

Product name: CPU Firmware Release Information

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1 Changes CPU Firmware V2.4.4

1.1 Improvements

The following improvements have been included in Firmware **V2.4.4** (additionally to those from V2.4.2 listed below.)

Modbus TCP / RTU

Improvement of Ethernet stability. Fixed

Modbus TCP with PM55x-ETH/PM56x-ETH: Communication error when using modem e.g. eWon (ewon flexy) . Fixed

PM5xx and two times Modbus server always close connections and reopen it. Fixed

CM574-RS as Modbus server (COM1 shared) answered independent of the Modbus address. Fixed

Online Access

2nd Login via CM597-ETH can lead to severe error of PM5xx in some configurations (e.g. with CS31-Bus). Fixed

POU

POU ETH_ICMP_PING don't start after Reset (Online/Reset) and Start. Fixed

PROFINET

CM579-PNIO: after STOP->START old values send to CI50x-PNIO for ca. 2s. Fixed

System

CPU load command can't show correct value when cpu load upto 100%. Fixed

CPU load show higher values for PM55x, PM56x, PM57x and PM58x. Fixed

The following improvements were included in Firmware **V2.4.2**.

C-Code

Some problems have been fixed for relocation of data or pointer initialization. Fixed.

EtherCAT

The recognition of data type SINT by the XML parser is now working. Fixed.

Ethernet

Improvement of Ethernet stability. Fixed.

UDP protocol: Unconnected Input Data of a FB "ETH_UDP_STD_SEND" was not well supported by AC500. Fixed

FTP server with AC500-eCo behavior has been improved in case of bootproject without task configuration. Fixed

Modbus

Modbus limits were not checked. Measures need to be taken in customer application. Fixed.

Online Access

CPU load (POU and PLC browser command) show wrong value in case of high CPU load and is not updated at 100%. Fixed.

Real time Clock

RTC POU: CurTimeEx does not work correct. Fixed.

System

Projects without task configuration use "DefaultTask" (Prio=10, Cycle time=10ms, Watchdog=On, Watchdog time=10ms, Watchdog sensibility=1). This can lead to trigger the watchdog especially on small PM5xx. Fixed.

Task configuration: Project without task configuration has a default task running at 10ms interval with a 10ms watchdog. The watchdog is triggered in projects with CS31-Bus or other communications, especially on small CPUs. Fixed

Diagnostic message from CM574 communication module in mixed configuration together with other CM577 (e.g.) delivers bad information. Fixed

Serial Communication

A runtime error occurred while using the Function Block `COM_MOD_MAST` via Communication Module CM574-RS when the response time of the slave is longer than the timeout set for the Function Block. Fixed.

File Handling

CAA_File library: ZipArchive* interface does not work if entries inside of zip-archive contain slashes ("/") instead of backslashes ("\"). Fixed.

1.2 New Features

The following new features have been added in Firmware **V2.4.4** additionally to those below.

Diagnosis

Diagnosis: Forward fieldbus error with matching component into PLC diagnosis buffer

The following new features were added in Firmware V2.4.2.

System extension

New display Firmware for AC500 CPU PM57x/PM58x/PM590...PM592, allowing support of MultiOBE and FlexConf.

Extended file size dialog with CODESYS > V2.3.9.45.

Support of new devices

Condition Monitoring System (CMS) FM502-CM

New PLC PM590-ARCNET, PM591-2ETH.

New high performance PLC PM595-4ETH-F and PM595-4ETH-M-XC.

New PROFINET IO device communication module CM589-PNIO.

New Ethernet communication module CM597-ETH (as replacement for the CM577-ETH module).

Flexible configuration (FlexConf)

Flexible configuration for IO devices connected to local I/O-Bus - handling of multiple HW-configuration files. Feature available for all PLC except AC500-S Safety CPU.

SNTP protocol for AC500-eCo CPUs

Protocol SNTP (Simple Network Time Protocol) for eCo CPUs with Onboard Ethernet - CPU as time slave.

Function Block Libraries

Support for new Function Block `BOOTPROJECT_HASH_INFO` (contained in internal system library) introduced. This Function Block enables hash checks of all parts of a boot project. Full functionality are supported from CoDeSys version V2.3.9.45.

Programming in C-Code

New standard libraries for C-Code editor extended.

Online change are is now available using CoDeSys from V2.3.9.45.

C++ support on PM590-ETH / PM591-ETH / PM591-2ETH / PM592-ETH.

IEC60870-5-104 tele-control protocol

Support of "2nd connection" - multiple substations on one PLC.

Support of "2nd port" for PLCs with Multiple Onboard-Ethernet (e.g. PM591-2ETH or PM595-4ETH-F/M-XC).