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<td>Mark Heitmann</td>
<td></td>
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</tr>
<tr>
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<td>&quot;Build all&quot; of the projects and download:</td>
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<td>Logoff:</td>
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<td></td>
</tr>
<tr>
<td>Server reboot:</td>
<td>✔️</td>
<td></td>
</tr>
</tbody>
</table>

**Please also note:**

**Important note:** AutoYaST version 4.2-051.0.190305 or later must be installed before installing the patch.

Two previously supported call parameters have been dropped for AnslDriver; one new parameter has been added.

Due to these changes, the affected APROL systems must be saved again and then compiled so that the AnslDriver can be started in the runtime environment.

Due to changes to the build procedure and update of CAE library "APROL", "Build (all libraries)" and "Build (project)" of all CAE projects must be carried out after patch installation.

B&R has made changes to the following software packages that are subject to the GPL: nut, ntp, usbguard, monit

The associated source code is stored in the APROL environment in directory "/opt/aprol/src".

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   1.2. Improved stability of APROL TLS ................................................................. 3
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1. Corrections

1.1. Missing requirement entries if all tasks of the CAE project were built incorrectly

When aborting the build procedure of all tasks of the CAE project – with disabled user option "Stop action if an error occurs" – no associated requirement entries were created for the default task of each hardware target.

**Note:**
Based on the requirement entries, the user is not only prompted to correct the error but to also perform a "Build (target)" for all affected targets.

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<tr>
<td>Runtime DB:</td>
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</table>

1.2. Improved stability of APROL TLS

This patch provides the following improvements for APROL TLS:

1. When updating from an older release (≤ R4.2-03) to R4.2-05P1, "Requirement for save" is displayed for APROL systems of type "Gateway" due to the renewed CC module call parameters for TLS.
2. During automatic certificate creation with action "Complete PKI configuration", the IP addresses for cluster, primary and secondary CPU are entered in the "Subject alternative name" extension of the certificate for redundant controllers.
3. During automatic certificate creation with action "Complete PKI configuration", OPC UA server certificates are now created and assigned using the fully qualified hostname.
4. If a default certificate is assigned in the context of an ANSL client, although client-specific certificates already exist, the default certificate is no longer automatically supplemented for the communication partners, unless it is required for this individual coupling.
5. Redundancy synchronization is also possible via the engineering tools if a connection cannot be established to one of the CPUs after the download due to a corrupt TLS configuration or incorrect ANSL authentication parameters.
6. During the controller's build procedure, an error is displayed along with that displayed in the TLS configuration overview if the certificate of a system cross-coupling is missing in the trusted list of the ANSL server.
7. When building all tasks of the project ("Build all"), all data relevant for TLS connection for the DownloadManager are stored in the database even if the build was not successful for all tasks. In this case, requirement markings for a new build procedure are displayed for incompletely generated project parts even if option "Stop action if an error occurs" is disabled in the productivity settings.
8. If a download to a controller is carried out, all open ControllerManagers are notified about the download so that they apply the changed connection parameters. This means that a ControllerManager restart is no longer required.

9. Deactivated controllers whose PKI configuration is still available under "Unused" in the TLS configuration overview receive no entry "Requirement for Build" for changes to this configuration or the assigned certificates.

10. When downloading a new controller or after restoring a CAE or project backup of an existing controller, the handling of the current connection information of each CPU is now correct.

11. When a build is performed on a "not TLS-capable" controller, the certificates of the engineering and diagnostics tools in the project are not validated.

12. When updating section CCS or PKI of the TLS configuration overview, it becomes insensitive. This prevents further actions (e.g. saving) from being performed during the update, which can lead to a crash of the CaeManager.

13. OPC UA server certificates can also be created during the autocomplete of the PKI configuration. The fully qualified hostname is now preferred in the URI of these certificates. If no fully qualified hostname has been configured for the controller, the hostname of the controller is used. If this has not been configured either, the IP address of the controller is used instead. Thus, a valid URI can always be generated.

14. Dialog box "Redundancy management" from the DownloadManager can now use the configured connection of the primary and secondary CPU, even if the redundancy partners are configured with different connection parameters (TLS or ANSL authentication). If both rCPUs can be reached, a manual synchronization of the application data or a redundancy switchover can be initiated. After synchronization, a reconnect with the "new" (possibly former) parameters is performed. These "new" parameters must then be entered manually in the DownloadManager so that the reconnect can also occur there.

15. A missing controller certificate in node "trusted" of the engineering tools leads to the output of an error during the project build procedure. It is otherwise not possible for the engineering tools (DownloadManager, ControllerManager, etc.) to establish a connection with TLS after downloading the controller in this scenario.

The following optimizations are possible by using AR OS version A0453:

AR OS version A0453 can be obtained as AR upgrade and installed in the CaeManager.

1. For controllers with cross-communication, a page fault occurred when the connection to the partner CPU was lost.

2. For example, if the security mode of a cross-coupling driver on a controller is changed, these changes also take effect without a manual warm restart.

3. When a securely configured ANSL communication connection lost its connection temporarily due to network failure, there was an increased utilization of DRAM memory caused by memory leaks.

4. After rebooting the controller, ANSL connection security mode "Secure" could not always be established.

The following improvements for APROL TLS are achieved by using AR OS version D0462 (only available in APROL R4.2-06 and later):

1. The certificates of the communication partners are validated by the controller with regard to matching hostname or IP address. To determine the hostname, a DNS server must be configured.

2. If certificates of the communication partners were configured in directory "trusted" of the HTTP server of the controller, the HTTP client (browser) must identify itself with the corresponding certificate when establishing the connection.

Corrections
1.3. **ControllerManager: Unintended exit when using the variable view and existing INA connection**

If the variable view was opened for an existing INA connection and complex variables (e.g. structures or arrays) were added here, the ControllerManager exited unintentionally. After correction, it is ensured that the variable view is displayed as expected.

If the variable view was opened for an existing INA connection and complex variables (e.g. structures or arrays) were added here, the ControllerManager exited unintentionally. After correction, it is ensured that the variable view is displayed as expected.

1.4. **ApcHwInfo: Incorrect status when exiting the application**

The status of APROL system service ApcHwInfo was not displayed correctly in the StartManager. For example, the status "lost" (instead of "stopped") was output after correct exit of the service. The static UPS variables (e.g. DeviceId and ModelNumber) of service ApcHwInfo were not filled with data on an APC3100 or PPC3100; the dynamic data of the service were filled.

**Note:**

The APROL system service can now also be called without Linux superuser "root" rights.
1.5. Display of the value range in the tooltip of visualization elements "InputOutputBox" and "Slider"

If no range of values was configured in the context of InputOutputBox or Slider, this state was not previously correctly displayed in the tooltip. After correction, no tooltip will be displayed in the aforementioned case. This information is otherwise displayed in the tooltip if a value range start or end was specified.

1.6. Optimizations for AS hardware configuration on an external Windows system

The AS hardware configuration procedure on an external Windows system has been further optimized, and possible error sources have been eliminated. Previously, the necessary texts for APROL drivers and mapp View may not have been copied to the VMware environment, which meant that these texts were missing in the logbook entries. 

Note:
After an AR upgrade, the previously missing texts are completed in the environment of the external Windows system.

It is now ensured that an older client (CaeManager) can also communicate with newer servers (Windows). Downgrade of AprolRemoteExecServer is therefore no longer necessary.
1.7. Performance losses during "Build project" caused by selected verbose level

Depending on the selected verbose level, the "build project" of large CAE projects may have suffered performance losses. A higher verbose level, and therefore increased processing of output, caused a delay in the build procedure. The internal system processing for the output dialog box was optimized so that no performance losses occur now as a rule.

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Contents

Files: /opt/aprol/lib*/libAprolQtDialogs.so.2.294.2

CAE DB: ---

Runtime DB: ---

1.8. OPC UA client DA blocks

Read and write blocks and the associated templates were provided in conjunction with the introduction of the OPC UA client DA blocks. These blocks can be used to configure the one-time writing or reading of a node. The function is triggered or, as with write blocks, this can also be event-based.

This functionality is now also provided in the OPC UA client coupling to also complete the range of functions for configuring the client in this field. It was previously already possible to write to nodes but the configuration was stored below section "Subscriptions", which in turn was incorrect since writing does not take place in the context of subscriptions.

For this purpose, the new sections "NodesToWrite" and "NodesToRead" have been provided, in which the configuration can now be carried out separately.

**Note:**
For performance reasons, the monitoring of nodes is always preferable to the cyclic triggering of the read service that you have configured yourself.
In addition, the interpretation of the provider status of input PVs on write and read blocks has been corrected for the configuration of UaRClient.
This affected variables written by the DisplayCenter since UaRClient had previously ignored unsupplied variables at the VALUE inputs of write blocks.

System pins "Namespace" and "BrowseName" specified in OPC UA client DA block "MethodCall" were editable, i.e. the pins could also be deleted.
Only user pins are permitted to be edited in template blocks and not system pins. This possibility of misconfiguration has been corrected.

The connected OPC UA server can provide both the source timestamp and the server timestamp (depending on the server used). In addition, the local timestamp can now also be used as a timestamp for the process data.
In APROL R4.2-05 and later, all three timestamps can be configured in the OPC UA client coupling and CAE block UaSessionExt.
1.9. Corrections for the DownloadManager

When a controller download with AR OS change was manually started, the download was started but not continued. If action "Force initial download" was explicitly selected in this case, the download was successful. The reason for this was the error handling of unsuitable partitioning. In this case, after correction, download is aborted after the partitioning check has been performed and a corresponding error message is displayed.

A simultaneous download to a large number of controllers may have resulted in an unintended exit of the DownloadManager. After optimizations for multi-threading, this error no longer occurs.

In addition, the redundancy-relevant ANSL connections are now correctly listed in the tooltip of the dialog box.
1.10. Error behavior in download mode "manual" with only one rCPU switched on

It was previously not possible to abort a download in mode "manual" if only one rCPU was switched on. There was an incorrect offer to synchronize the application data or perform a redundancy switchover at this point. After correction, the download is finished correctly at this point.

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<td>Runtime DB: ---</td>
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1.11. OPC UA: Connection UaRClient/OPC UA server of the controller with security mode "Non-secure"

If UaRClient connects to an OPC UA server via security mode "None" and security policy "None", certain parameters of the connection may have to be reconfigured, otherwise no communication will be established. This is especially true when using the OPC UA server of the B&R controller. The parameters listed below are available in the APROL coupling of UaRClient (at session level) and on block UaSessionExt of library APROL. The corrected library APROL is included in the patch.

Parameter "DisableEncryptedPasswordCheck" must be set to value "true" if security mode "None" and security policy "None" are used and the OPC UA server requests a plain text password for user authentication.

**Note:** Transmission of passwords in plain text is not activated by default for security reasons. Parameter "DisableTrustedCertificateForUserTokenRequired" must be set to the value "true" if security mode "None" and security policy "None" are used and if the OPC UA server requests an encrypted password for user authentication and the certificate of the OPC UA server is not known to UaRClient. Trusting unknown certificates is not recommended for security reasons. The certificate of the OPC UA server should be included in UaRClient's node "trusted".

Since the updated APROL library is a basic library, not only a build for this library should be performed but also a "Build (all libraries)" after the patch installation (see header entry under "Also note").

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<td>Runtime DB: ---</td>
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1.12. Frame of text objects in CFC

If setting "Display frame" was not explicitly selected for text objects in the CFC, the frame was still displayed. After correction, the frame is displayed or hidden in both CFC and SFC according to the setting.

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Contents

Files: /opt/aprol/lib64/libCaeCFC.so.4.676.9
CAE DB: ---
Runtime DB: ---

1.13. AprolMqttClient: Corrections and performance optimization

AprolMqttClient previously took a long time to process a large number of subscription messages. Until now, the reason for this was an internal limitation of 10 messages per communication cycle of 100 ms. The limit has now been changed by default to 2000 messages. In addition, the limitation can now be configured via call parameter "-maxSubMessagesPerLoop" with a value between 100 and 10000 messages per cycle.

When changing the connection state from "not connected" to "connected", there was an unintentional exit of the client in rare cases. This procedure was prevented by appropriate measures.

The following corrections were also applied to the message formats of publish messages:

- Values of IEC data types ULINT, LWORD and DT were not sent in decimal notation
- Values of IEC data type TIME were not sent correctly; these values were interpreted internally as data type time of day (TOD)
- Values of IEC data type DT were exported with insufficient accuracy; these are now sent with an accuracy of 1 microsecond (6 decimal places)
- Subscribe values of IEC data types ULINT/LWORD were not correct if the highest bit was set.
- Values of DT IEC data types were only published with a maximum of $2^{32}$ seconds in string representation.

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Contents

Files: drvPlsAprolMqttClient.imp
/opt/aprol/bin/AprolMqttClient: Version 2.1.113.2.4
CAE DB: See .imp files
Runtime DB: ---
1.14. Removing whitelists

Previously configured whitelists could not be removed using Linux command "AprolFirewallCtl -d".

**Note:**
The firewall provided by SUSE can be modified in such a way that only certain remote computers are permitted to access the local computer. This configuration is based on IP address filtering. The system or network administrator can use prepared whitelists for this purpose.

**A&P:** 625894  **Also available starting with:** R4.2-06  **Text correction:** Schulte  **On:** 2019-02-06

**Documentation:** Not necessary

**Contents**

**Files:** AprolJobDispatcher 1.1.75.2.1, AprolSignTool 1.1.6.2.1, AprolFirewallCtl 1.11.2.2

**CAE DB:** ---

**Runtime DB:** ---

---

1.15. Transferring password policies

When transferring a password policy to the LDAP server (CaeManager / Extras / Settings / Global engineering options / LDAP password policies), the logic of the confirmation dialog box for executing the action was inverted.

**Note:**
LDAP password policies can be created, managed and assigned to operators in the context of a CAE project for easier configuration of the LDAP server. A suitable password policy can enable the function of "Password expires" so that after a set time the validity of the password expires and the operator must assign a new password, for example.

**A&P:** 631884  **Also available starting with:** R4.2-06  **Text correction:** Schulte  **On:** 2019-02-07

**Documentation:** Not necessary

**Contents**

**Files:** /opt/aprol/lib64/libAprolLdapConfig.so.1.81.1

**CAE DB:** ---

**Runtime DB:** ---

---

1.16. Using the APROL start scripts

Call parameter "--replace_or_add_args" caused the start procedure to abort when APROL GUI applications were called using the associated start scripts.

**Note:**
Call parameter "--replace_or_add_args" can be used to overwrite call parameters already configured for starting the application or to add additional call parameters.
1.17. B&R UPS to APC3100/PPC3100

The UPS daemon displayed incorrect type information when using B&R UPS for this Automation PC/Panel PC.
The determination of type information was adapted for this hardware. The affected UPS daemon is part of the associated AutoYaST DVD.

1.18. Diagnosis of ANSL authentication for accessing the controller

When using AR OS versions that do not support ANSL authentication, statuses "AnslLogin not supported" and "AnslLogin confirmed" were displayed simultaneously in the diagnosis.
In this case, after correction, only the status "AnslLogin not supported" is output.

1.19. KTowiTool: Reading a card using ADMITTO RFID card reader

Reading an RFID via the KTowiTool utility could not be performed when using an ADMITTO RFID card reader if the RFID information carrier was already placed at the start of the reading routine. Utility KTowiTool was no longer usable during this phase.
The behavior has been changed so that unsuccessful reading is aborted after 10 seconds with error code "ETIMEDOUT" (110).
Note:
The placement of an RFID medium before the start of the reading routine of KTowiTool does not lead to results. The medium should only be placed on the reader after the reader routine has started. This is the only way to start the reading procedure in the reader.

A&P: 634354  Also available starting with:  R4.2-06  Text correction:  Schulte  On:  2019-02-26
Documentation:  Not yet implemented

### 1.20. Missing start path when specifying a relative path

When specifying a constant at an input pin used for inputting a relative path (e.g. "IVTEXT" of block AprCcAlarm), the start path for the file selection dialog box was missing. For example, if an HTML page was entered for the intervention text, it could not be opened at runtime.

A&P: 635029  Also available starting with:  R4.2-06  Text correction:  Schulte  On:  2019-03-01
Documentation:  Not necessary

### 1.21. Corrections for new language English (GB)

Despite successful installation of new language "English (GB)", country code 044, this language could not be selected in the project and library properties. This meant that it was not possible to switch the alarm and HMI application texts to the new target language.

In APROL SDM, the new language was not correctly displayed in section "Status of translation".

After switching the keyboard layout to the new language "English (GB)", the selected language was not used correctly and the language "English (US)" was displayed in this case.
### 1.22. APROL SDM: Status display for language "German (DE)"

In APROL SDM, the basic release of the translation and associated date were not displayed correctly in section "Status of translation".

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| Files:       | /opt/aprol/share/locale/de/LC_MESSAGES/EnginState: Revision 1.20.2.1  
               /opt/aprol/share/locale/de/LC_MESSAGES/OperatorState: Revision 1.20.2.1 | | |
| CAE DB:      | ---                                  |                          |                |
| Runtime DB:  | ---                                  |                          |                |

### 1.23. Troubleshooting in the coupling editor

Various corrections have been carried out to the coupling editor to prevent possible error behavior.

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| Files:              | ENGIN/CAEdb/caedb/drvDB/gwCcInaPda.imp: Revision 1.60.2.1  
                      ENGIN/CAEdb/caedb/drvDB/gwCcInaPda_source.imp: Revision 1.57.2.1  
                      /opt/aprol/share/locale/de/LC_MESSAGES: Revision 1.340.2.5  
                      /opt/aprol/lib/libCaeGateway.so.3.402.1 | | |
| CAE DB:             | see the files                         |                          |                |
| Runtime DB:         | ---                                  |                          |                |
2. Extensions

2.1. Utilization regulation for AnslDriver

After connection is established, all AnslDriver objects are registered on the controller. In the past, this caused such a high load on the controller that the variable update of existing couplings (e.g. controller-controller coupling) was greatly delayed. To regulate this behavior, the new call parameter "-registerSendDelay" was provided and should prevent this interference in combination with other parameters. However, since this extends the registration phase of the variables, the call parameters concerned must be configured by the user as necessary.

The following parameters are decisive for the registration phase; the recommended values cause a longer (but less load-intensive) registration phase:

- `registerSendDelay` Recommendation: >100 ms
- `sendDelay` Recommendation: 2 ms
- `bufSize` Recommendation: 4
- `pvConnectTimeout` Recommendation: 0 (i.e. switched off)

Notes:
The actual effect depends on the number of objects to be registered. The effect will be much greater for a large number of variables that must be registered using many ANSL telegrams than for a few objects registered using a few ANSL telegrams.

With the provision of new call parameter "-registerSendDelay", the previous parameters "-connectPvBlockDelay" and "-connectPvBlockSize" became obsolete and were therefore dropped in the CC modules of the AnslDriver.

New parameter "-registerSendDelay" is automatically activated with 100 ms to relieve the controller during the login phase. To maintain the previous behavior, it is necessary to disable the call parameter deliberately.

Due to the aforementioned changes, ANSL UIF changeset 348057 was applied.

<table>
<thead>
<tr>
<th>A&amp;P: 634049, 636004</th>
<th>Also available starting with: R4.2-06</th>
<th>Text correction: Schulte</th>
<th>On: 2019-03-11</th>
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<tbody>
<tr>
<td>Documentation:</td>
<td>Manual &quot;X99 - CC modules&quot;, chapter &quot;AnslDriver call parameters&quot;</td>
<td></td>
<td></td>
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Contents

<table>
<thead>
<tr>
<th>Files:</th>
</tr>
</thead>
<tbody>
<tr>
<td>/opt/aprol/bin/AnslDriver: Version 2.2.341.2.3</td>
</tr>
<tr>
<td>ENGIN/CAEdb/caedbxdrvPlsAnslDriver.imp: Revision 1.127.2.4</td>
</tr>
<tr>
<td>ENGIN/CAEdb/onlineHelp.imp: Revision 1.99.2.3</td>
</tr>
<tr>
<td>/opt/aprol/share/locale/de/LC_MESSAGES/CAEDB_AprolSystem.mo: Revision 1.364.2.5</td>
</tr>
<tr>
<td>/opt/aprol/lib*/libAnslUIF.so.4.5.1005</td>
</tr>
</tbody>
</table>

| CAE DB: | --- |
| Runtime DB: | --- |
2.2. Providing a context-related wine environment

Separate wine environments are provided in one CC account environment. For example, a separate ".wine" directory is used for the "Build (Library)" operation of a CAE library or for the "Build" operation of the hardware instance x of CAE project y.
This enables changes to be applied in your own wine environment, even if another build procedure is performed at the same time. As part of a build procedure, the associated wine environment is reestablished and initialized, which minimizes problems that have occurred so far.
Further corrections ensure that the build procedure for controllers partially containing mapp View can be performed without any problems.

Necessary action:
Due to the changes performed during the build procedure, it is recommended that a "build (all libraries)" and a "build (project)" of all CAE projects be performed after patch installation.

<table>
<thead>
<tr>
<th>A&amp;P: 627034, 632929</th>
<th>Also available starting with:</th>
<th>R4.2-06</th>
<th>Text correction:</th>
<th>Schulte On: 2019-02-27</th>
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<td>Documentation:</td>
<td>Not yet implemented</td>
<td></td>
<td></td>
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</table>

Contents

Files:

- /opt/aprol/bin/devil: Version 2.1.607.2.6
- /opt/aprol/lib*/libIATGen.so.1.77.1
- /opt/aprol/lib*/libLibGen.so.3.214.1
- /opt/aprol/br/bin/BR.AS.WineCall: Revision 1.2.2.1
- /opt/aprol/br/bin/BR.AS.FrontEnd: Revision 1.6.2.1
- /opt/aprol/scripts/AprolWineEnvironment: Version 1.1.2.4
- /opt/aprol/ENGIN/LIBRARIES/Makefile.lib.tmpl: Revision 1.11.2.1
- /opt/aprol/IAT/aprol/bin/BR.IAT.Builder.Transfer.cmd: Revision 1.1.2.2
- /opt/aprol/IAT/aprol/bin/BR.IAT.Builder.Transfer.sh: Revision 1.1.2.2
- /opt/aprol/IAT/bin/BR.IAT.AprolBuildPrepare.exe (mappView1-Domain-5.2.1.64.zip: Revision 1.35.2.2)

CAE DB: ---
Runtime DB: ---

2.3. Preventing operation of USB mass storage devices

To prevent operation of USB mass storage devices, the software solution "USBGuard" is offered.

For easy handling, customers do not initially have to make their own settings.
In APROL R4.2-05P1 and later, script "AprolSetSecurity +usbguard ownrules" is automatically started during an AutoYaST update, APROL installation, APROL update or patch installation. This means that during such an installation/update, connected devices that are not of type "Mouse", "Keyboard", "Technology Guard" or "USB hub" (e.g. USB mass storage devices) are blocked by the activation of USBGuard and can no longer be used until USBGuard is stopped manually.

Alternatively, the following call parameters can be passed to the script:
- "+usbguard": Allows you to use the default setting (from /opt/aprol/etc/usbguard_default_rules.conf); you can enter USB devices of type "Keyboard", "Mouse", "Technology Guard" and "USB hub" here.
• "+usbguard ownrules": **Additionally** enables own rules (from /home/aprolsys/APROL/cnf/usbguard/own_rules.conf)
• "+usbguard secure": Enables all USB devices connected at the time of the script call (entry in file /etc/usbguard/rules.conf). In addition, USB devices of type "Keyboard", "Mouse", "Technology Guard" and "USB hub" are enabled.
• "+usbguard secure ownrules": Enables all USB devices connected at the time of the script call; own rules are also taken into account. In addition, USB devices of type "Keyboard", "Mouse", "Technology Guard" and "USB hub" are enabled.

**Notes:**
1. The script with the alternative call parameters must be called as Linux superuser "root".
2. The USB devices of type "Keyboard", "Mouse", "Technology Guard" and "USB hub" are enabled for all mentioned USBGuard call parameters.
3. USB devices of type "Keyboard", "Mouse", "Technology Guard" and "USB hub" can be exchanged at any time even if USBGuard is activated.
4. If USB devices that were previously blocked by USBGuard are to be enabled, the configuration must be adjusted and USBGuard restarted. A direct restart via call script is possible with the corresponding call parameter.
5. To enable USB devices that were blocked when USBGuard was started, USBGuard must be stopped and the USB devices plugged in again. Only then is it possible for the computer's operating system to recognize the devices.
6. In the desktop environment, "USBGuard QT Viewer" is started and placed in the "System tray". This viewer outputs messages when known or unknown USB devices are connected to the computer. In order to guarantee a clear display, any interactive functionality was removed from the associated source code and then stored in directory "/opt/aprol/src/usbguard/" in accordance with the GPL.

**A&P:** 626834, 633144, 633564, 634159, 634724, 636209, 636199, 636954, 636949

**Also available starting with:** R4.2-06

**Text correction:** Schulte

**On:** 2019-03-07

**Documentation:** Manual "D6 - Security", chapter "Preventing operation of USB mass storage devices"

**Contents**

| Files | /opt/aprol/scripts/AprolSetSecurity: Version 1.8.2.8
|       | /opt/aprol/scripts/AprolScriptsLibrary: Revision 1.8.2.8
|       | /opt/aprol/etc/usbguard_default_rules.conf: Revision 1.3.2.4
|       | /home/aprolsys/APROL/cnf/usbguard/ownrules_sample.txt
|       | /opt/aprol/share/locale/de/LC_MESSAGES/AprolSecurity.mo: Revision 1.6.2.4
|       | /opt/aprol/skel/default_config/.config/autostart/usbguard-applet-qtviewer.desktop: Revision 1.15.2.1
|       | /opt/aprol/skel/system_config/EngineeringStandard/.config/menus/Aprol_BuRDesigner.menu: Revision 1.15.2.1
|       | /opt/aprol/skel/system_config/RuntimeStandard/.config/menus/Aprol_BuRStandard.menu: Revision 1.1.2.2

**CAE DB:** ---

**Runtime DB:** ---
2.4. Using the access data of "MonitSystemOperator"

An empty HTML page was displayed when opening the system monitoring via "Monit". This error has been corrected.

To trigger the monitoring of a process via Monit again - and to restart the process itself if necessary - button [Login to enable monitoring] in column "Status" can be used as usual. In the context of this APROL patch however, the access data of B&R operator "MonitSystemOperator" must be entered with password ".MonitSystemOperator" in the following authentication dialog box.

In APROL R4.2-06 and later, it will be possible to configure explicit operators in the OperatorManager for access to system monitoring via "Monit".
For increased security, "MonitSystemOperator" should be disabled and an own Monit operator created with unpublished password. This new operator must belong to operator group "MonitSystemGroup".
Note: Script PatchEnd calls AprolPrepare to enable the Apache and Monit configuration change.