

MC_Modbus Library

Motion Control over Modbus

About

This software library for Control FPWIN Pro 7 contains various functions and function blocks designed to program MINAS A6 servo drivers via the Modbus RTU protocol.

The servo driver supports RS232C as well as RS485 communication. With RS485, several axes can be connected in a daisy chain.

Typical installation path:

C:\Program Files (x86)\Panasonic-ID SUNX Control\FPWIN Pro Libraries\MC_Modbus_Library\2.1.0.2
This path contains the library, the lib help file and FPWIN Pro examples.

We recommend to uninstall the previous versions until 2.0.4.0 first in case of new installer concept.

Software and hardware requirements

Before you install this library, make sure you are using the correct hardware and software.

- Programming software Control FPWIN Pro 7, version 7.2 or higher
- All FP0H, FP7, FP-X, FP0R, or FP-Sigma PLCs.
You can also use the FP7-NSC unit.
- Communication mode: Modbus RTU
- MINAS A6 AC servo driver with firmware version 1.05 or higher
- Serial cable DV0PM20024CAB02 or connector DV0PM20024 for communication via RS232C/RS485
- PC configuration software PANATERM, free download from the Panasonic Download Center (<https://www.panasonic-electric-works.com>).

Version-up Information

Version 2.1.0.2 2020-02

Bug fixes

- MB_MC_Communication - Switching between axes failed if more than 2 are activated.

Version 2.1.0.1 2019-11

New features

- Start axes via broadcast simultaneously.
- New function MB_MC_InitializeAxis_BC
- New function MB_MC_StartBlockOperation_BC
- New function MB_MC_WriteRawAddress

Updated features

- Improved error detection with more error codes.

Version 2.04 2017-11

New features

- Added PLC type FP0H

Bug fixes

- Bug fix for MB_MC_Write_to_EEPROM.

Version 2.03 2017-07

Updated features

- Small improvements for slower PLC types (FP0R, FPS) to control a large number of axes.

Bug fixes

- Bug fix for MB_MC_ConfigBlock_MoveVelocity

Version 2.00 2016-12

New features

- New library concept to support more than one axis.

Updated features

- Changed all command and monitoring function blocks to functions to save PLC program space.
- Added priority mechanism for the following functions:
 - MB_MC_StartBlockOperation
 - MB_MC_StartBlockOperationNumber
 - MB_MC_SelectBlockOperation
 - MB_MC_WriteParameter

Version 1.01 2016-12

First edition