

# Demo for Free Protocol

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## 1. Overview and Operation

Even if EB8000 does not provide an essential driver for communication with a device, users can still use macro function to control the device. The data sent with OUTPORT and INPORT must follow the protocol of the device.

**Free Protocol Application - Direct Control of "MODBUS RTU" DEVICE**

 0x1 4x1  4x2

LW30

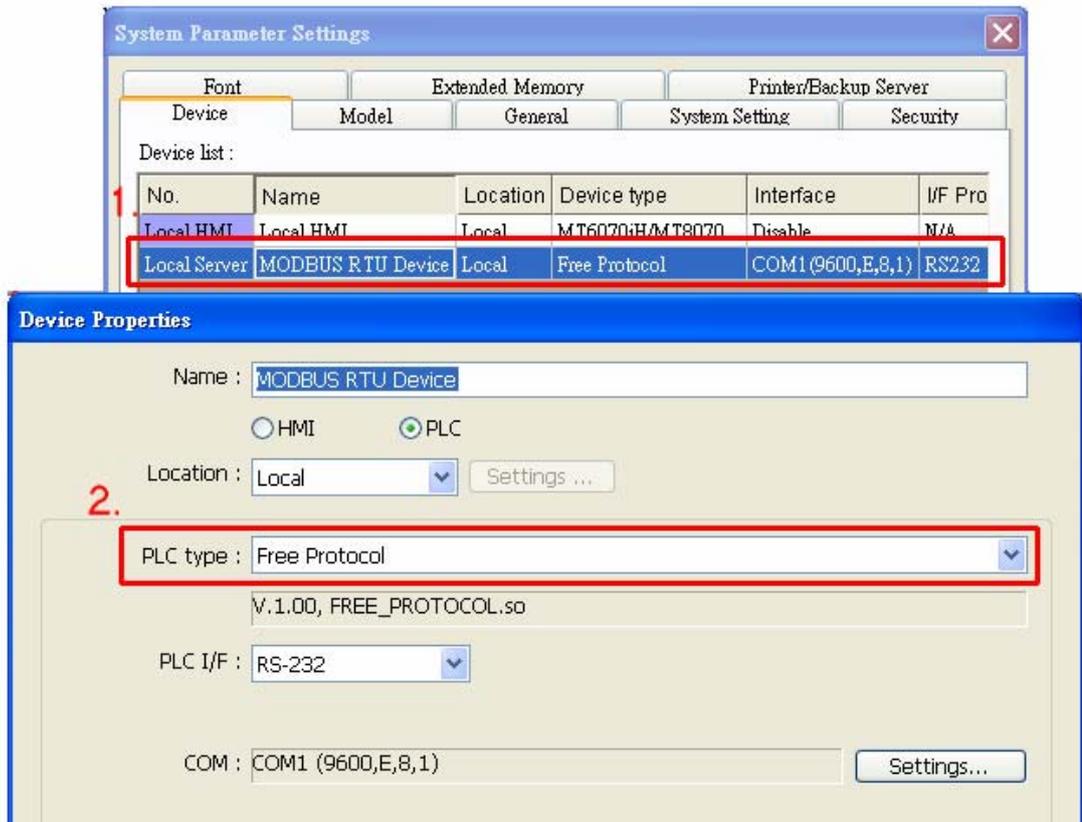
LW30~31 -> 4x1~4x2

Response length :   
Response  

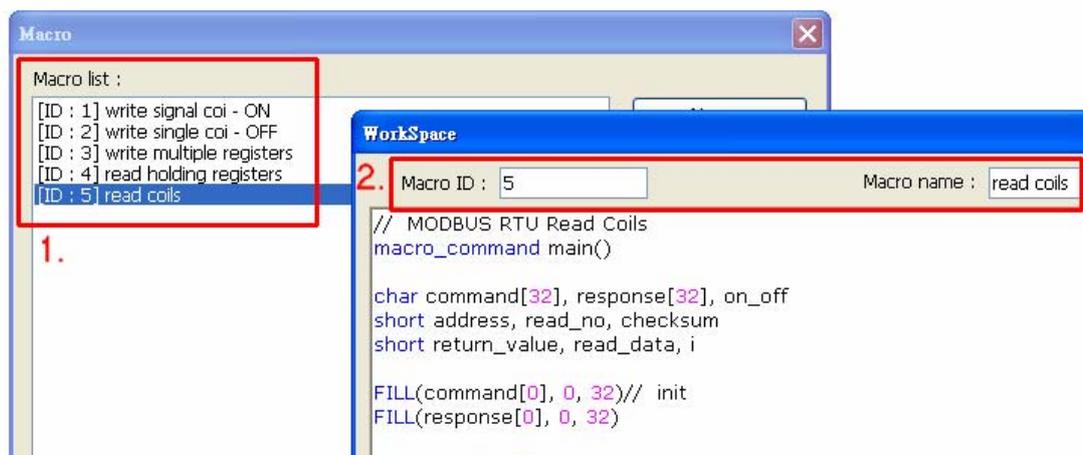
0000	0000	0000	0000	0000	0000	0000	0000
0000	0000	0000	0000	0000	0000	0000	0000

## 2. Setting Up the Screen

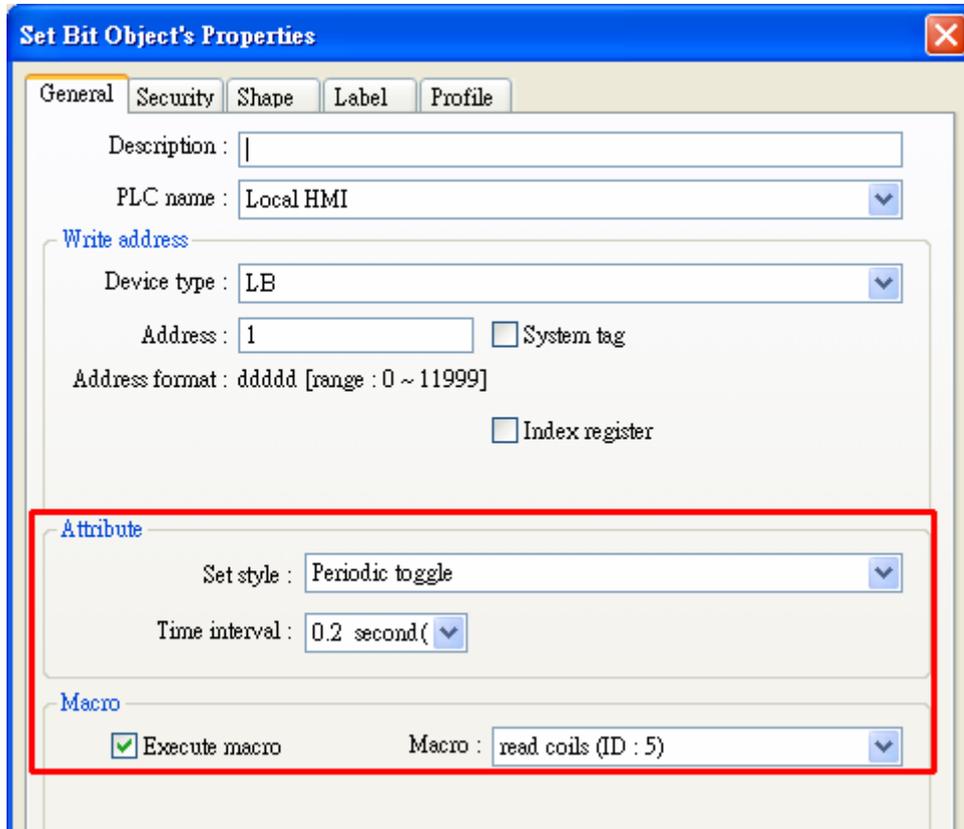
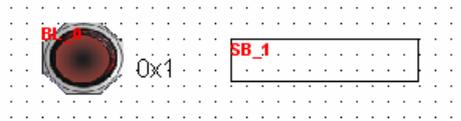
1. Create a new device in the device table. The device type of the new device is set to “Free Protocol” and named with “MODBUS RTU device” as follows:



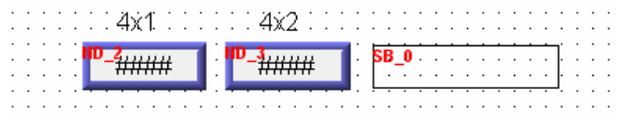
2. Create some different commands in macro list. About the detailed macro instructions please refer to the Macro Reference.

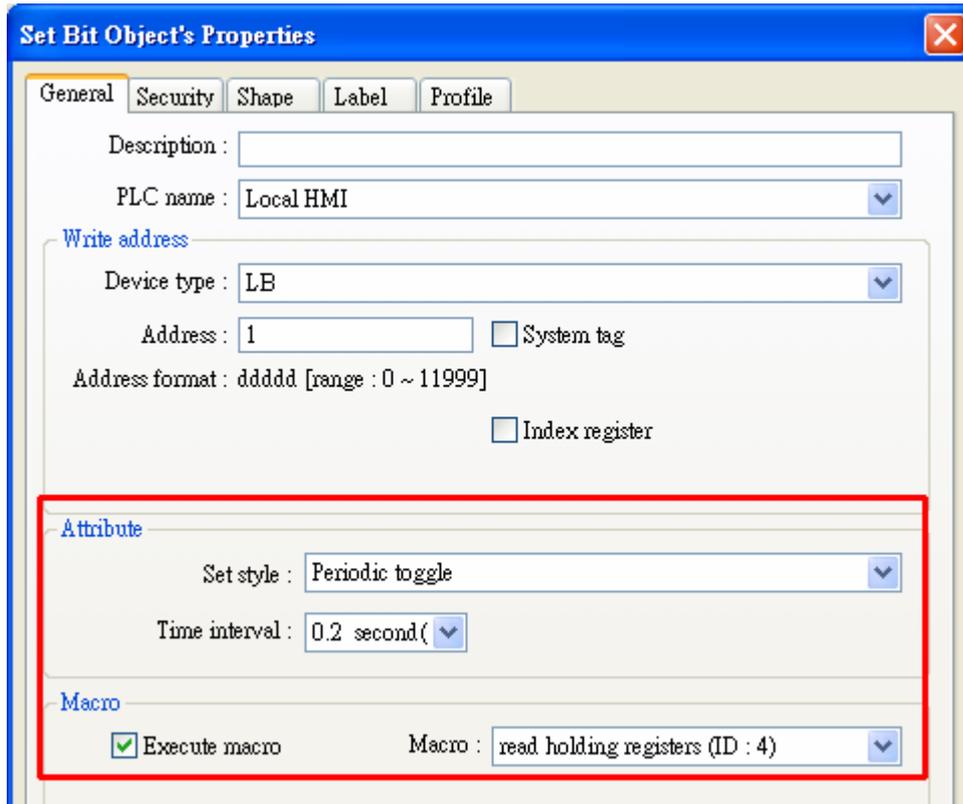


- Set up the Bit Lamp to read LB0 and the Set Bit object to trigger the macro (ID5). The Bit Lamp will show the device current status.

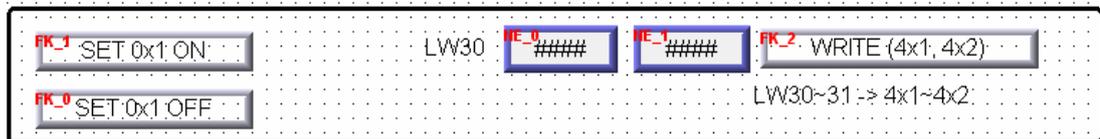


- Set up the Numeric objects to read LW100~101 and the Set Bit object to trigger the macro (ID4). The Numeric Display object will read the device current value.





5. Create two Function Keys to trigger macro (ID1 and 2). It will set ON or OFF of the 0x1 status. Also set up two numeric input objects (LW30~31) for inputting the value and to trigger macro (ID3) writing the value to device register by the other Function Key object.



6. Create some Numeric objects to read Response length and Response data.



### 3. Object

The objects used in this demo project are listed below.

Object	ID	Detail
Bit Lamp	BL0	Read the 0x1 status. (LB0)
Sit Bit	SB1	Trigger the macro ID5.
	SB0	Trigger the macro ID4.
Numeric Display	ND2	Device value (4x1).
	ND2	Device value (4x2).
Function Key	FK1	Set 0x1 ON
	FK0	Set 0x1 OFF
	FK2	Write (4x1, 4x2)
Numeric Display	ND0	Response length
	Others ND	Response data