

README: Modbus/Serial Integration Kit for PAC Project R8.2c
September 28, 2010

Important Note for Users Upgrading from Version 8.1 (or Earlier) of this Toolkit

In prior versions of the toolkit (versions 8.1 and earlier), all Register data was handled with either a float table (in the case of Read Holding Registers, Read Input Registers, Preset Multiple Registers, and Read Write Holding Registers) or a float variable (in the case of Preset Single Register) regardless of the value of the Data Type parameter.

Starting with version R8.2a of the toolkit, the table and variable data types now correctly match the Data Type parameter. This impacts how the subroutines are called by the strategy and how the strategy interacts with the data tables.

When calling the subroutine, you will now need to pass both float and integer tables (or float and integer variables). The subroutine will know which to use based on the value of the Data Type parameter. For example, if using integer data, you still have to pass the float table (or variable) even though it won't be used (and vice versa). The simplest thing to do is to just configure the extra table as having a length of 1 so it does not take up too much room in the controller.

You will also need to make sure that your strategy interacts with the correct data tables. When using Data Types 2 or 3, which are both float data types, your strategy will need to interact with the appropriate float table. When using Data Types 0, 1, 4, or 5, which are all integer data types, your strategy will need to interact with the appropriate integer table.

MB_Master_Serial

R8.2c

9/28/2010

Fixed LRC error in subroutines.

R8.2b

7/16/2009

Added function. 8.

v8.2a

4/20/2009

- Added an integer table to function 3, 4, 16 and 23. Added an integer to function 6.
- Changed the name of the float table passed parameter used by function 3, 4, 16 and 23. Changed the name of the float variable used by function 6.
- Optimized the RTU mode. Changed the way the checksum was calculated to improve speed.

v8.1e

3/5/2009

- Changed block 31 to wait for more characters in all subroutines.
- Changed block 38 to check the function in the response, and wait until all characters are received (the complete response message) in the following write subroutines:
 - Force Multiple Coils
 - Force Single Coils
 - Mask Write 4x Registers
 - Preset Multiple Registers
 - Preset Single Registers

v8.1d

2/6/2009

- Added new operation mode.
- Added function 22.

- Corrected a problem when using 16-bit signed data type. The data is stored in a float table and there was a conversion error when the table data was between -1 and 0.
- Added check for correct table length.
- Changed names of variables from address to register.
- Tested using PAC R8.1c.

v8.1c

1/16/2008

- Added logic to keep the communication handle open.
- Tested using PAC Project R8.1c.

v8.1b

12/11/2007

- Added Function 23.
- Tested using PAC Project R8.1b.

v8.0c

4/9/2007

Loaded and tested using PAC Project R8.0c.

MB_Slave_Serial

R8.2b

07/16/2009

Added function 8

v8.2a

4/20/2009

- Added an integer table to function 3, 4, 6, 16 and 23.
- Optimized the RTU mode. Changed the way the checksum was calculated to improve speed.

v8.1e

2/27/2009

Changed block 23 in the slave chart to wait for 5 characters.

v8.1d

2/6/2009

- Added new operation mode.
- Added function 22.
- Corrected a problem when using 16-bit signed data type. The data is stored in a float table and there was a conversion error when the table data was between -1 and 0.
- Changed name of variables from address to register.
- Tested using PAC R8.1c.

v8.1c

4/25/2008

Corrected problem in block 35 of the slave chart that prevents working with multiple masters.

v8.1b

2/4/2008

- Added optimized RTU mode.
- Tested using PAC Project R8.1c

v8.1a

1/16/2008

- Added logic to keep the communication handle open.

- Tested using PAC Project R8.1c

v8.1

12/11/2007

- Added function 23.
- Tested using PAC Project R8.1b.

v8.0

4/10/2007

Loaded and tested using PAC Project R8.0c.