



# **ARIS**

# UPDATE INSTALLATION GUIDE

Version 10.0 - Service Release 2

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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 Update installation

The update installation setup is available for ARIS 10 servers that have been installed by a setup program. So each ARIS server is installed on one machine (single-node installation).

ARIS Clients can be updated as described in the ARIS Client Installation Guide.

The ARIS Risk & Compliance Manager server update procedure is described in the ARIS Risk & Compliance Manager Installation Guide.

On Linux systems you must first update ARIS Cloud Controller (ACC) and ARIS Agent. Then perform an update setup (page 10).

All runnables will be updated. Using the standard database system or Microsoft SQL, the **default** tenant will be updated and migrated as well. All other tenant's system databases must be updated manually to get the most current script and method update. If the setup prompted to update your external Oracle database, you must run the **updatesystemmdb** command as well as the **updatesystem** command.

To update customized installations, e.g., multi-node systems, when an ARIS installation spans across several computers, please contact your local Software AG sales organization.

When you update or uninstall ARIS by an ARIS setup, the current installation will automatically be backed up. This process takes additional time and requires additional disk space while the setup is running. Make sure that the size of the free disk space is at least 15 GB larger than the folder size of the working directories <ARIS installation path>\server\bin\work (Windows®) or /home/ARIS10/cloudagent/work (Linux). The update will fail if there is insufficient free disk space. If the update process fails, all ARIS components will be rolled back automatically.

If you use an external database management system backup these systems before running an update setup. In case of a failed update you will be able to restore the external database systems, too.

Before updating backup all tenant's data (page 3) (see: **ARIS Cloud Controller Command-Line Tool.pdf**) and read the **ARIS Release Notes.pdf** for last-minute information which couldn't be included in this document anymore. All applicable documents can be installed locally (see **ARIS Client Installation Guide**), downloaded from Empower (<https://empower.softwareag.com/>), where a login is required, or downloaded from the ARIS Download Center ([aris.softwareag.com](https://aris.softwareag.com)).

### Restrictions

- In the highly unlikely event of running reports during an update, the system database might fail. Make sure to lock scheduled reports before starting the update.
- Use the **reconfigure** ACC command (see document **ARIS Cloud Controller (ACC) Command-Line Tool**) to change settings (see document **ARIS Cloud Controller (ACC) Command-Line Tool**).

If you have customized your ARIS Publisher Server manually by modifying **XML** and **CFG** files these modifications will be lost.

Save modified configuration files locally and document your modifications. After an update installation you can easily compare your saved file and copy the modified line into the updated configuration file.

- Deconfigure all manually added runnables.

If runnables were added manually, you will not be able to update this installation with an update setup. As the setup will recognize that the installation has been tampered with.

You can either update the installation manually (see **ARIS Update Cookbook**) or you can remove the added runnables with the ACC **deconfigure** command (see ACC help), then run the update setup and add and configure the runnables again.

- Make sure that no file in the installation directory is locked. Therefore, close all Command Prompts pointing into the ARIS installation folder.
- Make sure to exit ACC before running the update setup.
- Updating ARIS using Oracle as database management system:

If you are about to update your ARIS installation using an Oracle database you must upgrade your database schema first before starting the server. Otherwise your runtime environment and data might be harmed and the application may not work anymore.

To do so, use the files on your installation medium under

**Add-ons\DatabaseScripts\Design&ConnectServer\Oracle**. Base requirement for this configuration is a correctly configured **envset.bat**.

Execute the **cip\_update\_schema\_for\_tenant.bat** file for MS Windows operating system or **cip\_update\_schema\_for\_tenant.sh** file for a Unix operating system.

This has to be executed for each tenant separately.

You must update the default and the master tenant and all other tenants in use.

**cip\_update\_schema\_for\_tenant.bat** <master tenant schema> (mandatory), e. g.

**cip\_update\_schema\_for\_tenant.bat aris\_master**

**cip\_update\_schema\_for\_tenant.bat** <default tenant schema> (mandatory), e. g.

**cip\_update\_schema\_for\_tenant.bat aris\_default**

Call the file directly on a computer where an Oracle client is installed in the following syntax:

**cip\_update\_schema\_for\_tenant.bat** <tenant\_name>, e.g.

**cip\_update\_schema\_for\_tenant.bat aris\_default**

or

**cip\_update\_schema\_for\_tenant.bat myprojecttenant.**

- If the ARIS help link doesn't work anymore (404 error) after the update of a custom configuration, it can easily be fixed by modifying the **useraction\_default.xml** file (<ARIS installation directory>\server\bin\work\work\_copernicus\_<s, m or l>\base\webapps\ROOT\WEB-INF\config\<customization>\instances\UserAction\). In the help url e.g.:  
`/static/help/{locale}/handling/ca/index.htm#52910.htm`  
The **connect** directory is missing. Please add this folder, e.g.:  
`/static/help/{locale}/handling/connect/ca/index.htm#52910.htm`.

## 1.1 Back up and restore data

Before you perform an update installation (page 1), please make sure to save all tenant's important data before starting the setup process. Administrators can save tenant data in different ways.

- Using the Tenant Management tool is a way to backup and restore the infrastructure tenant (master) as well as all productive tenants.
- Using the ACC command **backup tenant** will save all important data of a specific tenant at once. Tenants can be restored using the **restore tenant** command.

If you use an external database management system please backup these systems before running an update setup. If the update process fails all ARIS runnables will be restored automatically. In case of a failed update you will be able to restore the ARIS content managed from the external database systems, too. It is recommended to make a backup of your ARIS related relational database management system.

You can also save data individually:

### DATABASE

In ARIS Architect on the **Administration** tab, using the  **Backup** functionality.

On the command line tool ARIS Server Administrator, using the **backup** or **backupasn** commands.

In ARIS Server Administrator, use the **backupsystemdb** command to backup filters, method, configuration, queries, report scripts, macros and semantic checks. Alternatively, you can backup the data mentioned before individually as follows.

### FILTER

On the **Administration** tab with the  **Export** function in the pop-up menu for a filter (individual backup).

### METHOD, CONFIGURATION, AND QUERIES


In ARIS Server Administrator, using the **backupsystemdb** command.

### REPORT SCRIPTS, MACROS AND SEMANTIC CHECKS

In ARIS Architect on the **Administration** tab with the function **Export** in the pop-up menu for a script (individual backup). If you have adapted standard scripts and standard files instead of copies the individual backup is mandatory. All standard scripts and standard files will be overwritten by an updated. Modifications will be lost.

In ARIS Server Administrator, using the **backupsystemdb** command.


## QUERIES AND AD HOC ANALYSES

In ARIS Architect on the **Administration** tab with the  **Back up analysis data** function .

When you perform an update installation, add languages, or uninstall a component, the relevant files and directories are backed up automatically. A selection of files is listed here to provide examples for server installations:

- <ARIS installation directory>\server\backup
- <ARIS installation directory>\server\data (saved databases after uninstallation)
- <ARIS installation directory>\server\sysconfig
- <ARIS installation directory>\server\templates

## PORTAL MODIFICATION SETS

You can backup the configurations that you configured via the graphical user interface in ARIS Administration on the **Configuration** tab with the  **Backup** function (Portal > Manage views).

## 1.2 Using the standard database system or Microsoft SQL Server®

To update the installed version run the most recent ARIS installation program.

When you update or uninstall ARIS by an ARIS setup, the current installation will automatically be backed up. This process takes additional time and requires additional disk space while the setup is running. Make sure that the size of the free disk space is at least 15 GB larger than the folder size of the working directories <ARIS installation path>\server\bin\work (Windows®) or /home/ARIS10/cloudagent/work (Linux). The update will fail if there is insufficient free disk space. If the update process fails, all ARIS components will be rolled back automatically.

### Restrictions

- If you update ARIS please make sure to exit ACC before running the update setup.
- During the update, you will in general need the following credentials:  
Username/password of the ARIS Agent (default values are **Clous/g3h31m**)  
The password of the **superuser** user (default: superuser), or alternatively, the password of a user with all functional privileges for each tenant.

### Procedure

1. Backup your Microsoft SQL database system.
2. Back up all tenants (page 3).
3. Make sure to have all runnables activated.
4. Exit ACC.
5. Start the update setup as the same administrator that has installed ARIS.
6. Enter the agent user's credentials.
7. Execute the **updatesystemmdb** command for all additional tenants.
8. For the use of Tenant Management user interface all operational tenants must be configured.  
Make sure to enter **superuser** in the **Impersonation target users** field again.

ARIS is up to date.

If the update process has failed all ARIS runnables will be restored automatically. Please restore your Microsoft SQL Database System using the backup performed in step 1.

Make sure to update locally installed clients, too.



## 1.3 Using an Oracle® database

To update the installed version run the current ARIS installation program.

When you update or uninstall ARIS by an ARIS setup, the current installation will automatically be backed up. This process takes additional time and requires additional disk space while the setup is running. Make sure that the size of the free disk space is at least 15 GB larger than the folder size of the working directories <ARIS installation path>\server\bin\work (Windows®) or /home/ARIS10/cloudagent/work (Linux). The update will fail if there is insufficient free disk space. If the update process fails, all ARIS components will be rolled back automatically.

### Prerequisites

- If you update ARIS please make sure to exit ACC before running the update setup.
- During the update, you will in general need the following credentials:
  - Username/password of the ARIS Agent (default values are **Clous/g3h31m**)
  - The password of the **superuser** user (default: superuser), or alternatively, the password of a system user with all functional privileges for each tenant.

### Procedure

1. Back up all tenants (page 3).

Process Governance backup archives greater than 2 GB might lead to insufficient TEMP space issue when restoring them into ARIS with Oracle back end. For such large backups, extend the temp tablespace size before restoring operation executed.

2. Backup (dump) your Oracle Database.
3. Make sure to have all runnables activated.
4. Start the update setup as the same administrator that has installed ARIS.
5. Enter the agent user's credentials.
6. Update the Oracle schemas for each tenant (page 7).

Before starting the server you must update your database schemas. Otherwise your runtime environment and data might be harmed and the application may not work anymore.

7. Execute the **updatesystemdb** command for all tenants. The default tenant's system database will not be updated automatically.
8. Execute the **updatesystem** command.
9. For the use of Tenant Management user interface all operational tenants must be configured. Make sure to enter **superuser** in the **Impersonation target users** field again.

ARIS is up to date.

Make sure to update locally installed clients, too.

### 1.3.1 Updating the Oracle® schema

This step is only needed if you are using the external DBMS Oracle in your installation.

#### Prerequisites

- Ensure that SQL\*PLUS is available.  
Therefore an ORACLE client or an ORACL server must be installed on the machine where the scripts are run.
- SQL scripts and all additional files. All scripts and files are located on the installation medium (DatabaseScripts\Oracle\Design&ConnectServer) or they can be downloaded from the ARIS Download Center (aris.softwareag.com).
- The **envset.bat** file that had been adjusted when ARIS was installed the first time.

#### Procedure

1. Start ARIS Cloud Controller (ACC) and enter the ARIS Agent's user credentials, if prompted.
2. Enter **stopall**.
3. Update the database schema for each tenant in your system. To do so prepare and execute the **cip\_update\_schema\_for\_tenant.bat** file for Microsoft® Windows® operating system or the **cip\_update\_schema\_for\_tenant.sh** file for Unix operating systems (ARIS DVD folder: Add-ons\DatabaseScripts\Design&ConnectServer\Oracle). Make sure to use the **envset.bat** file that had been adjusted when ARIS was installed the first time. This file contains all settings used by all configuration scripts.
4. If this file is not available, edit the **envset.bat** file (ARIS DVD folder: Add-ons\DatabaseScripts\Oracle\Design&ConnectServer) to specify the connection data of the Oracle instance again (page 8).
5. Identify the names of the schemas of all tenants that are used by the installation.  
If the schemas were originally created following the recommended naming convention, the schema names will look like:  
**aris\_<tenant\_ID>**, e.g. **aris\_default** and **aris\_master**.
6. If you do not know the schema name of a tenant, you can get it via the **list tenant <tenant\_ID> data for service db** ACC command, e. g. for **default** tenant schema:  
**list tenant default data for service db**  
The result of the command will show the **default** tenant's schema name **aris\_default**:

Key	Value
com.aris.cib.db.schema	aris_default
7. For each tenant's schema run the **cip\_update\_schema\_for\_tenant.bat** script with the schema name as parameter. Call the file directly on a computer where an Oracle client is installed, e.g. command for schema **aris\_default**:  
**cip\_update\_schema\_for\_tenant.bat aris\_default**
8. Update all other tenant's schemas. It is important that the schemas of all existing tenants are updated this way, even if the tenants are currently not used. This includes both **default** and **master** tenants.

The tenant's oracle schemas are up to date.

### 1.3.2 Editing the envset.bat file

When updating the oracle database schema for each tenant in your system (page 7), make sure to use the **envset.bat** file that had been adjusted when ARIS was installed the first time. This file contains all settings used by all configuration scripts.

If this file is not available, edit the **envset.bat** file (ARIS DVD folder:

Add-ons\DatabaseScripts\Oracle\Design&ConnectServer) to specify the connection data of the Oracle instance again.

#### Prerequisites

You need to know the highlighted values to be adjusted, e.g. path to the **sqlplus.exe** file, the port number, the database/service name of the database instance and also the credentials, i.e., the user name and the password of the application user.

#### Procedure

1. Edit the **envset.bat** file and adjust the following lines replacing the **highlighted** parameters with the settings appropriate for your environment:

REM The path to where sqlplus.exe can be found.

SET CIP\_ORA\_BIN\_PATH=<enter the path>

REM hostname, port and service name

SET TARGET\_HOST=**localhost**

SET TARGET\_PORT=**1521**

SET TARGET\_SERVICE\_NAME=**ARIS**

2. Edit the following lines to change the **highlighted** credentials of the application user:

REM credentials of the user that is used by the application.

SET CIP\_APP\_USER=**ARIS10**

SET CIP\_APP\_PWD=**\*ARIS!1dm9n#**

REM password of the tenant schemas.

SET CIP\_TENANT\_SCHEMA\_PWD=**\*ARIS!1dm9n#yy**

3. With the next two lines you specify the DBA user you intend to use to create the application user and this DBA user's password:

REM credentials of the Oracle user that will be used to create the application schema.

REM Note that this user must be endowed with DBA privileges such as user SYSTEM.

SET CIP\_INSTALL\_USER=**system**

SET CIP\_INSTALL\_PWD=**manager**

4. If your data tablespace name is different from **ARISDATA** respectively **TEMP** for temp tablespace, you will also need to modify these highlighted parameters accordingly:

REM tablespace name of the tablespace in which the data of the application schema should be stored.

SET CIP\_TS\_DATA=**ARISDATA**

REM name of the temporary tablespace.

SET CIP\_TS\_TEMP=**TEMP**

After you have saved the changes you can run the **cip\_update\_schema\_for\_tenant.bat** script for each tenant (page 7).

## 1.4 Updating ARIS Publisher Server

To update the installed version run the current ARIS installation program.

### Procedure

1. Save modified configuration files locally, if you have customized your ARIS Publisher Server manually by modifying **XML** and **CFG** files. These modifications will be lost after the update. When you update ARIS Publisher Server by an ARIS setup, the current installation will automatically be backed up.
2. Make sure to have all runnables activated.
3. Start the **setup.exe** as the same administrator that has installed this ARIS Publisher Server. The runnables will be stopped. After the system has been updated all runnables will be started automatically.
4. If you have customized your system in a way that these modifications have been lost after the update please compare the affected **CFG** and **XML** files and copy the modified lines into the updated files.

After you have updated the ARIS Publisher Server you must import the ARIS Publisher Server license again. The user authentication must be handled by the administration.

You may change the standard database connection parameters. You can adjust all parameters that have been entered during the setup process. For some functionalities and extension packs, e.g. ARIS Publisher/IT Inventory or Process-Driven Management for SAP® Solutions you must customize ARIS depending on the functionality to be provided.

To obtain information on additional settings required please refer to the related documents in the **Administration** folder on DVD. Documents can also be downloaded from Empower (<https://empower.softwareag.com/>), where a login is required, or from the ARIS Download Center ([aris.softwareag.com](https://aris.softwareag.com/)).

## 1.5 Updating Linux installation

To update one ARIS version to the next you must update ARIS Cloud Controller (ACC) and the ARIS Agent. After ACC and ARIS Agent are up to date, you must run the update setup remotely from a Windows machine.

### Prerequisites

Make sure to copy the new installer package to the Linux system's hard drive that fits to your system:

#### ARIS Cloud Controller (ACC)

`aris10-acc-<version>-1.x86_64.rpm`

#### Red Hat

`aris10-cloud-agent-<version>.x86_64.rpm`

#### SUSE

`aris10-cloud-agent-SLES<version>.x86_64.rpm`

### Procedure

1. Start ARIS Cloud Controller (ACC).
2. Make sure to have all runnables activated.
3. Stop all runnables (stopall).
4. To update ACC, run the command:  
**`rpm -Uvh aris10-acc-<version>-1.x86_64.rpm`**
5. When ACC is updated, run the commands depending on the Linux operating system.

- a. Using **Red Hat**, run:

**`rpm -Uvh aris10-cloud-agent-<version>.x86_64.rpm`**

- b. Using **SUSE**, run:

**`rpm -Uvh aris10-cloud-agent-SLES<version>.x86_64.rpm`**

Due to changed paths warnings are logged. These warnings can be ignored, e.g.:

```
Cleaning up / removing...
2:aris10-cloud-agent-10.0.1.1168090warning: file /home/ARIS10/support.xml:
remove failed: No such file or directory
warning: file /home/ARIS10/jre/plugin/desktop/sun_java.png: remove failed: No
such file or directory
...
```

6. Remove the package **`apr<version>`**, enter, e.g.:

**`rpm -e apr-1.4.8-3.el7.x86_64`**

7. Start ARIS Agent, enter:  
**`service ArisCloudagent10 start`**
8. Start all runnables (startall).
9. Start the update setup remotely from a Windows machine. Start the update setup (using Oracle (page 7) or the standard database system) as the same administrator that has installed ARIS.

10. Select the **Perform installation on a remote computer** option and enter the name of the remote server.
11. If you have changed the remote access credentials you must enter the new credentials using the **Enter changed credentials** option. Once after the installation process is completed configure the system (see: **ARIS Cloud Controller (ACC).pdf**) Once after the installation process is completed configure the system.
12. For the use of Tenant Management user interface all operational tenants must be configured. Make sure to enter **superuser** in the **Impersonation target users** field again.

## 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.