



System Architecture

ARIS INTERFACES TO SAP® SYSTEMS

Version 9.8 – Service Release 4

April 2016

This document applies to ARIS Version 9.8 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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1 System architecture

ARIS contains different products and interfaces to connect ARIS with the SAP® system. 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 8).

Further information is available in the Server Installation and Administration Guide in English and in the help system.

1.1 ARIS

With its interface, **ARIS** provides you with all the functions you need to connect ARIS with your SAP® system.

Depending on the required functional scope, the file **sapjco3.jar** must be provided on client computers and/or on ARIS Design 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 Design Server/ARIS Connect Server)
- **Run transaction** (client)
- **Show blueprint** (client)
- **Show configuration** (client)
- **Documentation** (client)

For these client functions, a local SAP® GUI for Windows installation (7.1 - 7.4) is required.

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

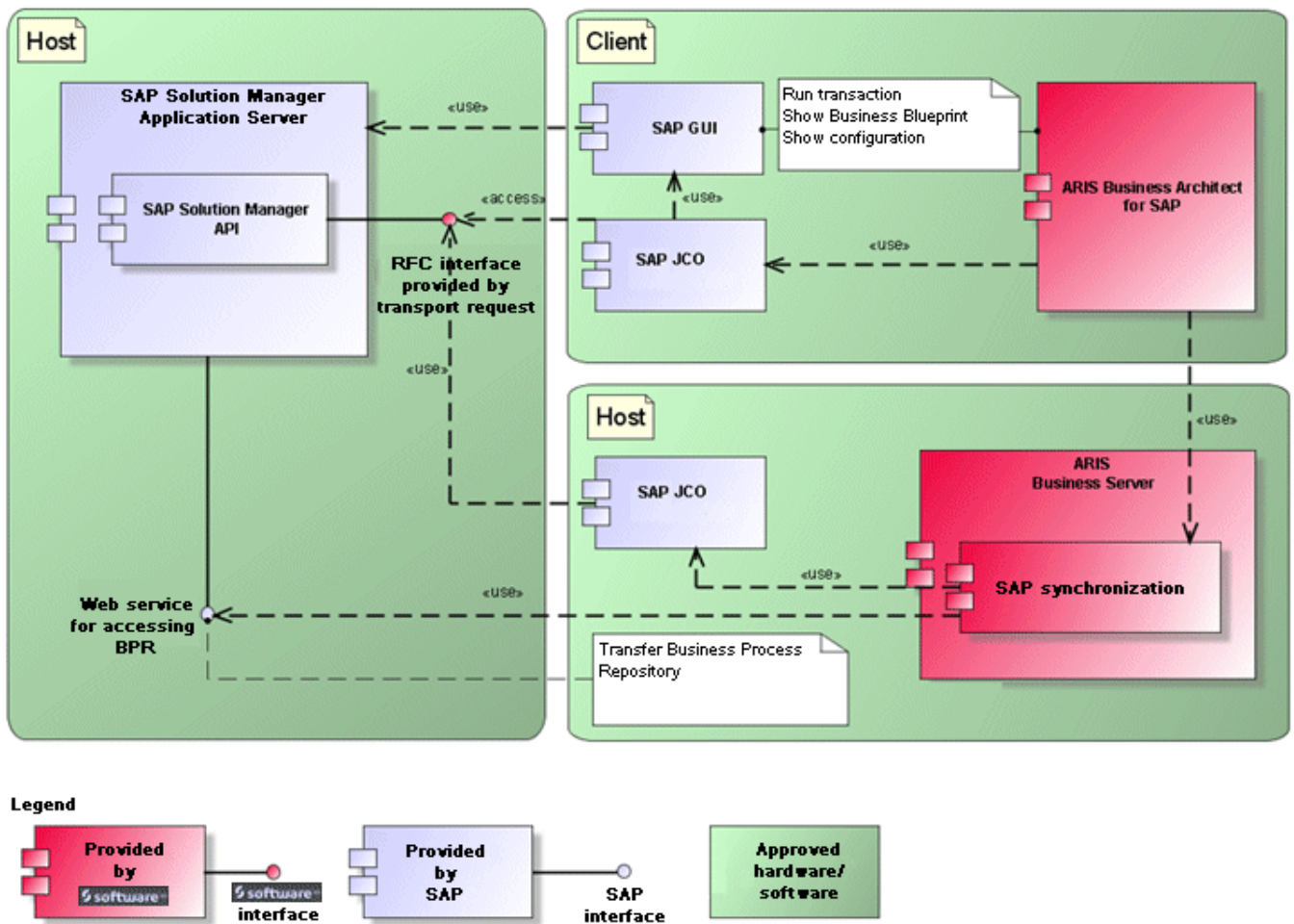


Figure 1: SAP® synchronization, run transaction, show blueprint

To use the **Synchronization** function, please make SAP® Java Connector available on the server. Furthermore, you need SAP® Solution Manager from version **3.2**.

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, you must import the current transport request in the SAP® system. You find the transport request on the installation media. 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).

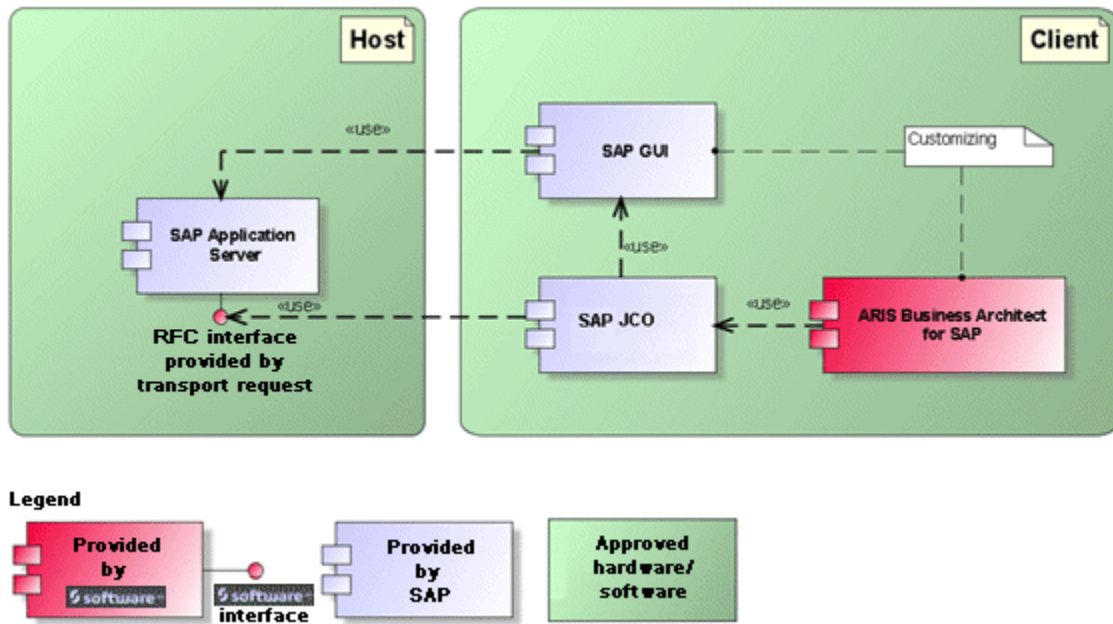


Figure 2: Customizing

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 BI Modeling

BI Modeling is an innovative, integral component of ARIS. BI Modeling uses an integrated unidirectional interface to SAP NetWeaver® Business Warehouse (BW) environments to redocument existing SAP BW landscapes and converts the data structures and data flows into special, newly created model types and symbols. The views of the SAP NetWeaver® Business Warehouse system generated in this way are completely integrated in the central ARIS Repository according to the method.

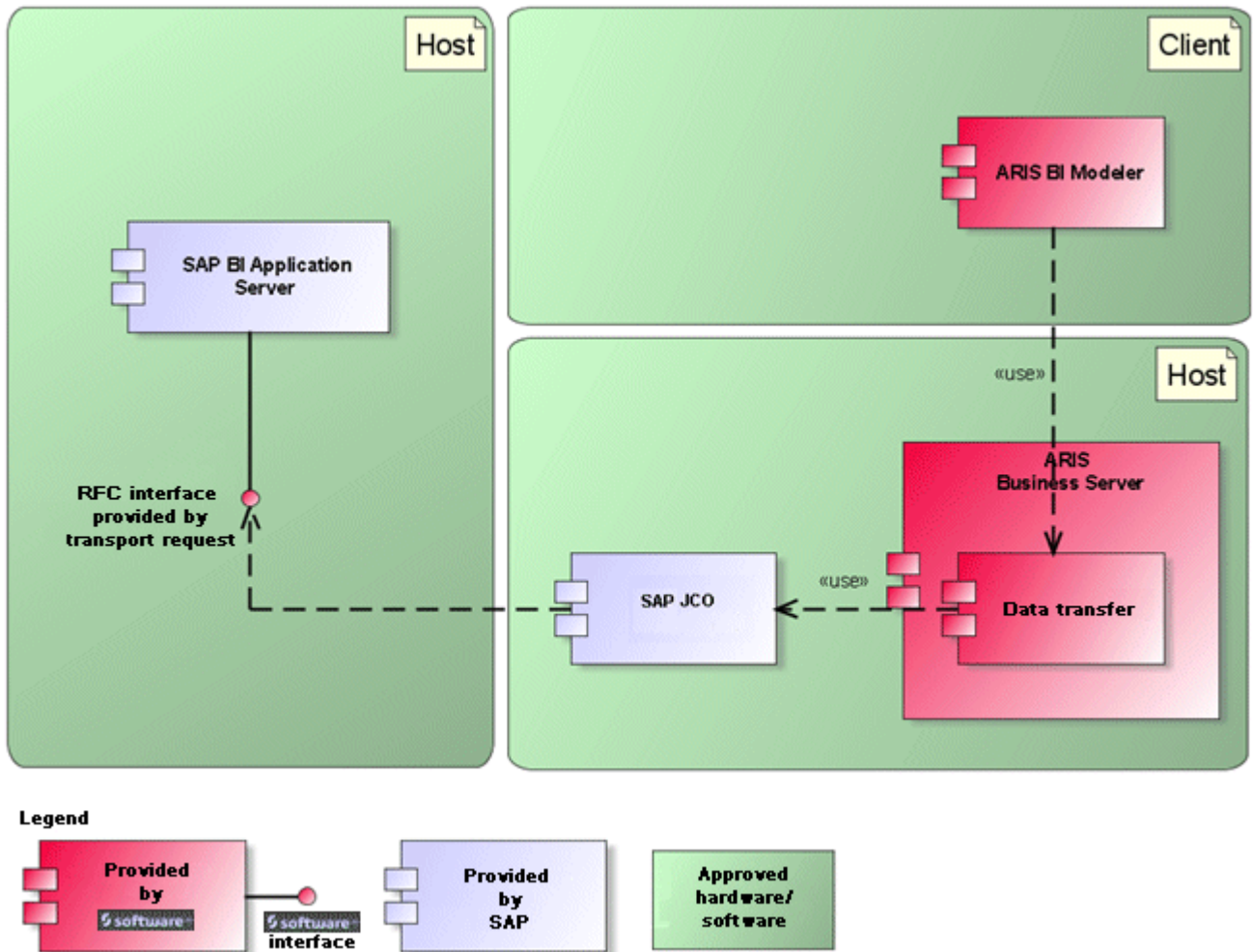


Figure 3: BI Modeling

The RFC interface to the SAP NetWeaver® Business Warehouse system includes only read access and consists of two parts. These parts are the API of the interface itself and a customizing table that shows which relationships between the BW items exist in order to extract them hierarchically. This way, new requirements of the BW items to be supported can be easily implemented through changes in the customizing table without the interface itself being affected. SAP NetWeaver® Business Warehouse systems from version 7.0 are supported.

2 SAP® system

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

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, you must import the current transport request in the SAP® system. You find the transport request on the installation media. 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.

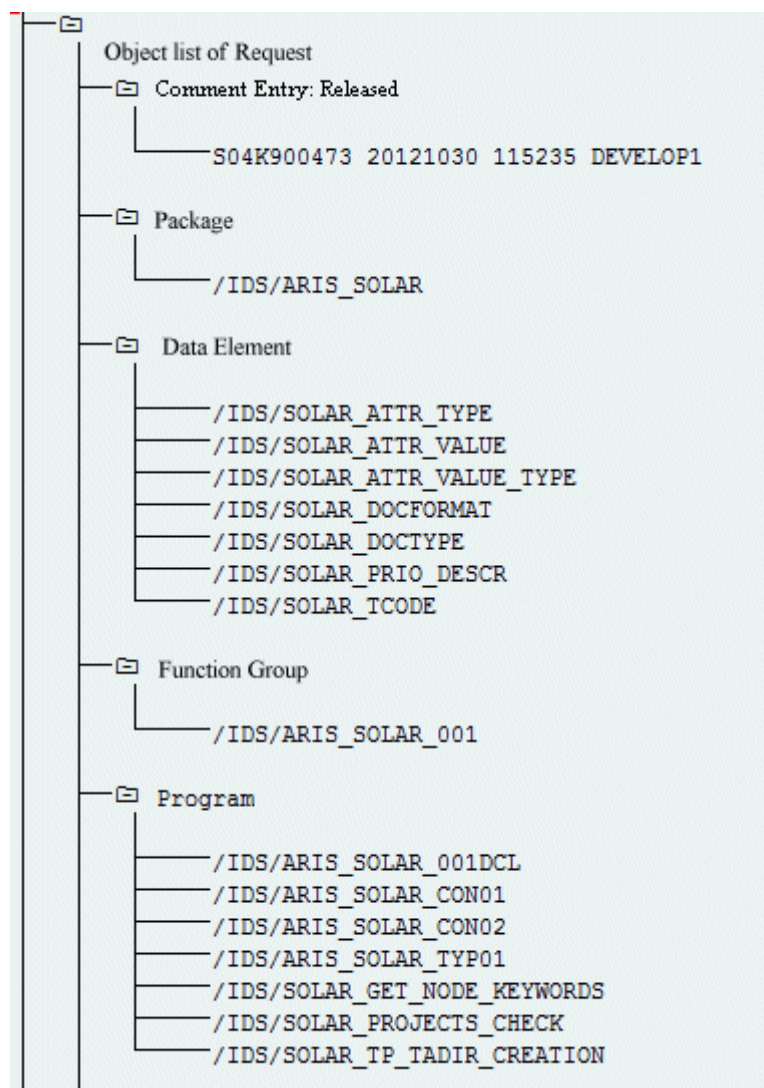


Figure 4: Transport request: SAP® synchronization (1)

The image shows a screenshot of a transport request for SAP synchronization. It is divided into two sections: 'Table' and 'Table Type'. Each section contains a list of objects with their full paths.

Category	Object Name
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_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 5: 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.

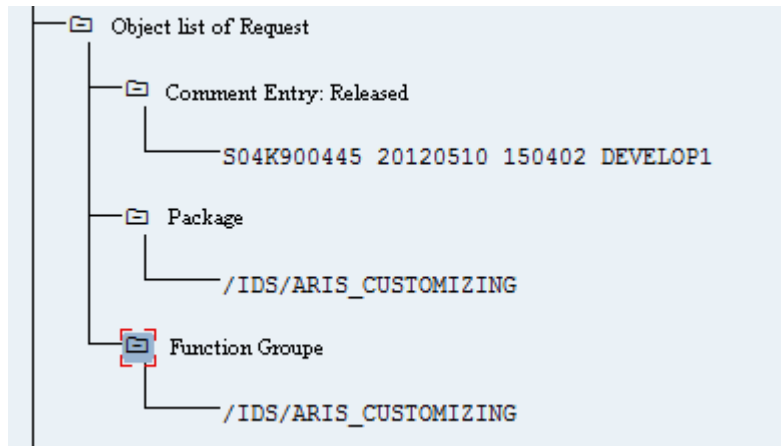


Figure 6: Transport request: Customizing

BI MODELING

To enable data exchange between **ARIS** and SAP NetWeaver® Business Warehouse, you must import the current transport requests into the SAP® system.

The files of the Workbench transport request are located on the installation media depending on the SAP NetWeaver® Business Warehouse version under **Add-ons\ARIS Architect extension pack SAP\ABAP\Business Intelligence\<Version>\workbench transport request**. The files of the Customizing transport request are located on the installation media under **Add-ons\ARIS Architect extension pack SAP\ABAP\Business Intelligence\<Version>\customizing transport request**.

If you reimport the transport request in order to update it, you should first delete the contents of the following tables:

- YARIS_OBJ_ZUO
- YARIS_OBJCHILDBZ
- YARIS_OBJOBJ_NM
- YARIS_OBJ_ATTR

The following objects are contained in the transport request.

Comment Entry: Released	CORR	RELE	I15K900806 20100423 131637 VPLA
Class (ABAP Objects)	R3TR	CLAS	YARIS_CL_RSRQ_TREE_ALV
Class (ABAP Objects)	R3TR	CLAS	ZCL_RSRQ_LOOKUP
Package	R3TR	DEVC	YARIS
Domain	R3TR	DOMA	YARIS_TYPE
Data Element	R3TR	DELE	YARIS_KEY
Data Element	R3TR	DELE	YARIS_KEY2
Data Element	R3TR	DELE	YARIS_QY_ROWNUM
Data Element	R3TR	DELE	YARIS_TYPE
Data Element	R3TR	DELE	Y_ARIS_QUERYNAME
Function Group	R3TR	FUGR	YARIS
Function Group	R3TR	FUGR	YARISQUERY
Function Group	R3TR	FUGR	YARIS_GEN
Table	R3TR	TABL	YARIS_APPL_COMP
Table	R3TR	TABL	YARIS_APPL_COMP_OBJ
Table	R3TR	TABL	YARIS_INFO_AREA
Table	R3TR	TABL	YARIS_INFO_AREA_OBJ
Table	R3TR	TABL	YARIS_LOG_SYS
Table	R3TR	TABL	YARIS_NODE
Table	R3TR	TABL	YARIS_OBJCHILDBZ
Table	R3TR	TABL	YARIS_OBJOBJ_NM
Table	R3TR	TABL	YARIS_OBJ_ATTR
Table	R3TR	TABL	YARIS_OBJ_ZUO
Table	R3TR	TABL	YARIS_QUERYSTRUC
Table	R3TR	TABL	YARIS_QUERY_PDF
Table Contents	R3TR	TABU	TDDAT
Table Contents	R3TR	TABU	TVDIR
Definition of a Maintenance and Transport Object	R3TR	TOBJ	YARIS_OBJCHILDBZS
Definition of a Maintenance and Transport Object	R3TR	TOBJ	YARIS_OBJOBJ_NMS
Definition of a Maintenance and Transport Object	R3TR	TOBJ	YARIS_OBJ_ATTRS
Definition of a Maintenance and Transport Object	R3TR	TOBJ	YARIS_OBJ_ZUOS
Table Type	R3TR	TTYP	YARIS_APPL_COMPT
Table Type	R3TR	TTYP	YARIS_INFO_AREAT
Table Type	R3TR	TTYP	YARIS_KEY_T
Table Type	R3TR	TTYP	YARIS_NODET
Table Type	R3TR	TTYP	YARIS_QUERYSTRUC_T
Table Type	R3TR	TTYP	YARIS_QUERY_PDF_T
Table Type	R3TR	TTYP	YARIS_SYSUUID_25_T
Table Type	R3TR	TTYP	YARIS_TT_RSOBJVERS
Table Type	R3TR	TTYP	Y_ARIS_QUERYNAME_T
Table Type	R3TR	TTYP	Y_ARIS_RSZCOMPID_T

Figure 7: Transport request: BI Modeling

2.2 Requirements and privileges in the SAP® system

To ensure that data is exchanged smoothly between ARIS and your SAP® systems, note the following:

- Ensure that the users have been created in the SAP® systems and have RFC privileges for the SAP® synchronization (Page 9) and BI Modeling (Page 11).
- Ensure that the SAP® ports **sapgw00 3300/tcp** and **sapdp00 3200/tcp** are enabled in the Windows file **Services** of the client computer (C:\Windows\system32/drivers/etc/). This ensured RFC access. Usually, these ports are automatically specified during SAP GUI installation.
- If you access via server groups (SAP® router) you need to manually enter the SAP® ports in consecutive order. The syntax for a port number is **3300** plus the **<SAP® system number>** being used. If, for example, the system number is **03**, you need to enter the port number **3303**. Entries that are not consecutive will be ignored.

2.2.1 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_RFACL** 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 8: Authorization object 'S_RFC'

VALUES FOR AUTHORIZATION OBJECT S_RFCACL

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

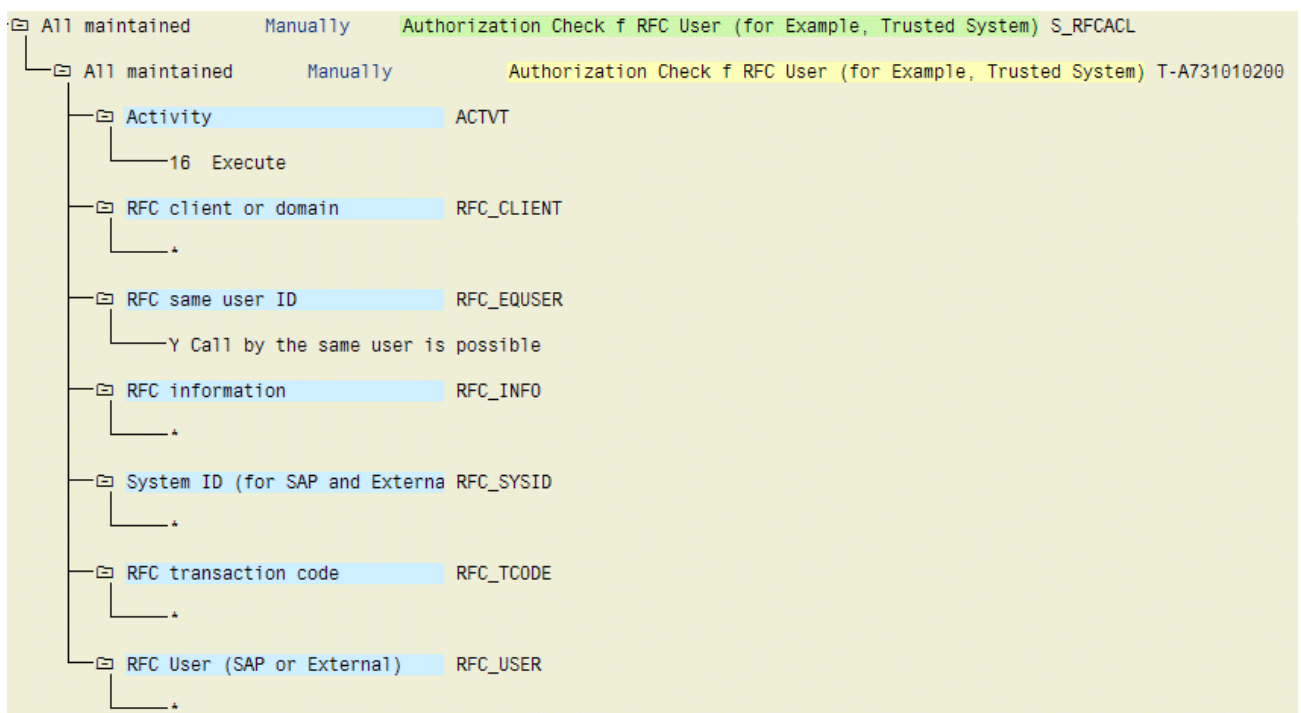


Figure 9: Authorization object 'S_RFCACL'

2.2.2 Privileges for BI Modeling

The following example of an SAP® profile is a basis for authorization.

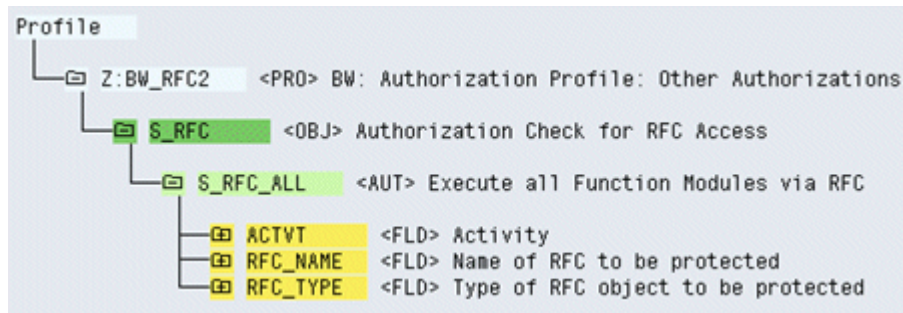


Figure 10: SAP® profile