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Maintenance Planner - User Guide

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1 Introduction

Maintenance planner is a solution hosted by SAP that helps you plan and maintain systems in your landscape. You can plan complex activities like installing a new system or updating existing systems. All changes can be scheduled to be deployed at a convenient time, to minimize downtime.

Maintenance planner is the successor of Maintenance Optimizer, Landscape Planner and Product System Editor. It simplifies the maintenance process by consolidating critical tasks such as definition of product maintenance dependencies, implementing changes by generating stack configuration, downloading archives, and so on, in one tool.

Intended Audience

This guide is intended for technology consultants, system administrators, and IT architects.

Related Information

[About Maintenance Planner \[page 9\]](#)

2 Before You Start

This section provides information about the prerequisites that you have to fulfill before you start using the maintenance planner. This section also provides information about authorizations and limitations.

2.1 Pre-Requisites

Runtime Pre-requisites

1. You have Google Chrome, Mozilla Firefox, or Microsoft Edge browser in your system.
2. Your SAP Solution Manager system has release 7.1 SP05 or above.

Onboarding Pre-requisites

1. From July 2020, Maintenance Planner has got enhanced with new functionalities. To learn more about them, refer the link [here](#) . Also, you need to complete the *onboarding process* to use these functionalities. To onboard, please refer the steps mentioned in the SAP note [2921927](#)

2.2 Limitations

Please refer to [SAP Note 2174410](#) for the list of maintenance planner limitations that is regularly updated.

2.3 Authorizations

The following authorizations must be fulfilled before you can use Maintenance Planner:

1. Ensure that you have an s-user for the SAP Support Portal.
2. Your user in SAP Solution Manager must be assigned to your s-user for the SAP Service Marketplace. For more information, see [SAP Note 1822202](#)

2.4 Uploading Landscape Data Into SAP Support Portal

1. You can get started by completing the activity [Connecting LMDB to System Landscape Directory \(SLD\)](#).
2. If you're updating from a release below SAP Solution Manager 7.1 SP05, ensure that you've migrated system information from transaction SMSY to LMDB. For more information, see [Migrating System Information from SMSY to LMDB](#).

i Note

See this [Blog](#) for initial setup activities.

Installation number and system number are known in both the LMDB and SAP Support Portal.

3. Synchronize your technical systems from SAP Solution Manager to SAP Support Portal, in the Technical System Editor in SAP Solution Manager.

System Information from LMDB is mapped to maintenance planner in the following ways:

- **Periodic update:** Starting Solution Manager 7.1 SP 9, the landscape data is uploaded every day, or at a regular interval configured on LMDB based on the landscape fetch job. If you're using an earlier version of Solution Manager, applying [SAP Note 2002546](#) is recommended.
- **Direct upload:** To manually upload the landscape data from Solution Manager to the customer profile, you can choose [Upload to SAP Support Portal](#).

i Note

- Using the cloud extensions for SAP solution manager, you can establish a direct synchronization of the landscape data with SAP's backbone even without an [SAP solution manager](#). For more information about the status of support connectivity cloud extension, refer to the documentation in [SAP Support Portal](#). This scenario only applies to the customers who are having a small, standard SAP landscape, and aren't using Application Lifecycle Management (ALM) functionality in SAP solution manager.
- With Solution Manager 7.1, you don't have to create product systems on LMDB before choosing the [Upload to SAP Support Portal](#). You can create dependencies between your Business Suite Portal Systems directly in maintenance planner. All existing product systems and technical systems declared in LMDB are synchronized to maintenance planner.
- For dual stack systems, you've to maintain a product system before you upload the system data to the SAP Support Portal.

Scenario: High Security Customers and SAP S/4HANA Adoption

- If your organization prohibits external RFC connections for security reasons, you wouldn't have an RFC connecting your SAP Solution Manager system to the SAP Backbone systems.
- If you want to move to SAP S/4HANA, you can use the System Info XML. Refer the Knowledge Base Article (KBA) [2287046](#) for detailed steps.

i Note

The landscape data uploaded to the SAP Support Portal is also used for Notes Recommendations.

See also:

- [Blog](#) describing the initial setup activities.

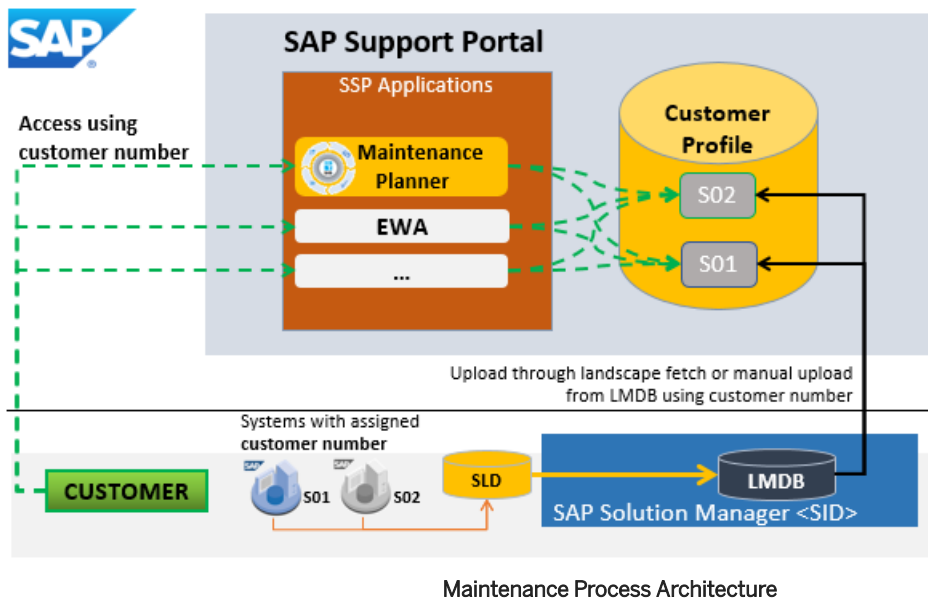
- [Blog](#) providing an overview of maintenance planner.

3 About Maintenance Planner

This section provides more information about maintenance planner.

3.1 Maintenance Process Architecture

The following figure illustrates the flow of data across SAP Support Portal, Maintenance Planner, and customer landscapes.



1. Data is sent to the System Landscape Directory (SLD).
2. Data from SLD is synchronized with the Landscape Management Database (LMDB).
3. Data from LMDB is uploaded to SAP Support Portal.
4. The SID of the uploading SAP Solution Manager is stored with the data.

Only an application using the customer number assigned to the technical system can access system data in the customer profile.

3.2 Launching the Maintenance Planner

Maintenance planner is a hosted application on ONE Support Launchpad. To access the tool:

1. Go to <https://apps.support.sap.com/sap/support/mp> or go to [ONE Support Launchpad](#) link, choose the *Maintenance Planner* tile under the *On Premise* section.
2. Log in with your SAP credentials (S user)
3. One customer number can be assigned to multiple S-users. Use the S-user with the **same** customer number on SAP Solution Manager and SAP Service Marketplace.
 - Ensure that S-users you use for maintenance planner and the RFC connection with the Online Service System (OSS) are mapped to the same customer number.
 - The RFC in the SAP Solution Manager system used to upload the system data to the back-end is configured with the back-end as *SAP-OSS* or as a generated RFC beginning with *<SM_SP_....>*

3.3 Introducing Maintenance Planner

With maintenance planner, you can plan system installation, update, upgrade or system conversion. You can analyze the impact of dependent systems or create dependencies in the form of system tracks. Additionally, you may also use the maintenance planner for creating an integration plan for cloud or hybrid landscapes, which can then be executed by Cloud Integration Automation Service.

Explore Systems: Determines the systems in your landscape. For more information, see [Exploring Systems in Your Landscape \[page 14\]](#).

Explore System Tracks: System tracks are groups of technical systems. You can update or upgrade a whole track at once. For more information, see [Working with System Tracks \[page 54\]](#).

Explore Transactions: Overview of all the transactions you created, ordered by ID, name, status, and so on.

Plan a New System: Lets you add a new system to your landscape. For more information, see [Planning a New System Installation \[page 18\]](#).

Plan for SAP S/4HANA: Lets you plan a new SAP S/4HANA system or convert an existing SAP ERP system to SAP S/4HANA. For more information, see [Planning an SAP S/4HANA System \[page 28\]](#).

Plan for Cloud Integration Scenario: Lets you plan an integration of various SAP cloud solutions with a guided workflow. For more information, see [Cloud Integration Automation Service for SAP Cloud Integration Scenario \[page 61\]](#).

The search field lets you find systems, transactions and tracks. You can search by the name or description of the entity and the result is grouped into systems, transactions, and tracks. Choose on the search field to display all systems, transactions and tracks by default.

Execute Plan: Allows you execute the plan for container-based systems. You can deploy your execution using the transaction ID.

Explore Container Based Clusters: Container based clusters lets you explore all container based systems. Here you can plan, update or upgrade systems.

User Info: Displays the name and ID of the logged in user. It also contains the following options in the drop-down -

- **Personalize:** Allows you to show or hide some system attributes and change the processing status of recommended notes. Currently, this option is only available for [Explore Systems](#) and [View Recommended Notes](#).
- **Appearance:** Allows you to change the theme of maintenance planner from the drop-down options. By default, the selected theme is [Morning Horizon Light](#).
- **Logout:** Allows you to log off from maintenance planner.

Help: Displays the following options regarding documentation for maintenance planner -

- **Frequently Asked Questions:** Navigates you to a list of frequently asked questions while using maintenance planner.
- **Help Center:** Navigates you to the online help documentation for maintenance planner.
- **What's New:** Provides information with the latest enhancements in maintenance planner.
- **User Guide:** Navigates you to the PDF version of the documentation for maintenance planner.

From July 2020, maintenance planner is enhanced with new functionalities which can be used only upon completing the onboarding process. For more information, see [Onboarding pre-requisites](#) in [Pre-Requisites \[page 6\]](#).

Hybrid Landscape Visualization: Helps you to visualize all your systems and their connections with help of library and canvas. For more information, see [Hybrid Landscape Visualization \[page 71\]](#).

Product Analytics: Identifies all the on-premise and cloud systems, systems that are out of maintenance, and third party add-ons installed in your systems. For more information, see [Product Analytics \[page 86\]](#).

3.4 Technical Advantages of Maintenance Planner

The maintenance planner is an essential administrative tool that helps you complete a major part of your application lifecycle management. Complex maintenance can be planned and scheduled to be deployed at later date. With maintenance planner you can:

- Explore all the systems and system tracks in your landscape.
- Plan a new system installation.
- Plan update or upgrade activities for an existing system.
- Plan a integration of a scenario using CIAS tile.
- Group systems into tracks and perform collective maintenance.
- Analyze dependent systems impacted by your change.
- Identify and evaluate changes to the landscape.
- Plan a new SAP S/4HANA system or convert an existing SAP ERP system to SAP S/4HANA.

Additional Advantages

Upon completing the onboarding process, following are some additional advantages that you can use:

- Visualize all types of systems and connection between them in canvas using different entities of the library.
- Identify all the products of your landscape and third-party add-ons deployed in your products.
- Identify all products that are out of maintenance.

i Note

For onboarding process, please see **onboarding pre-requisites** in [Pre-Requisites \[page 6\]](#)

3.5 Dependencies Supported in Maintenance Planner

This section lists all the scenarios where dependencies are supported in Maintenance Planner:

Technical stack compatibility calculation in “Define Change” step

During Define Change, the dependencies/prerequisites maintained in SAP product model are used for automatic calculation. Maintenance Planner takes into account the corresponding transitions of the various components based on the change in the application layer/technical layer.

Example scenarios:

SAP Product like SAP ERP is based on an SAP NetWeaver version. For example, SAP enhancement package 8 for SAP ERP 6.0 requires SAP NetWeaver 7.5.

If you are planning to upgrade your Business Suite system to this release, then the required underlying NetWeaver release will be calculated to SAP NetWeaver as ABAP 7.5, in the “Define Change” step.

If you are converting your SAP ERP system to SAP S/4HANA, all the supported add-ons will be implicitly transitioned.

Installation of SAP Fiori Apps with Maintenance Planner

SAP Fiori apps require front-end, back-end and if applicable, SAP HANA components. The required front-end and back-end components are delivered in separate products, and have to be installed in the system landscape.

Through integrated SAP Fiori installation planning procedure, Maintenance Planner addresses the need to install front-end and back-end components delivered in separate products, by calculating all the system requirements for selected SAP Fiori Apps in SAP Fiori Apps Library.

See blog: [Simplified Installation of SAP Fiori Apps with Maintenance Planner](#) 

Grouping logical systems together using System Tracks

Maintenance Planner lets you group related systems with the same target software level. Using system tracks, you can update or upgrade multiple systems at once. A single Stack XML file can be used for a collective update or upgrade, saving a lot of redundant effort.

For more information see: [Working with System Tracks \[page 54\]](#)

Product Maintenance Dependency

With Product Maintenance Dependency, Maintenance Planner allows you to create dependencies between systems that need to be updated or upgraded together as part of the maintenance process. This saves your effort in manually identifying such dependent systems.

For more information see: [Product Maintenance Dependency \[page 39\]](#)

Upgrade Dependency Analyzer

With Upgrade Dependency Analyzer integrated into Maintenance Planner, you can identify how an upgrade on any one of your systems in the landscape affects another system in your landscape.

For more information see: [Integrating Upgrade Dependency Analyzer \(UDA\) in Maintenance Planner \[page 68\]](#)

4 Working with Systems

This section provides information on process to update, upgrade, install, or maintain systems.

4.1 Exploring Systems in Your Landscape

You can use the maintenance planner tool to identify the systems in your landscape.

To view available systems

1. Access maintenance planner.
 - Go to <https://apps.support.sap.com/sap/support/mp> and log on with your SAP credentials (S-user).
 - From [SAP ONE Support Launchpad](#) launch the *maintenance planner* tile.
2. Choose *Explore Systems* tile.



The tool displays all the systems in your landscape. It displays the system ID, type (ABAP, JAVA, Dual Stack, HANA DB, and so on), product, verification status of the technical system. You can filter to find a system.

→ Recommendation

Choose the search icon to search for a system by product name or type.


Personalizing the view

As your landscape grows over time, you may see many systems populated here. You can choose which systems to view and decide on the level of detail using the following features:

- **Personalize:** Choose  (user menu button) on the top-right corner of the Menu bar, and choose *Personalize*. You can check all the fields you wish to see in the results table.
- **Filter:** You can quickly filter the list by selecting the field name above the table, and choosing the required values.
- **Fields:** If you can't see all the clickable fields, choose  to scroll and view the available options.

i Note

If you are seeing too few fields, please enable the others through the **Personalize** function.

- **Sort:** Choose  to sort the result list based on the fields or by display order.

- **Reset:** Choose  (reset) to clear filters.

The following options can be enabled via personalization:

Explore Systems screen:

- *System Type*: shows the type of the system.
- *SAP Solution Manager*: shows the SAP Solution Manager version the system belongs to.
- *Customer Number*: shows the customer number associated with this system.
- *Host*: shows the host system information.
- *Installation Number*: shows the system installation number.
- *Product*: shows the product that the system belongs to.
- *Verification Status*: shows the system verification status
- *Database Host*: shows the database host that the system belongs to.
- *Last Synchronized On*: is the date/time when the system was last uploaded to LMDB from SLD.

i Note

This is only available with Landscape Information Service (LIS), which works with SAP Solution Manager 7.2 SPS05 and above.

- *Last Replicated On*: is the date/time when the system was last updated in Maintenance Planner.

Verify System screen:

- *Enable Edit System*: toggle enabling the product instance editor.

To view a particular system details:

Choose a system by clicking on the system ID. The **Maintenance Planner** opens the maintenance cycle for the system.

The four quadrants indicate the options you have:

- **Plan**: plan a software change on your system, including planning and downloading files. For more information, see [Planning a New System Installation \[page 18\]](#).
- **Schedule**: schedule a system deployment of the calculated archives.
- **Sync**: choose the SAP Solution Manager from which landscape data is to be replicated on Maintenance Planner. This only applies if there are multiple Solution Managers. For more information, see [Synchronizing a System \[page 52\]](#).

i Note

This button is disabled if you have only one SAP Solution Manager mapped to your system.

- **Verify**: check if the system software description matches the SAP Product Model. In case of issues, correct them. For more information, see [Verifying an Erroneous System \[page 41\]](#).

3. Choose the system name for more detailed information about the system.

Detailed System Information

Clicking the tabs on the left gives you detailed system information, as follows:

- **Information**: basic information like the database type, host, and source solution manager

- **Software:** Software product stack for the system. Example: Product Versions, Product Instances, Software Component Versions. If the software product stack consists of any related release and information notes (RINs), the software product stack is displayed as a hyperlink to RIN.
Here, you can plan for a new system installation by using an existing system as reference to generate a stack xml for the new system. Also, you can download the system details by choosing Click to download software details button. For more information, see [Planning New System Installation by Using Existing System as Reference \[page 16\]](#).
- **Software Components:** the stack level of the software components.
- **Dependencies:** the product maintenance dependencies for the selected system.
- **Tracks:** all system tracks available.
- **Additional Software Details:** The tab is available if:
 - The system is an ABAP system.
 - You have maintained the RFC destination from SAP Solution Manager to the technical system. The name of the RFC destination can be found from the *Information* tab.
You can view the following:
 - additional software details without maintaining the RFC destination. That is, if you have uploaded the system using system information XML.
 - switch framework components and activated business functions maintained for the ABAP system.
 - list of all the 3rd party add-ons.

4.1.1 Planning New System Installation by Using Existing System as Reference

Context

Based on your requirements, you want to set up a new system as that of an already existing system. That is, generate an equivalent stack XML of an existing system for your new system.

Recreating an existing stack XML becomes a time-consuming process if it contains add-ons, product instances, or support package stacks added using other tools such as SAINT.

Maintenance planner provides an option that allows you to create a new system using the software details of the existing system as a reference.

Procedure

1. Choose an existing system from the *Explore Systems* tile.

This selected system acts as your reference system to generate the new stack XML.

2. From the maintenance plan cycle, choose the SID to explore the details of the system.

3. Choose the Software tab and choose the *Plan New System Using xxxx as Reference* button.

Note that xxxx is the SID of the existing or selected system.

4. Enter the new system SID and choose *Plan*.

The following details are displayed:

- A *Comparison View* with software details of the planned and reference system.
The transaction created for the new system. On choosing the *Info* icon, you can view the comparison view of the planned and reference system.

i Note

The *Info* icon is only available for the systems created using *Plan New System Using xxxx as Reference* button.

- A new system with equivalent stack XML of the reference system is created. The system displays the newly created system in the maintenance plan cycle. When you choose *Plan* from the maintenance cycle, the system directly takes you to the *Download Files* screen of the newly created system. Now, if you want to include or change product instances or OS/DB files in your new system, proceed as follows:
 1. From the *Download Files* screen, choose *Back* to go to the *Select Files* screen.
 2. Choose *Reselect OS/DB Files*.
Make the necessary changes and choose *Confirm Selection*.

i Note

Maintenance planner does the following:

- Displays relevant status notifications such as error or warning if the stack XML cannot be generated with all the components installed on the reference system. For more detailed description of the errors or warning notifications received, refer to SAP Note [2488396](#).
- Calculates the support package of the kernel, which is recommended by SAP at that point in time. With the new support package of the kernel getting mapped to an SAP NetWeaver release, the support package of kernels getting calculated also change.

4.1.2 Adding Systems Using System Information XML

The recommended approach to upload (add) the system in the maintenance planner tool is through SAP Solution Manager. In exceptional cases, the MP tool allows you to add systems by uploading the system information XML generated for a technical system. It enables you to upload system information XMLs for systems.

i Note

To avoid creating duplicates, log on with the S-user that is assigned to your SAP Solution Manager system.

For more information about system information XML, see

- [Uploading Landscape Data Into SAP Support Portal \[page 7\]](#)

- Knowledge base article (KBA) - [2287046](#).

Even though uploading system information XML is enabled for you, we do not recommend it for the following reasons:

- Does not provide a holistic view of all the systems present in your landscape
- Does not include crucial SAP Solution Manager functions
- Cannot determine if there is an active SAP Solution Manager

i Note

Uploading system information XML is still valid in some cases where the organization does not allow you to have external connectivity. For example, Defense and Security.

Therefore, the MP tool captures the reason why you are not using the SAP Solution Manager for uploading the system information XML. You are required to answer a few questions before you upload the system information XML.

Procedure

1. Access maintenance planner.
 - Go to <https://apps.support.sap.com/sap/support/mp> and log on with your SAP credentials (S-user).
 - From [SAP ONE Support Launchpad](#) launch the *maintenance planner* tile.
2. Choose *Explore Systems* tile.
3. Choose *Add System* button placed on the top right-hand corner of the view. An *Add System* dialog box is displayed with information about adding systems using the automated data replication of SAP Solution Manager.
4. Read the information and provide your confirmation by selecting the *Accept* checkbox and choose *Next*.
5. Upload the system information XML of your choice in the following ways:
 - Choose the *Browse...* button to upload any system information XML. You can proceed further once the system successfully validates the selected system information XML.
6. Choose *Next*. The dialog box displays the following system details:
 - *SID*: System ID. If required, you can extend the SID.
 - *Host*: Database host
 - *Type*: Type of system. For example, ABAP, Java, dual.
7. Choose *Next*. Select the option why you are adding the system using system information XML and provide the reason.

i Note

The reason provided by you is recorded in the system for further analysis.

8. Choose *Upload*. The system is added into the *maintenance planner* tool.

4.2 Planning a New System Installation

Maintenance Planner helps you plan a new system installation on your landscape.

At the end of this procedure you will be able to generate a Stack XML file and delta archives that will contain every detail of the system and the software components. These are used by Software Provisioning Manager for the installation process.

Here is an overview of the maintenance process in the previous and the current scenario:

Process without Maintenance Planner

1. Download initial software load from SMP
2. Install system using SWPM
3. Register system in SAP Solution Manager
4. Choose target product software on [Maintenance Optimizer](#)
5. Update system using SUM

New process using Maintenance Planner

1. Plan a system change in Maintenance Planner
2. Download the Stack XML and the corresponding stack
3. Download the initial installation archives from SMP, manually
4. Install new system using SWPM
5. Update system using SUM.

4.2.1 How to Install a New ABAP System

Maintenance planner supports installation of ABAP systems.

Context

Please refer this [blog](#) for the process flow of installing a new system using Maintenance Planner.

Procedure

1. In the *Home* view, choose *Plan a New System* tile. The system maintenance cycle is displayed.
2. Choose *Plan* and provide a System ID (SID). In the *Choose System Type* dialogue box on the left, the default selection is ABAP.

Optional: At any point doing the installation, you can name the transaction and save it, for easy identification later.

3. Follow the on-screen instructions to complete the 4-stage activity, starting with *Define change*. For example, you can choose the target software level, product, product version, stack level, technical usages, and so on.
 - a. *Define change*: Choose one from the available options for the system you have selected. For example:
 - Install an SAP NetWeaver system


- Install an SAP SCM system
- Install an SAP SRM system
- Install an SAP CRM system
- Install an SAP SOLUTION MANAGER system
- Install an SAP ERP system
- Install an SAP SFINANCIALS system
- Install an SAP BW/4HANA system


i Note

The following installation scenarios are not supported on maintenance planner:

- EHP4 FOR SAP ERP 6/0/NW701
- EHP3 FOR SAP ERP 6/0/NW701
- SAP EHP1 FOR SAP NETWEAVER 7.3


Choose the enhancement packages and the support package stack level of the target and choose *Confirm Selection*. Optionally, you can also install additional software components like add-ons. See also, *Iterative Planning [page 50]*.

The system displays the support package stack along with related release and information note (RIN) number. You can find an info  button is being displayed on selection of the *Support Package Stack* or next to the *Target Software Details*.

Using the  button, you can view the following:

- A list of all product versions to be installed or updated or upgraded on the technical system. The information is displayed in the following manner:
Product Version – Support Package Stack
- Software component version with corresponding support packages (including possible installation requirement)
- If applicable for your selected support package, a link to the *Innovation Discovery* tool is displayed. The innovations available for you in the tool are dynamically calculated based on the *Product Version – Support Package Stack* selection you made.

i Note

When you are at this step, the system is yet to calculate the software packages to be installed on the system. The list shown on selection of the info  button displays possible software components and support packages, which would be installed in the system target state.

If there is a possibility for you to choose an alternative software component version, for example SAP_UI 7.40 or SAP_UI 7.50, this is also displayed on the screen.

- Select Files*: Depending on the software components you have selected, choose the files to be installed. A summary of the selected files are displayed. You can change this by clicking the button *Reselect OS/DB Files*.
Choose *Next*.

i Note

In this step, you can deselect the ABAP support packages calculated additionally by the system. The system validates the deselected ABAP support packages again when you navigate to the next step. In case the deselected ABAP support packages are required to ensure a valid queue, the system reselects those packages. Also, the packages inside the OS_DB node are not considered for validation.

See also, [Iterative Planning \[page 50\]](#)

- c. **Download Files:** You can download the installation plan by choosing [Download Stack XML](#) and choose [Push to Download Basket](#) to download the archives from SAP Support Portal. You can also download the maintenance plan as a PDF or a text file from [Additional Downloads](#) menu.

Maintenance planner supports planning of new installations on a desired stack level. With Maintenance planner, you can plan a target software level and also download the Stack XML and the installation archives in one step.

Choose [Next](#) to move to the last stage of the installation process.

- d. **Complete:** Choose [Additional Downloads](#). You can download the installation plan as a PDF by choosing [Download PDF](#) or export list of all downloads to a spreadsheet by choosing [Export to Excel](#). A link to the initial installation media is towards the end of the PDF.

Planned Changes

Process Type: New system Installation

Installation tool: SOFTWARE PROVISIONING MGR 1.0 Support Package Level-007

Update Tool: SOFTWARE UPDATE MANAGER 1.0 Support Package Level-012

[Download Installation Media from Service Market Place](#)

Overview of Changes

Target Status

http://service.sap.com/~form/handler?_APP=0020068250000001943&_EVENT=DISPHIER&HEADER=Y&FUNCTIONBAR=N&EVENT=TREE&NE=NAVIGATE&ENR=6783780010090008111&V=INST	
EHP3 FOR SAP SRM 7.0	06 (10/2014)
SAP SRM 7.0	17 (09/2014)
SAP NETWEAVER 7.4	08 (09/2014)

At this stage you can choose [Set to Complete](#) button to finalize the maintenance transaction and no further changes are permitted. If you wish to perform additional updates, you can choose [Back](#) and repeat the above steps iteratively.

4.2.1.1 How to Uninstall ABAP Add-Ons During System Update

Context

During ABAP system update, you could encounter add-ons that you do not require and intend to uninstall these add-ons from your system.

You cannot uninstall all the add-ons. For more information on the list of ABAP you can uninstall, see SAP Note [2011192](#).

Maintenance planner provides an option to uninstall add-ons. Since you cannot uninstall all the add-ons, maintenance planner does the following:

- Validates your request to uninstall the add-ons
- Provides a list of add-ons that you can uninstall
- Checks for the dependencies between softwares on the same technical system
- Provides a notification if the add-ons are uninstalled during planning procedure
- Displays relevant SAP Notes associated with the software component versions.

i Note

- Maintenance planner supports planning of uninstalling add-ons only during system update or upgrade.
- You can also uninstall add-ons not supported by SAP S/4HANA on premise edition during the conversion planning. For more information, see [How to Uninstall Add-Ons Not Supported during SAP S/4HANA Conversion \[page 37\]](#).

Procedure

1. Load your system that you want to update from [Explore Systems](#).
2. In the [Define Change](#) screen, select the [Uninstall Add-Ons](#) radio button.

i Note

- The [Uninstall Add-Ons](#) radio button is available only when there are add-on product versions present in the system that you can uninstall.
- The undo and redo functionality is not supported for add-on uninstallation.
- Only when you select the [Plan a Conversion to SAP S/4HANA](#) option, the system lists the following add-ons:
 - Not supported by SAP S/4HANA
 - Need to uninstall to continue with the SAP S/4HANA conversion procedure
- The uninstall add-ons option allows you to calculate the stack XML accordingly if the add-on product versions consist of add-on software component versions that you can:

- Uninstall
- Retrofit to the target system

An information message is displayed with software component versions and add-on product version that SUM uninstalls during consumption of stack.XML. It also displays relevant SAP Notes associated with the SCVs.

You can continue with your planning. The system marks the selected add-ons for deletion.

4.2.2 How to Install a New Java System

Maintenance planner supports installation of Java systems.

Context

Please refer this [blog](#) for the process flow of installing a new system using maintenance planner.

Procedure

1. In the *Home* view, choose *Plan a New System* tile. The system maintenance cycle is displayed.
2. Click *Plan*.
3. In the *Choose System Type* dialogue box on the left, choose *Java (Install a Java system)*. Provide a System ID (SID).

Optional: At any point doing the installation, you can name the transaction and save it, for easy identification later.


4. Select a target software level to install and choose *Confirm Selection*.
 - **In case of SAP S/4HANA 1511 Java technical system setup**
If *Adobe Document Services* needs to be installed along with Enterprise Services Repository, then choose *Update NetWeaver* option after choosing *Confirm Selection*. Thereafter, select the same Support Package Stack, and choose the desired instance.
 - **In case of Process Orchestration system**
Choose the following product instances over the SAP NetWeaver installation:
 - Adapter Engine (Java EE)
 - Advanced Adapter Engine Extnd
 - Application Server Java
 - BPM and Event Management
 - Composition Platform
5. Follow the on-screen instructions to complete the 4-stage activity, starting with *Define change*. For example, you can choose the target software level, product, product version, stack level, technical usages, and so on.


- a. **Define change:** Choose the enhancement packages and the target stack level and choose [Confirm Selection](#). Optionally, you can also install additional software components like add-ons. See also, [Iterative Planning \[page 50\]](#).

i Note

Please check the product specific installation or master guide to check if the desired product to be installed is an add-on and on which other SAP NetWeaver product instances it is based. Please select these product instances first before selecting the desired add-on under [Install or Maintain Add-on](#).


For example, if you would like to install the PI ADAPTERS (Elster/Swift/BCONS), you need to first select the underlying basis instances [Advanced Adapter Engine](#) or [PI Adapter Engine](#), before you can see or select the required adapters in the add-on section.

The system displays the support package stack along with related release and information note (RIN) number. You can find an info  button is being displayed on selection of the [Support Package Stack](#) or next to the [Target Software Details](#).

Using the  button, you can view the following:

- A list of all product versions to be installed or updated or upgraded on the technical system. The information is displayed in the following manner:
Product Version – Support Package Stack
- Software component version with corresponding support packages (including possible installation requirement)
- If applicable for your selected support package, a link to the [Innovation Discovery](#) tool is displayed. The innovations available for you in the tool are dynamically calculated based on the *Product Version – Support Package Stack* selection you made.

i Note

When you are at this step, the system is yet to calculate the software packages to be installed on the system. The list shown on selection of the info  button displays possible software components and support packages, which would be installed in the system target state.

If there is a possibility for you to choose an alternative software component version, for example SAP_UI 7.40 or SAP_UI 7.50, this is also displayed on the screen.

- b. **Select Files:** Depending on the software components you have selected, choose the files to be installed. A summary of the selected files are displayed. You can change this by clicking the button [Reselect OS/DB Files](#).
Choose [Next](#).

i Note

The above steps can be repeated to install additional software.

- c. **Download Files:** You can download the installation plan by choosing [Download Stack XML](#) and choose [Push to Download Basket](#) to download the archives from SAP Support Portal. You can also download the maintenance plan as a PDF or a text file.

Maintenance planner supports planning of new installations on a desired stack level. With maintenance planner, you can plan a target software level and also download the stack XML and the installation archives in one step.

Choose *Next* to move to the last stage of the installation process.

- d. *Complete*: Choose *Additional Downloads*. You can download the installation plan as a PDF by choosing *Download PDF* or as a spreadsheet by choosing *Export to Excel*. A link to the initial installation media is towards the end of the PDF.

General Information

System Name: SI2
 System Type: JAVA
 System ID: SI2[JAVA]

Current Status

SI2

Planned Changes

Process Type: New system Installation
 Update Tool: SOFTWARE UPDATE MANAGER 1.0 Support Package Level-14
 Upgrade DVD: 7.31 SP01 - NW731_01_JAVA_NEW
 DVD Kit-id: ba1a7790-fba1-11e3-86d2-005056a214d6

[Download Installation Media from Service Market Place](#)

Overview of Changes:

Target Status

SI2
SAP EHP1 FOR SAP NETWEAVER 7.3 17 (11/2015)

At this stage you can choose the button *Set to Complete* to finalize the maintenance transaction and no further changes are permitted. If you wish to perform additional updates, you can choose *Back* and repeat the above steps iteratively.

4.2.3 Planning a Container-based System

Maintenance Planner helps you plan a container-based system installation on your landscape using `<container-based system product>`.

1. Plan a new `<container-based system product>` installation:
 1. Go to the Maintenance Planner at <https://apps.support.sap.com/sap/support/mp>.
 2. Choose **Plan a new system** **Plan**.
 3. As *Target Software Level to Install*, select **CONTAINER BASED** `<container-based system product>`.
Select the *Support Package Stack* and confirm your selection.
 4. On the *Select OS/DB dependent files* and *Select Stack Dependent and Independent files* dialogs, select the following items and confirm your selection:

- Choose the operating system of your administrator's workstation.
 - [SL CONTAINER BRIDGE](#)
5. Confirm your selection and click [Next](#)
2. Choose [Execute Plan](#) to have the Stack XML file and the SLCB01_<Version>.SAR archive downloaded to your Administrator's workstation.

4.2.4 How to Consume Stack XML Files Using SWPM

Context

Perform the following steps to consume the Stack XML file using Software Provisioning Manager (SWPM):

Procedure

1. Using the link provided in the maintenance plan, download the installation media files.
2. Download and extract the latest version of Software Provisioning Manager from the [Download Basket](#), and follow the recommendations of [SAP Note 1680045](#).
3. Initialize SWPM. Use the following command syntax to call SWPM: <path_to_directory_where_you_extracted_SWPM>/sapinst SAPINST_STACK_XML=<absolute_path_to_location_of_STACK_XML_file>
 - **UNIX / IBM i:**

```
./sapinst SAPINST_STACK_XML=/download/Stack_1000001234_20150423.xml
```
 - **Windows:**

```
sapinst.exe SAPINST_STACK_XML=C:\tmp\Stack_1000001234_20150423.xml
```
4. Follow the instructions in the installation guide:
 - Visit help.sap.com
 - Search for the product you are updating.
 - In the document list that appears, choose the installation guide and follow the necessary steps. For more information, see [Implementing the Landscape Change \[page 51\]](#).

Related Documents:

- About SUM: <http://scn.sap.com/community/it-management/alm/software-logistics/blog/2012/11/07/software-update-manager-sum-introducing-the-tool-for-software-maintenance>.
- About Software Provisioning Manager: <http://scn.sap.com/docs/DOC-8501>.

UDI-Java scenario

You may notice that Software provisioning manager initial menu option for "up-to-date" installation of Business suite or Solution manager 7.2 JAVA with stack configuration file generated from Maintenance planner is different with ABAP stack installation screen.

This is the expected behavior and the calculation from MP and the representation in SWPM is correct. The UDI-Java scenario implementation is a bit different from the UDI-ABAP scenario. Refer the KB article: [2437303](#) for a detailed description.

4.2.5 Planning a Minimum Software Change

Context

You want to perform a minimum required system update while planning for the following software changes:

- Applying single component (updating support package of an individual ABAP software component version)
- Updating kernels (Do not use the stack XML for implementation of this plan; only download the archives). For details regarding kernel patching, refer respective SUM guide.
- Updating only Java patches (Do not use the stack XML for implementation of this plan; only download the archives). For more information, see [Downloading Java Patches without Updating the System \[page 49\]](#).

i Note

- The Java patches for the unchanged components cannot be included in the stack XML file.
 - You can install the Java patches using SUM. For more details on how to install Java patches using SUM, see SAP Note [1641062](#).
- Updating HR packages (Do not use the stack XML for implementation of this plan; only download the archives).

Procedure

1. Choose a system from the [Explore Systems](#) tile.
2. Choose [Plan](#).

The [Define Change](#) view displays the current software details, that is, the start state of the system.

3. Select the [Plan a Minimum Software Change](#) option.

A dialog box appears providing information on the scenarios where you can perform the minimum required system update while planning. It also provides information whether you can use the generated stack XML for implementation of the plan.

4. Choose *Continue*.

Now, the *Define Change* view displays the target software details, that is, the target state of the system.

In the background, the MP tool automatically applies minimum required system update. On a product level, the target state of the system is same as of the start state of the system. That is, in most cases, the current software status in terms of product version, support package stack, and product instance remains as it is.

i Note

When you choose *Continue* and navigate to the *Define Change* screen, the *Plan a Minimum Software Change* option is not available for the following reasons:

- If you have already chosen the *Plan a Minimum Software Change* option
- If the minimum required software update has been applied.

The *Next* button is enabled for further planning options.

4.3 Planning an SAP S/4HANA System

The guided procedure provided in the maintenance planner allows you to simulate an installation of a new SAP S/4HANA system or a conversion of an existing SAP ERP system to SAP S/4HANA system.

Related Information

[Manually Install a New SAP S/4HANA System \[page 29\]](#)

[Manual Conversion to SAP S/4HANA System \[page 32\]](#)

[How to Uninstall Add-Ons Not Supported during SAP S/4HANA Conversion \[page 37\]](#)

4.3.1 Install New SAP S/4HANA System

4.3.1.1 Manually Install a New SAP S/4HANA System

Context

Proceed with the following steps to install a new SAP S/4HANA system:

Procedure

1. Choose [Plan for SAP S/4HANA](#) tile on the [Home](#) view. The following 4 stages of planning are displayed on the screen:
 - [Overview](#)
 - [Select Backend System](#)
 - [Select Additional Systems](#)
 - [Summary](#)

2. On the [Overview](#) screen, choose [Install a New SAP S/4HANA System](#).

You can find more information regarding the installation in the link, [SAP S/4HANA Installation Guide](#), provided under the "New Installation Details" section.

3. Choose [Next](#) and enter the following backend details:
 - New system ID (SID) for the backend
 - Target product version
 - Target stack
 - Target Product Instances
4. Choose [Next](#) and enter the additional system details in the following sections:
 - **Frontend Server Selection**

By default, the Frontend Server Selection option is selected. This implies that the SAP Fiori frontend server for SAP S/4HANA is selected for installation. Now, you can choose one of the following radio buttons and enter the required details:

 - [Existing System](#)

Allows you to apply SAP Fiori for SAP S/4HANA add-on on an existing SAP NetWeaver system. Enter the details for the target product version, target stack, target product instance, underlying SAP NetWeaver system, and target SAP NetWeaver stack.
 - [Install a New System](#)

Allows you to plan for a new system ID for SAP Fiori frontend server for SAP S/4HANA. Enter the details for the target product version, target stack, target product instance, underlying SAP NetWeaver system, and target SAP NetWeaver stack.
 - [Co-deployed with Backend](#)

Allows you to co-deploy the SAP Fiori for SAP S/4HANA on the backend system selected in step 3. Enter the details for the target product version, target stack, and target product instance.

i Note

- The target product instances are automatically displayed once you choose the target stack. By default, the target instances are preselected. Based on your requirement, you can select or unselect the target instances.
- If you select the option for co-deployment, the [Select Underlying SAP NetWeaver](#) and [Target SAP NetWeaver Software Stack](#) options are disabled.
- Dual stack system planning, as part of a new installation planning is not supported on Maintenance Planner

- **JAVA Adapter Selection**

Choose the option to update the support package stack of existing SAP S/4HANA Java adapter or install a new SAP S/4HANA Java adapter. You have to enter the relevant details based on your selection of the radio button.

5. Choose [Next](#), and you can find the installation procedure details under the [Summary](#) as follows:
 - Success message if the installation is successful
 - Link to the OS/DB product availability matrix
6. Choose [Continue Planning](#) to proceed with the maintenance planning procedure. For more information, see [Planning a System Update or Upgrade \[page 45\]](#).

4.3.1.2 Installation Using SAP Cloud Appliance Library

This section explains you how to install a SAP S/4HANA system using **SAP Cloud Appliance Library**. For more information, see [SAP Cloud Appliance Library](#).

Procedure

1. Choose **Plan for SAP S/4HANA** tile from home. The following 4 stages of planning are displayed on the screen:
 - Overview
 - Backend System
 - Additional Systems
 - Summary
2. In the Overview screen, select [Installation using SAP Cloud Appliance Library](#) from the [Install New SAP S/4HANA System](#) drop-down list.

i Note

Description gives more information for each selected installation option.

3. Click [Next](#) and enter the following backend system details:

- [Install a New System](#) - Enter the system ID (SID) of the backend system.
- [Target Version](#) - Select a product version to install from the drop-down list.

i Note

The drop-down list displays only the SAP Cloud Appliance Library supported target versions.

- [Target Stack](#) - Select the relevant support package stack from the drop-down list.
4. Click [Next](#) and enter the additional system details:
 - [Frontend Server Selection](#) - By default, this checkbox is selected and cannot be changed.
 - [Co-deployed with Backend](#) - Displays the SID entered in the previous step.
 - [Target Version](#) - The product version is automatically selected based on the selected target version in the previous step.
 - [Target Stack](#) - Select the relevant support package stack from the drop-down list.
 - [Target Product Instances](#) - The instances are automatically selected based on the target stack selection. Select or deselect the product instances accordingly.
 5. Click [Next](#) and view the installation procedure details in [Summary](#) as follows:
 - Link to the OS/DB product availability matrix
 - Link to the technical downtime optimization app that analyzes and optimizes the technical downtime. For more information, click the SAP Note link.
 6. Click [Continue Planning](#). In [Define Change](#), the following options are displayed:
 - [Target Software Detail](#) - Displays the list of existing software versions to be installed.
 - [Install or Maintain an Add-on](#) - Install an additional software by selecting the product version, its support package stack, and product instances from the given list.

i Note

To change the details of a software from the existing list, select the existing software with the new support package and product instances.

7. Click [Next](#) and select or deselect the OS/DB files accordingly in [Select Files](#).
8. Click [Confirm Selection](#) to view the generated files of the plan.
9. In the [Complete](#) step, click [Provision System](#) to create and add this plan.
Once the plan is added, you are automatically redirected to SAP Cloud Appliance Library for deploying the system.

4.3.2 Convert Existing SAP ERP System to SAP S/4HANA System

4.3.2.1 Manual Conversion to SAP S/4HANA System

Prerequisites

You must check for the following prerequisites:

- The source system must have support package update manager (SPAM) at patch level 59 or higher
- For the SAP Solution Manager, you must have done the following:
 - Implement [SAP Note 2186164](#)
 - Maintain an RFC destination from the SAP Solution Manager to the source system.

Context

Proceed with the following steps to convert an existing system to SAP S/4HANA system:

Procedure

1. On the *Overview* screen, choose *Plan an SAP S/4HANA conversion on an existing system*.
The *Overview* screen also provides you with the following details under the *System Conversion Details* section:
 - Steps involved in the conversion process
 - OS/DB product availability matrix for SAP S/4HANA
 - More information regarding conversion in the link [SAP S/4HANA Product Page](#). You can search for the conversion guide based on the release version.
2. Choose *Next* and enter the following backend system details:
 - Existing backend server
 - Current version is retrieved from the customer profile and is displayed on the screen
 - Target product version
 - Target support package stack
3. Choose *Next* and enter the additional system details in the following sections:
When you choose the *Next* button, the Maintenance Planner SAP S/4HANA pre-checks are triggered. If the system encounters any failures during the pre-checks, you are directed to the *Summary* screen. Here, you can check for the results of the pre-checks and also you can download the pdf that is generated.

- **Frontend Server Selection**

By default, the Frontend Server Selection option is selected. This implies that the SAP Fiori frontend server for SAP S/4HANA is selected for installation. Now, you can choose one of the following radio buttons and enter the required details:

- **Existing System**
Allows you to apply SAP Fiori for SAP S/4HANA add-on on an existing SAP NetWeaver system. Enter the details for the target product version, target stack, target product instance, underlying SAP NetWeaver system, and target SAP NetWeaver stack.
- **Install a New System**
Allows you to plan for a new system ID for SAP Fiori frontend server for SAP S/4HANA. Enter the details for the target product version, target stack, target product instance, underlying SAP NetWeaver system, and target SAP NetWeaver stack.
- **Co-deployed with Backend**
Allows you to co-deploy the SAP Fiori for SAP S/4HANA on the backend system selected in step 3. Enter the details for the target product version, target stack, and target product instance.

i Note

- The target product instances are automatically displayed once you choose the target stack. By default, the target instances are preselected. Based on your requirement, you can select or unselect the target instances.
- If you select the option for co-deployment, the [Select Underlying SAP NetWeaver](#) and [Target SAP NetWeaver Software Stack](#) options are disabled.

- **JAVA Adapter Selection**

Choose the option to update the support package stack of existing SAP S/4HANA Java adapter or install a new SAP S/4HANA Java adapter. You have to enter the relevant details based on your selection of the radio button.

4. Choose [Next](#), and you can find the installation procedure details under the [Summary](#) as follows:
 - Success message if the conversion is successful
 - [Download Result](#) button - you can generate and download a pdf with the conversion details
 - Link to the OS/DB product availability matrix
 - Maintenance planner pre-checks detail
5. Choose [Continue Planning](#) to proceed with the maintenance planning procedure. For more information, see [Planning a System Update or Upgrade \[page 45\]](#).

i Note

- Only for the SAP S/4HANA system conversion scenario, you can download the stack XML along with the software archives from the download basket. Maintenance Planner adds in the required software archives to the download basket including the software archives that were earlier part of the DVDs.
- Note that for some of the database relevant files, for example, ORAClient, HDBClient, you still have to download them separately as done earlier.
- You can deselect the language archives during the conversion planning process from the [Select Stack File](#) view.

4.3.2.2 Conversion using SAP Cloud Appliance Library

Context

This section explains how to convert an existing SAP ERP system to SAP S/4HANA system using **SAP Cloud Appliance Library**. For more information, see [SAP Cloud Appliance Library](#).

Procedure

1. Choose *Plan for SAP S/4HANA* tile from home. The following 4 stages of planning are displayed on the screen:
 - Overview
 - Backend System
 - Additional Systems
 - Summary
2. In the *Overview* stage, select *Conversion using SAP Cloud Appliance Library* from the *Convert Existing SAP ERP System to SAP S/4HANA System* drop-down list.

i Note

Description gives more information for each selected conversion option.

3. Click *Next* and enter the following in backend system details:
 - *Existing System* - Select an existing SAP ERP system that you want to convert from the available list.
 - *Current Version* - On selecting an existing SAP ERP system, its current version is automatically fetched.
 - *Target Version* - Select a target SAP S/4HANA version to which you want to convert your system.

i Note

The drop-down list displays only the SAP Cloud Appliance Library supported target versions.

4. Choose *Next* to add additional systems.
 - *Frontend Server Selection* - This option is selected by default and cannot be changed.
 - *Co-deployed with Backend* - Displays the additional system ID based on the existing selected system.
 - *Target Version* - Displays the system target version selected in the previous step.
 - *Target Stack* - Select an appropriate stack for the additional system.
 - *Target Product Instances* - Displays and selects all the product instances based on the selected target stack. You can deselect the product instances accordingly.
5. Choose *Next* and review all the information related to the conversion in the *Summary* stage.

i Note

In case of errors, ensure to fix them before proceeding further.

6. Click *Continue Planning*. In *Define Change*, the following options are displayed:
 - *Target Software Detail* - Displays the list of existing software versions to be installed.
 - *Install or Maintain an Add-on* - Install an additional software by selecting the product version, its support package stack, and product instances from the given list.

i Note

To change the details of a software from the existing list, select the existing software with the new support package and product instances.

7. Click *Next* and select or deselect the OS/DB files accordingly in *Select Files*.
8. Click *Confirm Selection* to view the generated files of the plan.
9. In the *Complete* step, click *Continue with Conversion*.

Once the plan is added, you are automatically redirected to SAP Cloud Appliance Library to continue with the system conversion.

4.3.3 How to Update or Upgrade SAP S/4HANA System

Context

Proceed with the following steps to update or update an existing system to SAP S/4HANA system:

Procedure

1. On the *Overview* screen, choose *Upgrade of Update SAP S/4HANA system*.
The *System Upgrade or Update Details* section provides a link to the [SAP S/4HANA Guides](#). You can search for the relevant guide for your reference.
2. Choose *Next* and enter the following backend system details:
 - Existing back-end server
 - Current version is retrieved from the customer profile and is displayed on the screen
 - Target product version
 - Target support package stack
3. Choose *Next* and enter the additional system details in the following sections:

When you choose the *Next* button, the maintenance planner SAP S/4HANA pre-checks are triggered. If the system encounters any failures during the pre-checks, you are directed to the *Summary* screen. Here, you can check for the results of the pre-checks and also you can download the generated PDF.

- **Frontend Server Selection**

By default, the *Frontend Server Selection* option is selected. This implies that the SAP Fiori frontend server for SAP S/4HANA is selected for installation. Now, you can select any one of the following radio buttons and enter the required details:

- *Existing System*
Allows you to apply SAP Fiori for SAP S/4HANA add-on on an existing SAP NetWeaver system. Enter the details for the target product version, target stack, target product instance, underlying SAP NetWeaver system, and target SAP NetWeaver stack.
- *Install a New System*
Allows you to plan for a new system ID for SAP Fiori frontend server for SAP S/4HANA. Enter the details for the target product version, target stack, target product instance, underlying SAP NetWeaver system, and target SAP NetWeaver stack.
- *Co-deployed with Backend*
Allows you to co-deploy the SAP Fiori for SAP S/4HANA on the backend system selected in step 3. Enter the details for the target product version, target stack, and target product instance.

i Note

- The target product instances are automatically displayed once you choose the target stack. By default, the target instances are preselected. Based on your requirement, you can select or unselect the target instances.
- If you select the option for co-deployment, the *Select Underlying SAP NetWeaver* and *Target SAP NetWeaver Software Stack* options are disabled.

- **JAVA Adapter Selection**

Choose the option to update the support package stack of existing SAP S/4HANA Java adapter or install a new SAP S/4HANA Java adapter. You have to enter the relevant details based on your selection of the radio button.

i Note

- If the selected target product version is for an upgrade, the system executes the pre-checks. The pre-checks are displayed on the summary screen.
- If the selected target product version is for an update, the system does not execute any pre-checks. No pre-checks are displayed on the summary screen.

4. Choose *Next*, and you can find the installation procedure details under the *Summary* as follows:
 - Success message if the conversion is successful
 - *Download Result* button - you can generate and download a pdf with the conversion details
 - Link to the OS/DB product availability matrix
 - Maintenance planner pre-checks detail
5. Choose *Continue Planning* to proceed with the maintenance planning procedure. For more information, see [Planning a System Update or Upgrade \[page 45\]](#).

i Note

You can deselect the language archives during the conversion planning process from the *Select Stack File* view.

4.3.4 How to Uninstall Add-Ons Not Supported during SAP S/4HANA Conversion

During SAP S/4HANA conversions from SAP ERP systems, there can be scenarios wherein some of the add-ons are not supported and the conversion planning process cannot continue. Maintenance planner does the following prechecks:

- Checks for any add-ons that are not supported in the target system
- Checks if the add-ons that are not supported can be uninstalled.

i Note


- If the unsupported add-ons can be uninstalled, the system prompts you to continue with the conversion planning process. It also prompts you that the Software Update Manager will uninstall these add-ons.
- If the unsupported add-ons cannot be uninstalled, you cannot continue with the conversion planning process.
- The add-on uninstallation is supported from SUM support package 17 onwards.
- The uninstall add-on option allows you to calculate the stack XML accordingly if the add-on product versions consist of add-on software component versions that you can:
 - Uninstall
 - Retrofit to the target system

During the conversion planning prechecks, the *maintenance planner* provides a list of add-on product versions that can be uninstalled and that cannot be uninstalled.

For add-on product versions that are not supported by SAP S/4HANA, which need to be uninstalled for conversion to continue, are listed only when you select *Plan a Conversion to SAP S/4HANA* option.

4.4 Planning an SAP BW4/HANA System

Maintenance planner allows you to plan a new system installation of SAP BW/4HANA or convert an existing SAP Business Warehouse system to SAP BW/4HANA.

For more information, see [Road to SAP BW4/HANA](#) . (You can also find the roadmap to SAP BW/4HANA document on the maintenance planner home screen.)

4.4.1 How to Install a New SAP BW4/HANA System

Please refer to the procedure [How to Install a New ABAP System \[page 19\]](#) for installing a new SAP BW/4HANA system.

4.4.2 How to Convert an Existing SAP NetWeaver System to SAP BW/4HANA System

Prerequisites

The existing SAP NetWeaver system has the following product instances:

- SAP BW/4HANA STARTER
- Application Server ABAP

i Note

- You can convert only SAP NetWeaver 7.5 based systems, since the SAP BW/4HANA STARTER product instance is available in SAP NetWeaver 7.5 releases but not in lower releases.
- However, you can perform the BW/4HANA conversion add-on pre-checks for lower releases of SAP NetWeaver BW systems following the **steps 1-4** in the procedure below. You would not be able to generate a stack XML for such a start state, as a one-step conversion is not possible.

Context

Proceed with the following steps to convert an existing system to SAP BW4/HANA system:

Procedure

1. In the *Home* view, choose *Explore System*. Choose the SAP NetWeaver system that you want to convert to SAP BW/4HANA.
2. Choose *Plan* in the maintenance planning cycle.
3. In the *Define Change* view, choose *Plan on Conversion to SAP BW/4HANA*.
4. Choose the product version and the support package stack.

i Note

The system performs add-on prechecks. If the system encounters any unsupported add-ons, the system displays an error notification and stops the conversion planning to SAP BW/4HANA.

A *Conversion Information* dialog box appears if the add-on precheck is successful. Choose *Continue*.

5. Choose *Confirm Selection*.
6. Proceed with the on-screen instructions to complete with the other planning steps.
 - *Select Files*: Depending on the software components you have selected, choose the files to be installed. Select OS/DB files. Choose *Next*.

- **Download Files:** You can download the installation plan by choosing [Download Stack XML](#) and choose [Push to Download Basket](#) to download the archives from SAP Support Portal. You can also download the maintenance plan as a PDF or a text file. Choose [Next](#).
- **Complete:** Choose [Additional Downloads](#). You can download the maintenance plan as a PDF by selecting [Download PDF](#).

4.5 Product Maintenance Dependency

Product maintenance dependency defines which technical systems and product instances need to be updated and upgraded **together** in the maintenance processes.

Currently, the following dependency scenarios are possible:

From	To
JAVA only system	ABAP back end systems
ABAP stand-alone system	Portal systems HANA systems
Dual stack system	ABAP back end systems

When you try to add a dependent system, Maintenance Planner proposes all possible maintenance dependencies, based on the product versions. For more information, see [Defining a Product Maintenance Dependency \[page 39\]](#).



i Note

1. The existing dependencies defined in the Product System Editor (PSE) in SAP Solution Manager will be synchronized in Maintenance Planner.
2. No business dependencies are supported yet. For example, an SAP ERM and an SAP CRM cannot be added to the same product maintenance dependency.
3. In a Business Suite on HANA scenario, ensure that the Business Suite and HANA systems are connected.

4.5.1 Defining a Product Maintenance Dependency

To define a product maintenance dependency, perform the following steps:

1. From the [Explore Systems](#) tile, choose a system.
The maintenance cycle for the selected system appears.
2. Choose the system icon in the middle, to view the detailed system information
3. Choose [Dependencies](#) tab on the left to view existing dependencies
A graphic of all the systems directly and indirectly dependent on the selected system, is displayed.

4. Choose the  icon to switch to edit mode, and choose the  icon to add a dependent system
5. In the *Product Maintenance Dependency* window, provide the following details of the dependent system to be added, and click *OK*:
 - System:** The name of the system
 - Connect To:** The system to which you want to define dependency
 - Impact:** Choose the impact of this dependency based on the following logic:
 - Minimal impact**

Changes to one system will require minor or no changes to a related system.
A typical use case for this would be defining a minimal impact between an ABAP and a Java system in a customer landscape. Changes to the Business suite ABAP system will have minimum impact on the connected Java system.

Tips: Systems in a minimal impact relationship is referred as **Hub** landscape pattern in Technical System Editor of Solution Manager.
 - Maximum impact**

Changes to one system will require a change to a related system
A typical use case for this would be defining maximum impact between two SAP ERP systems. All related systems must then be updated when one of them is changed.

Tips: Systems in a maximum impact relationship is referred as **Sidecar** landscape pattern in Technical System Editor of Solution Manager.
6. Save the changes.
 - At this point, the changes are saved as a transaction and all dependencies you added will be visible only within this transaction.
 - Optional:** For the changes to persist in the system, the transaction must be activated on the SAP Support Portal.

Related Information

[Activating the Dependency Changes to SAP Support Portal \[page 40\]](#)

4.5.1.1 Activating the Dependency Changes to SAP Support Portal

This section describes the process of activating the product maintenance dependencies on the SAP Support Portal.


Procedure

1. Load the transaction you have created from the section [Defining a Product Maintenance Dependency \[page 39\]](#). The maintenance cycle for the transaction is displayed.
2. Choose *Verify*.

3. Follow the on-screen instructions to complete the verification process.
4. Save the changes.
5. Choose the *Activate* button. This saves the transaction updates to the SAP Support Portal, and the dependencies created will be available during future logins.

4.5.2 View and Modify an Existing Maintenance Dependency

To **view** a dependent system, follow steps 1-5 in the section [Defining a Product Maintenance Dependency \[page 39\]](#).

To **remove** a dependent system, follow steps 1-6 in the section [Defining a Product Maintenance Dependency \[page 39\]](#) and choose the  icon. Save your changes when you have made the changes.

You cannot view the type of existing dependencies. Once the dependency is set, Maintenance Planner uses this information to plan an update or upgrade of these systems.

To **change** a dependency, remove the dependent system and add it again with a new dependency declaration.

i Note

1. Dependencies from the Product System Editor in SAP Solution Manager are automatically forwarded to Maintenance Planner.
2. Once you change the maintenance dependencies on maintenance planner, future sync from LMDB will not override these changes.

4.6 Verifying an Erroneous System

Your system may be marked erroneous if the system description does not comply with the SAP product model. You cannot update or upgrade such a system. Ensure that your system complies with the SAP model.

Related Information

[Why is the System Erroneous? \[page 42\]](#)

[How to Identify an Erroneous System \[page 42\]](#)

[How to Verify an Erroneous System \[page 42\]](#)

[How to Implement the Correction to Verify Your System \[page 44\]](#)

4.6.1 Why is the System Erroneous?

Your system may be erroneous if its description does not comply with the SAP product model.

This can be for one or more of the following reasons:

- The system description shows a different software component than the actual software stack installed on the system.
- The system is modelled incorrectly in Landscape Management Database.
- Overlap of data from two or more SAP Solution Managers to maintenance planner. Read this [Blog](#) to know more.
- Product maintenance dependency not verified for this system.
- **Example scenario:**
 - An ERP 6.0 system is associated as a dependent system with an ERP 5.0 system.
 - An ERP 6.0 ABAP backend system is missing a corresponding front end system.
 - The software component version of SAP Basis is 740 but the assigned software product version is EHP1 of SAP NetWeaver 7.3.

i Note

If you have installed ERECRUIT software component on an SAP NetWeaver system, it needs to be modelled as an SAP ERP system for planning in maintenance planner.

If there are no product systems maintained for the technical system in LMDB which has modelled it as an ERP system, it is possible to model the technical system as an SAP ERP system during the verification step of the maintenance planner.

4.6.2 How to Identify an Erroneous System

In the [Home](#) screen, choose the [Explore Systems](#) tile.

The tool displays all the systems in your landscape. It also displays the name of the technical system and the system type (ABAP, Java, Dual Stack, HANA DB, and so on).

Tips: Choose the search icon to search for a system by product name or product type.

An erroneous system is indicated in red in the maintenance cycle

An erroneous system is also indicated in red (ERROR) in the table, when you click the [Explore Systems](#) tile.

4.6.3 How to Verify an Erroneous System

1. Choose an erroneous system.
The system maintenance cycle is displayed.
2. In the system maintenance cycle, choose [Verify](#).

To verify the system, provide the information required to correct the installed software information or details. You can choose multiple options.

3. Choose *Confirm*.

A confirmation is displayed. Choose *Next* to proceed.

If there are dependent systems, you are prompted to verify the dependencies. Provide your input.

4. When you have verified the system dependencies, choose *Next* to verify dependencies.

The *Verify* button in the maintenance cycle turns green, indicating that the system is now error free. You can proceed with the planning.

A corrective xml, which can be used by Software Update Manager to correct the system description, is created. You can download the *Correction of Installed Software Information* file by choosing *Download Correction File*.

For example:

The name of the correction file is *MP_CISI_9000004639_20150403.xml*, where *9000004639* is the transaction ID and *20150403* is the date the file was generated.

i Note

The above steps are only a simulation of the correction of your system. Actual changes are made to your system when you perform the steps as described in the section [Implementing a System Change Using SUM \[page 52\]](#).

5. You can go back and perform other planning activities before you click *Activate*, so you can perform all your actions within one transaction.



You can click the maintenance cycle icon at the top-left corner of the screen to return to the maintenance cycle.

The *Stack XML* generated is then a consolidated file containing the following:

- Planned system changes
 - System corrections
6. You can run the verification job in LMDB again, or remove the product system from LMDB and upload to SAP system portal in the Technical System editor.
 7. Choose *Activate*.
On activation, the changes are saved on SAP Support Portal and users logging in to the system need not perform the verification steps again.

Result: Once you have completed the verification process, your system description complies with the SAP product model.

Tips:

The automatic verification in maintenance planner is always improving. As such, it is a good practice to run through the verification even if the status is displayed as ok (green).

More Information

- About installed software information (ISI), see SAP Note [1877731](#).
- About creating the CISI file, see SAP Note [1816146](#).

4.6.4 How to Implement the Correction to Verify Your System

The above steps make the planned changes to verify an erroneous system. To make the actual changes in the system, perform the steps in the section [Implementing a System Change Using SUM \[page 52\]](#).

i Note

To apply the corrections of the installed system identity into the technical system, you should consume the CISI XML file using the *Software Update Manager*.

Related Information

[Implementing the Landscape Change \[page 51\]](#)

[Verifying a System Track \[page 56\]](#)

4.6.5 Editing Technical System Information of an Erroneous System

Prerequisite

Enable System Edit functionality on Maintenance Planner

Go to the *Personalize* menu > *Verify Systems* tab and check *Enable Edit System* and save your settings.

Purpose

You want to rectify the system marked as erroneous by the maintenance planner.

For more information, see [Why is the System Erroneous? \[page 42\]](#)

Even after successful verification, there are scenarios when you are unable to generate a plan with correct software changes. The reason could be due to missing or incorrect product versions or instances or others.

Maintenance planner allows you to edit the product version and product instance of a technical system, which further undergoes a verification process. As a system admin or system architect, you can manually edit the start state of the technical system.

Procedure

1. From the *Explore Systems* tile, choose a system.
2. Choose *Verify*.

The *Edit System* view is displayed with the following:

- Current software details of the technical system.
- You can either manually edit the software details under the *Edit Software Details* section or choose *Next* to continue with automatic verification. The *Edit Software Details* section consists of product versions, product instances, and support package stack details. You can perform the following:
 - *Add Product*
 - Provides a list of all the product versions based on the SCVs (at least one of the SCVs) present in the start state of the technical system. You can select your product versions or instances. You can validate your selection by choosing the *Validate* button. The system validates the selection by checking the compatibility with the selected stack level and all the SCVs present in the start state of the technical system. The system displays relevant validation messages.
 - *Remove*
You can remove the product version or product instance.
 - *Edit*
You can edit the product version. By default, the existing product instances and SP level is already selected. Choose the *Validate* button to check for the compatibility with the selected stack level and all the SCVs present in the start state of the technical system. You choose the *Edit* button to reflect your changes on the *Edit Software Details* view. That is, to reflect your changes in the start state of the technical system.

i Note

Validation is the initial check performed on the selected product instance or support package stack. It checks whether the selected product instance or support package has at least one software component version of the support package installed on the technical system.

3. Choose *Next* to complete the verification process.
If you activate, the software changes get activated in the customer profile. If you do not activate, it would be a transaction-specific change.

4.7 Planning a System Update or Upgrade

The maintenance planner allows you to plan an update or upgrade on any SAP system in your landscape. It provides all the update or upgrade options available for the system that you choose.

Prerequisites

For you to perform any kind of update or upgrade, the system should be in a *Verified* state, indicating that the system description complies with SAP product modeling. A verified system status is green.

For a system that is not in a *Verified* state, the verification status is red in the maintenance cycle for the system; this needs to be corrected before you proceed. For more information, see [Verifying an Erroneous System \[page 41\]](#).

Procedure to update or upgrade an existing system

1. Initializing

From the *Explore Systems* tile, choose a system.

2. Choose *Plan*

The system software stack is displayed. This is a hierarchical list containing the base software at the bottom and all the enhancements above it.

Tips: The verification status has to be green to proceed. For more information, see [Verifying an Erroneous System \[page 41\]](#).

3. Choosing the software to be installed

Choose one of the options for the system you have selected:

- *Install or Maintain an Add-on*
To install or maintain add-on products without changing the underlying SAP ERP or CRM or SRM or SAP NetWeaver system. For example, FIORI PRICECHECK 1.0.

i Note

For any specified change to the add-on products, maintenance planner does the calculation in the lowest support package level. If you want to update to the latest or higher target support package level, you have run iteratively the support package update on such add-on products. For more information, see [Iterative Planning \[page 50\]](#).

- *Install or Maintain an Enhancement Package*
To add new extensions or install Support Package Stacks for existing extensions. For example, EHP7 FOR SAP ERP 6.0.
- *Update SAP NetWeaver*
To either apply a support package stack, update with an enhancement package, or upgrade your SAP NetWeaver system.

i Note



- The current software stack is displayed in the left panel as you make your planned changes. The above options are calculated automatically, based on your system landscape. The options available for you may vary.
- If the product version is already installed in the system, a flag icon is displayed against the installed product version.

4. Based on the option you choose, select other parameters such as the target software levels and instances.
5. Choose *Confirm Selection*

i Note

The above steps can be repeated to install additional software. For more information, see [Iterative Planning \[page 50\]](#).

6. When you have chosen the software components, the target software stack shows the planned action, with the following icons next to the product instances:

-  - Indicates that the software is to be installed
-  - Indicates that the software is to be updated

7. Select the OS/DB files based on the option you have chosen.

The above options are calculated automatically, based on your Java and dual-stack systems:

- Choose [Add Java Patches](#)
- Select the Java files to be downloaded.
- Click on Validate Dependencies to identify any dependencies for the java patches you selected. In this operation, for all the relevant software component versions installed on the system:
 - Direct and indirect patch dependencies are validated.
 - Any missing selections of the dependent patches get automatically selected.
- You can include the Java patches separately or include them in the stack XML
- Choose *OK*.

Result: The Java patches and their dependencies (if any), will be added to the transaction.

In ERP HR Systems:

Select the relevant HR files. This option is available on your system if:

- You have a valid RFC connection established between the SAP Solution Manager and the technical system.
- One or more of SAP-HR, EA-HR, HR-CEE, HX-CEE, or HR CLC software components are installed on the system.

8. Choose [Push to Download Basket](#)

A maintenance plan is generated as a PDF, and can be downloaded by choosing [Download PDF](#) from the [Additional Downloads](#) menu.

A link to the upgrade media is available towards the end of the PDF.

i Note

This step is applicable only in case of a release upgrade.

9. Choose [Utilities](#) menu, for the following options:

Options	Description
Generate Side-Effect Report	Maintenance planner generates a side-effect report of SAP Notes, and you can download the report in the form of a spreadsheet. For more information, see Side- Effects of SAP Note .
	<div data-bbox="829 1680 1388 1825" data-label="Text"> <p>i Note</p> <p>You get a notification if no side-effect SAP Notes are calculated.</p> </div>
Check SAP Security Notes	Maintenance planner allows you to view the associated SAP security notes of the support packages that are calculated in the maintenance transaction.

Options	Description
Add from Download Basket	<p>Maintenance planner allows you to add download objects from your Download Basket into the maintenance planner transaction.</p> <p>The prerequisite to use this function is that you should have the required download objects added to your Download Basket already.</p> <p>The added objects are not included in the stack XML. These delivery objects are only added to the maintenance planner transaction.</p>

10. You can now download the installation files from your download basket in <https://support.sap.com/swdc>, and proceed with the implementation.

i Note

The above steps only simulate the changes to your system. Actual changes will be made to your system when you perform the steps in the section [Implementing a System Change Using SUM \[page 52\]](#).

Related Information

[Implementing the Landscape Change \[page 51\]](#)

4.8 Planning a Container Update - Introduction

Maintenance Planner allows you to plan an update or upgrade of a `<container-based system product>` cluster in your landscape. You can use the tile [Explore Container Based Clusters](#) for this.

4.9 Planning a Container Update

Maintenance Planner allows you to plan an update or upgrade of a `<container-based system product>` cluster in your landscape. You can use the tile [Explore Container Based Clusters](#) for this.

Prerequisites

For you to plan a container update, it must be registered to the Maintenance Planner. The `SLC Bridge` tool installs the clusters of container-based system, and writes back the metadata into the Maintenance Planner. You must have installed the cluster of your container-based source system using the `SLC Bridge` tool to be able to use the update planning process described below.

Procedure to plan the update of a Container-Based System cluster

1. **Initializing** - From the [Explore Container-Based System Clusters](#) tile, select the cluster system-id by identifying it using the Cluster Server URL or the name.

→ Tip

The verification status has to be green to proceed. For more information, see [Verifying an Erroneous System \[page 41\]](#)

2. Choose **Plan** - The system software stack is displayed. This is a hierarchical list containing the base software at the bottom and all the enhancements above it.
3. Choose the software to be installed.
In the context of your `<container-based system product>` clusters update, choose **Plan a Maintenance**, and select the target stack.
4. Based on the option you choose, select other parameters such as the target software levels and instances.
5. Choose **Confirm Selection**
6. On the [Select OS/DB dependent files](#) and [Select Stack Dependent and Independent files](#) dialogs, select the following items and confirm your selection:
 - Operating system platform of your administrator's workstation
 - `SL CONTAINER BRIDGE`
7. Confirm your selection and click **Next**
8. Choose **Execute Plan** to land into the execute guided procedure. Refer the [Execute Plan \[page 62\]](#) section in this user guide for the next steps.

4.10 Downloading Java Patches without Updating the System

Context

Follow the below steps in maintenance planner to download the latest Java patches for the already installed software component versions to your Java system without planning any system updates.

Procedure

1. Choose the *Explore Systems* tile from the home page.
2. From the available list of systems, click the Java system for which you want to download the Java patches.
3. Choose *Plan*.
4. In the *Define Change* step, select *Plan a Minimum Software Change* option. For more information, see [Planning a Minimum Software Change \[page 27\]](#).
5. Choose *Next* to select files for the plan.
6. In the *Select Files* step, a list of OS/DB files are displayed. Select/deselect files accordingly and click *Confirm Selection*.
7. Check the warnings given for the selected files, if any, and click *Continue*.

A list of stack dependent and independent files are displayed. Delta packages aren't calculated for Java systems.

8. Choose *Add Java Patches*. The following two options are displayed:
 - *For Changed Components*
By default, the Java patches for the changed components are displayed. Select the Java patches that you want to download and choose any of the following:
 - *Do not include selected Java patches into stack.xml*
 - *Include selected Java patches into stack.xml*
 - *For Unchanged Components*
The already installed Java patches for unchanged components are displayed. Choose *Validate Dependencies* to identify any dependencies for the selected Java patches. Direct and indirect patch dependencies for all the relevant software component versions installed on the system are validated.

i Note

Any missing selections of the dependent patches get automatically selected.

9. In the *For Unchanged Components* tab, select the Java patches that you want to download.
10. Choose **► Validate Dependencies ► OK ► Next ►**.
11. In *Download Files* step, the selected Java patches and their dependencies, if any, are displayed and selected. Choose *Push to Download Basket*.

i Note

- The Java patches for the unchanged components aren't included in the stack XML file.
- You can install Java patches using Software Update Manager also. For more information, see SAP Note [1641062](#).

4.11 Iterative Planning

You can repeat the planning process iteratively, any number of times by repeating steps 1 - 5 of the section **Choosing the software to be installed** in [Planning a System Update or Upgrade \[page 45\]](#).

The first iteration can be for an SAP NetWeaver update, and the next one to install the add-ons. When you have completed the iterative planning, you can save the transaction and download the relevant files.

Depending on your system configuration, you may see additional options as follows:

- [Install or Maintain an Add-on](#) - Lets you iteratively install more add-ons
- [Install or Maintain an Enhancement Package](#) - Lets you iteratively maintain more add-ons
- [Plan a Maintenance](#) - This is usually in cases on NetWeaver systems where only an SP level change is possible. You can choose the available SP level.

The stack XML file generated at the end of the planning process contains the metadata of **all** the planned actions, and you do not require a separate file for each installation.

4.12 Implementing the Landscape Change

When you have downloaded the Stack XML and the relevant archives and tools, you can use Software Update Manager (SUM) or Software Provisioning Manager (SWPM) to implement the planned changes.

Ensure that you have the following versions of the tools before you proceed with the implementation:

- Software Update Manager 1.0– SP12 (to deploy the delta archives)
- Software Provisioning Manager 1.0 – SP7 and above (to deploy the initial media)

i Note

To harmonize the processes in Maintenance Optimizer and Maintenance Planner, downloading all corrective software packages of SAP NetWeaver 7.0 and SAP Business Suite 2005 (and beyond) has been made easier. You can do this directly using SAP Download Manager.

4.12.1 Implementing a New System Installation Using SWPM

Perform the following steps to consume the Stack XML file, using Software Provisioning Manager:

1. Using the link in the Maintenance Plan, download the installation media files.
2. Download and extract the latest version of Software Provisioning Manager from the [Download Basket](#), and follow the recommendations in [SAP Note 1680045](#).

3. Initialize SWPM

Use the following command syntax to call SWPM:

```
<path_to_directory_where_you_extracted_SWPM>/sapinst  
SAPINST_STACK_XML=<absolute_path_to_location_of_STACK_XML_file>
```

UNIX / IBM i:

```
./sapinst SAPINST_STACK_XML=/download/Stack_1000001234_20150423.xml
```

Windows:

```
sapinst.exe SAPINST_STACK_XML=C:\tmp\Stack_1000001234_20150423.xml
```

4. Follow the instructions in the relevant installation guide:

- Visit help.sap.com
- Search for the product you are updating.
Based on your requirement, choose the relevant help documentation and follow the instructions.

4.12.2 Implementing a System Change Using SUM

Perform the following steps to implement the planned landscape changes like an update, upgrade, or to verify an erroneous system using Software Update Manager:

1. Visit help.sap.com
2. Search for the product you are updating.
3. In the document list that appears, choose the appropriate guide.
4. Follow the instructions in the guide to complete the update process, using the Stack XML or the correction file, as appropriate.

Perform the following steps on LMDB:

1. Run verification check on the system to which the correction is applied, using *Execute Verification Check (Synchronize)*. You can also remove the product system from LMDB and upload to SAP Support Portal, so that maintenance planner can re-verify the system.
2. Synchronize the system changes using *Upload to SAP Support Portal*.

4.13 Synchronizing a System


i Note

This is applicable only if there are multiple productive SAP Solution Manager Systems in the landscape.

If you have more than one SAP Solution Manager System, you can choose from which landscape data is to be replicated on Maintenance Planner.

In the system maintenance cycle, the *Sync* button is green if there is only one SAP Solution Manager, which is chosen by default. If the *Sync* button is yellow, there are multiple Solution Managers.

Perform the following steps to choose the one from which landscape data is to be replicated on maintenance planner:

1. Choose *Sync*
The software details of the current system, and all the Solution Managers available, are displayed.
2. Choose a row, and choose *Activate*
This activates the chosen Solution Manager. All the other entries are marked *Archived*.
This action triggers a change in the software state, and the system is taken into account for planning. For more information, see [Implementing a System Change Using SUM \[page 52\]](#).
3. You can also delete a Solution Manager by choosing the  button.
4. Save your changes

i Note

- The *Sync* button turns to green if there is only one SAP Solution Manager after the above steps.
- If you still have more than one SAP Solution Manager System, the Sync button remains yellow, allowing you to perform steps 1-4 again at any time

Troubleshooting

If you face any issues while performing the system sync, you can access the logs, for more information, using the following steps:

1. Run transaction: SLG1
2. Object: AI_LMDB
3. Sub object: SUPPORT_PORTAL_SYNC
4. Execute

You can also export the log to your local system.

4.14 Deleting a System

You can delete a system from maintenance planner as follows:

1. In the Home screen, choose *Explore Systems* tile.
The tool displays all the systems in your landscape, name, system type ((ABAP, JAVA, Dual Stack, HANA DB, and so on), product, and verification status of the technical system.
2. Choose the systems you wish to delete, and click the *Delete System* button.
Result: The system is removed from maintenance planner.

i Note

1. This action does not remove the system from SAP Solution Manager.
2. Deleting a system renders all associated system tracks invalid. Delete all associated system tracks before you delete a system.

Related Information

[Deleting a System Track \[page 56\]](#)

5 Working with System Tracks

This section provides information on functions to plan a system track.

5.1 What is a System Track?

A system track is a logical grouping of related systems, and contains two or more systems in your landscape on the same **target software level**. A system track helps you to update or upgrade all the systems at once.

Example

A system track can follow one of the following patterns of logic:

- Two or more SAP ERP systems, such as Dev, QA, and Production
- Two or more SAP HCM systems connected by a transport route

You can **view** all the system tracks by choosing the [Explore System Tracks](#) tile in the *Home* screen.

Maintenance planner generates a [Stack XML](#) file that contains all the metadata for a collective update or upgrade of all the systems in your track, to avoid redundant effort.

5.2 Plan a System Track

You can put two or more systems in a track in the following scenarios:


- They have the same product versions. For example, three SAP ERP systems or four SAP HCM systems.
- They have different SP levels, but should be on the same level.
You can put systems with the **same** start level in a track with the same target level.
You can put systems with **different** start levels in a track with the same target level.
For more information, see, [Verifying a System Track \[page 56\]](#).

i Note

If you wish to retain a system at a different SP level, plan its maintenance independently; do not put it in a system track.

5.3 Creating and Modifying a System Track



To create a system track, perform the following steps:

1. From the *Explore System* tile, choose a system.
This system is the source system, and can be linked to other systems.
2. Choose the system icon to view the detailed system information.
3. Choose the tab *Tracks*
4. In the tracks view, choose *Create Track*
5. Choose  on the top-right corner of the source system
6. Enter the details such as source system role, and the target system name and role
A graphical representation of the link between the source system and the target systems, is displayed. You can then provide a track name and save the system track.

i Note

You can add a system to any number of tracks.

To remove a system from a system track, perform the following steps:

1. Choose  on the top-right corner to switch to edit mode.
2. Choose  next to the system to be deleted.
3. Save your changes
At this point, the changes are saved as a transaction and all system track changes will be visible only within this transaction.
Optional: For the changes to persist in the system, the transaction must be activated on the SAP Support Portal. These steps are described in the following section, [Activating System Track Changes to SAP Support Portal \[page 55\]](#).

5.3.1 Activating System Track Changes to SAP Support Portal

This section describes the process of activating the system track updates on the SAP Support Portal.

1. Load the transaction you have created as described in the section, [Creating and Modifying a System Track \[page 55\]](#).
The maintenance cycle for the transaction is displayed.
2. Choose *Verify*.
3. Follow the on-screen instructions to complete the verification process.
4. Save the changes.
5. Choose the *Activate* button.
This saves the transaction updates to the SAP Support Portal, and the system track updates are available during future logins.

5.4 Verifying a System Track

Your system track may be marked erroneous if the systems in the track have a different SP level. You cannot update or upgrade such a track.

In such a case, reconfirm if you want to allow systems in different SP levels to be in the same track.

1. Choose the [Explore System Tracks](#) tile
A table containing all system tracks and the verification status is displayed.
If a track needs verification, it is indicated as Not Verified.
2. Choose the track name
The maintenance cycle is displayed.
The [Verify](#) tab is red, indicating that your system track needs verification.
3. Choose [Verify](#)
4. Answer the verification question.
For example: *System X does not have the same software status as the others in the track. Do you really want to add it to the track?*
5. Choose [Yes](#) and choose [Submit](#).
6. Choose [Next](#) to verify dependencies, if any.
7. Once you see the message [Verification is successful](#). Choose [Next](#) to proceed to the next step, to complete the verification.
8. Choose [Activate](#).
On activation, the changes are saved on SAP Support Portal and users logging in to the system need not perform the verification steps again.
9. The verification is now complete and the verification status turns green in the maintenance cycle.

Related Information

[Verifying an Erroneous System \[page 41\]](#)

5.5 Deleting a System Track

You can delete a system track from Maintenance Planner by performing the following steps:

1. In the Home screen, choose the [Explore System Tracks](#) tile.
The tool displays all the system tracks that you have created
2. Select one or more system tracks you wish to delete, and choose the [Delete Track](#) button.

Result: The system track is removed from maintenance planner.

6 Maintenance Planner-Based SAP Fiori Installation and Upgrade



This section describes the steps to install SAP Fiori applications using maintenance planner.

6.1 Launching Maintenance Planner for SAP Fiori Apps

Context

To get started with maintenance planner for SAP Fiori installation, perform the following steps:

Procedure

1. Log in to the [SAP Fiori App Library](#) 
2. Choose the SAP Fiori app to install on your system, and read the product features from the app library
3. To proceed with the installation, choose the *IMPLEMENTATION INFORMATION* tab
4. System details such as Front-End Components, Back-End Components and Prerequisite for installation, are displayed.
5. To use maintenance planner to install the above components, choose the [maintenance planner](#)  link.

i Note

- You can use the *Aggregate* button to view the aggregated installation and configuration information for a selection of apps.
- After aggregation, you can choose *Prepare apps for processing with Maintenance Planner* button to proceed further.

6. The maintenance planner launchpad for SAP Fiori installation is displayed.

6.2 System Overview

The [Overview](#) screen provides the current overall status of the system, and the requirements to proceed with the SAP Fiori app installation.

The [Product Versions](#) section automatically fetches the current versions of the existing software components.

The [Installation Details](#) section calculates and fetches the required software components, like product version, product instance, and the requirements, in a tabular format, for the following:

- Back-end Server
- Front-end Server
- HANA XS Server (If applicable)

After reviewing the information, choose the stack for the available product versions, and choose [Next](#) to proceed.

6.3 Select Systems

In this screen, choose the systems and the software components to install. Following are the fields for the Back-End and Front-End systems in which you provide input to start the installation:

- **Standalone System:** to install a system independently of the back-end system
- **System Name:** the system for the Fiori installation
- **Current Version:** the current version of the selected system.
- **Target Version:** the target version to be installed.
- **Minimal Required Release:** the minimum required release to install.
- **Install a New System**
- **Co-deployed with Back-End:** You can choose the deployment patterns for the systems. This option co-deploys the front-end system with the back-end.: You can install a new system. Provide the System ID (SID) and the target version

When you have made the system selection, choose [Next](#): You can install a new system. Provide the System ID to see all the impacted systems.



6.4 Impacted Systems

This screen summarizes the planned changes to the current system and the other impacted systems in the landscape. You can plan further installation before proceeding, by choosing [Install Additional Software](#). The target software state of the following systems is displayed:

- **Back-end**

- **Front-end**
- **HANA XS Server**

The following icons indicate the type of action planned:

-  - Indicates that the software is to be installed
-  - Indicates that the software is to be updated.

Related Information

[Installing Additional Software \[page 59\]](#)

6.5 Installing Additional Software

This step is optional. You can select the archives for the landscape plan or install additional software. You can install additional software as follows:

1. In the Impacted Systems screen, click the *Install Additional Software* button.
 - **Install or Maintain an Add-on**
To install or maintain Add-On products without changing the underlying ERP/CRM/SRM or SAP NetWeaver system. For example, FIORI PRICECHECK 1.0.
 - **Install or Maintain an Enhancement Package**
To add new extensions, or install Support Package stacks for existing extensions. For example, EHP7 FOR SAP ERP 6.0
 - **Update SAP NetWeaver**
To either apply a support package stack, or update with an enhancement package, or upgrade your SAP NetWeaver system.

i Note

- The above options are calculated automatically, based on your system landscape. The options available may vary.
- The current software stack is displayed in the left panel as you make your planned changes.

2. Choose *Confirm Selection*
3. You can repeat the above steps iteratively, to install more software components.
4. Choose *Next* to download the files.

i Note

If the installation fails during the above process, view the logs for details, and attach them if you request SAP Support.

5. Once you have installed the additional software, choose *Next*, to download the relevant files.

6.6 Select and Download Installation Media

1. Download the installation plan by choosing [Download Stack XML](#), and choose [Push to Download Basket](#) to download the archives from SAP Support Portal.
2. Choose [Next](#) to go to the last stage of the installation process.
3. You can download the maintenance plan as a PDF by choosing [Download PDF](#)
4. A link to the initial installation media is towards the end of the PDF.

To implement a new system on your landscape, follow the steps in the section [Implementing a New System Installation Using SWPM \[page 51\]](#).

To make changes to, or update, an existing system in your landscape, follow the steps in the section [Implementing a System Change Using SUM \[page 52\]](#).

For more information, see [blog](#) describing the detailed process of SAP Fiori Installation.


7 Cloud Integration Automation Service for SAP Cloud Integration Scenario

The *Plan for Cloud Integration Scenario* provides you a guided workflow to integrate SAP cloud solutions. The list of integration scenarios you see are based on the tools support based on your licensed solutions.

These additional services and content are voluntarily provided by SAP and can be withdrawn, postponed, or suspended at any time. You can use this voluntary service at no additional fee or license cost, if you have:

- an S-User assigned to the customer ID for access to Maintenance Planner and.
- an SAP Cloud Platform Neo account in one of the CIAS supported data centers or an SAP Cloud Platform Integration account to subscribe to it.
- system instances of licensed SAP products that are in scope of this service.

For more information, see: :

- [SAP Note 2608492](#) 
- [CIAS SAP Help Portal Documentation](#)

7.1 Planning a Cloud Integration Automation Scenario

Use the Plan for Cloud Integration Scenario tile from the home screen to trigger the planning for a Cloud Integration Automation Scenario.

Clicking the tile *Plan for Cloud Integration Scenario* launches the CIAS planning guided procedure.

Continue the planning using the steps described in the [Planning a CIAS scenario](#) section in the [CIAS User Guide](#).

8 Execute Plan

You can now execute a pre-planned system installation. The following section describes the *Execute Plan* functionality.

1. Invoke the *Execute Plan* workflow in one of the following ways:

- **From Maintenance Planner Home**

1. From the Maintenance Planner *Home* view, choose the *Execute Plan* tile.
This opens the Execute Plan workflow at the first roadmap step - *Prerequisites*
Search for a transaction, using the *Transaction ID*.
This will display the host details, and the link to download the `SLCB01_<Version>.SAR` archive.
2. Click *Next*.
This will take you to the **Deploy** roadmap step.
3. Choose the `SLCB01_<Version>.SAR` archive downloaded in the previous step, and click *Upload*.
4. You will see a pop-up requesting you to enter the host system user credentials.
5. To deploy the chosen execution, click *Start Deployment*.

- **From the Container-based installation workflow:**

Once you have completed the steps listed in the section Planning a Container-based system, proceed with the steps below:

1. Choose *Execute Plan* to have the Stack XML file and the `SLCB01_<Version>.SAR` archive downloaded to your administrator's workstation.
2. Specify the installation host and port number.
Provide the following parameters:

- SAP Data Hub 2.7.x:

- The protocol for the base URL
- The host name of the installation host.

The port number is derived based on the protocol (1128 for http and 1129 for https).

Using these parameters, the Maintenance Planner then composes the target URL for the SAP Host Agent running on the installation host.

- SAP Data Intelligence 3.x:

- The Fully Qualified Domain Name of the `SLC Bridge Base`.
- The Port of the `SLC Bridge Base`.

The default port number is 9000.

Using these parameters, the Maintenance Planner then composes the target URL for the `SLC Bridge Base` running as a Pod in your Kubernetes cluster.

If not already done, choose the appropriate links to download the following files to your local PC:

- Stack XML
- `SL CONTAINER BRIDGE <Release>`

You are prompted to enter your S-User.

3. Deploy the `SLCB01_<Version>.SAR` and Stack XML file:

- SAP Data Hub 2.7.x:

1. Provide the downloaded `SLCB01_<Version>.SAR` file to be uploaded to the installation host, and choose *Start Deployment*.

You are prompted to enter the credentials for the SAP Host Agent which you configured on the installation host: User `sapadm` and password.

Result: You have deployed the `SLC Bridge` to your installation host.

After the `SLC Bridge` has been pushed to the installation host and unpacked by the SAP Host Agent, a root directory named `slplugin` is available in the `/usr/sap/hostctrl/` directory of the SAP Host Agent running on the installation host.

2. Choose *Add* to upload the stack xml file to your installation host.

You are prompted again to enter the credentials for the SAP Host Agent which you configured on the installation host: User `sapadm` and password.

- SAP Data Intelligence 3.x:

1. Open the URL of the `SLC Bridge Base` in the same browser session as your Maintenance Planner browser session.

The URL has the following syntax `https://<SLC Bridge Base IP>:<port>/docs/index.html`

In your browser window, the *Welcome* screen of the `SLC Bridge` is displayed, but still without deployment options, because the information contained in the Stack XML file is not yet available.

2. Provide the Stack XML file to be uploaded to the `SLC Bridge Base`, and choose *Start Deployment*.

You are prompted to enter the credentials for the `SLC Bridge Base` which you deployed as a Pod in your Kubernetes Cluster: Administrator User and Password.

Result: You have deployed the Stack XML to your `SLC Bridge Base`.

2. Open the URL to the deployed `SLC Bridge`:

- SAP Data Hub 2.7.x:

The Web UI of the `SLC Bridge` running on the installation host opens.

This URL has the following syntax `https://<host>:1129/lmsl/slplugin/docs/index.html`, where `<host>` is the installation host host of your customer cloud and `1129` is the port of the SAP Host Agent.

In your browser window, the welcome screen of the `SLC Bridge` is displayed.


- SAP Data Intelligence 3.x:

Return to the URL of the `SLC Bridge Base`.

A dialog appears in the Web UI informing you that the Stack XML file has been uploaded successfully. Confirm by choosing *OK*.

In your browser window, the *Welcome* screen of the `SLC Bridge` is displayed, now with the available deployment options.

3. Choose the deployment option you want to execute.

Based on the installation option you have chosen, proceed as described in the relevant user guide for your product in the [Software Logistics Toolset page](#) .

9 Working with Transactions

This section provides information on the transactions created in maintenance planner. A transaction is created whenever you perform an activity such as planning a new system installation or installing an update or upgrade.

i Note

The MP tool captures the user ID in transactions. If you do not wish to retain this information in the MP tool, you can delete the transaction. For more information, see [Deleting a Transaction \[page 65\]](#).

9.1 Viewing a Transaction

You can view all the available transactions by choosing the [Explore Transactions](#) tile on the home screen. This displays a list of all the transactions you created, ordered by:

- **Transaction ID:** A unique 10-digit number identifying the transaction
- **Transaction Name:** At any point doing a maintenance activity, you can give a name to the transaction and save it, for easy identification later.
- **Transaction Status:** Indicates the current state of the transaction, such as Planning, Scheduled, or Completed
- **Attachments:** Lets you download attachments for this transaction. This could be one or more of the following:
 - Maintenance Plan
 - Stack XML
 - Correction Files
- **Created By:** The user who created this transaction.
- **Creation Date:** The date this transaction was created.
- **Planning Status**
 - *Planning*
 - *Completed*
 - *Scheduled*
- **Implementation Status**
 - *Implemented*
 - *Confirmation Pending*
 - *Ignored*
 - *Unknown*

For more information, see [Identifying the Statuses of a Transaction \[page 65\]](#).

9.2 Modifying a Transaction

You cannot perform any more operations after you have chosen the *Activate* button which is visible during the last step of a planning activity. Once a transaction is activated, further changes to your system must be made in another activity; a new transaction.

In all other cases, you can choose the Transaction ID to launch the transaction and proceed with further actions.

9.3 Deleting a Transaction

From the *Explore Transactions* screen, choose the transactions you wish to delete, and choose the *Delete Transaction* button.

9.4 Identifying the Statuses of a Transaction

Several transactions are created for the same transaction state for a system. Many transactions are redundant and only a few are used. You are unable to identify the planned transactions and the transactions consumed by Software Update Manager (SUM).

On choosing the *Explore Transactions* tile, the MP tool displays two status columns as follows:

- The *Planning Status* displaying the status of the planned transactions in the maintenance planner tool. They are as follows:
 - *Planning* - The transaction has been created and is still being planned.
 - *Scheduled* - The transaction has been created and is finalized. It has been scheduled for implementation using the *Schedule* function in the MP tool.
 - *Completed* - The transaction has been created, and the user does not want any further editing of the transaction in the MP tool.
- The *Implementation Status* displaying the status of the transactions as received from the customer profile. They are as follows:
 - *Implemented* – Displayed when the transaction has been consumed by the SUM. The user has set the status as implemented in the MP tool.
 - *Confirmation Pending* – Displayed when the transaction has been consumed by the SUM. You can manually set the status to Implemented. The Confirmation Pending is displayed when there are multiple transactions created for the same software changes.
 - *Ignored* – The user has set some other transaction for the same state as implemented. Therefore, the transaction becomes invalid and is set to ignored.
 - *Unknown* – Displayed initially when you have created the transaction for the first time. The implementation status is unknown until an update has been received from the customer profile.

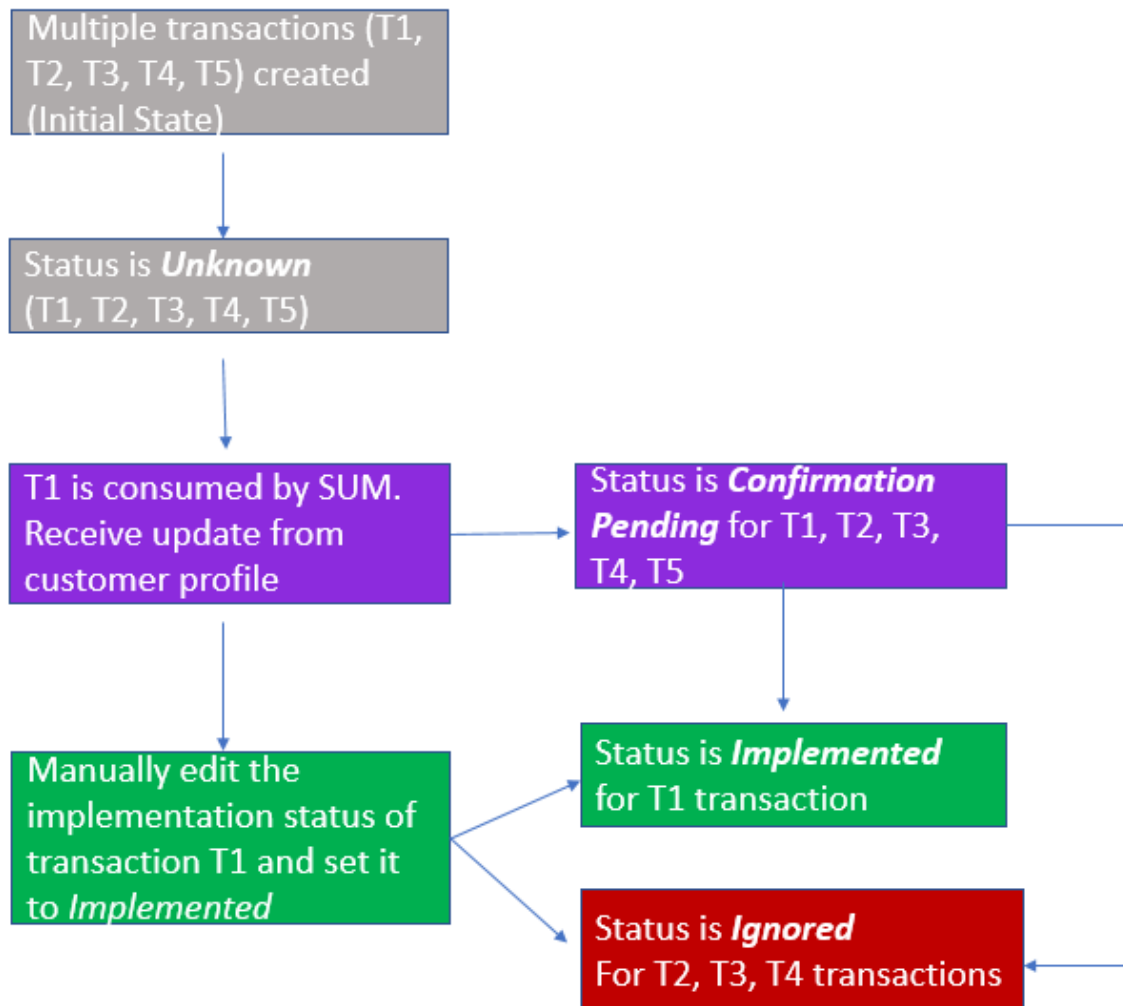
For Example,

Assume as an IT administrator, you have created five transactions (T1, T2, T3, T4, and T5) with same software changes for system ABC[ABAP]. You can identify the implementation statuses as follows:

- Initially, the implementation status for all the five transactions is *Unknown*.
- Assume the stack.XML of the transaction T1 has been consumed by SUM. The status of the transactions (T1, T2, T3, T4, and T5) changes to *Confirmation Pending* once you receive an update from the customer profile.
- You can now manually edit the implementation status of the transaction T1 and change the status from *Confirmation Pending* to *Implemented*.
- Now, transactions T2, T3, T4, and T5 status is automatically set to *Ignored*.

The above example can be illustrated in the figure as follows:

Status Changes of Transaction (Multiple)



i Note

- The edit option is only available for the status *Confirmation Pending*. You cannot change the status of *Ignored*, *Implemented*, or *Unknown*.

- If you have created only one transaction for a system and if the same transaction has been consumed by SUM, then automatically the status is set to *Implemented* from *Unknown*.

How to Edit the Confirmation Pending Status

1. Choose the *Explore Transactions* tile.
2. Choose the *Edit* button of the transaction with implementation status as *Confirmation Pending*. An *Edit Transaction* popup appears.
3. Choose the transaction that you want to set to status *Implemented* and choose *OK*.
The transaction status has been set to *Implemented* and the rest of the transactions related to the system are set to *Ignored*.

9.5 Generating a Stack XML Copy

Prerequisites

The start state of technical system in the transaction and the technical system for which you want to generate a stack XML copy have the same technical details (software component versions and support package level).

Context

You can copy a stack XML generated for a particular system to another system to generate a stack XML for the same target. You can use this feature if the systems for which you want to copy the stack XML have the same operating system or database.

i Note

1. Copy stack XML functionality is not available for a transaction created for a track. See also: [Maintenance Planner Limitations](#)
2. If you are working with systems with different OS/DB or different start status, please use the System Track functionality. See also: [Working with System Tracks \[page 54\]](#)

Procedure

1. Load a transaction or search for a transaction from the *Explore Transaction* tile.
2. Choose the system from the center of the maintenance planning cycle.
3. Choose *Software* tab and choose *Generate Stack XML Copy*.

i Note

The *Generate Stack XML Copy* button is available only if the stack XML is generated for the system in the transaction.

4. In the *Generate Stack XML Copy* dialog box, enter or choose the technical system (SID) for which you want to generate a stack XML copy.

i Note

- The SID field list displays only technical system IDs with the status OK, that is, for which system validation is performed.
- The system displays error notification if:
 - The entered technical system (SID) details does not match with the system involved in the transaction.
 - The manually entered SID is invalid.


5. Based on your selection, the system displays the following details:
 - Database Host
 - Host
 - Replication Date
 - Custom Number
 - Installation Number
 - Mapped Systems
 - Displays details of the technical system IDs replaced by the new technical system IDs.
6. Choose *Generate Copy* to download the new stack XML in the browser.

i Note

- No new transaction is created when you generate a copy of the stack XML.
- The feature is only available for update or upgrade transactions and for transactions generated for technical systems with product maintenance dependency.
- The feature is not available for SAP S/4HANA conversions and does not include transactions for system tracks.

9.6 Integrating Upgrade Dependency Analyzer (UDA) in Maintenance Planner

You use this procedure when you are planning for an upgrade of your system. You want to know if the upgrade of your system affects any other systems that are already installed in your landscape. The upgrade dependency analyzer (UDA) tool is integrated with the Maintenance Planner. You can check for any existing upgrade dependencies in Maintenance Planner between your planned and existing systems in your landscape.

For more information, see [blog on UDA](#). 

Procedure

1. Login to Maintenance Planner and load any technical system.
2. Create an upgrade plan for a system.
3. In the Download Files screen under Utilities menu, click Check Upgrade Dependencies.
A Check Upgrade Dependencies dialog box appears.
4. Add any existing system from your landscape for which you want to analyze the upgrade dependencies.

i Note

- You can only select a maximum of five systems for analyzing upgrade dependencies.
- The Reset button allows you to clear the added systems.

5. Click Show Details to view components available for upgrade dependency analysis for added systems and targets components of the transaction.

i Note

- If for an added system there are no components available for upgrade dependency analysis, no components are displayed on the screen.
- If for a transaction there are no target components available for upgrade dependency analysis, you receive a notification as No target components found for selected transaction.

6. Click Check upgrade dependencies.
The results are available in the Details of upgrade dependencies panel. Click Expand to view the following details:
 - Status
 - Target components of the transaction available for analysis
 - Components of added systems available for analysis
 - Description

i Note

The check upgrade dependency button is enabled only if there are any components available in the added systems.

10 Explore Container Based Clusters

Refer the section [Upgrade SAP Data Hub using SLC Bridge with Maintenance Planner and SAP Host Agent](#) in the [Installation Guide for SAP Data Hub](#)

11 Hybrid Landscape Visualization

Hybrid Landscape Visualization is a new functionality in Maintenance Planner that is available from July 2020. This functionality can be used only upon completing the onboarding process. To learn more, see [Onboarding in Pre-Requisites \[page 6\]](#)

Hybrid Landscape Visualization lets you view and create landscape pictures to graphically visualize systems in your landscape. There are no landscape pictures available by default, but you can create a landscape picture by choosing any entity from your library. Here, you can also search existing landscape by their names.

Hybrid Landscape Visualization consists of three main components:

1. **Library:** In this section, you can update your landscape only if you enter the *Edit* mode by clicking the edit icon. Here, a list of all the entities available in your landscape. It has four categories:
 - **Systems** - This category displays all the systems of the customer numbers assigned to your S-user, both cloud and On-Premise, or based on the other selected filters.
 - **Cloud systems** - This category displays all tenants.
 - **Reusable systems** - This category displays the systems or landscapes that are tagged as reusable.You can choose to add one or more entity from here to create a landscape picture.

i Note

Click on Save and exit the edit mode to apply the changes.

2. **Canvas:** This section contains the components that are required to create a landscape picture.
3. **Properties:** This section lets you define and edit the properties, and visual attributes of your landscape picture.

11.1 Working with Landscape Picture

Landscape picture is the visual view of the on-premise systems or cloud systems that is created in the canvas. A typical landscape picture consists of the following:

- **Library:** Displays all the entities of in the landscape.
- **Systems:** All the on-premise technical systems
- **Cloud Systems:** Cloud systems which host the SaaS solutions which customers have subscribed to.
- **System Groups:** Abstraction of the products present in customer landscape.
- **Connections:** The type of connection between nodes in the landscape.

Following are the actions that can be performed on a landscape picture:

Actions	Links
Create	<ul style="list-style-type: none"> • Creating a Landscape Picture [page 73] • Creating a Landscape Picture Using Spreadsheet [page 75] • Creating a Group [page 85]
Add	<ul style="list-style-type: none"> • Adding a Node to the Canvas [page 78] • Adding Node Details [page 80] • Working with Connections [page 83]
Search	<ul style="list-style-type: none"> • Searching in Landscape [page 78]
View	<ul style="list-style-type: none"> • View System Information [page 78] • Managing Node Attributes [page 80]
Open	<ul style="list-style-type: none"> • Opening an Existing Landscape Picture [page 76]
Update	<ul style="list-style-type: none"> • Customizing the Entity Library View [page 77] • Changing the Visual Attributes of a Node [page 81]

Also, to tag an entity as **reusable entity**, refer [Working with Reusable Entities \[page 78\]](#).

Properties

You can view/edit the following properties to the system you added, using the properties pane on the right:

- **About:** Shows the type of system.
- **System Information:** Shows the *Stacks*, *Product Instances*, and *Software Components* of the selected system.
- **Transactions:** Using this tab, you can view all transactions of the selected on-premise system. You can also navigate to the transaction page by selecting a transaction under *Transaction* tab.
- **Attributes:** The *Attributes* tab displays information like *System Type*, *Leading Product Version*, *Host*, *Installation Number* and *Leading Stack*. This can be toggled on and off to be shown on your landscape picture. You can use the bin icon to delete an attribute.

To change visual attributes of a node, refer [Changing the Visual Attributes of a Node \[page 81\]](#).

Constraints

While creating a landscape picture, you cannot:

- Create a group within a group in a landscape picture.
- Drag and drop entities into the canvas or move around the entities in a canvas. You can however, change the graph orientation if required.

11.1.1 Creating a Landscape Picture

The Create Landscape section has three sections:

- [Library](#) - Here, list of all systems or entities can be viewed. Here an entity can be any system or tenant or VAR system
- [Canvas](#) -In this section, desired landscape is created and visualize the connection between them. Here, you can also group different entites, customize colors, themes categories, and shapes.
- [Attributes](#) - This section helps to view the properties of the any entity. You can also create, update and delete properties of an entity.

A landscape picture can be created in three ways:

- Building a landscape picture without any input source apart from manual selection of systems from the library
- Building a landscape picture with MP transactions and tracks as the source
- Building a landscape picture using excel as the source

Creating a Landscape Picture Manually

To create a landscape picture manually, perform the following steps:

1. Click the [Hybrid Landscape Visualization](#) tile on [Maintenance Planner](#) home.
2. Click the [Create Landscape](#) button to create a landscape picture.
3. Enter a suitable title and a description for your landscape picture and click [Create](#). This opens a new canvas where you can start adding nodes.

Create Landscape

Landscape:

MP_HLV_Test
✕

Description:

This is a sample description

Automatically generate landscape using:

Existing maintenance planner data between

From:

Nov 26, 2019
📅

To:

Dec 26, 2019
📅

Use data only created by me

Use data created by customer number

Include Transactions

Include Tracks

Note: The system only considers the last 100 systems in the date range.

Create

Close

Create Landscape

4. Proceed to section [Adding a Node to the Canvas \[page 78\]](#)

Generate a Landscape Picture using Existing Maintenance Planner Data

This section describes the steps to generate a landscape picture based on Maintenance Planner and track data.

To auto-generate landscape picture based on existing data, perform the following steps:

1. Click the [Hybrid Landscape Visualization](#) tile.
2. Click on [Create Landscape](#) in the [My Landscapes](#) page.
3. Enter a title and description for your landscape picture.
4. In the section [Automatically generate landscape using:](#), select the check box for [Existing maintenance planner data between](#)
5. Select the date range.
6. There following options are available – [Use data only created by me](#) and [Use data which is created in customer number](#). to which your S-user is directly associated to.
7. You can then choose to : [Include Transactions](#) and [Include Tracks](#).
8. Click [Create](#) to create the landscape picture.
9. Recently chosen systems are shown based on:
 - **Grouping** - The systems would be grouped based on the leading product and the system type.
 - **Connections** - The systems would be connected automatically based on:
 - same transport domain, and
 - system roles
 - **Excluding** - The systems would be removed if they are deleted or if their details are missing.
 - **Categorizing** - Here the systems are separated by the categories they belong to and with their assigned colors.

i Note

You can rename the categories and change their assigned colors under the [Visual](#) tab of the properties.

11.1.2 Creating a Landscape Picture Using Spreadsheet

This operation helps to upload multiple landscapes at once using spreadsheet with the help of [Upload Landscape](#) button. You can visualize the connection between systems on the canvas screen after landscapes are uploaded successfully. This is quick and easy way of creating landscapes.

i Note

Before uploading the spreadsheet, make sure it is as per the mentioned template. You can download the template by clicking "template" that is in the bottom left of the upload landscape window.

1. In the Maintenance Planner home, choose the [Hybrid Landscape Visualization](#) tile.
2. Choose [Upload Landscape](#).
3. A pop-up appears for [Upload Landscape](#), with an auto-generated title.
4. The pop-up has an template that you can download to use for this purpose.
5. The spreadsheet has 5 columns, you can update it as follows:
 - Columns **A** and **D** are for systems
 - Column **B** and **E** are for customer number
 - Column **C** is for type of connection/dependency between systems in columns **A** and **D**

- In case of a system with no connection/dependency enter source system, customer number only in Column **A** and **B**
- System ID's need to be entered in columns **A** and **D**. Ex: ABC[ABAP]
- Connection/Dependency type values to be placed in column **C** should be one of the keys listed in column **G** of landscape datasheet

Connection/Dependency type values to be placed in column **C** can be one of the following options:

- Remote Function Call (RFC)
- Product Maintenance Dependency
- HTTP Connection
- Transport Route
- Track
- Custom

6. Once the data in the spreadsheet is updated, you can upload it into Maintenance Planner to create the new landscape.

11.1.3 Opening an Existing Landscape Picture

To open an existing Landscape Picture, click the [Landscape Pictures](#) tile on the Maintenance Planner home screen. This displays the [My Landscapes](#) screen with the list of available landscape pictures.

11.1.4 Sharing a Landscape Picture




You can share a landscape picture. To do this, go to the **My Landscapes** view, and click **Share** from the **action** button on the corresponding landscape picture. Click on copy button to copy the link of the landscape.

i Note

Upon clicking on the copied link, you will directly go to the landscape of which the URL belongs to.

11.1.5 Deleting a Landscape Picture

You can delete a landscape picture if it is no longer needed. To do this, go to the [My Landscapes](#) view, and click [Delete](#) from the action button on the corresponding landscape picture.

MP_HLV_201999104333486 Test	1053602	1/6/2020, 3:31:11 PM	
MP_HLV_202016125629707	1053602	1/6/2020, 12:56:31 PM	
MP_HLV_202013101114112 test	1053602	1/6/2020, 11:19:27 AM	

Delete Landscape Picture

11.1.6 Copying a Landscape Picture

You can copy a landscape picture to a new one. To do this, go to the [My Landscapes](#) view, and click [Copy](#) from the action button on the corresponding landscape picture.

11.1.7 Comparing Systems

The Compare Systems option in Hybrid Landscape Visualization allows you to compare two or more on-premise or SAP-managed HANA Enterprise Cloud systems inside a particular landscape. You can compare a maximum of 10 systems.

Procedure

1. Click the [Compare Systems](#) icon.
2. In the [Select Systems](#) step, select the basis of comparison from the provided options.

i Note

By default, [Installed Software](#) option is selected and can't be changed.

3. Select systems from the drop-down list that you want to compare.
4. Select a system as a reference and click [Compare](#) to see the results.
In the [Results](#) step, the match percentage of each system with the reference system is displayed. With Overview and Header Information, other tabs are displayed based on your selection in the previous step.
5. Click [Highlight differences](#) to view only the differences between the selected systems. The following options are available:
 - Filter - Select a system to view its comparison details.
 - Legend - Displays the similarity levels with color and percent range.
 - Download - Exports and saves the comparison details in an excel file format.
 - Group - Group the results together based on the selected options for Installed and Additional Software tabs only.
6. Click [Close](#) after you've viewed the comparison of the systems.

11.1.8 Customizing the Entity Library View

Before you begin with working on your landscape, you may want to customize the library view. Following is the procedure to do this:

1. Click on the Entity Configuration icon that is on the library title bar.
2. In the [configure](#) window, choose one from the two tabs, that is, systems, cloud systems, to customize your landscape view.

3. Check or uncheck required attributes in the selected entity tab.
4. Click update to apply changes. This refreshes the entity library with the updated attributes.

i Note

The chosen attributes will be updated only to the selected section. For example, after clicking configure icon, if you have chosen cloud systems tab and checked or unchecked attributes as required, then the updated attributes will be displayed under each system that are under cloud systems tab.

11.1.9 Searching in Landscape

In an landscape, you will find two types of searches:

- **Entity Search:** This search under library lets you search for the desired entity using SID.
- **Canvas Search:** This search above canvas screen lets you search for any entity in the landscape picture.

11.1.10 Working with Reusable Entities

You can choose any entity in your landscape picture and make it reusable using the *Customize* button.

Once an entity is made reusable, it is available in the *Reusable Entities* tab in all the landscape pictures.

11.1.11 View System Information

You can view the detailed system information of any system in your landscape picture.

Select a system and click the *System Information* tab in the properties pane. This displays the *Stacks*, *Product Instances* and *Software Components* pertaining to the system. You can click the *Add as an attribute* button to include this information in the landscape picture.

11.1.12 Adding a Node to the Canvas

To add a system to the canvas, select one or more of the systems available in the library, and click *Add to Canvas*, or click the + button to create a new node.

You can add one of the following entities onto your canvas:

- Systems
- Cloud systems
- Reusable Entities

i Note

1. Third party entities can be created and tagged as reusable entities which are available for usage across the customer number.
2. You can choose to add multiple entities by selecting them from the respective pane and clicking [Add to Canvas](#) button.

Adding Node Details

Enter the following information that identifies the node in the landscape picture:

Enter Node Title: The title of the node.

Select Node Shape: Choose a box or circle.

Select Group: Choose the group that the node should belong to. You can also create a group of systems, cloud systems etc. based on the desired concept. Follow the link for [Creating a Group \[page 85\]](#).

Select Category: Choose if the system is On-premise, Cloud or Third-party.

11.1.13 Adding Systems Based on Transport Domain

This section explains you how to identify and add systems based on the same transport domain in Hybrid Landscape Visualization.

Procedure

1. In [Hybrid Landscape Visualization](#), choose your landscape to add an on-premise system.
2. Click the [Edit](#) icon at the top right corner to enter the edit mode.
3. In the [Library](#) panel, click the [Filter](#) icon in the [Systems](#) tab.
4. Click [Transport Domain](#), select the appropriate domains from the list, and click [OK](#).
5. From the filtered list, select the required system and click [Add to Canvas](#).

i Note

Select more than one systems to add them in a group.

6. Edit the node title, its shape, select an existing group or create a new group if required, and click [Add](#).

i Note

- By default, [Identify systems with same transport domain](#) option is selected. Based on the selected system, this option identifies and allows you to add systems within the same transport domain with their connection type and role.
Click [Close](#) if you do not wish to add any other system from the same domain.

- To add the same transport domain systems for an already added system, select a system from the canvas and click the *Customize* icon. From the options displayed, select *Identify systems of transport domain*.

11.1.14 Adding Node Details

When you chose to enter a new system and click Add to Canvas, the following pop-up is displayed. Enter the following information that identifies the node in the landscape picture:

Enter Node Title: The title of the node

Select Node Shape: Choose a box or circle

Select Group: Choose if the system belongs to a group. You can also create a new group.

Select Category: Choose if the system is On-premise, Cloud or Third-party

11.1.15 Managing Node Attributes

This section explains you how to view, add, and edit the system-defined attributes of a node.

View Node Attributes

To view all the attributes of a node, follow the below steps:

- Click the *Edit* icon at the top right corner to enter the edit mode.
- Select a node from the canvas whose attributes you want to view.
- In the *Properties* panel, click ► *More* ► *Attributes* ▾. You can view all the system-defined attributes for the selected node.

Edit Node Attributes

To edit the attributes of a node, follow the below steps:

- Click the *Edit* icon at the top right corner to enter the edit mode.
- Select a node from the canvas whose attributes you want to edit.
- In the *Properties* panel, click ► *More* ► *Attributes* ▾. You can perform the following actions:
 - **Copy Configuration:** Applies the hide or unhide attribute changes of the selected node to other similar nodes.
 - **Hide or Unhide Attribute:** Hides or unhides an attribute from the selected node.

- **Delete Attribute:** Deletes an attribute from the selected node.
- Click the [Save](#) icon to save all your changes and click the [Edit](#) icon again to exit the edit mode.

Add Node Attributes

To add a new attribute to a node, follow the below steps:

- Click the [Edit](#) icon at the top right corner to enter the edit mode.
- Select a node from the canvas to which you want to add a new attribute.
- In [► Properties ► Attributes ► Add a custom attribute ►](#) section, enter the label and value of the new attribute and click [Add](#).
- Click the [Save](#) icon to save all your changes and click the [Edit](#) icon again to exit the edit mode.

11.1.16 Changing the Visual Attributes of a Node

You can change the visual attributes of a node to make it easy to be differentiated among the other nodes in your landscape picture. Follow the below procedure to do this:

1. Select a particular node in your landscape picture, and choose [Visual](#) tab in the properties section.
2. To change size of the selected node, choose one value from the **Size** dropdown.

Save icon

Properties

ZE1_S[ABAP]

System Information Attributes Visual

Size:

Medium

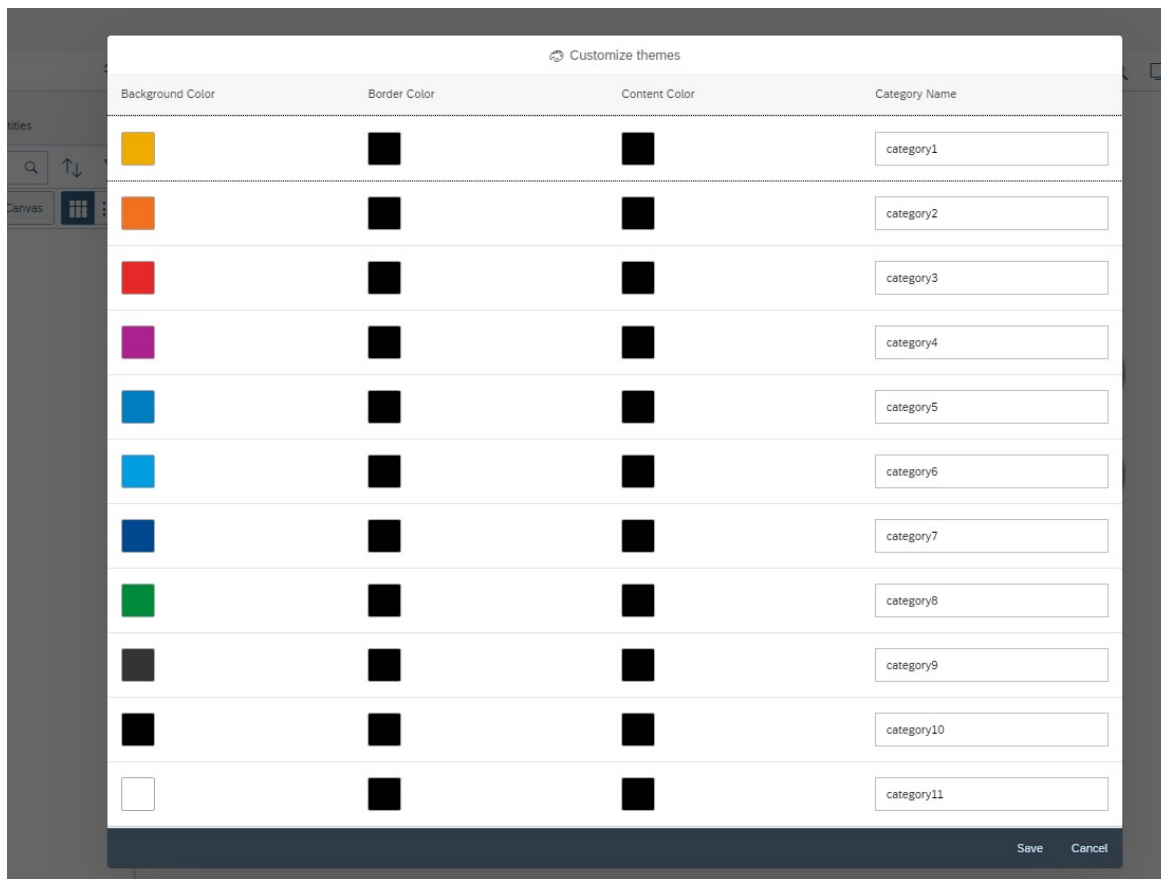
Colors and Theme

Select Category:

category6

- Default
- category1
- category2
- category3
- category4
- category5
- category6
- category7
- category8
- category9
- category10
- category11

- To change **color** of the selected node, choose a category from Colors and Theme tab.
- To change **theme** of the selected node, click on the setting button that is beside choose category dropdown.



Customize Theme

- Under customize theme window, choose desired color by clicking on the color boxes. Here, you can also **rename** the category name.

11.1.17 Working with Connections

This section describes how you can add or update connections between systems in your landscape. You can also define the type of connections between nodes.

i Note

A connection created here is a pictorial depiction of what may exist in the actual landscape. This is a simulation view only, and doing this will **not** trigger an impact on your landscape itself.

Adding a Connection

Open a landscape picture and click the Manage Connections button to add a connection. You can also choose a system in your canvas and add a connection via the *Customize* button.

Editing the Properties of a Connection

To edit the properties of a connection, select the connection on your canvas. Open a landscape picture and click the Manage Connections button to add a connection. You can also choose a system in your canvas and add a connection via the *Customize* button. You can also define the following properties using the *Manage Connection* option:

- **Name:** Name for the connection
- **Connection Type:** For example, RFC
- **Connection Visual Type:** Solid, dotted
- **Arrow:** Choose to display the arrow or not
- **Arrow Position:** Choose whether arrow position is at the beginning or at the end.

Managing Multiple Connections

You can add/manage multiple connections at once, for all the systems in your landscape picture.

To do this, click the plug icon in the top-left corner of the window. In the *Manage Connection* window, choose the system/tenant in the first and third column, and the connection type between them in the second column.

System/Tenant	Connection Type	System/Tenant	Remove Connection
ZW31[JAVA] <input type="text"/>	Track <input type="text"/>	ZW3[JAVA] <input type="text"/>	<input type="button" value="X"/>
ZD71[ABAP] <input type="text"/>	Track <input type="text"/>	ZD7[ABAP] <input type="text"/>	<input type="button" value="X"/>
SDS[JAVA] <input type="text"/>	Track <input type="text"/>	SSS[ABAP] <input type="text"/>	<input type="button" value="X"/>

11.1.18 Creating a Group

A group is a logical collection of systems/nodes in your landscape, that make it easy to identify and to maintain together.

While adding a node to the canvas, you can choose to add it directly to the canvas, to an existing group, or create a new group. You can also add nodes to a group anytime later.

12 Product Analytics

Product Analytics is a new functionality in Maintenance Planner that is available from July 2020. This functionality can be used only upon completing the onboarding process. To learn more, see [Onboarding in Pre-Requisites \[page 6\]](#)

This section lets you quickly analyze the systems in your landscape. If your S-user is assigned to multiple customer numbers, you can run product analytics queries by selecting the desired customer number(s). You can use one of the following queries available:

- **Provisioned Products:** Displays the top provisioned products of the selected customer numbers. You can also analyze a specific customer product by selecting the customer number in the top products.
- **Out Of Maintenance Product Versions:** Displays all the product versions scheduled to go out of the maintenance of the selected customer numbers based on the provided timeframe.
- **Third Party Add-Ons:** Displays all the third party add-ons present in your landscape.

12.1 Provisioned Products

To view all the customer products that are in your landscape, click the [Product Analytics](#) tile on the home screen.

As per your previous selection of customer numbers on the product analytics home screen, the list of customer products is displayed in chart as well in a table. You can toggle the view based on the tab you choose.

Overview: The [Provisioned Products](#) overview section displays the following totals:

- Total Products
- On-Premise Products
- Cloud Products

You can use the ^ button to collapse the overview or use the pin button to freeze the overview view.

The chart view displays the [Number of Systems](#) vs the [Products](#) as a bar chart of the selected customer numbers. You can use the zoom-in, zoom-out, or maximize functions for a better view.


The table view has the following columns:

- **Customer Number:** Displays the customer numbers selected in the product analytics home screen.
- **Product:** Displays the name of product.
- **Product Type:** Displays the type of the product.
- **System Count:** Displays the number of systems in the product.
- **Actions:** The actions button provides additional options. For example, you can click [Product Versions](#) to view the product versions.

12.2 Out of Maintenance Product Versions

Here, a banner, with the number of customer product versions going out of maintenance in the selected timeframe on the top of the page, is shown so that you can have an easy overview.

Out of Maintenance Product Versions

 180 product versions will go out of maintenance in the selected timeframe.

Select Timeframe

Next one year



Banner

Choose the timeframe in the calendar, to display a chart and a table view of all the selected customer product versions that are soon to go out of maintenance. In the calendar, timeframe can be set by choosing the start date first and then the end date.

You can use the ^ button to collapse the overview, or use the pin button to freeze the overview view.

The chart view displays the *Number of Product Versions* of previously selected customer numbers and the *Month* in which they go out of maintenance. You can use the zoom-in, zoom-out, or maximize functions for a better view.

i Note

Here, the number of product versions of a specific customer number can also be seen by choosing the customer number in *Out of Maintenance Product Versions* tab. In table view you can filter the data using product version name or customer number.

The table view displays the following columns:

- **Customer Number:** Displays the customer numbers selected in the product analytics home screen.
- **Product Version:** Displays the product version.
- **Systems Count:** Displays the number of systems in the product version.
- **Out of maintenance date:** Displays the date when the product version goes out of maintenance.
- **Actions:** The following actions are available via the *Actions* button, and open as new sub-sections that you can collapse:
 - Landscapes:* Lists all landscapes that the selected product version is associated with.
 - Systems:* Lists all the systems related to the selected product version.
 - Info links:* Lists all the relevant links for further information like SAP road map, SAP community network, Installation/upgrade guide etc.

To download list of out of maintenance products, click on download button, that is, in right side of the table section, as a CSV file. This downloaded CSV file will have details like product type, systems count etc. of the products that are out for maintenance.

12.3 Third Party Add-On Software

This section displays a list of third party add-ons that are present in your landscape. The overview section displays the total number of third party add-ons present. Based on your system landscape, the following tables maybe available for a detailed overview:

- *Unknown Software Component version* - Here, list of all unknown component versions are listed.
- *Third Party verified by ICC* - Here, list of all software component versions that are verified by ICC.
- *Vendor Branded Reseller* - Here, vendor of each software component version will be displayed.

i Note

The above-mentioned tables can be downloaded by clicking on the download button that is beside each table.

13 View Recommended Notes

The [View Recommended Notes](#) section calculates and displays SAP Notes that are recommended for your ABAP and JAVA systems in your SAP system landscape. It consists of the following:

- Customized recommendations for individual systems based on your system landscape and SAP Notes metadata.
- Recommended notes include Security Notes, Hot News, Performance Notes, Legal Changes, etc.
- Allows filtering of systems to identify and calculate SAP Notes accordingly.
- Displays SAP Notes and its link to view its details and implementation prerequisites.
- Displays the processing status of SAP Notes that you can manually change based on your requirements.
- Detailed information on SAP Notes and the software components they're applicable to.
- Logs show actions performed on SAP Notes with the user ID, processing status, date, time, and comments.

Overview

In the [View Recommended Notes](#) tile, a list of all the systems in your landscape with the following details is displayed:

- System Name and Type
- System Number
- Customer Number
- Data Source
- Leading Product
- Leading Product Version
- System Role
- Transport Domain
- Last Changed On

You can perform the following options:

- [Search](#) - Search for a system from the list using system ID or number.
- [Filter](#) - Filter the systems list based on the displayed columns.
- [Reset Filter](#) - Remove all the applied filters to view all the available systems in the list.
- [Sort](#) - Sort the list in ascending or descending order.
- [Group](#) - Group the systems together in ascending or descending order or based on the displayed columns.

13.1 Viewing Recommended Notes

Context

[View Recommended Notes](#) consists of SAP Notes with actions to be performed on your ABAP and JAVA systems in your system landscape. You can assess, view, and implement these SAP Notes on the target system.

This section explains you how to view and filter SAP Notes for the selected systems.

Procedure

1. Choose [View Recommended Notes](#) tile from the home page.
2. Select the systems for which you want to view the notes and click [Calculate Notes](#).

A list of all the recommended notes for the selected systems is displayed.

3. Click SAP Note number to view its details.
4. To filter the recommended notes, use the following categories:
 - Results - Displays all the recommended notes with their total count for the selected systems.
 - SAP Security Notes - Displays notes specific to security and protection of the systems.

i Note

You need to have 'Security Contact' authorization to access security notes of any system. For authorization, search and contact your administrator from [this](#) page.

- Hot News - Displays notes that are of the highest priority.
- Performance Notes - Displays notes that are critical for your systems performance.
- Legal Change Notes - Displays notes relevant for any legal changes required for your systems.

The toolbar consists of the following options:

- [Search](#) - Search for a note from the list using its name or number.
- [Filter](#) - Filter the notes list based on the displayed columns.
- [Reset Filter](#) - Remove all the applied filters to view all the available notes in the list.
- [Sort](#) - Sort the list in ascending or descending order.
- [Group](#) - Group the notes together in ascending or descending order or based on the displayed columns.
- [Settings](#) - Choose the columns that you want to see on the screen accordingly.
- [Download](#) - Download and save the filtered list of notes in an Excel or XML file format.

i Note

- You can upload this XML file in the note assistant tool for implementation. Note assistant will analyze and implement only the valid SAP Notes for the relevant systems.
- To use this feature, you must implement the [SAP Note 3339895](#) using the note assistant tool.

- [Edit Processing Status](#) - Change the processing status of the selected notes.
5. Select a note to view the following tabs:
- [About](#) - Displays the system and note details.

i Note

For SAP Security Notes, details like CVSS Score and Vector, Security Patch Day, and CVE are also displayed.

- [Logs](#) - Displays all the actions performed on the note with the user ID, processing status, date, time, and comments.

13.2 Changing Processing Status of Notes

Prerequisites

Enable the [Processing Status](#) column in [View Recommended Notes](#). Click [▶ Username](#) [▶ Personalize](#) [▶ Notes Recommendation](#) [▶](#). Select [Change Processing Status](#) and click [Save](#).

Context

Each recommended SAP Note has a processing status that helps you in tracking its implementation status on the target system. You can change the processing status of the notes based on your requirement.

Procedure

1. Choose [View Recommended Notes](#) tile from the home page.
2. Select the systems that you want and click [Calculate Notes](#).
3. Click the [Edit](#) icon displayed in the [Processing Status](#) column for which you want to change the status.
4. Enter the following details:
 - [Select Status](#): Select the appropriate status for the note from the drop-down list.
 - Transferring - Note is transferred for implementation.
 - In Progress - Note implementation is in progress.
 - On Hold - Note is yet to be decided if it needs to be implemented or is irrelevant.
 - Not Relevant - Invalid or irrelevant note for your system.
 - [Comments](#): Enter extra information related to the note.
5. Click [Save](#) to update the processing status.

i Note

To change the processing status of multiple notes, select the required notes and click the *Edit* icon displayed at the right corner of the toolbar. Select the appropriate status from the drop-down list, enter a comment if any, and click *Save*.

After a note is implemented on the target system, it's no longer recommended and automatically removed from the list.

14 Data Protection and Privacy

- Logged in S-user will be stored in the Maintenance Planner database against the ERP customer number of the logged in S-user's organization.
- System selected in an MP transaction will be stored in MP database.
- The logs will not store any user related personal data.
- Explicit deletion of User ID, transactional data can be done using [Deleting a Transaction \[page 65\]](#).
- S-users within an organization's ERP customer number can read or edit or delete other S-users transactions or landscape pictures which belong to the same ERP customer number.

15 Support

If you need support:



- Find answers or read blogs on the [SAP Community Tag: Software Logistics](#)
- Ask a question on the [SAP Community Q&A](#) page
- Find a solution on the SAP Community WIKI for [Maintenance Planner - Troubleshooting Guide](#)
- In case of issues, please use the component `BC-UPG-MP` to raise a support ticket for maintenance planner.

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