9 software AG



ARIS FOR SAP SOLUTIONS

VERSION 10.0 - SERVICE RELEASE 10 October 2019

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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1 Text conventions

Menu items, file names, etc. are indicated in texts as follows:

- Menu items, key combinations, dialogs, file names, entries, etc. are displayed in bold.
- User-defined entries are shown as <bold text in angle brackets>.
- Example texts that are too long to fit on a single line, such as a long directory path, are wrapped to the next line by using → at the end of the line.
- File extracts are shown in this font format:
 - This paragraph contains a file extract.
- Warnings have a colored background:

Warning

This paragraph contains a warning.

2 ARIS for SAP Solutions

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

Depending on the features you provide and the SAP Solution Manager version in use, you must customize the system.

- If you use SAP Solution Manager 7.2 (page 3), you must configure the system regardless of the SAP Solution Manager version in use (page 4).
- If you use SAP Solution Manager 7.1, in addition to the version-independent configuration (page 4), you must configure the system accordingly (page 25).

2.1 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 no longer requires transport requests or **sapjco3.jar**. If the components are not available, users can run actions, such as **Run executable**, **Show blueprint**, and **Show configuration** (client), only using SAP Solution Manager 7.2.

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

If you want to provide ARIS for SAP features, you must configure them regardless of the SAP Solution Manager version that you use (page 4).

2.2 SAP Solution Manager 7.1 and 7.2

If you want to provide ARIS for SAP features, you must configure them regardless of the SAP Solution Manager version that you use:

- ARIS Connect (page 5)
- ARIS Publisher Server (page 24)
- ARIS Online Guide (page 11)

If you transfer data between ARIS and SAP Solution Manager, make sure to make log files available.

2.2.1 ARIS Connect

If you plan to use ARIS Online Guide (page 11) to make documents available across the company which were specially created for your business processes in the SAP® system during customizing, please make the database available as a portal using ARIS Connect and define an additional view (page 6).

2.2.1.1 Define a portal configuration set providing SAP content

In order to start executables and download SAP documents, or to have the ARIS Online Guide available, you must create an additional configuration set for the portal and publish the database as a portal.

You can create your own modification sets based on the classic configuration set, on the default configuration set or based on a user-defined configuration set. If you require further modification sets, please contact your local Software AG sales organization (http://www.softwareag.com).

Prerequisites

- You have the **Portal administrator** function privilege.
- You have the ARIS Connect Designer license privilege.
- You have the **Portal publisher** function privilege.
- You have access to the ARIS Connect installation directory.

Warning

Advanced configuration changes require the use of XML configuration. Please contact Software AG (https://empower.softwareag.com/) for a customization request or participate in the **742**-

xx ARIS Connect Portal Configuration training

(https://knowledge.softwareag.com/course/view.php?id=16). Please note that customization and training services are not covered by the standard Software AG software maintenance agreement. Configuration changes can only be performed by Software AG if you request and agree to them.

Errors in XML configuration may have serious impact. You may not be able to start ARIS Connect again.

Procedure

- 1. Copy and paste the directory you want to use as a basis for the new configuration set. This example is based on the **classic** configuration set:
 - <ARIS installation path>\server\bin\work\work_copernicus_<s, m, or l>\base\webapps\ROOT\WEB-INF\config\classic
- 2. Rename it to **Groupview_SAP**. Do not use spaces or any language-specific special characters. This directory name will be used automatically as configuration set name in all user interface languages.
- 3. Open the following XML file in an editor:
 - <ARIS installation path>\server\bin\work\work_copernicus_<s, m, or
 l>\base\webapps\ROOT\WEB-INF\config\Groupview_SAP\views\item.xml
- 4. Find the following entry that occurs multiple times in the file:
 - <!--Remove the following comments to enable SAP-Transactions-->

5. Uncomment the tags before and after the rows with the SAP-relevant content:

```
<!--SAP
...
SAP-->
```

- 6. Save the file.
- 7. Open the ARIS installation directory.
- 8. Copy and paste the directory that is to be used as a basis for the search in the new configuration set:

<ARIS installation path>\server\bin\\work_abs_<s, m, or l>\base\webapps\\abs\\WEB-INF\\config\\classic

Make sure to copy the directory name copied in **step 2**, as a basis for the new configuration set. In this example this is **classic**.

- 9. Rename the directory to **Groupview_SAP**. Make sure to use the same name as in **step 3**. Do not use spaces or any language-specific special characters.
- 10. Open the following XML file in an editor:

11. Find the following entry that occurs multiple times in the file:

```
<!--Remove the following comments to enable SAP-Transactions-->
```

12. Uncomment the tags before and after the rows with the SAP-relevant content:

```
<!--SAP
...
SAP-->
```

- 13. Save the file.
- 14. Open the following XML file in an editor:

```
\work_copernicus_<s, m, or I>\base\webapps\ROOT\WEB-INF\config\Groupview_SAP\factsheets\processViewDetails.xml
```

15. Find the following entry that occurs multiple times in the file:

```
<!--Remove the following comments to enable SAP-Transactions-->
```

16. Uncomment the tags before and after the rows with the SAP-relevant content:

```
<!--SAP
...
SAP-->
```

- 17. Save the file.
- 18. Load the current changes using the external link:

```
http://<server name><:port number, if different from default port>/#<tenant>/reloadConfig,
```

for example http://connectserver.eu.comp:1080/#default/reloadConfig

- 19. Log in as a system user.
- 20. Click **Reload and validate configuration files**. The changed configuration is validated. Results will be displayed on completion.

Groupview_SAP Groupview_SAP (modSet)

21. If the **Groupview_SAP** entries

are not

marked with the *** error** symbol, the new configuration set is configured properly and can be made available.

If errors were detected, resolve the logged problems and **Reload and validate configuration files** again. Any warnings about missing properties can be ignored.

22. Activate the **Groupview_SAP** configuration set via external link:

http://<server name><:port number, if different from default port>/#<tenant>/adminSettings

for example:

http://connectserver.eu.comp:1080/#default/adminSettings

You can also activate the **Groupview_SAP** configuration set within ARIS Connect.

In this configuration set, the functions Run SAP executable, Download SAP documents, and ARIS Online Guide are now available for published databases. If you are using HD server, define a portal configuration set providing SAP content also for the **hds** runnable as described for the **abs** runnable.

Ensure you are connected to SAP Solution Manager 7.2.

2.2.1.2 Select the View Providing SAP Content

Select the additionally created **classicSAP** view (page 6) to display portal data.

Prerequisite

- You own the ARIS Connect Designer license privilege.
- You have created additional views (page 6).
- You own the **Portal publisher** function privilege.

Procedure

- 1. Start ARIS Connect.
- 2. Click your name or the Luser menu icon.
- 3. Click Administration.
- Click Portal > Manage views on the Configuration tab. All available views are displayed. The current view is marked.
- 5. Move the mouse pointer over the additionally created view, for example, **classicSAP**.
- 6. Click **Activate**.

All of the databases selected for the portal are published in the **classicSAP** view.

2.2.1.3 Configure ARIS Online Guide

If the ARIS Online Guide is used for making documents that were created in the SAP ® system specially for your business processes available across the company, configure your custom settings to call the ARIS Online Guide.

Prerequisite

ARIS and the SAP® system have been configured for using the ARIS Online Guide.

Procedure

- 1. Log on to the SAP system.
- 2. Start the /n/IDS/AOG_USER executable. The ARIS Online Guide User-specific settings dialog opens.
- 3. Enable the Use ARIS Online Guide check box.
- 4. Select the **Connect** option to display the ARIS Online Guide in the portal in ARIS Connect.
- 5. If you also want to use the F1 help from the SAP system in addition to the ARIS Online Guide, enable the **Also show default help** check box.
- Enter the required connection data for ARIS Server and tenant on which the database was published as a portal. You administrator might already have specified default entries that you do not need to edit.

Base URL for Connect

URL for the relevant ARIS Server:

http://<server name>

Tenant

Tenant that manages the database published as a portal.

7. Save your changes.

The settings have been applied.

If you changed the default values set by your administrator and want to restore them, click **Restore defaults**.

2.2.1.4 Publish database in ARIS Connect portal (ARIS Online Guide)

If you plan to use ARIS Online Guide (page 11) to make documents available across the company which were specially created for your business processes in the SAP® system during customizing, please make the database available as a portal using ARIS Connect.

Prerequisite

- You own the ARIS Connect Designer license privilege.
- You own the **Portal publisher** function privilege.

Procedure

- 1. Start ARIS Connect.
- 2. Click your name or the **User menu** icon.
- 3. Click Administration.
- 4. Click **Portal > Publish** on the **Configuration** tab. All available databases are displayed.
- 5. Enable the check boxes of the databases you want to publish in the portal.
- 6. For versioned databases, select the version required.
- 7. Click Apply.

The content of the databases is published in the portal in the selected view. As long as the databases are available in the portal they cannot be deleted in ARIS.

2.2.2 ARIS Online Guide

SAP® system administrators can use ARIS Online Guide to make help on company-specific executables available for users of SAP systems alongside the standard **F1** help. For example, ARIS Online Guide gives you access to documents that were created during customizing or later to explain complex processes. You can either provide ARIS Online Guide via ARIS Connect or ARIS Publisher.

- If you plan to use ARIS Online Guide, you must publish your database as a process portal using ARIS Connect (see ARIS Connect online help page **Publish database as a process portal**).
- To provide ARIS Online Guide via ARIS Publisher please publish your database as a publisher export. ARIS Publisher Server must be configured (page 24).
- An executable version of the SAP GUI and an approved Web browser must be installed.

Once you have executed the client setup and made the created HTML documents available in the SAP system, your SAP system administrator must implement the executables <code>/n/IDS/AOG_ADMIN</code>, <code>/n/IDS/AOG_USER</code>, and <code>ZEXTHLP</code> in the SAP system and adapt the Web server.

To do so, please adjust the following:

- 1. Import required function modules (page 12).
- 2. Modify HELP_START in program **LSHL2U01** (page 14).
- 3. Specify settings (page 15).

2.2.2.1 Transfer function modules

A transport request is executed to import the required function modules. The current transport request is located on the installation medium in the ..\Add-ons\ARIS_Architect_extension_pack_SAP\ABAP**ARIS Online Guide** directory.

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 directory sapmnt normally 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 system, and run 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:

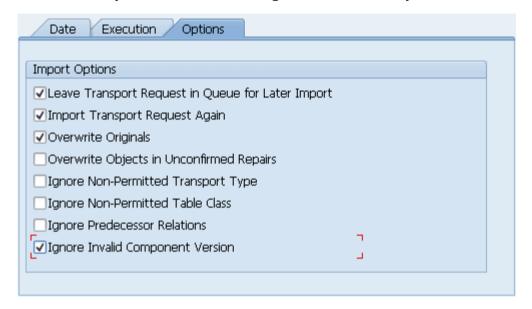
- a. TP addtobuffer <SAP system SID>K<number> [target system SID]
- b. TP import <SAP system SID>K<number> [client on target system]

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

Procedure

- 1. Log on to the relevant SAP system as a system administrator.
- 2. Execute transaction **STMS**. This takes you to the Transport Management System.
- 3. Click Import overview.
- 4. Double-click the relevant SAP 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.**



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

Then assign each of the transactions /n/IDS/AOG_ADMIN, /n/IDS/AOG_USER, and **ZEXTHLP** a new or existing authorization object.

If you create any new authorization objects, you must include them in suitable authorization profiles.

2.2.2.2 Modify HELP_START in program LSHL2U01

After you have imported the required function modules, you must modify the SAP standard function **HELP_START** in program **LSHL2U01**.

This will provide the F1 help call of ARIS Online Guide. To do this, you need a developer key and possibly an object key. You can obtain these keys via **OSS**.

Procedure

- 1. If required, log in to the relevant SAP system.
- 2. Execute executable SE37.

```
DATA: l error msg LIKE iwerrormsg. " DHB
 DATA: 1 action LIKE sy-xcode.
                                                       " *17i
 DATA: exit flg.
 DATA: save help info call LIKE help infos-call.
 DATA: ihelpinfo TYPE help info.
 DATA: lv_help_mode TYPE charl.
DATA: lv_window_name TYPE sydatar.
 DATA: a msqv1 LIKE help infos-msqv1,
      a msgv2 LIKE help infos-msgv2,
      a msgv3 LIKE help infos-msgv3,
      a msgv4 LIKE help infos-msgv4.
* help center
 DATA: 1 flag hc called TYPE as4flag.
                                                      "note 1135202
*---- CALL MODIFICATION ARIS Online Guide
 DATA: loaded TYPE c,
 bothhelp TYPE c.
 IF help infos-call CN 'TMV' AND help infos-call CO 'D' AND help infos-
object IS NOT INITIAL.
   CALL FUNCTION '/IDS/START ARIS ONLINE GUIDE'
    EXPORTING
                 = help infos-program
      i program
     IMPORTING
      e help loaded = loaded
      e both help = bothhelp.
   IF bothhelp NE 'X' AND loaded = 'X'.
    EXIT.
   ENDIF.
 ENDIF.
****** end of insertion *** *** ***
*} INSERT
---Additional code. ---
```

The F1 help call of ARIS Online Guide is available.

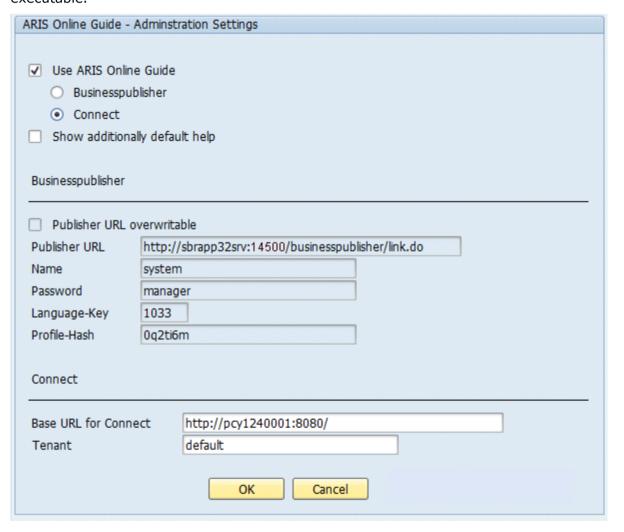
After you have imported support packages into the SAP system, this modification may be missing in some cases. The F1 help call of ARIS Online Guide is no longer available then. In this case, modify LSHL2U01 again.

2.2.2.3 Specify settings

Once you have imported the required function modules (page 12) and modified the SAP standard function **HELP_START** (page 14), you can use the executables /n/IDS/AOG_ADMIN (page 15) and /n/IDS/AOG_USER (page 18) to specify various settings for the ARIS Online Guide in the SAP® system.

2.2.2.3.1 Specify ARIS Online Guide Administrator Settings

To make ARIS Online Guide available, SAP system administrators use the /n/IDS/AOG_ADMIN executable to specify default settings that all users of the client can adopt. Users can specify their own settings (page 18) with the /n/IDS/AOG_USER executable.



- 1. If you plan to make only the help from ARIS Online Guide available to the above user, enable the **Use ARIS Online Guide** check box.
- 2. Select the ARIS Publisher option to provide ARIS Online Guide via ARIS Publisher.
- 3. Select Connect to make ARIS Online Guide available in the portal in ARIS Connect.
- 4. To provide user access to the ARIS Online Guide help in addition to the F1 help that is available in the SAP system by default, enable the **Show additionally default help** check box.

ARIS PUBLISHER SETTINGS

You can edit these properties if you have selected the **ARIS Publisher** option.

- 1. Enable the **Publisher URL overwritable** check box to authorize users to change the URL to the Publisher export.
- 2. Enter the required information to access the Publisher export that provides ARIS Online Guide.

Publisher URL

URL to access the published database:

http://<servername>:<port number>/businesspublisher/link.do

For example http://aris1:14500/businesspublisher/link.do

User name

User that is used for login to the Publisher export.

Password

Password of the user who is logging in.

Language-Key

Value of the **LocaleID** (page 20) key representing the interface language used in the Publisher export.

For example **1031** = German, **1033** = English

Profile-Hash

Value of the **ph** key representing the profile used in the Publisher export, for example, **Omhsu6i**.

To determine the values of **Profile-Hash** and **Language-Key**, open a model in the Publisher export, right-click and select **Copy link**.

 $http://publisherserver1:14500/businesspublisher/link.do?login=rkl&password=& \textbf{localeid}= \textbf{1031} \\ \text{ph}=\textbf{0mhsu6i} \\ \text{modelguid}=55165b80-30c6-11de-3712-00167669f3de}$

ARIS CONNECT SETTINGS

You can edit these properties if you have selected the **ARIS Connect** option.

Enter the required information to access the Portal that provides ARIS Online Guide. Users can change the URL and tenant.

Base URL for Connect

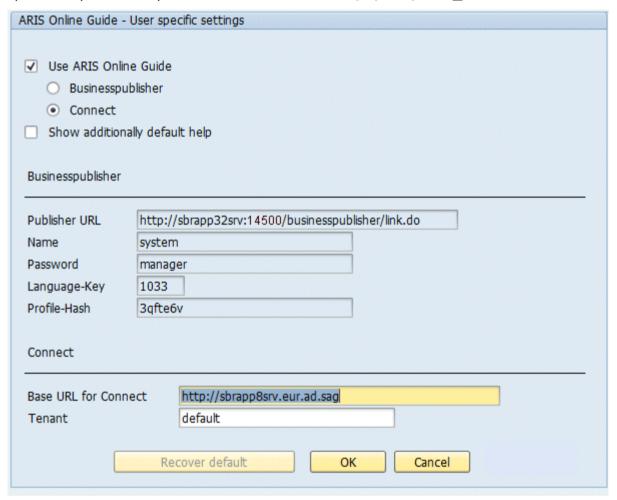
URL to access the relevant ARIS Server.

Tenant

Name of the tenant providing the Portal.

2.2.2.3.2 ARIS Online Guide User Settings

Any user of the client can use the **/n/IDS/AOG_USER** executable to customize the settings specified by the SAP system administrator with the **/n/IDS/AOG_ADMIN** executable.



- 1. If you plan to make only the help from ARIS Online Guide available to the above user, enable the **Use ARIS Online Guide** check box.
- 2. Select the **ARIS Publisher** option to provide ARIS Online Guide via ARIS Publisher.
- 3. Select **Connect** to make ARIS Online Guide available in the Portal in ARIS Connect.
- 4. To provide user access to the ARIS Online Guide help in addition to the F1 help that is available in the SAP system by default, enable the **Show additionally default help** check box.

ARIS PUBLISHER SETTINGS

You can edit these properties if you have selected the **ARIS Publisher** option.

Enter the required information to access the Publisher export that provides ARIS Online Guide.

Publisher URL

URL to access the published database:

http://<servername>:<port number>/businesspublisher/link.do

For example http://aris1:14500/businesspublisher/link.do

User name

User that is used for login to the Publisher export.

Password

Password of the user who is logging in.

Language-Key

Value of the **LocaleID** (page 20) key representing the interface language used in the Publisher export.

For example **1031** = German, **1033** = English

Profile-Hash

Value of the **ph** key representing the profile used in the Publisher export, for example, **Omhsu6i**.

To determine the values of **Profile-Hash** and **Language-Key** open a model in the Publisher export, right-click and select **Copy link**.

 $http://publisherserver1:14500/businesspublisher/link.do?login=rkl&password=& \textbf{localeid}= \textbf{1031} \\ \text{ph}=\textbf{0mhsu6i}\\ \text{kmodelguid}=55165b80-30c6-11de-3712-00167669f3de}$

ARIS CONNECT SETTINGS

You can edit these properties if you have selected the **ARIS Connect** option.

Enter the required information to access the Portal that provides ARIS Online Guide.

Base URL for Connect

URL to access the relevant ARIS Server:

http://<servername>

Tenant

Name of the tenant providing the Portal.

If you have changed the default settings that the system administrator specified and want to reactivate them, click **Restore default**.

2.2.2.3.3 F1 Help Settings

Any user of the client can use the **ZEXTHLP** executable to activate the ARIS Online Guide the next time F1 help is called.

If a user has executed this executable and presses the **F1** key, the ARIS Online Guide help is displayed with settings specified by using the **/n/IDS/AOG_ADMIN** and

/n/IDS/AOG_USER executables. If the user presses the **F1** key again, the standard F1 help of the SAP system is displayed again.

2.2.2.3.4 System language and locale IDs

The locale ID (LCID (http://msdn.microsoft.com/en-us/goglobal/bb964662.aspx)) designates a language within a language group.

Language groups and code page are also represented by a number, for example, code page=1252. The language group is preceded by a minus sign (-), for example, -1252.

Examples are listed in the table below. For more information please refer to:

http://msdn.microsoft.com/en-us/library/0h88fahh(VS.85).aspx

(http://msdn.microsoft.com/en-us/library/0h88fahh(VS.85).aspx).

System language	LCID
Afrikaans - South Africa	1078
Albanian - Albania	1052
Arabic - Algeria	5121
Arabic - Bahrain	15361
Arabic - Egypt	3073
Arabic - Iraq	2049
Arabic - Jordan	11265
Arabic - Kuwait	13313
Arabic - Lebanon	12289
Arabic - Libya	4097
Arabic - Morocco	6145
Arabic - Oman	8193
Arabic - Qatar	16385
Arabic - Saudi Arabia	1025
Arabic - Syria	10241
Arabic - Tunisia	7169
Arabic - U.A.E.	14337

System language	LCID
Arabic - Yemen	9217
Basque - Spain	1069
Belarusian - Belarus	1059
Bulgarian - Bulgaria	1026
Catalan - Spain	1027
Chinese - Hong Kong	3076
Chinese - PRC	2052
Chinese - Singapore	4100
Chinese - Taiwan	1028
Croatian - Croatia	1050
Czech - Czech Republic	1029
Danish - Denmark	1030
Dutch - Belgium	2067
Dutch - Netherlands	1043
English - Australia	3081
English - Belize	10249
English - Canada	4105
English - Caribbean	9225
English - Ireland	6153
English - Jamaica	8201
English - New Zealand	5129
English - South Africa	7177
English - Trinidad	11273
English - United Kingdom	2057
English - United States	1033
Estonian - Estonia	1061
Faeroese - Faeroe Islands	1080
Farsi - Iran	1065
Finnish - Finland	1035
French - Belgium	2060

System language	LCID
French - Canada	3084
French - France	1036
French - Luxembourg	5132
French - Switzerland	4108
German - Austria	3079
German - Germany	1031
German - Liechtenstein	5127
German - Luxembourg	4103
German - Switzerland	2055
Greek - Greece	1032
Hebrew - Israel	1037
Hungarian - Hungary	1038
Icelandic - Iceland	1039
Indonesian - Indonesia	1057
Italian - Italy	1040
Italian - Switzerland	2064
Japanese - Japan	1041
Korean - Korea	1042
Latvian - Latvia	1062
Lithuanian - Lithuania	1063
Norwegian - Norway (Bokmal)	1044
Norwegian - Norway (Nynorsk)	2068
Polish - Poland	1045
Portuguese - Brazil	1046
Portuguese - Portugal	2070
Romanian - Romania	1048
Russian - Russia	1049
Serbian - Serbia (Cyrillic)	3098
Serbian - Serbia (Latin)	2074
Slovak - Slovakia	1051

System language	LCID
Slovene - Slovenia	1060
Spanish - Argentina	11274
Spanish - Bolivia	16394
Spanish - Chile	13322
Spanish - Colombia	9226
Spanish - Costa Rica	5130
Spanish - Dominican Republic	7178
Spanish - Ecuador	12298
Spanish - El Salvador	17418
Spanish - Guatemala	4106
Spanish - Honduras	18442
Spanish - Mexico	2058
Spanish - Nicaragua	19466
Spanish - Panama	6154
Spanish - Paraguay	15370
Spanish - Peru	10250
Spanish - Puerto Rico	20490
Spanish - Spain (Modern Sort)	3082
Spanish - Spain (Traditional Sort)	1034
Spanish - Uruguay	14346
Spanish - Venezuela	8202
Swedish - Finland	2077
Swedish - Sweden	1053
Thai - Thailand	1054
Turkish - Turkey	1055
Ukrainian - Ukraine	1058
Vietnamese - Vietnam	1066

2.2.3 ARIS Publisher Server

If you use ARIS Publisher, make sure to configure the SAP connection.

Users accessing Publisher exports require a local SAP GUI for Windows installation (version **7.1** to **7.4**) for the functionality **Run executable**. Ensure that the file **SAPLOGON.INI** is available to all users. Using the Web service URL, you can open the SAP documentation without SAP GUI installation.

2.3 SAP Solution Manager 7.1

If you want to provide ARIS for SAP features, you must configure them regardless of the SAP Solution Manager version that you use (page 4).

If you still use SAP Solution Manager 7.1, you must configure the system:

- You must provide the SAP® Java Connector (sapjco3.jar) (page 26). This connector is used to create an RFC connection to the SAP system using SAP access parameters. For licensing reasons, it may not be installed automatically.
- When using installed clients and SAP Solution Manager 7.1, you must provide (page 29)
 SAP® Java Connector (sapjco3.jar) for locally installed clients.
- When using SAP synchronization and SAP Solution Manager 7.1, you must import the related transport request (page 32).
- When using customizing executables/views, you must import the related transport request (page 33).
- When transferring repositories and scenarios, you must activate Web services (page 35).

2.3.1 Provide SAP JCo for ARIS for SAP Solutions

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 no longer requires transport requests or **sapjco3.jar**. If the components are not available, users can run actions, such as **Run executable**, **Show blueprint**, and **Show configuration** (client), only using SAP Solution Manager 7.2.

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

If you use SAP Solution Manager 7.1 and the SAP® synchronization or Test Designer, you must provide SAP JCo 3.0.x containing **sapjco3.jar** and **sapjco3.dll** in order to allow the program to connect to the SAP® systems and provide all functions. For licensing reasons, files of SAP® JCo may not be automatically installed during installation.

The following procedure will automatically provide **sapjco3.jar** for ARIS Download Client and ARIS Server. Make sure that all users of ARIS Download Client copy the needed **sapjco3.dll** file (page 28) to their local machines. For installed clients (page 29) and the server **LOCAL** (page 30) the **sapjco3.jar** file and the **sapjco3.dll** file must be provided manually.

Procedure

- Download SAP JCo 3.0.x version appropriate for your operating system and for the runtime environment (JRE) used from the SAP Service Marketplace (http://service.sap.com/connectors). If you are using a different operating system please refer to the appropriate download package from SAP AG.
- 2. Save the zip file, for example, d:/sapjco3<number>.zip.
- 3. Start ARIS Cloud Controller (ACC).
 - ARIS Cloud Controller can be used in multiple modes.

To start ACC under a Windows operating system click **Start > All Programs > ARIS > Administration > Start ARIS Cloud Controller**. If you have changed agent user credentials you must enter the user name and/or the password.

To start ACC under a Linux operating system, execute the **acc10.sh** shell script instead. ACC is available if you have copied and installed the **aris10-acc-<number>** rpm file depending on the Linux operating system.

- 4. Stop the **abs** runnable: for example, enter stop **abs_m**.
- Provide sapjco3.jar for download clients and ARIS Server using this command:
 enhance abs_<s, m, or l> with webappsClasspath local file <path to the saved zip file>,

for example

enhance abs_m with webappsClasspath local file "d:\\sapjco3<number>.zip"
Notice the double backslashes. Alternatively, use single forward slashes, for example
"d:/sapjco3<number>.zip"

6. Start the runnable: for example, enter **start abs_m**.

sapjco3.jar will be available for download clients and ARIS Server. The source file can be deleted.

All users of download clients must copy the **sapjco3.dll** file (page 28). Please provide SAP® JCo for installed clients (page 29) or the server **LOCAL** (page 30) too.

After you have performed an update setup you need to enhance SAP JCo again. If you are using HD server, enhance JCO also for the **hds** runnable as described for the abs runnable.

2.3.2 Provide SAP JCo for ARIS Download Client

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 no longer requires transport requests or **sapjco3.jar**. If the components are not available, users can run actions, such as **Run executable**, **Show blueprint**, and **Show configuration** (client), only using SAP Solution Manager 7.2.

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

If you use SAP Solution Manager 7.1 and the SAP® synchronization or Test Designer, you must provide SAP JCo 3.0.x containing **sapjco3.jar** and **sapjco3.dll** in order to allow the program to connect to the SAP® systems and provide all functions. For licensing reasons, files of SAP® JCo may not be automatically installed during installation.

After the sapjco3.jar file was made available for ARIS Download Client and ARIS Server (page 26) all ARIS Download Client 's users must copy the sapjco3.dll file (page 28) to their local machines.

Procedure

- 1. Make sure that a 32-bit JRE version is installed and in use.
- 2. Download **SAP JCo 3.0.x** version appropriate for your operating system and for the runtime environment (JRE) used from the SAP Service Marketplace (http://service.sap.com/connectors). If you are using a different operating system please refer to the appropriate download package from SAP AG.
- 3. Copy the **sapjco3.dll** file next to the Windows operating system libraries. For information on the Windows operating system, refer to the table below.
- 4. Restart ARIS Download Client.

JCo and JRE	Windows	Processor	DLL	Windows installation directory
32-Bit	64-Bit	x86	sapjco3.dll	\SysWOW64
64-Bit*	64-Bit	x86	sapjco3.dll	\system32

^{*}Locally installed clients, such as ARIS Architect/ARIS Designer or ARIS UML Designer use a 32-Bit JRE.

2.3.3 Provide SAP JCo for locally installed clients

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 no longer requires transport requests or **sapico3.jar**. If the components are not available, users can run actions, such as **Run executable**, **Show blueprint**, and **Show configuration** (client), only using SAP Solution Manager 7.2.

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

If you use SAP Solution Manager 7.1 and the SAP® synchronization or Test Designer, you must provide SAP JCo 3.0.x containing **sapjco3.jar** and **sapjco3.dll** in order to allow the program to connect to the SAP® systems and provide all functions. For licensing reasons, files of SAP® JCo may not be automatically installed during installation.

Procedure

- Download SAP JCo 3.0.x version appropriate for your operating system and for the runtime environment (JRE) used from the SAP Service Marketplace (http://service.sap.com/connectors). If you are using a different operating system please refer to the appropriate download package from SAP AG.
- Copy the file sapjco3.dll next to the Windows system libraries. The ARIS client automatically installs the 32-bit JRE version.
 For information on JRE version and Windows system, refer to the table below.
- 3. Copy the sapjco3.jar file to the <ARIS installation directory>\client\lib directory.
- 4. Restart the ARIS client.

SAP® Jco 3.0.x is available for this installed client. If you intend to use it together with the locally installed server **LOCAL** the latter must be provided with the 64-bit version of the **sapjco3** file (page 30) as well.

JCo and JRE	Windows	Processor	DLL	Windows installation directory
32-Bit*	64-Bit	x86	sapjco3.dll	\SysWOW64

^{*}Locally installed clients, such as ARIS Architect/ARIS Designer or ARIS UML Designer use a 32-Bit JRE.

2.3.4 Provide SAPJco for server LOCAL

If you use SAP Solution Manager 7.1 and installed clients were the **sap Jco 3.0.x** 32-bit version is already available (page 29), and you intend to use them together with the locally installed server **LOCAL** the latter must be provided with the 64-bit version of the **sapjco3.jar** file as well.

For licensing reasons, files of SAP® JCo may not be automatically installed during installation.

Procedure

- 1. Stop the ARIS client.
- 2. Download **SAP® JCo 3.0.x** 64 bit version appropriate for your operating system and for the runtime environment (JRE) used from the SAP Service Marketplace (http://service.sap.com/connectors). If you are using a different operating system please refer to the appropriate download package from SAP AG.
- 3. Save the zip file.
- Extract the sapjco3.jar file to the <ARIS client installation directory>\LOCALSERVER\bin\work\work_abs_local\base\webapps\abs\WEB-INF\lib directory.
- 5. Copy the 64 bit version of the **sapjco3.dll** into the directory **<Windows installation directory>\system32**.
- 6. Start the ARIS client.

2.3.5 SAP Synchronization

SAP synchronization is available to you for data synchronization between **ARIS** and **SAP® Solution Manager** in both directions.

- If you want to run the SAP synchronization via **SAP® Solution Manager 7.2**, no transport request is needed. Only for data migration form SAP solution Manager 7.1 to SAP Solution Manager 7.2 the transport request for synchronization is mandatory.
- If you want to run the SAP synchronization via **SAP® Solution Manager 7.1**, you need access to the **saplogon.ini** file or the **SAPUILandscape.xml** file.
 - Ensure that the current transport request (page 32) has been imported in the **SAP® Solution Manager 7.1** system that you want to use for synchronization.
 - Ensure that the Web services (page 35) for the repository/scenario transfer are enabled in your **SAP® Solution Manager 7.1** system and properly configured.

2.3.5.1 Import transport request for SAP synchronization (SAP Solution Manager 7.1)

If you use SAP® Solution Manager 7.2, transport requests are no longer required.

To ensure that SAP® synchronization between **ARIS** and **SAP® Solution Manager 7.1** is available, your administrator must import (page 32) the current transport request into the SAP® system.

You find the transport request on the installation media (.../Addons/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

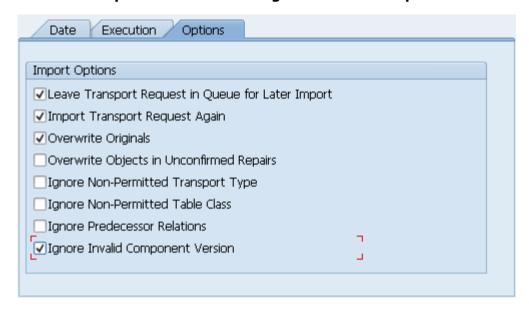
- 1. Copy the file **K<number>.<SAP system SID>** from the installation media to the directory **\sapmnt\trans\cofiles**.
- 2. Copy the file R<number>.<SAP system SID> from the installation media to the directory \sapmnt\trans\data. The sapmnt directory usually corresponds to the directory \usr\sap. 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**.



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

2.3.5.2 Import transport request for customizing (SAP Solution Manager 7.1)

If you use SAP® Solution Manager 7.2, transport requests are no longer required.

To be able to start customizing transactions and call customizing views from ARIS using **SAP® Solution Manager 7.1**, you must import the current transport request into the SAP system.
You find the transport request on the installation media. The function module **Z_VIEW_MAINTENANCE_CALL** is created in the function group **ZARIS**. This function group

is assigned to the development class /IDS/ARIS_ONLINE_GUIDE.

Procedure

- 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 directory **sapmnt** normally 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 in to the relevant SAP system, and run transaction **AL11**.

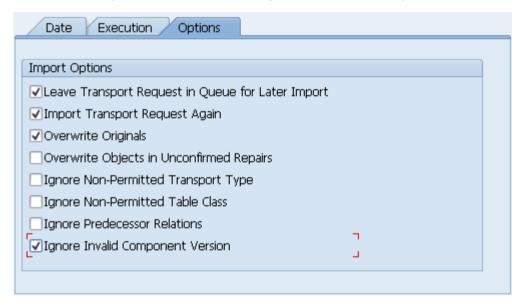
To transfer the transport request to the SAP system using the command line program **TP.EXE**, enter the following commands in the specified sequence:

- 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 system as a system administrator.
- 2. Execute transaction **STMS**. This takes you to the Transport Management System.
- 3. Click Import overview.
- 4. Double-click the relevant SAP 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.



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

2.3.5.3 Activate Web services (SAP Solution Manager 7.1)

To properly transfer repositories and scenarios from **SAP Solution Manager 7.1** to ARIS databases, you must enable Web services.

Web services are services that provide functions usually via the Internet protocol **http**. Web services are called via URL. A URL consists of a host, a port, and a path (URI) such as

http://solutionmanager:8000/sap/bc/solman/bpr?sap-client=100

SYNTAX

The host name could be **solutionmanager**, for example. The port number is **8000** and the path (URI) is **/sap/bc/solman/bpr**. The client is the SAP system client.

For SAP® Solution Manager 3.2, you need Support Package **06**. Additional information is available in the SAP® Service Marketplace.

Procedure

- 1. Start SAP® Solution Manager and call executable SICF.
- 2. Right-click **default_host > sap > bc > solman**, for example, and select **Enable service**. When the service is enabled, additional subgroups are visible.

Enabling reveals the URI of the Web service. In this case, it is <code>/sap/bc/solman/bpr</code>. The protocol type is <code>http</code>. If you right-click <code>bpr</code> and select <code>Display</code> <code>service</code>, the URI is displayed in the <code>ICF</code> <code>path</code> box and the protocol type on the <code>Service</code> <code>data/Security</code> <code>requirements</code> tab.

The **Default** option corresponds to the protocol type **http**, while the **SSL** option corresponds to the protocol type **https**. To use SSL, you need a valid certificate.

YOU CAN ALSO ADJUST THE URL WITH THE 'EXTERNAL ALIASES' FUNCTION

Procedure

- 1. Start SAP® Solution Manager, and call the **SICF** executable.
- 2. Click the **External aliases** button.
- 3. Select a host and create a new external alias (**F5**). You can adjust the path in the **External alias** box.
- 4. Activate the **Service data** tab. You can adjust the protocol type in the **Security requirements** box.
 - The **Default** option corresponds to the protocol type **http**, while the **SSL** option corresponds to the protocol type **https**. To use **SSL**, you need a valid certificate.
- 5. Activate the **Target item** tab. Select the **bpr** node for the Business Process Repository. The previous steps revealed the protocol type and the path of the Web service URL.
- 6. Call the **SMICM** executable to determine the port and host name. To list the available ports, click **Go to > Services** in the main menu.

All ports for the different protocol types are displayed. If a protocol is missing or inactive (**Active** column), inform your system administrator.

Use this information to form the URL.

3 Legal information

3.1 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 using the consulting services provided by Software AG, 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 describe only 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 Client	Refers to all programs that access shared databases by using ARIS Server.
ARIS Download Client	Refers to an ARIS Client that can be accessed using a browser.

3.2 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.

3.3 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 your product contains ARIS document storage, the following applies:

ARIS document storage was tested with 40.000 document items. This includes documents, document versions or folders. We recommend monitoring the number and overall size of stored document items and archiving some document items if needed.

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 regarding the use of process administration, ARIS Administration, ARIS document storage, and ARIS Process Board, and the generation of 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. This includes documents, document versions or folders. 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