

SAP Guides



landscape verification 1.0
SP01 for SAP Solution
Manager

November 2010

Typographic Conventions

Type Style	Represents
Example Text	Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths and options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, titles of graphics and tables
EXAMPLE TEXT	Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example, SELECT and INCLUDE.
Example text	Screen output. This includes file and directory names and their paths, messages, names of variables and parameters, source code as well as names of installation, upgrade and database tools.
Example text	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Pointed brackets indicate that you replace these words and characters with appropriate entries.
EXAMPLE TEXT	Keys on the keyboard, for example, function keys (such as F2) or the ENTER key.

Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

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1. Structure of this Document

This document describes the purpose and operation of landscape verification 1.0 SP01 for SAP Solution Manager, an Add-On for improving the quality of your system landscape description in the SAP Solution Manager.

The individual sections of this document have the following contents:

- **Section 2** contains a short introduction to landscape verification, its purpose, and how it works.
- **Section 3** contains an introduction to the underlying concepts of landscape verification; the ways in which an application of this type is useful, a brief outline of the architecture, and a summary of the errors in your landscape description that landscape verification is able to detect.
- **Section 4** contains information about installing landscape verification.
- **Section 5** contains information about operating and configuring landscape verification and a description of the user interface.
- **Section 6** contains information on the wizards available within the landscape verification for correcting the landscape description.
- **Section 7** contains an appendix with the message long texts of the messages about your system landscape description, and a short glossary of the terms used.

2. Introduction to Landscape Verification

The error-free and complete mapping of your system landscape in SAP Solution Manager (transaction SMSY) is of critical importance for your maintenance processes. This is because, as of SAP ERP Enhancement Package 4 for SAP ERP, the [Maintenance Optimizer](#) (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/46/418970cdb45fabe1000000a1553f7/frameset.htm) is a mandatory prerequisite for installation; correct configuration of your system landscape is, in turn, an important prerequisite for the correct execution of the Maintenance Optimizer.

Experience shows, however, that the landscape data that is available to you in transaction SMSY is not always complete and error-free, particularly if data has been entered manually.

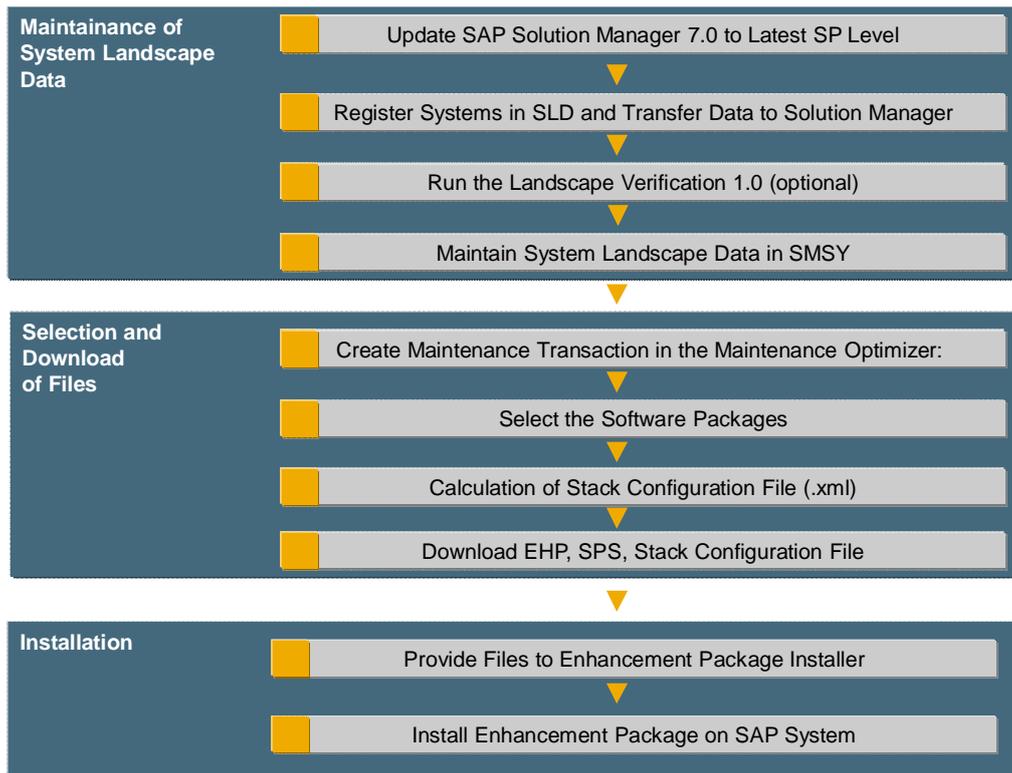
This is where landscape verification 1.0 for SAP Solution Manager is useful. It analyzes the description of your system landscape and, with the help of information from the SAP support system, searches for inconsistencies. Based on the results of these checks, a clear user interface shows an overview of all problems, gaps, and inconsistencies in the description of your system landscape. Each of these errors is described in detail; the descriptions also contain procedures for solving the problem.

As of SP01 for landscape verification 1.0 for SAP Solution Manager, two additional wizards are available, which enable you to correct the detected problems directly. These wizards enable you to correct the description of technical systems and product systems in which problems were detected. The wizards also include help for making the correct settings.

In this way, landscape verification supports you in lowering your TCO by increasing the quality of your landscape description and therefore helping to ensure a smooth installation of the SAP ERP Enhancement Packages. The most important steps in the context of an installation process of this type are shown below:



If you want to update landscape verification 1.0 for SAP Solution Manager to SP1, see SAP note 1539712.



3. Concept of Landscape Verification

3.1. Motivation

Many SAP customers operate a large number of SAP applications, which usually consist of many different systems. Many of these applications are therefore distributed across different technical systems and exist as development, test, and production systems.

You therefore need to take into account the following points during maintenance or upgrades of applications of this type:

- To perform an upgrade of all elements of these applications, you need to handle the corresponding groups of technical systems as a unit.
- When upgrading technical systems that are used in more than one application, you need to consider all of the roles of these systems.

To be able to do any of these things, it is vital to have a correct and complete landscape description, which forms the basis for the maintenance of your applications. This landscape description is the system landscape of SAP Solution Manager (transaction SMSY). However, parts of this landscape description are created manually, and can therefore contain errors, which can, in turn, lead to errors when maintaining your applications.

To detect these errors and to provide support in solving them, landscape verification for SAP Solution Manager is available to you. Landscape verification analyzes your landscape description in your SAP Solution Manager, finds errors, and displays information about how to solve them. This means that you can perform your maintenance processes more quickly with fewer errors and lower costs.

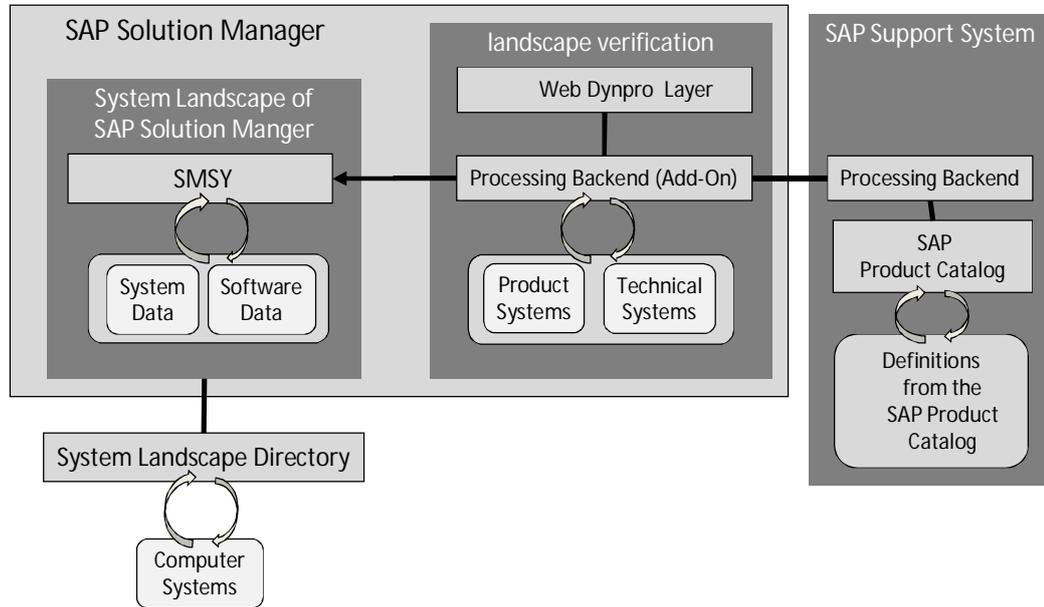
In addition, you can also correct the detected problems in the landscape verification by editing the description of technical systems and product systems in which problems were detected. This means that the detection and correction of problems takes place within the same tool.

3.2. Architecture

In your system landscape, your managed systems report their data to the System Landscape Directory (SLD), which, in turn, forwards this data to the system landscape of SAP Solution Manager (transaction SMSY).

Landscape verification reads this data and compares it to information in the SAP product catalog from the central SAP support system, and detects errors and inconsistencies through this comparison of the locally-available information and the information available centrally at SAP.

Landscape Verification – Architecture and Data Flow



3.3. Parts of the Landscape Description that Are Checked

Landscape verification checks the part of your landscape description in SAP Solution Manager that is required for upgrade and maintenance processes.

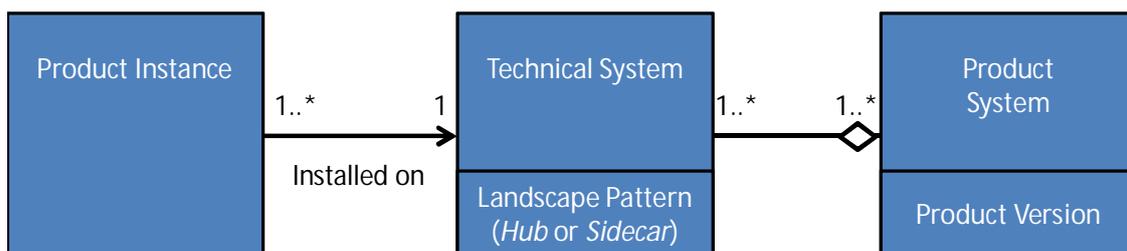
Specifically, only the following elements of the landscape are relevant for the checks:

- Product System
- Technical System
- Product Instance



For a definition of these terms, refer to the [Glossary \[page 41\]](#).

Relevant Parts of the Landscape Description



The concept of a [landscape pattern](#) is also supported (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/2b/5fad0d1f8549609efddabca9c7f65d/frameset.htm), that is, a description of the extent to which a technical system is used in only one or in multiple product systems. The following landscape patterns exist:

- *Hub*
- *Sidecar*
- *Space*

3.4. Problems Detected Using Landscape Verification

Landscape verification detects problems in the following areas of your landscape description:

- **Infrastructure** (technical prerequisites), such as the connection to the SAP support system or the connection of your SAP Solution Manager to the System Landscape Directory (SLD)
- **Technical systems**, such as incorrect assignment of product instances on the basis of the installed software component versions
- **Product systems**, such as incorrect or missing assignment to a product version



You can solve problems in the descriptions of technical and product systems directly by using the relevant wizard (see [Landscape Verification Wizards \[page 20\]](#)).

These problems could, for example, have been caused by the following errors:

- Incomplete or incorrect configuration for data suppliers that report system data to the SLD
- Configuration of the transfer of data from the SLD to SAP Solution Manager (*Landscape Fetch*) is incomplete, or the transfer is not working correctly
- The assignment of product instances or product systems in your description of the system landscape is incorrect, for example, due to manual entries
- Landscape patterns have been incorrectly set

4. Installing Landscape Verification

Landscape verification 1.0 is an Add-On for SAP Solution Manager 7.0 EhP1 as of Support Package 18. To install landscape verification, first download the relevant archive from the SAP Service Marketplace.

1. The archive is available in the SAP Software Distribution Center of the SAP Service Marketplace (<http://service.sap.com/swdc>). Log on with your SAP Service Marketplace ID.
2. In the navigation bar, select *Installations and Upgrades* → *Installations and Upgrades - Entry by Application Group* → *SAP Technology Components* → *LV FOR SOLUTION MANAGER* → *LV 1.0 FOR SOLUTION MANAGER* → *Installation*, and download the archive.
3. The rest of the procedure is described in the documentation for the Add-On Installation Tool (transaction *SAINT*). The information that is most important for you is available by following the links below:
 - [Loading Installation Packages](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/d18d38e9cf9e67e1000009b38f842/frameset.htm)
(http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/d18d38e9cf9e67e1000009b38f842/frameset.htm)
 - [Installing and Upgrading Add-Ons](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/18/e08d38dfc44765e1000009b38f842/frameset.htm)
(http://help.sap.com/saphelp_nw70ehp1/helpdata/en/18/e08d38dfc44765e1000009b38f842/frameset.htm)

5. Operating Landscape Verification



To be able to use landscape verification, your user must have the role *SAP_SMSY_LV_ALL*.

Note that this role is based on the equivalent standard role for SMSY (*SAP_SMSY_ALL*), and you must therefore have implemented this role in your system. In addition to the referenced SMSY role, the role for landscape verification contains only the authorizations to execute transactions *LVSM* and *LVSM_LOAD*.

5.1. Initializing and Configuring Landscape Verification

Before all of the landscape verification functions are available to you, a job that checks your entire system landscape, which is available to you in the system landscape of your SAP Solution Manager (transaction SMSY), for possible errors, gaps, or inconsistencies must complete its run. The job compares, among other things, locally-available product instances with the product instances that are technically possible based on the installed software component versions. This information is determined from the central SAP support system.



Note that the job may require a runtime of several hours, depending on the size of your system landscape.

Starting the Job

To start this job, proceed as follows:

1. Start transaction *LVSM_LOAD*.
2. From the menu, choose *Program* → *Execute in Background*.
3. In the group box *Notification*, if you activate the indicator for the sending of an e-mail, you are informed as soon as the job is complete.

Setting the Configuration Parameters

You can also set a number of configuration parameters in this transaction. You can make the following settings:

- In the group box *Product Instance detection: cleanup of results*, you can specify the circumstances in which check results are overwritten if a new check is performed. By default, this function is set to the indicator *Activate Cleanup*; if this indicator is active, you can use the input field *Delete result older than* to define the age as of which results are to be overwritten by the results of a new check.
- You can ensure that a check is performed for those technical systems in the SAP Solution Manager system landscape, for which no check results are available. This is particularly important if you have added new technical systems to your system landscape.

This function is also activated by default, using the indicator *Execute detection if no detection result is available for a technical system* in the group box *Product Instance detection: update of results*.



You should normally leave this indicator activated. It is only meaningful to deactivate the indicator and execute the job again if you want to delete all check results that have exceeded the retention period specified above.

- You can ensure that you are always informed when a check of your system landscape is complete. An e-mail of this type is sent using SAPconnect (more information: [SAPconnect \(BC-SRV-COM\)](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/2b/d925bf4b8a11d1894c0000e8323c4f/frameset.htm), http://help.sap.com/saphelp_nw70ehp1/helpdata/en/2b/d925bf4b8a11d1894c0000e8323c4f/frameset.htm).

This function is also activated by default, using the indicator *Send email notification after Product Instance detection is finished* in the *Notification* group box.

5.2. Scheduling the Job

To ensure that the results are always up-to-date, we recommend that you schedule regular jobs. Check results may become obsolete for the following reasons:

- Changes to the PPMS product catalog, for example due to the availability of new product versions
- Improvements to the check results due to changes to the check algorithm that is performed in the central SAP support system
- Changes to your system landscape

For the above reasons, SAP recommends that you schedule the job to run at regular intervals. To do so, create a variant and set the above-mentioned configuration parameters, according to your requirements. Proceed as follows:

1. Start transaction *SE38* and enter the program name *RFC_MOPZ_GUESSING*.
2. Select  *Variants*, enter any name in the *Variant* field, and choose the  *Create* button.
3. The system displays the initial screen of transaction *LVSM_LOAD* (as mentioned above). Set the configuration parameters as you require.



To ensure that the system also updates existing check results, set the *Activate Cleanup* indicator.

4. Select  *Attributes* and set the *Only for Background Processing* indicator.
5. Save your variant.
6. To schedule the job, start transaction *SM36* and enter the *ABAP program RFC_MOPZ_GUESSING* as the sole job step of the variant you just created.



When specifying the start condition, activate **Periodic Job**. The appropriate period depends on how much your system landscape changes as time progresses. A period of one month may be appropriate.

5.3. Starting Landscape Verification

To start landscape verification, enter the transaction code **LVSM**. The application is opened in a separate window. If the job has not yet been started when you start transaction **LVSM**, the system displays a corresponding message.

Therefore start this job in good time before your intended first use of landscape verification. In addition to calling transaction **LVSM** and giving an appropriate response to the message mentioned above, you can also start this job by calling the configuration of the landscape verification (transaction **LVSM_LOAD**) (see **Error! Reference source not found. [Page 12]**) and choosing the command *Program → Execute in Background* from the menu.



If the results of this check are incomplete or obsolete, the system displays a corresponding message; this message also contains the expected remaining runtime of the job.

On the main screen of the landscape verification (*Home* tab), you see an overview of the most important landscape verification details. These include:

5.3.1. Task List

This group box contains a brief summary on how to work with the Landscape verification. The process consists of four steps:

1. Ensure that your administered systems are correctly registered with your System Landscape Directory (SLD), as the SLD forms the data source for the system landscape of the SAP Solution Manager (transaction **SMSY**). For details on the registration of the administered systems with the SLD, see [Configuring Systems to Connect to SLD](http://help.sap.com/saphelp_nw70/helpdata/en/11/0dfe55e0c8fc4e910706a47ca6859b/frameset.htm) (http://help.sap.com/saphelp_nw70/helpdata/en/11/0dfe55e0c8fc4e910706a47ca6859b/frameset.htm).
2. Ensure that the job listed under [Initializing and Configuring Landscape Verification \[page 12\]](#) is complete.
3. Correct the problems indicated in the list of errors and warnings. For most problems, a suitable wizard is available (see [Landscape Verification Wizards \[page 20\]](#)). Otherwise, the message longtext provides instructions on how to solve the problem.
4. When you have completed the troubleshooting, you must transfer the changes in the landscape description to the system landscape of the SAP Solution Manager. Choose *Update SMSY* to do so.

5.3.2. Technical Systems Summary

This group box provides details on the status of your landscape description in the SMSY. This includes the following information:

System Status	Explanation
<i>systems available</i>	Indicates the number of technical systems found in the SMSY
<i>properly registered systems</i>	Indicates the number of technical systems that are correctly registered with the SLD, and for which the above-mentioned job for detecting the product instances was performed. This does not indicate that no problems were detected for these systems.
<i>systems excluded from verification</i>	The Landscape verification can check only <i>ABAP</i> , <i>Java</i> , <i>TREX</i> and <i>LiveCache</i> systems. This indicates the number of systems of another type.
<i>systems not properly registered</i>	Indicates the number of technical systems that are not correctly registered. Usually, these are systems that were entered into the SMSY manually, instead of via registration with the SLD.
<i>systems without product instance detection data</i>	Indicates the number of technical systems for which the job for detecting the product instances has not been performed yet or has been performed with errors. To start the job, choose <i>Retrieve Missing Data</i> .

5.3.3. The SAP Landscape Model

This group box explains the terminology used for the landscape description within the SAP Solution Manager, and that is relevant for the landscape verification check. This includes:

- Product System
- Technical System
- Product Version
- Product Instance

Landscape Verification – Overview of the *Home* Tab

The screenshot shows the 'Landscape Verification Tool' interface. At the top, it displays status messages: 'Checking completed: 57 error(s) and 18 warning(s) detected' and 'Landscape initialized successfully'. Below this are buttons for 'Add Product System', 'View Changes', and 'Update SMSY', along with a 'Help' menu. The main content area has three tabs: 'Home' (selected), 'System Landscape', and 'Errors (57) - Warnings (18)'. The 'Home' tab is divided into three sections:

- Task List:** A list of four numbered steps: 1. Make sure that all of your technical systems are registered in the System Landscape Directory (SLD) and replication of data into Solution Manager System Landscape repository (SMSY) is running. 2. Run product instance detection. 3. Correct the detected errors and warnings using the provided guidance. 4. Update landscape configuration by choosing Update SMSY.
- Technical systems summary:** A summary of system status: 62 systems available, 31 properly registered, 4 systems excluded, 26 systems not properly registered, and 1 system without product instance detection data.
- The SAP Landscape Model:** A diagram showing the relationship between Product system, Technical System, Product Version, and Product Instance.

Callouts on the right side of the screenshot provide further details:

- Documentation:** Points to the 'See documentation' link in the Task List.
- Task List:** States that this list contains a short summary of how to work with the tool.
- Technical Systems Summary:** States that this list gives an overview of systems in the landscape and their status regarding verification.
- The SAP Landscape Model:** States that this part explains the terms used in landscape verification.

You can switch to two further displays by selecting the corresponding tabs:

- *System Landscape* (more information: [Displaying the System Landscape \[page 17\]](#))
This display shows an overview of your system landscape; if errors have been detected, these are displayed for each landscape element (product versions, product systems, and technical systems).
- *Errors - Warnings* (see [Displaying the Errors Detected in the System Landscape \[page 18\]](#))
This display shows a flat list of all errors and warnings detected in your system landscape.

In both views, you can see the errors and problems that landscape verification has detected in the description of your system landscape. To display more detailed information for one of these messages, choose the relevant message. A separate window appears, containing a detailed long text that contains the cause and also information about how to correct the problem.

In addition, you can correct many problems directly within the Landscape verification. To do so, choose the activity related to the relevant problem under *Error Correction*.

The system displays a screen on which you can correct the error (see [Landscape Verification Wizards \[page 20\]](#)).



Once you have corrected the problems, choose *Update SMSY* to save your changes in the landscape description of the SAP Solution Manager.

5.4. *Displaying the System Landscape*

In this display type, the detected errors and inconsistencies are displayed grouped by the elements of your system landscape – product versions, product systems, and technical systems (more information: [Glossary \[page 41\]](#)).

- In the navigation area on the left, there is a two-level hierarchy of product versions and product systems. The nodes *All Systems* (all technical systems in your system landscape) and *Unassigned Technical Systems* (technical systems that are not assigned to any product system) are also displayed.



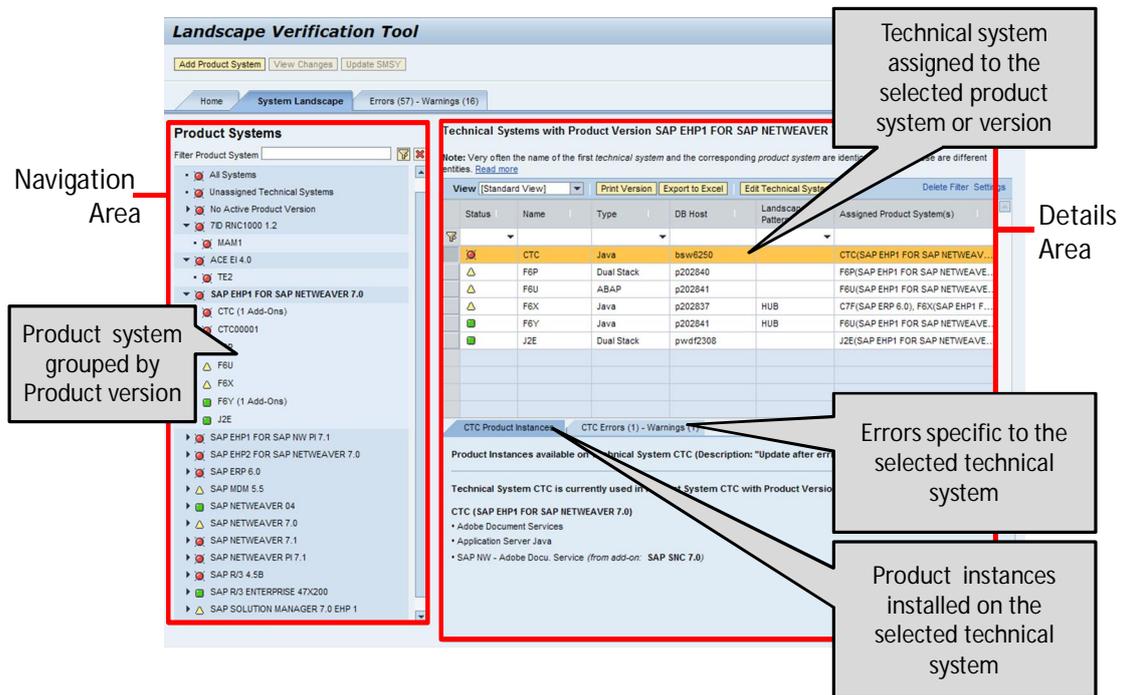
You can filter according to any product system by entering the required product system into the entry field. After that, select  (*Filter Product System*) or press Enter.

A status is displayed for each of these entries. If the status is yellow or red, this means that the landscape verification check detected errors or warnings for the selected product version or corresponding product system.

A red or yellow status is inherited upward in the hierarchy; if the check status of an object is unknown (for example, if not all checks have yet been performed), the corresponding object is indicated with a gray status.

- The detail area on the right consists of two subareas. The upper subarea contains a table with the technical systems that are assigned to the product version or product system selected in the navigation area. The lower subarea displays product instances and any detected messages (errors and warnings) for the technical system selected from the table in the upper subarea.

Landscape Verification – Overview of the User Interface



5.5. Displaying the Errors Detected in the System Landscape

You can also display the messages detected for your system landscape in an overview list. The following information is displayed for each message:

- Status of the message: Red (error) or yellow (warning)
- Object and category to which the message relates (for example, *Technical System*)
- Short text of the message; if you want to display the long text of the message, which also contains a procedure for correcting the error, choose the short text
- Link to a wizard that enables you to correct the error directly (see [Landscape Verification Wizards \[page 20\]](#)).

Landscape Verification – Overview of Detected Errors

The screenshot shows the 'Landscape Verification Tool' interface. The main window displays a table of detected errors and warnings. The table has columns for Status, Category, Object, Message, and Error Correction. The status column uses icons: a red circle for errors and a yellow triangle for warnings. The message column contains short text, and the error correction column contains links to wizards for solving the problems.

Status	Category	Object	Message	Error Correction
Warning (Yellow Triangle)	Technical System	C7F	Some software components not covered by configured product instances	Change Product Instance Assignments
Error (Red Circle)	Technical System	C7W	Technical System C7W is not assigned to a Product System	Change Product System Assignments
Error (Red Circle)	Technical System	C7Z	Technical System C7Z not registered properly in SMSY	Change Product Instance Assignments
Warning (Yellow Triangle)	Technical System	CTC	Some software components not covered by configured product instances	Change Product Instance Assignments
Error (Red Circle)	Technical System	CTC	Technical System CTC has inconsistent configuration	Change Product Instance Assignments
Error (Red Circle)	Technical System	DDO	Technical System DDO not registered properly in SMSY	Change Product Instance Assignments
Error (Red Circle)	Technical System	DE2	Technical System DE2 is not assigned to a Product System	Change Product System Assignments
Error (Red Circle)	Technical System	DE3	Technical System DE3 is not assigned to a Product System	Change Product System Assignments
Error (Red Circle)	Technical System	DEB	Technical System DEB is not assigned to a Product System	Change Product System Assignments
Error (Red Circle)	Technical System	EP3	Technical System EP3 not registered properly in SMSY	See message description
Error (Red Circle)	Technical System	EP8	Technical System EP8 not registered properly in SMSY	See message description
Error (Red Circle)	Technical System	EP9	Technical System EP9 not registered properly in SMSY	See message description
Error (Red Circle)	Technical System	F6J	No detected Product Instances available for technical system F6J	See message description
Warning (Yellow Triangle)	Technical System	F6P	Some software components not covered by configured product instances	Change Product Instance Assignments
Warning (Yellow Triangle)	Technical System	F6S	Some software components not covered by configured product instances	Change Product Instance Assignments
Warning (Yellow Triangle)	Technical System	F6U	Some software components not covered by configured product instances	Change Product Instance Assignments
Warning (Yellow Triangle)	Technical System	F6V	Some software components not covered by configured product instances	Change Product Instance Assignments
Warning (Yellow Triangle)	Technical System	F6W	Some software components not covered by configured product instances	Change Product Instance Assignments
Warning (Yellow Triangle)	Technical System	F6X	Some software components not covered by configured product instances	Change Product Instance Assignments
Error (Red Circle)	Technical System	F6Z	Technical System F6Z not registered properly in SMSY	Change Product System Assignments
Warning (Yellow Triangle)	Technical System	F7A	Some software components not covered by configured product instances	Change Product Instance Assignments
Error (Red Circle)	Technical System	F7B	Technical System F7B not registered properly in SMSY	Change Product System Assignments
Error (Red Circle)	Technical System	F7C	Technical System F7C not registered properly in SMSY	Change Product System Assignments

Callouts in the image provide the following information:

- Severity of the message:** red (error) or yellow (warning)
- Object and category** (e.g. technical system) to which the message refers
- Short text of the message;** click on the message to display the long text
- Link to a wizard for solving the problem**

6. Landscape Verification Wizards

You can correct the detected problems in the landscape verification itself, by using a wizard to edit the properties of technical systems and product systems in which the problems were found. This means that the detection and correction of problems takes place within the same tool.

To start the appropriate wizard, select the action required for correcting a detected problem in the *Error Correction* column. The system starts the wizard with the available properties of the product system or technical system. The wizard starts at the precise step in which you can edit the aspect of the system properties that caused the problem. You can switch to the following step only if you have made valid settings. For your support, the system displays and/or applies status green only to valid assignments.

For each step within both wizards, you can display further information and a description of the step by choosing *Show Information*. To hide this information again, choose *Hide Information*.

6.1. Product System Wizard

This wizard enables you to create and edit properties of product systems.

There are two ways of calling up this wizard in the Landscape verification:

- To create a new system, choose *Add Product System*. In this case, you have to carry out all four wizard steps entirely.
- Choose the pushbutton for a detected problem in the *Error Correction* column. In this case, the wizard starts with the relevant product system, if the detected problem concerns the properties of a product system. The wizard starts at the precise step in which you can edit the aspect of the system properties that caused the problem.

The wizard consists of the four following steps, between which you can move by using the *Previous* and *Next* buttons:

6.1.1. General Information about Product Systems

In this step, you define the product version and the description of the product system. You can select only the standalone product versions. If you are using an add-on product, you enter the associated standalone version manually in this step.



If technical systems are already assigned to the product system, the selection of product versions is limited to those matching the software component versions of the technical system.

6.1.2. Assigned Technical Systems

In this step, you assign the associated technical systems to the product system. To do so, select the systems on which the product system software is installed from the list of technical systems.

The list displays only the technical systems that have software component versions that match the product version you selected in the previous step.



If the list does not display the technical systems you require, check that you selected the correct product version in the previous step.

6.1.3. Assigned Product Instances

In this step, you assign the installed components of the selected product version (the product instances) to the technical systems of the product system. The list shows the product instances that are currently assigned to the technical systems in the system landscape of the SAP Solution Manager. Whether such an assignment is technically possible is indicated by the *Status* column. The software component versions of the relevant technical system form the basis of this check.

6.1.4. Summary

This step provides an overview of the configured product system. Choose *Finish* to complete the process.



If you changed the properties of the product system, you must transfer these changes to the system landscape of the SAP Solution Manager, as the system does not perform this step automatically. To do so, choose *Update SMSY* after you have completed all the wizard steps.

6.2. Technical System Wizard

This wizard enables you to edit the properties of technical systems. To start the wizard, choose the pushbutton for a detected problem in the *Error Correction* column. In this case, the wizard starts with the relevant technical system, if the detected problem concerns the properties of a technical system. The wizard starts at the precise step in which you can edit the aspect of the system properties that caused the problem.

The wizard consists of the four following steps, between which you can move by using the *Previous* and *Next* buttons:



In contrast to the [Product System Wizard \[page 20\]](#), you cannot create new technical systems with this wizard. You must carry out such creation only via registration of the technical system with the SLD. For more details, see [Configuring Systems to Connect to SLD](#) (http://help.sap.com/saphelp_nw70/helpdata/en/48/0dfe55e0c8fc4e910706a47ca6859b/frameset.htm).

6.2.1. Assigned Product Systems

In this step, you select the product systems this technical system is assigned to. The list displays only the product systems that have a product version that matches the software component versions of the technical system.



If the list does not display the product systems you require, check the product version of the product systems you require.

If you want to assign the technical system to more than one product system, this technical system must have the landscape pattern *Hub*. Technical systems assigned to exactly one product system have the landscape pattern *Sidecar*. You enter the landscape pattern in step [General Information about the Technical System \[page 22\]](#).



For more details, see [Landscape Pattern](#) (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/2b/5fad0d1f8549609efddabca9c7f65d/frameset.htm).

6.2.2. Assigned Product Instances

In this step, you assign the product instances installed on this technical system to the product systems you selected in the previous step. On the basis of the available software component versions, the list displays the product instances that may potentially be installed on the technical system.

The *Status* column indicates product instances with faulty configurations by red traffic light icons.



The application may not always detect all installed product instances uniquely. For this reason, select product instances only if they really are installed on the technical system. On the basis of the detected software component versions, the Landscape verification may display several possible alternatives.

6.2.3. General Information about the Technical System

In this step, you create the description and the landscape pattern of the technical system. From the two possible values *Hub* and *Sidecar*, you can select only the one enabled by the settings in step [Assigned Product Systems \[page 21\]](#) for the landscape pattern.

6.2.4. Summary

This step provides an overview of the configured technical system. The following information is displayed:

- System ID
- System Type
- System Description
- Database Host
- Landscape Pattern
- Assigned product systems with corresponding product version
- Assigned Product Instances

Choose *Finish* to complete the process.



If you changed the properties of the technical system, you must transfer these changes to the system landscape of the SAP Solution Manager, as the system does not perform this step automatically. To do so, choose *Update SMSY* after you have completed all the wizard steps.

7. Appendix

7.1. Messages in the Landscape Verification

The following appendix contains a complete list of the messages within the Landscape verification. These messages are displayed when the tool detects errors or problems during the check of your system landscape.

7.1.1. Technical System not registered properly in SMSY

Diagnosis

The landscape verification checks, among other things, the completeness of the data that exists in the SAP Solution Manager (transaction SMSY) for technical systems in your system landscape.

In this case, the technical data for a technical system is incomplete - required data is missing. A list below shows the fields for which there is no data. Perhaps you entered the data for the technical system manually and incompletely.

System Response

Since the system landscape forms the basis for working with the SAP Solution Manager, without complete data, many important functions are not available to you for this system, or are only available on a restricted basis.

Procedure

Check the relevant data for this technical system. To do this, follow the procedure below:

5. Start transaction SMSY.
6. Choose the affected technical system from the list of landscape components.
 - If it has the system type *ABAP*, expand the product system with the same name in the list, and, from the list of product instances, choose the product instance with this name.
 - If it has another system type, expand the list of technical systems, and choose the appropriate technical system from the list.
7. Switch to the *Header Data* tab page, check the entries, and make the necessary changes by adding the missing entries.



This error occurs primarily if you manually entered the data for a technical system in transaction SMSY. We therefore recommend that, as far as possible, you let the data be determined by the registration of the technical systems with the System Landscape Directory (SLD). In this case, the system data is automatically transferred to the SAP Solution Manager system landscape by a job that runs at regular intervals.

For more information about registering ABAP and Java systems, see [Configuring Systems to Connect to SLD](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/48/b6812896655295e10000000a42189b/frameset.htm) (http://help.sap.com/saphelp_nw70ehp1/helpdata/en/48/b6812896655295e10000000a42189b/frameset.htm).

7.1.2. Technical System &1 has inconsistent product version assignments

Diagnosis

The landscape verification checks, among other things, the assignment of product versions to product systems in the system landscape of the SAP Solution Manager (transaction SMSY).

In this case, a technical system was found which is assigned to a product system with incompatible product version (compared to the product instances found on the technical system).

System Response

Since the system landscape of the SAP Solution Manager forms the basis for working with SAP Solution Manager, if your product systems are incorrectly registered, many important functions are not available to you, or are only available on a restricted basis. This is especially true for the use of the Maintenance Optimizer, if you want to perform an upgrade for a product system.

Procedure

Make the correct assignment of the technical system to product system(s), so that the product version(s) of the product system(s) are consistent with the list of software components found. SAP recommends that you use the corresponding landscape verification wizard. To start the wizard, choose the button *Change Product Instance Assignments* next to the message. The user interface of the wizard contains detailed information about its usage.

Alternatively, you can also make the correct product instance assignment in transaction SMSY.

For more information about the assignment of products and product versions to product systems, see [Change the Assignment of a Product System to a Product/Product Version \(http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/45/5913de5d851ee3e1000000a155369/frameset.htm\)](http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/45/5913de5d851ee3e1000000a155369/frameset.htm).

7.1.3. Product System has no Technical System assigned

Diagnosis

A product system is not assigned a technical system in the system landscape of the SAP Solution Manager (transaction SMSY).

System Response

Since the system landscape of the SAP Solution Manager forms the basis for working with SAP Solution Manager, if your product systems are incorrectly assigned, many important functions are not available to you, or are only available on a restricted basis.

Procedure

Assign one or more technical systems to your product system. SAP recommends that you use the corresponding landscape verification wizard. To start the wizard, choose the button *Change Technical System Assignments* next to the message. The user interface of the wizard contains detailed information about its usage.

Alternatively, you can also make the assignment in transaction SMSY. For more information about this, see [Create Technical Systems and Assign them to Product Systems](#)

(http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/84/24f94a1ae44a14b83529f5890a6ff5/frameset.htm).

This documentation consists of two sections:

- Creating a technical system
- Assigning the technical system to a product system

In this case, only the section about assigning the technical system to a product system is relevant, since the information about your technical systems is automatically collected in the assigned System Landscape Directory (SLD) using data collectors.

7.1.4. Technical System is not assigned to a Product System

Diagnosis

A technical system is not assigned to a product system in the system landscape of the SAP Solution Manager (transaction SMSY).

System Response

Since the system landscape of the SAP Solution Manager forms the basis for working with SAP Solution Manager, if your technical systems are incorrectly assigned, many important functions are not available to you, or are only available on a restricted basis.

Procedure

Assign your technical system to a product system. SAP recommends that you use the corresponding landscape verification wizard. To start the wizard, choose the button *Change Product System Assignments* next to the message. The user interface of the wizard contains detailed information about its usage.

Alternatively, you can also make the assignment of your technical system to a product system in transaction SMSY; if this desired product system does not yet exist, create it:

- For information about creating product systems, see [Create Product Systems](#) (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/9c/efa9068cce4149a40d7991ad2113f3/frameset.htm).
- Information about assigning a technical system to a product system is also available in the SAP Solution Manager documentation. For this information, see [Create Technical Systems and Assign them to Product Systems](#) (http://help.sap.com/saphelp_nw70ehp1/helpdata/en/48/b6812896655295e10000000a42189b/frameset.htm).

This documentation consists of two sections:

- Creating a technical system
- Assigning the technical system to a product system

In this case, only the section about assigning the technical system to a product system is relevant, since the information about your technical systems is automatically collected in the assigned System Landscape Directory (SLD) using data collectors.

7.1.5. Technical System is a 'SIDECAR', although more than 1 product system was assigned

Diagnosis

A landscape pattern characterizes the relationship between a technical system and one or more product systems. If you classify technical systems using a landscape pattern, you specify the procedure for this technical system for maintenance processes that you start in the associated product system:

- **Sidcar**

Technical systems that you have assigned the landscape pattern Sidcar are used by exactly one product systems with an active product version. During upgrades, the Maintenance Optimizer handles the system as a standalone system, and all possible patches or upgrades are installed for both the application and for the underlying SAP NetWeaver.

- **Hub**

Technical systems that you have assigned to the landscape pattern Hub are used by multiple product systems. During upgrades, the Maintenance Optimizer handles the system as a shared system, and only application updates are installed, while the underlying SAP NetWeaver is upgraded to the minimal required version.

For more information about landscape patterns, see [Landscape Pattern](http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/2b/5fad0d1f8549609efddabca9c7f65d/frameset.htm) (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/2b/5fad0d1f8549609efddabca9c7f65d/frameset.htm).

In this case, the landscape pattern Sidcar is assigned to the technical system, although it is assigned to more than one product system.

System Response

An incorrect landscape pattern assignment can lead to problems during upgrades of product systems.

Procedure

Change the assignment of the landscape pattern for the specified technical system in the system landscape of the SAP Solution Manager (transaction SMSY). To do this, proceed as follows:

1. Choose the technical system from the list of landscape components.
 - If it has the system type *ABAP*, expand the product system with the same name in the list, and, from the list of product instances, choose the product instance with this name.
 - If it has another system type, expand the list of technical systems, and choose the appropriate technical system from the list.
2. Switch to change mode.
3. Switch to the *Other Attributes* tab page and, for the *Landscape Pattern* attribute, assign the value *HUB*.
4. Save your changes.

7.1.6. Technical System is a 'HUB', although only 1 product system was assigned

Diagnosis

A landscape pattern characterizes the relationship between a technical system and one or more product systems. If you classify technical systems using a landscape pattern, you specify the procedure for this technical system for maintenance processes that you start in the associated product system:

- **Sidecar**

Technical systems that you have assigned the landscape pattern Sidecar are used by exactly one product systems with an active product version. During upgrades, the Maintenance Optimizer handles the system as a standalone system, and all possible patches or upgrades are installed for both the application and for the underlying SAP NetWeaver.

- **Hub**

Technical systems that you have assigned to the landscape pattern Hub are used by multiple product systems. During upgrades, the Maintenance Optimizer handles the system as a shared system, and only application updates are installed, while the underlying SAP NetWeaver is upgraded to the minimal required version.

For more information about landscape patterns, see [Landscape Pattern](http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/2b/5fad0d1f8549609efddabca9c7f65d/frameset.htm) (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/2b/5fad0d1f8549609efddabca9c7f65d/frameset.htm).

In this case, the landscape pattern Hub is assigned to the technical system, although it is assigned to only one product system.

System Response

An incorrect landscape pattern assignment can lead to problems during upgrades of product systems.

Procedure

Change the assignment of the landscape pattern for the specified technical system in the system landscape of the SAP Solution Manager (transaction SMSY). To do this, proceed as follows:

1. Choose the technical system from the list of landscape components.
 - If it has the system type *ABAP*, expand the product system with the same name in the list, and, from the list of product instances, choose the product instance with this name.
 - If it has another system type, expand the list of technical systems, and choose the appropriate technical system from the list.
2. Switch to change mode.
3. Switch to the *Other Attributes* tab page and, for the *Landscape Pattern* attribute, assign the value *SIDECAR*.
4. Save your changes.

7.1.7. Product System has no active standalone product version

Diagnosis

The landscape verification checks, among other things, the assignment of product systems to product versions in the system landscape of the SAP Solution Manager (transaction SMSY).

In this case, it could not detect an assignment for product system to an active standalone product version.

System Response

Since the system landscape of the SAP Solution Manager forms the basis for working with SAP Solution Manager, if your product systems are incorrectly registered, many important functions are not available to you, or are only available on a restricted basis. This is especially true for the use of the Maintenance Optimizer, if you want to perform an upgrade for a product system.

Procedure

Assign your product system to exactly one active product version. SAP recommends that you use the corresponding landscape verification wizard. To start the wizard, choose the button *Change Active Standalone Product Version* next to the message. The user interface of the wizard contains detailed information about its usage.

Alternatively, you can also make the correct assignment in transaction SMSY, and set the indicator *Active* for the desired standalone product version.

For more information about the assignment of products and product versions to product systems, see [Change the Assignment of a Product System to a Product/Product Version \(http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/45/5913de5d851ee3e1000000a155369/frameset.htm\)](http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/45/5913de5d851ee3e1000000a155369/frameset.htm).

7.1.8. Product System has multiple active standalone product versions

Diagnosis

The landscape verification checks, among other things, the assignment of product systems to product versions in the system landscape of the SAP Solution Manager (transaction SMSY).

In this case, it detected multiple assignments for product system to an active standalone product version.

System Response

Since the system landscape of the SAP Solution Manager forms the basis for working with SAP Solution Manager, if your product systems are incorrectly registered, many important functions are not available to you, or are only available on a restricted basis. This is especially true for the use of the Maintenance Optimizer, if you want to perform an upgrade for a product system.

Procedure

Assign your product system to exactly one active product version. SAP recommends that you use the corresponding landscape verification wizard. To start the wizard, choose the

button *Change Active Standalone Product Version* next to the message. The user interface of the wizard contains detailed information about its usage.

Alternatively, you can also make the correct assignment in transaction SMSY, and set the indicator *Active* for the desired standalone product version:

For more information about the assignment of products and product versions to product systems, see [Change the Assignment of a Product System to a Product/Product Version](http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/45/5913de5d851ee3e1000000a155369/frameset.htm) (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/45/5913de5d851ee3e1000000a155369/frameset.htm).

7.1.9. Authorization error when checking RFC connection

Diagnosis

The landscape verification checks include checking the RFC connections from the SAP Solution Manager system to the SAP support system OSS and the assigned System Landscape Directory (SLD). The relevant RFC destinations have the following naming convention:

- Connection to the SAP support system OSS: *SAPOSS*
This RFC connection is used, among other things, to transfer information about existing SAP products, product versions, associated product instances, and software components to your SAP Solution Manager. You can use this information to check your system landscape.
- Connection to the System landscape Directory (SLD): *SAPSLDAPI*
This RFC connection is used to provide the system landscape of the SAP Solution Manager (transaction SMSY) with information about the systems in your landscape that are registered with your SLD.

In this case, it was not possible to check the existence and correct functioning of the RFC destination specified in the short text, since your current user does not have sufficient authorization to do so.

System Response

Since the RFC connection SAPOSS or SAPSLDAPI forms one of the foundations for working with SAP Solution Manager, many important functions will not be available to you, if this destination is not working correctly.

Procedure

Ensure that your user has sufficient authorizations. Specifically, the user requires authorization object *S_RFC_ADM* with activity *03*.

7.1.10. Internal error when checking RFC connection

Diagnosis

The landscape verification checks include checking the RFC connections from the SAP Solution Manager system to the SAP support system OSS and the assigned System Landscape Directory (SLD). The relevant RFC destinations have the following naming convention:

- Connection to the SAP support system OSS: *SAPOSS*

This RFC connection is used, among other things, to transfer information about existing SAP products, product versions, associated product instances, and software components to your SAP Solution Manager. You can use this information to check your system landscape.

- Connection to the System landscape Directory (SLD): *SAPSLDAPI*

This RFC connection is used to provide the system landscape of the SAP Solution Manager (transaction SMSY) with information about the systems in your landscape that are registered with your SLD.

In this case, an internal error occurred when checking that the RFC destination specified in the short text was functioning correctly. It was not possible to detect the actual cause of this error.

System Response

Since the RFC connection SAPOSS or SAPSLDAPI forms one of the foundations for working with SAP Solution Manager, many important functions will not be available to you, if this destination is not working correctly.

Procedure

Contact SAP Support by creating a customer message under application component SV-SMG-LV.

7.1.11. RFC connection is not defined

Diagnosis

The landscape verification checks include checking the RFC connections from the SAP Solution Manager system to the SAP support system OSS and the assigned System Landscape Directory (SLD). The relevant RFC destinations have the following naming convention:

- Connection to the SAP support system OSS: *SAPOSS*

This RFC connection is used, among other things, to transfer information about existing SAP products, product versions, associated product instances, and software components to your SAP Solution Manager. You can use this information to check your system landscape.

- Connection to the System landscape Directory (SLD): *SAPSLDAPI*

This RFC connection is used to provide the system landscape of the SAP Solution Manager (transaction SMSY) with information about the systems in your landscape that are registered with your SLD.

In this case, the RFC destination specified in the short text does not exist in the SAP Solution Manager system. The associated functions are therefore not available to you.

System Response

Since the RFC connection SAPOSS or SAPSLDAPI forms one of the foundations for working with SAP Solution Manager, many important functions will not be available to you, if this destination is not working correctly.

Procedure

Follow the appropriate procedure below, depending on which RFC destination does not exist:

- If the RFC connection SAPOSS does not exist, create it. Use transaction OSS1 to do so; for more information, refer to SAP Note 33135.
- If the RFC destination SAPSLDAPI does not exist, check the connection from SAP Solution Manager to the assigned SLD using the transaction SLDCHECK. For more information, see [Access To SLD From ABAP Fails](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/20244134a56532e10000000a1550b0/frameset.htm) (http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/20244134a56532e10000000a1550b0/frameset.htm).

7.1.12. RFC connection is defined with a wrong connection type

Diagnosis

The landscape verification checks include checking the RFC connections from the SAP Solution Manager system to the SAP support system OSS and the assigned System Landscape Directory (SLD). The relevant RFC destinations have the following naming convention:

- Connection to the SAP support system OSS: *SAPOSS*
This RFC connection is used, among other things, to transfer information about existing SAP products, product versions, associated product instances, and software components to your SAP Solution Manager. You can use this information to check your system landscape.
- Connection to the System landscape Directory (SLD): *SAPSLDAPI*
This RFC connection is used to provide the system landscape of the SAP Solution Manager (transaction SMSY) with information about the systems in your landscape that are registered with your SLD.

In this case, although the RFC destination specified in the short text exists in the SAP Solution Manager system, the destination has the wrong connection type. The correct connection type depends on the RFC destination:

- *SAPOSS* Connection type *3*
- *SAPSLDAPI* Connection type *T*

System Response

Since the RFC connection SAPOSS or SAPSLDAPI forms one of the foundations for working with SAP Solution Manager, many important functions will not be available to you, if this destination is not working correctly.

Procedure

Correct the connection type in accordance with the details above, and repeat the check. You can find more information about the RFC destinations as follows:

- For more information about RFC connection SAPOSS, refer to SAP Note 33135.
- For more information about checking the connection from the SAP Solution Manager to the assigned SLD using transaction SLDCHECK, see [Access To SLD From ABAP Fails](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/20244134a56532e10000000a1550b0/frameset.htm)

(http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/20244134a56532e10000000a1550b0/frameset.htm).

7.1.13. System failure when calling RFC connection

Diagnosis

The landscape verification checks include checking the RFC connections from the SAP Solution Manager system to the SAP support system OSS and the assigned System Landscape Directory (SLD). The relevant RFC destinations have the following naming convention:

- Connection to the SAP support system OSS: *SAPOSS*
This RFC connection is used, among other things, to transfer information about existing SAP products, product versions, associated product instances, and software components to your SAP Solution Manager. You can use this information to check your system landscape.
- Connection to the System landscape Directory (SLD): *SAPSLDAPI*
This RFC connection is used to provide the system landscape of the SAP Solution Manager (transaction SMSY) with information about the systems in your landscape that are registered with your SLD.

In this case, a system error was detected in the SAP Solution Manager system for the RFC destination specified in the short text. A runtime error occurred during the execution of the function module called in the target system.

System Response

Since the RFC connection SAPOSS or SAPSLDAPI forms one of the foundations for working with SAP Solution Manager, many important functions will not be available to you, if this destination is not working correctly.

Procedure

Follow the appropriate procedure below for the RFC destination for which the error occurred:

- If the error occurred for the destination *SAPOSS*, check the destination using transaction SM59. If you cannot solve your problem using the information there, it is possible that the RFC destination is incorrectly configured. Use transaction OSS1 to recreate the RFC destination.

For more information about RFC connection *SAPOSS*, refer to SAP Note 33135. For general information about your service connection to SAP, refer to the following link:

<http://service.sap.com/access-support>

- If the error occurred for the destination *SAPSLDAPI*, check the connection from SAP Solution Manager to the assigned SLD using the transaction SLDCHECK. For more information, see [Access To SLD From ABAP Fails](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/20244134a56532e10000000a1550b0/frameset.htm) (http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/20244134a56532e10000000a1550b0/frameset.htm).

7.1.14. Communication failure when calling RFC connection

Diagnosis

The landscape verification checks include checking the RFC connections from the SAP Solution Manager system to the SAP support system OSS and the assigned System Landscape Directory (SLD). The relevant RFC destinations have the following naming convention:

- Connection to the SAP support system OSS: *SAPOSS*
This RFC connection is used, among other things, to transfer information about existing SAP products, product versions, associated product instances, and software components to your SAP Solution Manager. You can use this information to check your system landscape.
- Connection to the System landscape Directory (SLD): *SAPSLDAPI*
This RFC connection is used to provide the system landscape of the SAP Solution Manager (transaction SMSY) with information about the systems in your landscape that are registered with your SLD.

In this case, a communication error was detected in the SAP Solution Manager system for the RFC destination specified in the short text, that is, it was not possible to create the connection to the target system, or the connection was interrupted during communication.

System Response

Since the RFC connection SAPOSS or SAPSLDAPI forms one of the foundations for working with SAP Solution Manager, many important functions will not be available to you, if this destination is not working correctly.

Procedure

Follow the appropriate procedure below for the RFC destination for which the error occurred:

- If the error occurred for the destination *SAPOSS*, check the destination using transaction SM59. If you cannot solve your problem using the information there, it is possible that the RFC destination is incorrectly configured. Use transaction OSS1 to recreate the RFC destination.

For more information about RFC connection *SAPOSS*, refer to SAP Note 33135. For general information about your service connection to SAP, refer to the following link:

<http://service.sap.com/access-support>

- If the error occurred for the destination *SAPSLDAPI*, check the connection from SAP Solution Manager to the assigned SLD using the transaction SLDCHECK. For more information, see [Access To SLD From ABAP Fails](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/20244134a56532e1000000a1550b0/frameset.htm) (http://help.sap.com/saphelp_nw70ehp1/helpdata/en/78/20244134a56532e1000000a1550b0/frameset.htm).

7.1.15. Automatic Data Transfer to SMSY is not configured via SLD

Diagnosis

One of the checks that the landscape verification performs is to check the RFC connection *SAPSLDAPI* to the assigned System Landscape Directory (SLD) and the associated configuration settings. This RFC connection is used to provide the system landscape of the SAP Solution Manager (transaction SMSY) with information about the systems in your landscape that are registered with your SLD.

To ensure that the information in the SLD is regularly transferred to the system landscape of the SAP Solution Manager, when setting up transaction SMSY, you normally create a job called *LANDSCAPE FETCH* to be regularly executed. In this case, this job was not found.

System Response

Since the provision of current data about your system landscape to the system landscape of the SAP Solution Manager forms one of the foundations for working with SAP Solution Manager, it is possible that no current data is available to you for important functions.

Procedure

To schedule this job, start transaction SMSY_SETUP. For more information about this, see [Set-Up Automatic Data Capture for System Landscape](http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/31/b175362b9e4c329ef4b0e460a1ea5c/frameset.htm) (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/31/b175362b9e4c329ef4b0e460a1ea5c/frameset.htm).

7.1.16. Internal error when checking job schedule for periodic landscape fetch

Diagnosis

One of the checks that the landscape verification performs is to check the RFC connection *SAPSLDAPI* to the assigned System Landscape Directory (SLD) and the associated configuration settings. This RFC connection is used to provide the system landscape of the SAP Solution Manager (transaction SMSY) with information about the systems in your landscape that are registered with your SLD.

To ensure that the information in the SLD is regularly transferred to the system landscape of the SAP Solution Manager, when setting up transaction SMSY, you normally create a job called *LANDSCAPE FETCH* to be regularly executed. In this case, an internal error meant that it was not possible to check whether the job is scheduled. It was not possible to detect the actual cause of this error.

Procedure

Contact SAP Support by creating a customer message under application component SV-SMG-LV.

7.1.17. No periodic landscape fetch job planned

Diagnosis

One of the checks that the landscape verification performs is to check the RFC connection *SAPSLDAPI* to the assigned System Landscape Directory (SLD) and the associated configuration settings. This RFC connection is used to provide the system landscape of

the SAP Solution Manager (transaction SMSY) with information about the systems in your landscape that are registered with your SLD.

To ensure that the information in the SLD is regularly transferred to the system landscape of the SAP Solution Manager, when setting up transaction SMSY, you normally create a job called *LANDSCAPE FETCH* to be regularly executed. In this case, although the job was found, it is not periodically scheduled.

System Response

Since the provision of current data about your system landscape to the system landscape of the SAP Solution Manager forms one of the foundations for working with SAP Solution Manager, it is possible that no current data is available to you for important functions.

Procedure

To schedule this job, start transaction SMSY_SETUP, and ensure that the indicator Periodic is set. For more information about this, see [Set-Up Automatic Data Capture for System Landscape](http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/31/b175362b9e4c329ef4b0e460a1ea5c/frameset.htm) (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/31/b175362b9e4c329ef4b0e460a1ea5c/frameset.htm).



If you have scheduled the job *LANDSCAPE FETCH* using an external job control tool, you will receive this message even though there is not a problem in this case.

7.1.18. No OSS connection defined in the system

Diagnosis

The Landscape verification checks include checking the RFC connection from the SAP Solution Manager system to the SAP support system OSS. This RFC connection is used, among other things, to transfer information about existing SAP products, product versions, associated product instances, and software components to your SAP Solution Manager. You can use this information to check your system landscape.

You can also use the BAdI *BADI_SMBI_DESTINATION_SET* to set this RFC connection. In this case, you have changed the standard implementation for this BAdI in a way that means there is no longer a connection available to the OSS system.

System Response

Since the RFC connection to the SAP Support system OSS forms one of the foundations for working with SAP Solution Manager, many important functions will not be available to you, if this destination is not working correctly.

Procedure

Use transaction SE18 to check and correct your implementation of the BAdI *BADI_SMBI_DESTINATION_SET*.

For more information about registering ABAP systems, see [Configuring the SLD Data Supplier: Default Settings](#)

(http://help.sap.com/saphelp_nw70ehp1/helpdata/en/48/b7ba48e2c0356be1000000a421937/frameset.htm).

7.1.19. Some software components not covered by configured product instances

Diagnosis

Versions of software components were found for the technical system for which no associated product instance was found in the system landscape of the SAP Solution Manager (transaction SMSY).

The following information is therefore displayed in the tables specified below:

- a list of the software component versions that are installed on this system, but for which no associated product instance was found in the system landscape of the SAP Solution Manager
- a list of the product instances that are not assigned to the technical system at the moment, but can be technically assigned to the system based on its software component versions
- a list of the software component versions that cannot be covered by any of the detected product instances
- a list of other product instances returned by the product instance detection

System Response

Since the system landscape of the SAP Solution Manager forms the basis for working with SAP Solution Manager, if your system is incorrectly registered, many important functions are not available to you, or are only available on a restricted basis.

Procedure

Assign at least one of the suggested product instances to the technical system; SAP recommends that you use the corresponding landscape verification wizard. To start the wizard, choose the button *Change Product Instance Assignment* next to the message. The user interface of the wizard contains detailed information about its usage.

Alternatively, you can also assign one of the suggested product instances to the technical system in transaction SMSY. To do so, proceed as follows:

1. Start the system landscape of the SAP Solution Manager (transaction SMSY) and navigate to the relevant product system.

The product systems are grouped according to products; make sure that you choose the product system in the correct product sub tree. You can also use the search function by choosing the *Other Object...* button and enter the system ID of the designated product system.
2. Make sure that the correct product version is assigned as active to the product system. You can change the assignment on the *Header Data* tab page by choosing the *Change Product Assignment* button.
3. On the *Product Instance Selection* tab page, there is a list of all possible product instances for the product version of the relevant product system; the *Relevant* indicator shows the installed product instances.

4. Check if product instances that are listed in the table below as those that can be technically assigned are actually installed, and set the Relevant indicator for these product instances.

Keep in mind, that you can only mark one product instance as *Relevant* if the product instance is running on an ABAP system. If you want to assign more product instances, choose the *Also installed* indicator.

5. Save your changes, and repeat the check.

7.1.20. Product system contains technically inappropriate product instances

Diagnosis

The product instances of technical system that are assigned to this system in the system landscape of the SAP Solution Manager do not match the product instances that can be technically assigned to the technical system based on its software component versions.

The table specified below therefore lists the product instances that are assigned to the system in the system landscape of the SAP Solution Manager, but which technically cannot be assigned on the basis of the existing software component versions.

System Response

Since the system landscape of the SAP Solution Manager forms the basis for working with SAP Solution Manager, if your system is incorrectly registered, many important functions are not available to you, or are only available on a restricted basis.

Procedure

Assign the product instances installed on the technical system to the appropriate product systems. SAP recommends that you use the corresponding landscape verification wizard. To start the wizard, choose the button *Change Product Instance Assignment* next to the message. The user interface of the wizard contains detailed information about its usage. Alternatively, you can also delete the assignment of the incorrect product instances for the technical system manually. To do so, proceed as follows:

1. Start the system landscape of the SAP Solution Manager (transaction SMSY) and navigate to the relevant product system.
2. On the *Product Instance Selection* tab page, there is a list of all possible product instances for the product version of the relevant product system; the Relevant indicator shows the installed product instances.
3. Switch to change mode and delete the *Relevant* indicator for the product instances that were displayed in the table below as incorrect.
4. Save your changes, and repeat the check.

7.1.21. Java Stack of Technical system &1 (dual stack) is not available in SMSY

Diagnosis

The Java stack of the dual-stack system does not exist in the system landscape of the SAP Solution Manager (transaction SMSY).

System Response

Since the system landscape forms the basis for working with SAP Solution Manager, many important functions are not available to you for this system, or are only available on a restricted basis.

Procedure

To include the system in the system landscape of the SAP Solution Manager, register it in the System Landscape Directory (SLD); the system data is then automatically transferred to the system landscape of the SAP Solution Manager.

The procedure for registering the Java system in the SLD depends on the release of the Java system:

- For Java systems with a release **before** SAP NetWeaver 7.1, use the Visual Administrator to register the system in the SLD.

For more information, see [Setting Up the SLD Data Supplier for Java-Based Systems](#)

(http://help.sap.com/saphelp_nw70ehp1/helpdata/en/48/b6847d96655295e10000000a42189b/frameset.htm).

- For Java systems with a release of SAP NetWeaver 7.1, use the NetWeaver Administrator to register the system in the SLD.

For more information, see [Setting Up the SLD Data Supplier for AS Java Based Systems](#)

(http://help.sap.com/saphelp_nwpi711/helpdata/en/48/b6847d96655295e10000000a42189b/frameset.htm).

7.1.22. Technical system (system type ABAP) is not available in SMSY

Diagnosis

The ABAP system or ABAP stack of the dual-stack system does not exist in the system landscape of the SAP Solution Manager (transaction SMSY).

System Response

Since the system landscape forms the basis for working with SAP Solution Manager, many important functions are not available to you for this system, or are only available on a restricted basis.

Procedure

To include the system in the system landscape of the SAP Solution Manager, register it in the System Landscape Directory (SLD); the system data is then automatically transferred to the system landscape of the SAP Solution Manager.

For more information, see [Configuring the SLD Data Supplier: Default Settings](#) (http://help.sap.com/saphelp_nw70ehp1/helpdata/en/48/b7ba48e2c0356be10000000a421937/frameset.htm).

7.1.23. Product System configured with non-existing product SAP ECC

Diagnosis

The landscape verification checks, among other things, the assignment of product systems to product versions in the system landscape of the SAP Solution Manager (transaction SMSY).

In this case, an assignment to the SAP product *SAP ECC* was detected for the product system. However, this is not a valid assignment, since *SAP ECC* is not a valid standalone product, but is rather operated in the context of the SAP product *SAP ERP*.

System Response

Since the system landscape of the SAP Solution Manager forms the basis for working with SAP Solution Manager, if your product systems are incorrectly registered, many important functions are not available to you, or are only available on a restricted basis. This is especially true for the use of the Maintenance Optimizer, if you want to perform an upgrade for a product system.

Procedure

Assign your product system to exactly one valid standalone product version. SAP recommends that you use the corresponding landscape verification wizard. To start the wizard, choose the button *Change Active Standalone Product Version* next to the message. The user interface of the wizard contains detailed information about its usage.

Alternatively, you can also make the correct assignment in transaction SMSY.

For more information about the assignment of products and product versions to product systems, see [Change the Assignment of a Product System to a Product/Product Version](http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/45/5913de5d851ee3e10000000a155369/frameset.htm) (http://help.sap.com/saphelp_sm70ehp1_sp23/helpdata/en/45/5913de5d851ee3e10000000a155369/frameset.htm).

7.1.24. The necessary product instances for Addon product version are missing

Diagnosis

Necessary product instances are missing to the product system for Add-On product version in the system landscape of the SAP Solution Manager. This means that the product system is not completely configured.

System Response

Since the system landscape of the SAP Solution Manager forms the basis for working with SAP Solution Manager, if your system is incorrectly registered, many important functions are not available to you, or are only available on a restricted basis. This is especially true for the use of the Maintenance Optimizer, if you want to perform an upgrade for a product system.

Procedure

Assign the necessary product instances to your product system. SAP recommends that you use the corresponding landscape verification wizard. To start the wizard, choose the

button *Change Product Instance Assignments* next to the message. The user interface of the wizard contains detailed information about its usage.

Alternatively, you can also make the correct assignment in transaction SMSY. To do so, proceed as follows:

1. Start the system landscape of the SAP Solution Manager (transaction SMSY) and navigate to the relevant product system.
2. On the *Product Instance Selection* tab page, there is a list of all possible product instances for the product version of the relevant product system; the *Relevant* indicator shows the installed product instances.
3. Switch to change mode, and set the *Relevant* indicator for the desired product instances; the relevant suggestions for the product instances are shown in the table below.
4. Save your changes, and repeat the check.

7.2. Glossary

Landscape Pattern

Describes how systems are used in a landscape.

Examples:

- Hub: technical System used by 2 or more product systems (e.g. a SAP NetWeaver Enterprise Portal (EP) used by the HR and SCM product systems)
- Sidecar : Any technical system that is used in a product system but not running on the ABAP stack.

Product

Used in SAP solutions. Generally speaking, a product fulfills business requirements.

- A maintenance period is defined for a product.
- Examples: SAP NetWeaver, SAP ERP. SAP ERP has several usages such as HR or FI.

Product Instance

(formerly *Main Instance* in SMSY, *Instance* or *Software Unit* in SLD):

A part of a *Product Version* and the smallest elements for designing system landscapes. It groups technically dependent *Software Component Versions*, which have to be installed and operated on a single *Technical System*.

- The different product instances of a product version could be installed on different or on the same technical system
- One product instance is always installed on one technical system (it cannot span more than one technical system).
- Examples: AS ABAP, AS Java, SAP ECC Server, TRex.

Product System

(formerly System)

A group of *Technical Systems*, on which one *Product Version* is installed.

- In one *Product System* there can be only one ABAP-based *Technical System* and zero or more non-ABAP *Technical Systems*
- Example: SAP CRM 7.0)

Product Version

A concrete release of a given product. It bundles together *Software Component Versions* made available at the same time for implementing a well defined scope of functionality.

- A product has versions (releases) consisting of Software Components.
- Examples: SAP ERP 6.0, SAP NetWeaver 7.0

Software Component (SC)

Reusable component of the product from a production view:

- Unit of product upgrade or update / support package (one or more SCs). An SC may require other SCs.
- Examples: SAP_BASIS, SAP_HR

Technical System

(formerly named System Component for non-ABAP Systems)

The runtime environment, in which SAP applications are executed. It is identified with a system identifier (SID). It must be assigned to a *Product System* explicitly, manually.

- A technical system could be running on one or more hardware boxes and has one database instance that is shared between the parts of the systems running on different boxes.
- The corresponding SMSY entity is copied automatically from a connected System Landscape Directory (SLD). However, it can be created manually, too.