



# ARIS

# DATA MIGRATION GUIDE

Version 10.0 - Service Release 1

© 2018

Document content not changed since release 10.0.4. It applies to version 10.0.5 without changes.

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

Copyright © 2010 - 2018 Software AG, Darmstadt, Germany and/or Software AG USA Inc., Reston, VA, USA, and/or its subsidiaries and/or its affiliates and/or their licensors.

The name Software AG and all Software AG product names are either trademarks or registered trademarks of Software AG and/or Software AG USA Inc. and/or its subsidiaries and/or its affiliates and/or their licensors. Other company and product names mentioned herein may be trademarks of their respective owners.

Detailed information on trademarks and patents owned by Software AG and/or its subsidiaries is located at <http://softwareag.com/licenses> (<http://softwareag.com/licenses>).

Use of this software is subject to adherence to Software AG's licensing conditions and terms. These terms are part of the product documentation, located at <http://softwareag.com/licenses> (<http://softwareag.com/licenses>) and/or in the root installation directory of the licensed product(s).

This software may include portions of third-party products. For third-party copyright notices, license terms, additional rights or restrictions, please refer to "License Texts, Copyright Notices and Disclaimers of Third Party Products". For certain specific third-party license restrictions, please refer to section E of the Legal Notices available under "License Terms and Conditions for Use of Software AG Products / Copyright and Trademark Notices of Software AG Products". These documents are part of the product documentation, located at <http://softwareag.com/licenses> (<http://softwareag.com/licenses>) and/or in the root installation directory of the licensed product(s).

## Contents

1	General notices .....	1
2	Disclaimer .....	2
3	Text conventions .....	3
4	Data Migration from ARIS 9.8.7 or later to ARIS 10 .....	4
4.1	What affects the migration time? .....	6
4.2	Migrating all tenant data .....	7
4.3	Migrating tenant data holding large databases .....	10
4.4	Migrate large databases manually .....	13
4.5	Optimize versioned databases .....	15
4.6	Reconfigure load balancer port .....	16
4.7	Change passwords on tenants .....	16
4.8	How to modify ARIS document storage links .....	17
4.9	How to migrate ARIS Connect portal views and configuration sets .....	18
4.9.1	Save ARIS Connect modification sets .....	19
4.9.2	Restore ARIS Connect modification sets .....	19
4.10	How to back up data manually .....	20
5	Glossary .....	21
6	Support .....	31

## 1 General notices

This manual describes the settings and features as they were at the time of print.

- The migration procedure assumes a basic ARIS 10 installation running on a separate computer. If your ARIS 9 Server is not addressed via DNS alias name and the ARIS 10 server is addressed via a different name as the ARIS 9 server, a new SSL certificate is needed matching the new server name.
- During migration the User Management configuration data, for example, Kerberos settings, will be overwritten by ARIS9.8.7 (or later) data. These settings must be checked or specified again in ARIS 10 after migration is completed.
- Refer to additional documents on DVD, ARIS Download Center ([aris.softwareag.com](http://aris.softwareag.com)) or Empower (<https://empower.softwareag.com/>).
- In general, it is advisable to use up-to-date hardware taking into account the number of users who will be accessing the ARIS.
- 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, please contact your local Software AG sales organization. Please note that this type of manufacturer-specific or customer-specific change is not subject to the standard Software AG software maintenance agreement and that these changes can only be performed if you requested and agreed on them.
- Please consider the legal notices (<http://softwareag.com/licenses>).

## 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, for example, 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 archiving some documents if needed.

### 3 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 **<in bold and in angle brackets>**.
- Single-line example texts (for example, a long directory path that covers several lines due to a lack of space) are separated by ↵ 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.

## 4 Data Migration from ARIS 9.8.7 or later to ARIS 10

Use the **backup tenant** and **restore tenant** ARIS Cloud Controller (ACC) commands to migrate data from ARIS 9.8.7 or later versions to ARIS 10.x. If you back up tenants, the current state of the following data is saved in different folders in the tenant backup archive file.

Tenant data is fully backed up only if the user executing the commands has sufficient privileges for all components in every tenant.

Backup/restore	Required function privileges	Component (runnable)
Data from ARIS Administration, for example, users, privileges,	User administrator Technical configuration administrator	ARIS Administration/User Management (umcadmin_<s, m, or l>)
Licenses User administration audit events are not part of the tenant backup.	License administrator	
System database Contains filters, templates, and font formats, but also ARIS Method and all evaluation scripts, macros and scheduled reports.	Server administrator	Modeling & Publishing (abs_<s, m, or l>)
ARIS databases	Database administrator	
Ad hoc analyses and queries	Analysis administrator	Analysis (octopus_<s, m, or l>)
ARIS document storage data Documents and access privileges	Document administrator Technical configuration administrator	ARIS document storage (adsadmin_<s, m, or l>)
Process Governance data	Process Governance administrator	Process Governance (apg_<s, m, or l>)
Collaboration data	Collaboration administrator	Collaboration (ecp_<s, m, or l>)

Data from the Tenant management tool will not be migrated.

## MIGRATION SCENARIOS

In order to achieve predictable migration time (page 6) you need to check the size of tenant data, and choose the likely migration scenario.

- Migrating tenants where the sum of databases is smaller than 3 GB (page 7)  
Just backup tenants in ARIS 9 and restore them on the ARIS 10 installation on a different computer. If ARIS Connect (page 18) was customized or ARIS Publisher still is in use, after migration you must perform some additional steps. Make sure to add required extensions again.
- Migrating tenants where the sum of all databases is bigger than 3 GB (page 10)  
In order to achieve a predictable migration time and smaller tenant backup files, exclude all ARIS databases from the tenant backup. Thus, you can start the database migration separately. (page 13) If ARIS Connect (page 18) was customized or ARIS Publisher still is in use, after migration you must perform some additional steps. Make sure to add required extensions again.
- Migrating ARIS Connect modification sets and configuration sets manually (page 18)  
You must backup portal views and restore them as modification sets if in ARIS 9 portal views were added or changed. Customized configurations must be adapted on file level.
- Migrating ARIS Publisher  
There is no way of migrating exports. You must export your migrated database content using ARIS Publisher 10.
- Migrating ARIS Risk & Compliance Manager  
For this migration scenario please refer to the **ARIS Risk & Compliance Manager Data Migration for customized data**.
- Migrating ARIS Client with server LOCAL.  
Migrate these data manually using ARIS Architect.

Software AG recommends that you request a migration service by Global Consulting Services. You can order that service from your Software AG sales representative.



## 4.1 What affects the migration time?

In order to forecast migration time, you have to take several influencing factors into account:

- Hardware performance.

Hardware requirements must be fulfilled according to the ARIS System Requirements (see **ARIS System Requirements.pdf** on DVD, ARIS Download Center ([aris.softwareag.com](http://aris.softwareag.com)) or Empower (<https://empower.softwareag.com/>))

- The size of the tenant backup archive.

When backing up tenant data, all data is saved in one tenant archive file. It is plain to see, the bigger the file the longer migration will take.

The time needed for restoring an ARIS database in ARIS 9 can be roughly multiplied by 1.5 up to 3 in ARIS 10. If this takes, for example, 30 minutes, migration can take from 45 to 90 minutes. If the size of all ARIS databases together is bigger than 3 GB, the **restore tenant** action can take longer than 24 hours. This large size can occur because of a high number of databases, documents stored in ARIS document storage. In this case migrate tenant data having all databases excluded (page 10), and migrate the databases manually (page 13).

## 4.2 Migrating all tenant data

Use the **backup tenant** and **restore tenant** ARIS Cloud Controller (ACC) commands to migrate data from ARIS 9.8.7 or later versions to ARIS 10.x.

If all databases together are bigger than 3 GB migrate tenants without databases (page 10) instead.

### Warning

Tenant data is fully backed up only if the user executing the commands has sufficient privileges for all components in every tenant.

User administration audit events are not part of the tenant backup.

Extensions, for example, SSL certificates, SAP® Java Connector, and JDBC drivers, added using the **enhance** ACC command are not backed up.

### Prerequisites

- ARIS 9 installation (source system) to make backups. You need the agent user credentials to start ACC. Rename ARIS document storage folder names before backing up for migration if the names contain special characters, for example, quotation marks ".
- ARIS 10, installed and configured on a second machine.
- You have access to the **United Motor Group** database on the ARIS 10 DVD.
- In the unlikely event of migration failure, it is a good advice to collect all log files in ARIS 9.8.7 or later (see **ARIS Logging.pdf** on DVD, ARIS Download Center ([aris.softwareag.com](http://aris.softwareag.com)) or Empower (<https://empower.softwareag.com/>)).

### Procedure

1. In each of your ARIS 9 tenants, check the **system** user's functional privileges. The **system** user has all required privileges by default, unless an administrator revoked the privileges:
  - Analysis administrator
  - Collaboration administrator
  - Document administrator
  - Database administrator
  - License administrator
  - Process Governance administrator
  - Server administrator
  - Technical configuration administratorOnly use the **system** user account to start the tenant backup with.
2. Rename the ARIS 9 **United Motor Group** example database to avoid name conflicts with the ARIS 10 example database.

3. Start ARIS Cloud Controller (ACC) on the **ARIS 9** system.

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 password.

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

Enter **help** or **help <command>** to get information about the usage of the commands.

4. Reconfigure load balancer ports (page 16). This will prevent users to log on. User access is rejected due to changed ports.
5. Check Processboard to make sure that no Process Governance processes are running when starting the backup.
6. Run the following ACC command to include all ARIS Connect Server runnables in the tenant backup archive:

**set acc config backup.restore.tenant.app.types = UMC, ABS, ADS, ECP, OCT, APG**

If you use an ARIS Design Server, the command is:

**set acc config backup.restore.tenant.app.types = UMC, ABS, ADS,OCT, APG.**

In ARIS 10 all started runnables are automatically taken into account when executing tenant backup/restore commands.

7. Back-up all tenants after another, except the **master** tenant. Enter these ACC commands:

**list tenants**

All tenants to be backed-up are listed.

**backup tenant <tenant name> to <pathToBackUpFile> username=<user name of a user holding the required privileges> password=<this user's password>**

e. g:

**backup tenant default to "D:\\backupARIS9\\default.zip" username=system password=manager**

**backup tenant custom1 to "D:\\backupARIS9\\custom1.zip" username=system password=manager**

Notice the double backslashes. Alternatively, use a single forward slash (/).

The backup is started. Each backup is written to one single archive file.

8. Check the archive files when completed. You can open the archive, for example, with WinZip® or 7zip. Make sure that there are subfolders for each runnable, containing all relevant data. In case of ARIS Connect, there must be 5 subfolders. ARIS Design Server only creates 4 subfolders.

9. Migrate the tenant data by starting ACC on the **ARIS 10** system. Enter:

**restore tenant <tenant name> from <pathToBackupFile> username=<user name of a user holding the required privileges> password=<user password>**

Example:

**restore tenant default from "D:\\backupARIS10\\default.zip" username=system password=manager**

All additional tenants must be created before you can restore them. If you use an external database management system, make sure to have created schemes and have assigned them to those tenants (see ARIS Server Installation Guide (../../documents/3 Installation/31 Initial installation/312 Server/3121 Basic (Single node)/ARIS Server Installation - Windows.pdf)).

#### **create tenant custom1**

This command is mandatory for all additional tenants. Tenants can only be restored if they exist already. The **master** tenant and the **default** tenant are installed by default.

**restore tenant custom1 from "D:\\backupARIS10\\custom1.zip" username=system password=manager.**

10. If ARIS Connect (page 18) was customized or ARIS Publisher still is in use, after migration you must perform some additional steps. Make sure to add required extensions again.
11. Restore the **United Motor Group** database from DVD. This will make new content available mandatory for dashboards (ARIS Aware).
12. Restart all runnables (enter **stopall** and **startall**) and check the status (Enter **List tenants**). All data of the backup files are now restored on the ARIS 10 Server. The system databases are updated automatically.

If versioned databases were included, only the workspace content is optimized. You are recommended to optimize the change lists of versioned databases as well. To do so use the **prepareoptimizedb** ARIS Server Administrator command (page 15).

If ARIS document storage is in use, all migrated databases must be processed by a report (page 13).

The default user accounts are automatically reset to their default values. To prevent unauthorized access to the ARIS system, after installation or data migration, always change the passwords of the **arisservice** user, the **guest** user, the **system** user and the **superuser** user on all operational tenants (page 16), as well as on the infrastructure tenant (master).

If you are going to use ARIS Tenant Management Tool, in ARIS 10 make sure to configure the component and create schedules again (see **ARIS Tenant Management.pdf** or online help).

## 4.3 Migrating tenant data holding large databases

In order to achieve a predictable migration time and smaller tenant backup files, exclude all ARIS databases from the tenant backup. Thus, you can start the database migration separately. (page 13)

### Warning

Tenant data is fully backed up only if the user executing the commands has sufficient privileges for all components in every tenant.

User administration audit events are not part of the tenant backup.

Extensions, for example, SSL certificates, SAP® Java Connector, and JDBC drivers, added using the **enhance** ACC command are not backed up.

### Prerequisites

- ARIS 9 installation (source system) to make backups. You need the agent user credentials to start ACC. Rename ARIS document storage folder names before backing up for migration if the names contain special characters, for example, quotation marks " .
- ARIS 10, installed and configured on a second machine.
- You have access to the **United Motor Group** database on the ARIS 10 DVD.
- In the unlikely event of migration failure, it is a good advice to collect all log files in ARIS 9.8.7 or later (see **ARIS Logging.pdf** on DVD, ARIS Download Center (aris.softwareag.com) or Empower (<https://empower.softwareag.com/>)).

### Procedure

1. In each of your ARIS 9 tenants, check the **system** user's functional privileges. If not revoked by an administrator, the **system** user has all required privileges by default:
  - Analysis administrator
  - Collaboration administrator
  - Document administrator
  - Database administrator
  - License administrator
  - Process Governance administrator
  - Server administrator
  - Technical configuration administrator

Only use the **system** user account to start the tenant backup with.

2. Rename the ARIS 9 **United Motor Group** example database to avoid name conflicts with the ARIS 10 example database.
3. Start ARIS Cloud Controller (ACC) on the **ARIS 9** system.

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 password.

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

4. Enter **help** or **help <command>** to get information about the usage of the commands.
5. Exclude the **ABS** runnable from being backed up. If you back-up data from ARIS Connect, enter:

```
set acc config backup.restore.tenant.app.types = UMC, ADS, ECP, OCT, APG
```

If you use an ARIS Design Server, the command is:

```
set acc config backup.restore.tenant.app.types = UMC, ADS,OCT, APG
```

These commands exclude all databases from the backup. All data from the listed runnables will be saved.

6. Reconfigure load balancer ports (page 16). This will prevent users to log on. User access is rejected due to changed ports.
7. Check Processboard to make sure that no Process Governance processes are running when starting the backup.
8. Back-up all tenants after another, except the **master** tenant. Enter these ACC commands:

```
list tenants
```

All tenants to be backed-up are listed.

```
backup tenant <tenant name> to <pathToBackUpFile> username=<user name of a user holding the required privileges> password=<user password>
```

Example:

```
backup tenant default to "D:\\backupARIS9\\default.zip" username=system password=manager
```

```
backup tenant custom1 to "D:\\backupARIS9\\custom1.zip" username=system password=manager
```

Notice the double backslashes. Alternatively, use a single forward slash (/).

The backup is started. Each backup is written to one single archive file.

9. Check the archive files when completed. You can open the archive, for example, with WinZip® or 7zip. Make sure that there are subfolders for each runnable, containing all relevant data. In case of ARIS Connect, there must be 5 subfolders. ARIS Design Server only creates 4 subfolders.
10. Migrate the tenant data by starting ACC on the **ARIS 10** system. Enter:

```
restore tenant <tenant name> from <pathToBackUpFile> username=<user name of a user holding the required privileges> password=<user password>
```

Example:

```
restore tenant default from "D:\\backupARIS10\\default.zip" username=system password=manager
```

All additional tenants must be created before you can restore them. If you use an external database management system, make sure to have created schemes and have assigned them to those tenants (see ARIS Server Installation Guide (.././documents/3 Installation/31 Initial installation/312 Server/3121 Basic (Single node)/ARIS Server Installation - Windows.pdf)).

**create tenant custom1**

This command is mandatory for all additional tenants. Tenants can only be restored if they exist already. The **master** tenant and the **default** tenant are installed by default.

**restore tenant custom1 from "D:\\\\backupARIS10\\custom1.zip"**  
**username=system password=manager.**

11. If ARIS Connect (page 18) was customized or ARIS Publisher still is in use, after migration you must perform some additional steps. Make sure to add required extensions again.
12. Restore the **United Motor Group** database from DVD. This will make new content available mandatory for dashboards (ARIS Aware).
13. Restart all runnables (enter **stopall** and **startall**) and check the status (Enter **List tenants**).
14. Migrate the excluded databases (page 13).


All data of the ARIS 9.8.7 backup files are now restored on the ARIS 10 Server. The default user accounts are automatically reset to their default values. The system databases are updated automatically.

If ARIS document storage is in use, all migrated databases must be processed by a report (page 13).

The default user accounts are automatically reset to their default values. To prevent unauthorized access to the ARIS system, after installation or data migration, always change the passwords of the **arisservice** user, the **guest** user, the **system** user and the **superuser** user on all operational tenants (page 16), as well as on the infrastructure tenant (master).

If you are going to use ARIS Tenant Management Tool, in ARIS 10 make sure to configure the component and create schedules again (see **ARIS Tenant Management.pdf** or online help).

## 4.4 Migrate large databases manually

While migrating tenant data without ARIS databases, backup the databases separately. Administrators have multiple options for manually backing up databases: In ARIS Server Administrator using the **backup** or **backupasn** commands, in ARIS Architect using the  **Backup** functionality in the pop-up menu of a database.

When migrating data, the new database schema is applied and the content is migrated. The databases are optimized on the fly. As the optimization can be time-consuming, only the workspace content of databases will be optimized automatically. If required, change lists can be optimized later.

### Prerequisite

You log in as a system user.

### Procedure

1. Start ARIS Server Administrator in your ARIS 9 installation and connect to the tenant that contains the database.

You can start ARIS Server Administrator from any computer on which the ARIS Client or ARIS tools are installed either in interactive mode (**Start > Programs > ARIS > Administration > ARIS Server Administrator**) or command-line mode by opening the command prompt from the directory **<ARIS installation directory>\server\bin\work\work\_abs\_<s,m or l>\tools\arisadm\arisadm.bat**. In command-line mode you can perform actions automatically as there are no prompts in this mode.

2. Establish a connection to the server and tenant:

syntax: **server <server name>:<port number> <tenant> <user name>  
<password>**

3. Example: **server arissrv:1080 default system manager**

4. To back up a database **<dbname>** as an **adb** file in a directory **<archivedir>**, syntax:  
**backup <dbname> |all <archivedir> [-p <password for encryption>]  
[<alternatename>]**

for example:

**backup myARIS9database d:\backup**

or, as recommended:

**backup all d:\backup**



5. To back up the state of a specified change list number **<asn>** from a versioned database **<dbname>** in an **adb** file in a directory **<archivedir>**. **head** or **work** can be used instead of **<asn>**. While **head** represents the last versioned state, **work** represents the current state that is not versioned yet. This command is recommended to reduce the size of large versioned databases. Syntax:

```
backupasn <dbname> |all <archivedir> <asn> |head|work [-p <password for encryption>] [<alternatename>]
```

The database is backed up. Back up all required databases on all tenants as well.

Make sure that the ARIS 10 relevant tenants have already been migrated (page 10), before restoring the databases.

6. Backup the system database in order to save your customized content, for example, user defines scripts or ARIS method modifications. Enter:
7. Backup the databases and system databases of all other tenants as described.
8. Start ARIS Server Administrator in your ARIS 10 installation and connect to the tenant that will manage the database.
9. To restore a database **<dbname>** from an **adb** file **<archive>** or all adb files from a directory, enter:

```
restore <dbname> |all <archivedir> [-p <password for encryption>] [<alternatename>], for example:
```

```
restore d:\backup\myARIS9database.adb
```

or, as recommended:

```
restore d:\backup
```

10. Restore the system database, enter, for example,:
11. Restore the databases and system databases of all other tenants as described.
12. If ARIS document storage is in use, all migrated databases must be processed by a report (page 13).
13. Restore the **United Motor Group** database from DVD. This will make new content available mandatory for dashboards (ARIS Aware).

The database is migrated. If it is a versioned database the workspace content is optimized.

You are recommended to optimize the change lists of versioned databases as well. To do so use the **prepareoptimizedb** ARIS Server Administrator command (page 15).

## 4.5 Optimize versioned databases

While migrating tenants or single databases, the databases are optimized on the fly. As the optimization can be time-consuming, only the workspace content will be optimized automatically. In order to ensure database consistency for all change lists, you are recommended to optimize versioned databases after migration manually. During this procedure the database will not be available for users.

### Prerequisite

You log in as a system user.

### Procedure

1. Start ARIS Server Administrator from any client computer and access the databases on the server:

Click **Start > Programs > ARIS > Administration > ARIS Server Administrator** if you accepted the program group suggested by the installation program. Under a Linux operating system, execute the **arisadm.sh** shell script instead. The command prompt opens and ARIS Server Administrator is launched in interactive mode.

2. Establish a connection to the server and tenant:

syntax: **server <server name>:<port number> <tenant> <user name>  
<password>**

Example: **server arissrv:1080 default system manager**

ARIS Server Administrator is connected to the server.

3. Run the **prepareoptimizedb** command to check the versioned database. By default all change lists and the workspace are checked for issues. Enter, for example:

**prepareoptimizedb my\_migrated\_database1**

If no issue is detected the database is optimized already, and no further action is required.

If an issue is detected the **needs optimization** message is displayed. In this case a optimization file is generated and downloaded automatically. It is a good idea to copy the path and file name from the command prompt. Use this copied string later as parameter with the **optimizedb** command.

4. Lock the database. It is essential that nobody uses the database while optimizing. Enter, for example:

**lockdb my\_migrated\_database1**

The database is locked and ready for optimization.

5. Enter, for example:

**optimizedb <copied path to optimization file>**

The database are optimized. It can be made available for users again.

6. Enter, for example:

**unlockdb my\_migrated\_database1**

The database is optimized completely and available to authorized users. Every command's output can be retraced reading the **dboptimization.log** log file.

## 4.6 Reconfigure load balancer port

Change the load balancer port in order to prevent user access. This is mandatory when backing up tenants for migration.

### Procedure



1. Start ARIS Cloud Controller (ACC) on the **ARIS 9** system.
2. Change the used ports, enter, for example:

**reconfigure loadbalancer\_m HTTPD.port=1080 HTTPD.ssl.port=1443**

The ports are changed. As the users do not know the new ports, they cannot access.

## 4.7 Change passwords on tenants

On all tenants, change the passwords of **superuser** user, **system** user and the **guest** user. This will prevent unauthorized actions within the system. These users are created automatically for each tenant. The **system** user holds all function privileges and access for all databases. The **superuser** user holds all privileges to allow user and license management.

1. Log into the tenant's ARIS Administration.
2. Click  **User management**, and select **Users**. The list of users is displayed.
3. Enter **superuser** into the search box. The search result is shown.
4. Click **superuser**. The user data (details) is displayed.
5. Click  **Edit**.
6. Enable the **Change password** check box. The **Password** and **Confirm password** boxes are displayed.
7. Enter a new password, and reenter it. If you want to use the webMethods integration, passwords may not contain a colon.
8. Click **Save**.
9. Change the **system** user's password too.

The passwords are changed. The users receive e-mail notifications.

## 4.8 How to modify ARIS document storage links

If ARIS document storage is in use all ARIS document storage links must be adapted in ARIS Architect. As the ARIS Server URL and the tenant name are part of the links (highlighted), the links will not work after migration. The **Modify ARIS document storage links** report adapts all links for the use with ARIS 10. The highlighted parts of the links will be adapted as follows:

- **ARIS9.8.x ARIS document storage link**

**https://aris9srv.eur.co.com:1080**/documents/rest/links/afa43c5e-b225-4bd9-a4a9-71d5d23b4420?tenantid=**default**&revision=1

- **ARIS10 ARIS document storage link**

**https://aris10srv.eur.co.com:1081**/documents/rest/links/afa43c5e-b225-4bd9-a4a9-71d5d23b4420?tenantid=**tenant1**&revision=1

The old ARIS Server URL is updated to the new ARIS 10 URL.

In ARIS Architect, execute the **Modify ARIS document storage Links** report for all databases holding ARIS document storage Links. The report is available in the Administration report category (see ARIS Architect online help; Evaluate data > Use reports > ARIS reports > Administration).

## 4.9 How to migrate ARIS Connect portal views and configuration sets

The portal shows specific information for each user. Different views display information in different ways. By default, ARIS comes with two different views. The classic view and the default view. These views are defined in configuration sets that cannot be changed. However, administrators can define multiple modification sets based on these templates.

### VIEWS AND MODIFICATION SETS

In ARIS 10, portal views are called modification sets. If portal views were added or changed in ARIS 9, you must backup (page 19) portal views in ARIS 9.8.7 or later and restore modification sets (page 19) manually. The **default** and the **classic** configuration set must not be migrated. These sets, holding all new features, are used as template for all future modification sets, created in ARIS10.

### CUSTOMIZED CONFIGURATION SETS

Customized configuration sets are configurations sets that have been created manually in ARIS 9.8.7 or later. They must be adapted on file level in ARIS 10.

This advanced configuration requires high knowledge on XML configuration, that can be acquired in the 742-**<ID>** ARIS Connect Portal Configuration training (<http://www.softwareag.com/education/>). Errors in XML configuration files may cause strong impact. You might not be able to start ARIS Connect again.

Therefore, all customized folders must be copied from **<ARIS 9.8.x installation path>\server\bin\work\**:

- **work\_copernicus\_<s, m or l>\base\webapps\ROOT\WEB-INF\config\<name of the view>**
- **work\_abs\_<s, m or l>\base\webapps\abs\WEB-INF\config\<name of the view>**
- If an Heavy-duty Server (HDS) is in use, the related folder of the **hds\_<s, m or l>** runnable must be copied as well.

and pasted into the **<ARIS 10 installation path>\server\bin\work\** subfolders:

- **work\_copernicus\_<s, m or l>\base\webapps\ROOT\WEB-INF\config\<name of the customized configuration set>**
- **work\_abs\_<s, m or l>\base\webapps\abs\WEB-INF\config\<name of the customized configuration set>**
- If an Heavy-duty Server (HDS) is in use, the related folder of the **hds\_<s, m or l>** runnable must be pasted as well.

New ARIS 10 functionality will not be available in the copied configuration sets.

Depending to the level of customization, you are recommend to use a prepared customization package obtained by the original customizer. If you need help, contact Software AG (<https://empower.softwareag.com/>) for a customization request. Customization and training services are not subject to the standard Software AG software maintenance agreement. Configuration changes can only be performed by Software AG if you requested and agreed on them.


## 4.9.1 Save ARIS Connect modification sets

Save user-defined modification sets for data migration or before you modify them. You can restore saved modification sets at any time or provide them on other servers.

### Prerequisite

You have the **Portal administrator** function privilege.

### Procedure

1. Start ARIS Connect.
2. Click the arrow next to your user name.
3. Click **Administration**.
4. Click **Manage configuration sets**. All available configuration and modification sets are displayed. The current configuration or modification set is marked as **(active)**.
5. Move the mouse pointer over a user-defined modification set.
6. Click  **Backup**.
7. Save the file in any directory.

The **<name of the modification set>\_bak.zip** backup file is downloaded.

8. Repeat this procedure for all other modification sets.

Based on these backups, you can restore the modification sets in ARIS 10 (page 19).

## 4.9.2 Restore ARIS Connect modification sets

Restore saved modification sets.

### Prerequisite

- You have the **Portal administrator** function privilege.
- You have access to the backup file.

### Procedure

1. Start ARIS Connect.
2. Click the arrow next to your user name.
3. Click **Administration**.
4. Click **Manage configuration sets**. All available configuration and modification sets are displayed. The current configuration or modification set is marked as **(active)**.
5. Click **Restore**. The file selection dialog opens.
6. Double-click the ZIP file (syntax: **<name of the modification set>\_bak.zip**).


If a modification set with the same name exists, it is overwritten. If you want to keep the original modification set, you must define another name for restored one.

Repeat this procedure for all saved ARIS 9 modification sets.

## 4.10 How to back up data manually


Administrators have multiple alternatives for manually backing up data.

### DATABASES

- In ARIS Architect on the **Administration** tab, using the  **Backup** functionality in the pop-up menu of a database.
- In ARIS Server Administrator, using the **Backup** or **backupasn** commands.

Currently, Java can only process files of up to a maximum of 4 GB safely. Thus, errors may occur with larger backup files (ADB) and during database recovery. If errors occur during backup or while restoring, please use the backup mechanism in your database management system (DBMS). Make sure that sufficient disk space is available for restoring large databases. This may exceed the memory requirements stated in the document **ARIS System Requirements**.

### FILTERS

- In ARIS Architect on the 'Administration' tab, using the function  **Export**.
- In ARIS Server Administrator, using the **backupsystemdb** command.


### METHOD, CONFIGURATION, AND QUERIES

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

### SCRIPTS

- In ARIS Architect on the 'Administration' tab the **Administration** tab, using the function **Export** in the pop-up menu of a script (individual backup).
- In ARIS Server Administrator, using the **backupsystemdb** command.

### QUERIES AND AD HOC ANALYSES

In ARIS Architect on the 'Administration' tab, using the function  **Back up analysis data**.

## 5 Glossary

Here you can find the definitions of the technical terms used in the technical ARIS manuals.

### A

#### Administration (Documentation structure)

This area contains manuals that describe, how to adapt an installed system regarding the available system environment, for example, increasing the size of the main memory or how to change a port number.

#### ARIS Agent

Required service on every machine (node) on which an ARIS server component (runnable) runs. It allows the remote installation, configuration, operation of ARIS runnables.

#### ARIS Cloud Controller (ACC)

ACC is a command-line tool for administrating and configuring an ARIS installation. It communicates with ARIS Agents on all nodes.

#### 'arisservice' user

The user **arisservice** is created automatically. By default, this user is assigned the **Database administrator** and **Process Governance administrator** function privileges. This user only uses up a license if a license privilege is activated for this user. The default password is **arisservice**. You should change the default password to prevent unauthorized access. You can change all user data except for the user name.

### C

#### Collaboration database

The **postgresECP\_<s,m or I>** runnable handles the internal database storing Collaboration content available in ARIS Connect.

#### Customizing (Documentation structure)

This area contains manuals that describe, how to adapt an installed system to meet company-specific needs that changes a standard system to an individual system. The result of these changes is that the standard update process no longer works. An update to the next minor version has to be done manually, because executing setup programs would overwrite the individual adjustments: they would have been lost.



## D

### Distributed installation

Byword for multi node installation. Using installation programs and performing manual tasks to establish an executable system on several servers.

Multi node installation, that is, an installation spanning across several computers/VMs. Such a specific scenario requires profound knowledge of the technical ARIS infrastructure and environment. This cannot be provided in the product documentation. The required know-how can be acquired only by attending the training course **ARIS Server Installation**, available via Global Education Services (<http://softwareag.com/training>). For this type of installation Software AG strongly recommends that you request an installation service by Global Consulting Services. You can order that service from your Software AG sales representative.

### Download client

Client that is started via browser link.

If ARIS Server is installed, all authorized users can start ARIS Download Client within their browsers. All necessary files are downloaded from the ARIS Server to a local directory. Users do not need a local ARIS Client installation.

Depending on the browser used, the ARIS Download Client is started or a program icon is saved on your computer that you can use to start the ARIS Client.

## G

### 'guest' user

The user **guest** is created automatically. By default, no function or license privileges are assigned to this user. This user serves technical purposes only. It is not for use by end users. Logging in to ARIS Connect or other Software AG products with this user is not allowed. Further information is available in the Software AG license terms (<http://softwareag.com/licenses> (<http://softwareag.com/licenses>)).

### GUID

**G**lobally **U**nique **I**dentifier (GUID).

The GUID is a character set that uniquely identifies elements worldwide.

## I

### Installation

Using installation programs and performing manual tasks to establish an executable system on one (single node) or several (multi node) servers.

## J

### JAAS

Java **A**uthentication and **A**uthorization **S**ervice (**JAAS**).

This is a Java interface, which provides services for the authentication and for the access in Java programs. JAAS supports a user based authentication.

## L

### Load balancer

In ARIS the **loadbalancer** runnable distributes the workload across the installed components.

In computing, load balancing distributes workloads across multiple computing resources, such as computers, a computer cluster, network links, central processing units or disk drives. Load balancing aims to optimize resource use, maximize throughput, minimize response time, and avoid overload of any single resource. Using multiple components with load balancing instead of a single component may increase reliability and availability through redundancy. Load balancing usually involves dedicated software or hardware, such as a multilayer switch or a Domain Name System server process.

## M

### Migration

Installing a new major version and including the previous content.

Example: Upgrade from version **9.8 Service Release 7** to version **10.0**.

### Modeling database

The **postgres\_<s,m or l>** runnable manages the internal standard database system storing all ARIS databases (modeling data) and the system databases (ARIS method, filters, templates, languages, fonts, font formats and script data).

This database can be replaced by an external Oracle® or Microsoft® SQL database.

### Multi node installation

Using installation programs and performing manual tasks to establish an executable system on several servers.

Distributed ARIS installation extending across several computers, delivered by manual provisioning.

Such a specific scenario requires profound knowledge of the technical ARIS infrastructure and environment. This cannot be provided in the product documentation. The required know-how can be acquired only by attending the training course **ARIS Server Installation**, available via Global Education Services (<http://softwareag.com/training>).

## N

### Node

Virtual or physical machine on which ARIS Agent is installed to host ARIS runnables.

## O

### OTP

**One-Time Pad (OTP).**

This one-time pad is a symmetric encryption method for transferring secret messages. This encryption method is characterized by the fact that it uses a key of the same length as the message itself.

The OTP is information-theoretically secure and has proven to be impossible to crack – provided that it is used properly.

## P

### Provisioning

Setting up an installed system via ARIS Cloud Controller (ACC) commands.

## R

### Runnable

ARIS server component providing functionality to the ARIS clients. Runnables are physically installed on a node.

Depending on the ARIS server type different runnables are used in order to provide full functionality. Runnables can be managed using ARIS Cloud Controller (ACC). The InstanceID of the ARIS Server program component is used as the name for the runnable.

## S

### SAML

**Security Assertion Markup Language (SAML).**

Standard for exchanging authentication data between security domains. SAML is an XML-based protocol that uses security tokens containing assertions to pass information about a user between an identity provider and a service provider and enables web-based authentication scenarios including single sign-on across all ARIS runnables.

### Service registry

The **zoo\_<s,m or l>** runnable is a server component managing the communication, configuration and status information of all available runnables and external services.

### Single node installation

An ARIS server installation delivered by an ARIS server setup.

## <s, m or l>

Free variable parameter used in ACC expressions.

Indicator for the three memory sizings **small (s)**, **medium (m)** and **large (l)**. This indicator is part of standard runnable names (runnables). It indicates the maximum size of the Java heap. The **S** sizing which at the time of this writing has a maximum heap size of 1152MB should be used for demonstration reasons (laptop) only. The **M** sizing sets the maximum heap size to 8GB, the **L** sizing to 16GB. You can always change this memory setting later with a **reconfigure** command.

## SSL

**Secure Socket Layer (SSL)**.

Security software to encrypt data that are exchanged between programs.

## SSO

**Single Sign-on**.

Using SSO has the advantage that a user only has to log in once to the network. The user need only one login name and password to access all computers, services and programs whose usage is allowed.

## 'superuser' user

The user **superuser** is created automatically. By default, this user is assigned the **User management**, **License management**, and **Configuration administrator** function privileges. This user can also activate this function privilege for other users. Users of the **superuser** type do not use up a license. They manage the system administration, but cannot use ARIS products due to license restrictions. The default password is **superuser**. You should change the default password to prevent unauthorized access. The password of the superuser is very important, as it is the only user who cannot be deleted. You can change all user data except for the user name.

## System database

This database manages the content of the **configuration** and **evaluations** nodes displayed on ARIS Architect's **ARIS Administration** tab, for example, filters, templates and font formats as well as ARIS method content and scripts.

The database is created during the first ARIS Client login of a user. This content is available in all ARIS databases within this tenant. The system database can be backed up and restored.

## 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)

([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
Arabic - Yemen	9217
Basque - Spain	1069
Belarusian - Belarus	1059
Bulgarian - Bulgaria	1026
Catalan - Spain	1027
Chinese - Hong Kong	3076
Chinese - PRC	2052

<b>System language</b>	<b>LCID</b>
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
French - Canada	3084
French - France	1036
French - Luxembourg	5132
French - Switzerland	4108
German - Austria	3079
German - Germany	1031
German - Liechtenstein	5127

<b>System language</b>	<b>LCID</b>
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
Slovene - Slovenia	1060
Spanish - Argentina	11274
Spanish - Bolivia	16394
Spanish - Chile	13322
Spanish - Colombia	9226
Spanish - Costa Rica	5130
Spanish - Dominican Republic	7178

<b>System language</b>	<b>LCID</b>
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



## 'system' user

The **system** user is created automatically. By default, the system user has all function privileges. This user can log in to process administration, ARIS Administration, User Management, and ARIS Process Board. In ARIS Architect and ARIS Designer, this user has all access privileges for all database groups of all databases. This user only uses up a license if a license privilege is activated for this user. The default password is **manager**. You should change the default password to prevent unauthorized access. You can change all user data except for the user name.

- Having more than one system user can avoid problems, if, for example, your single system user has forgotten his password. You can create additional system users or copy the existing system user. If your only system user was deleted accidentally, create a new one by using the superuser.

## T

### Tenant

A tenant is a container providing its own ARIS Administration and ARIS data set, such as configuration, ARIS method, databases, scripts, etc.

Each tenant provides users with a particular set of functionalities and specific data depending on their licenses and privileges.

After the installation two tenants are available. The infrastructure master tenant manages administrative users and all other tenants. The **default** tenant is available for operational use. It handles databases, documents, users/user groups, licenses etc. A single physical ARIS installation can host multiple operational tenants. Users of a specific tenant cannot access data from other tenants. A tenant is a kind of logical ARIS installation. Tenants do not share any data.

## TLS

Transport Layer Security (**TLS**).

TLS is known under the name of **Secure Sockets Layer (SSL)**. It is an encryption protocol to ensure a secure data transfer through the Internet.

## U

### Update

Adjusting an installed system to the next minor version including the previous content.

Example: Update the version **10.3** to version **10.4**.

### Upgrade

Synonym for Migration:

Installing a new major version and including the previous content.

Example: Upgrade from version **9.8 Service Release 7** to version **10.0**.

## 6 Support

### ONLINE

A valid support contract allows you to access the solution database.

Click <https://empower.softwareag.com/> (<https://empower.softwareag.com/>).

If you have any questions on specific installations that you cannot perform yourself, contact your local Software AG sales organization ([https://empower.softwareag.com/public\\_directory.asp](https://empower.softwareag.com/public_directory.asp)).

### BY TELEPHONE

If you have a valid support contract, you can contact Global Support ARIS at:

**+800 ARISHELP**

"+" stands for the prefix required in a given country to dial an international connection.

Example for dialing within Germany with a direct extension line: 00 800 2747 4357