

Change log of U-CREATE-STUDIO: 2638920000 UC20-SL2000-OLAC-EC

Firmware updating information:

An update of the firmware is supported by help of U-CREATE-STUDIO. A description of the firmware update procedure can be found in the U-CREATE-STUDIO manual on the Weidmüller website: www.weidmueller.com

ATTENTION: Do not use SD cards with prior created u-create studio projects. Ensure to use an empty or freshly formatted SD card to avoid license problems.

Version 4.2.4

Hardware Version 01.xx.xx

Release date: October, 2021

New supported modules:

- UR20-2AI-UI-16
- UR20-2AI-UI-16-DIAG
- UR20-2AO-UI-16
- UR20-2AO-UI-16-DIAG
- UR20-2AO-UI-ISO-16-DIAG

New features:

- Support of 2nd RJ45 port (X2) as Ethernet interface instead of EtherCAT.
Note:
 - To use it the boot loader version ≥ 1.13 is required.
 - X2 is independent from X1 and has an active DHCP server.
- Upgrade operating system of the runtime base to Debian 10
- Update to CODESYS SP16 Patch 3
- Node-RED upgrade to version 1.3.5
- Input Assistant similar to CODESYS (e.g. use keyboard shortcut F2)
- CAN bus related errors are displayed on LED 'BF'
- Modbus improvements:
 - flexible variable assignment for the server
 - parallel operation of nodes to improve performance
 - Modbus TCP server supports function code 0x01-0x06, 0x0f, 0x10, 0x16 and 0x17
 - Modbus TCP server supports 16-bit, 32-bit and 64-bit data types
- Flexible installation options by three installation setup steps
- Configurable node names for generic OPC address space
- Settings for network interfaces are displayed in u-create Studio device tree
- Information message is displayed when leaving online mode and I/Os are forced

Information:

- Removal of SD-card during target installation may cause a license lost. Please do not remove the SD-card during target installation and wait until RUN LED switched to green light.

Bug fixes:

- Simulation service: Enhanced diagnosis when starting a simulation image in case vmdk file does not exist.
- All variants of the IO-Link module contained in the EtherCAT description files for UR20-FBC-EC-ECO and UR20-FBC-EC are supported.
- Software Update support
- NTP server: Configuration of NTP client is working now.
- In the project simulation device nodes are properly displayed.
- Floating point process data are working now.
- CANOpen: stabilization improvement.

Known issues:

- CANOpen: Variables with more than 32 characters won't work.
- CANOpen: Node operations in the device tree will lead to address errors.
- CANOpen: Address problems when PDO mappings are not in increased order.
- CANOpen: Transmission type remains to 'default' for TxPDO's. Needs to be changed to avoid the error.
- CANOpen: Type 1 - 240 - cyclic synchronous errors by RxPDO's. Refer to the Application Notes for further details.
- CANOpen: PDO mappings are missing for COP devices by the modular hardware configuration. It means that COP device specific information is not available. Only PDO mappings for modules can be listed and configured.
- DevAdmin: Backup and restore via network path is currently not supported.
- The license might get lost when:
 - update is aborted due to an error (RUN LED flashing red)

- boot process was executed with old BSS version
- boot process was interrupted by power off
- boot process was interrupted by SD card removal

For further support please contact your local sales representative: <https://www.weidmueller.com/countries>.

- In very rare cases the OPC UA connections might get exhausted and error 'MaxConnectionsReached' is returned. A reboot will solve the situation.
- Login to NodeRED fails when password contains characters like '!#()'

Version 1.20.2. Patch1-4 Hardware Version 01.xx.xx Release date: February, 2021

New features:

- Interface added to set Modbus slave context by Codesys function block ModbusSetSlaveID.
- u-create studio is now based on CODESYS V3.5 SP15.

Information:

- Software patches are made available as required in order to correct known issues or to provide new functions. It is recommended to install all available patches in ascending sequence. For patch installation details refer to the Application Note in the patch archive.

Bug fixes:

- EtherCAT/CANOpen: 'bus alignment exceptions' when using data types of size 8 bytes during endpoint update.
- EtherCAT: Reset of 'EtherCAT Timing Violation' now depends on cycle count.
- Segmentation fault during Restart-Controller in rare cases.
- OPC-UA: Custom defined event-types are now represented with correct namespace index.
- OPC-UA: Fix license handling for u-control devices.
- OPC-UA: Fix wrong ApplicationURI in server generated certificate.
- OPC-UA: A DataChangeFilter for MonitoredItems with numeric variable type can be set again

Known issues:

- Retain Data:
 - a) might fail when creating a target using Retain Data with the error message "Download failed: Not enough memory on device". Solution: After a "Stop Device" operation the device goes into "OsReady" state. In the same context menu the operation "Clear Retain Data" appear and should be executed. Afterwards Retain Data are again usable.
 - b) might fail when using too many Retain Data. If the message "Error generating code for application" appears and the "Build" details shows the message "C0415: Out of persistent memory" then delete all data via "Build"->"Clean all" to solve the issue.
 - c) fails with outdated bootloader version. Ensure a version >= 01.09 is installed.

For elaborated instructions to solve the issues with Retain Data please check the Application Notes on product description at .
- In case Modbus-Server is not used, please avoid the installation of this software module by the create target process operation. The missing configuration causes unnecessary log-entries and memory allocation. This could lead to a system error.

Version 01.20.2 Hardware Version 01.xx.xx Release date: May, 2020

New supported modules:

- UR20-1CNT-100-1DO
- UR20-1CNT-500
- UR20-1COM-232-485-422
- UR20-1COM-SAI-PRO
- UR20-1SSI
- UR20-1SM-50W-6DI2DO-P
- UR20-2CNT-100
- UR20-2DI-P-TS
- UR20-2FCNT-100
- UR20-2PWM-PN-0.5A
- UR20-2PWM-PN-2A
- UR20-3EM-230V-AC
- UR20-4AI-R-HS-16-DIAG
- UR20-4AI-RTD-DIAG
- UR20-4AI-RTD-HP-DIAG
- UR20-4AI-TC-DIAG
- UR20-4AI-UI-12
- UR20-4AI-UI-16
- UR20-4AI-UI-16-HD
- UR20-4AI-UI-16-DIAG
- UR20-4AI-UI-16-DIAG-HD

- UR20-4AI-UI-DIF-16-DIAG
- UR20-4AI-UI-DIF-32-DIAG
- UR20-4AO-UI-16
- UR20-4AO-UI-16-DIAG
- UR20-4AO-UI-16-DIAG-HD
- UR20-4AO-UI-16-HD
- UR20-4AO-UI-16-M
- UR20-4AO-UI-16-M-DIAG
- UR20-4DI-2W-230V-AC
- UR20-4DI-N
- UR20-4DI-P
- UR20-4DI-P-3W
- UR20-4DI-P-TS
- UR20-4DO-ISO-4A
- UR20-4DO-N
- UR20-4DO-N-2A
- UR20-4DO-P
- UR20-4DO-P-2A
- UR20-4DO-PN-2A
- UR20-4RO-CO-255
- UR20-4RO-SSR-255
- UR20-8AI-I-16-DIAG-HD
- UR20-8AI-I-16-HD
- UR20-8AI-I-PLC-INT
- UR20-8AI-RTD-DIAG-2W
- UR20-8DI-ISO-2W
- UR20-8DI-N-3W
- UR20-8DI-P-2W
- UR20-8DI-P-3W
- UR20-8DI-P-3W-HD
- UR20-8DIO-P-3W-DIAG
- UR20-8DO-N
- UR20-8DO-P
- UR20-8DO-P-2W-HD
- UR20-16DI-N
- UR20-16DI-N-PLC-INT
- UR20-16DI-P
- UR20-16DI-P-PLC-INT
- UR20-16DO-N
- UR20-16DO-N-PLC-INT
- UR20-16DO-P
- UR20-16DO-P-PLC-INT
- UR20-PF-O-1DI-SIL
- UR20-PF-O-2DI-DELAY-SIL
- UR20-PF-O-2DI-SIL
- SAI-AU M8 SB 8DI
- SAI-AU M8 SB 8DIO
- SAI-AU M8 SB 8DO 2A
- SAI-AU M12 SB 2Counter
- SAI-AU M12 SB 4AI
- SAI-AU M12 SB 4AO
- SAI-AU M12 SB 4PT100
- SAI-AU M12 SB 4THERMO
- SAI-AU M12 SB 8DI
- SAI-AU M12 SB 8DIO
- SAI-AU M12 SB 8DO 2A

New features:

- CAN interface supports now CAN, CAN Open master and slave protocol.
- Modbus TCP server and slave support.
- Firmware update support of coupler, local modules and via coupler attached modules.
- Backup and restore operation via SD card.
- USB interface is usable as network interface.
- EtherCat process data are now properly represented via module navigator tree.
- Support of retain memory based on hardware version 1.22 or higher.

- Extensions for Device Administration Tool: hardware diagnose, hardware license activation and transfer, status and crash report generation
- Performance improvements for amount of EtherCat slaves.
- System bus parameters are now configurable at runtime.
- Application simulation by virtual u-control studio.
- Docker infrastructure added.
- SW-Unit CAN Mini driver
- Node-Red support.
- OPC UA Server
- PROCON-Web IoT server integrated.

Information:

- The maximum amount of modules configured in U-CREATE-STUDIO should not be exceeded. Modules exceeding the configured amount threshold won't be supported.

Bug fixes:

- LEDs are properly controlled.
- U-CREATE STUDIO crashes when an already mapped module was moved to another place in the station.
- Moving modules within the EtherCAT configuration does no longer lead to errors.
- Preparing a Service Medium via format operation requires Windows administration privilege. This procedure is now improved.
- Removing one or more modules during operation might lead to errors.

Known issues:

- CAN Open: data handling problem with 4 bit modules.
- In case Modbus-Server is not used, please avoid the installation of this software module by the create target process operation. The missing configuration causes unnecessary log-entries and memory allocation. This could lead to a system error.

Version 01.18

Hardware Version 01.xx.xx

Release date: July, 2019

New features:

- UC20-SL2000-EC device support.

Information:

- U-CREATE STUDIO crashes when an already mapped module was moved to another place in the station.
- The maximum amount of modules configured in U-CREATE-STUDIO should not be exceeded. Modules exceeding the configured amount threshold won't be supported.
- CAN functionality is currently not operable.
- Using the latest EtherCAT firmware requires an update of the device specific file (ESI).
- Preparing a Service Medium via format operation requires Windows administration privilege.

Bug fixes:

- In some cases modules are displayed wrongly.
- Forcing of analogue inputs for Sysbus and EC-master fails. Forcing value is overwritten by current value.
- EC master does not support 2Bit, 3Bit, ... data types. Datatypes are displayed as Bool.
- Branding information of C++ editor is incomplete on various places.
- Two default projects with the same name might exist in German version.

Known issues:

- USB interface will be supported in a later version.
- Backup and restore operation is still not supported.
- Persistent variables (NVRAM) are still not supported.
- Simulation of devices operation is still not supported.
- Moving modules within the EtherCAT configuration might lead to errors.
- Removing one or more modules during operation might lead to errors.

Version 01.17

Hardware Version 01.xx.xx

Release date: May, 2019

New supported modules:

- UR20-4DO-P
- UR20-4DO-P-2A
- UR20-4DO-PN-2A
- UR20-4RO-CO-255
- UR20-4RO-SSR-255
- UR20-8DO-P
- UR20-16DO-P

- UR20-16DO-P-PLC-INT
- UR20-8DO-P-2W-HD
- UR20-4DI-P
- UR20-4DI-P-3W
- UR20-8DI-P-3W
- UR20-8DI-P-3W-HD
- UR20-8DI-P-2W
- UR20-16DI-P
- UR20-16DI-P-PLC-INT
- UR20-PF-O-1DI-SIL
- UR20-PF-O-2DI-DELAY-SIL
- UR20-PF-O-2DI-SIL
- UR20-8DI-N-3W
- UR20-4DI-2W-230V-AC
- UR20-4AO-UI-16
- UR20-4AI-UI-16
- UR20-8AI-I-PLC-INT
- UR20-4AI-UI-12
- UR20-4AI-RTD-DIAG
- UR20-4AI-TC-DIAG
- UR20-4AI-UI-16-DIAG
- UR20-PF-I
- UR20-PF-O
- UR20-2PWM-PN-2A
- UR20-2CNT-100
- UR20-1SSI
- UR20-ES
- UR20-1COM-232-485-422

Information:

- U-CREATE STUDIO has to be executed with administrator rights when target image generation operation is triggered.
- U-CREATE STUDIO crashes when already mapped module was moved to another place in the station.
- CAN functionality is currently not operable.

Known issues:

- In some cases modules are displayed wrongly.
- Forcing of analogue inputs for Sysbus and EC-master fails. Forcing value is overwritten by current value.
- EC master does not support 2Bit, 3Bit, ... data types. Datatypes are displayed as Bool.
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