



# **ARIS**

## **RELEASE NOTES**

Version 10.0 Service Release 9

June 2019

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

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## 1 Version information

Name	Version	Release date
<b>ARIS 10.0 SR9</b>	10.0.9.0	28.06.2019
<b>ARIS 10.0 SR8</b>	10.0.8.0	16.04.2019
<b>ARIS 10.0 SR7</b>	10.0.7	20.12.2018
<b>ARIS 10.0 SR6</b>	10.0.6	16.10.2018
<b>ARIS 10.0 SR5b</b>	10.0.5.1	20.09.2018
<b>ARIS 10.0 SR5</b>	10.0.5	13.07.2018
<b>ARIS 10.0 SR4b</b>	10.0.4.1	14.05.2018
<b>ARIS 10.0 SR4</b>	10.0.4	17.04.2018
<b>ARIS 10.0 SR3</b>	10.0.3	21.12.2017
<b>ARIS 10.0 SR2c</b>	10.0.2.3	29.11.2017
<b>ARIS 10.0 SR2b</b>	10.0.2.2	07.11.2017
<b>ARIS 10.0 SR2</b>	10.0.2.1	17.10.2017
<b>ARIS 10.0 SR1</b>	10.0.1	14.07.2017
<b>ARIS 10.0</b>	10.0.0.2	19.04.2017

## 2 General information

### Supported platforms

For detailed information about supported platforms see  
**Documents\English\2 System requirements\ARIS System Requirements.pdf**

### New features

For detailed information about new features in ARIS 10.0 see  
**Documents\English\1 Overview\ARIS Feature Overview.pdf**

## 3 Fixes in ARIS 10.0 SR9

### ARIS Server

- The creation of new tenants in multi-node environments now no longer fails if tenants were previously deleted from the environment. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > ARIS Server and Tenant Management" > Managing tenants".) (Pivotal 1370465)
- The connection from ARIS Server Administrator and Script Runner installed under Linux to a corresponding server is now correctly established. (See also "ARIS > Help > Working with ARIS", topic area "Evaluate data > Use reports", page "Automatically start reports with Script Runner" and "ARIS Configuration and Administration > ARIS Server and Tenant Management > ARIS Server Administrator".) (Pivotal 5369680)
- The "Select change list" dialog of the login wizard now opens even if no description is available for the relevant change list. (See also "ARIS > Help > Working with ARIS", topic area "Navigate and edit items", page "Open database", link "Versionable databases".)

### ARIS Connect

- The performance of the portal in ARIS Connect was improved so that loading and displaying data is faster now. (Pivotal 5363161)
- The navigation button „Go up in hierarchy“ is now no longer deactivated when the navigation tree is collapsed. (See also „Help“, topic area „Use ARIS Connect > Work in the portal > Views > Navigate“, page „Navigate using fact sheet buttons“.) (Pivotal 5363975)
- The performance of the Model Viewer in ARIS Connect was improved so that loading and displaying models is faster now. (Pivotal 5364572)
- A correction was made to the standard configurations of ARIS Connect so that users can now view only components for which they have the required privileges. Users are no longer redirected to a component other than the one selected when they click a link to access a component for which they do not have the required privileges. (Pivotal 5365249)
- Highlighting is now refreshed correctly in the Model Viewer when a user with the „ARIS Connect Viewer“ and „Contribution“ license privileges changes the value of a highlighted attribute. (See also „Help“, topic area „Use ARIS Connect > Work in the portal > Contribute as a viewer“, page „Change values of items“ and „Use ARIS Connect > Work in the portal > Use models > Model Viewer“, page „Switch highlighting on“.) (Pivotal 5366707)
- Scroll bars are now no longer displayed when the content of the Home area fits entirely in the browser window. (Pivotal 5367745)
- In Collaboration, links included in the message body of e-mail notifications are now displayed in such a way that users can recognize them as links. Furthermore, they are now shown with the color specified for them in ARIS Administration. (Pivotal 5367335)

### **ARIS for SAP**

- Test path recording was improved in such a way that the memory consumption on ARIS Client no longer exceeds a given threshold, especially when large images are contained in the recorded test models. (See also: "ARIS > Help > Working with ARIS", topic area " Special topics and functions > Test Designer ", page "Generate test paths".) (Pivotal 5358651)
- Document descriptions are now transferred to the SAP system. (See also: "ARIS > Help > Working with ARIS", topic area " Special topics and functions > ARIS for SAP Solutions > Common handling (version independent) > Use SAP documentation", page "Transfer SAP documentation to SAP Solution Manager".)

### **ARIS Architect / Designer**

- When connections are deleted in a model, the layout of the connections that remain in the model is no longer updated. (Pivotal 5365870)
- Corrections were made in order to improve the display of attribute values within object symbols. Values of attributes placed in an object now no longer overlap. (Pivotal 5366753)
- A JDK 1.7-related sorting algorithm was replaced so that saving models now works correctly. (Pivotal 5368423)
- Corrections were made in order to improve the display of graphics in EMF (Enhanced Metafile) format. Graphics of this type are now displayed correctly in ARIS Architect/Designer and in the Model Viewer of ARIS Connect. (Pivotal 5362910, 5368701)
- Improvements were made to the layout algorithms used for Smart Modeling in ARIS Architect/Designer and ARIS Connect. (See also "ARIS > Help" > Working with ARIS", topic area "Create models > ARIS models > Use Smart Modeling" and "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Model", page "Use Smart Modeling".)

### **ARIS Analysis**

- Hiding and showing a large number of columns and rows was improved in such a way that all hidden columns and rows now remain hidden when a table is saved and opened again. They are shown again only if a user clicks "Show columns" or "Show rows". (See also "ARIS > Help > Work with ARIS", topic area "Create models > Spreadsheets > Advanced editing", pages "Show hidden columns" and "Show hidden rows".)

### **ARIS Process Governance**

- APG Web services are now able to correctly process input data that does not comply with the UTF-8 format, for example, language-specific special characters. (Pivotal 5369663)

## ARIS Report

- Generating a table of contents using ARIS report script API now no longer results in the creation of empty chapters. Instead, the required subchapters are created. (Pivotal 5364167)
- An improvement was made to the report-based import of user-defined models from an Excel file. The objects are now correctly aligned in the models and do no longer overlap. (Pivotal 5364462)
- A correction was made to the ARIS report script API so that texts and table cells are now correctly aligned. (Pivotal 5365264)
- A correction was made to the ARIS report script API so that changes made to a text box are now correctly identified. (Pivotal 5365722)
- Object symbols that are output using ARIS report script API now have a normal size in the report output. (Pivotal 5367043)
- The ARIS report "Output database information" now returns a correct result regarding the user privileges of a user associated with a user group to which no database privileges (neither access privileges nor function privileges) are assigned. If you select the name of an open database, you can start the functionality using the pop-up menu or clicking "Start" > "Database > Output database information". (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Manage databases", page "Output database information".) (Pivotal 5368727)
- Documents generated by a report are now correctly assigned the name that the user specified for the report.
- The "IoT device import" report now issues an appropriate error message indicating that no server protocol was specified or that the server protocol specified is wrong.

## ARIS Document Storage

- Report script API method "getDocumentById" now returns NULL if a requested document ID is not available. (See also "ARIS > Help > ARIS Script", topic area "Methods for reports and semantic > Global objects > Report component interfaces > ADS > ADSRepository", page "getDocumentById(String : ADSDocument).") (Pivotal 5364381)

## ARIS Method

- In ARIS Connect, the fact sheet "Option sets" was added to the GDPR configuration set.

## ARIS Risk & Compliance Manager

- The GDPR report "Output record of processing activities" is now available in other languages than English.
- Corrections were made to the behavior of date filters. If you specify a point in time for filtering, such as the beginning of a month or the start of a fiscal year, and then manually enter a date, the date entered manually is now used for filtering. This date is no longer overwritten with the point in time that was specified before.
- When a user session expires, now the login dialog is displayed so that the user can log in again.
- The version displayed for an object from the "My issue-relevant objects" list is now the one that was valid when the object was marked as issue-relevant.
- The "My GRC tasks" area in the portal of ARIS Connect is now displayed only to users that have the required privileges. (See also ARIS Risk & Compliance Manager, "Help > Work with ARIS Risk & Compliance Manager" topic area "Manage data in ARIS Connect", page "Show my GRC tasks".)
- If you remove the assignment of a document to an issue, it is now possible for you to assign the document to the issue again.
- ARIS Risk & Compliance Manager now issues an appropriate message during startup if the database user does not have the privileges required for checking the existing database schema.
- Environment backups now also include the current tasks assigned to users (Home > My tasks). (See also ARIS Risk & Compliance Manager, "Help > Work with ARIS Risk & Compliance Manager" topic area "Manage data in ARIS Connect > Use Administration", page "Back up environments".)
- The time for reloading data feeds used in ARIS Risk & Compliance Manager dashboards was set to 15 seconds so that updating data is faster now.
- Migrating data now works correctly even if the internal object ID of the system user changes during database migration.
- It is now possible to specify an end date that is later than 2100.
- Improvements were made to the behavior of ARIS Risk & Compliance Manager in a multi-node installation with a high load and a high access rate.
- The tooltip for model shortcuts in hierarchy forms was changed to "Open model in ARIS Connect".
- User ID and GUID conflicts are now automatically resolved during user synchronization.
- If the "Frequency" attribute is set to "None (only event-driven)", specifying the "Time limit for execution in days" and "Start date" attributes is no longer mandatory. The values for the "Time limit for execution in days" and "Start date" attributes are queried in a dialog during event-driven generation.



## 4 Fixes in ARIS 10.0 SR8

### ARIS Server

- When a search is performed in ARIS, the name attribute of items found is now always displayed first in the list of search results.  
(See also „ARIS > Help > Working with ARIS“, topic area „Navigate and edit items“, page „Search for database content“.) (Pivotal 5351572)
- When reports containing graphics are run, temporary files are now always correctly deleted from the 'base/temp' directory on ARIS Business Server and High Duty Server.  
(Pivotal 5353690)
- Restarting the cloud search runnable no longer results in the corruption of internal cloud search memory structures in the RAM. This problem and subsequent errors can no longer occur. (Pivotal 5354380, 5356658, 5351826)
- Models including user-defined attributes that were created using older versions of ARIS (older than ARIS 7.0.2) now always successfully open in ARIS Connect Designer.  
(Pivotal 5355213)
- The size of backup files for ARIS databases now no longer increases significantly when a database contains a large number of graphic images.  
(See also „ARIS > Help > Working with ARIS“, topic area „ARIS Configuration and Administration > Manage databases“, page „Back up databases“.) (Pivotal 5357444)
- Unique constraint violation errors can no longer occur during versioning.  
(See also „ARIS > Help > Working with ARIS“, topic area „Edit models > Check and approve models“, page „Version models“.) (Pivotal 5359719)

### ARIS Connect

- The sorting function used for table-based modeling was improved in such way that sorting model items is now easier and more user-friendly.  
(See also "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Model > Model table-based".) (Pivotal 5336873)
- Diagrams that you open by clicking a link are now always correctly displayed.  
(Pivotal 5349900)
- When 'Fit to window' is selected in the 'Diagram' fact sheet, now the entire space of the window is used for displaying a graphic. Margins are no longer created.  
(See also "Help", topic area "Use ARIS Connect > Work in the portal > Use models > Model Viewer", page "Use the view bar".) (Pivotal 5351721)
- When you refresh a browser, the focus now always stays on the current tab.  
(Pivotal 5351848)

- In ARIS Connect Designer, user-defined symbols now always have the correct size (height and width) when being placed. (Pivotal 5354852)
- If an existing object is placed within another object, this action no longer results in an additional object being created.  
(See also "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Extended editing > Use objects", page "Place an object in an object".) (Pivotal 5352710)
- Toolbars are no longer displayed twice in the diagram view of ARIS Connect.  
(See also "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Customize ARIS Connect Designer > Valuable information", page "How is ARIS Connect Designer structured?".) (Pivotal 5353118)
- When a user tries to access an item component in ARIS Connect without having the required privileges, the user is no longer directed to error page 404. (Pivotal 5354373)
- Customized buttons are no longer displayed twice in ARIS Connect. (Pivotal 5355038)
- Refreshing the display of report notifications now works correctly with Internet Explorer® 11. (Pivotal 5355085)
- The tooltips for the 'Reports', 'Edit tasks', and 'My content filters' buttons are now correctly displayed when the mouse pointer is positioned over them.  
(For example, see "Help", topic area "Use ARIS Connect > Basics", page "Show tasks in My tasks".) (Pivotal 5357379)
- The columns of a matrix from the 'Table' fact sheet are now correctly aligned.  
(See also "Help", topic area "Use ARIS Connect > Work in the portal > Use models > Table", page "Open the matrix of a table".) (Pivotal 5360078)
- The 'Description' column of the 'Overview' fact sheet now displays the entire text.  
(See also "Help", topic area "Use ARIS Connect > Work in the portal > Views > Classic", page "Groups", Link "Fact sheets of ARIS models".) (Pivotal 5360442)

## ARIS BPMN

- The error message relating to the EPC-to-BPMN transformation was improved. It now indicates that the transformation has failed because the method filter in use does not contain the required BPMN object(s).  
(See also "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance", page "Transform models".) (Pivotal 5352854)
- Corrections were made to the 'Start events and end events in a process' semantic check rule. The corresponding semantic check now complies with the BPMN specification.  
(See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Create scripts", page "Create semantic check".)  
(Pivotal 5354391)

## ARIS Architect / Designer

- Document links that are used as placed model or object attributes and that reference documents whose names use Arabic characters now work correctly. Clicking such a link now opens the relevant document.  
(See also "ARIS > Help > Working with ARIS", topic area "Create models > Place attributes".)  
(Pivotal 1358189)
- Information marks indicating errors or warnings in a model are now no longer displayed when the relevant semantic check is run again after the errors were fixed.  
(See also "ARIS > Help > Working with ARIS", topic area "Edit models > Check and approve models", page "Run semantic checks".) (Pivotal 5344373)
- Macros triggering the 'Object is to be copied (vetoable)' event now always run correctly when a definition copy is created in a model.  
(See also "ARIS > Help > Working with ARIS", topic area "Evaluate data", page "Use macros".) (Pivotal 5350135)
- The names of lanes inserted into BPMN diagrams are now aligned correctly (in the lane headers) when a template is applied to the diagram.  
(See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Specify conventions", page "Assign a template to an ARIS model type".)  
(Pivotal 5350433)
- Links of user-defined link attributes that are read-only are now clickable again.  
(See also "ARIS > Help > Working with ARIS", topic area "Create models > ARIS models", page "Insert executable links for model items".) (Pivotal 5350946)
- In BPMN diagrams, it is now possible to draw a connection from an event subprocess to another pool.  
(See also "ARIS > Help > Work with ARIS", topic area "Create models > BPMN diagrams".)  
(Pivotal 5353705)
- User-defined symbols are now displayed with the correct size (height and width) when a model template is applied to a model using a script.  
(See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Specify conventions", page "Create template".)  
(Pivotal 5353828)
- Combined values are now correctly displayed. (Pivotal 5354263)

## ARIS Publisher

- Links that are used as placed model attributes are now always clickable. (Pivotal 5344739)
- After having selected 'Filters > Characteristics', you can now search for any value in the list.  
(Pivotal 5356779)

## ARIS Report

- When the report script API is used to specify a time zone-dependent attribute, now the correct time is used on servers that are being operated at locations in other time zones. (Pivotal 5347960)
- Reports that are run by the report script API now correctly apply the margin settings specified in the report script. (Pivotal 5348117)
- Corrections were made to the 'Export attribute values for translation' report so that exporting attribute values now works correctly when UML elements are not allowed by the filter in use. (See also „ARIS > Help > Working with ARIS“, topic area „Evaluate data > Use reports > ARIS reports > Standard“, page „Report: Export attribute values for translation“.) (Pivotal 5350935)
- During the procedure of debugging a macro that calls a report, the debugging window now always displays the corresponding report code. (Pivotal 5351697)
- ARIS report script API method „getBpmnParent ()“ was improved so that it now returns NULL instead of a null pointer exception when no lane or pool is assigned to a BPMN diagram. (See also „ARIS > Help > ARIS Script“, topic area „Methods for reports and semantic checks > Global objects > Report component interfaces > Designer > BPMN 2 Support > Bpmn2ReportServices“, page „setBpmnParent (ObjOcc,ObjOcc) : void ..“.) (Pivotal 5352346)
- Corrections were made to the „Context.getExcelReader()“ ARIS report script API method so that this method now successfully opens large Microsoft Excel files on the server. (See also „ARIS > Help > ARIS Script“, topic area „Methods for reports and semantic checks > Global objects > Context“, page „getExcelReader (byte[])“.) (Pivotal 5352498)
- If 'English (United Kingdom)' is configured in addition to the alternative language 'English (United States)' in the ARIS Connect portal, the language fallback mechanism for reports now works correctly, which means that the appropriate language is used for displaying report names. (See also „ARIS > Help > Working with ARIS“, topic area „General > Valuable information“, page „What are languages in ARIS?“.) (Pivotal 5356780)

## ARIS Risk & Compliance Manager

- Audit steps that were deactivated are no longer taken into account during audit progression and in evaluations. (Pivotal 5349321)
- Changes were made in order to improve synchronization between ARIS and ARIS Risk & Compliance Manager. In this context, special attention was given to optimizing the deletion of deactivated objects. (Pivotal 5354415)
- Server tasks that become obsolete after the migration of a database are now canceled to make sure that subsequent tasks are able to run. (Pivotal 5359743)

## ARIS Method

- Models containing user-defined attribute types that use the 'Value' data type now correctly open in ARIS Connect.  
(See also ARIS Architect, „ARIS > Help > Working with ARIS“, topic area „ARIS Configuration and Administration > Manage ARIS Method“, page „Create attribute type with values“.)  
(Pivotal 5350065)
- When 'Value-added chain' symbols (ST\_VAL\_ADD\_CHN\_SML\_1 and ST\_VAL\_ADD\_CHN\_SML\_2) are zoomed in, now the gray line at the top is no longer removed.  
(Pivotal 5356996)

## 5 Fixes in ARIS 10.0 SR7

### ARIS Connect

- In ARIS Connect Designer, improvements were made so that sorting a table in table-based modeling is more user-friendly now. (See also "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Model > Model table-based".) (Pivotal 5336873)
- The search result is now sorted alphabetically in ARIS Connect. (See also "Help", topic area "Basics", page "Open the search area".) (Pivotal 5338727)
- ARIS Connect now responds immediately when work is resumed (for example, by clicking an assignment icon in a model) after an idle time of several minutes has elapsed. (Pivotal 5338759)
- When you switch to another database on the "Home" tab in ARIS Connect, the models of the other database are now correctly displayed. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Navigate", page "Select database".) (Pivotal 5344137)
- The model viewer in ARIS Connect now correctly displays user-defined attributes, for example, attributes specified for the duration of an operation. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use models > Model viewer".) (Pivotal 5344855)
- The glossary/catalog now always shows the filter options for column headers. (See also "Help", topic area "Use ARIS Connect > Use the Catalog.") (Pivotal 5346667)
- Applying a content filter (role-based filter) now correctly filters the result of the ARIS Connect search. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Use filters.") (Pivotal 5347235)
- A scroll bar was added to the drop-down list box of the glossary/catalog so that you can now select any entry contained in the list. (See also "Help", topic area "Use ARIS Connect > Use the Catalog.") (Pivotal 5347260)
- When you use SSO (Single Sign-On), you are now correctly forwarded to the pages defined in the SAML configuration (entries: "Single sign-on URL" and "Single logout URL"), for example, when you log out from SSO. (See also "Help", topic area "Manage ARIS Connect > Configure ARIS Connect > Set up user management > Customize ARIS for LDAP server operations", page "Configure single sign-on".) (Pivotal 5347587)
- Temp files generated during a tenant backup are now deleted when the backup is complete. (Pivotal 5347595)
- The "Steps" fact sheet now displays the full name of objects as multi-line text. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Views > Valuable information, page "What is the Steps fact sheet for?".) (Pivotal 5347739)
- In a RACI table, columns are now correctly aligned even if a high number of connections is evaluated. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Views > Valuable information, page "What is the RACI fact sheet for?".) (Pivotal 5348209)

- Now, the correct amount of data is displayed for user-defined item types in ARIS Contribution and the corresponding items are editable. (See also "Help", topic area "Manage ARIS Connect > Configure ARIS Connect > Configure Portal > Manage configuration and modification sets > Valuable information", page "What is ARIS Viewer Contribution?".)

### ARIS Server

- Restoring databases no longer fails with the error message "The file is not a valid ADB file (database archive)" when the network connection is slow or the database is very large. (See also ARIS Architect "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Manage databases", page "Restore databases".) (Pivotal 5332789)
- Database reorganization is no longer canceled when locked objects are found in the database. When reorganization is complete, the corresponding result dialog lists all objects that are currently locked by a user. (See also ARIS Architect "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Manage databases", page "Reorganize databases".) (Pivotal 5343155)
- Using graphic objects in a high number of models in an ARIS database no longer significantly increases the size of the corresponding ADB backup file. (Pivotal 5347788)

### ARIS Report

- The report component is now always correctly initialized in ARIS Connect after ARIS version 9.8 SR7 was migrated to ARIS version 10 SR6. (Pivotal 5349758)

### ARIS BPMN

- When you create a call activity in a BPMN diagram but do not have the required privileges for accessing the task or process you selected as a reference, a corresponding message is now displayed. (See also ARIS Architect "ARIS > Help > Work with ARIS", topic area "Create models > BPMN diagrams", page "Place activity of the Call activity type" and ARIS Connect "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Model > Use BPMN modeling support", page "Assign global reference to call activity".) (Pivotal 5341751)

### ARIS Analysis

- The "Policy" object is now available in the function view of a macro. (Pivotal 5328060)
- Corrections were made so that showing a subset of hidden columns in a query result now works properly. (See also "ARIS > Help > Working with ARIS", topic area "Evaluate data > Use queries".) (Pivotal 5344266)

### ARIS Process Governance

- The name of the date selection dialog is now correct and no longer suggests that you can also select a time. (Pivotal 5345641)
- When the "None" button is clicked in the date selection dialog, the selection now closes correctly and the button is no longer renamed. (See also ARIS Architect help "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance > Model > Model dialogs > Valuable information > Elements pane", page "Date and time".) (Pivotal 5345644)
- Properties such as "Title" or "Description" are now correctly displayed in Japanese documents uploaded from ARIS Process Governance. (See also "Help", topic area "Use ARIS Connect > Use the repository > Handle documents".) (Pivotal 5346119)
- Links included in e-mails sent from Collaboration are now correctly directed to the configured loadbalancer scheme. (See also "Help", topic area "Manage ARIS Connect > Administrate Collaboration", page "Customize e-mail notifications".)

### ARIS Risk & Compliance Manager

- Surveys are no longer closed when the end date of the underlying survey task is reached. They are closed on the end date of the survey itself. (Pivotal 5346365)
- Objects that are deactivated in ARIS Architect and not available in ARIS Risk & Compliance Manager are now ignored during data synchronization.
- The report "Import user data from User Management" now imports a user only once regardless of the number of times the report is run.
- When dashboard links are generated in ARIS Risk & Compliance Manager, ARIS GUIDs (Globally Unique Identifiers) are now provided instead of ARIS Risk & Compliance Manager GUIDs for objects of type "Section", "Questionnaire template", "Question", and "Answer" if these objects were imported from ARIS.
- ARIS Risk & Compliance Manager icons are now correctly displayed in the headers of configuration sets used in ARIS Connect.
- When ARIS 9.8.x is updated to version 10.x by restoring a tenant in ARIS 10.x, the file "aris2arcm-mapping.xml" is now removed from the "Evaluation/Common files" folder ("Administration" tab in ARIS Architect).
- Deleted audits steps are no longer counted in the audit progress or audit evaluation.
- The hierarchy structure in ARIS Risk & Compliance Manager is no longer corrupted when the procedure of synchronizing ARIS and ARIS Risk & Compliance Manager includes only a part of the hierarchy.



### **ARIS Publisher**

- Symbols are now displayed without distortion in published matrix models. (Pivotal 5349074)

### **ARIS Documentation**

- The descriptions of supported commands used by the command-line tool "y-admintool.bat" were updated in the documentation. (Pivotal 5347526)

### **ARIS for SAP**

- When process variants are transferred to SAP Solution Manager, all process variants are now correctly created even if a process variant model in ARIS contains BPMN objects of the 'Call activity' or 'Subprocess' type.

### **ARIS Document Storage**

- You can now perform a tenant backup even if the repository contains files whose size exceeds 2 GB.

## 6 Fixes in ARIS 10.0 SR6

### ARIS Connect

- Long names now have proper line breaks in objects. (Pivotal 5322294)
- When a database was published it now remains selected and visible in the portal if a new change set is activated in ARIS Administration and a hierarchy was added. (Pivotal 5324203)
- Attribute formatting, such as bold and soft hyphens are properly displayed again in ARIS Connect. (Pivotal 5325397)
- Matrix models are now displayed in their entirety even if the representation is set to another value than 100%. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Use models > "Use matrix models".) (Pivotal 5334325)
- Now, the "Model Viewer" shows the "Swimlane View" correctly for models of databases that were published with the "Latest version" option. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Model Viewer", page "Change view" and topic area "Use ARIS Connect > Use the repository > Manage versions", page "Version models".) (Pivotal 5337818)

### ARIS Architect / Designer

- Bold and italics and text attribute indentations are now properly displayed in ARIS Connect. (Pivotal 1336224)
- Using BPMN models has been improved. If lanes containing object occurrences are deleted in ARIS Architect using ARIS Explorer, the occurrences are placed in a superior or automatic lane. (See also „ARIS > Help“ > Working with ARIS“, topic area „Create models > BPMN diagrams“.) (Pivotal 5325373)
- The attribute dialog of an object type now shows only those attribute types groups that are allowed for the item type. (See also „ARIS > Help > Working with ARIS“, topic area „Edit models > Extended editing > Edit attributes“.) (Pivotal 5332745)
- Two new settings are available for ARIS Connect. They used to be available for ARIS Architect only:
  1. Use the entire symbol surface for placing text
  2. Hide non-configured objectsYou can either specify the settings across servers via „defaultserversettings.cfg“ or for a tenant by means of the „ARIS Server Administrator“ command line tool. (Pivotal 5335732)
- Keyboard control has been improved so that the tab key can now be used for indentation of text attributes and free-form texts. You can also use Shift+Tab to undo an indent. (Pivotal 5335923)
- The model comparison was corrected, so modifications for objects of models within a database are now shown correctly. (See also „ARIS > Help > Working with ARIS“, topic area „Edit models > Check and approve models > Compare models“.) (Pivotal 5336525))

## ARIS Process Governance

- The line breaks for the "German" language pack in e-mails from ARIS Process Governance and the "Approve model" mini-workflow have been corrected. (See also ARIS Architect help, "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance > Model > Model data flows > Valuable information", page "What notifications exist?" and ARIS Connect help, "Help", topic area "Use ARIS Connect > Work in the portal > Use models", page "Ask for model approval".)  
(Pivotal 5327769)
- If an operator symbol is selected in a data flow chart by means of a drop-down list, the selected operator symbol now remains selected and can be placed again by a direct click on the symbol in the bar. (See also "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance > Model > Model data flows > Operators", page "What are operators?".)  
(Pivotal 5335636)
- The Process board "Tracking" tab is now visible also for users with an ARIS Connect Viewer license. These users can track the tasks started.  
(Pivotal 5335931)
- When downloading documents using the ARIS Process Governance dialog "ADS control", country-specific file names are now properly handled.  
(Pivotal 5337530)
- If the text of the "Date and time" element is changed in Dialog editor, this change is now applied to this dialog element only. (See also "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance > Model > Model dialogs > Valuable information", page "Which elements can be edited directly in the dialog?".)  
(Pivotal 5338655)
- Write-protected ARIS Process Governance dialog elements can no longer be selected or changed. (See also "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance > Model > Model dialogs > Valuable information", page "What does read-only mean?".)  
(Pivotal 5340789)
- Write-protected dialog elements of the "Check box list" type (ARIS Process Governance) are now properly handled in ARIS Architect/Designer and in the ARIS Connect portal: they can no longer be selected or changed. (See also "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance > Evaluate", page "Mandatory semantic checks macro".)  
(Pivotal 5340795)

### ARIS Document Storage

- Temporary files are now deleted after ARIS Document storage data has been backed up. (Pivotal 5326189)
- ARIS Document storage data backup is now more robust while backing up the tenant. (Pivotal 5333810)
- ARIS Process Governance Web services now output date values properly based on Coordinated Universal Time (UTC). (Pivotal 5336158)
- ARIS Document storage history events are now properly output with language-specific characters, such as Cyrillic. (Pivotal 5338047)

### ARIS Documentation and Localization

- Help and dialog texts have been improved in various languages, including German and Russian. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Manage databases", page "Reorganize databases".) (Pivotal 5334042)
- The following features are described in the English Online Help. The descriptions will be available in the other language packs from version 10.0 SR 7.
  - Connect - Server requests
  - Dashboards: Map with markers, vector map, heat matrix
  - GRC (non-GDPR) Dashboard for UMG
  - Connect keyboard shortcuts

### ARIS Publisher

- It is now possible to select the XLSX file format as the output format of user-defined reports. (Pivotal 5326611)
- The HTML export executes properly now even if not all connection types are allowed by the current method filter. (Pivotal 5330057)
- The "Create process manual" report now executes properly for models in Japanese. (Pivotal 5330802)
- Descriptions are now output for all link attributes in the summary of a newly created Publisher export profile. (See also "ARIS > Help > Working with ARIS", topic area "Publisher > Publisher export", page "Create Publisher export profiles".) (Pivotal 5332274)

## ARIS Report

- The "Time of last semantic check" value attribute output by the "Mandatory semantic checks" macro now considers the time zone of the client on which the macro runs. (Pivotal 1340920)
- The processing sequence and thus the sort order now remain in the generated document remain the same when performing a semantic check multiple times. (See also ARIS Architect, "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Create scripts > Use Script Editor > Valuable Information", page "What is a semantic check?" and ARIS Connect, "Help", topic area "Use ARIS Connect > Use the repository > Check models and objects > Valuable Information", page "What should you know about semantic checks?".) (Pivotal 1341087)
- The ARIS report output object has been corrected so that the background color is now applied to headers even when the headers are numbered. (Pivotal 5328089)
- The ARIS macro script API "Designer.getOID(oObjOcc)" method now returns the proper value. (Pivotal 5328378)
- The "BrowseArisItems" report script API method has been corrected so that dialogs load faster now. (Pivotal 5330524)
- It is now possible to set (set) or query (get) the arrow style using a macro. The following methods are available:
  - Designer.getSourceArrow(model, occ);
  - Designer.getTargetArrow(model, occ);
  - Designer.setSourceArrow(model, occ, arrow type number);
  - Designer.setTargetArrow(model, occ, arrow type number);(Pivotal 5333202)
- When ARIS is synchronized with Alfabet, object names renamed in Alfabet are now properly updated in ARIS. (Pivotal 5336129)
- The "Model created" macro event now works properly in ARIS Connect. (Pivotal 5336586)
- If the "inheritAccessRights" function of the ARIS Report script API is used to withdraw privileges, they are now no longer withdrawn from just the superior group, but also from the sub-groups. (See also "ARIS > Help > ARIS Script", topic area "Methods for reports and semantic checks > Objects > Group", page "inheritAccessRights():boolean".) (Pivotal 5337237)
- Headers of models containing graphics in EMF format are now properly placed in generated Microsoft Word documents. (Pivotal 5338036)
- Various methods of the "picture" report script API class have been enhanced, and errors concerning the positioning of lines and rectangles over objects have been eliminated. (Pivotal 5338120)

- The "Import data in Excel format" ARIS report script has been corrected, so that the standard symbols of the objects are now properly displayed after the import. (See also "ARIS > Help > Working with ARIS", topic area "Evaluate data > Use reports > ARIS reports > Standard", page "Report: Import data in Excel format".) (Pivotal 5338461)
- Text generated by an OLE object by means of an ARIS report script API into an output document is now properly displayed. (Pivotal 5338751)
- ARIS Connect now supports multi-line text attributes within tables in report dialogs. (Pivotal 5338930)

### **ARIS Server**

- The "updatesystemdb" command can now be run for multiple tenants without causing errors. (See also "ARIS > Help > Working with ARIS", topic area "Glossary > S", page "System database".) (Pivotal 5333258)
- Identifiers are now properly assigned during a merge, even if the "Assign identifiers when creating new database items" property was selected for the target database and new items are created. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Manage Databases", page "Enable automatic ID assignment" and topic area "ARIS Configuration and Administration > Manage Databases > Merge databases".) (Pivotal 5340630)
- All elements considered invalid from an ARIS Method perspective are now removed during database reorganization. (Pivotal 5342774))

### **ARIS User Management**

- The preview of the advanced template configuration of user HTML templates is now properly sent by e-mail. (See also "Help", topic area "Manage ARIS Connect > Configure ARIS Connect > Set up user management > Customize user-defined notifications", page "Customize default HTML templates for notifications".) (Pivotal 1330109)

## 7 Fixes in ARIS 10.0 SR5b

### General

- Due to an update to version ARIS 10.0 SR5 or during a restore of tenant backup certain ARIS Document Storage data might get lost irrecoverably.

An update to SR5b will prevent future occurrence of this problem and is recommended even if the problem does not occur yet. If a problem occurs one must restore the latest tenant backup from previous version (before you updated to version ARIS 10.0 SR5), after applying ARIS 10.0 SR5b.

Only customers using documents from ARIS Document Storage with multiple revisions are affected. Customers using only MS SharePoint are not affected.

### ARIS Connect

- If the database is switched, the navigation menu and the breadcrumb path now refresh properly. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Navigate", page "Select database".) (Pivotal 5339381)
- The result is now sorted alphabetically in the "Search" field (quick search), as well as in the search area. (See also "Help", topic area "Use ARIS Connect > Search content", pages "Start quick search" and "Open Search area directly".) (Pivotal 5338727)
- Now, the "Model Viewer" shows the "Swimlane View" correctly for models of databases that were published with the "Latest version" option. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Model Viewer", page "Change view" and topic area "Use ARIS Connect > Use the repository > Manage versions", page "Version models".) (Pivotal 5337818)
- The "Model Viewer" now shows the "Swimlane View" correctly for models of the type "BPMN process diagram (BPMN 2.0)". (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Model Viewer", page "Change view".) (Pivotal 5335339)
- The displayed timestamp was adjusted, so corresponding attributes will now receive correct data. (Pivotal 5331168)
- Now, it is possible to modify Configuration-Sets for own view properly. (See also "Help", topic area "Manage ARIS Connect > Configure ARIS Connect > Configure Portal > Manage configuration and modification sets".) (Pivotal 5338903)

### **ARIS Process Governance**

- Now, the ARIS Document Storage dialog correctly shows document names containing local specific characters of a certain language, for example Turkish. (Pivotal 5337530)

### **ARIS Risk & Compliance Manager**

- The ARIS Risk and Compliance Manager now sends only the specified number of e-mails per second to the User Management Parameter "com.aris.umc.notification.smtp.sendrate".
- Correctly, a control execution task is now displayed only once. (Pivotal 5318692)

### **ARIS Architect / Designer**

- The model comparison was corrected, so modifications for objects of models within a database are now shown correctly. (See also "ARIS > Help > Working with ARIS", topic area "Edit models > Check and approve models > Compare models".) (Pivotal 5336525)

### **ARIS Document Storage**

- If search restriction by role is activated for ARIS Document Storage then search results will now be linked to the correct document revision. (See also "Help", topic area "Use ARIS Connect > Use the repository > Handle documents > Handle document versions", page "Show version history".)

### **ARIS Publisher**

- Models are now being exported with their complete content, during ARIS publisher exports. (Pivotal 1335415)



## 8 Fixes in ARIS 10.0 SR5

### General

- German user interface items and help texts were updated. (Pivotal 5325922)
- The 'Basic Troubleshooting Guide' and 'ARIS Download Client Configuration' documents are now available for you to solve any problems that might occur when you are trying to start ARIS Download Client using SSL (HTTPS). (Pivotal 5319400)
- Security vulnerabilities were eliminated that might otherwise have been exploited for attacks on ARIS Symbol Editor or XML imports.
- To prevent third-party products from causing security vulnerability, xalan was updated to version 2.7.2.
- The risk of potential Cross-Site Scripting (XSS) attacks on ARIS Connect was eliminated.
- All unnecessary httpd modules were deleted from the load balancer configuration file for security reasons. (Pivotal 5328868)

### ARIS Architect / Designer

- The search in ARIS Architect was improved in such way that multi-column search results are now easier to read. (Pivotal 5318945)
- The 'OK' button in the ARIS Architect login dialog now remains active when the 'SSO' and 'Kerberos' options were enabled. (Pivotal 5323420)
- Assigning access privileges in ARIS Architect now works fast regardless of the number of existing users or user groups. (Pivotal 5322347)
- In ARIS Architect, link attributes, such as 'Link1', now work correctly regardless of whether or not the 'Parameter' attribute is also specified. (Pivotal 5325997)
- In ARIS Architect, now the correct model opens when you click a model in a change list. (Pivotal 5329105)
- In ARIS Connect Designer, now all existing object definitions that are allowed by the method are offered to you for selection when you are creating new object occurrences in models. (Pivotal 5329416)
- All changes made to templates in ARIS Architect are now saved correctly. (Pivotal 5331954)

### ARIS Setup

- When performing ARIS installations on Linux operating systems, you can use 'y-setenv.sh' scripts to specify the path to the JRE file. (Pivotal 5322055)

## ARIS Connect

- It is now possible to add the 'My tasks' area to the ARIS Connect configuration.
- The time for loading the start page of ARIS Cloud Enterprise was significantly reduced. (Pivotal 5325533)
- Renaming a favorite in ARIS Connect no longer results in a copy of the favorite being created. (Pivotal 5324548)
- When a customer-specific database filter is used, the 'Overview' fact sheet no longer shows unfiltered objects. (Pivotal 1329567)
- Sorting GDPR-relevant tables in ARIS Connect now works correctly. (Pivotal 5327738)
- Displaying diagrams in ARIS Enterprise Cloud now always works correctly. (Pivotal 5328227)
- In ARIS Connect, the performance was improved in such way that models to which a filter containing a great number of user-defined models is applied are now displayed much faster when opened for the first time. (Pivotal 5327912)
- The 'My tasks' icon is now correctly displayed in modification sets. (Pivotal 1332924)
- Clicking 'My tasks' in ARIS Connect now correctly opens the 'My tasks' area. (Pivotal 1332932)
- Improvements were made to the sorting and pagination of GDPR-relevant information in ARIS Connect Portal. (Pivotal 5327738)
- Opening models that were imported as XML files from Natural Engineer into an ARIS database no longer causes any problems. (Pivotal 5331605)
- The size of user-defined symbols is now adapted again to the size of the symbols from which they were derived. (Pivotal 5329792)
- The correct model templates are now used in the swimlane view. (Pivotal 5331116)
- Role filters now work correctly again when applied to favorites and search results. (Pivotal 5331991)
- In ARIS Connect, BPMN diagrams are now correctly generated in the swimlane view. (Pivotal 5325563)
- When copied objects are pasted into matrix models in ARIS Connect Designer, also the hierarchy is now displayed correctly. (Pivotal 5329990)

## ARIS Analysis

- The performance when working with queries and spreadsheets was significantly improved. (Pivotal 5311809, 1317672, 5315652)

## ARIS Process Governance

- Links contained in e-mails sent by Process Governance now reference the correct tenant. (Pivotal 5327919)

## ARIS Document Storage

- ARIS document storage now always correctly loads the configuration from the relevant tenant. (Pivotal 5327919)
- ARIS document storage now correctly identifies the relevant tenant even if schema names differ from the standard names 'aris\_default' and 'aris\_master'.
- ARIS document storage now works correctly when you use the 'Folder administration' access privilege after having updated your ARIS version. (Pivotal 5329520)
- Memory utilization was improved so that restoring tenant data for ARIS document storage now consumes less memory.
- Users are now no longer logged out when they click the 'Copy to clipboard' button in order to copy a document link (ARIS document storage). (Pivotal 5331744)

## ARIS Report

- Hyperlinks exported to a Microsoft Excel file by a report are now corrected if they are not URI-compliant. (Pivotal 5324166)
- If you have changed a font format in a report and the corresponding font format is not available on the relevant ARIS Server, the missing font format is now automatically transferred to the '<ARIS installation directory>\fonts' directory.
- The report script API method 'User.getAccessRights(oGroup[], int)' now returns correct values again. (Pivotal 5326738).
- The ARIS report 'Output object information' now correctly displays the background color of a text heading even if numbering is used for this heading. (Pivotal 5328089)
- A correction was made to the macro script API method 'Designer.getOID(oObjOcc)' used in multiple macros so that this method now returns the value NULL only if no result was found by the search. (Pivotal 5328378 & 5330524)
- The report script method 'OutputFormattedText(String p\_sHTMLTextString)' no longer inserts unnecessary spaces or line breaks. (Pivotal 5328237)
- The 'Export attribute values for translation' report now also includes attributes specified for UML elements.
- Corrections were made to the report script method 'setLaneAttributeModellingProperties(oTemplateLaneProperties)'. (Pivotal 5329586)

## ARIS for SAP

- In ARIS for Process-Driven SAP, reusing process steps from the Process Step Library now works as required. (Pivotal 5327914)

### ARIS User Management

- You can now successfully perform a tenant backup even if other operations, such as the execution of a report or a Web service, are running at the same time. (Pivotal 5325925)
- The error message that can occur when a user is created by means of LDAP synchronization now has an appropriate wording. (Pivotal 5327550)
- The error that occasionally occurred during validation of user names after an export of user data to a CSV file had been performed (ARIS Administration > User Management > Additional functions > Export user statistics) was fixed.

### ARIS Risk & Compliance Manager

- When using the 'ARCM attribute maintenance\_CBA' and 'ARCM attribute maintenance\_RBA' macros, you can now specify the 'Automatic numbering' and 'Description' attributes as an answer option for questionnaire templates.
- You can now specify the value 0 or higher values for the 'Reserves' loss attribute.
- Object-specific risk management roles are now provided with risk management impact type data that can be used as an input to dashboards. (Pivotal 5324701)
- Synchronizing data between ARIS Architect and ARIS Risk & Compliance Manager now works correctly even if the hierarchy of the database structure is rather complex.
- The button that you can use in ARIS Risk & Compliance Manager to show detailed descriptions for questions now no longer becomes invisible after you have saved a questionnaire.
- Users that have logged in to ARIS Risk & Compliance Manager are now able to edit dashboards and data feeds after having switched to ARIS Connect using the same session.
- The 'questionnaire\_answer\_data' data view was extended in the REST API (/arcm/api/). The new 'optionset\_guid' column is used in DPIA dashboards of the GDPR accelerator.
- In ARIS Risk & Compliance Manager, hierarchy assignment lists now include deleted objects only if the filter specifies that deleted objects are to be displayed. (Pivotal 1332550)
- ARIS Risk & Compliance Manager now provides you with shell scripts (\*.sh) for creating a database schema (user).
- The ARIS Risk & Compliance Manager macro 'ARCM attribute maintenance\_RBA' was adapted in such way that you can now use it to manage user-defined attributes.

## ARIS Dashboards

- When you click 'My tasks', Process Board now opens correctly and correctly shows a user's tasks even if 'My tasks' was configured as a list entry in modification sets.  
(Pivotal 5327214)
- Dashboards added to the ARIS Connect configuration are displayed in the default language if the interface language is switched to a language in which the name of the dashboard is not specified.
- Modification sets in ARIS Aware now correctly record changes made to the location of dashboards.
- In ARIS Aware, improvements were made to the assignment list display (Modification sets > Dashboards > Edit component).
- Improvements were made to the dialog used for assigning dashboards (Modification sets > Dashboards > Edit component).
- It is now possible to delete dashboard assignments from modification sets (ARIS Administration > Portal > Manage configuration sets > Edit > Components > Dashboards).

## 9 Fixes in ARIS 10.0 SR4b

### General

- When distributed ARIS environments that include ElasticSearch clusters are updated from ARIS 10.0 SR3 to ARIS 10.0 SR4, existing data are now correctly copied to the new structure. Thus, all required data are now always available in the new environment. (Pivotal 5325873)

### ARIS Connect

- Corrections were made to the search functionality so that the correct number of pages is now displayed for the list of search results regardless of where you have started the search operation or how many results are returned. (See also "Help", topic area "Use ARIS Connect > Search content".) (Pivotal 1329163)
- In ARIS Connect, the display of model assignments was changed in such way that an assigned model is displayed only if it is allowed by the method filter in use. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Output information", page "Display the current method filter", and topic area "Use ARIS Connect > Work in the portal > Use the portal > Model Viewer", page "Open assignment".) (Pivotal 5321644)
- An error due to which the ARIS portal sometimes became unresponsive was fixed in the navigation component. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal".) (Pivotal 5324495)
- Corrections were made to the sorting of tables so that the sorting now works properly when a user to which the "Contribution" license is assigned is working with a table as a viewer. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Contribute as a viewer".) (Pivotal 5316986, 5325152)

### ARIS Server

- The "Fonts" folder containing the fonts used in reports is now no longer deleted when you perform an update of the ABS/HDS runnable. (Pivotal 5324980)

### ARIS Document Storage

- When you back up ADS data from a tenant, now the operation correctly backs up the tenant you have selected and no longer tries to access other tenants. (Pivotal 5324880)

### ARIS Dashboards

- For ARIS Aware content to be displayed faster, the communication protocol is now being compressed.  
(See also "Help", topic area "Use ARIS Connect > Use the repository", page "Use dashboards".) (Pivotal 5320076)
- An error was fixed in ARIS Aware creating the Oracle backend schema for other than the default tenant.

### ARIS Process Governance

- In ARIS Process Governance, both caching and the backup mechanism were improved so that completing a human task no longer results in process instances being blocked.  
(See also "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance > Use case", page "Start governance process", and topic area "Special topics and functions > Process Governance > Model > Valuable information > What objects and symbols are relevant to Process Governance?", page "Human task".)  
(Pivotal 5320844)
- When German is selected as the interface language, ARIS Process Governance dialogs that were created using ARIS 10.0 SR4 sometimes show incorrect names of controls in data flows. This problem does not occur in dialogs that were created with older versions of ARIS or when using an ARIS 10.0 SR4b installation.  
If a dialog shows this behavior, open the affected dialog, save it, and update the data flow.  
(See also "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance > Model > Model dialogs".)

### ARIS Risk & Compliance Manager

- Deactivated/deleted processing activities are now correctly displayed in lists at organization hierarchy elements.
- Integration of GDPR enhancements into Connect configuration.
- ARIS Synchronization now also considers empty attributes of objects and clears them in ARCM.

### ARIS Publisher

- Models that include a high number of user-defined method items now open quickly.  
(Pivotal 5318998)

## 10 Fixes in ARIS 10.0 SR4

### General

X-Forwarded-For headers will now be ignored by default

The X-Forwarded-For (XFF) HTTP header is a common method for identifying the originating IP address of a client connecting to a web application (like ARIS) through an HTTP proxy or load balancer.

Without this header, the application would see the IP address of the HTTP proxy or the load balancer as the apparent client IP address instead of the IP address of the actual client.

ARIS protection mechanism against brute force login attacks

ARIS has a security mechanism in place to prevent attackers from performing arbitrarily many login attempts to “try out” or “guess” a user’s password (a form of brute-force attack): if too many failed login attempts for a certain user account coming from a certain IP address are observed, that combination of user account and IP address is locked for any further login attempts.

Up to ARIS version 10.0.1, ARIS would accept XFF headers in a request. As a consequence, an attacker could set this header to make ARIS believe that his requests are coming from a different than his actual IP address. That way, the protection mechanism against brute force login attacks could be circumvented, allowing the attacker to try out arbitrary many passwords using different “fake” IP addresses in the XFF header.

To prevent this problem in the future, starting with ARIS 10.0.2, ARIS (the ARIS loadbalancer, in particular) will by default discard any XFF headers received from clients. However, there are scenarios where the use of the XFF header is legitimate, for example when ARIS is operated behind a reverse proxy (e.g., a highly-available loadbalancer in front of the ARIS loadbalancer(s)). Here, the reverse proxy will usually use the XFF header to allow ARIS to know the IP address of the actual client that does the request. With XFF headers now being discarded by default, ARIS will now no longer see the actual client addresses, but instead, from the perspective of ARIS, all requests will be coming from a single IP address (that of the reverse proxy).

While the negative effects of this change are limited, in such settings it is highly recommended to configure the ARIS loadbalancer to accept XFF headers from the IP address of the reverse proxy.

To do this, you should have the loadbalancer configure parameter `HTTPD.X-Forwarded-For.trusted.proxy.regex`, with which you can provide a regular expression (regex, see <https://httpd.apache.org/docs/2.4/glossary.html#regex>) that will make the ARIS loadbalancer accept XFF headers from any IP address that matches this regex. Note that any backslash characters that are to appear in your regex need to be escaped by replacing them with four(!) backslash characters.

For example, to accept XFF headers from the IP address 10.0.0.1, you would set the `HTTPD.X-Forwarded-For.trusted.proxy.regex` to `"10\\\\\\\\.0\\\\\\\\.0\\\\\\\\.1"`. Observe the use of the quadruple backslashes to escape the dot (“.”) character that has a special meaning in regular expressions.

To get back the original behavior, you can set the `HTTPD.X-Forwarded-For.trusted.proxy.regex` parameter to `".*"` (a regular expression matching every IP address).



## Security

- The loadbalancer configuration for enforcing HTTPS connections (SSL) now works as expected. (Pivotal 1296177)

## ARIS Server

- It is no longer possible for users to start the consolidation of objects in a versioned database. (See also "ARIS > Help > Working with ARIS", topic area "Navigate and edit items > Create and manage objects", page "Consolidate objects".)  
(Pivotal 5305664)
- A merge procedure no longer overwrites the name of the main group in the target database, even if you selected the "Source overwrites target" conflict resolution option for objects. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Manage databases > Merge databases".)  
(Pivotal 5310146)
- The wording was improved for the error message that is displayed when a user who has permanently locked a model is trying to create an occurrence copy of a model object that is locked by another user.  
(Pivotal 5310961)
- When logging in to a database, you can now select any existing change list instead of only the latest 999. (See also "ARIS > Help > Working with ARIS", topic area "Navigate and edit items", page "Open database", Link "Versionable databases".)  
(Pivotal 5312692)
- A correction was made to the "Edit report parameters" functionality so that it now works correctly outside of a database context. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Manage scripts", page "Specify report parameters".) (Pivotal 5316621)

## ARIS Dashboards

- You can now import, correctly display, and work with ARIS Aware content that you have backed up from ARIS 10.0 GA. (See also "Help", topic area "Manage ARIS Connect > Administrate dashboards (ARIS Aware) > Configure dashboards", page "Import dashboards".) (Pivotal 1322963)
- The dashboard editor in ARIS Aware now uses the language you have selected in ARIS Connect. Furthermore, some of the user interface items were given more descriptive names. (See also "Help", topic area "Use ARIS Connect > Use the repository > Use dashboards", page "Create a dashboard in the Repository".) (Pivotal 5306476)

## ARIS Architect / Designer

- Default symbols used for object definitions can now be changed only by users having write privileges for objects. (See also "ARIS > Help > Working with ARIS", topic area "Create models > ARIS models > Use objects > Extended editing", page "Assign a default symbol to existing objects".) (Pivotal 5292670)
- Changes were made to the Visio import into ARIS so that relevant Visio drawing types are now correctly identified and the corresponding VSDX files correctly imported into ARIS. (See also "ARIS > Help > Working with ARIS", topic area "Export/Import > Visio import".) (Pivotal 5303304)
- The layout functionality was improved so that automatic creation of a model layout now provides better results. (See also "ARIS > Help > Working with ARIS", topic area "Create models > ARIS models > Use objects > Extended editing", page "Generate model layouts automatically".) (Pivotal 5308846)
- Sorting the "Variants" properties page of a model now works correctly for groups. (See also "ARIS > Help > Working with ARIS", topic area "Create models > ARIS models > Use variants".) (Pivotal 5310697)
- Now the search shows a correct result when special characters such as + ^ § ( ) [ ] { } are being used in combination with an asterisk (\*). (See also "ARIS > Help > Working with ARIS", topic area "Navigate and edit items", page "Search for database content".) (Pivotal 5310837)
- The RACI view now works correctly when objects of the "Function" type (object type number 22) are defined to be either a "Task" or a "Subprocess" based on the attribute specified for them in BPMN models. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Views > Valuable information", page "What is the RACI fact sheet for?".) (Pivotal 5314379)

## ARIS User Management

- The "updateLicense" ACC command for updating licenses now supports multiple product codes. (Pivotal 5288975)
- Corrections were made to the user synchronization functionality so that only group memberships with a direct assignment are removed now when users are being synchronized. (Pivotal 5300477)
- The names of user groups are no longer truncated on the "Associated users" page. (Pivotal 5303244)
- The delimiters | (pipe) and ~ (Tilde) are now handled correctly in multi-LDAP configurations and are allowed to be used as an input to the user interface. (Pivotal 5308410)
- User logins to the system are now logged correctly. (Pivotal 5311719)

- The standalone version of User Management now provides the English version of the ARIS help if no help is available in the interface language you have selected. (Pivotal 5311851)
- The "Add LDAP server" dialog is now displayed in the center of a screen and provides a horizontal scroll bar for you to easily access all relevant input fields by moving them into the visible area. (Pivotal 5311852)
- Kerberos SSO now works correctly with dashboard links so that users can directly access ARIS Aware dashboards by clicking the corresponding links. (Pivotal 5319866)

### **ARIS Connect**

- It is now possible to simultaneously open more than seven ARIS Connect models in Microsoft® Internet Explorer® 11. (See also "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Model > Basic modeling", page "Open model for editing".) (Pivotal 5300455)
- When you print a model graphic as a PDF file in the portal, the "Select output options" dialog is now displayed in the alternative language "English" if an unsupported language was selected as the interface language in ARIS Connect (for example, Greek). (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Output information", page "Print the graphic of the current model".) (Pivotal 5305845)
- Filtered objects of the "Control" type are no longer displayed on the process overview page and the sidebar of the "Steps" fact sheet. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Views > Classic view > Groups > Fact sheets of ARIS models > 'Overview' and 'Steps'".) (Pivotal 5311553)
- Connections and connection ends are now always displayed correctly in ARIS Connect regardless of the browser being used. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Model Viewer" and topic area "Use ARIS Connect > Use the repository > Create and edit models > Model > Basic modeling", page "Open model for editing".) (Pivotal 5318055)
- If you are using a modification set that is based on the classic view, the corresponding areas now open correctly when you click "Manage documents" or "Dashboards & Data feeds" on the "Home" page. (See also "Help", topic area "Manage ARIS Connect > Configure ARIS Connect > Configure Portal > Manage configuration and modification sets", page "Create modification set" and topic area "Use ARIS Connect > Work in the portal > Views > Classic view > Quick start".) (Pivotal 5318061)

## ARIS Report

- Corrections were made to the Script Wizard to enable the highlighting of output formats. As a result, highlighting is now correctly applied or removed when output formats are selected or deselected using the CTRL key and the mouse. (Pivotal 5300279)
- In ARIS Connect, you can now successfully run reports for models for which no name was specified in the language currently selected. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Output information", page "Generate report" and topic area "Use ARIS Connect > Use the repository > Create and edit models > Model > Extended editing", page "Generate report".) (Pivotal 5300672)
- Changes were made to drop-down lists in ARIS Connect. As a result, the width of drop-down list boxes in dialogs of ARIS Connect reports now corresponds to the width of the relevant selection box even if the list entries are shorter. If the texts in the list are longer, the last part is replaced with three dots. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Output information", page "Generate report" and topic area "Use ARIS Connect > Use the repository > Create and edit models > Model > Extended editing", page "Generate report".) (Pivotal 5300674)
- The report script API help was revised. Some errors were removed and missing information was added. (See also "ARIS > Help > ARIS Script".) (Pivotal 5303090)
- Corrections were made to the sorting of tables in report dialogs so that sorting a column no longer results in incorrect data being displayed. (Pivotal 5307810)
- Corrections were made to the ARIS object model. When running an ARIS report script, it is now no longer possible to create an object occurrence for a versioned object definition that is no longer available in the workspace version of a database. (Pivotal 5308192)
- Corrections were made to Script Editor so that existing (saved) breakpoints no longer move during the process of editing a script. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Create scripts > Use Script editor".) (Pivotal 5310701)
- "A user running a script in debug mode without being logged in to a database can now use the "Debug script" dialog to log in to a database. Double-clicking the name of the required database now correctly enables the "Next" button. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Create scripts > Use Script editor".) (Pivotal 5310706)
- Report script API method "getAccessRights ( int nAccessRight )" of the "UserGroup" report class now returns a result. (See also "ARIS > Help > ARIS Script", topic area "Methods for reports and semantic checks > Objects > UserGroup", page "getAccessRights(int) : Group[]".) (Pivotal 5313094)
- Report script API method "enableCancellation ( boolean bEnableCancel)" now works correctly. When this method is set to "false", it is not possible to cancel a running report in ARIS Connect. (Pivotal 5311862)

- Corrections were made to the Visio import:  
Connections of the "activates" or "creates" type used in BPMN diagrams are no longer modeled as message flows.  
If a collapsed subprocess modeled in Visio contains objects, this subprocess is now converted into an expanded subprocess.  
Please note:  
Symbols that are incorrectly specified in the mapping with regard to Visio but are allowed by ARIS Method cannot be prevented from being placed. This may lead to subsequent errors due to which symbols of modeled objects do not comply with their descriptions/properties.  
(See also "ARIS > Help > Working with ARIS", topic area "Export/Import > Visio import".)  
(Pivotal 5311445)
- Report script API method "ScriptInfo.getImports()" now always returns a correct result by returning the file name when a file is imported and a GUID (Globally Unique Identifier) when a report is imported. (See also "ARIS > Help > ARIS Script", topic area "Methods for reports and semantic checks > Global objects > Report component interfaces > Script admin > ScriptInfo", page "getImports() : String[.]".) (Pivotal 5313718)
- The table of contents is now correctly numbered in the output of the "Create process manual" report. (See also "ARIS > Help > Working with ARIS", topic area "Evaluate data > Use reports > ARIS reports > Standard", page "Report: Create process manual".) (Pivotal 5313833)
- The report "Import data in Excel format" now also imports files containing data from ARIS Simulation attributes, such as the "Processing time" (AT\_WORK\_TIME) attribute. (See also "ARIS > Help > Working with ARIS", topic area "Evaluate data > Use reports > ARIS reports > Standard", page "Report: Import data in Excel format".) (Pivotal 5314149)
- Spaces are now correctly displayed when Arabic characters are used in EMF graphics that were generated by reports. As a result, Arabic words are now coherent and comprehensible. (Pivotal 5314462)
- Report script API method "getAccessRights ( int nAccessRight )" of the "UserGroup" report class now returns a result. (See also "ARIS > Help > ARIS Script", topic area "Methods for reports and semantic checks > Objects > UserGroup", page "getAccessRights(int) : Group[.]".) (Pivotal 5318471)

### ARIS Process Governance

- It is now possible to configure how hyperlinks are to be displayed in input tables used for ARIS Process Governance dialogs. When adding an input table to a screen diagram, you can use the "Display links as icons" check box to specify whether a link is to be displayed as an icon (check box enabled) or as an entire link (check box not enabled). (See also "ARIS > Help > Working with ARIS", topic area "Special topics and functions > Process Governance > Model > Model dialogs > Valuable information > Element pane", page "Input table".)  
(Pivotal 5315987)

## ARIS BPMN

- The "Symbol order" area in step 15 ("Select symbol order") of the Filter Wizard now correctly provides the object symbols for the "BPMN collaboration diagram (BPMN 2.0)" model type. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Specify conventions", page "Define your own filter".)  
(Pivotal 5300553)
- The "can trigger" connection is now displayed in the "Create connections" dialog for you to decide whether you want it to be shown or hidden when the associated object overlaps another object. (See also "ARIS > Help > Working with ARIS", topic area "Create models > ARIS models > Use objects > Extended editing", page "Create implicit connections for overlapping objects".)  
(Pivotal 5306463)
- The use of BPMN functionality in ARIS was extended in such way that it is now possible to use lane objects in models of the "BPMN process diagram (BPMN 2.0)" type that were created as a "Subprocess (collapsed)" in a model of the "BPMN collaboration diagram (BPMN 2.0)" type.  
(Pivotal 5312848)
- In BPMN diagrams, it is no longer possible to create a connection between a group and other BPMN objects. (Pivotal 5316232)
- BPMN import was improved in such way that it is now possible to import BPMN files that have invalid references to objects. (See also "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Create/Import a model", page "Import BPMN file".)  
(Pivotal 5316504)
- Tasks whose "Activity type" attribute is set to "Call activity" are now correctly exported as a call activity as was the case in previous ARIS versions. (See also ARIS Connect: "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Model > Extended editing > Export", page "Export BPMN diagram". ARIS Architect: "ARIS > Help > Working with ARIS", topic area "Export/Import > BPMN Import/Export", page "Export BPMN diagram as a BPMN file".) (Pivotal 5317471)

## ARIS Business Publisher

- The folder icon is now correctly displayed in HTML exports. (See also "ARIS > Help > Working with ARIS", topic area "Publish > HTML export", page "Publish models as HTML export".)  
(Pivotal 5312654)
- Report script API method "MatrixContentCell.getCxns()" no longer returns only NULL objects, but now returns the required information. (See also "ARIS > Help > ARIS Script, topic area "Methods for reports and semantic checks > Objects > Matrix", page "getContentCells() : MatrixContentCell[]".)  
(Pivotal 5313084)

### **ARIS Risk & Compliance Manager**

- Policies that have already been assigned to an incident are now no longer displayed for selection.
- The option that enables you to mark an object as "issue-relevant" is now available on all lists including assignment lists.
- Specifying input for the "Processing time (target)" field on audit step templates is now mandatory.
- An appropriate error message is now displayed when you are trying to create a questionnaire based on a survey task whose end date is in the past.
- When a customizing is enhanced using ARIS Cloud Controller, existing customizing are now deleted first.
- The "system administrator" role is automatically assigned to users in ARIS Risk & Compliance Manager (by synchronization) only if these users are assigned the 'ARCM administrator' function privilege in ARIS Administration/User Management.
- You can now switch to another section of a questionnaire via the tree view even if you have not answered all of a section's mandatory questions yet.
- An issue owner can no longer delete an issue whose issue owner state is "On hold".
- You can now create an incident only if the discovery date you specify is the current day or a date in the past.

### **ARIS Document Storage**

- Displaying content from ARIS document storage in Arabic now works correctly. (Pivotal 5300129)
- The checking of document types was improved so that uploading documents now works without incorrect restrictions. (See also "Help", topic area "Use ARIS Connect > Work in the portal > My tasks > Documents", page "Upload document".) (Pivotal 5305508)
- If documents from ARIS document storage are renamed, comments associated with these documents are no longer removed. (See also "Help", topic area "Use ARIS Connect > Use the repository > Handle documents", page "Rename document".) (Pivotal 5307747)
- ARIS document storage links now correctly refer to the latest document version available. (See also "Help", topic area "Use ARIS Connect > Use the repository > Handle documents > Handle document versions", page "Show version history".) (Pivotal 5312227)

### **ARIS UML Designer**

- Line breaks in a "Body" property are now correctly retained for an opaque action if you click the area in between two buttons in a value cell. (Pivotal 1205990)
- In multi-node environments (with at least 2 ABS runnables), temporary folders and files automatically created in the "Download" directory of the ABS runnables during a tenant backup are now automatically deleted. As a result, more free disk space is available. (Pivotal 1324820)

### **Localization**

- Issues with garbled Japanese are fixed. Japanese texts are not garbled in Merge log and Merge wizard shows correct Japanese names. Also problems with garbled Japanese in attribute wizard and versioning are fixed. (Pivotal 1206134, 1206330, 1206471, 5320665, 5322062)



## 11 Fixes in ARIS 10.0 SR3

### ARIS Server

- An attribute search performed in a database that was just restored now finds all relevant attributes regardless of the length of the attribute text. (See also "ARIS > Help" > Working with ARIS", topic area "General", page "Find".)  
(Pivotal 5305021)
- Robustness was improved for the import of filters and XML files on Unix-based systems with regard to the MIME types in use.  
(Pivotal 5301205)

### ARIS Architect / Designer

- A user to whom only the "Read" privilege is assigned can no longer change the default symbol used for an object. (See also "ARIS > Help" > Working with ARIS", topic area "Create models > ARIS models > Use objects > Extended editing", page "Replace object symbol".)  
(Pivotal 5292670)
- The Visio import now correctly identifies all template aliases so that VSDX files are successfully imported into ARIS. (See also "ARIS > Help" > Working with ARIS", topic area "Export/Import > Visio import", page "Import models from Microsoft® Visio".)  
(Pivotal 5303304)
- The object consolidation functionality is no longer provided in a versioned database. It is generally not possible to consolidate objects in versioned databases. (See also "ARIS > Help" > Working with ARIS", topic area "Navigate and edit items > Create and manage objects", page "Consolidate objects".)  
(Pivotal 5305664)
- The "Search" tab no longer displays technical attributes that are not relevant to users and thus are to be invisible. (See also "ARIS > Help" > Working with ARIS", topic area "General > New tab", page "Start search using new tab".)

### ARIS User Management

- In the "Associated user groups" area of a user, user group names are now displayed in their entirety, which means that names are no longer restricted to the first 26 characters. (See also "Help", topic area "Manage ARIS Connect > Manage users", page "Edit user".)  
(Pivotal 5303244)
- The accessibility of the User Management profile page was improved.

## ARIS Connect

- User-defined symbols from derived model types are now correctly displayed in the "Symbols" bar in ARIS Connect Designer. (Pivotal 5300363)
- If no roles are selected for filtering, the filter output no longer displays any processes. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Valuable information > ", page "What is the structure of the My content area?".)  
(Pivotal 5303680)
- Logging in to ARIS Connect using the Kerberos single sign-on now works correctly for users that log out and try to log in again. (See also "Help", topic area "Manage ARIS Connect > Configure ARIS Connect > Set up user management > Customize ARIS for LDAP server operations", page "Configure single sign-on".)  
(Pivotal 5304415)
- If the configuration includes a language for which no translations are available, the "Select output options" dialog is now displayed in the alternative language "English".  
(Pivotal 5305845)
- If a user changes the layout of the "Home" area in a modification set, these changes are now always saved correctly. (See also "Help", topic area "Manage ARIS Connect > Configure ARIS Connect > Configure Portal > Manage configuration and modification sets", page "Create modification set".)  
(Pivotal 5306080)
- The performance of ARIS Connect was improved for the browsers "Google Chrome", "Microsoft Internet Explorer 11", and "Microsoft Edge".
- Editing diagram names sometimes resulted in an error being displayed. This problem no longer exists.
- Color highlighting is now enabled again for table headers used in the ARIS Connect configuration so that table headers can now be clearly distinguished from table text. (See also "Help", topic area "Manage ARIS Connect > Configure ARIS Connect > Configure Portal > Manage configuration and modification sets", page "Create modification set".)
- Model names containing country-specific characters are now correctly displayed in comments posted in Collaboration even when Microsoft SQL database systems are used. (See also "Help", topic area "Use ARIS Connect > Collaborate with users".)  
(Pivotal 5305260)
- The display of a diagram is now refreshed in the "Home" area when a user switches to another database.
- Page changes now work correctly in the "My content" area. The required pages are shown as expected. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Views > Classic view", page "Home".)

## ARIS Report

- The "Output user groups with users and privileges" report is now generated correctly when curly brackets are used in an e-mail address. (See also "ARIS > Help" > Working with ARIS", topic area "Evaluate data > Use reports > ARIS reports > User management", page "Report: Output user groups with users and privileges".)  
(Pivotal 5297838)
- The "Export relationship matrix" report is now generated correctly, which means that all relevant relationships are now displayed in the Microsoft Excel export file. (See also "ARIS > Help" > Working with ARIS", topic area "Evaluate data > Use reports > ARIS reports > Administration", page "Report: Export relationship matrix".)  
(Pivotal 5301512)
- Corrections were made to the "Mandatory semantic checks" ARIS macro so that it can now be run for open matrix models. (See also "ARIS > Help" > Working with ARIS", topic area "ARIS Configuration and Administration > Create scripts > Using script editor > Valuable information", page "What is a macro?".)  
(Pivotal 5302177)
- Documents generated by reports, macros, or semantic checks now contain mixed-language content only if the file "atsall<language abbreviation>.js" is not available for the selected language (for example, if the file "atsallru.js", with "ru" meaning "Russian", is missing, a generated document may still contain some English terms, such as "page" or "database"). (See also "ARIS > Help" > Working with ARIS", topic area "ARIS Configuration and Administration > Create scripts > Using script editor > Valuable information", pages "What is an ARIS report?", "What is a macro?", and "What is a semantic check?".)  
(Pivotal 5302728)
- Corrections were made to the report script API method "setFocusedElement" so that applying this method to multi-line text boxes no longer results in an error. (Pivotal 5303068)
- The "ARIS Script" help now provides a complete description of the "createFilteredDefCopy" method. (See also "ARIS > Help" > ARIS Script".)  
(Pivotal 5303090)
- German special characters (umlauts) are now correctly displayed in the dashboard report properties. (Pivotal 5301517)

## ARIS Dashboards

- German diacritics are now correctly displayed and processed in ARIS Aware dashboards and in the ARIS Connect configuration. (Pivotal 5300341)
- If a user uses a dashboard URL in a browser without being logged in to ARIS Connect, this user is now automatically redirected to the ARIS Connect start page of the tenant specified in the dashboard URL.

## ARIS BPMN

- Clicking the "Back" button in the "Filter Wizard" now displays the previously selected model types, object types, and connection types. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Specify conventions", page "Define your own filter".) (Pivotal 5300553)

## ARIS Process Governance

- The behavior of dependent controls in ARIS Process Governance was adapted for use in ARIS Connect. This means that dialog elements of user-defined dialogs are now no longer displayed in ARIS Connect if the "Set as invisible" option was enabled for them. (Pivotal 5306672)
- The diagram view in the process administration now displays the corresponding diagram after a mini workflow was run in ARIS. (See also "Help", topic area "Manage ARIS Connect > Administrate automated processes", page "Open process administration".)

## ARIS Risk & Compliance Manager

- The "Check issues" job now shows the issues to be checked only once. (Pivotal 5306195)
- The "Update survey" functionality is now described in the form help. Furthermore, a description of the button is now displayed as a tooltip.
- Corrections were made to the display of tooltips so that tooltips no longer prevent users from clicking specific areas of a chart.
- Control executions performed by deleted users are no longer excluded from control execution lists.

## ARIS Document Storage

- Due to changes made to the persistence of ARIS document storage, it is not possible to migrate folders whose names use special characters. Prior to backing up folders for migration purposes, folder names must be changed to match the ARIS 10.0 naming conventions. This information is now available in the "ARIS Data Migration Guide.pdf" manual. (See also "Help", topic area "Manage ARIS Connect > Manage documents".) (Pivotal 5301299)

## ARIS Analysis

- Corrections were made to character encoding so that data feeds can now be run correctly and MashZone and ARIS Aware are able to process the corresponding data. (Pivotal 5301824)
- Corrections were made to the sorting of query results in the table view so that entries are now always sorted correctly. (See also "ARIS > Help" > Working with ARIS", topic area "Evaluate data > Use queries", page "Output table view".)

## 12 Fixes in ARIS 10.0 SR2c

### ARIS Server

The use of the 'optimizedb' command for a database in ARIS 10.x (including ARIS 10.0, ARIS 10.0 SR1, ARIS 10.0 SR2, ARIS 10.0 SR2b) can result in data consistency defects.

An ARIS database may become inconsistent (see 'II. Impact') if the following ARIS Administration commands are executed in ARIS 10.x:

- Run database optimization with the ARIS Server Administrator command 'optimizedb'.
- Restore a database with '-c checkrebuildall' and set the options "checkConsistency", "checkReplicaConsistency", and "rebuildForeignKeyIndexes" to 'true'.

The 'history <dbname>' ARIS Server Administrator command can be used to identify whether one of these two commands was executed for a specific database.

Sample entry for 'optimizedb':

```
[DB_OPTIMIZATION] | Start: 2017-11-14 12:16:23.937 | End: 2017-11-14 12:18:13.171  
| Duration: 109,234s (00:01:49.234) | Area: [-1] | Actions: [ACCESS_RIGHT, FONT, COM,  
CXN, TEXT, USER, OBJ, EXT_CXN, MODEL] | Options: [] | Consistency: Indices, foreign  
keys | ARIS: 10.0.0.1168090 / 10.0.1.1168090 | ASN: #20 | Tenant: default
```

Sample entry for restore using '-c checkrebuildall':

```
[IMPORT_V_10] | Start: 2017-11-27 13:22:22.774 | End: 2017-11-27 13:22:24.249 |  
Duration: 1,475s | Backup: 10.0.0.1185787 / 10.0.2.1.1185787 | DB schema: 5 | Clan:  
[blobHandling: OptimizeForSize, checkConsistency: true, checkReplicaConsistency:  
true, rebuildForeignKeyIndexes: true] | ARIS: 10.0.0.1195057 / 10.0.0.3.1195057 |  
No archive | Tenant: default
```

The database can be repaired in any case (Section 'III. Fix ' explains how to address the above-named database inconsistency issue).

### **Impact**

Performing database optimization using the 'optimizedb' command or restoring a database by means of '-c checkrebuildall' may have the following effects in ARIS 10.x:

- Corruption of internal meta information. This information will be ignored by the backup operation so that using this backup to restore the database will result in data loss.
- The save operation for models can fail.

**Fix**

To prevent database inconsistencies from occurring or fix the inconsistency issue once it has occurred, it is necessary to run individual patches for ARIS 10.0, ARIS 10.0 SR1, ARIS 10.0 SR2, or ARIS 10.0 SR2b, or to perform an update to version ARIS 10.0 SR2c (10.0.2.3).

Once the relevant patch was run or the update to ARIS 10.0 SR2c was performed, executing the 'optimizedb' command will no longer cause any inconsistency issues.

Identifying inconsistencies in existing databases is possible only by running the corresponding patches for ARIS 10 versions older than SR2c or performing an update to ARIS 10.0 SR2c.

A new ARIS Server Administrator command called 'checkreferences' is available, making it possible to identify whether there are critical inconsistencies in a database. This command checks all databases on a tenant. There is no need to lock databases prior to executing this command.

If critical inconsistencies are found in a database as a result of executing this new command, the 'optimizedb <dbname>' command must be executed for the given database.

If 'checkreferences' does not identify any database inconsistencies, no actions are required.

Nevertheless, with the patched or updated version, we recommend a database optimization if any of the above described actions like optimization or special restore have been executed by the customer.

## 13 Fixes in ARIS 10.0 SR2b

### General

- ARIS 10.0 SR2b supports now also Amazon AWS Linux.

### ARIS Server

- Under certain circumstances ARIS databases can have structural issues concerning internal index entries. In such cases an automatically triggered maintenance mechanism has been deleting data instead of recovering it. This issue has now been solved. (Pivotal 5302336)
- The behavior of the consolidation.log file has been adapted to other log files in ARIS Business Server and therefore is now configurable. (Pivotal 5302094)

### ARIS Report

- Resolving an issue with ARIS Report "User groups with assigned users and privileges" in User Management, that failed if the email address of a user contained the character { or }. (Pivotal 5297838)
- Resolving an issue with ARIS Report "Export Relationship Matrix, where the exported Microsoft Excel file did not contain any relationships at all. (Pivotal 5301512)

### ARIS for SAP

- ARIS for Process Driven SAP: It is now possible to use SAP shadow symbols also in Enterprise BPMN process diagrams and Enterprise BPMN collaboration diagrams. The tasks with SAP shadow symbols by default and are not included in the SAP synchronization.

### ARIS User Management

- User group name in User group association view will not be cut anymore. (Pivotal 5303244)

### ARIS Analysis

- Fixed problem with encoding (queries & data feeds). (Pivotal 5301824)

## 14 Fixes in ARIS 10.0 SR2

### ARIS Architect / Designer

- The "Filter Wizard" now displays previously selected model, object, and connection types when the user clicks the "Back" button. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Specify conventions", page "Define your own filter".)  
(Pivotal 5293670)
- In the "Attributes" dialog, now the correct values are copied when the columns are switched. (See also "ARIS > Help > Working with ARIS", topic area "Edit models > Extended editing > Edit attributes".)  
(Pivotal 5293007)
- A time zone issue was fixed due to which different times were displayed for the "Last change" attribute in ARIS Connect Model Viewer and ARIS Architect when the server time (e.g., London (UTC +00:00)) was different from the client time (e.g., Berlin (UTC +01:00)).  
(Pivotal 5290177)
- Models that contain object occurrences whose height is 0 are now loaded and opened without delay. (See also "ARIS > Help > Working with ARIS", topic area "Edit models > Basic", page "Open models".)  
(Pivotal 5280868)
- The size of the "Assigned models" dialog can now be changed using the mouse. (See also "ARIS > Help > Working with ARIS", topic area "Create models > ARIS models > Use objects > Extended editing", page "Show assignment".)  
(Pivotal 5279035)
- In the ARIS Method help, the "Process step" symbol is marked correctly as "Structurally relevant" for the derived "Process block" model type. (See also "ARIS > Help" > ARIS Method help".)  
(Pivotal 5294966)
- User names are now output identically using lower case letters in ARIS Clients as well as in User Management of ARIS Administration.  
(Pivotal 5290299)

### ARIS Connect

- Text that is entirely displayed in ARIS Architect/Designer is now also entirely displayed in Model Editor instead of being abbreviated by three dots.  
(Pivotal 5297752)
- The attributes "Last user" and "Last change" are no longer updated if no model changes were made.  
(Pivotal 5294234)



- Model Editor now creates assignments correctly when a model is assigned whose name contains a line break. (See also "Help", topic area "Use ARIS Connect > Use the repository > Create and edit models > Extended editing", page "Assign a model to an object".)  
(Pivotal 5289214)
- The configuration of start elements used by the "Steps" fact sheet was corrected.  
(Pivotal 5289554)
- Columns that were added to a matrix can now be deleted by moving the mouse pointer to the column header and clicking the "Delete" icon behind the column name. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Table", page "Remove a column of a matrix".)  
(Pivotal 5284731)
- In Model Viewer, double-clicking an object symbol now opens the corresponding assignment. (See also "Help", topic area "Use ARIS Connect > Work in the portal > Use the portal > Model Viewer", page "Open assignment".)  
(Pivotal 5283974)
- The text wrap functionality now works correctly for all attributes of all objects.  
(Pivotal 5278786)
- The error message that is displayed when logging in to a Japanese version of ARIS Connect fails is now correctly displayed in Japanese.  
(Pivotal 1296327)

### **ARIS Server**

- The performance was improved for the portal and the quick search so that content and results are now displayed much faster. (See also "Help", topic area "Use ARIS Connect > Search content".)  
(Pivotal 5290748)
- Reports using the report script API now provide version information much faster.  
(Pivotal 5292841)
- Assignments are now always displayed correctly in the archive area.  
(Pivotal 5274215)
- Problems that occurred when using Oracle JDBC drivers newer than version 12.1.0.1 for the ABS runnable were solved.  
(Pivotal 5293255)

### **ARIS Report**

- The "Replace symbol types" report now replaces symbols correctly when the "[All symbols]" option is selected for the current object symbols.  
(Pivotal 5293222)

- A rounding error that occurred when applying the "OutputObject.SetLeftMargin()" and "GetLeftMargin()" report script API methods was corrected so that these methods no longer return wrong values (for example, 12 is no longer returned for a value that is actually 13). (Pivotal 5294181)
- The "Database.find(..)" report script API method now handles wildcards correctly. (Pivotal 5293159)
- The "SingleSelectElement.getSelectedIndex()" report script API method now returns the correct index when the index was preset. (Pivotal 5290796)
- If two carriage returns are inserted between two tables in the design view, only two instead of four spaces are now returned. (See also "ARIS > Help > Working with ARIS", topic area "ARIS Configuration and Administration > Create scripts > Create report > With design view", page "Create report scripts in design view".) (Pivotal 5289324)
- When the "Import data in Excel format" report is run, now an automatic layout is subsequently performed to prevent objects from overlapping. (Pivotal 5285382)
- Corrections were made to the "XlsSheet.setPicture(...)" report script API method so that results are now also output correctly when the XLSX format is used. (Pivotal 5278180, 5294460)
- The 'Export graphic as PDF' report is now available in multiple languages. (Pivotal 5297345)
- The ARIS Script help page for the "XlsCell.getCellValue" report script API method now correctly states that the return value of the cell is a string. (Pivotal 5289950)

## ARIS BPMN

- Pressing F2 now starts direct editing from a condition expression attribute placed for a connection. (Pivotal 5294322)
- When a task is transformed into a call activity, the system now checks whether a valid symbol is used for the task. If not, the action is canceled. Thus, the semantic check that is subsequently run to validate the BPMN diagram no longer returns a symbol-related error. (Pivotal 5278385)
- It used to be possible to insert more than one lane into a pool when using drag and drop. Now, only the first lane is allowed to be inserted via drag and drop. To add an additional lane to a pool, you have to proceed as follows:
  1. Place a lane in the model window.
  2. Select both the newly placed lane and the pool to which you want to add the lane.
  3. Activate the BPMN tab.

4. Click "Insert lane" (ARIS Connect) or "Pool and lane > Insert lane (ARIS Architect/Designer)".

(Pivotal 5279298)

- Transforming BPMN object types sometimes resulted in connections no longer being allowed, for example, after having transformed a function into a manual task. It is now possible to add required connections via a corresponding filter.

(Pivotal 5276811)

### **ARIS Setup**

- The ARIS Server setup now allows white spaces in the server installation path.

(Pivotal 5288382)

### **ARIS User Management**

- ARIS Cloud Controller (ACC) commands now work correctly when the user password contains an @ character.

(Pivotal 5298229)

- The expiry date is now exported correctly when usage statistics are exported to a CSV file. The field names of the JSON export now match the column names of the CSV export.

(Pivotal 5293022)

- During LDAP user synchronization, users that were deleted from the configured LDAP system are now also removed from User Management.

(Pivotal 5287731, 5285602)

### **ARIS Dashboards**

- If the language is changed in the "Repository" view for dashboards, the view is automatically refreshed and shown in the language selected (ARIS Connect > Repository > Dashboards & Data feeds).

(Pivotal 5296180)

- Dashboards are now filtered even if no dashboard description is available.

(Pivotal 5294453)

### **ARIS Process Governance**

- When you jump from an error list of a failed governance process deployment to an incorrect object, now the relevant model opens and the incorrect object is selected (i.e., the selection is no longer removed).

(Pivotal 5292682)

### **ARIS Analysis & Queries**

- Corrections were made to the configuration file so that queries and analyses now run efficiently on a local server.  
(Pivotal 5291444)

### **ARIS Publisher**

- If the "Release" attribute is set, it is now also displayed in Greek.  
(Pivotal 5291727)
- All layouts - including additional layouts stored in the Publisher layout directory - are now available in the Export dialog and can be selected to create new Publisher exports.  
(Pivotal 5291368)
- Transparent flags are now processed as required so that the graphic output of ARIS diagrams is generated correctly.  
(Pivotal 5285501)

### **ARIS Risk & Compliance Manager**

- If a questionnaire is generated, the interviewee in charge receives a corresponding notification.
- The monitor job now closes migrated task items properly.
- Once the import of an ARCM backup including configured dashboards is complete, the "My dashboards" button is now immediately available in the "Home" area.
- Object-specific control managers now can view the data available in assignment lists ("Control -> Control executions" and "Control execution tasks-> Control execution").
- If you want to assign an existing question to a section, you can now filter the questions in the assignment list.
- The test manager, tester, and test reviewer now can also view the data available in the assignment list (Test case -> Surveys and test case -> Questionnaires).
- Performing a backup or restore on a tenant other than the tenant configured for ARCM now completes without errors.
- It is no longer possible to enter negative values for integer parameters in the system configuration in the "Administration" area.
- The "News" panel in the "Home" area is visible only if news is actually available. Otherwise, this panel is hidden.
- Now, the correct module is highlighted in the module navigation when the module is changed starting from a form, for example, when a hierarchy is opened from a risk form.

## 15 Fixes in ARIS 10.0 SR1

### ARIS Architect / Designer

- When an incorrect system password is entered, a more descriptive message is displayed now. (Pivotal 5271818)
- Access privileges assigned to user groups are now always displayed correctly. (Pivotal 5286786)
- It is now possible to search for language-independent attributes. (Pivotal 5280968)

### ARIS Server

- Special characters are now used correctly in the backup archive file when a tenant backup of the "ABS" runnable is created.
- The file pg\_initdb.log is now stored in the correct folder:  
<instDir>\server\bin\work\work\_postgres\_{s,m,l}\log

### ARIS Report

- The XLS output format of scheduled reports now allows more than 6553 rows. (Pivotal 5287402)
- Evaluating functions is no longer possible in the debug mode. This is due to the fact that functions to be evaluated must be carried out when report or macro scripts are being debugged, which may result in subsequent errors. Such errors can now no longer occur. (Pivotal 5277648)
- The "Type" column of the "Output object information (table)" report is now displayed only once instead of twice. (Pivotal 5277683)
- If ARIS Script Runner is started using an interface language that is not available, now "English" is automatically used as the interface language. (Pivotal 1279502)
- Objects in the "Create structure chart" report are now sorted so that they no longer cause a cancelation of the report. (Pivotal 5274243)

### ARIS BPMN

- Transforming BPMN object types sometimes resulted in connections no longer being allowed, e.g., after having transformed a function into a manual task. It is now possible to add required connections via a corresponding filter. (Pivotal 5276811)

### ARIS Setup

- Installation is now possible with all patch levels of SUSE Linux 12. (Pivotal 5287177)

## ARIS Risk and Compliance Manager

- The database backup function was improved so that special characters now no longer prevent a backup from being created.
- The "create\_user.bat" batch file for importing modeled ARCM users into ARIS Administration now includes an additional parameter for setting the loadbalancer port.
- The validation of users was removed entirely from ARIS Risk & Compliance Manager and is now performed only in User Management.
- If ARIS Help is not available in a specific language, the English version is displayed.
- The layout of the "Risk assessments - Qualitative (risk manager)" Risk Management evaluation PDF report was corrected.
- It is now possible to correctly open uploaded documents in ARIS Risk & Compliance Manager after a migration.
- Using the "Environments" filter in the "Issue-relevant objects" list no longer results in an empty dialog being displayed.
- In-memory Sign-off Management locks are now migrated to the database.
- The "Test cases" and "Deficiency statistics" Sign-off Management evaluations for generated sign-off processes now use the "Calculation" filter as required.
- If you are accessing one and the same object more than once via different browsers or tabs and should find that the object is locked for editing, now a message is displayed providing a link that you can use to request write privileges for the object in the current browser or tab.
- Risk assessments that were downloaded for offline processing are now displayed to object-specific risk managers in the list under "Home > My offline objects".
- The list of test cases for the "Test reviewer" role was renamed from "'Not effective' test cases (test reviewer)" to "Test cases (test reviewer)".
- If ARIS Risk & Compliance Manager is used in a multi-node scenario, the "CDF" runnable is required.
- The PDF and Excel report of the audit evaluation "Evaluations > Audit Management > Audit status (Audit steps)" no longer displays numbers, but the green check marks that are also used in ARIS Risk & Compliance Manager.
- An audit step template can now be saved only if all mandatory fields were filled in, even if the status of the audit is not yet set to "Released".
- The XML import now excludes assigned functions for which symbol types are used that ARIS Risk & Compliance Manager does not support.

## ARIS Mobile API

- ARIS Mobile API now correctly returns the actual values for combo boxes instead of returning numbers. (Pivotal 5274702)

## 16 Fixes in ARIS 10.0 (reported by customers for ARIS 9.8)

### ARIS Architect / Designer

- To increase ARIS security, the **TLS 1.0** protocol was deactivated in the course of development.  
As a consequence, editing the **Documentation** attribute is no longer possible because this attribute is based on the **WebDAV** protocol. If a user now attempts to edit this attribute, a message is displayed indicating that TLS 1.0 needs to be activated.  
(Pivotal 5268771, 5269774)
- The Explorer tree no longer collapses when the **Object properties** dialog is closed by clicking **OK**. (Pivotal 5269300)

### ARIS Connect

- The user **guest** is no longer able to perform operations for which the user role **guest** has no privileges. (Pivotal 1132963)
- When a user opens a model after Collaboration was deactivated by the Administrator, and then switches between the document and task section, the message indicating that Collaboration is inactive is no longer displayed repeatedly in the Collaboration widget.  
(Pivotal 5259015)
- It is now possible to identify a markup property that was added via SSC. (Pivotal 5266479)
- SCC now provides the buttons **Up** and **Down** for changing the order of properties displayed in fact sheets. (Pivotal 5266482)
- If no configuration is available for sorting, a new fallback configuration is automatically generated. It provides default sorting for all item types based on the **Name** attribute, and flow sorting for functions and events in process item types used for the **Steps** view.  
(Pivotal 5261862)
- Role selection on the server now works as required. (Pivotal 5263161)
- A published database that was deleted is now no longer displayed in **ARIS Connect**.  
(Pivotal 5260581)
- When using the **roleBasedItem** component, ensure that the configuration includes all references required to identify the user role. Details are available as comments in the file **instances/roleBasedItem/roleBasedItem\_default.xml** in the classic and default configuration sets. (Pivotal 5258309)
- A correction was made due to which events are now sorted alphabetically. Based on this, the **Steps** view is now displayed correctly. (Pivotal 5271558)

## ARIS Server

- It was possible to create a database using a name that already existed if there was a difference in the use of upper and lower case letters. This issue was fixed. (Pivotal 5273034)

## ARIS Report

- The **setSelectedFile** method of the report script API had no effect when the report was run in ARIS Connect. This error was fixed. (Pivotal 5267068)
- Changing a connection assignment in Visio mapping no longer changes the Visio shape name to the ARIS symbol name. (Pivotal 1133534)
- If a server is constantly polled in an open report panel, this now leads to a session timeout. (Pivotal 5262683)
- Applying the drawing function to a model graphic, e.g., FrameRect of the **Picture** object, no longer turns the background of the model graphic into black. (Pivotal 5263046)
- The report **RA(S)CI - Output organizational participations in processes** is now available in XLS format in ARIS Connect. (Pivotal 5261594)
- A correction was made to the report script API method **Dialog.setDlgPicture ( String sDlgItem, byte[] imagedata, int Type )** so that a number is no longer displayed next to an image. (Pivotal 5254294)
- Based on a correction that was made regarding the report script API, using a new Rhino Engine no longer prevents the cancelation of reports whose execution takes place in a subfunction of the report. (Pivotal 5254342)
- Pressing **ESC** to close a help topic no longer opens the report script help. (Pivotal 5254791)
- When the language in ARIS Connect is changed from English to another language, the names of available reports are now displayed. (Pivotal 5254808)
- A correction was made to the report/macro script API so that it is now possible to navigate back to the code editor when debugging the macro while using the **openMatrix** method with **visible** set to **false**. (Pivotal 5252643)
- A correction was made to the report script API method **<>.dialog.getDialogElement("PICTURENAME")** so that this method no longer returns an undefined result. Furthermore, methods were added that can be used to place images in dialogs. (Pivotal 5252342)
- The performance regarding the procedure of assigning and applying templates to models via reports was improved by more than 50%. (Pivotal 5250240)
- When using the report script API to generate URIs and output Excel documents, it is now possible to access an Excel document via the corresponding link. (Pivotal 1127878)
- Based on the switch to a newer external library version, links created in a document via ARIS Report now work correctly when **PDF** is used as the format. (Pivotal 5239084)



### ARIS BPMN

- A correction was made regarding BPMN 2.0 models so that users with read-only privileges for an object are no longer able to modify the appearance of an object. (Pivotal 5265416)
- In BPMN 2.0 models, the **Symbols** bar no longer shows symbols that are not allowed so that it is no longer possible for a user to create connections or objects that are actually not allowed by the filter in use. (Pivotal 5262503)
- If a filter uses only BPMN symbols that were derived, ARIS Designer no longer shows the name of the symbol from which a user-defined symbol was derived, but the name of the symbol derived. (Pivotal 5271549)
- It is now possible to run a BPMN export for models containing grouped ARIS objects. (Pivotal 1132067)

### ARIS Document Storage

- Links that are displayed in the portal on the **Documents** tab for models and that refer to documents in ARIS document storage, are now displayed in both the language selected for the portal and the alternative language. (Pivotal 5257886)

### ARIS Process Governance

- The description of the ARIS Process Governance data flow design was updated in the file 'Data Flow Design.pdf'. (Pivotal 5266864)
- The order of documents in the table control of ARIS Process Governance dialogs is now alphabetical. (Pivotal 5267165)
- The performance regarding variable editing was increased in such way that editing a high number of variables is much faster now. (Pivotal 5248510)
- In ARIS Process Governance, the contrast was increased for scroll bars displayed in dialogs, especially for the use of Microsoft Internet Explorer. (Pivotal 5248988)

### ARIS Risk and Compliance Manager

- A correction was made to a macro so that the values returned by the **ADateTextField** control are now correct. (Pivotal 5249123)

### ARIS UML Designer

- In the **Properties** dialog, using the **CTRL + Up** and **CTRL + Down** arrow keys to move the properties of a UML2 class up or down now works as required. (Pivotal 5269243)

### ARIS User Management

- The User Management report API method **getExpirationDate()** does no longer throw a Java NullPointerException if a license does not have an expiration date. (Pivotal 5268420)

### ARIS for SAP© Solutions

- It is now possible to store the synchronization log file in ARIS Architect Administration if the file extension txt is available in ARIS Connect under ARIS Administration > ARIS document storage > Quota and restrictions > Valid file extensions. (Pivotal 1133477)
- In SAP© Solution Manager, links to models in ARIS Connect are now deleted correctly during data transfer from ARIS to SAP© Solution Manager. (Pivotal 5262556)

## 17 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 modeling 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 modeling 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.