General information for version 08/09/2022 2.4.0.23 ER4

- **For PLCs that are labelled with serial number 148554 and higher, it is necessary to use Merbon IDE 2.3.0.11 or newer.**

- Since version 2.3.0.8, the check of country-specific characters has been enhanced in a solution. If a project contains variable names with country-specific characters, the project may not start up correctly after the RT has been upgraded.

- If you use your own ST driver in a solution, you may experience problems with upload to the newer RT. Please contact Technical Support for more information.

WindowsRT (Merbon)

- Communication protocols support: Modbus RTU client / server, Modbus TCP client / server, BACnet UDP client / server, M-Bus, OPC, SSCP TCP, SSCP serial and SoftPLC Link, IEC 62056-21.

- Support services for sending alarm e-mails via SMTP server, sending alarm SMS Merbon database, Proxy and NTP.

PLC with FreeRTOS operating system

- Runtime update from versions 2.3.0.x at mark100, mark120, mark125, mark150s, mark150, mark150/485s, mark150/485, IMIO100, IMIO105, ICIO200 a ICIO205 deletes the web server files.

- In this version, update of runtime from versions 2.2.0.x at mark100, mark120, mark125, mark150s, mark150, mark150/485s, mark150/485, IMIO100, IMIO105, ICIO200 and ICIO205 deletes the contents of FLASH memory, NVRAM memory (the project is started as on cold restart) and web server files. The project is started with default values.

PLC with Linux operating system

- Runtime update from version 2.3.0.8 at mark220, mark320 and markMX: after update, it is not possible to deploy older versions of runtime anymore. If the PLCs have been delivered with the latest runtime (2.3.2304.68222), deploying of older runtime versions may result in a non-functional PLC.

SSCP communications with data source and terminals

- To access variables of a PLC with RT of version 2.2.0.5 (1.0.2309.49154) and older using terminals or PLC with new runtime (2.3.2304.68222) over SSCP, use the name and password of the „Engineering" user (admin/rw by default).

Known bugs for version 08/09/2022 2.4.0.23 ER4

- There is no communication via SSCP serial line on port X3 on the wPLC750-8102 controller in RS-485 mode.

- After upload the web server via the Controller as terminal External server, which communicates with the PLC via the SSCP protocol via the serial line, the control of data points from the SSCP serial router will fail.

- Problem configuring Domat modules on i.MX platforms (markMX.2, mark320LX, mark220LX, IMIO110.2, IMIO105.2, ICIO205.2, mark130.2, wPLC750-8101, wPLC750-8102) where the configuration doesn´t pass at baud rate other than 9600 baud.

Fixed bugs for version 08/09/2022 2.4.0.23 ER4

- **Fixed: default states on IMIO105.2 and IMIO110.2 to DO5 and DO6 after power up**

Release notes for version 30/06/2022 2.4.0.22 ER4

- Fixed: writing AI5 – 8 to EEPROM at ICIO205.2 in internal RCIO module

Release notes for version 09/06/2022 2.4.0.21 ER4

- Added: FRAM memory autodetection for i.MX platforms

Release notes for version 04/05/2022 2.4.0.20 ER4

- Added: PLC platform ICIO205.2
- Added: PLC platform mark130.2
- Added: Modbus prototype UI416

Release notes for version 11/03/2022 2.4.0.19 ER4

- Added: PLC platform IMIO1xx.2
- Fixed: scan cycle on markMX.2, mark320LX, mark220LX, IMIO110.2 and IMIO105.2 when storing variables to NVRAM
- Fixed: loss of image from notes in FUPLA editor after closing the solution
- Added: support of WriteProperty and ReadProperty on BACnet

Release notes for version 20/10/2021 2.4.0.18 ER4

- Added: PLC platform markMX.2
- Fixed: refresh of manual mode variable state
- Fixed: runtime load exception, when using IEC 62056-21 driver
- Added: Wago module 750-1406
- Updated: Wago modules 75x-460, 75x-597, 750-486 and 750-1406
- Updated: Modbus prototypes FCR010, FCR013, FCR015 and MW240-B
- Fixed: error when downloading PLC configuration after it was factory reset
- Added: extended logging for RT "1:4" exception on FreeRTOS platforms

Release notes for version 19/07/2021 2.4.0.17 ER4

- Fixed: modified data synchronization to NVRAM on mark320LX and mark220LX platforms
- Fixed: load of RTC time on mark320LX and mark220LX platforms
- Fixed: read of M-Bus values on WindowsRT (Merbon) platform
- Fixed: overflow of reported values about running task(s) on FreeRTOS platforms ("System Status" tab)
- Fixed: upload of solutions that use both SMTP and Modbus TCP onto FreeRTOS platforms
- Fixed: DNS resolver issues on FreeRTOS platforms when performing multiple requests at once
- Increased communication buffers for BACnet on supported Linux and FreeRTOS platforms
- Renamed mark220 rev. 2.0 and mark320 rev. 2.0 to mark220LX rev. 1.0 and mark320LX rev. 1.0
- Fixed: unhandled exception when copying large number of items in FUPLA editor
- Fixed: visual updates of manual mode state in FUPLA editor and variable browser
- Fixed: unhandled exception after repeatedly clicking PLC value chart
- Fixed: communication freezes when using virtual serial port on WindowsRT (Merbon)
- Fixed: solution deploy over SSCP serial router to mark220LX and mark320LX
- Fixed: UDP connection issues related to "Who-is?" requests from BACnet client on server device
- Fixed: connection to DNS server on PLCs with lower bandwidth availability
- Fixed: memory allocation of UART driver after Modbus RTU communication error on uPLC platforms
- Fixed: macros responsible for copying of RT bootloader on mark130
- Fixed: unhandled exception when undoing rename of global variable

- Fixed: power consumption information in properties of Wago module 75x-458
- Removed proxy configuration in IDE on uPLC devices
- Fixed: download of web definition from "Controller as external webserver" devices in Merbon Visual
- Fixed: web interface network configuration on uPLC platforms
- Optimalization of FCGI and web interface of uPLC platforms
- Fixed: LCD screen freeze after TCP/IP communication error
- Fixed: loss of project on uPLC platforms during network service unavailability (Proxy, DB, DNS server)
- Fixed: (unwanted) restart of PLC after requesting more than 69 variables over BACnet
- Disabled: Proxy support on mark100, mark100v2, mark120, mark150, mark150/485s, mark150/485, IMIO100, ICIO200
- Fixed: FileSystem cache memory on uPLC platforms
- Fixed: DNS resolver on uPLC platforms
- Fixed: FNet error code
- Extended Port Monitor logging with messages for failed write and read over serial connection
- Extended UDP contexts to 30 in BACnet
- Fixed: unhandled exception from starting debug mode after opening solution
- Fixed: power consumption information in properties of Wago modules
- Fixed: unhandled exception after detection of unsupported M-Bus meters
- Fixed: web interface on mark220 rev. 2.0 and mark320 rev. 2.0
- Fixed: save of definition from preview (Merbon Visual)
- Consolidated error messages for errors during save of definition (Merbon Visual)
- Renamed section "Settings" to "Configuration" (Merbon Visual)
- Fixed: issue with connection to more PLCs over Proxy (Merbon Visual)
- Fixed: display of graphs in PLC web interface
- Fixed: UTF-8 initialization script issue after RT update on Linux platforms
- Fixed: write of mapped variables (Merbon Visual)
- Fixed: Load of XML files in OPC configurator when connecting over proxy
- Fixed: Configuration of user profile after restart (Merbon Visual)
- Fixed: Display of schedule exceptions after adding new states
- Fixed: Unhandled exception after compilation
- Fixed: Unhandled exception after using print command
- Fixed: Unhandled exception when copying function block node from another solution
- Fixed: Download of web definition from PLC (Merbon Visual)
- Added: Counter for FLASH memory
- Fixed: Communication error reporting when IP stack returns error
- Fixed: BACnet UDP frames when requesting more than 69 variables
- Added: Validation for MaxTelegramDuration and PauseBetweenTelegrams parameters (more than 0)
- Fixed: Creation of metadata for BACnet server variables
- Optimalization of variable requests in FCGI server
- Added: GSM modem profile BGS5-E2N
- Added: Mark130 PLC platform
- Added: Warning message after exceeding the reserved space in FLASH memory for variable storing
- Added: Modbus device MW501
- Added: DEMO project (Merbon Visual)
- Fixed: Display of AlarmView on uPLC web servers

- Optimalization of K-Bus communication
- Moved file for "On-line changes" to RAM
- Fixed: unhandled exception in FCGI server when reading large number of variables at once
- Disabled: "On-line changes" on mark100s, mark100, mark120, mark150/485, mark150/485s, mark100v2, IMIO100, ICIO200 PLC platforms
- Optimalization of write of initial values for variables
- Fixed: Visibility of "Write on change" parameter on SSCP communication groups
- Added: HT104 terminal platform
- Added: Resolution for iPhone SE 2020
- Fixed: Text representation on DateTime Indicator/Setter gadgets on web server
- Fixed: Unhandled RT exception when displaying alarm log on web server
- Fixed: Display of characters on LCD screen of IMIO110 PLC
- Fixed: Interaction with router datapoints when uploading web definition to "Controller as external web server" terminal
- Added: Version 2.0 of "Controller as external web server" terminal
- Fixed: Interaction with gadgets on web server after changing variable types of their variable
- Fixed: Search function in help
- Fixed: Index of Alarm log on web server
- Fixed: Display of alarm state descriptions in text template on web server
- Fixed: Support of udint variable type on web server

Release notes for version 29/05/2020 2.4.0.11 ER4

- Fixed: Write on change evaluation (RT)
- Fixed: Content length when saving to MerbonDB (RT)
- Fixed: User rights configuration on PLC webserver (FreeRTOS)
- Fixed: Unhandled exception when copying executable projects
- Removed: Binary transfer option for HT102 terminals
- Fixed: Foreground colour on Digital * gadgets (Merbon Visual)
- Fixed: Fixed display of Analog and Text setters with empty text (Merbon Visual)
- Removed: E-mail setting from licensing dialog
- Fixed: Unhandled exception when changing variable definition
- Added: Hint message to notify user about PLC restart when licensing PLC
- Fixed: Content length when storing data to MerbonDB
- Fixed: PLC CPU usage when TCP connection is unavailable
- Fixed: Bugs with PLC DNS resolver
- Fixed: Read of M-Bus values
- Fixed: NTP and Proxy parameters for PLC (FreeRTOS)
- Fixed: Store of values to history
- Added: Size of flash and flash retain for all PLCs
- Fixed: Label of RT for mark320 rev. 2.0 and mark220 rev. 2.0
- Fixed: Unhandled exception when creating new solution
- Fixed: "byte" type values in PLC LCD menu
- Fixed: Unhandled exception during detection of modules
- Fixed: Disconnect of TCP connection after setting values from webserver (FreeRTOS)
- Fixed: FCGI server in SSCP client (FreeRTOS)
- Fixed: License validation on Merbon RT
- Fixed: Popup placement on Digital Setter Combo Box when mirroring
- Fixed: Unhandled exception when renaming function block
- Fixed: Default value of OFFNORMAL and NORMAL properties on notification classes (BACnet server)

- Fixed: Transfer of the "Description" property in schedulers in BACnet server
- Fixed: Unhandled exception when setting Autogen on multiple data points
- Fixed: DateTime object display in text template in Merbon Visual
- Fixed: Unhandled exception when creating a new variable
- Fixed: Unhandled exception after reopening solution
- Fixed: Default object setting
- Fixed: Object AlarmAsMultistate upload at BACnet server
- Fixed: Creating of variables in I/O mapping context menu
- Fixed: Unhandled exception when Solution saved or closed
- Adding of error state if path to executable bit copy at a data source not specified
- Fixed: Mapping of variables to the "Chart" object used in a function block
- Fixed: Retrieval of alarm points
- Adding of PLC ID in the PLC properties
- Fixed: Unhandled exception when starting debug mode
- Fixed: Unhandled exception after PLC assignment
- Fixed: Find/Replace function in ST editor
- Fixed: Unhandled exception after renaming program
- Fixed: Unhandled exception when copying a text template
- Fixed: Licence download from PLC when another PLC is already assigned
- Fixed: displaying of variables in Variable selection dialog
- Fixed: Adding of time program on a BACnet server device

Release notes for version 18/12/2019 2.4.0.7 ER4

- Fixed in PLC: webserver user policy after user logout
- Adding BACnet channel at wPLC750-8101 and wPLC750-8102
- Fixed adding HW points for attached device on SSCP TCP channel
- Fixed saving of RETAIN variables on FreeRTOS platform
- Fixed unhandled exception caused by simultaneous move of FBD block and FBD input
- Added licensing support to wPLC750-8101, wPLC750-8102 and Merbon RT
- Fixed loss of mapped variable when changing transformations
- Changed sorting of IDE versions in launcher
- Fixed unhandled exception caused by import of M-Bus meters
- Fixed unhandled exception caused by download of PLC configuration
- Added BACnet channel for wPLC750-8101 and wPLC750-8102
- Fixed issue with rename of device
- Fixed unhandled exception caused by add of FBD block
- Added missing set of RootVariable on "root variables"
- Fixed transmission of AckedTransition property on BACnet server
- Fixed display of bit properties in BACnet protocol
- Fixed SSCP communication through serial port on Linux (PPC and i.MX)
- Fixed dimensions calculation of SVG image with missing dimensions
- Fixed creation of HMI project directory
- Fixed unhandled exception when loading solution
- Fixed prototypes of 75x-597.v1_3, 75x-451.v1_2 and 75x-459.v1_3 K-Bus modules
- Added prototypes for 750-1506, 750-450, 750-457 and 750-556 K-Bus modules
- Fixed unhandled exception caused by addition of new Modbus register
- Fixed unhandled exception when saving solution
- Fixed unhandled exception when closing solution
- Fixed write of 8bit data type in Modbus driver

- Added prototypes for UI3XX devices
- Fixed issues caused by cancelling dialog when switching into "Commissioning mode"
- Added new screen resolutions for iPhone
- Fixed visibility of LCD menu definition for PLCs without LCD menu support
- Fixed ordering of text and graphical pages in exported definition of graphical HMI templates
- Removed "Debug - PrioQueue" panel
- Added new icons for FBD editor and Alarm log
- Fixed parameters of 750-563 K-Bus module
- Fixed upload of web definition created in external HMI editor
- Fixed deadlock caused by "Replace Version" command
- Fixed unhandled exception caused by double-clicking on a function block
- Fixed unhandled exception caused by refactoring of variable type
- Fixed unhandled exception caused by entering "Debug mode"
- Fixed unhandled exception caused by clicking onto source variable
- Fixed unhandled exception caused by cancelling detection of M-Bus meters
- Fixed selection of multiple values in properties of text HMI template
- Fixed communication of "Description" property in BACnet driver
- Fixed unhandled exception from switching configuration profiles
- Fixed export of EDE files
- Saving of configuration fixed
- After reset to factory settings, default page is displayed on web server
- Time axis at time program in web server fixed
- Pointer for RT licensing fixed
- Icon for system configuration at web server added
- mark320 properties fixed - BACnet client added
- Upload of RT at IMIO110 fixed
- Merbon Visual - Definition download from PLC
- Fix at Mark320 rev.2.0 for switching to Commissioning mode
- Fix at Mark320 rev.2.0 at receiving telegrams of maximum length of 70 ms
- Fix at Mark320 rev.2.0: project launching after warm restart caused PLC timeout
- Time setting fixed at Mark320 rev.2.0
- Command for HW print download at WIN RT fixed
- Timeouts fixed at Modbus client after PLC restart
- Error is now displayed after max. number of transitions in time program exceeded
- Fix of BACnet server communication at Linux platforms
- Fix at variables backup at Mark320 rev.2.0
- Fix of Merbon Visual app - after entering of "|" character into Text setter the text after this char was not printed
- Fix of Merbon Visual app - display of definition at user who only has rights for text template
- Fix of display of value at Real time scheduler and Analog indicator/setter at web server
- unhandled exception when attempting to check duplicate logs
- Graphic display of reference to text template in HMI editor
- Adding of HW scoring of BACnet at the FreeRTOS platform
- Fix of time display of text at the DateTime indicator/setter at the web server
- Adding variable in the variable selection dialog to HW device editors using keyboard
- Fix of unhandled exception when opening project from ER 2.3.0.11 to development version
- Fix of sorting of digital registers in the Modbus server editor
- unhandled exception at state mapping in text template

- Fix in editor for BACnet server after change of definition
- Implementation of Digital setter buttons at web server
- Implementation of alarm overview and alarm log at web server
- Fix of communication freezing at variables in variable browser
- Search function on the "Enter" key in variable browser added
- Fix of port number selection at serial lines at wPLC
- Fix of duplicate IDs when copying graphic page in HMI editor
- Fix of validation at identical starting elements at Holding/Input reg. and Coil/Inputs at Modbus server
- Fix of focus after creating of text template
- Transition to 64-bit version
- HMI editor for new webserver added
- New web server with user policy and language selection
- BACnet server at mark125, IMIO110, IMIO105, ICIO205, markMX, mark320, mark220, wPLC750-8101, wPLC750-8102, and Merbon RT (WinRT)
- BACnet client at Merbon RT (WinRT)
- Service web added
- Support of new platforms wPLC750-8101, wPLC750-8102, and IMIO110
- Added terminal Controller as External Webserver to connect multiple PLCs to a single web server
- Internal I/O modules added automatically at mark150/485, mark150/485s, IMIO1xx, ICIO20x, and markMX
- Added reference to text template into graphic template
- Added grid in HMI editor
- Added Text setter, Value indicator, Rectangle and Graph in Graphic editor
- Added styles for graphic objects
- Dialog for multiple adding of variables in SoftPLC link and SSCP
- New logos IDE, RT and Visual
- New logos at HMI objects
- Mapping of arrays in HMI editor
- Added List of objects in Explorer
- Added counter of template size in HMI editor
- Added overview of alarms
- Added Download of alarm log
- Added Project archive function
- New dialog for mapping of variables at Modbus server
- New editor for Modbus parameter settings at Modbus client
- Export of Modbus server to .csv
- Multiple setting of variables to defaults
- Automatic check of Commissioning mode
- Multiple import of datapoints from M-Bus meters
- Added dialog of utilisation of a program part
- Added focus to OK in dialog for new controller state
- Fixed counting of HW points at TCP clients
- Fixed IDE crash after entering of invalid IPv4 address
- Fixed IDE crash after repeated project name change
- Fixed refactor when renaming project
- Fix in name of array index sorting
- Filter in variable browser fixed

- Fixed progress bar at detection over UDP broadcast
- Fixed freezing and slow run of HMI editor
- Fixed slow readout of alarm symbol at page refresh
- Fixed IDE crash when selecting variable in the Event task
- Removing metadata after deleting of function block template
- Fix of metadata after deleting of web template from PLC

Release notes for version 16/01/2019 2.3.0.11 ER3

- Changed flash driver for PLCs (mark100, mark125, mark150, mark150/485, IMIO10x, ICIO20x)
- Changed memory sizes for PLCs (mark100, mark125, mark150, mark150/485, IMIO10x, ICIO20x)
- Migration runtime which changes flash memory layout for all PLCs with FreeRTOS operation system
- Variable selectors closing

Release notes for version 23/04/2018 2.3.0.8 ER3

- Fix in handling of Retain variables
- Change in memory sizes and HW points for PLCs (mark100, mark125, mark150, mark150/485, IMIO10c, ICIO20x)
- Fix in import of legacy HMI definition
- Fix in solution saving process after changing the installation folder
- Fix of R090, RMIO a MLIO HW module
- Fix of unhandled exceptions
- Fixed bugs in RT update process
- Change in HW points, increase of points for IMIO105, ICIO205 and mark125
- Fixed displaying of information during RT update
- New status of R090 device in device library
- Fixed Z-index resetting after project compilation
- Fix of values actualization in variable browser
- Fixed unhandled exception and project erasing after adding M-bus meter with incorrect meter medium type
- Fixed resetting image resetting in HMI editor
- Fixed RMIO and MLIO Modbus device
- Fixed unhandled exception while selecting variable for "Event" task
- Fixed problem with link in Results
- Fixed stability during opening and closing project
- Fixed compilation process after renaming project
- Fixed downloading history from more PLCs
- Fupla editor improvements of stability
- Graphic editor stability improvements
- Fixed unhandled exceptions
- Fixed function bytes_to_string after uninitialized input
- Fixed TCP client on PLC with Linux operation system
- Fixed problem with IP and MAC address with RT update from RT 2.2.0.5 and older
- Fixed web access problem after change of name/pass of user for full control
- Fixed problem with webserver for mark220, mark320 and markMX after RT update from version 2.2.0.5 and older

- Fixed history download from PLC mark100, mark12x, IMIO10x, ICIO20x and mark150/xxx
- Fixed wrong object order after copying/moving in textual HMI editor
- Fixed problem during importing Legacy HMI template
- Fixed unhandled exceptions
- Fixed scrollbar in dialog for adding devices to terminal channel
- Fixed export for OPC when using multiple PLCs
- Fixed definition upload to HT200
- Fixed TPG link from projects from version 2.2.0.5
- Fixed focus after deleting gadget in graphical HMI
- Fixed object displaying after filtering in variable browser

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Release notes for version 20/11/2017 2.3.0.3 ER3

- Added limitation for task number (1) for some PLCs
- Fixed problem while working with more than 20 pages in graphical template editor
- Fixed bug in Fupla editor. Lines couldn't be reconnected while zoomed in.
- Fix of exception after opening solution from older release
- Solution now may contain only device "Terminal". Device "PLC" does not have to be present.
- Fixed exception after variables reimport in text HMI template
- Fixed Help files for Turkish language
- Fixed upload process for HT200
- Fixed special characters handling for multiple languages
- New functionality "FIND" added. It shows all places where the variable/block is used.
- New option to filter variables in manual mode in variable browser
- New option to edit initial values of variables/blocks from variable browser.
- New function "Publish" implemented.
- New dialogue window for adding devices to channels
- New dialogue windows for uploading solution and web/LCD to PLC/terminal device
- New dialogue window for attaching variable to datapoint on SSCP channel
- New device "Data Source". It enables communication with PLC from another solution.
- New option to create dynamic inputs/outputs on functions
- "Dark Theme" was implemented. It switches the interface to dark colours.
- PLC can store history data and IDE is able to download them into *.csv file
- New integrated HMI editor
- New device "Terminal". It suits to define HT200/HT102/MMR device.
- Option to test the terminal definition in Merbon Visual simulator.
- Point system to show free memory of PLC
- Fixed bug in "LIMIT" function. Added support for "string" datatype
- Change of OS/Application HEAP ratio of non-linux PLCs. Increased size for OS and decreased size for application
- New RT with new FileSystem for mark100, mark12x, IMIO10x, ICIO20x, mark150/xxx, mark150/xxxs
- Fix of faulty RT for mark100
- Fixed port monitor for mark100, mark12x, IMIO10x, ICIO20x, mark150/xxx, mark150/xxxs for reading long telegrams
- Fix of authentication process for SSCP clients
- Fixed crash when ModelID on a HW prototype is not specified during library device creation
- Fix of upload button focus in HMI

- Fix of bug on updating attached variables after retrieval in HMI
- Revised behaviour of Fupla editor
- Fixed bug in "LIMIT" function. Added support for "string" datatype
- Change of OS/Application HEAP ratio of non-linux PLCs. Increased size for OS and decreased size for application
- New RT with new FileSystem for mark100, mark12x, IMIO10x, ICIO20x, mark150/xxx, mark150/xxxs
- Fix of faulty RT for mark100
- Fixed port monitor for mark100, mark12x, IMIO10x, ICIO20x, mark150/xxx, mark150/xxxs for reading long telegrams
- Fix of authentication process for SSCP clients
- SSCP communication on serial bus (only for mark220, mark320, markMX)

Release notes for version 11/10/2016 2.2.0.5 ER2

- New RT
- Adjustments in communication with FreeRTOS PLCs
- Fix of displaying Celsius degrees symbol on mark125
- Fixed problem with opening project in HMI
- Adjustments in detection of amount of datapoints in "WriteOnChange" group
- Fixed problem with decimal point symbol under Windows 10
- Fix of TPG editor opened from variable browser
- Fixes in process of downloading variable values from PLC to IDE
- Sample HMI project is included in installation
- Decreased size of HEAP memory by 6kB for FreeRTOS PLCs due to improvement of communication capabilities

Release notes for version 16/09/2016 2.2.0.4 ER2

- Linux communication buffer resizing
- Resizing of Heap2 memory for FreeRTOS PLCs with extended RAM memory
- Resizing of communication buffer and solving problem with error "DataTooLong ()"
- New limit for internal buses number
- Fixed Read/Write interval function on Modbus
- Fixed problem with saving WEB project in HMI editor
- Fix of behaviour of dialog windows in variable browser. Dialogs didn't contain some options after making changes with multiple selected variables
- Fixes in processes of downloading variable values from PLC to IDE
- Fixed unhandled exception when solution was named "PLC"
- Added check for invalid characters in runtime ID
- HW prototypes versioning implemented
- Fixes in find/replace editor
- Fixed unhandled exception after using CTRL + H shortcut
- Fixed behaviour of FBs during copying. FBs are now copied with all properties
- Added check for number of datapoints in group signed as "Write on Change". This group can contain only one datapoint
- Fixed problem with opening HMI file. Problem was caused by error in Double TPG
- Minor changes in texts

- Minor repair in automatic filling of TPG collections in HMI
- New shortcut and minor improvements for HMI. CTRL + U will now open dialog for uploading file to HT102/200
- New repaired version of block T2 - Three Point Regulation
- New releases of some Modbus devices profiles - changes due to "Write on change" group parameter
- New releases of M090 and R060 device profiles

Release notes for version 27/07/2016 2.2.0.3 ER2

- Fixed reading values of variables from nested function block into the SSCP client
- Added saving variables in Flash memory before warm and cold restart for PLC with FreeRTOS
- Fixed communication with internal module mark150, mark150/485, IMIO10x and ICIO20x after power on/off
- Fixed deleting of events in time program through LCD menu
- Fixed problem with obtaining network parameters from DHCP server on FreeRTOS PLCs
- Fixed communication problem on FreeRTOS PLCs after disabling web server

Information for versions ER2 – 2.2.0.1, 2.2.0.3

- Both, primary and secondary addresses can be used for detection, communication and addressing on M-bus protocol.
- OPC server is included in installation.
- Added full support for PLCs: mark100, mark120, mark125, mark150, mark150s, mark150/485, mark150/485s, IMIO100, IMIO105, ICIO200, ICIO205, mark220, mark320, markMX.
- Improved IntelliSense in ST editor.
- Implemented protocol IEC62056-21.
- Improved use of libraries/library projects with user functions/function blocks.
- Implemented option to download and save values of variables from running RT.
- Number of changes in Time schedules is limited to 42.
- SSCP communication is working through TCP interface.
- WinRT is not in production quality. It is not meant to be user for regulation, it can be used only for testing purposes.
- Added full support for terminals HT102, HT200 and application Merbon Menu Reader.
- Expansion and optimalisation of prepared libraries
- Fixes enhancing the stability of IDE
- Linear_by_table transformation is fixed.
- Range of addresses for detection on M-bus is not limited.
- Fixed bug on configuration of outputs states for Communication failure state and Power-on state for modules **M200, M215, M315** and **MCIO2**.
- Fixed bug for acknowledgment of alarm state on LCD display.
- Fixed authentication bug on SMTP servers with need of authentication. Emails can be sent from servers with/without need of authentication. Communication with SMTP server is supported only without encryption on port 25.
- Fixed edit of time programs on password protected web servers.
- Local time can be changed from LCD or from terminal devices.

- Fixed M-bus statistics in system status tool

Incompatible fixes after updating from version 2.1.0 – ER1:

- HW prototypes for each PLC with OS FreeRTOS (mark100, mark120, mark125, mark150, mark150s, mark150/485, mark150/485s, IMIO100, IMIO105, ICIO200, ICIO205) must be in solutions created in versions older than 2.2.0.0 deleted and replaced by new one from HW library

- Runtime of PLCs with OS FreeRTOS (mark100, mark120, mark125, mark150, mark150s, mark150/485, mark150/485s, IMIO100, IMIO105, ICIO200, ICIO205) contains incompatible changes due to increasing the performance of these PLCs. Runtime update needs to be done following instructions foundable above.

- Case sensitivity in IDE was changed. Older versions were case sensitive. New version is not case sensitive. Solutions created in version older than 2.2.0.0, that contain variables or function blocks with names that differs only by case, will not be compiled. Variables or function blocks with this problem must be renamed.