software AG

ARIS

DOWNLOAD CLIENT CONFIGURATION

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Contents

1 ARIS Download Clients

Users do not need a local ARIS Client installation (see **ARIS Client Installation Guide**). If ARIS Server is installed, all authorized users can start ARIS Download Client using their browsers instead.

All necessary files are downloaded from the ARIS Server to a local directory. The system checks whether the ARIS download client already exists and still matches the client available on this server. If needed, it downloads a new version of the ARIS Download Client, and then starts ARIS.

This process requires a locally installed JRE. Settings from the ARIS Server configuration file are passed to the configuration of the download client while starting the ARIS Download Client. The target directory and several settings can be configured (page 3) by an administrator.

If you are using Microsoft Internet Explorer, a Java applet can be used to start this process instead. Other browsers are blocking Java applets due to security reasons. Up to ARIS version 10.0.5, the use of a Java applet is configured by default. There is no need to change the default setting. If Java applets are blocked, an **ARIS downloader JAR** file is used automatically to start ARIS Download Client. You can force ARIS to only use ARIS downloader and block Java applets (page 9).

1.1   Start ARIS Download Client

If ARIS Server is installed, all authorized users can start ARIS Download Client using their browsers.

Prerequisite

- A Java Runtime Environment is installed on the user's computer.
- Users need ARIS Architect or ARIS Designer license privileges.
- Users need function and access privileges according to their user roles. These privileges are managed within the ARIS Administration as well as in ARIS Architect.
- If Java applets are not supported, the file extension **.JAR** must be assigned to the JRE on the user's computer.

Procedure

1. Open your browser and enter the link provided by your administrator:

   Syntax: **http://<IP address or fully-qualified host name>:<load balancer port>/#<tenant name>/home**

   You must enter the port number only if the standard port **80** has been changed or redirected. The login dialog opens.

2. Click on your user name (top right).

3. Click **Download Clients**.

4. Click the **Start** button besides the desired ARIS Download Client. If the Java applet is used,ARIS Download Client starts immediately. Otherwise an **ARIS downloader JAR** file is used.

5. Save the **ARIS downloader JAR** file locally. The name of that file is a combination of the ARIS Download Client product name and the server name. Hence, for different download clients different **JAR** files will be downloaded.

   It's a good advice for users to copy the downloaded **JAR** file. So users can easily start download clients without the need to navigate to the download page.

6. Double-click the **JAR** file. The ARIS downloader starts. A progress dialog monitors the initial download. It is checked whether the ARIS Download Client already exists and still matches the client available on this server. If needed, it downloads a new version of the ARIS Download Client.

The ARIS Download Client is downloaded and started. All necessary files are downloaded from the ARIS Server to a local directory. This process requires a locally installed JRE. Settings from the ARIS Server configuration file are passed to the configuration of the download client while starting the ARIS Download Client. The target directory and several settings can be configured (page 3) by an administrator.

If a proxy is used to access the ARIS Server from the ARIS Download Client, the user must add the proxy settings once. If you face problems starting ARIS Download Client, refer to the **log** files and the ARIS Basic Troubleshooting Guide. The download process of the ARIS downloader is being monitored in the **%TEMP%** folder within the files **ARISLauncher_<timestamp>.log** or **StartARISFailed_<timestamp>.log** with detailed information about the download process.

1.2 Configure ARIS Download Client

If a user starts ARIS Download Client, all files are downloaded to a local directory. Administrators can change this location, as well as several other settings.

Warning

Please change values in configuration files as described only if this is absolutely necessary. If changes are not done correctly, they may cause severe issues. Possibly ARIS clients might not start or work reliably.

1.2.1　Change the download path

If a user starts ARIS Download Client, all files are downloaded to a local directory. By default, on Microsoft Windows OS, all files are stored in subfolders of the user's profile, for example:

%UserProfile%\ARIS10\DownloadClient\<the ARIS server's IP address or name>

You can also define the server name to be used for the folder name instead of the IP address (page 8).

The folder size is about 200 MB per download, and grows with each update. If you are not about to store the files in the user's profile, administrators can change this location.

Warning

If you change settings in the **arisloader.cfg** file, the settings will be lost after an update setup.

Prerequisite

You have write access to the ARIS installation directory.

Procedure

1. Open the **arisloader.cfg** file (<ARIS installation path>\server\bin\work\work_abs_<s, m or l>\base\webapps\abs\downloadClient\config).
2. Change the default value of **DownloadClientPath="<value>"**.
3. Save the changes.

   When performing an update setup all modifications made manually in CFG or XML files 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.

The files will be downloaded to the defined folder.

1.2.2　　　Change configuration and logging path

If a user starts ARIS Download Client, user specific configuration data and log files are stored in a local directory. By default, on Microsoft Windows OS, all files are stored in sub-folders of the user's profile, for example:

%UserProfile%\ARIS10\DownloadClient\<the ARIS server's IP address or name>

Warning

If you change settings in the **arisloader.cfg** file, the settings will be lost after an update setup.

Prerequisite

You have write access to the ARIS installation directory.

Procedure

1. Open the **arisloader.cfg** file (<ARIS installation path>\server\bin\work\work_abs_<s, m or l>\base\webapps\abs\downloadClient\config).

2. Change the default value of **UserConfigPath=**.

   If you leave this empty, as it is by default, the value of the **DownloadClientPath** will be used.

3. Save the changes.

   When performing an update setup all modifications made manually in CFG or XML files 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.

The files will be downloaded to the defined folder.

1.2.3 Change memory settings

If a user starts ARIS Download Client, the default heap size of 700 MB is used.

You can change the memory settings.

Warning

If you change settings in the **arisloader.cfg** file, the settings will be lost after an update setup.

Prerequisite

You have write access to the ARIS installation directory.

Procedure

1. Open the **arisloader.cfg** file (<ARIS installation path>\server\bin\work\work_abs_<s, m or l>\base\webapps\abs\downloadClient\config).

2. Change the default value of **MaxHeapSize=**.

   If you leave this empty, as it is per default, 700 MB will be used. To specify a maximum heap size of 512 MB, enter **MaxHeapSize=512**.

   Take care about using the correct value. If values are not entered correctly, this may cause severe issues. Possibly ARIS clients might not start or work reliably.

3. Save the changes.

   When performing an update setup all modifications made manually in CFG or XML files 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.

The memory settings are changed for ARIS Download Client.

1.2.4 Use a different JRE

If a user starts an ARIS download client, a local Java Runtime Environment (JRE) is used. This cannot be changed.

After the ARIS client has been downloaded once with the locally installed JRE, you can force all download clients to use one specific JRE to connect to the ARIS Server.

Warning

If you change settings in the **arisloader.cfg** file, the settings will be lost after an update setup.

Prerequisite

▪ You have write access to the ARIS installation directory.

▪ You have zipped the JRE to be used as **jre.zip** file. Please take care, that the JRE must be zipped correctly, thus, the content of the JRE folder must be zipped, not only the **JRE** folder itself.

Procedure

1. Copy the **jre.zip** file to the ARIS installation directory next to the **client.zip** file:

   <ARIS installation path>\server\bin\work\work_abs_<s, m or l>\base\webapps\abs\downloadClient\lib

2. Open the **arisloader.cfg** file (<ARIS installation path>\server\bin\work\work_abs_<s, m or l>\base\webapps\abs\downloadClient\config).

3. Change the default value of **PrivateJRE=<arbitrary indicator for the jre>**.

   You can enter any text string. It is important to change this string every time you have updated the **jre.zip** file. Only if this value has been changed, the **jre.zip** file will be unzipped and downloaded.

4. Save the changes.

   When performing an update setup all modifications made manually in CFG or XML files 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.

All download clients will use the zipped JRE.

To update the JRE version, zip the updated JRE, replace the **jre.zip** file and change the **PrivateJRE** value again.

1.2.5 Use server name as download folder name

To prevent multiple downloads, you can use the server name as download folder name instead.

If a user starts an ARIS download client, all files are downloaded to a local directory. By default, the ARIS server's IP address is used as folder name. The folder size is about 200 MB per download. If you use dynamic IP addresses, every time an ARIS user starts a download client, the same download will appear multiple times for the same server.

Warning

If you change settings in the **arisloader.cfg** file, the settings will be lost after an update setup.

Prerequisite

You have write access to the ARIS installation directory.

Procedure

1. Open the **arisloader.cfg** file (<ARIS installation path>\server\bin\work\work_abs_<s, m or l>\base\webapps\abs\downloadClient\config).

2. Set the value of **UseServerNameAsDownloadFolderName** to **true**:

   UseServerNameAsDownloadFolderName=true

3. Save the changes.

   When performing an update setup all modifications made manually in CFG or XML files 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.

The target folder, where the download client files are downloaded to, will have the ARIS server's name instead of the IP address.

1.2.6 Configure the use of ARIS downloader

If you are using Microsoft Internet Explorer, a Java applet can be used to start ARIS Download Client. If you would like to block Java applets due to security reasons, you can force ARIS to only use ARIS downloader.

Prerequisite

You have access to ARIS Server Administrator.

Procedure

1. Start the command line tool **ARIS Server Administrator**.

2. Enter the login credentials and change the setting for one tenant. Enter:

   set abs.downloadclient.useJARASDownloadClientLauncher true

3. Exit ARIS Server Administrator. The setting is saved in the system database. This means, that this setting will outlast a program update.

This tenant only usesARIS downloader to start ARIS Download Client.

If you use multiple tenants, make sure to change the settings dor each tenant.

1.2.7 Delete encrypted passwords

If a user logs into an ARIS client, the password will be encrypted and stored in configuration files. If you consider this as a security issue, you can force ARIS not to save passwords at all. If you do so, all stored passwords will be deleted automatically.

Warning

If you change settings in the **arisloader.cfg** file, the settings will be lost after an update setup.

All stored passwords will be removed from configuration files. This affects all ARIS severs in your system. Not only the ARIS sever from which the ARIS client was downloaded.

Prerequisite

You have write access to the ARIS installation directory.

Procedure

1. Open the **arisloader.cfg** file (<ARIS installation path>\server\bin\work\work_abs_<s, m or l>\base\webapps\abs\downloadClient\config).

2. Set the value of **DoNotStoreConnectionPasswords** to **true**:

   DoNotStoreConnectionPasswords=true

3. Save the changes.

   When performing an update setup all modifications made manually in CFG or XML files 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.

Download clients do not store any passwords for any server connection. This affects all ARIS servers in your system. All encrypted passwords are deleted from all configuration files.

1.2.8 Make SSL certificate available for ARIS Server

By default, the **loadbalancer** runnable is set to allow both unencrypted HTTP (port 80) and encrypted HTTPS/SSL (port 443) access. In order to use SSL the SSL certificate must fit to the load balancer's host name. Otherwise client connections in particular web browser connections will fail due to an invalid certificate.

Using SSL with ARIS Publisher must be configured in a different way.

OBTAINING A VALID CERTIFICATE

If you want to use SSL, you need a valid certificate for the server on which the load balancer is running. This certificate must be signed by a certificate authority (CA). Please make sure that the certificate is compatible with the Java version of all ARIS clients.

- You can buy a certificate from an official CA. Most clients in particular browsers will trust certificates signed by such a CA.

- If your company uses own CA, use a certificate from this CA and add this CA to the trust store of all clients.

ADDING A VALID CERTIFICATE TO THE LOAD BALANCER

Your certificate must contain two parts:

- The private key used to encrypt information sent back to the client (file extension **.key**).

- The server certificate (file extension **.crt**).

1. Put these two files into a ZIP file.

2. Copy this ZIP file to a local directory that can be accessed by ARIS Cloud Controller (ACC).

3. Start the ACC.

4. Stop the **loadbalancer** runnable. Enter, for example:

   stop loadbalancer_m

5. Enter the ACC command **enhance loadbalancer_<s, m**, or **l> with sslCertificate local file "<path to the ZIP file>"**

   Example:

   enhance loadbalancer_m with sslCertificate local file "c:\\temp\\lbcert.zip".

   If you have blanks or special characters in the path, you must put it in quotes and use a double backslash instead of a single slash. Alternatively, use single forward slashes, for example: **"c:/temp/lbcert.zip"**.

6. Start the **loadbalancer** runnable again. Enter, for example:

   start loadbalancer_m

The SSL certificate is available.

If ARIS clients cannot perform connections to servers using SSL certification, you need to provide an additional certificate (see: **Basic Troubleshooting Guide**).

1.2.9 Make SSL connection mandatory

By default, the load balancer is set to allow both unencrypted HTTP (port 80) and encrypted HTTPS/SSL (port 443) access (see ARIS Cloud Controller (ACC) Command-line Tool.pdf). You can force all download clients of this ARIS Server to only use https connections (encrypted data transfer **SSL**: **S**ecure **S**ocket **L**ayer).

Warning

If you change settings in the **arisloader.cfg** file, the settings will be lost after an update setup.

Prerequisite

- You have write access to the ARIS installation directory.

- A valid SSL certificate is imported to the jre of the ARIS Client.

- The SSL certificate is available for ARIS Server (page 11). Please make sure that the certificate is compatible with the Java version of all ARIS Clients.

Procedure

1. Open the **arisloader.cfg** file (<ARIS installation path>\server\bin\work\work_abs_<s, m or l>\base\webapps\abs\downloadClient\config).

2. Set the value of **ForceSSL** to **true**:

   ForceSSL=true

3. Save the changes.

   When performing an update setup all modifications made manually in CFG or XML files 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.

All download clients of this ARIS Server only use SSL (https) connections. This option cannot be deactivated by ARIS users. The option on the **Login** dialog cannot be changed.

1.2.10   Update certificate for ARIS Download Client applet

This procedure is to be followed only if the JAVA applet is used to start ARIS Download Client. Certificates are valid for a certain period of time. After this period certificates expire. If the the JAVA certificate for the **jar** file that contains the applet on the ARIS Server has expired, you must update it.

You can update the certificates by replacing the **y-aris-client-loader.jar** file manually.

Procedure

1. Log in to the Software AG Download Center (https://aris.softwareag.com), either as Guest or with an existing account.

2. Click **Additional > General**.

3. Download the **ARIS.JavaCertificates.zip** file.

4. Select the folder where the downloaded **ARIS.JavaCertificates.zip** file is stored.

5. Unzip the file and select the folder appropriate to your ARIS version, for example, **10.0.4.1234196**.

6. Use the contained **y-aris-client-loader.jar** file to overwrite the file in the corresponding folder.
   The default **ARIS Web Client Components** directory is **<ARIS installation directory>server\bin\work\work_abs_{s|m|l}\base\webapps\abs\downloadClient\lib**. If you have chosen another installation path, the directory applies as appropriate.

The certificates related to the Java applet are updated.

1.2.11   Enable SSL for ARIS Download Client

Even with valid certificates (that contain the correct server and domain name) purchased from a reliable certificate authority (CA), it may occur that the corresponding root certificate is not available in the JRE currently being used. As a consequence, the JRE is unable to validate the certificate and thus considers it as unknown in the same way it does with certificates that were created internally. This is why you must add the certificate to the certificate store of the JRE in use.

If ARIS Download Client is started using an **ARIS downloader JAR** file but not the Java applet, you can easily roll out an enhanced **cacerts** file. Just place it into the JRE installation path on the machine were the ARIS Server is installed.

1. To roll out the certificate for ARIS Download Client, open your file browser and navigate to the JRE installation path, for example, c:\Program Files (x86)\java\jre**bin**. This directory contains the **keytool.exe** file.

2. To update the required **certs** file located in the <JRE installation path>\lib**security** directory, open a Windows command prompt in this directory and run the command:

    keytool.exe -importcert -file <pathToCertFile> -alias <certificateAlias> -keystore <ARIS installation path>client\jre\lib\security\cacerts -storepass <keystorePassword>

    Replace all <placeholders> with the proper value. Aside from those mentioned above:

    - **<certificateAlias>**

      This placeholder represents a name you give to your certificate. Name it in a way that you can easily identify your certificate from the selection in the cacerts keystore.

    - **<keystorePassword>**

      This placeholder represents the password to the cacerts keystore. Do not use a different password as the default value **changeit**.

3. Copy the **cacerts** file, that was changed (<JRE installation path>\lib**security**), into the on this location:

    <ARIS installation path>\server\bin\work\work_abs_<s|m|l>\base\webapps\abs\downloadClient\config

    If users start ARIS Download Client using an **ARIS downloader JAR** file, this **cacerts** file is downloaded and used.

Users must restart their ARIS Download. Sometimes users are required to restart their browsers. This forces Java to re-read the cacerts keystore.

1.3   Logging

The activities considering the download or the start process of ARIS clients are recorded. Under **%UserProfile%\ARIS<version>\log** and **%temp%** you will find files like **ARISLauncher_<timestamp>.log** or **StartARISFailed_<timestamp>.log**.

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.