What's new in version 7.02?

Online component

New feature
- Activated simulation of FP7

Code generation

New feature
- Changed port numbers for Ethernet user connections from 100+x to 16#6400+x to be prepared for 216 connections. Adapted system constants and code generation.
- Implemented special code generation on the FP7 for 16-bit PLC instructions:
  - F250_BTOA
  - F251_ATOB
  - F252_ACHK

- Implemented the FP7 instructions with special code generation for these instructions on the 16-bit PLCs:
  - FP_BIN_TO_ASCII
  - FP_ASCII_TO_BIN
  - FP_ASCII_CHECK.

What's new in version 7.01?

Online component

Bug fix
- Corrected download stream of program code on FP2SH-32

Code generation

Bug fix
- Corrected parameters of:
  - FP_SWAP_BYTES
  - FP_COM_GET_STATUS

- changed FP_COM_STATUS_DUT
- Conversion of some instructions improved, e.g.:
  - F64_BCMP on FP7
  - FP_COMPARE_BLOCK on 16-bit PLCs

- Handling of temporary variables improved

- For communication instructions: Validity check for constant COM ports now also for PLCs supporting only one COM port.

What's new in version 7?

New 32-bit PLC type FP7 from version 3.0

New feature

- Highly compatible implementation of the new 32-bit type FP7 PLCs
  - supporting all IEC functionalities like POUs, editors, data types and instructions
  - supporting nearly all F instructions of the 16-bit type PLCs
  - supporting all new FP7 instructions like communication and pointer functionalities

- Implemented FP instructions like FP_MOVE_BITS, a new family of overloaded and type safe instructions usable for 32-bit type PLCs (FP7) and 16-bit type PLCs

- FP7 firmware functionalities:
  - SD-card instructions, e.g. FP_SD_COPY_FILE
  - logging and trace instructions, e.g. FP_LOGTRACE_SAMPLE
  - Unit memory addresses e.g. S5:UM27
  - Direct input and direct output instructions
  - 32-bit pointer functions (available for all PLCs)

Features not yet implemented

- Online
  - Display system memory monitor
  - Display history

- Tools
  - PLC security settings
  - Logging/trace setting
  - Logging/trace monitor

Dialogs

- Dialog implemented for setting the RTC on the PLC via Monitor → PLC date and time (RTC)...

Code generation

New feature

- Special FP7 instructions, e.g. FP_RESET_WATCHDOG
- Conditional compile instructions, e.g.:
  - GetFPWINProVersionNumber
  - IsUnitMemoryAreaSupported
  - IsIndexRegisterSize32Bit

- Date and time instructions, e.g. DAY_OF_WEEK0
- Communication instructions, e.g.:
  - SetMEWTOCOL

- SetProgramControlled

Updated feature

- Changed behavior of the following instructions:
  - SET_RTC_DT now sets implicitly the day of week using the function DAY_OF_WEEK0
  - Workaround for F355_PID to prevent internal windup effects resulting from the integral term beyond the upper and lower limits

- The following instructions are now obsolete:
  - MC, MCE, JP, LBL, TM_1s, TM_100ms, TM_10ms, TM_1ms, CT

- New warning messages:
  - When using explicit user addresses instead of system variables or global variables. This option can be deactivated under Extras → Options → Compile options → Additional warnings.

- New error messages:
  - if global variables with an input FP address e.g. X12, WX1, are defined in the hold area
  - if the 32-bit FP addresses DEV and DSV are used
  - if 16-bit PLCs with 32-bit index registers DIX, DIY ... are used
  - if 32-bit PLCs with 16-bit index registers IX, IY … are used

Editors

New feature

- The context menu command "Show obsolete instructions" in the "Instructions" pane displays F and P instructions in the list whose functionality is contained in an IEC or FP instruction.
- The context menu command "Set default values" sets system registers to their default values.