WEINTEK LABS., INC.

Modbus Special Device Type

Demo Project

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1. Overview and Operation

Overview

A number of special data types have been added to the Modbus RTU driver. This demo project introduces and explains the setup to use special Modbus data types.

Operation

First connect the PC (when using online simulation) or HMI to a Modbus RTU device.

If desired, use any COM port monitor program to verify the actual message exchange used in MAX1W, MAX2W addresses.

For page 12, enter values in 4x-(1) and 4x-(2) in the middle, and see the word swap result in 4x_double.

2. Setting up the Screen

General Setup

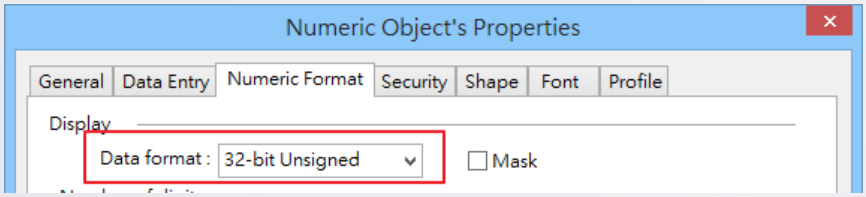
Add a Modbus RTU device. Set communication parameters as appropriate.

This demo uses (9600, N, 8, 1)

Screen Setup

Page 10: Create Numeric objects and use 4x-(1), 4x-(5) and 4x_MAX2W-(1), 4x_MAX2W-(5).

Page 11: Create Numeric objects and use 4x-(1) and 4x_MAX1W-(1). Set 32-bit Unsigned for data format.

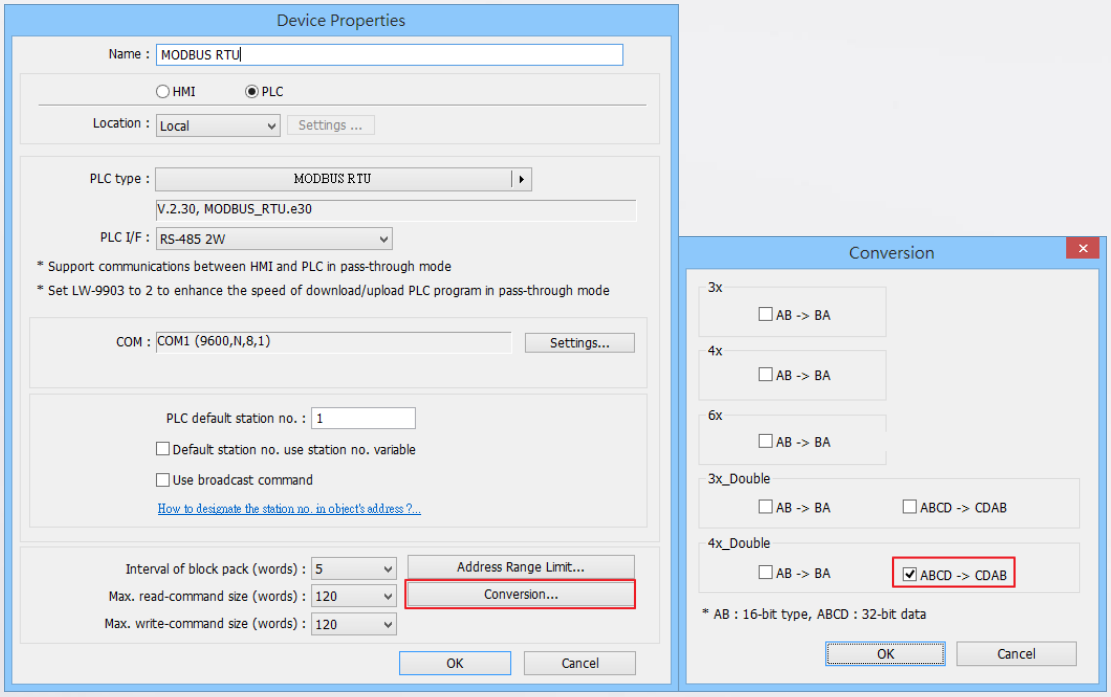


Page 12:

Step 1. Create Numeric objects and use 4x-(1) and 4x_double-(1). Set 32-bit Unsigned for data format.

Step 2. Also, place numeric objects 4x-(1) and 4x-(2) and set 16-bit Unsigned for data format.

Step 3. In PLC setting » Conversion, check “ABCD -> CDAB” for 4x_Double.



3. Addresses

The addresses of objects used in this demonstration are listed below.

Object	Address	Description
Window 10		
Numeric	4x-1	Read PLC address
Numeric	4x-5	Read PLC address
Numeric	4x_MAX2W-1	Read PLC address; Maximum 2 words
Numeric	4x_MAX2W-5	Read PLC address; Maximum 2 words
Window 11		
Numeric (32bit)	4x-1	Read 32-bit PLC address
Numeric (32bit)	4x_MAX1W-1	Read PLC address; Maximum 1 word
Window 11		
Numeric (32bit)	4x-1	Read 32 bit PLC address
Numeric (32bit)	4x_Double-1	Read 32 bit PLC address; Words are swapped
Numeric	4x-1	Read PLC address
Numeric	4x-2	Read PLC address