

u-OS firmware change log of the device: 1334950000 UC20-WL2000-AC

Firmware updating information:

An update of the firmware can be done via the graphical web front end. A description of the firmware update procedure can be found in the device manual on the Weidmüller website: support.weidmueller.com.

Version: 2.8.0

Hardware Version: 01.xx.xx

Release Date: June, 2026

Information

- Based on Yocto Linux 5.0
- Refer to the corresponding release tag in the [u-OS Data Hub API](#) repository for the compatible API versions

New Supported Modules

- 2489840000 UR20-1COM-CANOPEN

New Features

- Added the possibility to set up devices using a removable media, including firmware, apps, and Administration settings. Documentation in the embedded help will be added in the next release
- u-OS Control Center: Added the possibility to manage signature verification GPG-Keys via u-OS Data Hub API and UI
- Audit logging is now enabled to record system events for security monitoring
- u-OS Control Center: Added the option to configure a Syslog client to forward the system logs to a remote server
- u-OS Control Center: Added the option to disable Ethernet interfaces and the USB service interface; default is enabled. For more information, please refer to the embedded help
- App Manager: Added support for mounting devices to Apps via path in Linux. For more information, please refer to the embedded help
- Offline Apps can now be installed and updated via hawkBit. A new download page is planned for the Weidmüller Support Center where Offline Apps can be downloaded
- u-OS IO Configurator: Navigating to an unavailable page now redirects to the Overview page instead of displaying an error page
- u-OS IO Configurator: Added support of UR20-1COM-CANOPEN Module for third-party PLC and Data Hub
- Added a Unix domain socket for the Administration API that allows access to the API endpoints as system root user
- Renamed the internal service “uc-system-manager” to the corresponding u-OS Data Hub Administration Management node “u_os_adm”. When querying for logs of the service via the log viewer, the new name needs to be used
- Updated the Linux kernel to version 6.6.123

Bug Fixes

- u-OS IO Configurator: Fixed an issue where the last module could not be selected in the UI when 64 modules are connected to the System Bus
- Fixed an issue where in rare cases the System Bus Manager could cause excessive CPU load on the isolated core
- Fixed an issue where the System Bus Manager API for acyclic access contains unexpected three zero bytes

- Optimized the CPU usage of the system LED service “u-os-ledc”
- Removed the unused /idp/device endpoint to improve security
- u-OS IO Configurator: Fixed an issue where deployment would not work without at least one module attached to the System Bus
- Fixed an issue where the CPU isolation setting was not restored during backup and restore operations and had to be re-enabled manually

Known Issues

- u-OS IO Configurator: The restore default button for modules is not functioning
- System Bus Manager: After a power-cycle, the BF/IOB LED may remain off instead of displaying red when a configuration mismatch is present
- When configuring App device mounts, duplicate device paths can be added without an error message. Please ensure that each device path is unique to avoid potential conflicts
- When installing or updating an App or firmware via hawkBit, you may see multiple error messages in the SWupdate log. These errors do not affect the installation and the errors can be safely ignored
- After installing or updating an App via hawkBit, the Update page remains showing "Restarting the system", even though the installation has finished successfully. As a workaround, refresh your browser to reset the status display
- When installing or updating multiple Apps via hawkBit in a single distribution, only the first App is installed while the task is marked as completed. As a workaround, install Apps one at a time by executing separate rollouts/distributions for each App
- u-OS IO Configurator: CANopen configurations with “placeholder” PDO mappings will leave the CAN bus in pre-operational. As a workaround, remove or re-map all “placeholder” PDO mappings in the CANopen process data configuration
- Enabling the Removable Media Update feature once is required to add corresponding GPG keys via UI or API
- u-OS Control Center: On the Syslog UI page, pressing Enter when editing an output unintentionally creates a new output entry. Please remove the unintended output entry afterwards
- u-OS Control Center: On the Syslog UI page, uploading a certificate or key file overwrites any previously entered file name with the name of the selected file
- u-OS IO Configurator: Disabling the Heartbeat monitoring for CANopen devices does not take effect. The devices continue sending Heartbeat messages
- u-OS IO Configurator: Scanning the System Bus only works when at least one module is attached to the System Bus
- u-OS IO Configurator: The CANopen Manager page automatically scrolls back to the top after every EDS file import
- u-OS IO Configurator: The UI may become unresponsive without feedback while importing a CANopen EDS file with a large number of parameters. Please wait a few seconds until importing is completed
- u-OS IO Configurator: PDOs drag-and-drop mapping functionality may not work on specific screen resolutions. Adjusting the browser window size will resolve this issue
- u-OS IO Configurator: A wrong CANopen device node ID is shown in the u-OS Data Hub
- Enabling the Removable Media Update results in cyclic log messages every 10 seconds. We recommend

disabling this setting after the update process is completed

- Navigating to the Update page immediately after changing update settings may result in a "502 Bad Gateway" error. Refresh the page as a workaround
- The recovery system sometimes does not boot properly. A restart helps in this case
- u-OS Control Center: When applying a URL with a trailing slash in the hawkBit client settings, the connection fails
- u-OS IO Configurator: System bus error when IO-Link sensor is configured but channel is deactivated
- Applying an unsupported offline app (wrong platform) results in a late error
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue
- Pressing the "Restart system" button on the update installation page initiates the restart operation in the background without any user feedback
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- The internal authentication database may slowly grow if a new token is generated for each API call to the u-OS Data Hub. A fix is planned for a future release
- Network configuration: Setting a gateway on multiple network interfaces leads to connection issues, i.e. not being able to reach the network behind the gateway or the internet

Version: 2.7.0

Hardware Version: 01.xx.xx

Release Date: February, 2026

Information

- Based on Yocto Linux 5.0
- Refer to the corresponding release tag in the [u-OS Data Hub API](#) repository for the compatible API versions

New Supported Modules

- 2819690000 UR20-4COM-IO-LINK-V2

New Features

- Added the option to disable the signature verification of SWU-files via API or Web UI; default is enabled
- u-OS Data Hub: Added read-only access to the System Bus Manager provider "u_os_sbm" when a third party PLC is installed
- u-OS Data Hub: Added the possibility to control user-defined LEDs
- u-OS Data Hub: Added the possibility to read the system LEDs
- Changed the functionality of system LEDs. Please check the corresponding u-control UC20 manual for further information
- u-OS IO Configurator: Added support of UR20-4COM-IO-LINK-V2 Module for 3rd party PLC and Data Hub
- u-OS IO Configurator: Added read-only access when a third party PLC is installed
- System Bus Manager: Controller system bus LED now reflects the current state. Please check the u-control UC20 manual for further information. In addition, the Data Hub provider "u_os_sbm" includes the new variable "general_information.state"
- System Bus Manager: Improved memory consumption
- Network configuration: Added dual-mode support for ethernet interfaces allowing both DHCP and static IP

address usage at the same time

- Network configuration: During initial setup, the dual-mode is active on the first ethernet interface
- App Manager: Improved start-up performance of Apps
- Updated the Docker Engine to version 28.5.2
- Updated the Linux kernel to version 6.6.111
- Updated the layout of the embedded help

Bug Fixes

- Fixed an issue where sporadic loading errors occur in the u-OS UI
- u-OS Data Hub: Fixed an issue where the service might fail to initialise after a factory reset, resulting in a blank web UI
- Fixed an issue so that host name validation properly rejects IP addresses and FQDNs
- u-OS Configurator: Fixed an issue where the step count during deployment could have an incorrect number
- Admin API: Corrected the maximum length displayed for the host name to accurately reflect the 64 character limit
- Network settings > Subnet masks: Fixed subnet mask input validation
- Fixed an issue where USB service interface activation is slower after system boot compared to previous u-OS versions

Known Issues

- u-OS IO Configurator: The restore default button for modules is not functioning
- System Bus Manager: After a power-cycle, the BF/IOB LED may remain off instead of displaying red when a configuration mismatch is present
- The recovery system sometimes does not boot properly. A restart helps in this case
- u-OS Control Center: When applying a URL with a trailing slash in the hawkBit client settings, the connection fails
- u-OS IO Configurator: Deployment only works when at least one module is attached to the System Bus
- u-OS IO Configurator: System bus error when IO-Link sensor is configured but channel is deactivated
- Applying an unsupported offline app (wrong platform) results in a late error
- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- Network configuration: Setting a gateway on multiple network interfaces leads to connection issues, i.e. not being able to reach the network behind the gateway or the internet
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation setting cannot be restored via the backup and restore operation. It has to be reenabled manually after the restore operation
- hawkBit: Does not support installation of Offline App images
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue
- The internal authentication database may slowly grow if a new token is generated for each API call to the u-OS Data Hub

Version: 2.6.0

Hardware Version: 01.xx.xx

Release Date: December, 2025

Information

- Firmware version 2.6.0 has not been released for this product

Version: 2.5.0

Hardware Version: 01.xx.xx

Release Date: November, 2025

Information

- Based on Yocto Linux 5.0
- Compatible with [u-OS Data Hub](#) Administration API 0.4.1 and Variable HTTP API 1.2.0 or later

New Supported Modules

- 1315740000 UR20-4COM-IO-LINK

New Features

- Firmware signature verification is now applied to enhance security and data integrity. For new installations only signed SWU-files can be used (e.g. for the CODESYS runtime app version 4.12.0.0-3 has to be used)
- During initial setup or after a factory reset, an API endpoint to upload your own GPG-Keys is available under `/swupdate-gpg-keys`
- Improved startup performance of the u-OS UI
- Critical functions are now highlighted in red to make them easier to spot and prevent mistakes
- Added support for licensing MBS Universal Gateway App
- Added API for acyclic access to System Bus Manager
- Added support for Wireguard in Linux kernel
- Added a public API for the u-OS System Manager:
 - A new API view appears as a tile on the home screen of u-OS that leads to an interactive OpenAPI documentation for the usable APIs
 - New machine client scopes are available to set access permissions for new APIs
- u-OS IO Configurator: Added IO-Link Configurator to enable configuration and u-OS Data Hub support of the UR20-4COM-IO-LINK module
- Added the option to additionally enable HTTP to allow dual access via HTTP and HTTPS to the device

Bug Fixes

- Fixed an issue where a service uses a high amount of resources when the time is manually set to the future
- When upgrading from u-OS version 2.5.0 to a newer version the system will check for sufficient storage. If not the update will be interrupted
- Fixed a bug where the u-OS Data Hub was not functional when HTTP was enabled
- u-OS Data Hub: Setting a timestamp with a timezone offset via the HTTP API now results in an error
- u-OS UI is now functional when it is accessed via a forwarded port
- u-OS Data Hub: Parametrized substitute values of UR20 modules are now shown correctly
- Time Settings: If for any reason (e.g. NTP is unreachable) the device date and time is older than the firmware build time, the device time is set to the build time after reboot; otherwise, the higher time is retained

Known Issues

- Admin API: The wrong maximum length for the host name is shown. Instead of 253 only 64 characters are supported
- In case of sporadic loading errors in the u-OS UI, retrying the action typically resolves the issue
- Network settings > Subnet masks: Input validation does not work as expected
- Applying an unsupported offline app (wrong platform) results in a late error

- u-OS IO Configurator: System bus error when IO-Link sensor is configured but channel is deactivated
- IP addresses and FQDN are not properly rejected when changing the host name in the u-OS UI
- The recovery system sometimes does not boot properly. A restart helps in this case
- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- Network configuration: Setting a gateway on multiple network interfaces leads to connection issues, i.e. not being able to reach the network behind the gateway or the internet
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation setting cannot be restored via the backup and restore operation. It has to be reenabled manually after the restore operation
- hawkBit: Does not support installation of Offline App images
- Status LEDs are currently not used and have no function (except SF LED)
- To migrate from u-OS version 2.3.x to version 2.5.0 at least 5 megabytes of disk space are needed (Disk usage can be seen in the overview window). Otherwise a connection error will occur and the home screen will not appear
- USB service interface activation is slower after system boot compared to previous u-OS version
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue
- The internal authentication database may slowly grow if a new token is generated for each API call to the u-OS Data Hub

Version: 2.4.0

Hardware Version: 01.xx.xx

Release Date: September, 2025

Information

- Firmware version 2.4.0 has not been released for this product

Version: 2.3.0

Hardware Version: 01.xx.xx

Release Date: September, 2025

Information

- Rate limiting for new connections for Ping (20/minute, 20 burst), TCP on Port 22 (20/minute; 20 burst), HTTP on Port 80 (60/minute, 60 burst) and HTTPs on Port 443 (60/minute, 60 burst) is enabled
- Based on Yocto Linux 5.0
- u-OS Control Center: Provided more information about the settings which will be reset during a factory reset
- Compatible with [u-OS Data Hub](#) Variable HTTP API 1.1.0 or later

New Features

- u-OS Control Center: The host name is now changeable
- NetworkManager: Migrated from systemd-networkd to NetworkManager
- u-OS Control Center: The URL to the logs now can contain query parameters to auto-select services and filter messages
- The PWR LED is green if the device is powered on
- SF LED blinks red if a kernel panic occurs

Bug Fixes

- App Manager: Displays correct error message when trying to update an App which has been removed from the App hub or is not available for

- the current u-OS version
- Initial user passwords with special characters are now supported
- u-OS Control Center: Fixed an issue where system paths were displayed when an app uses a removable storage
- u-OS IO Configurator: Fixed an issue where the deployment could result in an error in certain situations
- App Manager: Fixed an issue where large files could not be uploaded to an app (i.e. File Browser, Portainer)

Known Issues

- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- Network configuration: Setting a gateway on multiple network interfaces leads to connection issues, i.e. not being able to reach the network behind the gateway or the internet
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation setting cannot be restored via the backup and restore operation. It has to be reenabled manually after the restore operation
- hawkBit: Does not support installation of Offline App images
- Status LEDs are currently not used and have no function (except SF LED)
- Systemlogs: Under high system load the download of logs via the Control Center might run into a 300s timeout
- To migrate from u-OS version 2.1.x to version 2.2.0 at least 600 kilobytes of disk space are needed (Disk usage can be seen in the overview window). Otherwise a connection error will occur and the home screen will not appear
- u-OS Data Hub: Not functional after disabling HTTPS
- USB service interface activation is slower after system boot compared to previous u-OS version
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue
- The internal authentication database may slowly grow if a new token is generated for each API call to the u-OS Data Hub

Version: 2.2.1

Hardware Version: 01.xx.xx

Release Date: July, 2025

Information

- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device
- Firmware upgrade and downgrade are described in the application note document AN0134
- Firmware upgrade operation from version 1.1X to 2.X takes longer than 30 min. The system restarts several times in between. Please be patient and do not interrupt the power supply
- Recovery is additionally supported by help of the RECOVERY file feature. Please refer to "Resetting the controller to factory settings without a password" in the embedded help
- Based on Yocto Linux 5.0

Bug Fixes

- u-OS IO Configurator: Fixed an issue where certain browser settings could result in a deployment error
- Improved long-term performance of eMMC storage

Known Issues

- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- Network configuration: Setting a gateway on multiple network interfaces leads to connection issues, i.e. not being able to reach the network behind the gateway or the internet
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- Time setting: Incorrect system time setting can cause issues displaying the app hub and app licensing
- CPU isolation setting cannot be restored via the backup and restore operation. It has to be reenabled manually after the restore operation
- Status LEDs are currently not used and have no function
- hawkBit: Does not support installation of Offline App images
- File upload operations (via e.g. App File Browser) might fail for files depending on available memory of the device
- Systemlogs: Under high system load the download of logs via the Control Center might run into a 300s timeout
- App Manager: When trying to update an App which has been removed from the App hub or is not available for the current u-OS version, the error message "addons.errors.appNotInAppHub.title" is shown
- To migrate from u-OS version 2.1.x to version 2.2.0 at least 600 kilobytes of disk space are needed (Disk usage can be seen in the overview window). Otherwise a connection error will occur and the home screen will not appear
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue
- The internal authentication database may slowly grow if a new token is generated for each API call to the u-OS Data Hub

Version: 2.2.0

Hardware Version: 01.xx.xx

Release Date: April, 2025

Information

- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device
- Firmware upgrade and downgrade are described in the application note document AN0134
- Firmware upgrade operation from version 1.1X to 2.X takes longer than 30 min. The system restarts several times in between. Please be patient and do not interrupt the power supply
- Recovery is additionally supported by help of the RECOVERY file feature. Please refer to "Resetting the controller to factory settings without a password" in the embedded help
- CODESYS compatibility: requires CODESYS Control SL for Weidmüller u-OS Package version $\geq 4.12.1.0$ and works with the u-OS App CODESYS Control SL Runtime version $\geq 4.12.0.0-1$

New Supported Modules

- 2920830000 UR20-3EM-400V-AC-CT1A
- 2920840000 UR20-3EM-400V-AC-CT5A
- 2920850000 UR20-3EM-400V-AC-RC
- 2920860000 UR20-3EM-400V-AC-333MV

New Features

- Data Hub
 - The new Data Hub appears as a tile on the home screen of u-OS and connects software for automation and IoT purposes. It mediates between apps and services via various communication channels
 - The Data Hub provides following services:
 - a HTTP-API with interactive Documentation for general use, allowing variable read & write access via HTTP-REST
 - a NATS-API allowing faster read & write access and creation of additional data providers (currently for internal use by a select number of u-OS Apps)
 - Data Hub UI shows an overview of providers and their variables
- Data Hub provider
 - for the System Bus Manager node "u_os_sbm" to display the deployed IO configuration - to read and write u-remote module data
 - for an Administration Management node "u_os_adm" which displays a so called Digital Nameplate derived from the Industrial Equipment according to IDTA 02006-3-0
- IO Configurator
 - appears as a tile on the home screen of u-OS and enables the configuration and parametrisation of u-remote modules. It offers a user-friendly interface with drag-and-drop functionality and a context menu for various actions. This application supports project management, deployment, module scan and displays the current status of the configuration
- Control Center:
 - now appears as a tile on the home screen next to Data Hub and IO Configurator
 - new menu entry "Logging" allows you to view and download system log messages
 - improved display of storage devices (e.g. SD cards) including filesystem and mount point
- u-OS: SWupdate setup without initial user setup for firmware updates or firmware customization
- App Manager: loading the App hub is significantly faster now
- Upgrade to Linux Yocto to 5.0
- Unique default host name based on the type and serial number of the device. Host name is displayed in Control Center

Bug Fixes

- Backup and Restore: SFTP is now working properly after restoring a snapshot
- CODESYS: deploy of IO configuration no longer fails for certain network setups

Known Issues

- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- Network configuration: Setting a gateway on multiple network interfaces leads to connection issues, i.e. not being able to reach the network behind the gateway or the internet
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation setting cannot be restored via the backup and restore operation. It has to be reenabled manually after the restore operation
- Status LEDs are currently not used and have no function

- hawkBit: Does not support installation of Offline App images
- File upload operations (via e.g. App File Browser) might fail for files depending on available memory of the device
- Systemlogs: Under high system load the download of logs via the Control Center might run into a 300s timeout
- App Manager: When trying to update an App which has been removed from the App hub or is not available for the current u-OS version, the error message "addons.errors.appNotInAppHub.title" is shown
- u-OS IO Configurator: Deployment of configuration could fail. To mitigate this issue an incognito tab should be used in the browser
- To migrate from u-OS version 2.1.x to version 2.2.0 600 kilobytes of disk space are needed (Disk usage can be seen in the overview window). Otherwise a connection error will occur and the home screen will not appear
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue
- The internal authentication database may slowly grow if a new token is generated for each API call to the u-OS Data Hub

Version: 2.1.5

Hardware Version: 01.xx.xx

Release Date: August, 2025

Information

- Based on Linux Yocto 4.0.8
- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device
- Firmware upgrade operation from version 1.1X to 2.X takes longer than 30 min. The system restarts several times in between. Please be patient and do not interrupt the power supply
- Recovery is additionally supported by help of the RECOVERY file feature. Please refer to "Resetting the controller to factory settings without a password" in the embedded help

Bug Fixes

- Improved long-term performance of eMMC storage

Known Issues

- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation State cannot be restored via the backup and restore operation. It has to be adjusted manually after the restore operation
- App Manager: If the error message "Please check the internet connection and retry" appears, please set the system time to a valid time and to rectify the error
- Status LEDs are currently not used and have no function
- hawkBit: Does not support installation of offline app images
- SFTP is not working properly after restoring a snapshot, no file upload is possible
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue

Version: 2.1.3

Hardware Version: 01.xx.xx

Release Date: June, 2024

Information

- Based on Linux Yocto 4.0.8
- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device
- Firmware upgrade operation from version 1.1X to 2.X takes longer than 30 min. The system restarts several times in between. Please be patient and do not interrupt the power supply
- Recovery is additionally supported by help of the RECOVERY file feature. Please refer to "Resetting the controller to factory settings without a password" in the embedded help

Bug Fixes

- CODESYS: Under high system load the runtime does no longer stop sporadically. Also a restart operation won't be necessary to go back to normal operation
- u-OS App CODESYS Control SL Runtime can be updated. A factory reset is no longer needed to reinstall a newer CODESYS Control SL App. Upgrade is possible to App version 4.9.0.0-2 and above

Known Issues

- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation State cannot be restored via the backup and restore operation. It has to be adjusted manually after the restore operation
- App Manager: If the error message "Please check the internet connection and retry" appears, please set the system time to a valid time and to rectify the error
- Status LEDs are currently not used and have no function
- hawkBit: Does not support installation of offline app images
- SFTP is not working properly after restoring a snapshot, no file upload is possible
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue

Version: 2.1.2

Hardware Version: 01.xx.xx

Release Date: April, 2024

Information

- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device
- Firmware upgrade operation from version 1.1X to 2.X takes longer than 30 min. The system restarts several times in between. Please be patient and do not interrupt the power supply
- Recovery is additionally supported by help of the RECOVERY file feature. Please refer to "Resetting the controller to factory settings without a password" in the embedded help

New Features

- Support of ext4 file system on SD card as an alternative to FAT32

Bug Fixes

- Improve automatic mount of SD card after insertion

Known Issues

- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- CODESYS offline package cannot be deinstalled or updated. A factory reset is needed to reinstall a new CODESYS offline package
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation State cannot be restored via the backup and restore operation. It has to be adjusted manually after the restore operation
- App Manager: If the error message "Please check the internet connection and retry" appears, please set the system time to a valid time and to rectify the error
- Status LEDs are currently not used and have no function
- hawkBit: Does not support installation of offline app images
- SFTP is not working properly after restoring a snapshot, no file upload is possible
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue

Version: 2.1.1**Hardware Version: 01.xx.xx****Release Date: December, 2023**

Information

- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device
- Firmware upgrade operation from version 1.1X to 2.X takes longer than 30 min. The system restarts several times in between. Please be patient and do not interrupt the power supply
- Recovery is additionally supported by help of the RECOVERY file feature. Please refer to "Resetting the controller to factory settings without a password" in the embedded help

Bug Fixes

- Restoring a backup media does not invalidate app licenses anymore

Known Issues

- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- CODESYS offline package cannot be deinstalled or updated. A factory reset is needed to reinstall a new CODESYS offline package
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation state cannot be restored via the backup and restore operation. It must be adjusted manually after the restore operation
- App Manager: If the error message "Please check the internet connection and retry" appears, please set the system time to a valid time and to rectify the error
- SF LED is currently not used and has no function / RUN LED does not always show correct status

- hawkBit: Does not support installation of offline app images
- SFTP is not working properly after restoring a snapshot, no file upload is possible
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue

Version: 2.1.0**Hardware Version: 01.xx.xx****Release Date: November, 2023**

Information

- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device
- Firmware upgrade operation from version 1.1X to 2.X takes longer than 30 min. The system restarts several times in between. Please be patient and do not interrupt the power supply
- Recovery is additionally supported by help of the RECOVERY file feature. Please refer to "Resetting the controller to factory settings without a password" in the embedded help

New Features

- Support of App license management
- Apps menu supports offline package installation

Bug Fixes

- IAM: Dedicated app permissions are no longer lost after app update operation
- CODESYS PROFINET devices are now supported

Known Issues

- Pressing the "Restart system" button on the update installation page initiates the restart operation in background without any user feedback
- Restoring the backup media invalidates app licenses. Please do not use backup/restore functionality if an app license is already applied
- CODESYS offline package cannot be deinstalled or updated. A factory reset is needed to reinstall a new CODESYS offline package
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation state cannot be restored via the backup and restore operation. It has to be adjusted manually after the restore operation
- App Manager: If the error message "Please check the internet connection and retry" appears, please set the system time to a valid time and to rectify the error
- SF LED is currently not used and has no function / RUN LED does not always show correct status
- hawkBit: Does not support installation of offline app images
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue

Version: 2.0.2**Hardware Version: 01.xx.xx****Release Date: September, 2023**

Information

- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device

- Security Advisory fixes:
- CVE-2023-3935: Heap Buffer Overflow Vulnerability in CodeMeter Runtime

Bug Fixes

- CODESYS: License no longer expires after several days in operation

Known Issues

- IAM: Dedicated app permissions get lost after an app update operation and need to be reassigned
- CODESYS offline package cannot be deinstalled or updated. A factory reset is needed to reinstall a new CODESYS offline package
- CODESYS PROFINET devices are not supported
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation state cannot be restored via the backup and restore operation. It has to be adjusted manually after the restore operation
- App Manager: If this error message "Please check the internet connection and retry" appears, please set the system time to a valid time and the error is gone
- SF LED is currently not used and has no function / RUN LED does not always show correct status
- hawkBit: Does not support installation of offline app images
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue

Version: 2.0.1

Hardware Version: 01.xx.xx

Release Date: April, 2023

Information

- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device

Bug Fixes

- IAM: User management issue could lead to high CPU load

Known Issues

- IAM: Dedicated app permissions get lost after an app update operation and need to be reassigned
- CODESYS offline package cannot be deinstalled or updated. A factory reset is needed to reinstall a new CODESYS offline package
- CODESYS PROFINET devices are not supported
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
- Time setting: Shows a random date if NTP is not reachable during startup
- Time setting: Setting the time manually may result in an incorrect time due to time transitions such as daylight saving time. Please verify the time afterwards and adjust if necessary
- CPU isolation state cannot be restored via the backup and restore operation. It has to be adjusted manually after the restore operation
- App Manager: If this error message "Please check the internet connection and retry" appears, please set the system time to a valid time and the error is gone

- SF LED is currently not used and has no function / RUN LED does not always show correct status
- hawkBit: Does not support installation of offline app images
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue

Version: 2.0.0

Hardware Version: 01.xx.xx

Release Date: March, 2023

New Features

- New u-OS as a base operating system optimised for app operations
- Update to Linux kernel version 5.15
- Support of CODESYS and CODESYS licenses
- Complete new starting page design with a new control centre and a new administration surface
- App Manager: formerly called 'add-on manager' - supports the handling of apps
- SSH access can be enabled for u-OS administration purposes
- Supports the offline installation of application images via software & update installation dialogue
- NVRAM support for CODESYS retain variables. It requires at least hardware version 01.23.00
- Enabling CPU isolation dedicates one CPU for high-priority processes. It is the default configuration for CODESYS installations
- Recover the controller by using a of SD card

Information

- Flashing this firmware version causes a factory reset for all configuration data. All settings are lost! For further information on the firmware upgrade procedure, please refer to the control manual
- The factory reset operation can take up to several minutes. Please be patient when using this operation and do not switch off the device

Known Issues

- IAM: Dedicated app permissions get lost after an app update operation and need to be reassigned
- CODESYS offline package cannot be deinstalled or updated. A factory reset is needed to reinstall a new CODESYS offline package
- CODESYS PROFINET devices are not supported
- The backup and restore operation is currently not limited by size. Note: backup and restore operation might fail when the used internal flash storage size is larger than 50%
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- SF LED is currently not used and has no function / RUN LED does not always show correct status
- hawkBit: Does not support installation of offline app images
- After a device reboot, the App Manager and starting page may briefly display an error message before the App-Manager is fully initialized. Refreshing the page after a few seconds resolves the issue