software AG

System architecture

ARIS INTERFACES TO SAP® SOLUTION MANAGER

Version 10.0 - Service Release 2

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Contents

1   System architecture

ARIS contains different products and interfaces to connect ARIS with SAP® Solution Manager. Depending on the SAP® Solution Manager version you need to perform further adjustments.

Further information is available in additional documents and in the help system. For details see **ARIS - Process-driven Management for SAP** and **SAP Requirements** on DVD, ARIS Download Center (aris.softwareag.com) or Empower (https://empower.softwareag.com/).

1.1   Using SAP® Solution Manager 7.2

ARIS and SAP Solution Manager 7.2 communicate via HTTP access. Therefore the requirements must be met in the SAP system. In general the system does no longer require transport requests (page 7) and **sapjco3.jar** (page 4).

Only for data migration the transport request for synchronization is needed and **sapjco3.jar** is required on server side. For details see **Migrating SAP projects to SAP® Solution Manager 7.2 solutions** on DVD, ARIS Download Center (aris.softwareag.com) or Empower (https://empower.softwareag.com/).

Run transaction without using SAP Solution Manager, and **Run customizing transactions/view** (client) require these components as described for SAP Solution Manager 7.1 (page 3).

In order to use SAP Solution Manager 7.2 the following conditions must be met:

▪ **Authentication specified**

The required privileges are contained in the **ZSOLDOCAPIACCESS.SAP** profile (see ARIS DVD\Add-ons\ARIS_Architect_extension_pack_SAP\Authentication). The profile is imported into the SAP system using the **PFCG** transaction.

▪ **Service activated**

In order to allow HTTP access to the system, the **PROCESSMANAGEMENT** service (default_host/sap/opu/odata/sap) must be activated. The service is activated using the **SICF** transaction

▪ **Virus scan profile enabled**

In order to avoid problems that might occur due to a virus scanner in use, a default virus scan profile is defined (**VSCANPROFILE** transaction).

Deactivate and activate the virus scan profile (**/IWFND/VIRUS_SCAN** transaction). In case of problems you can use the **/IWFND/ERROR_LOG** transaction to check the error protocol.

1.2   Using SAP® Solution Manager 7.1

ARIS contains different products and interfaces to connect ARIS with SAP® Solution Manager 7.1. This chapter describes the interfaces.

Depending on the functions provided you may need to perform further adjustments.

- Use SAP® synchronization

- Use customizing transactions/views

- When using ARIS Publisher, you must configure the connection to SAP® systems.

- Ensure that the users have been created in the SAP® system and have the required privileges (page 10).

    Further information is available in additional documents and in the help system. For details see **ARIS - Process-driven Management for SAP** and **SAP Requirements** on DVD, ARIS Download Center (aris.softwareag.com) or Empower (https://empower.softwareag.com/).

1.2.1 ARIS

The ARIS interface provides you with all the functions you need to connect ARIS with SAP® Solution Manager 7.1.

Depending on the required functional scope, the file **sapjco3.jar** must be provided on client computers and/or on ARIS Server. This connector is used to create the connection to the SAP® system using SAP® access parameters. For licensing reasons, it may not be installed automatically. The file **sapjco3.jar** is required for the following functions.

▪ **Synchronization** (ARIS Server)

▪ **Run transaction** (client)

▪ **Show blueprint** (client)

▪ **Show configuration** (client)

▪ **Documentation** (client)

For these client functions, a local SAP® GUI for Windows installation is required. For details see **ARIS - Process-driven Management for SAP** and **SAP Requirements** on DVD, ARIS Download Center (aris.softwareag.com) or Empower (https://empower.softwareag.com/).

The following graphic shows the interaction of the individual systems and components when performing the above functions.
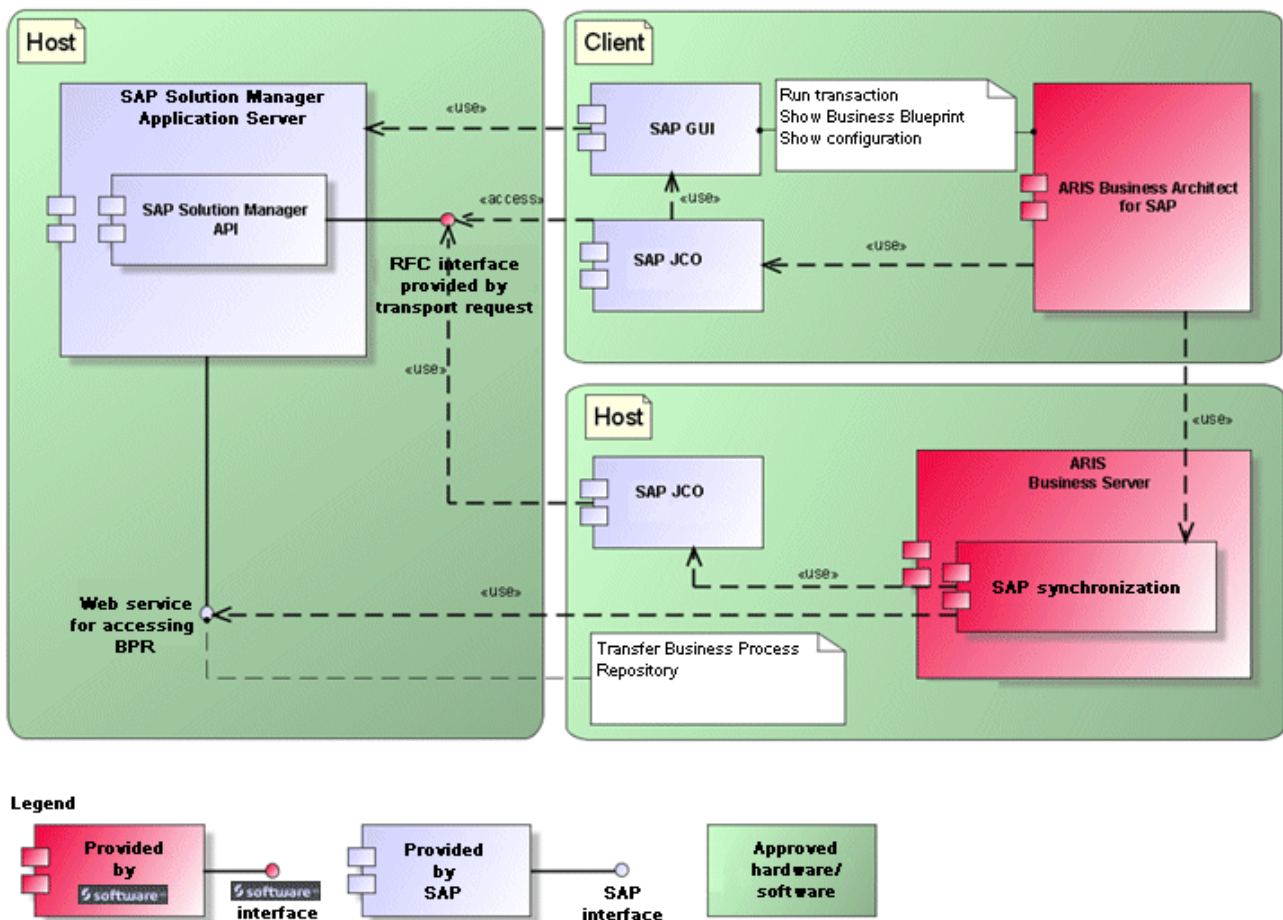

Figure 1: SAP® synchronization, run transaction, show blueprint

To use the **Synchronization** function, please make SAP® Java Connector available on the server. Furthermore, you need SAP® Solution Manager. For details see **ARIS - Process-driven Management for SAP** and **SAP Requirements** on DVD, ARIS Download Center (aris.softwareag.com) or Empower (https://empower.softwareag.com/).

The Software AG RFC interface encapsulates the internal SAP API of SAP® Solution Manager. All calls via the interface use SAP-proprietary functions and functions used by SAP itself. This ensures that SAP changes are as transparent to the interface as possible.

To ensure that SAP® synchronization between **ARIS** and **SAP® Solution Manager** is available, your administrator must import 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.

The following graphic shows the interaction of the individual systems and components when performing the function **Run customizing transactions/view** (client).
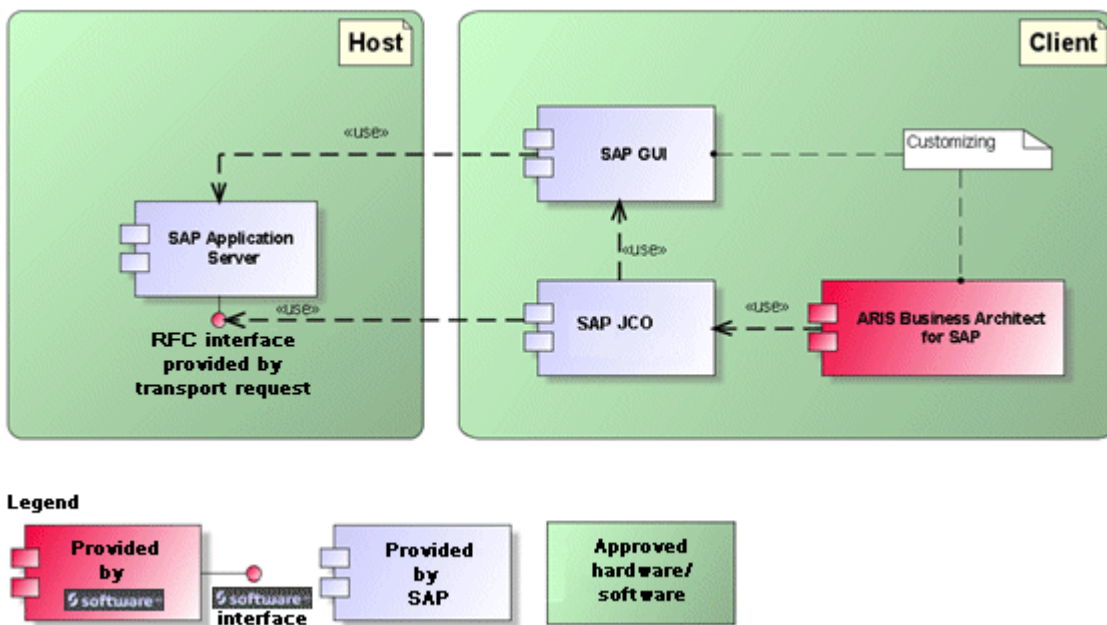

Figure 2: Customizing

The RFC interface to customizing is streamlined and consists only of one function module that enables you to call the view editing transaction with the view specified in ARIS as a parameter.

1.2.2   SAP® system

Depending on the functions that are to be provided, you must import various transport requests, create users, and assign privileges.

1.2.2.1   SAP® transport requests

ARIS requires specific function modules for access to SAP® systems.

SAP® SYNCHRONIZATION

To ensure that SAP® synchronization between **ARIS** and **SAP**® **Solution Manager** is available, your administrator must import 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.

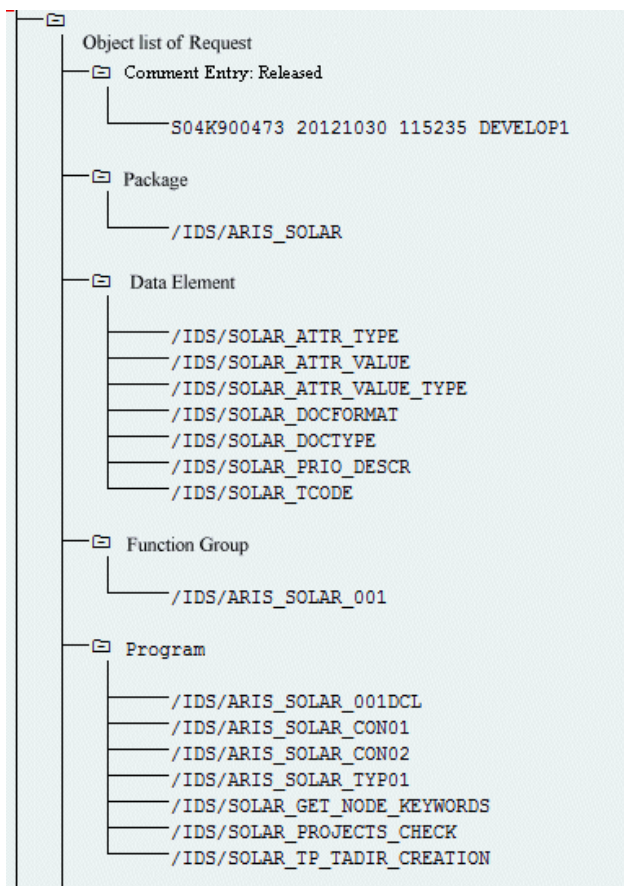The following objects are contained in the transport request.

Figure 3: Transport request: SAP® synchronization (1)

```
─□ Table

        ──── /IDS/SOLAR_ATTR_LINE
        ──── /IDS/SOLAR_COMP_LINE
        ──── /IDS/SOLAR_DOCT_TO_STATES_LINE
        ──── /IDS/SOLAR_FUNC_VERS_S
        ──── /IDS/SOLAR_GLATT_LINE
        ──── /IDS/SOLAR_INST_COMPS_S
        ──── /IDS/SOLAR_KEYWORD_LINE
        ──── /IDS/SOLAR_MAPPING_LINE
        ──── /IDS/SOLAR_NODE_S
        ──── /IDS/SOLAR_PROD_COMP_S
        ──── /IDS/SOLAR_PROD_CONFLICT_S
        ──── /IDS/SOLAR_PROD_INSTANCE_S
        ──── /IDS/SOLAR_PROJECT_STATUS_S
        ──── /IDS/SOLAR_PROJ_DOC
        ──── /IDS/SOLAR_PROJ_PERMISSION_S
        ──── /IDS/SOLAR_ROLE_LINE
        ──── /IDS/SOLAR_SELECT_VALUE_LINE
        ──── /IDS/SOLAR_STARTREL_2_S
        ──── /IDS/SOLAR_STARTREL_LINE
        ──── /IDS/SOLAR_TPROJECTT_EXTD_LINE
        ──── /IDS/SOLAR_TPROJECTT_LINE
        ──── /IDS/SOLAR_TRANSACT_LINE
        ──── /IDS/SOLAR_USED_CONTEXT_LINE
        ──── /IDS/SOLAR_VERSIONS_S
        ──── /IDS/SOLAR_VERS_CONFLICT_S

─□ Table Type

        ──── /IDS/SOLAR_ATTR_SELECT_VALUES
        ──── /IDS/SOLAR_ATTR_TAB
        ──── /IDS/SOLAR_COMP
        ──── /IDS/SOLAR_COMPS
        ──── /IDS/SOLAR_DOCT_STATES_MAPPING
        ──── /IDS/SOLAR_GLATT_TAB
        ──── /IDS/SOLAR_KEYWORD_T
        ──── /IDS/SOLAR_MAPPING
        ──── /IDS/SOLAR_PROD_COMP_T
        ──── /IDS/SOLAR_PROD_CONFLICT_T
        ──── /IDS/SOLAR_PROJ_DOCS
        ──── /IDS/SOLAR_STARTREL_TAB
        ──── /IDS/SOLAR_TPROJECTT_EXTD_TAB
        ──── /IDS/SOLAR_TPROJECTT_TAB
        ──── /IDS/SOLAR_USED_CONTEXT
        ──── /IDS/SOLAR_VERSIONS_T
        ──── /IDS/SOLAR_VERS_CONFLICT_T
```

Figure 4: Transport request: SAP® synchronization (2)

CUSTOMIZING

To be able to run IMG transactions (customizing transactions) and open customizing views from ARIS, you must import the current transport request into the SAP® system. The transport request is located on the installation media under **Add-ons\ARIS Architect extension pack SAP\ABAP\Customizing**. The function module **IDS/VIEW_MAINTENANCE_CALL** is created in the **IDS/ARIS_CUSTOMIZING** function group. This function group is assigned to the **IDS/ARIS_CUSTOMIZING** package.

The following objects are contained in the transport request.

Figure 5: Transport request: Customizing

1.2.2.2   Requirements and privileges in the SAP® system

If you are going to use Process-Driven Management for SAP® Solutions these requirements must be met. For details see **ARIS - Process-driven Management for SAP** and **SAP Requirements** on DVD, ARIS Download Center (aris.softwareag.com) or Empower (https://empower.softwareag.com/).

- Ensure that the users have been created in the SAP® system and have RFC privileges.

- The special SAP ports **sapgw00 3300/tcp** and **sapdp00 3200/tcp** must be enabled in the Windows Services file of the client computer (C:\Windows/ system32/ drivers/ etc/services). In general, these ports are added automatically during SAP GUI installation.

- If you use server groups for access (SAP routers), you need to enter the SAP ports manually in consecutive sequence. By default, the syntax for a port number is as follows **3300** plus the **<SAP system number>** will be used. If, for example, the system number is **03**, the port number **3303** must be entered. Entries that have not been entered in consecutive sequence are ignored.

1.2.2.3 Privileges for SAP® synchronization

Users must be assigned certain roles in the SAP® system to access this function. This gives the users all the necessary authorizations. You must assign the following roles:

- The predefined role **SAP_SOLAR01_ALL**

- The predefined role **SAP_SMSY_ALL** (read privilege)

- A role to be defined with RFC privileges.

You create the role to be defined using the **PFCG** transaction. You assign the authorization objects **S_RFC** and **S_RFCACL** to the role.

VALUES FOR AUTHORIZATION OBJECT S_RFC

The graphic shows all values to be entered.

Select the **Run** activity in the **ACTVT** box.

Find all the names to be entered for authorization object **S_RFC** for the RFC object to be protected in the **RFC_NAME** box. The selected entries **SDIFRUNTIME**, **STFC**, and **IDS/ARIS_SOLAR_001** must be added.

Select the **Function group** type in the **RFC_TYPE** box.

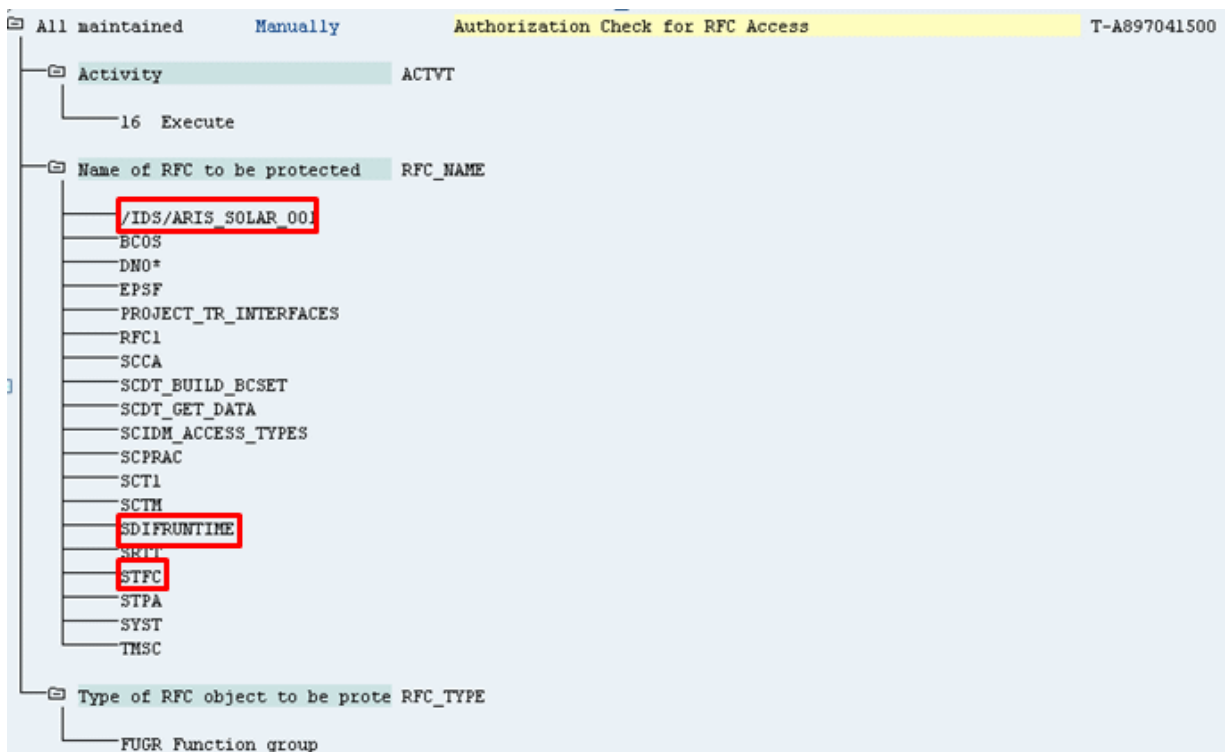Figure 6: Authorization object 'S_RFC'

VALUES FOR AUTHORIZATION OBJECT S_RFCACL

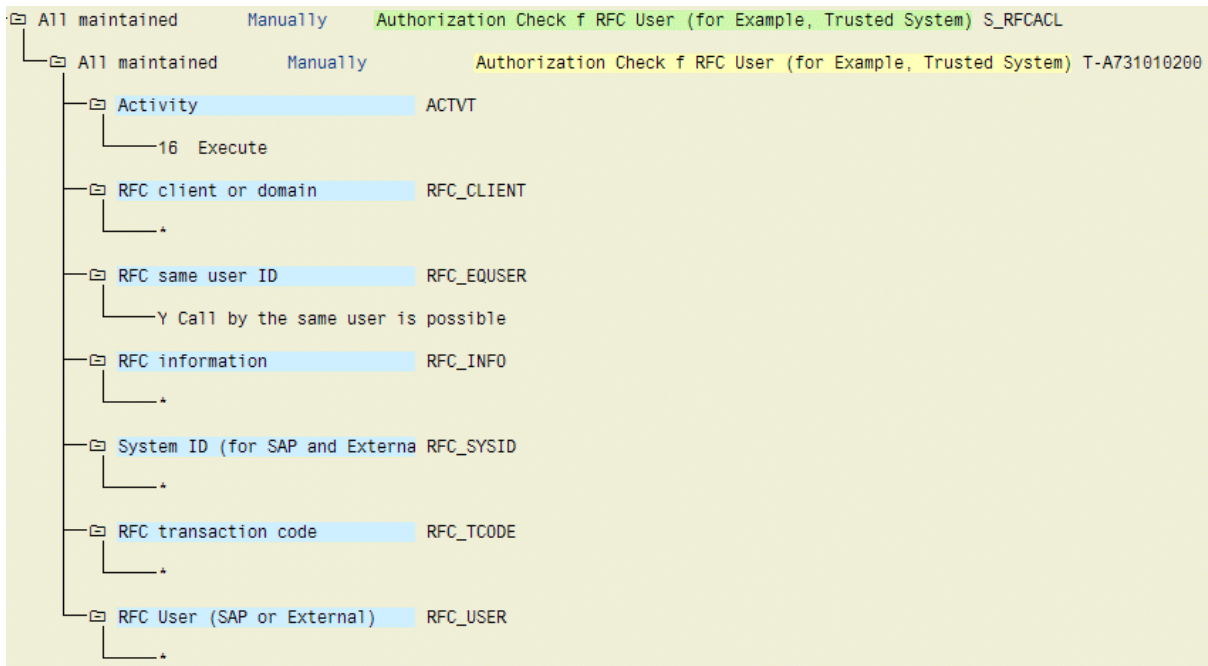The authorization object **S_RFCACL** requires all privileges.

Figure 7: Authorization object 'S_RFCACL'

2   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, e.g., if custom reports are integrated.

ARIS document storage was tested with 40.000 documents. We recommend monitoring the number and overall size of stored documents and if needed some documents should be archived.