

Upgrade Guide - SAP Solution Manager 7.2



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1 Document History

Version	Date	Change
2.3	2018/04/20	<ul style="list-style-type: none"> Information added about cleaning up table BC_SLD_CHANGELOG in Preparing Your SAP Solution Manager 7.1 for the Upgrade [page 11]. Added direct link to the dual-stack split guides https://help.sap.com/viewer/30839dda13b2485889466316ce5b39e9/CURRENT_VERSION/en-US/4181cdab7fe14b0a8bdaec6eac1e8286.html
2.2	2017/12/22	Information regarding the Application Operations process added. For more information, see Preparing Your Processes [page 14] .
2.1	2017/12/11	The <i>Database Migration Option</i> (for example in case of migration to SAP HANA) cannot be used together with near-Zero Downtime Maintenance (nZDM). Information added to Technical Upgrade [page 17] .
		We updated the recommended accelerators list for a smooth upgrade of your SAP Solution Manager processes. For more information, see Preparing Your Processes [page 14] .
		The link to the content activation guide has been updated: On the SAP Help Portal at https://help.sap.com/viewer/p/SAP_Solution_Manager then choose >> <desired version> > Installation and Upgrade > Content Activation Guide .
2.0	2017/10/16	<p>We added a link to SAP Knowledge Base Article 2536523. It describes how to implement SAP Notes to enable content activation when upgrading from SAP Solution Manager 7.1 to 7.2.</p> <p>For more information, see:</p> <ul style="list-style-type: none"> Preparing Content Activation [page 15] Content Activation in SAP Solution Manger 7.2 [page 26]
		<p>Are you interested in learning how to speed up content activation? Evaluate, if you are a candidate for content activation acceleration by checking the link to SAP Knowledge Base Article 2526375 referenced in the following topics:</p> <ul style="list-style-type: none"> Upgrade and Content Activation - 2 Guides, 1 Upgrade [page 7] Preparing Content Activation [page 15]

Version	Date	Change
		Preparation steps enhanced. Preparation task for Change and Request Management is also valid for IT service management: For more information, see Preparing the Change Request Management Process and IT Service Management [page 17] .
1.6	2017/08/29	Updated graphical overview for Upgrade and Content Activation - 2 Guides, 1 Upgrade [page 7]
		Updated graphical overview for Process Overview [page 9]
		Correction for setting parameter in the SAP Web Dispatcher for the migration of diagnostics agents after the upgrade. See Additional Post-Upgrade Activities [page 21] .
		Update on processes that require content activation. See Upgrade and Content Activation - 2 Guides, 1 Upgrade [page 7] .
		New topic Preparing the Change Request Management Process and IT Service Management [page 17] added
1.5	2017/17/07	Upgrade and Content Activation - 2 Guides, 1 Upgrade [page 7] Screenshot updated containing update on description about content activation preparation.
		Preparing Your SAP Solution Manager 7.1 for the Upgrade [page 11] Path in step 4 updated.
		Preparing Your Processes [page 14] : Table entry for business process operations (business process monitoring) updated: Link to SAP Note 2498606 (Backup and restore the configuration of the monitoring and alerting infrastructure content BEFORE and AFTER the upgrade) added.
		Preparing Content Activation [page 15] Updated procedure for preparation for content activation.
		Preparing the Custom Code Management Process [page 16] Updated information about housekeeping settings.
		Preparing Your Test Suite Process [page 17] Link to Wiki corrected.
		Technical Upgrade [page 17] Information about restrictions for Near-Zero Downtime added.

Version	Date	Change
		<p>Within SUM, at the End of the Pre-Processing Step - "Preparations for Downtime" [page 19]</p> <p>Information about restrictions for Near-Zero Downtime added.</p>
		<p>Additional Post-Upgrade Activities [page 21]</p> <p>Profile parameters for <i>Diagnostics Agents</i> in the SAP Web Dispatcher changed.</p>
		<p>Preparing the Support Hub Connectivity [page 22]</p> <p>Updated information about <i>Support Hub Communication</i> channels if updating SAP Solution manager 7.2 SPS3 or SPS4 to SPS5 and higher.</p>
		<p>Post-Upgrade Steps [page 22]</p> <p>Link to SAP Note 2498606 added to explain what to do, if problems with alerts, auto-reactions and automatic incident creation occur.</p>
		<p>Support Hub Connectivity [page 26]</p> <p>Information about configuring the new Support Hub Communication channels updated to explain what to do, if you upgrade SAP Solution Manager 7.1 to SAP Solution Manager 7.2 SPS 5 and higher.</p>
		<p>Content Activation in SAP Solution Manger 7.2 [page 26]</p> <p>New link to SAP Note 2397667 added which should be implemented after the technical upgrade.</p>
		<p>Post-Processing the Test Suite Process [page 28]</p> <p>Corrected link to Wiki article.</p>
1.4	2017/06/07	Minor changes
1.3	2017/06/01	<p>Additional information provided for describing the preparation steps before the upgrade when planning a database migration to SAP HANA:</p> <p>Preparing Your SAP Solution Manager 7.1 for the Upgrade [page 11].</p>
		<p>Sizing check report can be used for the upgrade to SAP Solution Manager 7.2. See Preparing Your SAP Solution Manager 7.1 for the Upgrade [page 11].</p>
		<p>Upgrade effort reduction for specific processes explained in Preparing Your Processes [page 14].</p>
1.2	2017/04/21	New chapter Support Hub Connectivity [page 26] added
1.1	2017/04/07	New chapter Upgrade and Content Activation - 2 Guides, 1 Upgrade [page 7] added

Version	Date	Change
		Process Overview [page 9] updated
		Corrections to Preparing the Custom Code Management Process [page 16] and Custom Code Management Configuration [page 27]
		New chapter Preparing the Support Hub Connectivity [page 22] added
1.0	2017/03	Initial version

2 Introduction

This document describes the preparation steps and follow-up activities, which you need to perform when you upgrade your SAP Solution Manager system to SAP Solution Manager 7.2. The upgrade guide contains an updated version of the technical upgrade process descriptions previously provided in SAP Note [2227300](#). Please note that SAP Note [2227300](#) contains **troubleshooting information** regarding the upgrade process.

The upgrade guide supplements the documentation *Update of SAP Systems Using Software Update Manager*, which includes the following:

- General planning
- Preparation and follow-up activities
- Information about using the Software Update Manager
- Troubleshooting information

You can access this documentation directly at <https://help.sap.com/viewer/dc7924c65eef4fd2afe7812029cd9c8f/7.2.latest/en-US>.

2.1 Upgrade and Content Activation - 2 Guides, 1 Upgrade

The present upgrade guide and the content activation guide for solution documentation content complement one another. Content activation is optional if you don't use solution documentation but a must-have for using **solution documentation content** (process structure and documents in projects and solutions), **Change Request Management**, **quality gate management**, **test management** or **business process operations**.

The focus of this guide lies on the technical upgrade process whereas the content activation sequence for the solution documentation content is described in detail at https://help.sap.com/viewer/p/SAP_Solution_Manager

► *Installation and Upgrade* ► *Solution Documentation Content Activation Guide* ►

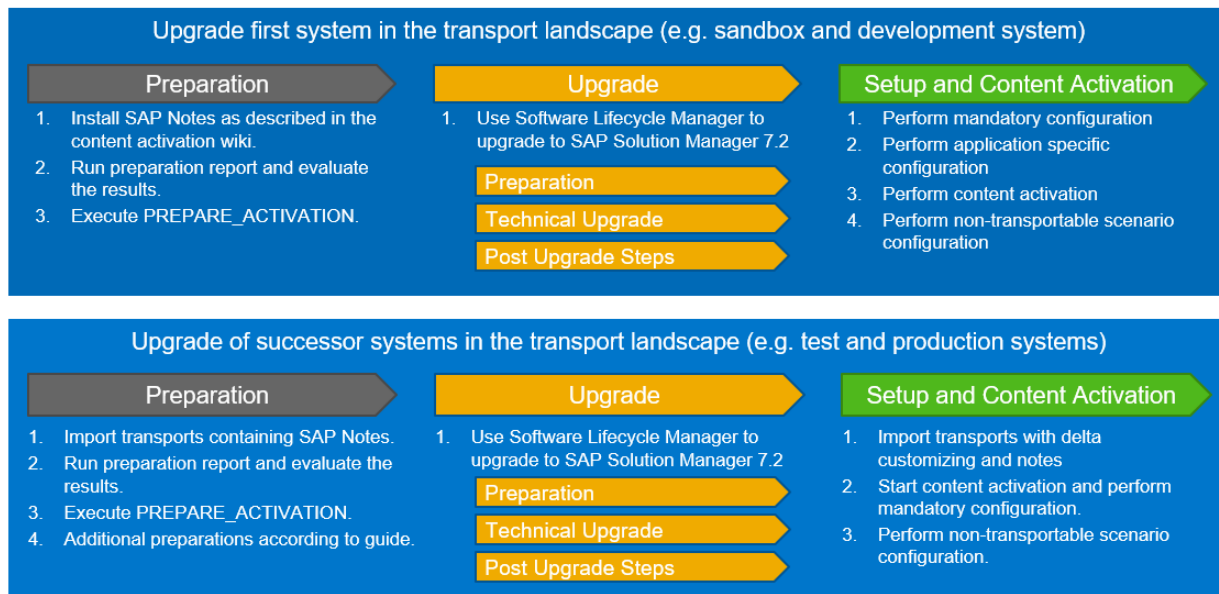
- Access the latest version of the Content Activation Guide directly: https://help.sap.com/doc/66b93f5193014fa8a14785fa72ed7e17/latest/en-US/ActivationGuide_SolMan72.pdf
- You can also refer to the Wiki at <https://wiki.scn.sap.com/wiki/x/TY5tGw>.
- For more information about troubleshooting and latest news on content activation, see <https://wiki.scn.sap.com/wiki/x/ZDC7Gg>.

- ➔ **Tip**

You can accelerate the process of content activation by following the step-by-step procedure described in SAP Knowledge Base Article [2526375](#) (*How to Speed Up the Upgrade of Your Productive Solution Manager System to SAP Solution Manager 7.2*).

Before starting content activation read about the constraints and decide whether it is applicable for you or not.

Sequence of Activities for Upgrade and Content Activation



→ Tip

We strongly recommend that you have a multiple-system landscape for SAP Solution Manager with at least one development system and one productive system. As a result the upgrade and content activation is accomplished following a two-step approach:

1. Preparation, upgrade and content activation in your development system.
2. Preparation, upgrade and content activation in your productive system.

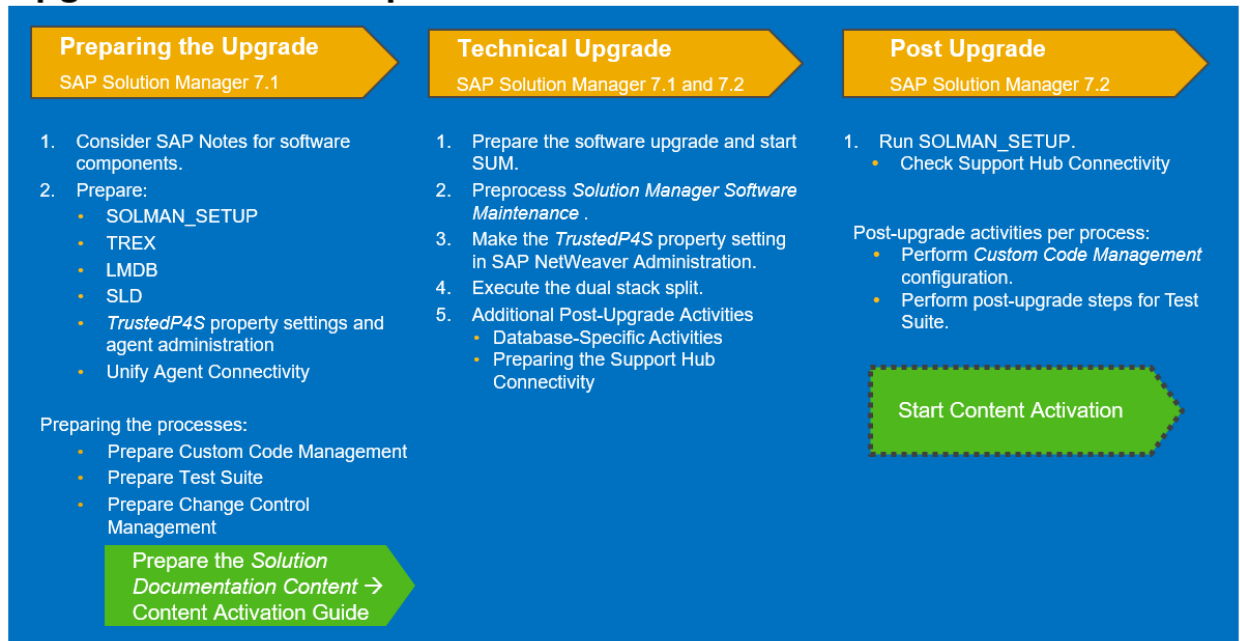
i Note

Always use the authorizations version attached to the latest version of SAP Note [1830640](#).

3 Process Overview

Upgrade Process Activities

Upgrade Process Steps



The upgrade from SAP Solution Manager 7.1 to SAP Solution Manager 7.2 comprises three main steps.

The first main step (the preparation, optionally including *Content Activation*.) is carried out in SAP Solution Manager 7.1, followed by the second step, the actual technical upgrade and the post-processing, including the dual-stack split in SAP Solution Manager 7.2. The third step is carried out in SAP Solution Manager 7.2 where you run transaction SOLMAN_SETUP to make all necessary configuration settings, start content activation and perform scenario-specific post-upgrade steps.

For more information about the dual-stack split of systems based on SAP NetWeaver 7.1 and higher, see [Dual-Stack Split Guides](#).

An additional step is needed if you migrate to SAP HANA. For more information, see *Technical Path from SAP Solution Manager 7.1 to SAP Solution Manager 7.2 on SAP HANA* at https://help.sap.com/doc/af7029fbd8ec4ddb966dee3921dd1577/7.2/en-US/Technical_Path_to_SAP_Solution_Manager_72E.PDF.

3.1 What You Need to Know Before Starting the Upgrade

Please find below information that you need to consider if the following software components or add-ons are installed on your SAP Solution Manager 7.1 system:

- **Software component ST-SPA**

If the ST-SPA software component is installed on your SAP Solution Manager 7.1 system, refer to SAP Note [2353441](#). If the conditions described there are appropriate to you, uninstall ST-SPA (see SAP Note [1109650](#)) and then upgrade to SAP Solution Manager 7.2.

- **Software component ST-OST**

If ST-OST 100 is installed in your SAP Solution Manager 7.1 system, please download the upgrade package to ST-OST 200 from https://launchpad.support.sap.com/#/softwarecenter/template/products/_APP=00200682500000001943&_EVENT=DISPHIER&HEADER=Y&FUNCTIONBAR=N&EVENT=TREE&NE=NAVIGATE&ENR=73554900100200004666&V=INST.

The content of this package is required by the Software Update Manager (SUM) during the upgrade process in the *IS_SELECT* phase. Once you provide this package to SUM, the upgrade can continue.

- Components ST-PI and ST-A/PI

Distribute current ST-PI and ST-A/PI to managed systems.

➔ Tip

User authorizations are updated by ST-PI. As a preparation step, we recommend that you install ST-PI on your managed systems to update all SAP roles. You can update the technical user roles in the *Managed System Configuration* scenario. This way, all standard roles are copied and assigned to the respective users.

- **CA Introscope Enterprise Manager**

Make sure your CA Introscope Enterprise Manager version is at least 9.7 SP01. If not, plan to upgrade the Introscope Enterprise Manager server(s) together with the SAP Solution Manager system (see SAP Note [797147](#)).

When operating with *Introscope 9.7 SP01*, please also make sure to have *Management Modules* version 9.7 SP01, patch 2 installed.

- TREX

If you do not use SAP HANA as a database, plan the installation of TREX. For more information, see the *Master Guide* at https://help.sap.com/viewer/p/SAP_Solution_Manager.

i Note

If you're using SAP HANA as a database and you want to search for knowledge base articles in IT Service Management, you need to have TREX installed as well.

3.2 Preparing the Upgrade

3.2.1 Preparing Your SAP Solution Manager 7.1 for the Upgrade

Context

Before you start the upgrade, you perform the following steps in your SAP Solution Manager 7.1 system:

- You implement SAP Note [2344014](#) to avoid errors when using the SAP Note Assistant for importing support packages. This SAP Note is mandatory to impede that ABAP classes are accidentally deleted.
- In *SAP Solution Manager Configuration* (transaction `SOLMAN_SETUP`) check the status of the scenarios *System Preparation*, *Basic Configuration* and *Managed System Configuration*. Perform outstanding activities, if needed.
- If you are operating a Full Text Search Engine (TREX) with SAP Solution Manager 7.1, implement SAP Note [1750162](#) to prepare the indexing in SAP Solution Manager 7.2.
- Carry out the following steps in the LMDB (Landscape Management Database):
 - Confirm that the product system of SAP Solution Manager 7.1 is correctly defined in the LMDB. Execute the *Verification Check*.
 - If not already done regularly:
Upload all product systems to the SAP back-end. This is particularly important for complex product system definitions which may be re-used in the *Maintenance Planner*.
- Prepare SLD (System Landscape Directory) for the SAP Solution Manager upgrade:
 - If you need to move the AS ABAP stack to a new hardware, make sure that you have implemented SAP Note [1817310](#) in the SLD, from which SAP Solution Manager gets its landscape information. Ensure that the *AutomaticSystemMove* parameter is set to **1**.
In general, during the system move from the old system to the new hardware or database system, make sure that you request an additional license key for the old system with changed parameters (not for a new system). By doing this, the system number and the installation number do not change.
If you accidentally requested a new license key, you will get system duplicates in the SLD/LMDB. Such system duplicates must be repaired as described in SAP Note [1694004](#).
 - Import the latest CIM model and SAP CR Content (SAP Note [669669](#)).
 - Check the size of the table `BC_SLD_CHANGELOG` and if necessary, clean it up as described in SAP Note [1799613](#). Be aware that this table may rapidly expand; the reasons are described in SAP Note [1792134](#).

i Note

If you schedule the cleanup task in the *SLD Administration UI*, the table will be cleaned up automatically.

- Before you start the upgrade, set the SLD to read-only (see SAP Note [2068999](#)) to prevent further changes. Do not change the source SLD back to writable until the upgrade is complete.
To do so, in SLD, go to the Administration area. Go to **Profile > Server Settings**, and there set the *Write Protection* to *read-only*.

This is important especially if the local SLD of SAP Solution Manager is used as a source for LMDB. The SLD and the destination from LMDB to SLD is affected by the upgrade to the new release and the dual stack split. Setting the SLD to read-only ensures that data in SLD and LMDB remains consistent during the entire upgrade process.

If a remote SLD is used as a source for LMDB, for example a PI SLD, setting that SLD to read-only during the entire upgrade may not be desirable. Yet, we recommend that you set it to read-only if possible.

- Wait until all pending changes have been synchronized from the SLD to the LMDB. To check this, in the `SOLMAN_SETUP` transaction, under *System Preparation*, choose step 6.2 (*Setup LMDB*), select the respective synchronization connection and click *Advanced*. In the *Status Details* area of the dialog box, the *Number of Pending Changes* must be 0.

- Deactivate the synchronization connection.

As a result, the content that is synchronized to the LMDB does not change over the entire upgrade process.

Especially if a remote SLD is used as a source for LMDB and that SLD is not set to read-only during the entire upgrade process, it must be ensured that the deactivated synchronization connection must be reactivated. The synchronization connection must not be deleted and recreated anew. Otherwise intermediate changes in the SLD content are not properly propagated to LMDB and data inconsistencies will arise.

- **Only relevant for SAP Solution Manager 7.1 Support Package 11 or higher:**

1. Set the *TrustedP4S* property within *SAP NetWeaver Administrator*. For more information, see SAP Note [2013578](#) and [2187775](#).
2. In the `SOLMAN_SETUP` transaction, under *System Preparation*, go to step 5.4 (*Set Authentication Policy for Agents*). Select *Use Authentication via certificate*, click *Generate new certificate* and then save.
3. Restart the Java stack.
4. Log-on to the *Agent Administration*, for example by entering `http(s)://<SAP Solution Manager AS Java Host>:<http port>/smd/AgentAdmin` in your browser.
5. On the *Connected Agents* tab, check if all agents are listed. If not, on the *Non-Authenticated Agents* tab, select all agents, and click *Push Credentials*.

- Unify Agent Connectivity to use message server:

Before starting the upgrade, the administrator must log-on to agent administration (for example, in the *Administration* work center ► *Infrastructure* ► *Framework* ► *Select Agent Framework* ► *[Select your agent]* ► *Agent Admin* ► *Select Selected Agent*); or by entering `http(s)://<SAP Solution Manager AS Java Host>:<http port>/smd/AgentAdmin` in your browser).

Then choose the *Agent Connectivity* tab and change the connectivity setting to *MS/P4* or *MS/P4 SSL* for all agents. You can do this by selecting the checkbox for every agent not yet configured accordingly.

Note

There is no automated support to reconnect agents that have not been configured to use *MS/P4* or *MS/P4 SSL* before the stack split and upgrade to SAP Solution Manager 7.2.

- Check if all Diagnostics Agents run on JVM 1.6 or higher. If the agents run on a lower JVM version, please update it to version 1.6. or higher.

Caution

As of SAP Solution Manager 7.2, the Diagnostics Agent requires at least Java version 1.6. Diagnostics Agents still running on Java version 1.4 will no longer be able to connect to SAP Solution Manager. They need a new JVM version and a new kernel (see SAP Note [1707141](#)).

- Business Warehouse:
Implement SAP Note [1879618](#) (Pre-upgrade measures for upgrade/update to SAP Business Information Warehouse 7.4).

→ Tip

If you get a program error after performing checks described in SAP Note [1729988](#) and despite running the program `RSD_PREXPRA_TO_740` as described in SAP Note [1879618](#), consult SAP Note [2176977](#) (Pre-upgrade measures for upgrade/ update to BW 7.4) for a solution.

- The dual-stack of SAP Solution Manager 7.1 needs to be split in SAP Solution Manager 7.2. As a consequence the Application Server (AS) Java will become a new and separate SAP system with a specific SID. The dual-stack split tool (used within the upgrade process described below) offers several options. Please consider already at this point in time, which options will be appropriate for you.
 - Consider the following split options in advance:
 - Host: Does the AS Java remain on the same host as the AS ABAP (recommended)?
 - Database: Do you keep the AS Java schema in the same database (recommended)?

i Note

Sybase ASE databases do not support MCODE (operate several systems in one database). Therefore, you can only move the AS Java schema to a new database.

Depending on your decision, an additional server and adjustments of the firewall may be required. For more information, see the *Master Guide* at https://help.sap.com/viewer/p/SAP_Solution_Manager.

- If SAP Solution Manager 7.1 local SLD is used by SLD Data Suppliers, make sure after the split that the SLD URL is stable (SAP Note [2068999](#)).
 - Reuse/Recover the ports of the AS Java, if required.
 - Reuse/Recover the RFC services of the AS Java, if required.
- If SAP Solution Manager has more than one AS ABAP instance (and you do not plan yet to migrate to SAP HANA DB), split off the ASCS (ABAP SAP Central Services) instance. See SAP Note [2013043](#). See also SAP Note [2031037](#) for further information about upgrading to SAP_BASIS 740 or NetWeaver Kernel 74x.
- Managed system related information
Implement SAP Note [1977240](#) on each domain controller. This note enables transaction RZ70 to transfer domain controller info to SLD. This information is relevant for the following scenarios:
 - Change Request Management
 - Quality Gate Management
 - License Management
- Use the *Maintenance Planner* to create the stack configuration *.xm1 file for the AS ABAP and AS Java upgrade in advance. Select *Support stack xx* and include all proposed Java patches. The latest version of the SL tools (Software Update Manager (SUM) and Software Provisioning Manager (SWPM)) is also downloaded. Use the latest SUM version.
- Migration to SAP HANA
If you plan to migrate your database from SAP Solution Manager 7.1 to the SAP HANA database on your SAP Solution Manager 7.2 system, check data archiving and data reduction measures described in SAP Note [2257558](#).
- Sizing Check

For upgrading to SAP Solution Manager 7.2 you can use SAP Note [1872170](#) to estimate the memory and disk space requirements for the database tables. The result of the report `/SDF/HDB_SIZING` (Sizing for Suite on SAP HANA) is a recommendation requiring thorough evaluation.

3.2.2 Preparing Your Processes

To ensure a smooth upgrade and to reduce upgrade and post-upgrade efforts, we recommend that you make use of the scenario-specific accelerators described as follows:

Process	Accelerator	Prerequisite
Solution Documentation	Prepare Content Activation	None
Test Suite	Prepare Content Activation	None
Change Control Management	Prepare Content Activation	None
Business Process Operations	Prepare Content Activation	None
	Switch to the monitoring and alerting infrastructure	SAP Solution Manager 7.1 SPS 12 ⚠ Caution Back up the configuration settings from your SAP Solution Manager 7.1 system BEFORE upgrading to 7.2. For more information, see SAP Note 2498606 (Backup and restore the configuration of the monitoring and alerting infrastructure content BEFORE and AFTER the upgrade.
	Enable new BW structure	SAP Solution Manager 7.1 SPS 12
Custom Code Management	Enable new BW structure	SAP Solution Manager 7.1 SPS 12

Process	Accelerator	Prerequisite
Application Operations (all monitoring and alerting use cases are affected)	Switch to the monitoring and alerting infrastructure	None <div style="background-color: #fff9c4; padding: 10px; margin-top: 10px;"> <p>⚠ Caution</p> <p>Back up the configuration settings from your SAP Solution Manager 7.1 system BEFORE upgrading to 7.2.</p> <p>For more information, see SAP Note 2498606 (Backup and restore the configuration of the monitoring and alerting infrastructure content BEFORE and AFTER the upgrade.</p> </div>

Related Information

[Post-Upgrade Steps \[page 22\]](#)

3.2.2.1 Preparing Content Activation

If you are working with projects and solutions, you need to prepare the content activation in SAP Solution Manager 7.1.

For more information, see https://help.sap.com/viewer/p/SAP_Solution_Manager ► [Installation and Upgrade](#) ► [Content Activation Guide](#) ▶.

Access the Content Activation Guide directly at https://help.sap.com/doc/66b93f5193014fa8a14785fa72ed7e17/latest/en-US/ActivationGuide_SolMan72.pdf

Important SAP Knowledge Base Article for Content Activation

For a detailed description on how to implement SAP Notes to enable content activation to upgrade from SAP Solution Manager 7.1 to 7.2, see SAP Knowledge Base Article [2536523](#). This article contains a list of all relevant SAP Notes that must be implemented for the upgrade, the sequence and additional hints.

⚠ Caution

Make sure that you follow the step-by-step procedure as described in SAP Knowledge Base Article [2536523](#).

You can also refer to the Wiki at <https://wiki.scn.sap.com/wiki/x/TY5tGw>.

For more information about troubleshooting and latest news on content activation, see <https://wiki.scn.sap.com/wiki/x/ZDC7Gg>.

For more information about the preparation for content activation, see SAP Note [2403108](#) and follow the steps:

i Note

Always use the authorizations version attached to the latest version of SAP Note [1830640](#).

➔ Tip

You can accelerate the process of content activation by following the step-by-step procedure described in SAP Knowledge Base Article [2526375](#) (*How to Speed Up the Upgrade of Your Productive Solution Manager System to SAP Solution Manager 7.2*).

Before starting content activation read about the constraints and decide whether it is applicable for you or not.

3.2.2.2 Preparing the Custom Code Management Process

Context

In order to prepare *Custom Code Management* configured in SAP Solution Manager 7.1 for the upgrade to SAP Solution Manager 7.2 the following activities are recommended.

You can clean up UPL data in SAP Solution Manager 7.1 to speed up the *Custom Code Management* migration process which is required after the upgrade.

Proceed as follows:

Procedure

1. In your SAP Solution Manager 7.1 system, run transaction `SOLMAN_SETUP`.
2. Choose *Custom Code Management*.
3. In the *Custom Code Management* guided procedure navigate to Step 2 *Housekeeping Settings* and check that there is no missing housekeeping setting.

i Note

If there is any missing housekeeping setting, define and save the housekeeping settings. Note that housekeeping settings are executed immediately which could take some days to be completed.

4. Run transaction `SM37` and find the *E2E BI HOUSEKEEPING* job.
5. Check the spool whether the data deletion from *OSM_UPL** InfoCubes was successful.

If not:

- If you have SAP Solution Manager 7.1 SP 14 or later, perform the following two additional steps:
 1. Run transaction `SOLMAN_SETUP` and choose *Custom Code Management*.
 2. Navigate to Step 1 *Managing System Preparation*.
 3. Execute the *Data Consistency Check* activity to remove the duplicates and inconsistencies from the *OSM_UPL* InfoCube.

- If you have *SAP Solution Manager 7.1* SP 13 and lower, perform the following step:
- 1. Run transaction SM38.
- 2. Use utility report RAGS_CC_UPL_CLEAN_UP_UTILITY to clean the *OSM_UPL* InfoCube. This removes duplicates and inconsistencies from the *OSM_UPL* InfoCube.

3.2.2.3 Preparing Your Test Suite Process

i Note

For a detailed description of the activities you have to perform, see the SAP Wiki Test Suite pages at <https://wiki.scn.sap.com/wiki/x/OhdQGg> then under *Test Suite Upgrade from SAP Solution Manager 7.1 to 7.2* click *Test Suite upgrade from SAP Solution Manager 7.1 to 7.2*.

3.2.2.4 Preparing the Change Request Management Process and IT Service Management

Proceed as follows:

- Prepare the CRM document types used for change request management and incident management. Follow the instructions described in SAP Knowledge Base Articles [2012029](#) (Duplicated IBase - how to clean up) and [2010187](#) (How to archive/lock of IBase components and related IObjects for deleted systems in LMDB).

i Note

For **IT service management** please also convert IBase elements as described in SAP Knowledge Base Article [2012029](#) and [2010187](#).

- Please check your domain controller infrastructure according to SAP Knowledge Base Article [2334553](#) (Error during content activation in Change Request Management due to inconsistent data in the LMDB).

3.3 Technical Upgrade

Before you start the upgrade in SAP Solution Manager 7.2, read the Software Update Manager (SUM) guide, which is available at <https://support.sap.com/sltoolset>, under *Software Update Manager (SUM) scenarios*.

i Note

If you are using **SUM SP18 or higher**: Before you execute SUM, you need to implement the following SAP Notes:

- Implement SAP Note [2290149](#) in the SAP BW system only (SAP Solution Manager and/or external SAP BW system)

- Implement SAP Note [2289603](#) in the SAP BW system (SAP Solution Manager and/or external SAP BW system) and all managed systems, which need to be upgraded.

If you are using **SUM SP19** or higher: You can also use the upgrade and migration procedure incorporating the Database Migration Option (DMO) of SUM. For more information, see <https://support.sap.com/sltoolset>, under **► Software Update Manager (SUM) Scenarios ► Database Migration Option (DMO) with SUM ►** and also <https://support.sap.com/sltoolset> **► System Provisioning ► Split Option of Software Provisioning Manager ►**.

You can also use the direct link https://help.sap.com/viewer/30839dda13b2485889466316ce5b39e9/CURRENT_VERSION/en-US/4181cdab7fe14b0a8bdaec6eac1e8286.html.

i Note

The *Database Migration Option* (for example in case of migration to SAP HANA) cannot be used together with near-Zero Downtime Maintenance (nZDM).

3.3.1 Preparing the Software Upgrade and Starting SUM

Prerequisites

If ST-TAO 200 is implemented in your SAP Solution Manager 7.1 system, it must be upgraded to ST-TST 300 prior to the upgrade to SAP Solution Manager 7.2. For more information, see SAP Note [2419818](#).

i Note

The *Database Migration Option* (for example in case of migration to SAP HANA) cannot be used together with near-Zero Downtime Maintenance (nZDM).

Context

i Note

Before you start SUM, check the version of the ISAGENT_MIN_J5 software component on the *System Information* page of the SAP Solution Manager 7.1 Java stack. If you are on version 95 SP6 (or 9.5.6.0), see SAP Note [2228062](#).

Start the latest SUM version using the stack configuration *.xml file that you have created before.

During the Java part of SUM, in the *Configuration* step, the component deployment list is built. One or more of the following components may then be listed with *scan inbox* status:

- BI_MMR 7.02
- BI_UDI 7.02
- ETPRJSCHEDULER 7.02

- KM-KW_JIKS 7.02
- LM-TOOLS 7.02
- SWLIFECYCL 7.02
- CAF 702

i Note

No steps are required for components with the *deploy* status.

Procedure

1. Set the deployment status *remove* for components with the *scan inbox* status, because these components are not required anymore.

i Note

However, if you want to keep some of the components installed, proceed as follows:

- Download the corresponding Java files from SAP Service Marketplace:
 - BI_UDI 7.40 (updates BI_MMR 7.02, BI_UDI 7.02)
 - SAP CPS FOR NW 7.40 (updates ETPRJSCHEDULER 7.02)
 - SAP IKS 7.40 (updates KM-KW_JIKS 7.02)
 - LIFECYCLE MGMT TOOLS 7.40 (updates LM-TOOLS 7.02)
 - SOFTWARE LIFECYCLE 7.40 (updates SWLIFECYCL 7.02)
 - SAP CAF 7.40 (updates CAF 702)
- Then move these files to the download directory and refresh the *Target Release Components* list in the *Configuration* step. For the components that you want to keep, set the deployment status *deploy*.

2. Once you are finished, confirm the component deployment list.

3.3.2 Within SUM, at the End of the Pre-Processing Step - "Preparations for Downtime"

If you had been on SAP Solution Manager 7.1 SP11 or higher, execute the *Preprocessing Solution Manager Software Maintenance* guided procedure in your SAP Solution Manager system.

To do this, go to ► *Technical Administration work center* ► *Guided Procedure Management* ► *Technical Systems* ► *[Select the SAP Solution Manager ABAP and Java Technical systems]* ► *Guided Procedures* ► *Application Area: Technical Administration* ►. In the table, set the *Preprocessing for SolMan SW Maintenance* filter, and then choose ► *Execute* ► *New Instance* ►.

i Note

This locks other dialog users, enables the Diagnostics Agent maintenance mode, unregisters some web services, and stops all background jobs.

Caution

Create a system backup before downtime starts, as described in the SUM guide.

3.3.3 After the Software Upgrade (After the SUM Post-Processing Step)

Only relevant for SAP Solution Manager 7.1 support package lower than SP11:

After the SAP Solution Manager software upgrade was completed, set the *TrustedP4S* property within NWA (see SAP Note [2013578](#)).

3.3.4 Executing the Dual Stack Split

Procedure

1. Execute the dual-stack split. For this, use the dual-stack split option of the Software Provisioning Manager in the latest SL Toolset version. Select one of the following options:
 - DB
Select *KEEP DB* so that the Java schema remains in the same database as ABAP (recommended). *MOVE DB* is also supported.
 - Same host
SAP recommends this option, which makes it easier to reconnect ABAP and Java as well as the Diagnostics Agents and the SLD.

Caution

When you run the *Same host* option, make sure to select the *Enable reuse of SCS ports during target system installation* option under **► Step 2/ Define Parameters > SCS Instance Ports Reuse >**. The split tool will otherwise adjust the Java SCS port numbers because the Java SCS instance number changes. You also need to install a SAP Web Dispatcher, as proposed below, to reconnect existing Diagnostics Agents.

2. After the dual-stack split, follow the instructions of SAP Note [1873543](#) - *Postprocessing of SLD data after a dual-stack split*.

3.3.5 Additional Post-Upgrade Activities

After the upgrade, consider the following:

- Re-open the gateway, if needed. See the following SAP Notes:

SAP Note	Title
1444282	gw/reg_no_conn_info settings
1525125	Update #1 to Security Note 1408081
1592493	GW: Problems in "reginfo" configuration
1408081	Basic settings for reg_info and sec_info

- You can either keep your DB, or migrate to SAP HANA.

i Note

If you keep your DB, you need to install TREX.

- As a consequence of the dual-stack split - if your SAP Solution Manager ABAP and Java systems are no longer on the same physical or virtual host, or if the port numbers of the Java Message Server have changed - you need to install and configure a SAP Web Dispatcher (using Kernel 7.42 >= PL 214). To enable the Diagnostics Agents to automatically reconnect to the SAP Solution Manager Java system (which is now on a different host) and to set the correct parameters, follow the instructions of SAP Knowledge Base Article [SAP Web Dispatcher configuration and Mass migration of Diagnostics Agents after upgrade to Solman 7.20 2489073](#).

i Note

If you do not set these profile parameters, you need to adjust the connection parameters of each individual Diagnostics Agent, typically adjusted at OS level using the `smdsetup` script.

Be aware that at a later point in time, you also need to include additional parameters in the SAP Web Dispatcher profile (when executing the infrastructure preparation in the `SOLMAN_SETUP` transaction).

- If you operate your SAP Solution Manager ABAP and Java systems with multiple instances, you also need a SAP Web Dispatcher (or any other load balancer).
- Re-configure the SLD and set it to writeable (SAP Note [2068999](#)).
- With SAP Kernel 7.4x, the former roll memory has been removed. Follow the instructions in SAP Note [2148571](#) on setting parameters to ensure that enough memory is available.

3.3.5.1 Database-Specific Activities

If you are using IBM DB2 for Linux, UNIX, and Windows (referred to as DB2) and you want to use DB2 column-organized tables, proceed as follows:

Before starting the mandatory configuration of SAP Solution Manager 7.2 on DB2 with BLU Acceleration, check the following SAP Notes:

SAP Note Number	Title
1819734	DB6: Use of BLU Acceleration
2357018	BW Content Activation fails in SOLMAN_SETUP for DB2

3.3.5.2 Preparing the Support Hub Connectivity

If you upgrade your **SAP Solution Manager systems from 7.1**, use transaction **STC01** to run the `SAP_SUPPORT_HUB_CONFIG` task list, which prepares the *Support Hub Connectivity* on this SAP Solution Manager system.

If you update your **SAP Solution Manager 7.2 SPS 3 or SPS 4 system to SPS 5 and higher**, the *Support Hub Communication* channels are already configured. You only need to perform the *Finalize Support Hub Connectivity* activity, while running the mandatory communication under **SOLMAN_SETUP > Cross Scenario Configuration > Mandatory Configuration > System Preparation > guided procedure step Set Up Connections to SAP > Support Hub Connectivity**. For more information, see [Support Hub Connectivity \[page 26\]](#).

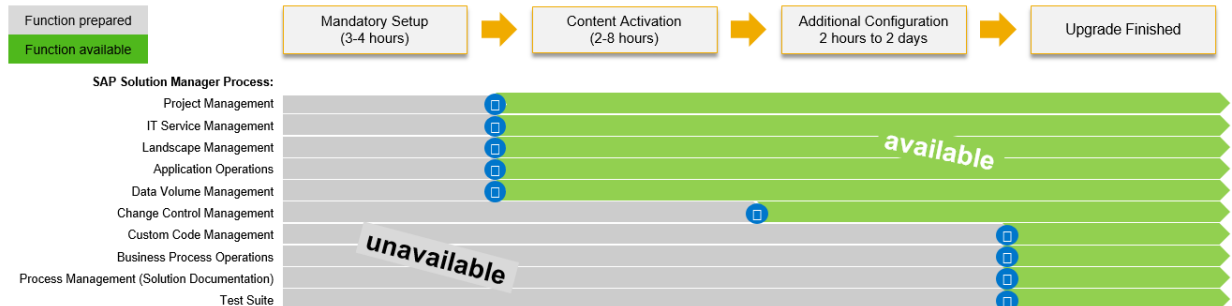
3.4 Post-Upgrade Steps

After the technical upgrade you have to perform a few additional steps. The availability of the SAP Solution Manager processes vary depending on your technical landscape and start release. The following figures help you to plan the post-upgrade steps:

Start release is SAP Solution Manager 7.1 SP 11 and lower

As a prerequisite prior to the upgrade you have prepared content activation in your SAP Solution Manager 7.1 system for the upgrade to SAP Solution Manager 7.2.

Planning Aid for Post-Upgrade Steps



During the mandatory setup phase, the SAP Solution Manager processes are not available. After content activation, project management, IT service management, landscape management, application operations and data volume management are available again. Change and control management require additional adaptation during content activation before being able to use it. Apart from that additional configuration is required for custom code management, business process operations, process management and the test suite. For more information, see the latest version of the Content Activation Guide at https://help.sap.com/doc/66b93f5193014fa8a14785fa72ed7e17/latest/en-US/ActivationGuide_SolMan72.pdf.

Note

Please consider times indicated here as minimum times.

Tip

We recommend that you upgrade the development system first and transport notes and corrections including delta configuration in change control management and IT service management.

We recommend that you prepare content activation ahead of time. It is required to carry out testing before go-live.

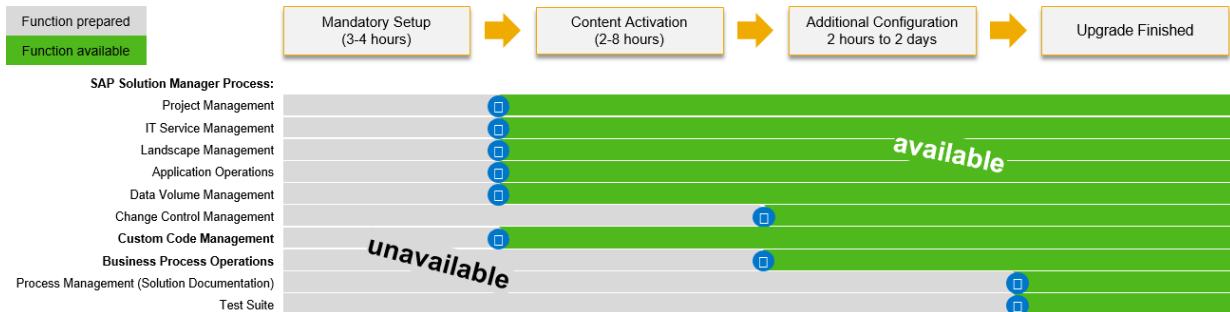
Start release is SAP Solution Manager 7.1 SP 12 and higher

As additional activities prior to the upgrade you have enabled the new SAP BW structure for custom code management and business process improvement (including business process analytics). In addition you have migrated business process monitoring to the monitoring and alerting infrastructure.

Tip

If your auto-notifications, forwarding alerts to third-party components, auto-reactions, and automatic incident creation stop working after the upgrade, consult SAP Note [2498606](#).

Planning Aid for Post-Upgrade Steps



If your start release is SAP Solution Manager 7.1 SP 12 or higher you benefit from an optimized downtime for business process operations and custom code management. Custom code management is available after completing the mandatory setup. Business process operations is available after content activation. For more information, see the latest version of the Content Activation Guide at https://help.sap.com/doc/66b93f5193014fa8a14785fa72ed7e17/latest/en-US/ActivationGuide_SolMan72.pdf and Custom Code Management Configuration [page 27].

Note

Please consider times indicated here as as minimum times.

Tip

We recommend that you upgrade the development system first and transport notes and corrections including delta configuration in change control management and IT service management.

We recommend that you prepare content activation ahead of time. It is required to carry out testing before go-live.

3.4.1 Running SOLMAN_SETUP in SAP Solution Manager 7.2

Context

Prerequisites:

- You have executed the *Pre-Processing Solution Manager Software Maintenance* guided procedure before the system downtime (see steps above).
- Execute the *Post-Processing Solution Manager Software Maintenance* guided procedure.
To do this, run the SOLMAN_SETUP transaction. Then go to ► *Related Links* ► *Maintenance* ► *Post-Processing Solution Manager Software Maintenance* ►.

i Note

Create one guided procedure instance only for this upgrade. If several persons are involved in the upgrade, make sure that they are all working on the same instance.

If you have NOT executed the *Pre-Processing Solution Manager Software Maintenance* guided procedure yet, proceed as follows:

Procedure

1. Start the `SOLMAN_SETUP` transaction. Use the guided tour and the *Overview* page of the *Mandatory Configuration* scenario to check whether there are still activities open after the upgrade. When you select an entry in the *Overview* table, the *Open Activities* column shows the steps you need to execute.
2. When you complete the open steps and activities of the *Mandatory Configuration*, do the following:
 - If you did not yet import the latest Common Information Model (CIM) into the SLD (SAP Note [669669](#)), import the SAP CR content version as per SAP Note [1701770](#).
If you now encounter an error, refer to SAP Note [2125382](#).
 - If the SAP Solution Manager Java stack, which had been upgraded, was used as a local SLD (+ synchronization with LMDB):
 - Run the `SU01` transaction to assign the role `SAP_SLD_CONTENT_SYNC` to the SLD user, which synchronizes the SLD content to the LMDB.
For more information, see the help text of [Mandatory Configuration > Infrastructure Preparation > SLD Connections > Create New Connection](#).
 - Run the `SU01` transaction to assign the role `SAP_SLD_DATA_SUPPLIER` to the `SLDDSUSER`.
For more information, see the help text of [Mandatory Configuration > System Preparation > Check Prerequisites > Check "Post Installation" on ABAP activity](#).
 - Ensure that the SAP Solution Manager ABAP system is still successfully registered in the SLD. Typically you double check the *Last Update* and *Installed Software* of this technical system in the SLD.
 - Within [Mandatory Configuration > Infrastructure Preparation > LMDB Synchronization](#):
 - Re-activate the SLD to LMDB synchronization. Click *Activate*.
 - Ensure that the SLD to LMDB synchronization works after the upgrade. See transaction `LMDB_ADM`.
 - Assign the new SAP Solution Manager Java system as belonging to SAP Solution Manager. See [Mandatory Configuration > Infrastructure Preparation > LMDB Content Check](#).
3. Remove the old SAP Solution Manager Java stack from SLD & LMDB :
 - Delete the old AS Java dual-stack part manually in the SLD.
 - Delete the old AS Java dual-stack part in the LMDB, if it was not deleted automatically.
4. Finally, check the number of connected agents in the *Agent Administration* on the *Agents* tab. Make sure that the number of connected agents is the same as before the *SAP Solution Manager* upgrade.
5. When all Diagnostic Agents have reconnected automatically, do the following:
 - Remove the *TrustedP4S* property in NWA. For more information, see SAP Note [2267534](#).
 - Remove the `SMD_AGT` user in the SAP Solution Manager system because the Diagnostics Agents now authenticate using internally generated users and certificates.

Note

For more information about how to connect Diagnostics Agents to your SAP Solution Manager 7.2 system, see SAP Note [2385361](#).

6. After the upgrade, in SLD go to the *Administration* area, and then to *Data Suppliers*. There choose *true* in the *sld/active* field.
7. In addition, restart the `SAP_LMDB_LDB_0000000001` background job. To do so, in the `SOLMAN_SETUP` transaction choose **► Mandatory Configuration ► Infrastructure Preparation ► LMDB Synchronization ►**. To view or edit details about the current LMDB synchronization, select the connection and choose *Advanced*. Under *Configuration Details*, you can view or edit the synchronization connection.

3.4.1.1 Support Hub Connectivity

If you **upgrade** your **SAP Solution Manager 7.1** to **SAP Solution Manager 7.2 SPS 5 and higher** you configure the new Support Hub Communication channels following a two-phase approach:

After running the *Mandatory Configuration*, check the following:

1. Make sure that the system post-installation tasks were already performed as described in the *Check "Post Installation" on ABAP* activity.
To check this, go to **► SOLMAN_SETUP ► Cross Scenario Configuration ► Mandatory Configuration ► System Preparation ► Check Prerequisites ►** and check if the *Check "Post Installation" on ABAP* activity was performed.
2. Then make sure that the *Finalize Support Hub Connectivity* activity was performed.
To do so, go to **► SOLMAN_SETUP ► Cross Scenario Configuration ► Mandatory Configuration ► System Preparation ► Set Up Connections to SAP ► Support Hub Connectivity ►** and start the activity if necessary.

3.4.2 Content Activation in SAP Solution Manager 7.2

Make sure that you have implemented and imported the SAP Notes in your SAP Solution Manager 7.2 systems as described in SAP Knowledge Base Article [2536523](#). It describes how to implement SAP Notes to enable content activation to upgrade from SAP Solution Manager 7.1 to 7.2. This article contains a list of all relevant SAP Notes that must be implemented and imported for the upgrade as well as a detailed description about the sequence and additional hints.

Caution

Make sure that you follow the step-by-step procedure as described in SAP Knowledge Base Article [2536523](#).

Note

Make sure that the `SAP_SMWORK_CONFIG` role is assigned to the user who starts the content activation. Without this role, the relevant link is not active (in the navigation panel of *SAP Solution Manager Configuration*, see **► Solution Manager Configuration ► Related Links ► Post-Upgrade Activities ► Content Activation ►**).

More Information

- Access the Content Activation Guide directly: https://help.sap.com/doc/66b93f5193014fa8a14785fa72ed7e17/latest/en-US/ActivationGuide_SolMan72.pdf
- You can also refer to the Wiki at <https://wiki.scn.sap.com/wiki/x/TY5tGw>.
- For more information about troubleshooting and latest news on content activation, see <https://wiki.scn.sap.com/wiki/x/ZDC7Gg>.

3.4.3 Post-Upgrade Activities per Process

3.4.3.1 Custom Code Management Configuration

Context

After the technical upgrade to SAP Solution Manager 7.2 the following steps are necessary before you can start using custom code management productively:

Procedure

1. If you have defined customer attributes, check if these are still needed. If they are obsolete they can be deleted during the Custom Code Management migration procedure in SAP Solution Manager 7.2, as part of Step 1 *Manual Activities*.
2. Check the CCM Master Note for your SP level of your SAP Solution Manager 7.2 system and check for further missing SAP Notes:

SAP Note Number	Title
2336680	CCM 7.2 SP03 Master Note
2390766	CCM 7.2 SP04 Master Note

3. Carry out the *Custom Code Management* migration:
 - a. Run transaction `SOLMAN_SETUP`.
 - b. Start the *Migration Wizard* under **Post-Upgrade Activities** **Custom Code Management Migration**.
 - c. Perform all necessary steps of the *Migration Wizard*.

Depending on the data amount to be migrated, this procedure could take several days.

Next Steps

After migration, check the following:

- If you have developed your own collector for your customer attributes, check if this is still working or if it has to be changed and adapted to the new infrastructure of the *Custom Code Lifecycle Management* (CCLM) architecture.
- If you are accessing the CCLM table directly by using a customer program, adjust the program and adapt it to the new CCLM architecture.

3.4.3.2 Post-Processing the Test Suite Process



i Note

For a detailed description of the activities you have to perform, see the SAP Wiki Test Suite pages at <https://wiki.scn.sap.com/wiki/x/OhdQGg> then under *Test Suite Upgrade from SAP Solution Manager 7.1 to 7.2* click *Test Suite upgrade from SAP Solution Manager 7.1 to 7.2*.

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