

## General information for version 05/12/2024 2.7.0.3 RC6

### Compatibility

- A project created in Merbon IDE can be opened in Domat IDE, but not the other way around, because generally opening created projects in lower versions of the IDE is not supported and may lead to project corruption.
- PLCs that have Domat RT from the factory can also be used in the Merbon IDE project (if the platform exists in this version). There is also backward compatibility of communication between Domat RT and Merbon RT.
- From version 2.5.0.x and higher, platforms with OS FreeRTOS are no longer supported. For most FreeRTOS platforms, we have a replacement in the same design but with Linux OS and the same performance as markMX.3.
- In the version of Merbon IDE 2.4.0.24, a bug where the application crashed after hovering the mouse over a block displaying a tooltip is fixed. The application crash started appearing after some Windows update, so this crash can also occur in older versions of Merbon IDE. If you are using Merbon IDE version 2.4.0.23, you just need to open the project in the new Merbon IDE version 2.4.0.24 without having to upload the Runtime on the PLC or update directly to the latest version of Domat IDE 2.6.0.x.
- With version 2.4.0.x and above, external HMI editor is not supported anymore, but the external HMI editor version 2.4.0.11 can be used to switch from older runtime versions (up to 2.3.0.x) to version 2.4.0.x and newer, which can be downloaded below.
- **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.

### RT transitions

- When moving from IDE 2.4.x.x, it is necessary to update HT200 terminals to the new version of Merbon Visual 2.5.0.x and higher.

#### 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.

#### PLC with FreeRTOS operating system (not supported since Merbon IDE 2.5.0.x)

- Runtime update from versions 2.3.0.x to versions 2.4.0.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 to versions 2.4.0.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.

#### 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 or older) using terminals or PLC with new runtime (2.3.2304.68222 or newer) over SSCP, use the name and password of the „Engineering“ user (admin/rw by default).

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## Known bugs for version 05/12/2024 2.7.0.3 RC6

- There is no communication via SSCP serial line on port X3 on the wPLC750-8102 controller in RS-485 mode.
- On the mark220, mark320 and markMX platform, there is no communication via SSCP serial line when uploading a solution if the PLC is a server.
- On the mark220, mark320 and markMX platform, with many variables and a short sampling period, there may be a problem with downloading history from the PLC.
- The states of the OPC variables are not visible in the variable browser
- On Modbus Server RTU/TCP, it is not possible to assign a field of bool data type variables to the Coil functions
- HMI file names that are too long will cause a compile error
- A collection of variables cannot be read if invalid values are used
- The BACnet server stops communicating after making changes to BACnet server device function block for dynamic changes
- Dynamic change parameters may be incorrectly taken over if all function block parameters (e.g. channel or device name) are not filled in correctly

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## Fixed bugs for version 05/12/2024 2.7.0.3 RC6

- Fixed RT update (all platforms)
- Fixed RT crash (all platforms)
- Fixed configuration download from PLC
- Added error code transformation for Daikin iTC
- Fixed value update in FUPLA editor
- Fixed unhandled exception when querying a non-existent variable
- Fixed unhandled exception when writing values to sub-variables
- Increased available memory for history on wPLC751-9301
- Added sequence number to group in communication channel
- Updated Wago module 750-555
- Fixed display of Alarm point in Master alarm
- Fixed message display when uploading license
- Added watchdog for .NET server
- Added PVmax and PVmin to counters CTU, CTD, and CTUD
- Fixed replacement of older prototype version in Simple mode
- Fixed double-click option during license activation
- Added option to upload terminal Controller as External Webserver via Proxy
- Added new version of T29 Enthalpy block with R output in g/kg
- Added EPC102 prototype
- Fixed unhandled exception when loading an existing library
- Fixed history storage for data types sint and byte
- Added support for DT and Time for history
- Fixed configuration download and upload on Windows RT (Domat)
- Fixed parsing of certificate metadata
- Fixed unhandled exception when importing a variable without data type
- Added licensing for IEC 60870-5-104 communication protocol
- Updated PLC system log using CEF format
- Added Modbus configurator
- Added support of Syslog protocol

- Added IEC 60870-5-104 communication protocol
  - Added certificate management
  - Added option for bulk writing to multiple variables
  - Fixed data read slowdown during assembly debugging
  - Fixed unhandled exception when specifying a relative path for project backup
  - Fixed B48 Smart Average block
  - Updated Wago modules 750-486 and 750-496
  - Updated Modbus prototypes UI300, UI900, and MT020
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## **Release notes for version 12/11/2024 2.6.0.8 SR6**

- Fixed configuration download from PLC
  - Fixed data read slowdown during assembly debugging
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## **Release notes for version 21/06/2024 2.6.0.7 SR6**

- Fixed saving project when using online changes
  - Fixed reading data via SSCP
  - Support for special characters in certificate on wPLC750-8101 and wPLC750-8102
  - Fixed writing mask to Wago PLC when uploading the configuration to the PLC
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## **Release notes for version 21/05/2024 2.6.0.6 SR6**

- Added units and history ID to OPC export
  - Added Wago module 750-517
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## **Release notes for version 29/04/2024 2.6.0.5 SR6**

- Added R800 prototype
  - Added new versions of transforms with negative Shift support
  - Added comparison of remote and local project
  - Modifying the way data is read via Text Parser (.NET)
  - Fixed the "Data Offset" parameter for Wago module 75x-458
  - Fixed unhandled exception when reference to text template is missing
  - Fixed unhandled exception when adding a variable from a data source
  - Fixed display of webserver on MacBook and iPad
  - Fixed UI309 prototype
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## **Release notes for version 26/01/2024 2.6.0.4 SR6**

- Added HT3xx terminal
- Fixed display of Windows RT version in compiled versions of RT
- Fixed overwriting the value of the "Memory limit" parameter in Text Parser (.NET)
- Fixed uploading RT on PLC mark220, mark320 and markMX
- Added option to set object instance variable at BACnet server
- Change of default parameters for Modbus TCP/RTU
- Fixed display of the offset parameter when assigning a data point to a group for Mbus devices
- Fixed Default State display in state mapping for digital objects
- Added validation on the "/" symbol in the Path dialog of Text Parser (.NET) and Daikin iTC
- Added SSL on client communication channels on wPLC751-9301
- Added integration mode for Modbus RTU on PLC markMX.2, markMX.3, markMXL, mark520, mark320LX, mark220LX, IMIO1xx.2 and ICIO205.2
- Fixed switching communication mode on Hauser for wPLC750-8212

- Added .NET server service to Domat IDE installer for WindowsRT (Domat)
  - Added validation for current enablement of .NET drivers in IDE and PLC configuration
  - Update graphics templates and resolutions
  - Fixed unhandled exception when exporting HMI
  - Added an option in the Domat IDE installer to transfer the license from MerbonRT to DomatRT
  - Added transformation validation
  - Text modification for bus mode for wPLC750-8102 and wPLC750-8212
  - Name unification for SSCP serial configuration
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## **Release notes for version 04/12/2023 2.6.0.2 RC6**

- Added support of second ethernet on mark520
  - Added no-index metadata to webpanel
  - Fixed unhandled exception when exporting modbus device
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## **Release notes for version 18/10/2023 2.6.0.1 RC6**

- Rebrand from Merbon to Domat
  - Added new platforms markMXL, mark520, w751-9301, w750-8212
  - Added Hauser (.NET), Daikin iTC (.NET) and Text Parser (.NET) communication protocols
  - Added default runtime identification name for history in PLC properties
  - Added property in terminal properties to ignore page and object count validation
  - Added PLC reset function via HW switch for w751-9301 and w750-8212
  - Added validation on assigned variable for DateTime Indicator/Setter in text template
  - Change of the Default Proxy URL/URI
  - Fixed error packet counter for Daikin iTC (.NET)
  - Added preserveAspectRatio="none" to SVG
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## **Release notes for version 15/06/2023 2.5.0.7 ER5**

- Fix saving data to history
  - Fix in the confirmation of the Alarm Point object on the PLC web server
  - Fixed history saving at the end of sector
  - Optimized data search in history
  - Supported on-line changes at wPLC750-8101 and wPLC750-8102
  - Fixed runtime update at ICIO205.2
  - Correction of prototypes FCR015, FCR013 and FCR010
  - Adding Default Gateway parameter to blocks in Lib.Domat.DynPar
  - Fixed number of slots when connecting over Proxy server to wPLC750-8101 and wPLC750-8102
  - Changed folder name to "Merbon" when saving prototypes
  - Fixed system breakdown of "SIGSEV" when author name not defined
  - Fixed display of "Add to chart" dialog in dark mode
  - Fixed adding a library project
  - Fixed styles in the REAL time scheduler on PLC Webserver
  - Fixed display of "master alarm" in Merbon Visual
  - Fixed rolling between files in Merbon Visual
  - Fixed behaviour of the Pop-up object in Merbon Visual
  - Fixed download of definition file in Merbon Visual
  - Fixed double click on DateTime Setter in Merbon Visual
  - Fixed time schedule display in TPG base Bool/Int/Real in Merbon Visual
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## **Release notes for version 07/03/2023 2.5.0.5 ER5**

- End of support for FreeRTOS platforms
- Added PLC platform markMX.3
- Support for SSL communication (client and server)
- Support for remote configuration upload over Proxy
- Dynamic changes - changes of communication parameters (RTU, TCP and UDP) and configuration parameters from HMI client
- Added communication protocols: Hauser and Daikin iTC (.NET drivers)
- Watch - browser for monitoring of selected variables
- Enhanced functions in system configuration: changes of network, database, and proxy configuration
- Preview export of text menu for support/documentation
- New HMI objects - Alarm Point, Link, Pop-up, Progress bar, and Slider
- Support for binary functions in HMI
- Support for alarm log and alarm overview in Merbon Visual
- Support for DNS in Merbon Visual
- Support for custom timestamps when saving variables to history
- Fixed the Controller as External Webserver terminal, when the fastcgi server did not establish another connection after restart
- Fixed communication breakdown after connecting two clients to Modbus TCP Server
- Fixed a recursive function where the function was calling itself and could cause RT to crash
- Fixed default state mapping for Alarm Point text object
- Fixed display of power card prototype for wPLC
- Fixed display of communication card prototype 75x-652 for wPLC
- Fixed flow visualization for Slider graphic object
- Fixed compilation of custom function block
- Fixed ability to specify a separator thickness greater than the page resolution in Digital Setter Buttons
- Fixed search in Fupla Box Explorer vs. Add Library Box
- Fixed wrong responsive context menu
- Fixed for automatically taking over the alarm name
- Fixed creation of data points when updating prototypes of Wago cards
- Ability to drag and drop images from the Solution Explorer to the HMI graphic template
- Fixed Table view in TPG
- Fixed for scattered graphics on the webserver
- Fixed unfunctional scrollbar in Review Solution Issues
- Fixed font color for variables in manual mode in FUPLA editor
- Fixed for reopening projects from older versions (2.2.0x, 2.3.0.x) to version 2.5.0.x
- Fixed longer delay for displaying bubble help in FUPLA editor
- Fixed Dark mode
- Fixed library prototypes not containing "forcecomm" attribute
- Fixed RT upload to i.MX platform
- Fixed factory reset
- Fixed scrolling in the drop-down tab of pages on the webserver
- Fixed text clipping when detecting Domat modules
- Fixed unhandled exception when changing variable definition
- Fixed unhandled exception after assigning a data point
- Enabled use of certificate store and DST transformations (RT)
- SSL error indication in System status
- Configuration upload over web and dynamic changes
- Validation of URL in client request with dynamic changes
- Pop-up object colour change

- Fixed unhandled exception when adding variable
- Added default IP address when PLC is added manually
- Fixed missing characters in collection mapping
- Fixed Windows RT crash after SSL certificates upload
- Clear Filter button in text template editor
- Fixed appearance of state mappings in dark mode
- Removed unwanted spaces in tooltips in PropertyGrid
- Fixed appearance of tooltips in HMI user rights
- Fixed rename of project with space in its name
- Fixed unhandled exception when copying Digital Indicator gadget between Solutions
- Added error message when Executable Image Path is unset
- Fixed expansion/collapse of Network settings property group in property grid
- Fixed order of rows when adding variables to HMI text editor fixed
- Fixed unhandled exception from tooltips in FBD editor
- Added options to enable HTTPS in PLC Properties
- Fixed unhandled exception during re-import of HMI variables
- Fixed collapse of group in SCADA datapoint editor
- Fixed web services on wPLC750-8101 and wPLC750-8102
- Fixed ConfigTool on wPLC750-8101 and wPLC750-8102
- Validation of assigned variable on Progress bar gadget
- Download of HTTPS port number
- Support for Spanish in Merbon Visual and web server
- Support of fast saving of values as defaults
- Tooltips on HMI objects
- Folders in HMI projects for structuring HMI templates
- Added force comm attribute to Groups in client channels
- Export of BACnet EDE file
- Enhancing of communication parameters at Modbus RTU by Address 0 (Broadcast)
- Support for structure mapping in Modbus server
- Added buttons to navigate pages in graphic template
- Support of image preview
- Group renaming of variables for more devices
- Validation of datasource image file being present
- Fixed several unhandled exceptions
- Change of default time in the T35 Pump Switch function block
- New versions of library devices: Modbus and K-Bus
- Visual layout of windows - Breakpoints, Results, Graph, Port Monitor
- Option to clear all filters in dialogs/editors
- Z-index reorder behaviour from actions
- Corner radius property on HMI objects

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## Release notes for version 19/12/2022 2.4.0.24 ER4

- Fixed: unhandled exception when showing tooltip in FUPLA editor

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## Release notes 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

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## 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

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## Release notes for version 09/06/2022 2.4.0.21 ER4

- Added: FRAM memory autodetection for i.MX platforms

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## 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

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## 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

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## 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

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## 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
- Optimization 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



- Optimization 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
- Optimization 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
- Optimization 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

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## 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

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## 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 webservice 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

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## 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

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## 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 and 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)



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## 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

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## 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

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## 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
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## 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 optimisation 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.