![software AG logo]

ARIS Process Governance

CUSTOMIZING

Version 10.0 - Service Release 2

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Contents

1 Legal notices

This manual describes the settings and features as they were at the time of print. Since manual 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 Readme file that accompanies the product. Please read this file and take the information into account when installing, setting up, and using the product.

If you want to install all technical and/or business system functions without the services of 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 only describe 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 customizing is not subject to 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 Clients	Refers to all programs, e.g., ARIS Architect or ARIS Designer that access shared databases via ARIS Server.
ARIS Download clients	Refers to ARIS clients that can be started from a browser.

2 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 (e.g., 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.

3 Tenant assignment

You can use a multi node scenario. There are two possibilities:

- TENANT_BASED (Default)
- PROCESS_INSTANCE_BASED

By default, Process Governance follows the strategy depicted below. If you have, e.g., three nodes you can have three Process Governance runnables installed, one on each server. The number of tenants used can be higher. Let us assume you have five tenants.

When first accessing Process Governance, the assignment starts in the following way: Tenant 1 is assigned to Process Governance 1, tenant 2 to Process Governance 2 and so on.
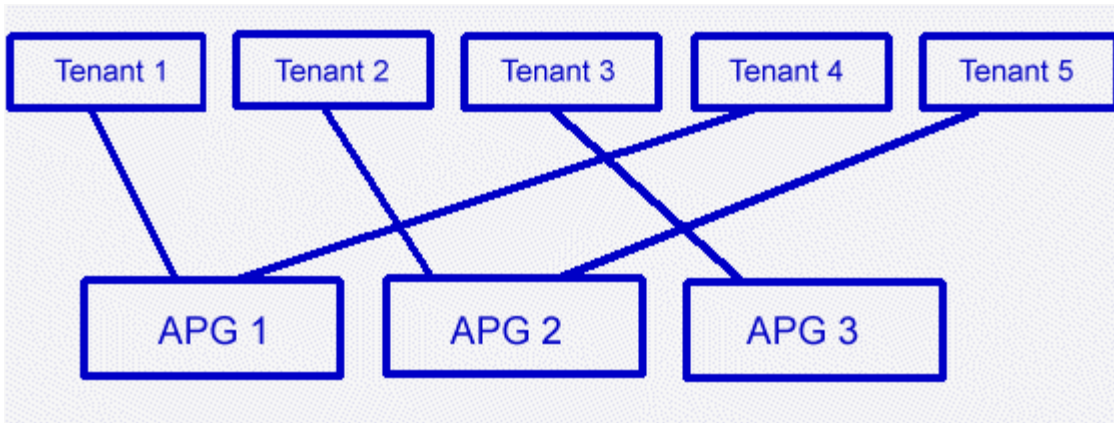
To change this, proceed as follows.

You can reconfigure the scalability of Process Governance using ARIS Cloud Controller (ACC) (page 11).

Procedure

1. Start ARIS Cloud Controller (ACC).

2. Stop the Process Governance runnables in all nodes. To do so enter

   on all nodes stop <Process Governance instance>, e.g., **on all nodes stop apg_m**

3. Enter **on all nodes reconfigure<Process Governance instance> "JAVA-Dcom.idsscheer.age.node.assignment.strategy"="PROCESS_INSTANCE_BASED"**, e.g., **on all nodes reconfigure apg_m "JAVA-Dcom.idsscheer.age.node.assignment.strategy"="PROCESS_INSTANCE_BASED"**.

4. Start the Process Governance runnables in all nodes. To do so enter

   on all nodes start <Process Governance instance>, e.g., **on all nodes start apg_m**.

You have reconfigured the scalability strategy of Process Governance.

This strategy is depicted below.
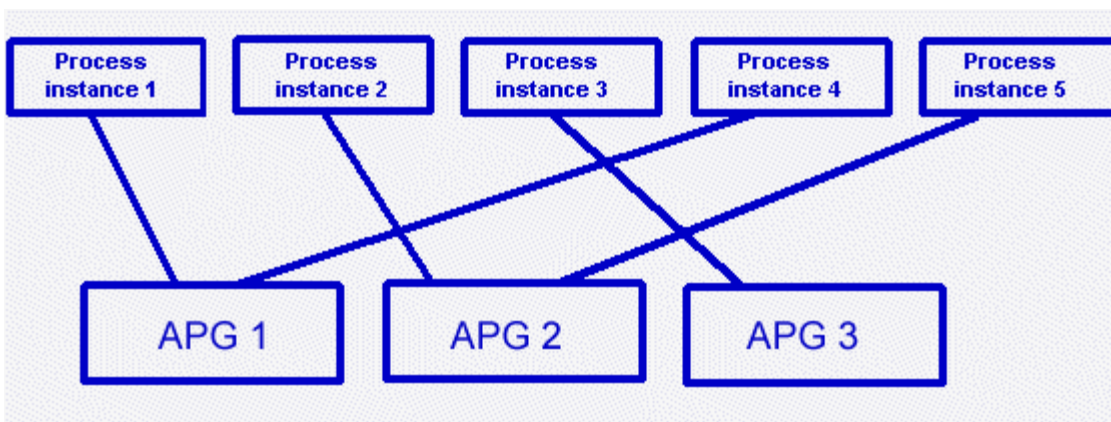
Under certain circumstances it can happen that in this scenario one node can be overloaded, for example, if nodes stop running and the other nodes have to take over.

To switch back to the default behavior, proceed as described above but using the **TENANT_BASED** parameter.

4   ARIS Process Board

ARIS Process Board is automatically installed when you install ARIS Server.

SYSTEM REQUIREMENTS

For information about hardware and software requirements, please refer to the **ARIS System Requirements** document on the installation media. You can also download it from Empower (https://empower.softwareag.com/) (login required) or from the ARIS Download Center (aris.softwareag.com).

4.1   Customize ARIS Process Board

CUSTOMIZE THE LOOK AND FEEL

You can customize the logo, as well as the logo height and width of ARIS Process Board.

Procedure

1. Copy the new logo to **<installation directory>\server\bin\work\work_apg_s\base\webapps\processboard\tasklist** ,e.g., **C:\SoftwareAG\ARIS10\server\bin\work\work_apg_s\base\webapps\processboard\tasklist**.

2. Open a user-defined modification set for editing. (page 18)

3. Click **User interface**.

4. Click **Show advanced settings**.

5. Scroll down to **Process Governance**.

6. Enter the name of the new logo.

7. Enter the height of the new logo in pixels.

8. Enter the width of the new logo in pixels.

9. Click **Save**.

You have changed the logo of ARIS Process Board. You can define different customizations for each tenant. If you do not define a tenant, you customization is used for all tenants. If no customization is defined, the default colors and styles are used.

ALLOW ACCESS VIA HTTP INSTEAD OF HTTPS

You can allow that users can access ARIS Process Board via HTTP instead of HTTPS.

Procedure

1. Start the ACC (page 11).

2. Stop the relevant loadbalancer, e.g. loadbalancer_m

3. Type reconfigure loadbalancer_<character>
   +HTTPD.zookeeper.application.instance.port="80"
   +zookeeper.application.instance.scheme=http

   Example

   reconfigure loadbalancer_m +HTTPD.zookeeper.application.instance.port="80"
   +zookeeper.application.instance.scheme=http

4. Start the relevant loadbalancer, e.g. loadbalancer_m.

You can now use HTTP links instead of HTTPS.

4.2 Configure selectable languages for ARIS Process Board

It is possible to specify which locales are displayed in the list of selectable languages.

REMOVE A LANGUAGE

You can remove unnecessary languages from the language list. To do so proceed as follows.

Procedure

1. Start (page 11) ARIS Cloud Controller.

2. Stop the relevant runnable, type e.g. stop apg_m.

3. Open the ARIS Process Board configuration file (e.g. <ARIS9.x installation directory>\server\bin\work\work_apg_m\base\webapps\processboard\WEB-INF\tl-configuration.xml).

   All supported locales are listed by default in the configuration file.

4. Remove the locales you do not want to use.

   - If the configuration file contains the operating system's locale, it will be selected by default.

   - If the configuration file does not contain the operating system's locale, the first locale specified in the list will be selected.

5. Start the relevant runnable, type e.g. start apg_m.

If the configuration file does not contain any locales, the English (US) locale will be used by default (the xml locales element is empty).

ADD AN ADDITIONAL LANGUAGE TO THE LANGUAGE LIST AND LOCALIZE ARIS PROCESS BOARD

You can add any language to the language list. To do so proceed as follows.

Procedure

1. Start (page 11) ARIS Cloud Controller.

2. Stop the relevant runnable, type e.g. stop apg_m.

3. Open the ARIS Process Board configuration file (e.g. <ARIS9.x installation directory>\server\bin\work\work_apg_m\base\webapps\processboard\WEB-INF\tl-configuration.xml).

4. Go to the configuration file's languages section.

5. Add the locale you want to use additionally - e.g. add

   `<locale language="iw" country="IL" name="Hebrew"/>`
   for Hebrew.

6. Copy the file that contains a localization of ARIS Process Board (e.g. <ARIS9.x installation directory>\server\bin\work\work_apg_m\base\webapps\processboard\WEB-INF\classes\com\softwareag\tasklist\server\IConstants_en.properties).

7. Rename the copy to **IConstants_<new language>.properties** - e.g. **IConstants_iw.properties** for Hebrew.

8. Translate the strings contained in this file.

9. Start the relevant runnable, type e.g. start apg_m.

You added a new language with the relevant localizations to ARIS Process Board.

4.3   Configure date format

You can format the date to the pattern defined in the locale specific attribute **datePattern**. In case the locale specific attribute is not specified, the date format pattern is loaded from the default date pattern tag of the locale. If both are not defined, the default pattern from the code is used.

1. Start (page 11) ARIS Cloud Controller.

2. Stop the relevant runnable, type e.g. **stop apg_m**.

3. Open the ARIS Process Board configuration file (**<ARIS9.x installation directory>\server\bin\work\work_apg_m\base\webapps\processboard\WEB-I NF\tl-configuration.xml**).

    All supported locales are listed by default in the configuration file.

4. Define the date pattern for the relevant locale.

5. Start the relevant runnable, type e.g. **start apg_m**.

You have configured the date format.

Example

```
<!-- language configuration, first element is selected on UI -->
<locales>


        <locale language="en" country="US" name="English (United States)"
datePattern="dd.mm.yyyy" dateTimePattern="dd.mm.yyyy HH:mm:ss" />
        <locale language="de" country="DE" name="German (Germany)"
datePattern="dd.mm.yyyy" dateTimePattern="dd.mm.yyyy HH:mm:ss" />

    .

    .

    .

    </locales>
```

4.4   Call ARIS Process Board

The following URL is used to call ARIS Process Board in the browser:

http://<server name>/processboard.

If you have an e-mail integration, this link is automatically sent to a new user when activated. If you do not use e-mails, you need to communicate the link to all users.

5 Additional information

5.1 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.

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 **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.

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

> **Warning**
>
> Using ACC commands will deeply affect your system. This requires profound knowledge of the technical ARIS infrastructure and environment. The required know-how can be acquired only by attending the training course **ARIS Server Installation**, available via Global Education Services. Get more details on http://softwareag.com/training (http://softwareag.com/training). If you use ACC commands without this knowledge or the services of Software AG, according to the standard Software AG software maintenance agreement we cannot guarantee proper functioning.

ARIS Cloud Controller (ACC) can be used in three modes:

- **Interactive mode (default)**

  ACC runs with an interactive shell, allowing you to manually issue commands.

- **Batch mode**

  Activated by specifying a command file with the **-f** command line parameter (see ACC command line parameters below). ACC will execute the commands in the file in the given sequence and exit after execution or if one of the commands fails.

  A command file line starting with a **#** will be interpreted as a comment line and ignored by ACC.

- **Command mode**

  You can directly pass a single command to ACC as a command line parameter. The command will be executed and ACC will exit afterwards.

  When passing commands directly as an ACC command line parameter, you have to be careful when escaping strings in your command, e.g. double-quote-delimited parameters. The operating system command **shell** will consume the double quotes, leaving your string parameter unescaped. So please escape the quote characters.

  If you issue the command in command mode, e. g.:

  ```
  set remote.repository.url="http://something.com/repo"
  ```

  You should enter:

  ```
  acc.bat -h localhost -u <remoteAccessPassword> set
  remote.repository.url=\"http://something.com/repo\"
  ```

  If you enter:

  ```
  acc.bat -h localhost -u <remoteAccessPassword> set
  remote.repository.url="http://something.com/repo"
  ```

  ACC will return an error message, e. g.:

  ```
  line 1:52 mismatched character '<EOF>' expecting '\n'
  Invalid or erroneous command "set
  remote.repository.url=http://something.com/repo ": line 1:30 extraneous input
  ':' expecting EOF
  Use "help" to display a list of available commands.
  ```

CONNECTING TO ACC NODES

When starting ACC in one of the three usage modes without any additional command line parameter, it will by default connect to the node, that was installed by the setup program. There are three options to specify nodes you want to control with ACC:

- You can use the **add node** command to put the individual cloud nodes under ACC's control. This requires profound knowledge of the technical ARIS infrastructure and environment. The required know-how can be acquired only by attending the training course **ARIS Server Installation**.

- Alternatively, you can list all your cloud nodes in a node file and pass this file to the ACC with the **\-n** (or **--nodefile**) command line option.

- If you only want to connect to a single node and issue commands there, you can also use the ACC's **-h** (or **--host**) command line option to directly specify the host or IP name of the node you want to control with ACC.

Enter **list** to monitor the status of all runnables. This example shows ACC of an ARIS Server installation for a medium number of users.

```
ACC+ arisserver>list
On node arisserver now 14 runnables are installed.
zoo_m          : STARTED (com.aris.runnables.zookeeper-run-prod-10.0.0)
postgres_m     : STARTED (com.aris.runnables.PostgreSQL-run-prod-10.0.0)
dashboarding_m : STARTED (com.aris.runnables.PostgreSQLECP-run-prod-10.0.0)
cloudsearch_m  : STARTED (com.aris.cip.y-cloudsearch-run-prod-10.0.0)
elastic_m      : STARTED (com.aris.runnables.elasticsearch-run-prod-10.0.0)
adsadmin_m     : STARTED (com.aris.adsadmin.y-adsadmin-run-prod-10.0.0)
umcadmin_m     : STARTED (com.aris.umcadmin.y-umcadmin-run-prod-10.0.0)
loadbalancer_m : STARTED (com.aris.runnables.httpd.httpd-run-prod-10.0.0)
abs_m          : STARTED (com.aris.modeling.runnables.y-server-run-prod-10.0.0)
apg_m          : STARTED (com.aris.age.age-run-prod-10.0.0)
copernicus_m   : STARTED
(com.aris.copernicus.copernicus-portal-server-run-prod-10.0.0)
octopus_m      : STARTED (com.aris.octopus.y-octopus_server-run-prod-10.0.0)
ecp_m          : STARTED (com.aris.runnables.ecp-run-prod-10.0.0)
simulation_m   : STARTED
(com.aris.modeling.runnables.simulationserver.y-simuserver-run-prod-10.0.0)

ACC+ arisserver>
```

The status of all runnables represented by their instanceIDs are listed. Possible states are:

- **UNKNOWN**

  The runnable state is not yet known. This state is shown directly after the agent was started.

- **STOPPED**

  The runnable is currently not running.

- **STARTING**

  The runnable is starting, but this process is not complete yet.

- **STARTED**

  The runnable is running.

- **STOPPING**

  The runnable is stopping, but this process is not complete yet.

- **DEACTIVATED**

  The runnable is not in use. It has been deactivated manually and can be activated if necessary.

- **DOWN**

  This runnable has started and crashed. ARIS Agent will attempt to automatically restart the runnable momentarily.

- **FAILED**

  This runnable has crashed. ARIS Agent has given up trying to restart the runnable.

If a runnable does not start properly please read the **Basic Troubleshooting** chapter.

RUNNABLES OF ALL ARIS SERVERS

This table lists all runnables run by ARIS Server, ARIS Risk & Compliance Manager (ARCM), ARIS Publisher Server (Publisher) and the locally installed server installed by the ARIS Client Setup (LOCAL) for a medium number of users installation. That's why all runnables end with **_m**. Installations for a small or a large number of users are typified with **_s** or **_l**.

Runnables run by the server **LOCAL** are not accessible by ACC. This server is only available in combination with ARIS Client installations.

Runnable (instanceID)	ARIS Server	ARCM	Publisher	LOCAL
	Runnables run by different server types			
zoo_m Service registry This runnable is a server component managing the communication, configuration and status information of all available runnables and external services.	x	x		x
postgres_m Modeling database 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.	x	x		x
cloudsearch_m Search index Main full-text search and graph structure index for modeling data. It allows fast access to the data stored in the modeling database, Oracle® or Microsoft® SQL database.	x	x		x
elastic_m Document index (Elasticsearch) Main full-text search index for documents and collaboration data. It also stores users, user groups, and privileges of these components.	x	x		x

Runnable (instanceID)	ARIS Server	ARCM	Publisher	LOCAL
adsadmin_m ARIS document storage management Server component managing ARIS document storage.	x	x		
umcadmin_m ARIS Administration/User Management Server component managing users, permissions, licenses, LDAP connectivity and SSO.	x	x		x
loadbalancer_m Load balancer Central point of entry for all ARIS clients to the entire ARIS application, typically accessed via HTTP ports 80 or 1080, or HTTPS ports 443 or 1443. It distributes the workload across the installed components.	x	x		
abs_m Modeling/publishing/reporting Main server component for modeling and operations on modeling data including report execution.	x			x
hds_m (optional; not by setup) Heavy-duty Server (HDS) HDS is an additional component that takes the load of running ARIS reports from your **abs_<s, m** or **l>** modeling component.	x			
cdf_m (optional; not by setup) Cloud Decoupling Framework (CDF) CDF is a queue which can be used to decouple synchronous accesses to services. It is required for communication between the **abs_<s, m or l>** modeling component and the **hds** instances.	x			

Runnable (instanceID)	ARIS Server	ARCM	Publisher	LOCAL
apg_m Process Governance server component. Executes processes and provides managing user interfaces.	x			
copernicus_m Portal Server component providing the portal in ARIS Connect.	x			
octopus_m Analysis Server component processing ad hoc analyses and queries triggered in ARIS Architect or ARIS Designer.	x			x
ecp_m Collaboration Server component of the collaboration component in ARIS Connect.	x			x
simulation_m Simulation Server component of the simulation functionality in ARIS Architect.	x			x
dashboarding_m Dashboards (ARIS Aware) Server component of the dashboarding component in ARIS Connect.	x			
businesspublisher_m ARIS Publisher server Server component of the ARIS Publisher functionality in ARIS Architect.			x	
arcm_m ARIS Risk & Compliance Manager server Server component of ARIS Risk & Compliance Manager.		x		

5.2 Edit modification set

Edit your own modification sets created based on the classic configuration set or the default configuration set. You cannot edit the classic and the default configuration set.

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**.

5. Move the mouse pointer over a user-defined modification set. All available configuration and modification sets are displayed. The current configuration or modification set is marked as **(active)**. You can edit custom modification sets only.

6. Click ✏ **Edit**.

The **Define modification set** page opens and you can edit the modification set.

6   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.