



ARIS MIGRATING SAP PROJECTS

VERSION 10.0 - SERVICE RELEASE 8

April 2019

Document content not changed since release 10.0.6. It applies to the current version without changes.

This document applies to ARIS Version 10.0 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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Contents

1	Disclaimer	1
2	What has changed?.....	2
3	Migrating SAP projects to SAP solutions in ARIS	13
3.1	Import transport request (synchronization).....	18
3.2	Create Solution configuration for migration	20
3.3	Open log files	22
3.4	Consolidate ARIS projects.....	23
3.5	How are test projects migrated in ARIS?.....	24
3.6	How are projects migrated in ARIS?	24
3.7	ARIS reports for SAP migration.....	25
3.7.1	Report: 01 SAP Solution Manager 7.2 migration – Create root folder layer	25
3.7.2	Report: 02 SAP Solution Manager 7.2 migration – resolve shortcuts	26
3.7.3	Report: 03 SAP Solution Manager 7.2 migration – adjust transaction types.....	27
3.7.4	Report: 04 SAP Solution Manager 7.2 migration – adjust documentation	27
3.7.5	Report: 05 SAP Solution Manager 7.2 migration – adjust system landscape	28
3.7.6	Report: 06 SAP Solution Manager 7.2 migration – adjust IDs.....	29
3.7.7	Report: SAP Solution Manager 7.2 migration – library	30
4	Legal information.....	31
4.1	Documentation scope	31
4.2	Data protection	31
4.3	Disclaimer.....	32

1 Disclaimer

ARIS products are intended and developed for use by persons. Automated processes, such as the generation of content and the import of objects/artifacts via interfaces, can lead to an outsized amount of data, and their execution may exceed processing capacities and physical limits. For example, processing capacities are exceeded if models and diagrams transcend the size of the modeling area or an extremely high number of processing operations is started simultaneously. Physical limits may be exceeded if the memory available is not sufficient for the execution of operations or the storage of data.

Proper operation of ARIS products requires the availability of a reliable and fast network connection. Networks with insufficient response time will reduce system performance and may cause timeouts.

If ARIS products are used in a virtual environment, sufficient resources must be available there in order to avoid the risk of overbooking.

The system was tested using scenarios that included 100,000 groups (folders), 100,000 users, and 1,000,000 modeling artifacts. It supports a modeling area of 25 square meters.

If projects or repositories are larger than the maximum size allowed, a powerful functionality is available to break them down into smaller, more manageable parts.

Some restrictions may apply when working with process administration, ARIS Administration, ARIS document storage, and ARIS Process Board, and when generating executable processes. Process Governance has been tested and approved for 1000 parallel process instances. However, the number may vary depending on process complexity, for example, if custom reports are integrated.

ARIS document storage was tested with 40.000 document items. We recommend monitoring the number and overall size of stored document items and archiving some document items if needed.

This manual describes the settings and features of ARIS 10.0 at the time of print. For service release, the help system as well as all other documents are not updated in all languages. Only the English help system is available yet. This document might not provide help for all contingencies, for example, various individual system as well as project configurations. Therefore, Software AG strongly recommends requesting Global Consulting Services for migrating existing ARIS projects to be further used with SAP® Solution Manager 7.2. You may order that service from your Software AG sales representative

2 What has changed?

ARIS for SAP Solutions will still support SAP Solution Manager 7.1. You can configure the 7.1 version as well as the 7.2 version.

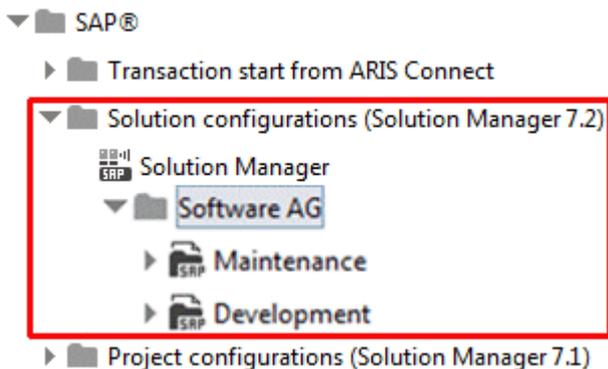
SAP Solution Manager 7.2 has a new concept and introduces new elements. This page gives an overview on how this new concept affects the data handling in ARIS. The main differences between SAP Solution Manager 7.1 and SAP Solution Manager 7.2 from an ARIS point of view are:

- SAP Solution Manager 7.2 comes with branches instead of projects.

BRANCHES

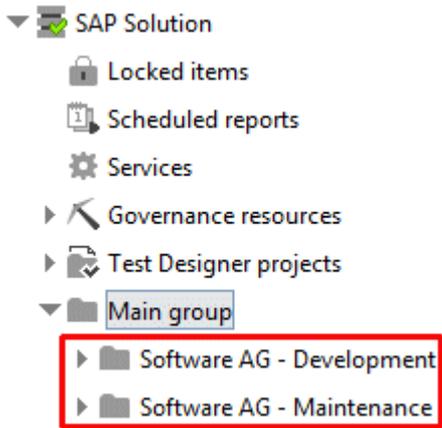
Projects, template projects and implementation projects no longer exist. The former project content is now called **branch**. In ARIS the **project** root node is replaced by the **branch** root node.

A branch is the entity that ARIS synchronizes with SAP Solution Manager. In the solution configuration you specify the SAP solution and the branch to synchronize with:

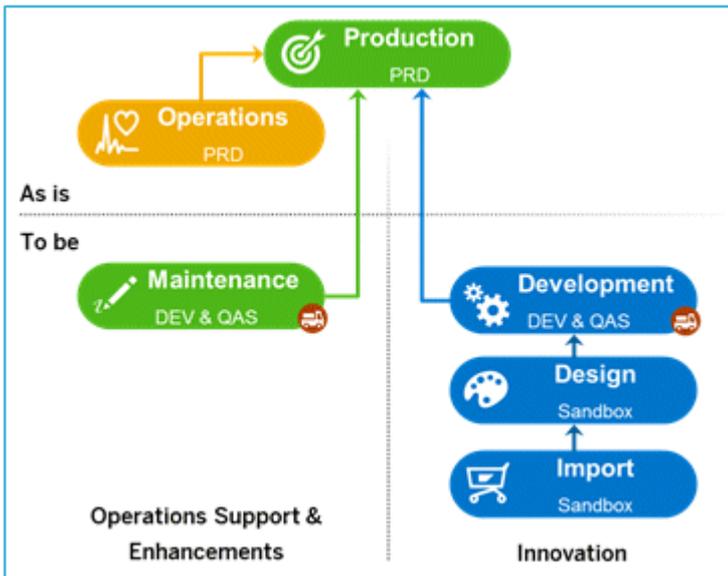


A branch represents a version of the SAP solution and contains its processes, libraries and systems. Per SAP default, there is always a **production** and a **maintenance** branch, but as many additional branches as required can be defined as well. When setting up a new solution, both the **production** and the **maintenance** branch are empty. The starting point for creating a new solution documentation is the **maintenance** branch. The solution will be available in production after it has been released from the **maintenance** branch in SAP Solution Manager.

Please note that you can use concurrent branches, for example, a **development** branch for customizing and/or one for upgrading to the newest release. If you create such a **development** branch from your production branch, it will contain the complete solution documentation from the **production** branch. Once the development or upgrade and testing are completed, changes will be available in production after they have been released from the **development** branch in SAP Solution Manager. You can synchronize your solution documentation with both branches. In ARIS each branch is independent from the other, that is, you can synchronize several branches of a solution into one as well as multiple ARIS databases, of course.



SAP Best Practice of branches consists of the following branches and their hierarchical structure:



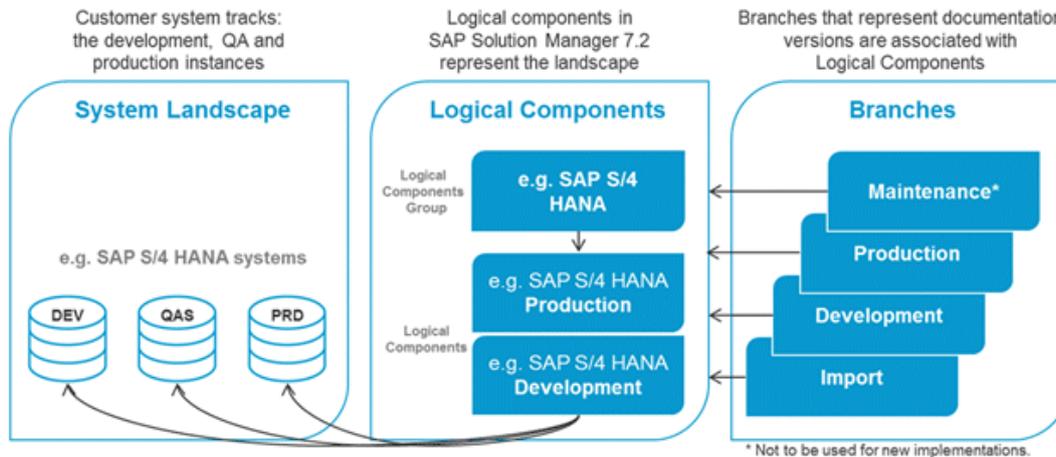
- The **production** branch represents the productive version of the entire solution and solution documentation. The **production** branch cannot be changed. Changes are only allowed in derived branches such as the **maintenance** branch.
 - The **maintenance** branch represents the editable version of the **production** branch. The **maintenance** branch is primarily used to correct and modify the **production** branch. Once tested, the changes can be released to be available within the production branch.
 - The **development** branch contains the agreed project scope for a future solution. Its primary usage is for major release changes.
 - **Design** branch to design customer targeted project scope for a future solution.
 - **Import** branch to store the SAP Best Practice processes for reference purposes.

The branch structure in SAP Solution Manager 7.2 looks like this example:

Solution Administration			
Solution: DEMO Solution		Open Library Generation Cockpit	
Name	Solution Documentation	Type	
▼ DEMO Solution		Solution	
▼ Production	Open	Production Branch	
Maintenance	Open	Maintenance Branch	
▼ Development	Open	Development Branch	
Design	Open	Design Branch	
Import	Open	Import Branch	

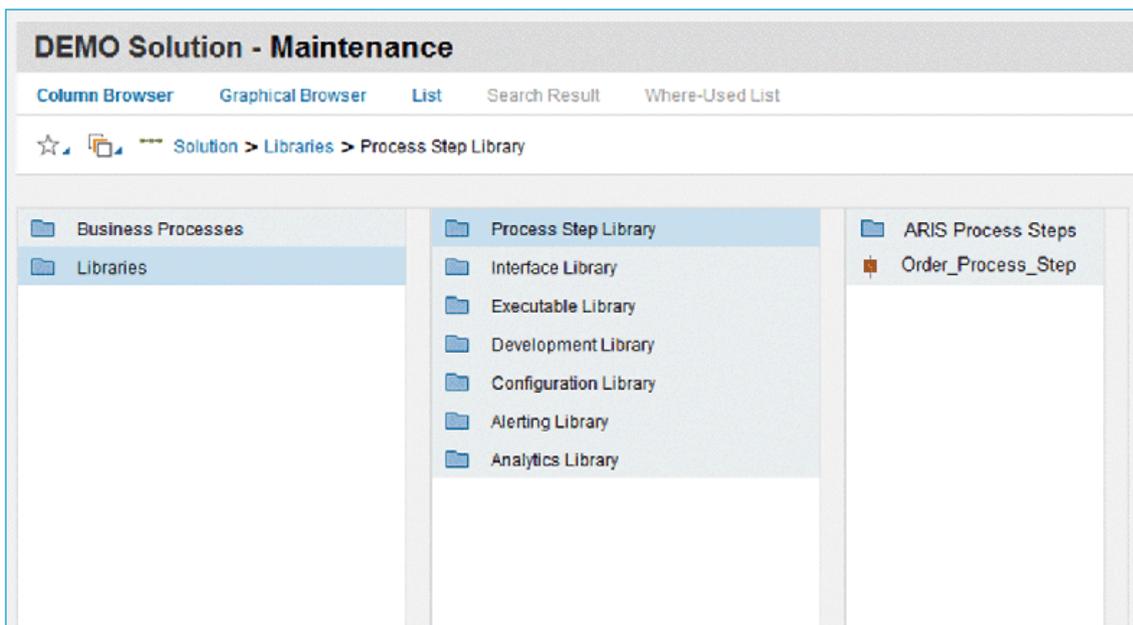
LOGICAL COMPONENT GROUP

SAP Solution Manager 7.2 introduces the concept of **Logical Component Group**. This makes the management of logical components easier and avoids redundancy of documentation. Hence, much fewer logical components are the result. The hierarchical structure is as follows: **SAP Solution > Logical Component Group > Logical Components**. Logical components are detailed by the corresponding branch, for example, technical systems, roles, versions etc.



- SAP Solution Manager 7.2 introduces the Process Step Library (PSL) which is used as a kind of definition library at step level.

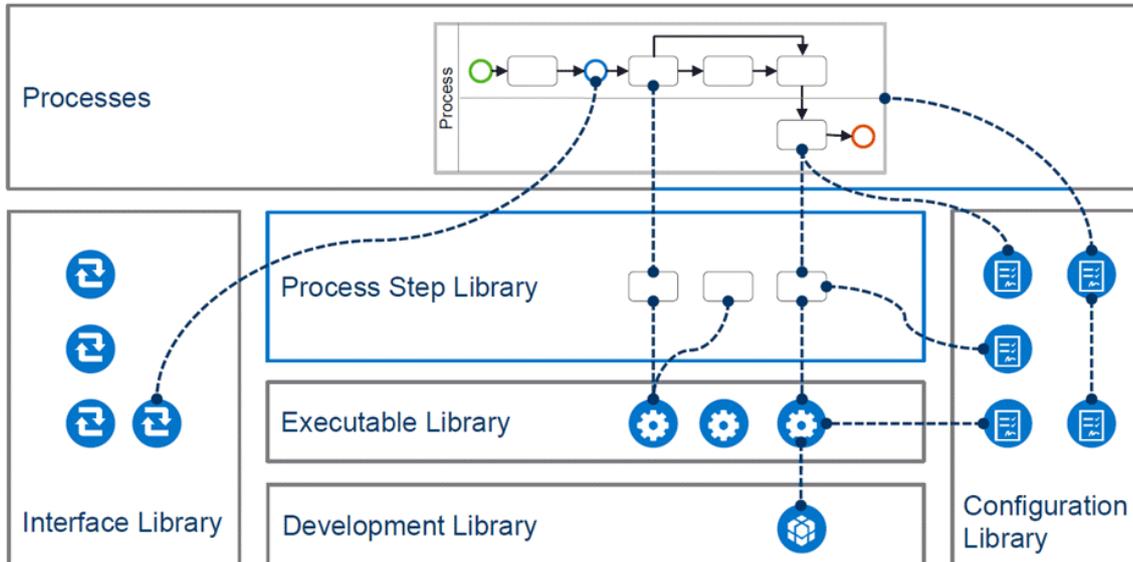
The PSL is one of several libraries that are introduced with SAP Solution Manager 7.2.



The PSL contains process steps (PSL items) and attached documents, test cases etc. Each business process step used in a branch must refer to a PSL item. Other business process steps can reference the same PSL step. In ARIS, the PSL is downloaded into the **PSL** folder of each branch. A relation is created for each business process step and its corresponding PSL step.

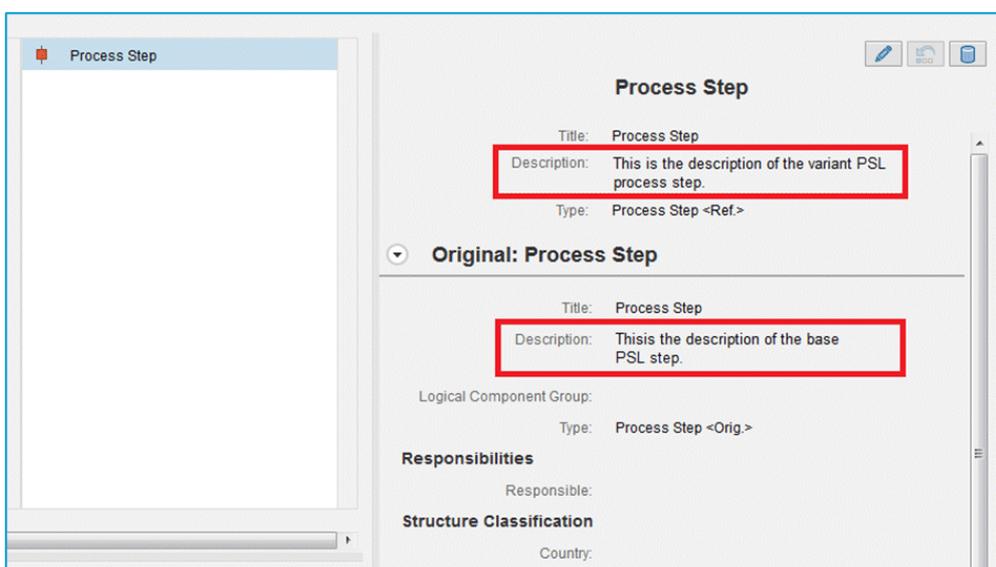
REUSE OF PSL STEPS IN BUSINESS PROCESSES

Base process steps can be defined as PSL steps. They have individual names and descriptions, assigned executables, related roles and specific documentation. These PSL steps can be reused in other processes. A best practice is to use a standardized process framework to structure the PSL.



Example

In process **A** you are going to use the PSL step as defined. So you just reference this PSL step from the PSL to the business process step. In process **B** the business process step is slightly different. For example, an additional role and a document are required. Hence, at your business process step you add the new role, change the description and add a new document. It is still based on the PSL step, but has different roles and documents assigned. When selecting the business process step you will see the properties of the base PSL step together with the properties of the business process step. When creating SAP functions, you can define the master object to be used.

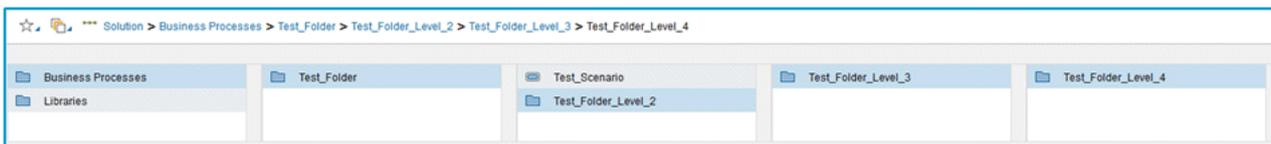


In Solution Manager 7.1 projects, you might have connected several transactions to one process step. SAP best practice for Solution Manager 7.2 recommends the use of a one-to-one connection between PSL steps and executables.

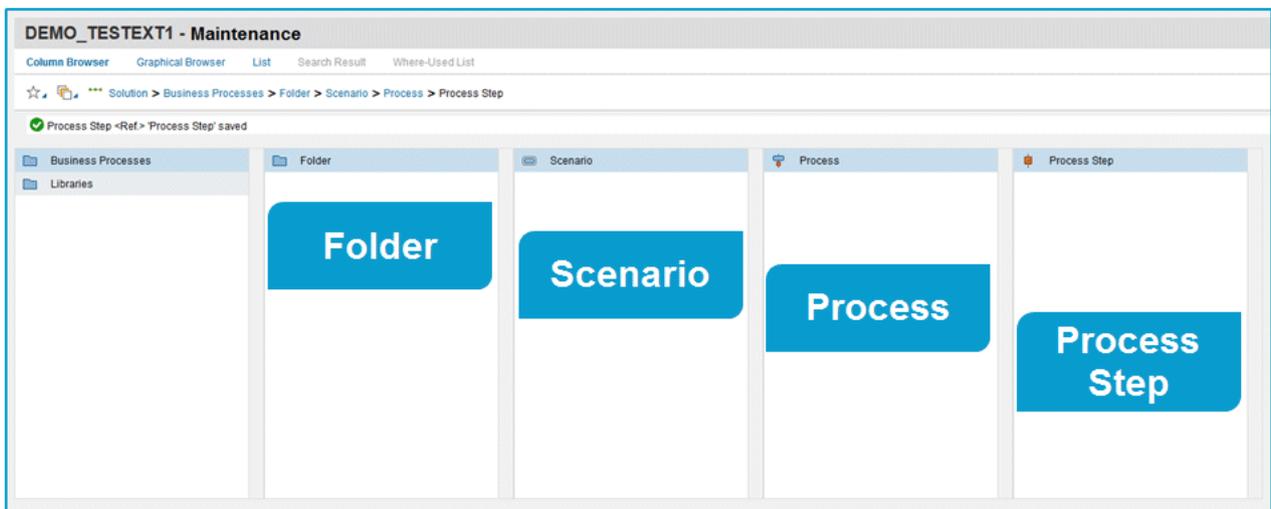
- SAP Solution Manager 7.2 has a flexible hierarchy placing scenarios in an arbitrary folder structure.

FLEXIBLE PROCESS STRUCTURE

In SAP Solution Manager 7.1, the process structure is fixed on a 3-level hierarchy: **Scenarios > Business Processes > Process Steps**. With SAP Solution Manager 7.2, there can be as many levels as required by placing scenarios in an arbitrary nested structure of folders.



However, the three levels are still present, and will be the core of the documentation. You will simply be able to add as many levels as needed on top of them.



Folders can be used to structure scenarios as well as the Process steps library (PSL). Below the Business process structure, folders can only have scenarios or folders as subordinate elements. Superior elements can either be a folder or a root node. The same rules apply for the PSL. But since scenarios or processes are not available in the PSL, Process steps folders can only have process step originals as subordinate elements.

In ARIS, folders are handled like all other SAP structure elements **branch**, **scenario**, **process** and **process step**. The hierarchical order is created by models and SAP functions with distinct SAP model types and SAP function types. For folder items, the new **Folder** and **Process steps folder** SAP function types and SAP model types are to be used.

Hierarchy	Model type	Subordinate	Superior
Branch	Project	Folder Process steps folder(PSL)	-
Folder	Folder	Folder Scenario	Folder
Scenario	Scenario	Process	Folder
Process	Process	Process step	Scenario
Process step	Process step	-	Process
Process steps folder (PSL)	-	Process step original (PSL)	Process steps folder (PSL)
Process step original (PSL)	-	-	Process steps folder (PSL)

In SAP Solution Manager 7.1, the sequence is available on each hierarchical level. In SAP Solution Manager 7.2, folders and PSL come into play. For both kinds it makes no sense to order the items in a distinct sequence. Folders, PSL steps and scenarios are sorted in alphabetical order instead. The sequence can only be maintained for processes and process steps.

- SAP Solution Manager 7.2 no longer supports shortcuts, keywords, global attributes nor 'Define order' functionality.

SHORTCUTS AND OCCURRENCE COPIES

Shortcuts have been replaced by the relation between PSL elements and database elements. In ARIS, occurrence copies of model objects, for example, of process steps, will no longer be offered. Now, references between objects will be in place. In ARIS, when copy-and-pasting an SAP-related object, such a master-variant relation will be created. Of course you are supported by a wizard.

KEYWORDS

Keywords no longer exist. SAP now uses customer attributes instead.

GLOBAL ATTRIBUTES

Since projects, template projects and implementation projects no longer exist, global attributes are obsolete.

CUSTOMER ATTRIBUTES

Customer attributes with **Undefined** data type cannot be assigned to SAP attributes. Attribute values can be specified only for customer attributes of the **Value** or **Multi-value** data type.

DEFINE ORDER

The  **Define order** functionality is not available for SAP solutions, since the SAP Solution Manager 7.2 does not provide sorting. Nevertheless, the standard ARIS behavior will remain the same:

- When synchronizing new process steps from SAP Solution Manager 7.2 to ARIS, the process steps will be placed in the same order as in the column browser of SAP Solution Manager. The order of already synchronized process steps will not be affected in ARIS when changing their order in SAP Solution Manager.
- When synchronizing new process steps from ARIS to SAP Solution Manager 7.2, their order will be determined by their x-y-coordinates within the ARIS model. The order of already synchronized process steps will not be affected in SAP Solution Manager when the coordinates are changed in models.
- SAP Solution Manager 7.2 made minor changes concerning transactions, attributes and documentation.

TRANSACTIONS

Transactions are now called **executables**.

All original executables are stored in the Executable Library. Executables are contained in executable folders. By placing executables in an arbitrary nested folder structure, there can be as many levels as required. In ARIS, Executable Library folders are represented by SAP functions of the **Executables folder** SAP function type. The same logical component group must be assigned to all subfolders of the Executable Library. You can download the Executable Library to ARIS.

In ARIS, executables are identified by the key deriving from the executable object, the type of the executable, and the related logical component group. The synchronization behaviour for executable folders is the same as for other structural elements. For example, you can move them or assign a slave symbol. If you have selected the **Transfer Executable Library** option, the library is transferred during SAP synchronization.

Make sure to have only one object definition representing an executable in a branch. You can create multiple occurrences of one definition, either in the Executable Library folder structure or in other database groups.

SAP® Fiori apps are available in ARIS.

GLOBAL ATTRIBUTES

Global attributes are no longer supported.

CUSTOMER ATTRIBUTES

Customer attributes will still be downloaded from SAP Solution Manager, but without data type and values. Some static attributes of the **value** type are available and can be assigned. Customer attributes with **Undefined** data type cannot be assigned to SAP attributes. Attribute values can be specified only for customer attributes of the **Value** or **Multi-value** data type. Before assigning customer attributes, you must maintain the data types. For attributes of the **value** data type, maintain the attribute values according to the settings in the SAP system. In ARIS, **Value** attributes can only have one specific value.

Multi-value datatype

In order to handle **Multi-value** attributes in ARIS, you must assign Customer attributes of the **Multi-value** data type to ARIS text attributes. In ARIS text attributes, you can specify multiple values as a comma separated list. The value pairs are listed as value key (such as **RIGHT** in capital letters without brackets) followed by the value of the key in brackets (**Right**). As best practice you are recommended to use the same strings for keys and values.

SAP added a new description attribute to each structure item.

DOCUMENTATION

The different document types **training**, **test**, **project** and **general** are no longer supported. Instead of these types, the new **Best practice documentation** is introduced. Best practice documents have no document type and no document state. When documents are synchronized in ARIS, the **Project document** symbol will be used for all document types. ARIS can no longer determine whether the document is a test document or a training document.

The **General document** symbol will be used by default for best practice documents in ARIS.

There are some additional changes introduced with Solution Manager 7.2:

- SAP Solution Manager 7.2 comes along with a BPMN™-based modeling tool for the **process diagram** assignment type. You can transfer process diagram variants from the SAP system to ARIS or transfer process diagrams from ARIS to the SAP system. SAP objects of the **Free system** type are not transferred.

You can upload process models and process diagram variants as BPMN diagrams. Models are converted automatically to BPMN process diagrams. For BPMN diagrams available in ARIS, the layout of the ARIS diagrams is used. If ARIS models are converted, by default, the layout for generated BPMN diagrams is **Horizontal** and the **System landscape** is used as target diagram subtype. You can select other settings, if required.

Prerequisite

- You have created a branch in SAP® Solution Manager.
- A solution configuration was created for the solution containing this branch.

Procedure

1. Log in to the database managing the desired SAP content.
2. Start SAP® synchronization. The Synchronization Wizard opens.
3. On the **Select options** wizard page, enable the **Transfer data to SAP® Solution Manager** option.
4. Navigate to the **Transfer models** wizard page.
5. Enable the **Transfer models** check box.
6. Optionally enable the **Transfer process diagram variants** check box.
7. If required, specify additional settings and click **Finish**.

The synchronization starts and the models are transferred to SAP Solution Manager.

Process diagram variants are transferred only if process variant models are assigned to the related SAP functions of the **Process** function type. For process variants, you can only use model types that can be assigned to a function multiple times. The assigned models must have the **Process variant** SAP model type. All entities contained in the process variants are reused in SAP Solution Manager.

You can transfer process diagram variants as BPMN diagrams.

Prerequisite

- You have created a branch in SAP® Solution Manager.
- A solution configuration was created for the solution containing this branch.

Procedure

1. Log in to the database managing the desired SAP content.
2. Start SAP® synchronization. The Synchronization Wizard opens.
3. On the **Select options** wizard page, enable the **Transfer data to ARIS** option.
4. Navigate to the **Transfer models** wizard page.
5. Enable the **Transfer models** check box.
6. If required, specify additional settings and click **Finish**.

The synchronization starts and the models are transferred to ARIS.

The process variant models are assigned to the related SAP functions of the **Process** function type. The assigned models have the **Process variant** SAP model type. SAP objects of the **Free system** type are not transferred. All entities contained in the process variants are reused in SAP Solution Manager.

If diagrams were transferred from ARIS before, a new Enterprise BPMN model is created in ARIS. The original ARIS model is maintained. Modifications must be made in the original model. The new Enterprise BPMN model is not relevant for SAP synchronization.

SAP Solution Manager 7.2 no longer provides the Business Process Library (BPR). SAP Best Practices packages fully replace the former BPR content.

3 Migrating SAP projects to SAP solutions in ARIS

This procedure explains how to migrate (page 24) existing SAP projects stored in your ARIS databases using several reports. The reports are managed in the **SAP migration (Solution Manager 7.1 to 7.2)** report category. After you have migrated your SAP system, all former projects will be available as solutions using the new structure of SAP Solution Manager 7.2. The migration is done in several steps. For each action, detailed information will be written into the report output files. The synchronization process will be logged as well.

Warning

If you have updated SAP® Solution Manager 7.1 to SAP® Solution Manager 7.2, it is absolutely essential not to change any content in the new SAP system until you have migrated the projects in ARIS. Migration is available only for projects that were migrated to a business process structure in SAP.

Procedure

1. Import the current transport request (page 18) provided with this version, as the migration ID provided by SAP does not match the ARIS ID. This transport request is mandatory to perform this mapping.
2. If the ARIS project contains an integrated test project, create a new folder in SAP Solution Manager 7.2, for example, **Test cases**. Test projects will be migrated within the project migration
3. If the ARIS project contains an integrated test project, move all scenarios belonging to the ARIS test project into this folder.
4. Start ARIS Architect.
5. Click **ARIS** >  **Administration**.
6. Create a solution configuration specifically for migrating the project (page 20). This is necessary to download the migrated SAP solution's branch from SAP® Solution Manager 7.2. Ensure that all options are set as described. This is to get all necessary data from SAP® Solution Manager 7.2, later when downloading the branch into your new database.
If you are not about to create a new solution configuration for productive use, you can modify the settings for future needs after the migration has completed.
7. Click **ARIS** >  **Explorer**.
8. Back up the database holding the SAP project to be migrated.
9. Create a new database.
10. Log in using the **Entire method** filter.
11. Select the **Main group**.
12. Activate the **SAP® Solutions** tab bar.
13. Click  **Download** > **Transfer project**. The wizard opens.
14. Log in to the SAP® system if necessary.
15. Select the branch you created the SAP® Solution Manager solution configuration for earlier.

16. Click **Finish**. The action starts.

When completed, you have two databases. One holds the old 7.1 project and the other holds the SAP® Solution Manager 7.2 solution's branch already migrated in the SAP system. In the 7.2 solution the key for the SAP ID of the 7.1 project is maintained as **Source ID** attribute.

17. Select the database holding your old 7.1 project to be migrated.
18. Log in using the **Entire method** filter with an ARIS user that has full access to all database groups. System users and users holding the database administrator function privilege always have full access.
19. Activate the **Evaluate** tab bar.
20. Click  **Start report**. The Report Wizard opens.
21. Select the **SAP migration (Solution Manager 7.1 to Solution Manager 7.2)** category.
22. Double-click the **01 SAP® Solution Manager 7.2 migration – create root folder layer** report.

When running the report you first have to select the database containing the downloaded SAP Solution Manager 7.2 branch, and you need to connect to the SAP system holding your SAP Solution Manager 7.1 project.

This report copies all root functions of the **Folder** function type from the SAP Solution Manager 7.2 branch structure to the SAP Solution Manager 7.1 project structure. The model linked to the SAP Solution Manager 7.2-based solution root contains two folders, namely **Process Step Library** and **Business Processes**. Both folders are required for SAP synchronization.

When executed, the root level structure in both the project as well as the solution's branch is identical. The 7.1 project root has assigned a model of the **project** model type, containing the **Process Step Library** function of the **repository folder** function type and the **Business Processes** function of the **folder** function type. The **Business Processes** function has an assigned model. Its name is the same as the **folder** type and it now contains the scenarios. If used, an additional test project folder is created as root object within the business process structure. This folder contains the test scenarios. While migrating, the root folder will be identified to set all test designer markers to the related items.

23. Only run the **02 SAP® Solution Manager 7.2 migration – resolve shortcuts** report on the database containing the 7.1 project, if in the 7.1 project shortcuts were in use. This is required, since with SAP Solution Manager 7.2 shortcuts are no longer supported.

This step is executed directly on the database containing the 7.1 project. Each shortcut occurrence will be replaced by a new occurrence based on definition which is a copy of a shortcut's definition. You can select appropriate symbols into which the old shortcuts should be migrated. When executed, all migrated shortcuts are listed in the report output file.

In EPC based models the report creates a new definition from the one used by the shortcut. The definition is identical in attributes and direct properties to the definition of the shortcut. Only the name carries the **copy** prefix. The definition is placed into the database group where the model is stored. It creates a new occurrence based on the old one. The new occurrence is identical in all properties to the old one, e. g. attribute occurrences, unions, symbols, position, size, etc. New connections based on the old ones are created. The new ones are identical in all direct properties to the old ones (arrow style, connection point, pen, etc.). Assignments or master relations are ignored as they refer to the original only.

Since the migration ID of the 7.2 solution is the same for shortcuts and the activity they refer to, the shortcuts will receive the same SAP IDs. Assignments from the shortcut definition will be ignored. The symbol for the new occurrence is specified in the project configuration. As it is not available to the report, you must select the desired symbol.

In BPMN-based models distinct definitions for shortcuts already exist. You only need to replace the **BPMN call activity** by a **task** of your choice. However on process level the disband process on SAP side will create new steps. These are unknown to ARIS. There is no way to create a mapping for them. **You must remodel the process manually after the respective steps have been synchronized to ARIS.**

In the 7.1 project for each occurrence with the **shortcut** symbol type you now have a new definition with the same attributes and a new identical occurrence. It looks exactly the same as before, except the symbol type has changed from **shortcut** to the one you have defined. In BPMN™ the **User task** is in use instead of **Call activity**. All **Call activity** properties have been removed.

24. Run the **03 SAP® Solution Manager 7.2 migration – adjust transaction types** report.
This report consolidates the different transaction types for URLs. The values **Long URL**, **SAP URL application** and **Predefined URLs from directory** for the **Transaction type** attribute are converted to **Web address** or **file**.
When executed, all actions are listed in the report output file.
25. Run the **04 SAP® Solution Manager 7.2 migration – adjust documentation** report.
This report replaces symbols types. As in 7.2 solutions, the **Training** and the **General document** document types are no longer available. These symbol types are replaced by the **Project documentation** symbol type by default.
You can use different symbol types as well. They must be defined in the method configuration of your solution configuration.
26. Consolidate the logical component groups in the SAP system. If master data and organizational elements are in use in the SAP® Solution Manager 7.1 project, ensure that for these elements in SAP Solution Manager 7.2 a logical component group is specified that is available in the system landscape of the branch. If not, replace the one that belongs to your 7.1 project with the one of your 7.2 branch.

Executables of the **URL** type that do not belong to a process step in SAP® Solution Manager **7.2** have a dummy logical component group maintained. In SAP® Solution Manager **7.1** they do not have a logical component. If you assign these executables in SAP® Solution Manager **7.2** to an existing logical component group, you should use this group also in the next report.

27. Run the **05 SAP® Solution Manager 7.2 migration – adjust system landscape** report.

The report changes all values in the **SAP component** attribute, both on the **function** and **transaction** level. Also, all attributes of the **system application** types in the system landscape are replaced by the values of the 7.2 system. In 7.1 ARIS projects, the logical component is represented as the name of the logical SAP component. It is maintained as an attribute on the **step** and **transaction** level. In the system landscape, it is maintained as **logical component** attribute in the respective application system type definition. Unused logical components will not be corrected.

When running the report, you first have to choose the database containing the downloaded **SAP Solution Manager 7.2** branch, and you need to connect to the SAP system holding your **SAP Solution Manager 7.1** project. This is to map the migration ID provided by SAP to the SAP ID used by ARIS in **7.1** projects. You can retrieve the values for application server and instance number from your SAP log on. If prompted for the logical component group to be used in ARIS, select the one that matches the logical component group in **SAP Solution Manager 7.2** for executables that have not maintained one.

When the report is executed, all changed objects are listed in the report output file, as well as all SAP components to be changed.

28. Run the **06 SAP® Solution Manager 7.2 migration – adjust IDs** report.

This report adjusts the 7.1 project on the ID level. It also adjusts the project origin, containing the synchronization type and the branch ID of the branch as well as the project configuration.

7.2 SAP IDs are mapped to the 7.1 project's structure elements. Structure elements are scenarios, processes and process steps. In the 7.2 solution, the 7.1 ID is maintained in the **Source ID** attribute. SAP IDs are exchanged on object and model level.

When running the report, you first have to choose the database containing the downloaded **SAP Solution Manager 7.2** branch, and you need to connect to the SAP system holding your **SAP Solution Manager 7.1** project. This is to map the migration ID provided by SAP to the SAP ID used by ARIS in **7.1** projects. You can retrieve the values for application server and instance number from your SAP log on. If prompted for the logical component group to be used in ARIS, select the one that matches the logical component group in **SAP Solution Manager 7.2** for executables that have not maintained one.

When the report is executed, all objects that were exchanged and all objects that were not exchanged are listed in the report output file. Objects that were not exchanged might belong to shortcuts or object definitions that are no longer used in the project.

29. Delete the database containing the 7.2 solution, as this is no longer of use.

You are now ready to synchronize the project in ARIS against SAP Solution Manager 7.2. Since SAP introduced the Process Step Library (**PSL**) and all assignments have been moved from the business process steps to the PSL steps, this initial synchronization is mandatory for adjusting the 7.1 project to the new 7.2 structure.

Since you are now about to synchronize your operational project, you must adjust your solution configuration to match your needs. For example, if you use user-defined models or symbol types, or you can disable the pool roles (if you do not need them anymore). You are recommended to enable the **delete** options for assignments. This is to move content successfully from the business process step FADs to the PSL. It is also a good idea to create a copy of the database and test the synchronization on this copy.

30. Activate the **SAP® Solutions** tab bar.

31. Select the root node of the former 7.1 project.

32. Click  **Synchronization**. If not logged on the **SAP® logon** dialog opens.

33. Log in to the SAP system. The **Select branch options** dialog opens.

34. Select the **Transfer data to ARIS** option, activate the **Include subordinate elements** check box, and click **Finish**. The synchronization starts.

35. Check the log file (page 22) after the synchronization has completed. Use the report output files to check whether the migration was successful. Items that are listed as successfully migrated in the report output should not be listed as deleted or created in the log file.

The synchronization will create the PSL and link all steps from the business processes to the PSL. This establishes the master variant relation. Each step from the business process structure has now its master in the PSL.

If you have synchronized a different project with the SAP system that, during content activation, was migrated in SAP into another folder, you can repeat the migration steps for this project as well. After the process is completed, you have to consolidate your ARIS projects manually (page 23) by exchanging the scenarios that were downloaded into the migrated solution folder. As PSL elements can be related to several process steps, for process steps you may need to decide which assignment belongs to the PSL element and which ones belong to the process step itself.

If test projects were included, they will be created in the SAP system while uploading the test scenarios.

3.1 Import transport request (synchronization)

To ensure that SAP® synchronization between **ARIS** and **SAP® Solution Manager** is available, your administrator must import (page 18) the current transport request into the SAP® system. You find the transport request on the installation media (`.../Add-ons/ARIS_Architect_extension_pack_SAP/ABAP/Solution Manager/`). The function modules are created in the `/IDS/ARIS_SOLAR` package in the `/IDS/ARIS_SOLAR_001` function group.

Procedure

1. Copy the file **K<number>.<SAP system SID>** from the installation media to the directory `\sapmnt\trans\cofiles`.
2. Copy the file **R<number>.<SAP system SID>** from the installation media to the directory `\sapmnt\trans\data`. The `sapmnt` directory usually corresponds to the directory `\usr\sap`. If you cannot find the `cofiles` and `data` directories under the specified paths, you can determine the correct path using the **DIR_TRANS** variable. To do this, log on to the relevant SAP® Solution Manager system and execute transaction **AL11**.

To transfer the transport request to the SAP system using the command line program **TP.EXE**, enter the following commands in the specified sequence:

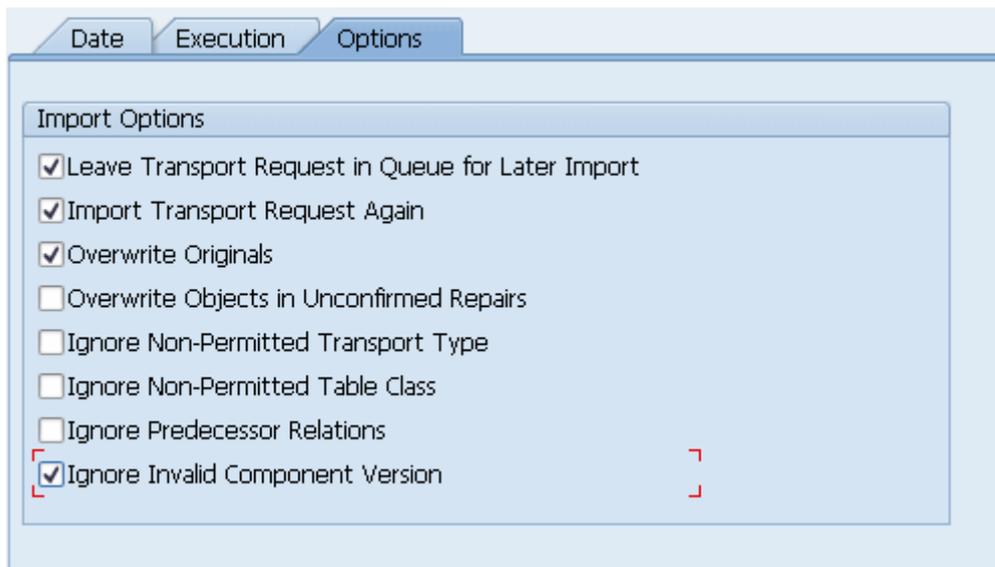
- a. **TP addtobuffer <SAP system SID>K<number> [target system SID]**
- b. **TP import <SAP system SID>K<number> [client on target system]**

You can also execute the transport request using the transaction **STMS**.

Procedure

1. Log on to the relevant SAP® Solution Manager system as system administrator.
2. Execute transaction **STMS**. This takes you to the Transport Management System.
3. Click **Import overview (F5)**.
4. Double-click the relevant SAP® Solution Manager system. This takes you to the import queue.
5. In the menu, select **Extras > Other requests > Add**. The **Add transport request to import queue** dialog opens.
6. Enter `<SAP system SID>K<number>` and confirm. You return to the import overview.
7. Select the transport request.
8. In the menu, select **Request > Import**. The **Import request** dialog opens.

9. Activate the **Options** tab and check **Ignore invalid component version**.



The screenshot shows the 'Options' tab of the SAP Import Options dialog box. The 'Import Options' section contains the following settings:

- Leave Transport Request in Queue for Later Import
- Import Transport Request Again
- Overwrite Originals
- Overwrite Objects in Unconfirmed Repairs
- Ignore Non-Permitted Transport Type
- Ignore Non-Permitted Table Class
- Ignore Predecessor Relations
- Ignore Invalid Component Version

10. Enter the relevant target client and confirm via **F8** or **Start import**.

3.2 Create Solution configuration for migration

Administrators must create solution configurations for migrating SAP project to SAP solutions in ARIS.

Prerequisite

- You are a configuration administrator for this tenant.
- Make sure you have activated the **PROCESSMANAGEMENT** service in SAP Solution Manager 7.2.

Procedure

1. Click **ARIS** >  **Administration**.
2. Click  **Navigation** in the bar panel if the **Navigation** bar is not activated yet.
3. Open the folder  **SAP** > **Solution configurations (SAP® Solution Manager 7.2)**.
4. In the **Start** tab bar, click  **New** > **SAP® Server**. The **Register SAP® Server** dialog opens.
5. Enter the server name to be displayed in the solution configuration.
6. Enter the URL (syntax: **https://<solution manager server name>:<port>**), for example, **https://sapsolman72.us.co.abc:50001**.
You can retrieve the URL from the corresponding SAP System using the **SCIF** or the **SOLDOC** transactions. Just copy the URL up to the port number.
7. If you use a proxy server, enter the parameter.
8. If the connection fails, activate the **Allow untrusted server access** only if you use https on a trusted server but the certificate is unknown.
9. Click **OK**. The SAP® Server is displayed in the table.
10. Select the SAP® Server, and click  **New** > **Solution**. If you are not logged on, the **SAP® logon** dialog opens.
11. Enter the credentials and select the language to be used for the transferred items in ARIS.
12. Click **OK**. The **Add solution** dialog opens.
13. Select the solution that corresponds to the migrated 7.1 project, and click **OK**. The solution is displayed in the table.
14. Select the solution, and click  **New** > **Branch**. The **Add branch** dialog opens.
15. Select the branch you are about to synchronize, for example, the **maintenance** branch or the **development** branch, and click **OK**. The branch is displayed in the table.
16. Double-click the branch in the navigation tree. The **Branch configuration** tab is activated. The overview displays all pages for which you need to set the options. Users can only select the settings you specify here when transferring data.
17. Select the options for transferring data from SAP® Solution Manager to ARIS.
18. Click the **Transfer data to ARIS** page in the **Navigation** bar. The default options selected are displayed in a table.

19. Click  **Edit**. The Synchronization Wizard starts.
20. If you want to prevent users from selecting custom synchronization settings, disable the corresponding option on the **Allow changes** page.
21. Click **Next**, and activate all check boxes for data synchronization of structural elements on the **Transfer structural elements** page.
22. Click **Next**, and activate all check boxes for data synchronization of **executables** on the **Transfer executables** page.
23. Click **Next**, and activate all check boxes for data synchronization of deleted elements on the **Delete elements** page.
24. Click **Next**, and activate all check boxes for data synchronization of documents, master data, and organizational units on the **Transfer assignments** page.
25. Click **Next**, and activate all check boxes for data transfer of end user roles on the **Transfer end user roles** page.
26. Do not specify the options for transferring data from ARIS to SAP® Solution Manager, the document types for the solution, the method configuration for the solution or the attribute assignment for the solution.
27. Activate the project configuration.
28. Select the locked configuration in the table.
29. Click  **Change status**.

The status of this configuration is changed. The status is displayed in the table. When **Active**, users can transfer contents between ARIS and SAP® Solution Manager.

The solution's branch is available for transferring data between ARIS and SAP® Solution Manager in order to migrate projects to solutions (page 13).

When migrated, you can lock this configuration. If you are not about to create a new configuration for productive use, you can customize the current configuration.

3.3 Open log files

Check the log file once the process is completed. You can use it to resolve possible errors in the ARIS database.

Prerequisite

- You have the **Configuration administrator** function privilege.
- Log files are made available.

Procedure

1. Open the project or solution configuration.
2. Click **ARIS** >  **Administration**.
3. Click  **Navigation** in the bar panel if the **Navigation** bar is not activated yet.
4. Depending on the SAP Solution Manager version you are using, open the folder  **SAP** > **Project configurations (Solution Manager 7.1)** or  **SAP** > **Solution configurations (Solution Manager 7.2)**. All registered SAP® Servers are displayed.
5. Open the SAP® Server structure in which the project or solution is managed. The configurations for projects or solutions on this SAP® Server are displayed.
6. Click the  Log files folder.
7. Open the relevant file.

Any errors that occurred are reported.

For troubleshooting, copy the error codes from the log file, and enter the error code.

3.4 Consolidate ARIS projects

Running migration scripts one after another (page 13) in the database that contains the SAP Solution Manager branch may result in the unwanted effect of multiple projects being assigned to the same branch. Due to the following reasons the consistency rules are not met and data transfer is not possible yet:

- Several branch root nodes
There is one root node for each migrated ARIS project.
- Multiple subgroup nodes
The **Business processes** database group contains all SAP functions and their assigned models.
The **Process step library** group contains all Process step originals.

Procedure

1. Select one of the ARIS projects to be used for synchronizing data.
2. Open the business process model belonging to this project. This model contains the scenarios of the ARIS project.
3. Open the business process models belonging to your other projects.
4. Move the scenarios from these models into the one which belongs to the project to be used for synchronizing data.
5. Delete the obsolete project root nodes, the **Business processes** and **Process step library** group nodes, and functions, and all models assigned to these three functions.

Result required:

- There is only one function representing the project root node in this database.
 - There is only one function representing the **Business processes** group in this database.
 - There is only one function representing the **Process step library** group in this database.
 - There is only one synchronization model in this database assigned to the project root node. This model contains the **Business processes** SAP function and the **Process step library** SAP function. For both SAP functions the **Folder** SAP function type attribute value is specified.
 - There is only one synchronization model contained in the **Business processes** subgroup of your database. This model contains all scenarios (SAP functions of SAP function type **Scenario**) of the branch. The folder structure used in SAP Solution Manager 7.2 for managing scenarios is not reflected in ARIS.
6. Select the project node and start SAP Synchronization.
 7. Select the **Transfer data to ARIS** branch option, activate the **Include subordinate elements** control, and click **Next**. The **Transfer structural elements** page opens.
 8. Activate all controls on this page and click **Finish**.

The missing groups are created and the scenarios are moved accordingly. If the move operation has failed for unknown reasons, you must move them manually.

The ARIS project looks exactly the same as in SAP Solution Manager 7.2.

Data transfer between ARIS and SAP Solution Manager is available.

3.5 How are test projects migrated in ARIS?

Test project migration (page 13) is part of the **01 SAP® Solution Manager 7.2 migration – create root folder layer** report and the **06 SAP Solution Manager 7.2 migration – adjust IDs report**. In SAP Solution Manager 7.2, a test project is represented by a folder as root object within the business process structure. This folder contains the test scenarios. During migration, the root folder will be identified to set all test designer markers to the respective items.

3.6 How are projects migrated in ARIS?

SAP Solution Manager 7.1 projects can be transformed to SAP Solution Manager 7.2 branches. After projects have been migrated to solutions in the SAP system, you can start migrating your ARIS projects (page 13). The content activation is performed by a script-based migration in ARIS. Before you migrate projects containing test projects, some manual adaptation is mandatory.

HOW DOES THE SCRIPT-BASED MIGRATION WORK?

- The database structure is adapted.
 - A **folder** level is added under the root node for the Process Step Library (PSL) and the business processes, according to the file structure in SAP Solution Manager 7.2.
 - If test projects are included (page 24), a folder is added holding the test project.
 - This folder is mapped to the folder holding the test scenarios in SAP Solution Manager 7.2.
 - The folder is assigned to a new SAP Solution Manager 7.2 test project.
 - The model containing the test scenarios is also assigned to this folder.
 - All SAP IDs, test source IDs and synchronization project attributes are adjusted.
- Process step assignments are moved to the PSL elements. You may need to reorganize SAP assignments as executables, roles and documents at the process step level. As PSL elements can be related to several process steps, you need to decide which assignment belongs to the PSL element and which one belongs to the individual process step.
- Assignments are corrected automatically when data is synchronized from SAP to ARIS for the first time.
- Keywords are converted into customer attributes.
- IDs needed for synchronization are replaced.
- If used in projects, shortcuts are replaced by references to PSL elements.

There is no need to rebuild processes. All required changes are covered by the script-based migration.

3.7 ARIS reports for SAP migration

In the **SAP migration (Solution Manager 7.1 to Solution Manager 7.2)** report category, users will find all needed reports in the Report Wizard.

All reports in this category are to be used for migrating (page 13) databases containing SAP projects to SAP solutions.

3.7.1 Report: 01 SAP Solution Manager 7.2 migration – Create root folder layer

USE

Use this report as the first for migrating (page 13) SAP Solution Manager 7.1 projects contained in an ARIS database to SAP Solution Manager 7.2-based SAP solutions.

This report copies all root functions of the **Folder** function type from the SAP Solution Manager 7.2 branch structure to the SAP Solution Manager 7.1 project structure. The model linked to the SAP Solution Manager 7.2-based solution root contains two folders, namely **Process Step Library** and **Business Processes**. Both folders are required for SAP synchronization.

When executed, the root level structure in both the project as well as the solution's branch is identical. The 7.1 project root has assigned a model of the **project** model type, containing the **Process Step Library** function of the **repository folder** function type and the **Business Processes** function of the **folder** function type. The **Business Processes** function has an assigned model. Its name is the same as the **folder** type and it now contains the scenarios. If used, an additional test project folder is created as root object within the business process structure. This folder contains the test scenarios. While migrating, the root folder will be identified to set all test designer markers to the related items.

CONTEXT

Databases holding former SAP Solution Manager 7.1 projects to be migrated to SAP solutions using SAP Solution Manager 7. 2.

OUTPUT FORMAT

XLS

3.7.2 Report: 02 SAP Solution Manager 7.2 migration – resolve shortcuts

USE

This report is the second to be used while migrating (page 13) databases containing SAP projects, using SAP Solution Manager 7.1 to SAP solutions, using SAP Solution Manager 7.2.

Only run this report if the 7.1 project uses shortcuts. It replaces each shortcut occurrence by a new occurrence based on definition which is a copy of the shortcut's definition.

In EPC based models the report creates a new definition from the one used by the shortcut. The definition is identical in attributes and direct properties to the definition of the shortcut. Only the name carries the **copy** prefix. The definition is placed into the database group where the model is stored. It creates a new occurrence based on the old one. The new occurrence is identical in all properties to the old one, e. g. attribute occurrences, unions, symbols, position, size, etc. New connections based on the old ones are created. The new ones are identical in all direct properties to the old ones (arrow style, connection point, pen, etc.). Assignments or master relations are ignored as they refer to the original only.

Since the migration ID of the 7.2 solution is the same for shortcuts and the activity they refer to, the shortcuts will receive the same SAP IDs. Assignments from the shortcut definition will be ignored. The symbol for the new occurrence is specified in the project configuration. As it is not available to the report, you must select the desired symbol.

In BPMN-based models distinct definitions for shortcuts already exist. You only need to replace the **BPMN call activity** by a **task** of your choice. However on process level the disband process on SAP side will create new steps. These are unknown to ARIS. There is no way to create a mapping for them. **You must remodel the process manually after the respective steps have been synchronized to ARIS.**

In the 7.1 project for each occurrence with the **shortcut** symbol type you now have a new definition with the same attributes and a new identical occurrence. It looks exactly the same as before, except the symbol type has changed from **shortcut** to the one you have defined. In BPMN™ the **User task** is in use instead of **Call activity**. All **Call activity** properties have been removed.

When executed all migrated shortcuts are listed in the report output file.

CONTEXT

Databases holding former SAP Solution Manager 7.1 projects to be migrated to SAP solutions using SAP Solution Manager 7. 2.

OUTPUT FORMAT

XLS

3.7.3 Report: 03 SAP Solution Manager 7.2 migration – adjust transaction types

USE

This report is the third to be used while migrating (page 13) databases containing SAP projects, using SAP Solution Manager 7.1 to SAP solutions, using SAP Solution Manager 7.2.

This report consolidates the different transaction types for URLs. The values **Long URL**, **SAP URL application** and **Predefined URLs from directory** for the **Transaction type** attribute are converted to **Web address** or **file**.

When executed all actions are listed in the report output file.

CONTEXT

Databases holding former SAP Solution Manager 7.1 projects to be migrated to SAP solutions using SAP Solution Manager 7. 2.

OUTPUT FORMAT

XLS

3.7.4 Report: 04 SAP Solution Manager 7.2 migration – adjust documentation

USE

This report is the fourth to be used while migrating (page 13) databases containing SAP projects, using SAP Solution Manager 7.1 to SAP solutions, using SAP Solution Manager 7.2.

This report replaces symbols types. As in 7.2 solutions, the **Training** and the **General document** document types are no longer available. These symbol types are replaced by the **Project documentation** symbol type by default.

When executed all actions are listed in the report output file.

CONTEXT

Databases holding former SAP Solution Manager 7.1 projects to be migrated to SAP solutions using SAP Solution Manager 7. 2.

OUTPUT FORMAT

XLS

3.7.5 Report: 05 SAP Solution Manager 7.2 migration – adjust system landscape

USE

This report is the fifth to be used while migrating (page 13) databases containing SAP projects, using SAP Solution Manager 7.1 to SAP solutions, using SAP Solution Manager 7.2.

The report changes all values in the **SAP component** attribute, both on the **function** and **transaction** level. Also, all attributes of the **system application** types in the system landscape are replaced by the values of the 7.2 system. In 7.1 ARIS projects, the logical component is represented as the name of the logical SAP component. It is maintained as an attribute on the **step** and **transaction** level. In the system landscape, it is maintained as **logical component** attribute in the respective application system type definition. Unused logical components will not be corrected.

When running the report, you first have to choose the database containing the downloaded **SAP Solution Manager 7.2** branch, and you need to connect to the SAP system holding your **SAP Solution Manager 7.1** project. This is to map the migration ID provided by SAP to the SAP ID used by ARIS in **7.1** projects. You can retrieve the values for application server and instance number from your SAP log on. If prompted for the logical component group to be used in ARIS, select the one that matches the logical component group in **SAP Solution Manager 7.2** for executables that have not maintained one.

When the report is executed, all changed objects are listed in the report output file, as well as all SAP components to be changed.

CONTEXT

Databases holding former SAP Solution Manager 7.1 projects to be migrated to SAP solutions using SAP Solution Manager 7. 2.

OUTPUT FORMAT

XLS

3.7.6 Report: 06 SAP Solution Manager 7.2 migration – adjust IDs

USE

This report is the sixth to be used while migrating (page 13) databases containing SAP projects, using SAP Solution Manager 7.1 to SAP solutions, using SAP Solution Manager 7.2.

This report adjusts the 7.1 project on the ID level. It also adjusts the project origin, containing the synchronization type and the branch ID of the branch as well as the project configuration.

7.2 SAP IDs are mapped to the 7.1 project's structure elements. Structure elements are scenarios, processes and process steps. In the 7.2 solution, the 7.1 ID is maintained in the **Source ID** attribute. SAP IDs are exchanged on object and model level.

When running the report, you first have to choose the database containing the downloaded **SAP Solution Manager 7.2** branch, and you need to connect to the SAP system holding your **SAP Solution Manager 7.1** project. This is to map the migration ID provided by SAP to the SAP ID used by ARIS in **7.1** projects. You can retrieve the values for application server and instance number from your SAP log on. If prompted for the logical component group to be used in ARIS, select the one that matches the logical component group in **SAP Solution Manager 7.2** for executables that have not maintained one.

When the report is executed, all objects that were exchanged and all objects that were not exchanged are listed in the report output file. Objects that were not exchanged might belong to shortcuts or object definitions that are no longer used in the project.

CONTEXT

Databases holding former SAP Solution Manager 7.1 projects to be migrated to SAP solutions using SAP Solution Manager 7. 2.

OUTPUT FORMAT

XLS

3.7.7 Report: SAP Solution Manager 7.2 migration – library

This report is used by all other SAP Solution Manager 7.2 migration reports. Users cannot start this report from the Report Wizard.

4 Legal information

4.1 Documentation scope

The information provided describes the settings and features as they were at the time of publishing. Since documentation and software are subject to different production cycles, the description of settings and features may differ from actual settings and features. Information about discrepancies is provided in the Release Notes that accompany the product. Please read the Release Notes and take the information into account when installing, setting up, and using the product.

If you want to install technical and/or business system functions without Software AG's consulting services, you require extensive knowledge of the system to be installed, its intended purpose, the target systems, and their various dependencies. Due to the number of platforms and interdependent hardware and software configurations, we can only describe specific installations. It is not possible to document all settings and dependencies.

When you combine various technologies, please observe the manufacturers' instructions, particularly announcements concerning releases on their Internet pages. We cannot guarantee proper functioning and installation of approved third-party systems and do not support them. Always follow the instructions provided in the installation manuals of the relevant manufacturers. If you experience difficulties, please contact the relevant manufacturer.

If you need help installing third-party systems, contact your local Software AG sales organization. Please note that this type of manufacturer-specific or customer-specific customization is not covered by the standard Software AG software maintenance agreement and can be performed only on special request and agreement.

If a description refers to a specific ARIS product, the product is named. If this is not the case, names for ARIS products are used as follows:

Name	Includes
ARIS products	Refers to all products to which the license regulations of Software AG standard software apply.
ARIS Clients	Refers to all programs that access shared databases via ARIS Server, such as ARIS Architect or ARIS Designer.
ARIS Download clients	Refers to ARIS clients that can be accessed using a browser.

4.2 Data protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR).

Where applicable, appropriate steps are documented in the respective administration documentation.

4.3 Disclaimer

ARIS products are intended and developed for use by persons. Automated processes, such as the generation of content and the import of objects/artifacts via interfaces, can lead to an outsized amount of data, and their execution may exceed processing capacities and physical limits. For example, processing capacities are exceeded if models and diagrams transcend the size of the modeling area or an extremely high number of processing operations is started simultaneously. Physical limits may be exceeded if the memory available is not sufficient for the execution of operations or the storage of data.

Proper operation of ARIS products requires the availability of a reliable and fast network connection. Networks with insufficient response time will reduce system performance and may cause timeouts.

If ARIS products are used in a virtual environment, sufficient resources must be available there in order to avoid the risk of overbooking.

The system was tested using scenarios that included 100,000 groups (folders), 100,000 users, and 1,000,000 modeling artifacts. It supports a modeling area of 25 square meters.

If projects or repositories are larger than the maximum size allowed, a powerful functionality is available to break them down into smaller, more manageable parts.

Some restrictions may apply when working with process administration, ARIS Administration, ARIS document storage, and ARIS Process Board, and when generating executable processes. Process Governance has been tested and approved for 1000 parallel process instances. However, the number may vary depending on process complexity, for example, if custom reports are integrated.

ARIS document storage was tested with 40.000 document items. We recommend monitoring the number and overall size of stored document items and archiving some document items if needed.

This manual describes the settings and features of ARIS 10.0 at the time of print. For service release, the help system as well as all other documents are not updated in all languages. Only the English help system is available yet. This document might not provide help for all contingencies, for example, various individual system as well as project configurations. Therefore, Software AG strongly recommends requesting Global Consulting Services for migrating existing ARIS projects to be further used with SAP® Solution Manager 7.2. You may order that service from your Software AG sales representative