Release Notes

AC500 CPU Firmware

Power and productivity
for a better world™

ABB

Table of contents

Table of contents

1   Changes CPU Firmware V2.4.2

1.1 Improvements

The following improvements have been 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

Online Access

MCPU 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=10 ms, Watchdog=On, Watchdog time=10 ms, 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 10 ms interval with a 10 ms 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.

Changes CPU Firmware V2.4.2

New Features

1.2 New Features

The following new features have been 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 for 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 hardware 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 Telecontrol 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).