



ARIS

SYSTEM REQUIREMENTS

Version 10.0 - Service Release 2 SR2

October 2017

This document applies to ARIS Version 10.0 and to all subsequent releases. Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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Supported Server Operating System Platforms														
Operating System (only 64 bit) (1)(4)			Windows Server 2008	Windows Server 2008 R2	Windows Server 2012	Windows Server 2012 R2	Windows Server 2016	Windows 10	Linux Red Hat ES 6.8 Linux Red Hat ES 6.9	Linux Red Hat ES 7.2 Linux Red Hat ES 7.3	SUSE Linux ES 12	Ubuntu 14.04.x LTS Ubuntu 16.04.x LTS	Oracle Linux 6.x Oracle Linux 7.x	Hosted Software (Amazon EC2 with Windows / Linux)
ARIS Connect Server	10.0	YCS	✓	✓	✓	✓	✓	✓	✓	✓	✓	---	---	✓
ARIS Design Server	10.0	YDS	✓	✓	✓	✓	✓	✓	✓	✓	✓	---	---	✓
ARIS Publisher Server (3)	10.0	YPS	✓	✓	✓	✓	✓	✓	✓	✓	---	---	---	---
ARIS Risk and Compliance Manager (3)	10.0	YRC	✓	✓	✓	✓	✓	✓	✓	✓	---	---	---	✓

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
1	Including all manufacturer's service packs & updates
2	Planned for next Release (April 2018)
3	For ARIS Publisher Server and ARIS Risk and Compliance Manager you need a dedicated machine.
4	x86_64 platforms

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Supported Client Operating System Platforms														
Operating System (only 64 bit) (1) (4)			Windows 7 (Prof., Ult.)	Windows 8	Windows 10 (Prof., Ent.)	Windows Server 2008 Windows Server 2008 R2	Windows Server 2012 Windows Server 2012 R2	Windows Server 2016	Linux RedHat ES 6.8 Linux RedHat ES 6.9	Linux RedHat ES 7.2 Linux RedHat ES 7.3	SUSE Linux ES 12	Ubuntu 14.04.x LTS Ubuntu 16.04.x LTS	Oracle Linux 6.x Oracle Linux 7.x	Hosted Software (Amazon EC2 with Windows)
ARIS Viewer (5) (7)	10.0	YBU	✓	✓	✓	✓	✓	✓	✓	✓	✓	---	---	✓
ARIS Designer (3) (7)	10.0	YAD	✓ (3)	✓ (3)	✓	✓	✓	✓	---	---	---	---	---	✓
ARIS Architect (3) (7)	10.0	YAA	✓ (3)	✓ (3)	✓	✓	✓	✓	---	---	---	---	---	✓
UML Designer (7)	10.0	YUD	✓	✓	✓	✓	✓	✓	---	---	---	---	---	✓
ARIS Connect Viewer (6) (7)	10.0	YCSCC	✓	✓	✓	✓	✓	✓	---	---	---	---	---	✓
ARIS Connect Designer (6) (7)	10.0	YCSDC	✓	✓	✓	✓	✓	✓	---	---	---	---	---	✓
ARIS Business Optimizer (7)	10.0	YBO	✓	✓	✓	✓	✓	✓	---	---	---	---	---	✓

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
1	Including all manufacturer's service packs & updates
2	Planned for next Release (April 2018)
3	ARIS Client with LOCAL only under 64bit Windows
4	x86_64 platforms
5	A single license to view ARIS repository contents on all information in ARIS Publisher, to access and maintain IT system attributes in ARIS IT Inventory, and to manage ARIS Process Governance tasks using a browser.
6	Supported minimal resolution size: 1152 x Y or higher
7	Please be aware the user interface will be hard to read in case you are using a very high screen resolution (e.g. 4k).

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Supported Database Systems												
Database System			Standard database system	Oracle 11.x	Oracle 12.x	MS SQL 2012	MS SQL 2014	MS SQL 2016	IBM DB2 UDB 9.x	IBM DB2 UDB 10.5	ADABAS for Open Systems	ADABAS for Mainframes
ARIS Connect Server	10.0	YCS	✓ (3)	✓ (6)	✓	✓	✓	✓	---	--- (2, 5)	---	---
ARIS Design Server	10.0	YDS	✓ (3)	✓ (6)	✓	✓	✓	✓	---	--- (2, 5)	---	---
ARIS Publisher Server	10.0	YPS	✓ (3)	✓ (6)	✓	✓	✓	✓	---	---	---	---
ARIS Risk and Compliance Manager	10.0	YRC	✓ (4)	✓ (6)	✓	✓	✓	✓	---	---	---	---

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
1	Including all manufacturer's service packs & updates
2	Planned for next Release (April 2018)
3	Only for demo scenarios or small number of users
4	Only for demo scenarios. Not for production.
5	Installation only with support from Software AG
6	Usage of Oracle 12 is strongly recommended. Oracle 12 using 'SECURE FILES' approach for persistence as default, while 'BAISC FILES' is default in Oracle 11. SECURE FILES do provide much better performance but within Oracle 11 we do have issue with that approach.

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Supported Web Browser & JAVA version											
Web Browser			Internet Explorer 11	Microsoft Edge	Firefox 45 or higher	Google Chrome	Safari 9 or higher			JAVA version	1.8.0.x
ARIS Viewer	10.0	YBU	✓ (3)	✓ (5)	✓ (5)	✓ (5)	---				n.a.
ARIS Designer	10.0	YAD	✓ (3)	✓	✓ (5)	✓ (5)	---				✓ (4)
ARIS Architect	10.0	YAA	✓ (3)	✓	✓ (5)	✓ (5)	---				✓ (4)
UML Designer	10.0	YUD	✓ (3)	✓	✓ (5)	✓ (5)	---				✓ (4)
ARIS Connect Viewer	10.0	YCSCC	✓ (3)	✓	✓	✓	---				n.a.
ARIS Connect Designer	10.0	YCSDC	✓ (3)	✓	✓	✓	---				n.a.
ARIS Business Optimizer	10.0	YBO	✓ (3)	✓	✓ (5)	✓ (5)	---				✓ (4)
ARIS Risk and Compliance Manager	10.0	YRC	✓ (3)	✓	✓	✓	---				n.a.

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
n.a.	Not applicable
1	Including all manufacturer's service packs & updates
2	Planned for next Release (April 2018)
3	Enterprise mode of Internet Explorer 11 is not supported. (due to various control incompatibilities)
4	Locally installed clients (e.g. ARIS Architect/Designer, UML-Designer etc" require a 32-Bit JRE. 64-Bit-JREs are not supported for locally installed products. Download clients run with 64-Bit-JREs, but with partly limited functionality, such as using OLE objects in models or saving statistics in Minitab format during simulation.
5	For security reasons, Java applets are blocked by an increasing number of recent versions of browsers. Due to this blocking behavior, the ARIS download clients can be neither downloaded nor started in such browsers. For this reason, for some releases we provide the ARIS downloader as an additional means of starting download clients. This downloader is a JAR file that can be run using a locally installed Java Runtime Environment (JRE). The download process is identical to the one performed with a Java applet. The downloader checks whether the ARIS download client already exists, downloads a newer version of the ARIS download client, if required, and then launches ARIS. With some browser versions, the new download option is used as the default. Further information is available in the documents on ARIS installation and ARIS administration (Configuration → Download Client). ARIS Publisher extension "SAP connectivity" (start SAP transactions from Publisher) is not supported due to this reason with Microsoft Edge, Google Chrome and Firefox 52 or higher.

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Supported Web Application Server										
Web Application Server			Tomcat 8.5.x							
ARIS Connect Server (3)	10.0	YCS	✓							
ARIS Publisher Server	10.0	YPS	✓							
ARIS Risk and Compliance Manager	10.0	YRC	✓							

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
1	Including all manufacturer's service packs & updates
2	Planned for next Release (April 2018)
3	ARIS Connect Applications are running within Apache Tomcat 8.5.x. Deployment within other Application Server is currently not supported.

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Supported Mobile Platforms												
Mobile OS			Android 4.4	Android 5.0	iOS 8.x	iOS 9.x	Windows Mobile					
ARIS Connect Viewer	10.0	YCSCC	✓	✓	✓	✓	✓					

Tested Mobile Devices												
			Nexus 7 II	iPad 4 th generation (3)								
ARIS Connect Viewer	10.0	YCSCC	✓	✓								

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
1	Including all manufacturer's service packs & updates
2	Planned for next Release (April 2018)
3	Model number A1458, A1459 (GSM), A1460 (MM)

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Supported LDAP systems

Other LDAP systems have to be configured by Software AG Global Consulting Services (GCS).

LDAP system			Active Directory Domain Services Windows 2008 Server	Active Directory Domain Services Windows 2012 Server	Net IQ eDirectory 8.8 SP8	Oracle Directory Server Enterprise Edition 11g	IBM Tivoli Directory Server 6.1						
ARIS Connect Server	10.0	YCS	✓	✓	✓	✓	✓						
ARIS Design Server	10.0	YDS	✓	✓	✓	✓	✓						
ARIS Publisher Server	10.0	YPS	✓	✓ (3)	✓ (3)	✓ (3)	✓ (3)						
ARIS Risk and Compliance Manager	10.0	YRC	✓	✓ (3)	✓ (3)	✓ (3)	✓ (3)						

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
1	Including all manufacturer's service packs & updates
2	Planned for next Release (April 2018)
3	If Publisher authenticates against ARIS Central User Management (UMC)

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Supported Single Sign-On Technologie												
Single Sign-On			Kerberos	SAML 2.0 (3)								
ARIS Viewer	10.0	YBU	✓	✓								
ARIS Designer	10.0	YAD	✓	---								
ARIS Architect	10.0	YAA	✓	---								
UML Designer	10.0	YUD	✓	---								
ARIS Connect Viewer	10.0	YCSCC	✓	✓								
ARIS Connect Designer	10.0	YCSDC	✓	✓								
ARIS Publisher Server	10.0	YPS	✓	---								
ARIS Business Optimizer	10.0	YBO	✓	---								
ARIS Risk and Compliance Manager	10.0	YRC	✓	✓								

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
1	Including all manufacturer's service packs & updates
2	Planned for next Release (April 2018)
3	For more details see "ARIS Installation and Administration Guide"

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Supported Document Management Systems												
Document Management System			Microsoft SharePoint 2010	Microsoft SharePoint 2013	Microsoft SharePoint 2016							
ARIS Connect Server	10.0	YCS	---	✓	✓							
ARIS Design Server	10.0	YDS	---	✓	✓							
ARIS Publisher Server	10.0	YPS	---	✓	✓							
ARIS Risk and Compliance Manager	10.0	YRC	---	✓	✓							

Legend	
✓	Supported / Released (
---	Not supported / Not released / Not planned
1	Including all manufacturer's service packs & updates
2	Planned for next Release (April 2018)

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ARIS Compatibility with other Software AG Products												
Software AG Products	Alfabet 10.0	API Portal 10.0	ARIS 10.0	ARIS Risk and Compliance Manager 10.0	CentraSite / webMethods 9.7	CentraSite / webMethods 9.8	CentraSite / webMethods 9.9	CentraSite / webMethods 9.10	CentraSite / webMethods 9.12	CentraSite / webMethods 10.0	MashZone NextGeneration	
ARIS 10.0	✓	✓		✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓ (1,3)	✓ (1,3)	✓	
ARIS Risk and Compliance Manager 10.0	---	---	✓		---	---	---	---	---	---	✓	

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
1	M2E Use case
2	Planned for next Release (April 2018)
3	Support of REST service in service request szenario between ARIS and CentraSite

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Languages			Arabic	Chinese (Simplified Chinese)	Czech	Dutch	English	French	German	Hungarian	Italian	Japanese	Polish	Portuguese (Brazilian Portuguese)	Russian	Spanish	Swedish	Turkish
ARIS Connect Server	10.0	YCS	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	---	✓ (1)
ARIS Design Server	10.0	YDS	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	---	✓ (1)
ARIS Viewer	10.0	YBU	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	---	✓ (1)
ARIS Designer	10.0	YAD	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	---	✓ (1)
ARIS Architect	10.0	YAA	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	---	✓ (1)
UML Designer	10.0	YUD	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	---	✓ (1)
ARIS Connect Viewer	10.0	YCSCC	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓ (1)
ARIS Connect Designer	10.0	YCSDC	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	---	✓ (1)
ARIS Business Optimizer	10.0	YBO	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	---	✓ (1)
ARIS Publisher Server	10.0	YPS	✓ (1)	✓ (1)	✓ (1)	✓ (1)	✓	✓	✓	✓ (1)	✓ (1)	✓	✓ (1)	✓ (1)	✓ (1)	✓ (1)	---	✓ (1)
ARIS Risk and Compliance Manager	10.0	YRC	---	✓ (1)	---	---	✓	✓	✓	✓ (1)	✓ (1)	✓	---	✓ (1)	---	✓	---	---

Legend	
✓	Supported / Released
---	Not supported / Not released / Not planned
1	Documentation and online help in English
2	Planned for next Release (April 2018)

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Hardware Scenarios Design & Connect Server				
Scenario	# Conc. Users	Single Server (Minimum HW)	Single Server (Recommended HW)	Distributed / Fail safe
Hardware Scenarios Design & Connect Server (without Dashboarding)				
Demo scenario	only for demo	7 GB (free RAM) 6 CPU Cores >= 50GB free HD Space	7 GB (free RAM) 6 CPU Cores >= 50GB free HD Space	
Medium	1-50	19 GB (free RAM) 8 CPU Cores >= 100GB free HD Space (2)	24 GB (free RAM) 12 CPU Cores >= 100GB free HD Space (2)	
Large (Oracle or MS SQL recommended)	50-200	30 GB (free RAM) 12 CPU Cores >= 100GB free HD Space (2)	36 GB (free RAM) >= 16 CPU Cores >= 100GB free HD Space (2)	(Individual) Configuration (1)
Hardware Scenarios Design & Connect Server (with Dashboarding)				
Demo scenario	only for demo	8 GB (free RAM) 6 CPU Cores >= 50GB free HD Space	8 GB (free RAM) 6 CPU Cores >= 50GB free HD Space	
Medium	1-50	23 GB (free RAM) 12 CPU Cores >= 100GB free HD Space (2)	28 GB (free RAM) 12 CPU Cores >= 100GB free HD Space (2)	
Large (Oracle or MS SQL recommended)	50-200	38 GB (free RAM) 16 CPU Cores >= 100GB free HD Space (2)	44 GB (free RAM) >= 16 CPU Cores >= 100GB free HD Space (2)	(Individual) Configuration (1)
XL, XXL, ... (Custom) (only with Oracle or MS SQL)	>200		(Individual) Configuration (1)	(Individual) Configuration (1)

(1) Please contact ARIS Support

(2) We recommend this disc space for a new installation. For an update, we recommend more free HD space (at least 100GB plus size of current work space).

(free RAM) Only space for ARIS. Additional space for Operating System must be added.

Software AG recommends to install ARIS 10.0 not on the same host together with ARIS 9.x. Due to additional functionality, hardware requirements are higher as ARIS 9.8.

Software AG recommends to monitor utilization (of RAM & CPU Cores) in productive environment. Due to the number of users / databases, complexity of databases and other influencing factors, hardware recommendation could be higher.

The database server (MSSQL/Oracle) must be installed, configured and sized according to the manufacturer's instructions.

To avoid performance issues, the following is recommended:

- A dedicated Oracle database instance should be provided to host ARIS data only
- ARIS Servers and the DBMS server should be on different hosts
- The DBMS server should be on a physical host
- ARIS servers and the DBMS server have to be connected with a high performance network (> 1Gbit/s, very low latency).
Network bandwidth and latency should be monitored and have to be ensured at all times, independent from the load on the ARIS servers or other systems that might share the same network connection.

Concerning the sizing of an Oracle database server we recommend to set the memory_target to a minimum value of 4 GB or 10% of the total size of all segments in all schemas, whichever is higher.

Concerning the sizing of a SQL Server instance we recommend to set the "max server memory (MB)" parameter to a minimum of 4000 or 10% of the space that is used in the SQL Server database for ARIS, whichever is higher. In case the SQL server is not dedicated to host only ARIS as application, the value has to be increased in the respective sense.

Hardware Scenarios Client (Installed ARIS Architect)				
Scenario	# users	Minimum	Recommended	Bandwith
without local database system	1	2GB >= 2GB free HD Space	4GB >= 2GB free HD Space	100 Mbit/s Lower bandwidths can result in reduced performance.
with local database system	1	8GB >= 20GB free HD Space (plus sufficient disk space for user databases)	>8GB >= 20GB free HD Space (plus sufficient disk space for user databases)	

Hardware Scenario Download Client				
Scenario	# users	Minimum	Recommended	Bandwith
without local database system	1	2GB >= 200MB free HD Space	4GB >= 200MB free HD Space	100 Mbit/s Lower bandwidths can result in reduced performance.

Hardware Scenarios Publisher Server				
Scenario	# Conc. Users	Processor	(free) RAM	Controller & Hard disk
Demo scenario	only for demo	4 CPU Cores	3 GB	
Medium	1 - 100	8 CPU Cores	12 GB (2)	SAS/SATA/SSD with RAID 0 option Rapid RAID array
Large	100 - 300	16 CPU Cores	32 GB (2)	SAS/SATA/SSD with RAID 0 option Rapid RAID array
XL, XXL, ... (Custom)	> 300	(Individual) Configuration (1)		
(1) Please contact ARIS Support				
(2) ARIS Publisher Server setup will configure the memory lower. To increase the memory settings, please provide additional memory for publisher runnable. (See ARIS Server Installation and Administration Guide --> "Provide Additional Memory")				
Please contact ARIS Support for XL or larger scenarios. Software AG recommends to monitor utilization (of RAM & CPU Cores) in productive environment. Due to the number of users / databases, complexity of databases and other influencing factors, hardware recommendation could be higher. If you are about to use all ARIS server types in your system, ARIS Connect Server, ARIS Design Server, ARIS Publisher Server and ARIS Risk & Compliance Manager Server must be installed on different machines. You can only install one server on one machine.				

Hardware Scenarios ARIS Risk & Compliance Manager			
Scenario	# Conc. Users	Single Server (Recommended HW)	Distributed / Fail safe
Demo scenario	only for demo	8 GB 4 CPU Cores >= 10GB free HD Space	
Medium	1-50	32GB 8 CPU Cores >= 50GB free HD Space	
Large (Oracle or MS SQL recommended)	50-300	64GB 16 CPU Cores >= 50GB free HD Space	(Individual) Configuration (1)
XL, XXL, ... (Custom) (only with Oracle or MS SQL)	>300	(Individual) Configuration (1)	(Individual) Configuration (1)
(1) Please contact ARIS Support			

Virtual Machine Support

Software AG provides for all its software the definitions of supported, documented platform configurations (referred to here just as 'supported platform') which will include specific Operating System (OS) and hardware configurations, and may include Java Virtual Machine (JVM) and database versions. Customers can use a commercially available virtualization environment for a Software AG production environment if it accurately and completely emulates one of the supported platforms.

Customers who use virtual environments are required to comply fully with their contractual terms and conditions for licensing.

Software AG tests its software for operation on the supported platforms and not specifically against all possible combinations of hardware that might be comprised that operating system (for example, file system, disk controllers, memory configuration, display devices and so on). Therefore, the correct expertise, provision and management of a hardware configuration to support the platform remain the responsibility of our customers, whether directly using physical hardware or a virtualization environment. Software AG recommends physical hardware or, if ARIS products are used in a virtual environment, sufficient resources must be available in order to avoid the risk of overbooking.

Software AG tests and supports certain products on the specific virtualized environments listed in the system requirements section of the product documentation. Customers can use a different virtualized environment that accurately and completely emulates one of the supported platforms; however, if they encounter an issue that Software AG judges might be caused by the virtualized environment, then the customer is responsible for reproducing the issue on an actual supported platform before further analysis can take place. Software AG Global Support will refer customers to the Global Consulting Services group for guidance or recommendation about the use of virtualization software, or, if required, the best approaches for copying a system to a supported platform.

Disclaimer

ARIS products are intended and released for use by persons. Automated processes, such as the generation of content and the import of objects/artefacts via interfaces, can lead to an outsized amount of data, and their execution may exceed processing capacities and physical limits. Processing capacities are exceeded, for example, if models and diagrams are larger than the size of the modelling area, or when an extremely high number of processing operations is started. Physical limits may be exceeded if the memory available is not sufficient for the execution of operations and 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 in order to avoid the risk of overbooking.

This product was tested using scenarios that included 100,000 groups (folders), 100,000 users, and 1,000,000 modeling artefacts. It supports a modelling area of 25 square meters.

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.

If projects or repositories exceed the limits, a powerful functionality is available to break them down into smaller, more manageable parts.