2025 ▶ *Implement* ▶ *Conversion & Upgrade Assets* | Describes the simplifications in comparison to the SAP Business Suite product family such as, simplified functions, merged database tables, and new data models. |
| *System Conversion to SAP S/4HANA using SUM 2.0 SP <latest version>* | https://support.sap.com/sltoolset ▶ *Software Logistics Toolset (SL Toolset)* ▶ *System Maintenance* ▶ *System Maintenance Scenarios* ▶ *System Conversion to SAP S/4HANA using SUM 2.0 <latest SP>* | Describes how to prepare the system for running the Software Update Manager, how to use it, and what general follow-up steps are required. |
| Best Practice guides for the conversion<br><br>**Note**<br>These guides, while not mandatory, are highly recommended. | https://help.sap.com/s4hana_op_2025 ▶ *Implement* ▶ *Conversion & Upgrade Assets* | • *Custom Code Management (CCM) During an SAP S/4HANA Conversion*<br>Best practices for CCM during the conversion of a single SAP ERP system to an SAP S/4HANA system.<br>• *Data Volume Management (DVM) During an SAP S/4HANA Conversion*<br>Best practices for DVM during the conversion of a single SAP ERP system with a medium sized database to an SAP S/4HANA system.<br>• *Introduction of SAP Fiori during an SAP S/4HANA Conversion*<br>Best practices for SAP Fiori introduction during the conversion of a single SAP ERP system to an SAP S/4HANA system. |
| *Maintenance Planner User Guide* | http://help.sap.com/maintenance-planner | Describes how to use the Maintenance Planner for calculating and downloading the required stack.xml file and software packages. |

| Document | Available at | Comment |
| --- | --- | --- |
| SAP Readiness Check | https://help.sap.com/viewer/p/SAP_READINESS_CHECK | This tool analyzes your SAP ERP 6.0 system and highlights important aspects of the conversion to SAP S/4HANA, such as identification of relevant simplification items, high-level custom code analysis, add-on compatibility, sizing, and more.<br>**→ Recommendation**<br>The tool is not mandatory, but highly recommended. |
| ASU Toolbox Application Conversion Assistant | SAP Note 3008338 | The ASU Toolbox focuses on the application view, and complements the more technically-oriented conversion tools mentioned in this guide. Its content is regularly updated and is intended to help you achieve the conversion as efficiently as possible.<br>**→ Recommendation**<br>The tool is not mandatory, but highly recommended. |
| *Custom Code Migration Guide for SAP S/4HANA 2025* | https://help.sap.com/s4hana_op_2025 ▶ *Implement* ▶ *Conversion & Upgrade Assets* | Provides instructions on how to adapt custom code in the context of a system conversion to SAP S/4HANA. |
| *SAP S/4HANA 2025: Release Information Note* | SAP Note 3493301 | - |
| *SAP S/4HANA 2025: Restriction Note* | SAP Note 3549655 | - |
| *SAP FIORI for SAP S/4HANA 2025: Release Information Note* | 3493254 | - |
| *SAP S/4HANA Foundation 2025: Release Information Note* | 3568504 | - |
| *SAP S/4HANA Add-on Note* | SAP Note 2214409 | - |
| *Delivery of the SAP S/4HANA Simplification Item-Check* | SAP Notes 2399707 and 2502552 | With this note, the SAP S/4HANA Pre-Transition Check Report is delivered. |

| Document | Available at | Comment |
| --- | --- | --- |
| *SAP S/4HANA 2025 - application specific notes in system conversion / upgrade preparation phase* | SAP Note 3634200 | Information about errors that may occur during the preparation phase of the conversion. |
| *Additional information on converting to SAP S/4HANA using SUM 2.0 <latest version>* | SAP Note for the latest version of SUM 2.0 at https://support.sap.com/sltoolset > *Software Logistics Toolset (SL Toolset)* > *System Maintenance* > *System Maintenance Scenarios* > *System Conversion to SAP S/4HANA using SUM 2.0 <latest SP>* | Information about errors that may occur during the SUM phase of the conversion. |
| *SAP S/4HANA 2025 - application specific notes in system conversion / upgrade follow-on phase* | SAP Note 3634222 | Information about errors that may occur during the follow-on phase of the conversion. |
| *SAP S/4HANA System Conversion/Upgrade: Measures to reduce technical downtime* | SAP Note 2351294 | - |
| *ABAP Platform 2025 – General Information* | SAP Note 3612209 | - |
| *Java components for S/4HANA 2025 – Restrictions* | SAP Note 3612338 | - |

## Additional Information and SAP Notes

The following table lists important additional documents and SAP Notes.

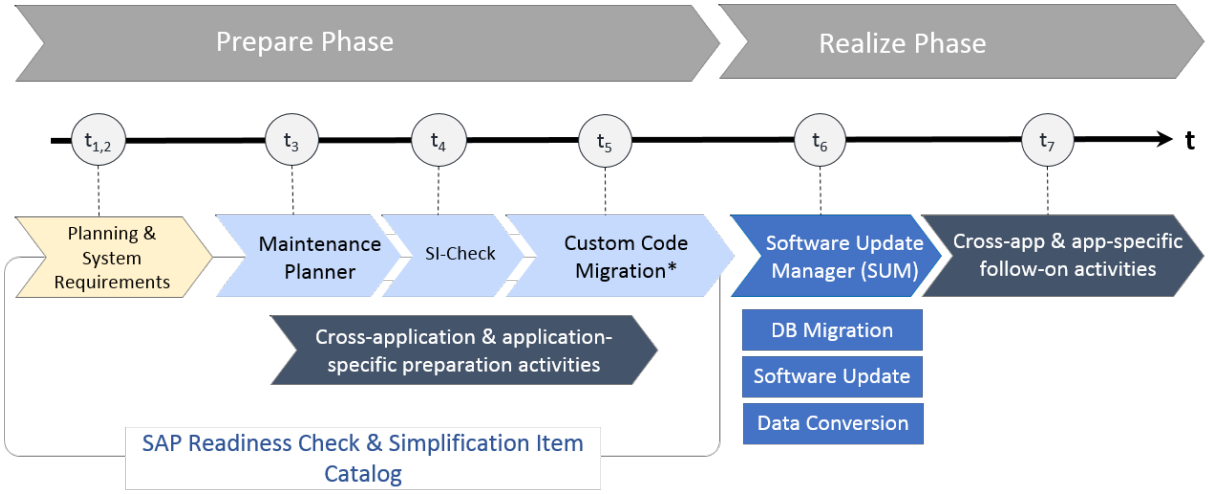
| Document | Available at | Comment |
| --- | --- | --- |
| *SAP S/4HANA: Always-Off Business Functions* | SAP Note 2240359 | - |
| *SAP S/4HANA: Always-On Business Functions* | SAP Note 2240360 | - |
| *Uninstalling ABAP Add-ons* | SAP Note 2011192 | - |
| *Automated guided steps for enabling Note Assistant for TCI and Digitally Signed SAP Notes* | SAP Note 2836302 | - |

| Document | Available at | Comment |
| --- | --- | --- |
| *Data Migration of Financials in SAP S/4HANA: Do not migrate twice!* | SAP Note 2294486 | Relevant if you are planning to convert a SAP Simple Finance, respectively SAP S/4HANA Finance, on-premise edition installation to SAP S/4HANA. |
| *Conversion of Financial Accounting to SAP S/4HANA* | SAP Note 2332030 | - |
| *S4TWL: Business partner data exchange between SAP CRM and SAP S/4HANA – required pre-conversion and post-conversion actions* | SAP Note 2285062 | - |
| *Superfluous field "BUFFERED" causes exception in Consolidation and Mass Processing and potential S/4 upgrade error* | SAP Note 2781530 | - |

## 2.2 Overview of the Conversion Process

SAP provides a process for the conversion to SAP S/4HANA. The following figure gives an overview of the tools, the phases, and the activities involved in the process.

> → Recommendation
>
> We recommend that you do the activities in the sequence shown in the figure and explained in the sections below.




*Consists of preparatory analysis and post-SUM adaptation of custom code.

SAP S/4HANA System Conversion: Sequence

## Prepare Phase

### Simplification Item Catalog

To enable you to do an optimal planning of your path to SAP S/4HANA, we provide the Simplification Item Catalog. This tool allows you to search or browse the complete collection of simplification items grouped by product version and presented by application or functional area. Each simplification item details the steps that need to be taken for the conversion from a business and a technical point of view, both preparatory and follow-on steps and each item is available as a SAP Note.

> → Recommendation
>
> We recommend that you consume the simplification items also via the SAP Readiness Check for SAP S/4HANA. Based on an analyis of the configuration, data, and usage of your productive SAP Enterprise Resource Planning system, the SAP Readiness Check for SAP S/4HANA identifies the simplification items relevant for your conversion.
>
> For more information about how to use the SAP Readiness Check for SAP S/4HANA, see https://help.sap.com/viewer/p/SAP_READINESS_CHECK.

You find the Simplification Item Catalog at https://launchpad.support.sap.com/#/sic/.

> ⓘ Note
>
> When using the Simplification Item Catalog directly instead of the SAP Readiness Check for SAP S/4HANA, please note that the catalog contains **all** the simplification items, not only those that are relevant for your conversion project. This means you need to identify those which are actually relevant for your system conversion (which the SAP Readiness Check for SAP S/4HANA does automatically). And when you have done this, you also need to look at the relevant simplification SAP Notes themselves to get all the available information. The SAP Notes contain all the required information for each simplification item. The SAP Readiness Check for SAP S/4HANA links directly to the most recent version of the SAP Notes.

Please carefully read the description of all simplification items relevant for you (as determined either by the SAP Readiness Check for SAP S/4HANA or via the Simplication Item Catalog), so that you understand the impact they might have on your system, business processes, or custom code, and find out which activities you might have to do in your conversion project.

> → Recommendation
>
> We recommend that you do a test conversion in a dedicated system in a distributed system landscape [page 14] to get the results of the checks early on in your conversion project.

Before starting the realization phase of the conversion process, you also have to do the following preparatory activities:

1. **Planning**
   You need to gain an idea of the project steps and necessary preparations. Use the following tools to do your project planning:
   - Use the Roadmap Viewer to familiarize yourself with the project steps required for the transition to SAP S/4HANA.
     For more information, see https://roadmapviewer-supportportal.dispatcher.hana.ondemand.com/.
   - SAP Readiness Check for SAP S/4HANA

     > → Recommendation
     >
     > We highly recommend to run the SAP Readiness Check for SAP S/4HANA in advance of your conversion project to identify any issues you need to consider and activities you need to do in preparation for your project.

     For more information about how to use the SAP Readiness Check for SAP S/4HANA, see https://help.sap.com/viewer/p/SAP_READINESS_CHECK.
     See also, SAP Readiness Check Versus SI-Check [page 15].
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:
   - System Requirements [page 19]
   - What's the Impact on Your System Landscape? [page 20]
   - Supported Start Releases [page 21]
   - Data Volume Reduction [page 21]
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 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 22].

   > ⓘ 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.
4. **Simplification Item-Check**

These checks identify important steps you need to take to make sure that your system can technically be converted and that your business processes can start running directly after the conversion process has been completed. For more information, see Simplification Item-Check [page 23].

> **Note**
>
> This step is mandatory and will be triggered again by the Software Update Manager. Ideally, you run the Simplification Item-Check (SI-Check) early in the process, so that you can take note of the planning information provided by the checks. Note that you no longer need the stack file for the checks.

See also, SAP Readiness Check Versus SI-Check [page 15].

5. **Custom Code Migration**
   The custom code migration tool checks your custom code against a list of simplifications developed for SAP S/4HANA. For more information, see Custom Code Analysis [page 26] and Custom Code Adaptation [page 34].

   > **Note**
   >
   > While not mandatory, this step is highly recommended. Ideally, you combine the SAP S/4HANA conversion project with housekeeping activities for your existing custom code base. In particular, you need a consolidated view of productively used custom developments and you should remove custom code that is no longer used.
   >
   > For more information, see the *Custom Code Migration Guide for SAP S/4HANA 2025* at https://help.sap.com/s4hana_op_2025 ▶ *Implement* ▶ *Conversion & Upgrade Assets* ▶.
   >
   > We recommend that you do the steps 2 to 4 in the prepare phase in the sequence listed above. It is, however, technically possible to do them independently or in parallel.

6. **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 28].
7. **Application-specific preparation activities**
   In addition to the cross-application preparations, you may also need to do some application-specific preparatory steps. These steps and their documentation are partly provided by the pre-checks and the custom code checks.
   For a complete overview of all necessary steps, see the *Simplification Item Catalog* (mentioned above).
   For an overview of some important preparations steps, see List of Application-Specific Preparations [page 30].
   For more information about preparations for the conversion of Financial Accounting, see SAP Note 2332030.

## Realize Phase

After you have done the steps of the prepare phase, you continue with the activities of the realize phase:

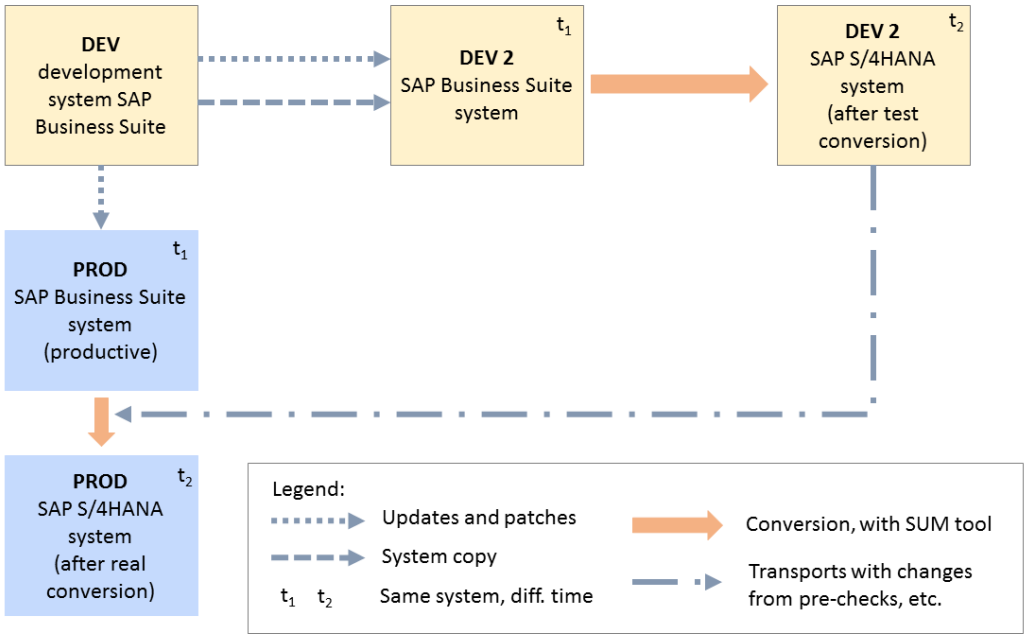
1. **Software Update Manager (SUM)**
   When you have completed the steps above, and have implemented all the adaptations required to ensure your system and your custom code is suited to SAP S/4HANA, you then run the SUM. The SUM does the database migration (if required), the actual software update, and the data conversion.

For more information, see Realizing the Conversion [page 32].
Migration of application data usually happens during release upgrades or updates while the system is down. SAP provides the Silent Data Migration Infrastructure (SDMI) to allow the migration of application data after the upgrade during business operations. For more information, see Silent Data Migration [page 33].
After the completion of the SUM run, we highly recommend that you adapt your custom code, see Custom Code Adaptation [page 34].

2. **Cross-application follow-on activities**
   Other manual cross-application activities may also be required. For more information, see Cross-Application Follow-On Activities [page 35].
3. **Application-specific follow-on activities**
   In addition to the cross-application follow-on activities, you may also need to do application-specific manual steps. These steps and their documentation are provided by the pre-checks and the custom code checks, which provide the list of simplification items relevant for your specific systems.
   For a complete overview of all necessary steps, see the *Simplification Item Catalog* (mentioned above). For an overview of some important follow-on steps, see List of Application-Specific Follow-On Activities [page 42].
   For more information about the migration of Finance Data, see SAP Note 2332030.

## 2.3 Conversion in a Distributed System Landscape

When planning your conversion project, you should use a distributed system landscape as shown in the figure below. The figure is an example of a very simple version of a distributed system landscape comprising only development and productive systems to illustrate the principle .




Conversion in a Distributed System Landscape

The figure shows that there is a development system (DEV) used to apply updates and patches to the productive system (PROD), which, at the beginning of the conversion project (t1), is a SAP Business Suite system. You then set up a second development system (DEV 2) as a system copy of the original DEV system. You use the second development system to perform and test all phases of the conversion. You can collect all the necessary software changes during the test conversion in transport requests, including those that can only be done after a conversion (for example, the Finance customizing). Note that DEV t1 and DEV t2 as shown in the figure describe the same system, at points in time before (t1) and after (t2) the conversion. The collected transports with the required software changes are then handed over to the Software Update Manager (SUM) tool and applied during the real conversion of the productive system. Note that PROD t1 and PROD t2 as shown in the figure also describe the same productive system before (t1) and after (t2) the conversion.

The use of a distributed system landscape for your conversion allows you to take as long as needed to identify and process the software changes required by the conversion and then apply these changes efficiently during the conversion of your productive system to minimize downtime.

## 2.4 SAP Readiness Check Versus SI-Check

The tools SAP Readiness Check and Simplification Item-Check (SI-Check) are used to support the conversion process, see also Overview of the Conversion Process [page 10]. The following table explains the differences between the two tools.

Tool Comparison

| | SAP Readiness Check | Simplification Item-Check<br>/SDF/RC_START_CHECK |
|---|---|---|
| **Type** | Customer self-service provided by SAP Digital Business Services (included as standard support) | Standalone report |
| **SAP Solution Manager** | Not required | Not required |
| **User Interface** | Cloud-based web interface | SAP GUI |
| **Included Checks** | • Simplification item relevance<br>• Custom code<br>• Recommended SAP Fiori apps<br>• Add-on compatibility<br>• SAP Custom Development projects<br>• SAP S/4HANA sizing<br>• Business functions<br>• Check of system consistency before conversion or upgrade<br>• Integration analysis | • Simplification item relevance<br>• Check of system consistency before conversion or upgrade |

| | SAP Readiness Check | Simplification Item-Check<br>/SDF/RC_START_CHECK |
|---|---|---|
| **Called by Software Update Manager (SUM)** | No | Yes |
| **Mandatory** | No | Yes |
| **Use Cases** | • Conversion to SAP S/4HANA<br>• Upgrade to a higher SAP S/4HANA release | • Conversion to SAP S/4HANA<br>• Upgrade to a higher SAP S/4HANA release |

While both the SAP Readiness Check and the Simplification Item-Check can display information on simplification item relevance and consistency, they serve different purposes and are both required:

- SAP Readiness Check is mainly a planning tool which you run early in a system conversion project to get an overview about the required activities – including tasks related to simplification items. It is also useful for tracking these activities during the project, for example, using the burndown chart that shows simplification item consistency errors.
- The Simplification Item-Check is used on operational level during the cleanup of the simplification item consistency errors, up to the downtime, before which the SUM tool does the final executions of the SI-Check. So, the SI-Check offers a more detailed control over running the checks. This includes the option to re-run checks for individual simplification items instead of running all checks like SAP Readiness Check does. This option can significantly reduce the check runtime when you just want to re-check if a specific error which you have just fixed is really gone.
  In addition, the SI-Check offers the option to exempt certain types of errors (for details, see the blog post linked below).

For more information, see:

- SAP Note 2913617 (about the SAP Readiness Check).
- In this guide Simplification Item-Check [page 23]
- Blog post https://blogs.sap.com/2018/03/26/sap-s4hana-simplification-item-check-how-to-do-it-right./

## 2.5 Runtime Optimization

The system conversion process and tools already include many optimizations to reduce the overall runtime of the conversion as well as the technical downtime.

In addition to these inherent optimizations, you can optionally apply additional runtime optimizations which may, however, not be applicable to all scenarios. Please ensure that you understand the boundary conditions and implications explained in the individual notes mentioned below, before applying any of these optimization options.

## Runtime of the Simplification Item Check

- For the runtime of the `CLS4SIC_CO_PC_ACT_MIG` check class, see SAP Note 2432689.
  This note explains how to skip the pre-checks for the material ledger migration. It is a pilot note. To get access to the note, please open an incident on the support component `FIN-MIG-ML`.
- For the runtime of the `CLS4SIC_MM_IM_SI1` check class, see SAP Note 2753888.
  This note explains how to skip the `KALNR` check.

## SUM Downtime Optimization

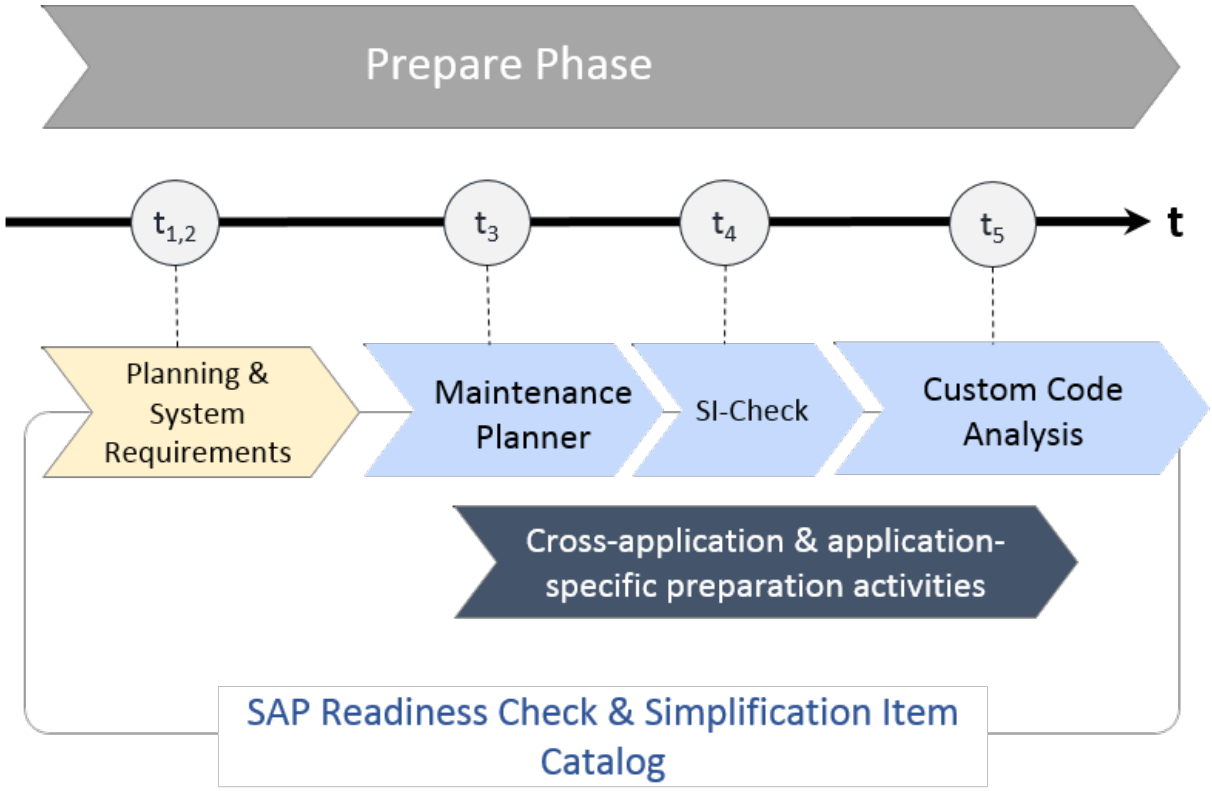
The basic Idea behind the downtime-optimized conversion to SAP S/4HANA is that you can update and migrate your SAP system in just one procedure, and thus significantly reduce your business downtime. The downtime-optimized conversion procedure executes part of the data conversion in the uptime processing, which significantly reduces the overall business downtime. The main benefit of this approach is the reduction of technical downtime.

> **Note**
>
> The Downtime-Optimized Conversion to SAP S/4HANA Cloud Private Edition requires an SAP expert who has successfully completed the corresponding training course ADM329.

The downtime-optimized conversion feature is delivered with the Software Update Manager tool as a part of the Software Logistics Toolset (SL Toolset). For information about how to optimize the standard system conversion approach with the SUM, see:

- SAP Note 2351294 *SAP S/4HANA System Conversion / Upgrade: Measures to reduce technical downtime*
- SAP Note 1616401 *Parallelism in the Upgrades, EhPs and Support Packages implementations*
- For optimizing DMO performance, see https://blogs.sap.com/2019/03/08/system-conversion-to-sap-s4hana-downtime-optimized-conversion/
- For downtime optimized conversion, see SAP Note 3301507 *Executing and Monitoring Downtime-Optimized Conversion to SAP S/4HANA with SUM 2.0 SP 17*
- For nZDT (near Zero Downtime Service), see SAP Note 693168 *Minimized Downtime Service (MDS)*

# 3 Preparing the Conversion




SAP S/4HANA System Conversion: Prepare Phase

For the conversion to SAP S/4HANA 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. For a short overview of the process and tools, see Overview of the Conversion Process [page 10].

> **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*.

> **Note**
>
> You find the cross-application preparation steps in this guide; you get the application-specific preparation steps with the Simplification Item-Check and custom-code checks and with the Simplification Item Catalog or the SAP Readiness Check. Some of the most important application-specific preparation steps are also listed in this section: List of Application-Specific Preparations [page 30].
>
> Please see also SAP Note 3634200.

## 3.1 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.

### 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 as 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 1686144
- 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

### CDS Views (Core Data Services)

If you need to adapt your custom code during the conversion of your development system, you may need to create or edit CDS view. For example, to reflect your specific table appends in related CDS compatibility views. To find out whether these activities are required in your case, check the results of the corresponding Simplification Item-Checks and the S/4HANA-specific code inspector checks.

For additional information, see:

- Simplification Item-Check [page 23]
- Custom Code Migration [page 26]
- https://help.sap.com/s4hana_op_2025 ▶ *Use* > *Product Assistance* > *English* > *Related Information* > *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* > *Enterprise Technology* > *ABAP Platform* > *Development Information* > *Application Development on AS ABAP* > *ABAP Development Tools for Eclipse*
- Configuring the ABAP Back-end for ABAP Development Tools
- https://community.sap.com/topics/abap

## 3.2 What's the Impact on Your System Landscape?

When you convert your system to SAP S/4HANA, you may have to adapt further systems or components in your system landscape.

### SAP Enterprise Resource Planning (SAP ERP) Java Components

The following Java instances are relevant for and included in SAP S/4HANA 2025:

- Adobe Document Services
- Enterprise Services Repository
- Advanced Adapter Engine Extended
- Integration for Elster
- Integration for Swift

All other SAP ERP Java instances are obsolete with SAP S/4HANA. You could remove them from your system landscape.

If you plan a conversion of Java instances to SAP S/4HANA 2025 (or latest feature package or support package stack), check first that your operating system and database are still supported. For more information, see the Product Availability Matrix at https://apps.support.sap.com/sap/support/pam. If your operating system is no longer supported, you have to migrate to a supported operating system using the system copy procedure. For information, see the system copy guide at https://support.sap.com/sltoolset *System Provisioning* > *System Provisioning Scenarios* > *Copy a System using Software Provisioning Manager*.

In the Maintenance Planner, you can choose "Plan a Conversion to SAP S/4HANA" for your SAP NetWeaver system.

### SAP Fiori

There are two possible deployment options for SAP Fiori for SAP S/4HANA, the embedded or the standalone deployment option.

#### Embedded Deployment

Components for embedded deployment for SAP S/4HANA 2025 (or latest feature package or support package stack):

- Optional UI components (HR, Travel, MDG)
- SAP Fiori for SAP S/4HANA 2025 (or latest feature package or support package stack)
- SAP Fiori front-end server 2025 for SAP S/4HANA
- SAP_UI 8.16
- SAP S/4HANA 2025 (or latest feature package or support package stack)
- SAP Gateway 8.16

- ABAP Platform 2025 (or latest feature package or support package stack) (part of SAP S/4HANA 2025)

### Standalone Deployment

You can use an existing front-end server (hub) for the SAP Fiori for SAP S/4HANA installation. Existing apps continue to run against the old back-end systems while the newly installed applications of SAP Fiori for SAP S/4HANA need to be configured to run against the SAP S/4HANA system. As a prerequisite, you have to migrate the database of the central hub system (supported databases are SAP HANA, SAP MaxDB, or SAP ASE) and upgrade the system.

Components for hub deployment for SAP S/4HANA 2025 (or latest feature package or support package stack):

- **Frontend**:
  - Optional UI components (HR, Travel, MDG)
  - SAP Fiori for SAP S/4HANA 2025 (or latest feature package or support package stack)
  - SAP Fiori front-end server 2025 for SAP S/4HANA
  - SAP Gateway 8.16 (minimum version)
- **Backend**:
  - SAP S/4HANA 2025 (or latest feature package or support package stack)
  - SAP Gateway 8.16
  - ABAP Platform 2025 (or latest feature package or support package stack) (part of SAP S/4HANA 2025)

For more information, see https://help.sap.com/s4hana_op_2025 ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information* ▶ *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *SAP Fiori* ▶ *SAP Fiori Overview* ▶.

See also, SAP Notes 2590653 and 3348673.

## 3.3 Supported Start Releases

For a one-step conversion, your system needs to have a minimum release level. Check the *SAP S/4HANA 2025: Restriction Note* 3549655 for more information.

Check the SAP Note *SAP S/4HANA 2025: Release Information Note* 3493301 for the required feature package stack equivalencies.

## 3.4 Data Volume Reduction

SAP Data Volume Management is designed to reduce the data footprint so that you can achieve a shorter conversion duration due to reduced load size. Data Volume Management (DVM) offers various capabilities supporting the pre- and post-conversion phases. One central tool is the SAP DVM Work Center (DVM WoC) in SAP Solution Manager, including tools with a special focus on SAP HANA.

- Guided Self Service: You can generate a best practice document to determine data that can be reduced most efficiently in an SAP system before the conversion. You can use the same tool after the conversion to develop a blueprint for a DVM strategy.
- Reorganization and Compression: You can use this tool without a SAP HANA context in order to simulate the savings gained by reorganizing tables or databases or compressing the database.
- In addition, you can simulate the future system size of your system. This is useful for a forecast of the impact any planned measures may cause.

Beside the DVM Work Center, Data Volume Management offers services to give you an overview of your data distribution and quality as well as services to help you to develop a DVM road map for your system landscape. All services allow you to make flexible decision about your content and data volume management.

### Additional Information

For more information, see the SAP Help Portal at http://help.sap.com/solutionmanager ▶ *SAP Solution Manager <release>* ▶ *Use* ▶ *Application Help* ▶ *Application Help (English)* ▶ *Data Volume Management*.

For general information about Data Volume Management, see the SAP Community Network at http://wiki.scn.sap.com/wiki/display/TechOps/Data+Volume+Management.

## 3.5 Maintenance Planner

### Overview

You have to use the Maintenance Planner to do the conversion to SAP S/4HANA. 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 the conversion. In particular, the Maintenance Planner checks if the following items are supported for the conversion:

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

If there is no valid conversion path for any of the items listed above (for example, an add-on is not released for the conversion yet), the Maintenance Planner prevents the conversion. After the check, the Maintenance Planner creates the stack configuration file (stack.xml).

> ⓘ Note
>
> In order to generate the stack.xml, you need to have an SAP S/4HANA license. 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 preparatory steps specific to the conversion to SAP S/4HANA, see also Prepare the Use of the Maintenance Planner [page 28].

### Business Functions

Business functions can have the following status: `always_on`, `customer_switchable`, and `always_off`. This results in the following behavior during the conversion:

- If a business function was switched on in the start release system, but defined as `always_off` in the SAP S/4HANA target release, then a system conversion 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 SAP S/4HANA target release, then the business function will be activated during the conversion.
- If a business function is defined as `customer_switchable` in the SAP S/4HANA target release, it will keep the state defined in the target release during the conversion.

For more information about always-off and always-on business functions in SAP S/4HANA, see SAP Notes 2240359 and 2240360.

### Add-Ons

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

For a list of supported add-ons, see SAP Note 2214409.

For information about uninstalling add-ons, see SAP Note 2011192.

### Industry Solutions

For information about supported industry solutions, see SAP Note 3549655.

## 3.6 Simplification Item-Check

The Simplification Item-Check (SI-Check) identifies all simplification items relevant for the current system. They will be called by the Software Update Manager (SUM) tool to ensure that the system is in a consistent state.

The SI-Check is delivered with SAP Notes 2399707 and 2502552. SAP Note 2399707 delivers the new check report; SAP Note 2502552 delivers the check classes via transport-based correction instructions (TCI) and prerequisite notes.

> **Note**
>
> If you follow the process described in SAP Note 2502552 exactly, you do not need to read any of the SAP Notes required by SAP Note 2502552. They do not contain any manual tasks and are independent of business functionality. After you run the SI-Check, the result list will contain the SAP Notes you have to look at in detail.

For information about the SI-Check, see:

- About how to improve the runtime of the SI-Check: Runtime Optimization [page 16]
- Blog post: https://blogs.sap.com/2018/03/26/sap-s4hana-simplification-item-check-how-to-do-it-right./

## Implementing TCI and the SI-Check

1. To enable TCI implementation, follow the instructions provided in SAP Note 2187425 (see especially the PDF file attached to the SAP Note).

   > **Note**
   >
   > If you do not enable your system to install TCI notes, SAP Note 2502552 will be implemented without the TCI part, which will cause missing check class errors. However, if your system is on the following SAP NetWeaver / ABAP Platform releases, TCI is already enabled:
   >
   > TCI Enabled Releases

| Release | Minimum Support Package |
|---|---|
| 700 | SP36 |
| 701 | SP20 |
| 702 | SP20 |
| 731 | SP19 |
| 740 | SP16 |
| 750 | SP05 |

2. Follow the process description in SAP Note 2502552 to implement the SI-Checks.

## Running the SI-Check

You run the SI-Check to identify the simplification items relevant for your conversion project. We recommend to do this early in the project, to get an overview of the conversion scope.

1. Start the report `/SDF/RC_START_CHECK` in transaction SA38.
2. In the section *Simplification Item Check Options*, choose the target SAP S/4HANA version.
3. Choose the mode in which you want to run the checks:
   - In online mode: The results are displayed immediately after the check is finished.
   - As a background job: We recommend this option if the check will need a long running time.
4. Run the checks to get an overview over all simplification items and then check the system consistency with *Check Consistency for All*.

5. Check the results

The report returns a list of relevant and irrelevant simplification items. We recommend that you check every relevant simplification item for the impact it will have on your conversion project.

Some simplification items have a consistency check. The consistency check identifies inconsistencies in the system that would be a problem during the SUM process. It also provides additional information on how to solve the problem. Some simplification items do not have a consistency check, but nevertheless are relevant. This means that from a technical perspective a conversion of your system is possible without any action from you, but there will be an impact and you should investigate it.

Some of the error messages from the consistency check aim for you to read and understand the information provided by the consistency check error – for example, the information might be about data loss incurred during the conversion process. These errors can only be processed by creating an exception for them which is logged in the system. The errors are highlighted in the report in the column *Exemption Possible*, so that you can see which errors need an exemption.

For more information about how to use the SI-Checks, see the user guide in SAP Note 2399707.

## SI-Check Messages and Their Meanings

The SI-Checks checks your system for data consistency (necessary for the conversion of existing data) and effects on the data after the conversion. The severity of the resulting messages indicates whether there are no inconsistencies, warnings you should look at, or inconsistencies you need to resolve. The results are provided as green, yellow, or red messages:

Message Overview

| Message Color | Message Return Code | Descriptions |
|---|---|---|
| Green | 0 | These messages indicate that there are no technical or other inconsistencies. They also function as status messages and indicate that the conversion can go ahead. |
| Yellow | 4 | These messages provide important information (or warnings) about various topics, such as changes to business functions, or adaptations that can be done either before or after the conversion (but must be done to ensure business continuity). They indicate that there are no technical problems for the conversion itself. However, some of these yellow messages provide information about possible data changes, changes in functionality, or required tasks after conversion. For instance, per default, no custom table appends are retained during the conversion – the data from those fields is just lost.<br>**⚠ Caution**<br>Please do not underestimate yellow messages. Read them carefully and do what is required to ensure system consistency after the conversion, so that business continuity is not compromised. |

| Message Color | Message Return Code | Descriptions |
|---|---|---|
| Red | 7 | These messages show skippable errors that indicate important changes for the affected simplification items. The errors are no inconsistencies, but you need to confirm that you have read and understood them. Usually they point out imminent data loss, deprecation, or required activities after conversion. Once you have confirmed (that is, exempted) them, they will no longer act as blockers for the conversion. |
| | 8 or 12 | These messages always indicate inconsistencies in the system. These inconsistencies need to be solved before the conversion, as they would act as blockers in later SUM phases. Please read the messages for information about how you can solve the inconsistencies.<br><br>**Note**<br>The Software Update Manager (SUM) runs the SI-Check at the beginning of the SUM process and again just before the downtime. At the beginning, the SUM process is stopped if a message with return code 12 is detected. Just before the downtime, the SUM process is stopped if a message with return code 8 or higher is found. So, for the SUM process to run successfully, you need to make sure that all the inconstistencies found by the SI-Check with message return codes at 8 or higher are solved. |

### Information about Financial Accounting

Controlling, General Ledger, and Asset Accounting pre-checks are included in the Simplification Item-Check.

After you have technically converted your system to SAP S/4HANA, you have to migrate your migration-relevant Customizing settings as well as your General Ledger, Asset Accounting, Controlling and Material Ledger data to the new data structure.

For more information about the conversion of Financial Accounting, see SAP Note 2332030.

**Note**

We recommend that you do the conversion to SAP S/4HANA in a development or test system first, so that you get access to the Accounting-relevant Customizing steps. You collect any changes in transport requests which you hand over to the SUM tool when you do your final conversion of your productive system.

For more information, see Conversion in a Distributed System Landscape [page 14].

## 3.7 Custom Code Analysis

The custom code migration checks are based on the simplification item concept. With SAP S/4HANA, business processes have been changed and simplified. Before converting to SAP S/4HANA 2025 (or any of its feature

package or support package stacks), you need to check your custom code against the SAP S/4HANA simplifications in a SAP S/4HANA 2025 (or the relevant 2025 feature package or support package stack) system.

The simplifications are loaded into the Custom Code Migration tool. After you run the tool, you get a list of instances where your custom code does not comply with the scope and data structure of SAP S/4HANA.

> **Note**
>
> The custom code checks do not yet identify all the instances where your custom code does not comply with SAP S/4HANA. For a full overview of changes that may affect your custom code, see the Simplification Item Catalog, as explained in Overview of the Conversion Process [page 10].
>
> We highly recommend that you perform these checks before starting the conversion process, because this step is the most important preparation for your ABAP custom code on the way to SAP S/4HANA. Even if you do not plan to take development actions before the conversion, these checks will give you a sound foundation for your project planning and organization. They also enable you to decide on helpful preparatory activities, such as the decommissioning of unused custom code.
>
> The application content of the simplification database is being increased and improved over time. In addition to the custom code analysis and adaptations based on the Custom Code Migration tool, you also need to test the custom code within SAP S/4HANA.

For additional information about the Custom Code Migration tool, see:

- SAP Note 2241080 for information about how to download the simplification database.
- *Custom Code Migration Guide for SAP S/4HANA and SAP S/4HANA Private Cloud Edition 2025* at https://help.sap.com/s4hana_op_2025 ▶ *Implement* ▶ *Conversion & Upgrade Assets* ▶.

## 3.8 Data Transition Validation

The data transition validation is a tool that allows you to compare business data before and after a system conversion from SAP ERP to SAP S/4HANA, or before and after an SAP S/4HANA upgrade. The tool supports validation of upgrade or conversion scenarios with predelivered content for business validation. The tool uses business reports or transactions as instruments of comparison. It is available as part of the standard license.

To use DTV for the business validation after an upgrade, proceed as follows:

1. In the preparation phase of the uprgade, define the reports to be used for validation together with your requesting lines of business and your internal or external auditors.
2. Create a project and maintain required test specifications in the DTV tool.
3. During the ramp-down of the system prior to the SAP S/4HANA system upgrade, trigger data extraction from the source release.
4. Once the SAP S/4HANA system upgrade is finished, proceed with the tasks in the target release to validate business correctness.

For more information about the DTV tool, see:

- Product documentation at https://help.sap.com/s4hana_op_2025 ▶ *Product Assistance* ▶ *Technology* ▶ *ABAP Platform* ▶ *Administrating the ABAP Platform* ▶ *Administration Concepts and Tools* ▶ *Solution Life Cycle Management* ▶ *Software Logistics* ▶ *Data Transition Validation* ▶

- SAP Note 3117879

## 3.9 Cross-Application Preparations

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

### 3.9.1 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 preparatory steps specific to the conversion to SAP S/4HANA:

#### 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.

   > **Note**
   >
   > SPAM/SAINT patch 71 (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:
   a. In SAP Solution Manager, choose *SOLMAN_WORKCENTER* > *Solution Manager Administration* > *Landscape (Technical Systems)*.
   b. Click *RFC connections* > *Start New Window*.
   c. Select client 000 and choose *Advanced Mode*.
   d. Under *Export Options*, fill in the field *SAP Solution Manager Host Name*.
   e. Under *Communication RFCs*, select *Create SM_<SID>CLNT<CLNT>_READ*.
   f. Select *Create New User*.
   g. Enter a password.
   h. Enter a user and password under *Managed System Setup Administrator*, and choose *Test Login* in the group *Administration Users* to check that it works.

### Related Information

Maintenance Planner [page 22]

## 3.9.2 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. To prevent issues, for example, with job scheduling, you have to remove it before starting the conversion.

### Procedure

To remove client 066, proceed as described in SAP Note 1749142.

## 3.9.3 Uninstall SAP Fiori Apps

### Context

If you have SAP Fiori apps installed locally on your source system, you need to uninstall them if they are not released for USER INTERFACE TECHNOLOGY 7.50 (SAP_UI 7.50). If you do not uninstall these apps, the Maintenance Planer will not allow a conversion for your system.

> **Note**
>
> Use the SAP Fiori Apps Reference Library to check which applications are available for SAP S/4HANA 2025.

### Procedure

1. Check SAP Note 2034588 for a list of apps that you need to uninstall and the steps required to do so.

   > **Note**
   >
   > SAP Note 2200415 provides a list of all apps that are supported by SAP_UI 7.50.

2. Uninstall the apps using SAINT. For more information, see SAP Note 2011192.

## 3.9.4 Prepare the Conversion of Authorizations

Check the simplification items relevant for your conversion project for required transactions used by your existing business roles. After the technical conversion with the Software Update Manager tool, you need to adjust your business roles.

For more information, see Follow-On Activities for the Conversion of Authorizations [page 38].

## 3.9.5 Prepare the Conversion for SAP Fiori UX Enablement

The recommended access to functions in SAP S/4HANA is through SAP Fiori UX with SAP Fiori Launchpad that you run in a browser or in SAP Business Client. If you plan to follow this recommendation, you need to prepare the conversion of your existing authorization concept to support the role-based menu structure and authorization concept of SAP Fiori Lauchpad.

For more information on the role-based concept for SAP Fiori Launchpad, see https://help.sap.com/s4hana_op_2025 ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information* ▶ *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *SAP Fiori* ▶ *SAP Fiori Overview* ▶ *Implement SAP Fiori Apps* ▶. One of the conversion goals is to keep your existing authorization concept as a basis for the converted authorization concept.

You need to review your authorization concept and map existing back-end role menu structures to SAP Fiori catalogs. SAP Fiori catalogs are assigned to front-end roles that define the SAP Fiori Launchpad content available to users. Use the SAP Fiori App Reference Library to check the SAP Fiori catalogs or roles available for SAP S/4HANA 2022 applications.

For information about the deployment options for SAP Fiori for SAP S/4HANA, see SAP Fiori Deployment Options and System Landscape Recommendations.

## 3.10 List of Application-Specific Preparations

The list below contains important application-specific preparatory steps and where to find their documentation.

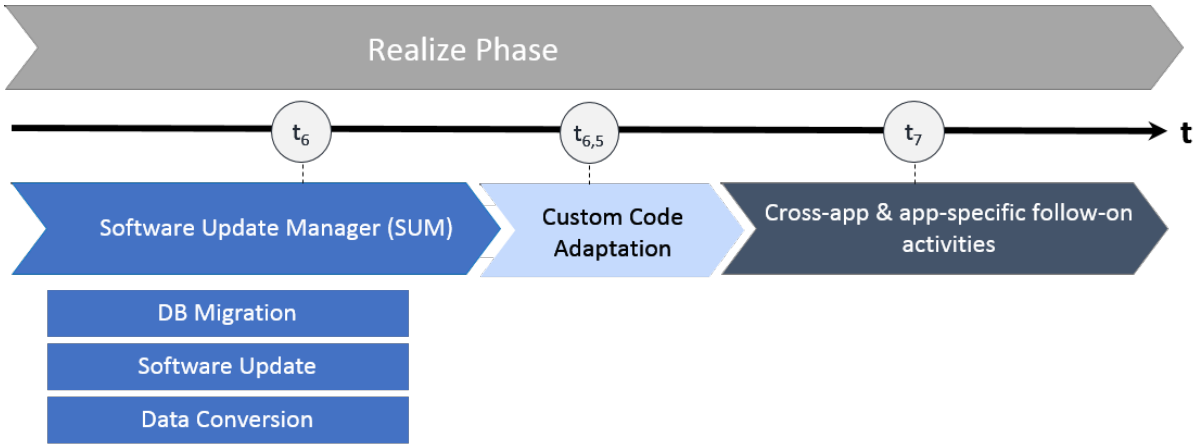
> **Note**
>
> This list contains an overview of important steps, but it is not complete. You find the complete list of conversion-relevant items in the Simplification Item Catalog, as explained in the overview [page 10].

App-Specific Preparations

| Preparatory Tasks per Application Area | | Reference |
|---|---|---|
| Enterprise Technology | Information Governance: Business Partner Approach | SAP Note 2265093 |

| Preparatory Tasks per Application Area | | Reference |
|---|---|---|
| | Application Life-Cycle Management: Check Program for Material Number Extension | SAP Note 2216958 |
| Finance | Documentation of Finance-related conversion tasks, see the SAP Note. | SAP Note 2332030 |
| SAP Credit Management | Documentation of all SAP Credit-Management-related conversion tasks, see the SAP Note. | SAP Note 2270544 |
| SAP Cash Management | Cash management | SAP Note 2270400 |
| Sales: Order and Contract Management | Foreign Trade Replaced by Global Trade Services | SAP Notes 2223144 and 2205202 |
| | Revenue Recognition Replaced by SAP Revenue Accounting and Reporting | SAP Notes 2225170 and 2227824 |
| | Simplified Data Models in Sales and Distribution (SD) | SAP Notes 2198647 and 2224436 |
| | SD Pricing: Data Model Changes | SAP Note 2267308 |
| Retail | Changes in Retail functionality | SAP Notes 2385984 and 2386003 |
| Supply Chain: Inventory | Simplified Data Model in Inventory Management (MM-IM) | SAP Notes 2206980, 2238690, and2236753 |
| Environment Health and Safety | Documentation of all EHS-related conversion tasks, see the SAP Note. | SAP Note 2336396 |
| Product Safety and Stewardship | Documentation of all PSS-related conversion tasks, see the SAP Note. | SAP Note 2267461 |
| Discrete Industries & Mill Products | Long material number | SAP Note 2270396 |
| Business Network Integration | Conversion from SAP Business Network Integration (that is, Ariba Network Integration) for SAP Business Suite | SAP Note 2341836 |
| Media: Media Product Master | Documentation of all conversion tasks related to Media Product Master. | SAP Note 2499057 |
| Project System | Migration steps related to Project and WBS Element external ID with coding mask. See the SAP Note. | SAP Note 3711036 |

# 4 Realizing the Conversion




SAP S/4HANA System Conversion: Realize Phase

After the preparation phase, you start with the realization of the conversion to SAP S/4HANA using the Software Update Manager (SUM) tool. For a short overview of the entire process, see Overview of the Conversion Process [page 10].

After the SUM run, we highly recommend that you adapt your custom code, see Custom Code Adaptation [page 34].

> **Note**
>
> You find the cross-application follow-on steps in this guide; you get the application-specific follow-on steps with the Simplification Item-Check and custom-code checks and with the Simplification Item Catalog or the SAP Readiness Check. Some of the most important application-specific preparation steps are also listed in this section: List of Application-Specific Follow-On Activities [page 42].
>
> Please see also SAP Note 3634222.

## 4.1 Conversion Using SUM

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

> **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 22].

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

For information on SUM downtime optimization, see the section Runtime Optimization [page 16]

For all information about using the SUM, see the guide *System Conversion to SAP S/4HANA using SUM* 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>*.

## 4.2 Silent Data Migration

Migration of application data usually happens during release upgrades or updates during downtime. In contrast, the Silent Data Migration Infrastructure (SDMI) allows zero-downtime upgrades and runs after the upgrade (or conversion) during business operations.

An SDMI supports uptime capability for at least one release. Therefore zero-downtime upgrades are possible if every release is taken into account. If an upgrade jumps over a certain release (for example, if the upgrade goes from SAP S/4HANA 1809 straight to SAP S/4HANA 2020), the SDMIs from the release that was jumped over (in this example, SAP S/4HANA 1909) are done during business downtime (if they do not support uptime capability for the target release).

As of SAP S/4HANA 2020 (as start release) SDMIs also support **three** releases in uptime making it possible to do jump-upgrades with zero downtime option (ZDO) over up to **two** releases (towards the **third** release), for example from SAP S/4HANA 2020 to SAP S/4HANA 2023.

By default the SDMIs are run during uptime. The SDMI job from the job repository starts and calls the SDMIs in each client individually once the system comes out of the maintenance mode. To see all relevant SDMIs, call transaction `SDM_MON`.

The users can be maintained in transaction `SDM_USER` prior to the upgrade, so that the users can comply to your corporate standard. However, they can also be created as technical users during the upgrade process by the Software Update Manager (SUM). During the post-processing phase, the SUM checks if the technical user exists. If not, a message will be created in the update log. If the users are not created, the SDMIs cannot be started and the data will not be migrated.

> **Note**
>
> It is also possible to create the technical users after the SUM run. For more information, see https://help.sap.com/s4hana_op_2025 *Use* > *Product Assistance* > *English* > *Related Information* > *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* > *Enterprise Technology* > *ABAP Platform* > *Adminstrating the ABAP Platform* > *Administration Concepts and Tools* > *Solution Life Cycle Management* > *Silent Data Migration Infrastructure*.

The SUM offers the option to force the SDMI processing during downtime. In that case, the SDMIs are finished by the time the system resumes business operations.

> ⚠ Caution
>
> On the one hand, this option has the one benefit that the business data is no longer changed by SDMI processes after the upgrade procedure is completed. On the other hand, this option also includes disadvantages that you should be aware of:
>
> - The overall system business downtime is significantly extended due to the time it takes to execute the data migration because the SUM runs the SDMI jobs synchronously and waits until they are completed.
> - Depending on the available resources, the size of the migration tables and the configuration of the dialog work processes and the parallelization framework, the downtime can even reach a duration that is no longer tolerable.

> ⓘ Note
>
> Please take care that all SDMIs have been processed successfully in all clients. Otherwise this will leave the upgrade unfinished and bears the risk, that some new application functionality may not be available on the target release. Furthermore, all SDMIs need to be done before the next upgrade can happen.

For more information, see:

- SAP Note 2850918 *Authorizations required for Silent Data Migration (SDMI) in SAP S/4HANA Release*
- SAP Note 2664638 *Create and assign SDMI User in a client*
- SAP Note 2907976 *Silent Data Migration (SDMI) - FAQ*
- SAP Note 2916801 *Silent Data Migration (SDMI) Configuration Options*
- SAP Note 3382097 *SDMI Classes in the Silent Data Migration Framework in SAP S/4HANA 2023 (Details, Corrections, Special Handling)*
- SAP Note 3445802 *Silent Data Migration (SDMI) New Rows after Migration - FAQ*
- https://blogs.sap.com/2019/10/03/s4hana-silent-data-migration-infrastructure-quick-guide/

## 4.3 Custom Code Adaptation

After the Software Update Manager (SUM) has done the technical conversion, you can start adapting your custom code.

1. You need to adapt any modifications and enhancements using the standard transactions **SPDD**, **SPAU** and **SPAU_ENH**.
   This is the same process as in previous upgrades in the SAP Business Suite product portfolio except that the tools **SPDD** and **SPAU** have been renewed.
2. You need to fix any issues due to SAP S/4HANA simplifications.
   To find the issues, you use the ABAP Test Cockpit (ATC) and do a check run with the check variant **S4HANA_READINESS** locally in your converted system.

We recommend to use the ABAP development tools for Eclipse to do the custom code adaptation as **SE80** no longer supports all development object (such as CDS Views) needed in SAP S/4HANA.

For more information about these tools, see the SAP Help Portal at https://help.sap.com/s4hana_op_2025 ▶ *Product Assistance* ▶ *Technology* ▶ *ABAP Platform* ▶ *Development Information* ▶ *Application Development on AS ABAP* ▶ *ABAP Development Tools for Eclipse* ▶.

For more information about doing local ATC runs and for the custom code migration in general, see the *Custom Code Migration Guide for SAP S/4HANA and SAP S/4HANA Private Cloud Edition* at https://help.sap.com/s4hana_op_2025 ▶ *Conversion & Upgrade Assets* ▶.

## 4.4 Cross-Application Follow-On Activities

After the Software Update Manager (SUM) has run, you need to do the follow-on activities described in the next section.

### 4.4.1 Adapting Database Extensions to SAP S/4HANA

#### Context

When you convert your system from SAP Suite on HANA to SAP S/4HANA, modifications to the SAP HANA database remain unchanged. However, to make your modifications visible on the UI, manual steps can be required in different content layers.

#### Procedure

1. If required for your modifications, adapt the relevant Core Data Service (CDS) views in the SAP Business Suite layer. You can extend CDS views by using ABAP development tools. For more information, see https://help.sap.com/s4hana_op_2025 ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information* ▶ *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *ABAP Platform* ▶ *Developing on the ABAP Platform* ▶ *Development Information* ▶ *ABAP Development Tools for Eclipse* ▶ *SAP - ABAP CDS Development User Guide* ▶ *Tasks* ▶ *Extending Data Models* ▶.
2. If required for your modifications, adapt the OData services for your CDS views in the SAP Gateway layer:
   - For OData services that are included in a CDS view definition as an annotation, the relevant artifacts are generated automatically. No modifications are required in the SAP Gateway layer. For more information, see https://help.sap.com/s4hana_op_2025 under ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information* ▶ *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *ABAP Platform* ▶ *Developing on the ABAP Platform* ▶ *Development Information* ▶ *Application Development on AS ABAP* ▶ *SAP (On-Premise) - ABAP Programming Model*

*for SAP Fiori* > *Get Started* > *Developing a Simple List Reporting App* > *Generating OData Service With Auto-Exposure*.

- OData services that are not included in a CDS view definition must be redefined in Service Builder. For more information, see https://help.sap.com/s4hana_op_2025 under *Use* > *Product Assistance* > *English* > *Related Information* > *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* > *Enterprise Technology* > *ABAP Platform* > *Developing on the ABAP Platform* > *Development Information* > *SAP Gateway Foundation Developer Guide* > *SAP Gateway Service Builder* > *Data Modeling Basics* > *Data Modeling Options* > *Redefining Services*.

3. If available for your app, you can use runtime adaptation to add, move, or remove view fields in the UI layer. For more information, see Adapting the User Interface [page 42]. As an alternative, you can extend views by using SAP UI5 extension points. For more information, see https://help.sap.com/s4hana_op_2025 under *Use* > *Product Assistance* > *English* > *Related Information* > *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* > *Enterprise Technology* > *ABAP Platform* > *UI Technologies* > *SAPUI5: UI Development Toolkit for HTML5* > *Extending Apps* > *Using SAPUI5 Flexibility*.

## 4.4.2 Output Management

SAP S/4HANA introduces a new style of output management. Note that other existing frameworks can be used as well, depending on the application.

You make settings for output control in Customizing under *Cross-Application Components* > *Output Control*.

This is an overview of the required technical setup.

**Prerequisites for Output Control**

- bgRFC configuration has been set up
- Storage system and category have been maintained
- BRFplus is active and usable
- Adobe Document Services is available (when using Adobe Forms)

**bgRFC (Background Remote Function Call)**

Output control uses a bgRFC to process output. Therefore, you need to maintain the bgRFC configuration. Otherwise, no output can be performed.

You can perform all the relevant steps in transaction `SBGRFCCONF`. One of the most important steps is defining a supervisor destination, as bgRFC doesn't work without it.

For more information, enter the keyword *bgRFC Configuration* at http://help.sap.com, and refer to SAP Note 2309399 and SAP Note 1616303.

**Storage System and Category**

Output control needs a defined storage system (content repository) to save the rendered form output as PDF.

To set up the storage system, choose the following navigation option:

| | |
|---|---|
| SAP Menu | *SPRO* > *Cross-Application Components* > *Document Management* > *General Data* > *Settings for Storage Systems* > *Maintain Storage System* |
| Transaction Code | `/nOAC0` |

You can set up the storage type which fits your needs, for example a SAP System Database, or a HTTP content server (such as fileserver, database, or external archive).

Once the storage system is available, you need to assign it to the predelivered storage category SOMU. To do so, choose the following navigation option:

| | |
|---|---|
| SAP Menu | *SPRO* > *Cross-Application Components* > *Document Management* > *General Data* > *Settings for Storage Systems* > *Maintain Storage Category* |
| Transaction Code | `/nOACT` |

Select category SOMU. For column *Document Area*, choose SOMU. For column *Content Repository*, choose the content repository you created in the previous step.

**Business Rule Framework plus (BRFplus)**

Output control uses BRFplus for the output parameter determination. Technically, BRFplus is based on WebDynpro applications. Therefore, you need to set up the according ICF services:

| | |
|---|---|
| /sap/bc/webdynpro/sap/fdt_wd_workbench | FDT Workbench |
| /sap/bc/webdynpro/sap/fdt_wd_object_manager | FDT Object Manager |
| /sap/bc/webdynpro/sap/fdt_wd_catalog_browser | FDT Catalog Browser |

For more information, enter the keyword *Active Services in SICF* at http://help.sap.com.

Once you've set up the services, download and install the required BRFplus applications from SAP Note 2248229.

Procedure:

1. Access transaction BRF+.
   If required, personalize your screen, and change the user mode from *Simple* to *Expert*.
2. On the *Business Rule Framework plus* screen, choose *Tools* > *XML Import*.
3. On the *Business Rule Framework plus – XML Import* screen, under *File and Transport Request*, browse for the local *.xml files you want to import. You can import the files one after the other.
4. In the *Customizing Request* field, enter an applicable Customizing Request ID.
5. Choose *Upload XML File*.
6. Choose *Back to Workbench*.

**Adobe Document Services (ADS)**

Applications in SAP S/4HANA ship default form templates implemented as PDF-based print forms with fragments.

They require ADS for rendering. ADS is available as cloud solution or on-premise solution.

The cloud solution is a service provided on SAP Cloud Platform. See SAP Note 2219598 for more information and links to the documentation for the new solution Form Service by Adobe.

For the on-premise solution, you need an AS Java installation (with **ADOBE** usage type) to run ADS.

ADS itself must have version 10.4 (1040.xxx) or higher. This version is delivered with SAP NetWeaver 7.3 EHP1 SP7 (and higher), NW 7.40 SP2 (and higher), and NW 7.50 (all SPs).

You do not necessarily need to use ADS, as output management also supports SAPscript and Smart Forms.

However, special customizing is necessary for these two form technologies, and restrictions apply. For more information, see SAP Notes 2292539 and 2294198.

**Printer Setup**

Printing is done using the spool. For more information, see the *SAP Printing Guide* at https://help.sap.com/s4hana_op_2025 ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information: SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *ABAP Platform* ▶ *Administrating the ABAP Platform* ▶ *Administration Concepts and Tools* ▶ *Solution Life Cycle Management* ▶.

Output control uses the short name of the printer (for example `LP01`), as defined in transaction **SPAD**.

**Limitations**

- Printing using the spool is not available in release S4CORE 1.00 SP00. If this is the case, please upgrade to S4CORE 1.00 SP01.
- Currently, a PDF is always created for any kind of form.
  This has the following impact:
  - Previewing the document from the spool request is only possible when the device type is `PDF1` or `PDFUC`.
  - Using another device type can lead to alignment issues for SAPscript and Smart Forms.
- Frontend output is not supported, since the output is processed via bgRFC.

## Related Information

SAP Note 2228611

# 4.4.3 Follow-On Activities for the Conversion of Authorizations

You need to review your existing back-end PFCG role menus for obsolete transactions as well as for transaction code replacements. You can do this with the transaction **SU25** report *Exchange of obsolete transactions in role menu*. For more information, see SAP Note 2465353.

If you plan to enable SAP Fiori UX, see Follow-On Activities for SAP Fiori UX Enablement (incl. Authorizations) [page 39].

## 4.4.4 Follow-On Activities for SAP Fiori UX Enablement (incl. Authorizations)

The following activities are relevant if you plan to enable SAP Fiori UX:

Activities for Enabling SAP Fiori UX

| Activity | Description |
| --- | --- |
| Analyze SAP Fiori content with the help of the SAP Fiori Apps Library or with the SAP Readiness Check | SAP Fiori UX supports role-based content that includes new SAP Fiori Apps as well as classic UI technologies that are bundled in catalogs for authorization handling and in groups for structuring a user's homepage in the SAP Fiori launch-pad. SAP S/4HANA delivers business roles as examples for structuring your SAP Fiori content.<br><br>Analyze the available SAP Fiori content in the SAP Fiori Apps Library. The SAP Fiori Apps Library also provides a self-service to get specific SAP Fiori app recommendations based on your system usage, see SAP Fiori Apps Library ▶ *Get SAP Fiori App Recommendations* ◀.<br><br>Alternatively, SAP Readiness Check for SAP S/4HANA recommends SAP Fiori apps based on your transaction usage history, see the section *Recommended SAP Fiori Apps* in the *Feature Scope Description* at https://help.sap.com/viewer/p/SAP_READINESS_CHECK. |

| Activity | Description |
| --- | --- |
| Define your front-end catalogs for SAP Fiori | SAP provides templates for business catalogs that you can find in the SAP Fiori Apps Library. Check if the template catalogs fit your needs and then either adapt these front-end catalogs or create new catalogs for your requirements. Enrich them with relevant back-end transactions according to existing back-end roles.<br><br>See also *SAP Fiori Lauchpad Content and Authorization Concept* at https://help.sap.com/s4hana_op_2025 ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information* ▶ *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *SAP Fiori* ▶ *SAP Fiori Overview* ▶ *Implement SAP Fiori Apps* ▶ *User Management and Authorization* ▶.<br><br>As prerequisite, you need to have done a replication of your back-end applications, see the section *Replicate App Descriptors* at https://help.sap.com/s4hana_op_2025 ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information* ▶ *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *SAP Fiori* ▶ *SAP Fiori Overview* ▶ *Implement SAP Fiori Apps* ▶ *UI-Specific Implementation Tasks* ▶ *Basic Information* ▶. |
| Define your front-end business role | SAP provides templates for business roles, which contain references to catalogs and groups. You may copy these business roles and adapt them to your needs. You need to assign relevant catalogs to front-end business roles to make the apps contained in a catalog available for user access from the SAP Fiori launchpad. It addition you need to add the start authorizations for the activated OData services used by the apps contained in a catalog. |

| Activity | Description |
| --- | --- |
| Integrate SAP Fiori business catalogs into the back-end PFCG roles | To enable an integration of SAP Fiori front-end with the SAP S/4HANA back-end systems, you need to integrate the front-end catalogs (that are assigned to your front-end roles) into your existing the back-end PFCG roles. This replicates the start authorization of the OData services for the apps in the catalogs to the role menu of the back-end PFCG roles.<br><br>For more information, see:<br><br>• See also *SAP Fiori Launchpad Content and Authorization Concept* at https://help.sap.com/s4hana_op_2025 ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information* ▶ *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *SAP Fiori* ▶ *SAP Fiori Overview* ▶ *Implement SAP Fiori Apps* ▶ *User Management and Authorization* ▶.<br>• https://help.sap.com/s4hana_op_2025 ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information* ▶ *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *ABAP Platform* ▶ *UI Technologies* ▶ *SAP Fiori Launchpad* ▶ *Administration Guide* ▶ *Setting Up Authorization Roles* ▶ *Configuring Roles for Catalogs, Spaces and Groups* ▶ *Configure Roles for Catalogs* ▶. |
| Configure access to SAP Easy Access Menu and User Menu from SAP Fiori Launchpad | A starting point for the usage of SAP Fiori launchpad can be the access to SAP Easy Access Menu and User Menu from the connected back-end system. From these menus a user can populate the SAP Fiori launchpad homepage. This configuration enables access to existing back-end SAP Easy Access Menu and User menus.<br><br>This is also an additional access option for users with dedicated SAP Fiori Launchpad content that was created on the front-end system.<br><br>For more information, see https://help.sap.com/s4hana_op_2025 ▶ *Use* ▶ *Product Assistance* ▶ *English* ▶ *Related Information* ▶ *SAP S/4HANA and SAP S/4HANA Cloud Private Edition* ▶ *Enterprise Technology* ▶ *ABAP Platform* ▶ *UI Technologies* ▶ *SAP Fiori Lauchpad* ▶ *Administration Guide* ▶ *Setting Up Lauchpad Content* ▶ *Integrating Remote Content* ▶. |

### 4.4.5 Adapting the User Interface

Key users can adapt the user interface (UI) of their apps at runtime in a modification-free way, for example, by adding, removing, or moving fields and groups. Runtime adaptation is supported for apps that use SmartForm controls with stable IDs. Note that you can only add fields which have been made available for this app. If you need additional fields, you have to create them as described at https://help.sap.com/s4hana_pce_2025 ▶ *Product Assistance* ▶ *Technology* ▶ *SAP Fiori* ▶ *SAP Fiori Overview* ▶ *Extend and Develop SAP Fiori Apps* ▶ *Extend SAP Fiori Apps* ▶.

## 4.5 List of Application-Specific Follow-On Activities

The list below contains important application-specific follow-on steps and where to find their documentation.

> **Note**
>
> This list contains an overview of important steps you may need to do after the conversion process, but it is not complete. You find the complete list of conversion-relevant items in the Simplification Item Catalog, as explained in the overview [page 10].

App-Specific Follow-On Tasks

| Follow-On Tasks per Application Area | | Reference |
|---|---|---|
| Finance | Documentation of Finance-related conversion tasks, see the SAP Note. | SAP Note 2332030 |
| SAP Credit Management | Documentation of all SAP Credit Management-related conversion tasks, see the SAP Note. | SAP Note 2270544 |
| Human Resources | Integration of HR Master Data | SAP Note 2340095 |
| Sales: Order and Contract Management | SD Pricing: data model changes | SAP Note 2267308 |
| | SD Rebate Processing replacement by Settlement Management | SAP Note 2226380 |
| | Optimization of SD Rebate Processing for Trade Promotion Management | SAP Note 2200691 |
| Retail | Cleanup of Retail generic articles and variant data | SAP Note 2350650 |
| | Documentation of site master conversion, see the SAP Note. | SAP Note 2310884 |

| Follow-On Tasks per Application Area | | Reference |
|---|---|---|
| Environment, Health, and Safety | Documentation of all EHS-related conversion tasks, see the SAP Note. | SAP Note 2336396 |
| Enterprise Portfolio and Project Management | Conversion tasks related to Commercial Project Management | SAP Note 2766260 |
| Product Safety and Stewardship | Documentation of all PSS-related conversion tasks, see the SAP Note. | SAP Note 2267461 |
| Integration | Business network integration:<br>Activities after converting SAP Business Network Integration (that is, Ariba Network Integration) | SAP Note 2341836 |
| | Integration with SAP SuccessFactors Employee Central | SAP Note 2340095 |
| Media: Media Product Master | Documentation of all conversion tasks related to Media Product Master. | SAP Note 2499057 |
| **Other Follow-On Tasks** | | |
| Follow-Up Activities for Advanced Variant Configuration | For information about how enable Advanced Variant Configuration, see the section *Follow-Up Activities for Advanced Variant Configuration* in the *Installation Guide for SAP S/4HANA* at https://help.sap.com/s4hana_op_2025 ▶ *Implement* ▶ *Guides* ▶ *Installation Guide* ▶. You need to do all the steps described in this section. | |

## 4.6 Cleaning Up Obsolete Data After the Conversion

The Obsolete Data Handling Monitor allows you to delete obsolete data that may remain after the conversion of your SAP ERP system to SAP S/4HANA.

Obsolete data originates from SAP S/4HANA data model simplifications in many application areas where the related application data is migrated to new data structures. These areas include Material Management, Financials, Sales and Distribution, Environment and Health Science and others. The source data is not deleted automatically during the conversion because this would increase the business downtime, and the obsolete data store may sometimes be required during or after the conversion. Therefore, after you have successfully tested and validated the conversion results, you can clean up the obsolete data with the Obsolete Data Handling Monitor.

You can access the Obsolete Data Handling Monitor by using transaction code **SODH**.

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