

TK Series HMI modbus RTU Communication Instruction

Function codes supported by HMI as modbus host

Function No. 01: Read the coil status and get the current status of a group of logic coils (ON/OFF)

Function No. 03: Read holding registers and get the current binary value in one or more holding registers

Function No. 05: Force a single coil, force a logic coil on and off state (write bit)

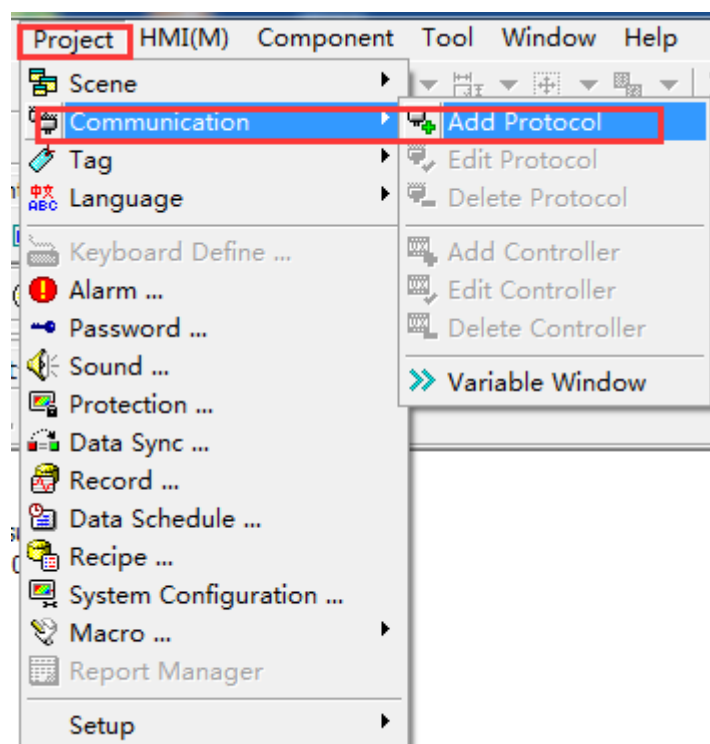
Function No. 06: Load specific binary values into a holding register (write register)

No. 16 function: preset multiple registers, load specific binary values into a series of continuous holding registers (write multiple registers)

1. Make the setting of the master with only one slave

1.1. Communication parameter setting, use 485 communication to select COM2 to add communication protocol.

[Project] → [Communication] → [Add Protocol], as shown below



Add Protocol

Protocol: Modbus RTU Mode

Controller:

Company	Model	Des...
Modbus	Modbus Controller Series	
Modbus	Modbus Controller Series(5digit)	
Fatek	Facon Controller Series	PLC
Mirle	Mirle nDX Series	

Port: Auto Detect(RS232/RS422/RS485)

Baud Rate: 9600 Data Bit: 8Bits

Parity: None Stop Bit: 1Bit

Delay: 0ms TimeOut: 1sec

Multi-Station Smart Link Retry Count: Timeout, Repeat

OK Cancel

Add Controller

Controller

ID: 0

Station: 1

Controller:

Company	Model	Description
Modbus	Modbus Controller Series	
Modbus	Modbus Controller Series(5digit)	
Fatek	Facon Controller Series	PLC
Mirle	Mirle nDX Series	
Mirle	Mirle SDPLC Series	PLC

Description:

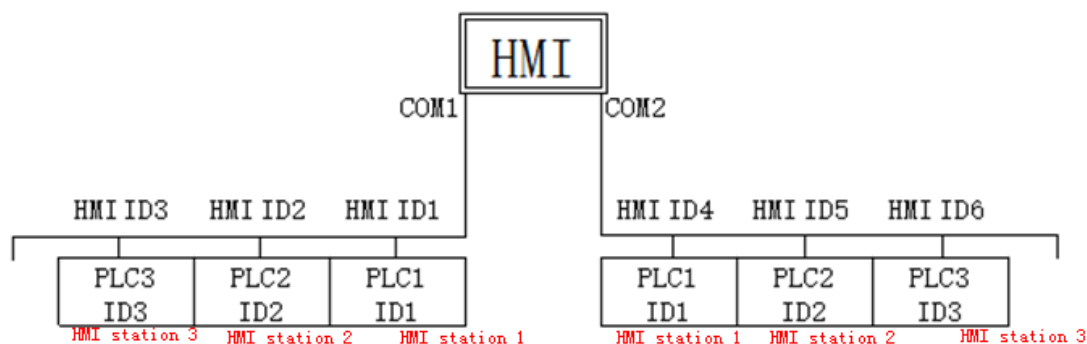
OK Cancel

ID: ID number of the controller. (Unique, not repeatable)

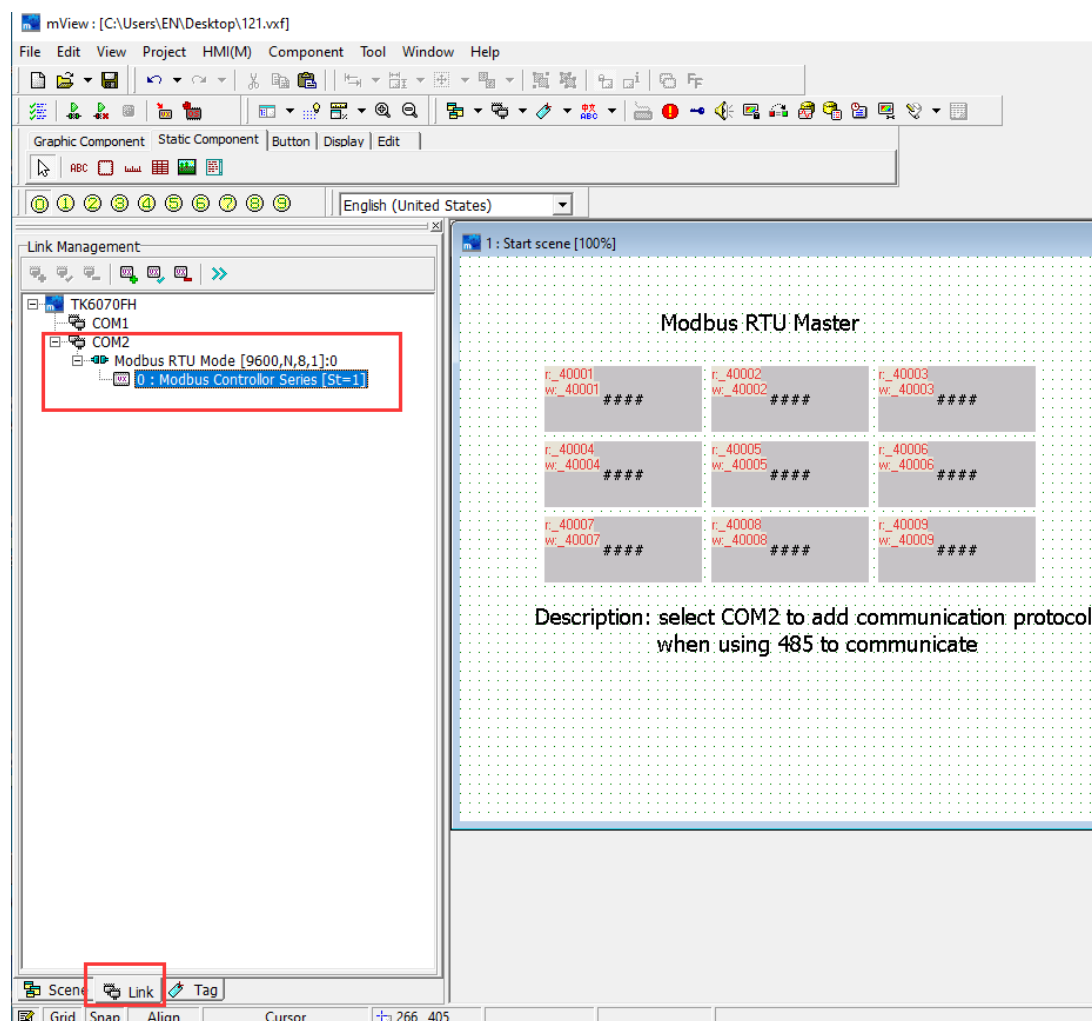
Station: the station number of the controller, that is, the slave station number to be read/written. (The station numbers of com1 and com2 can be repeated)

The station number (HMI station number) in the display unit setting is the ID (PLC ID) corresponding to the connected controller, and the ID (HMI ID) set in the display unit is the corresponding Several controllers. For the setting of the

station number, COM1 and COM2 of the display unit are independent, so COM1 and COM2 can be set separately to connect the controller with the same station number, but for the setting of ID, each HMI cannot be repeated. Because the ID describes the controller which is the first controller connected to the display unit, as shown in the figure below.

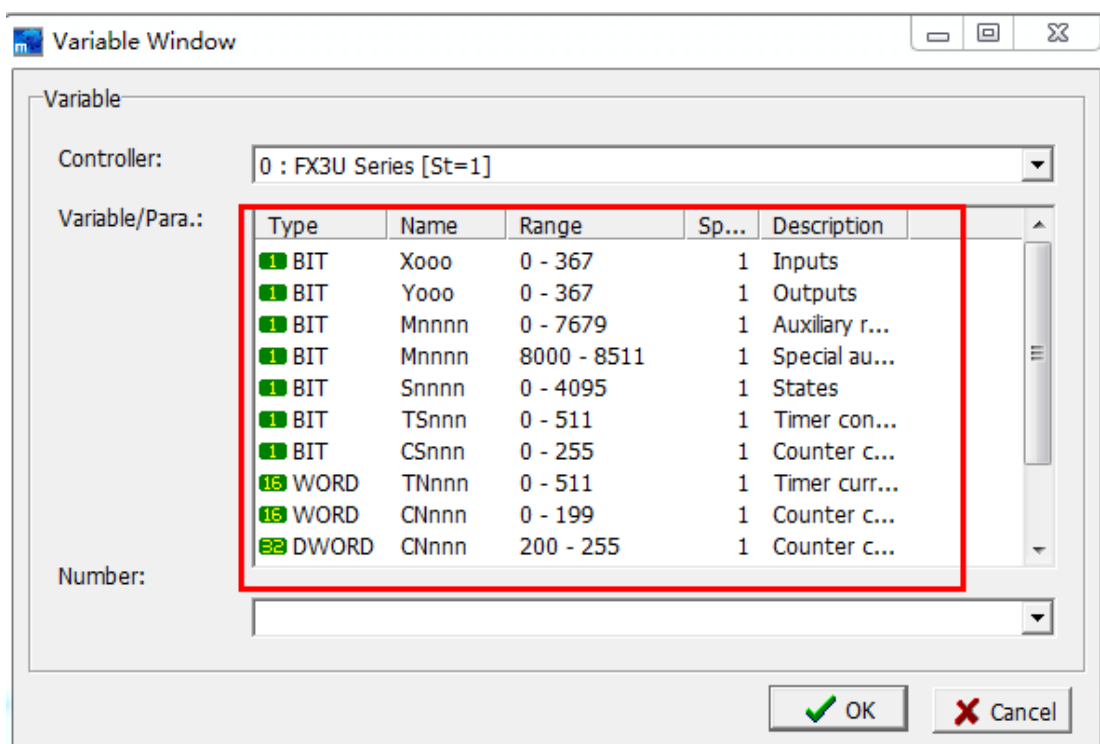


1.2. After the addition is successful, the corresponding communication protocol will appear in the selected communication:

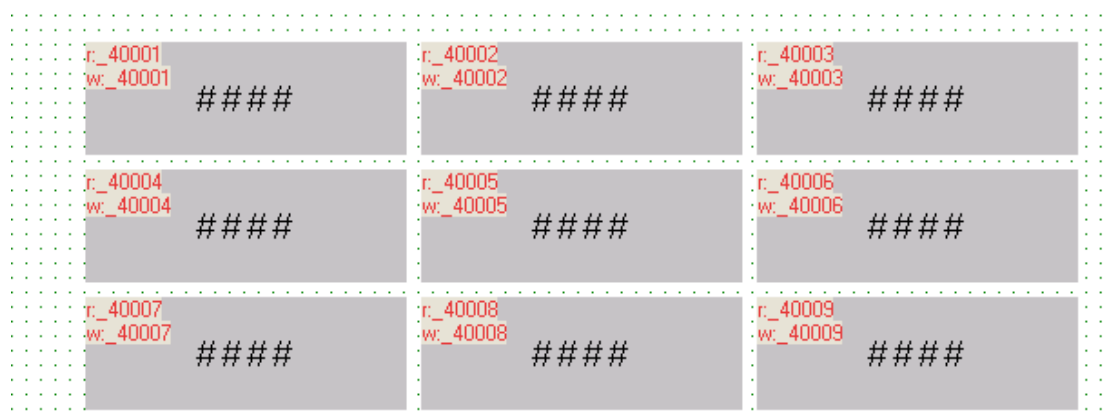


1.3. Available variables are as follows

Controller: the device that communicates with the HMI; number: directly enter the address of the variable.



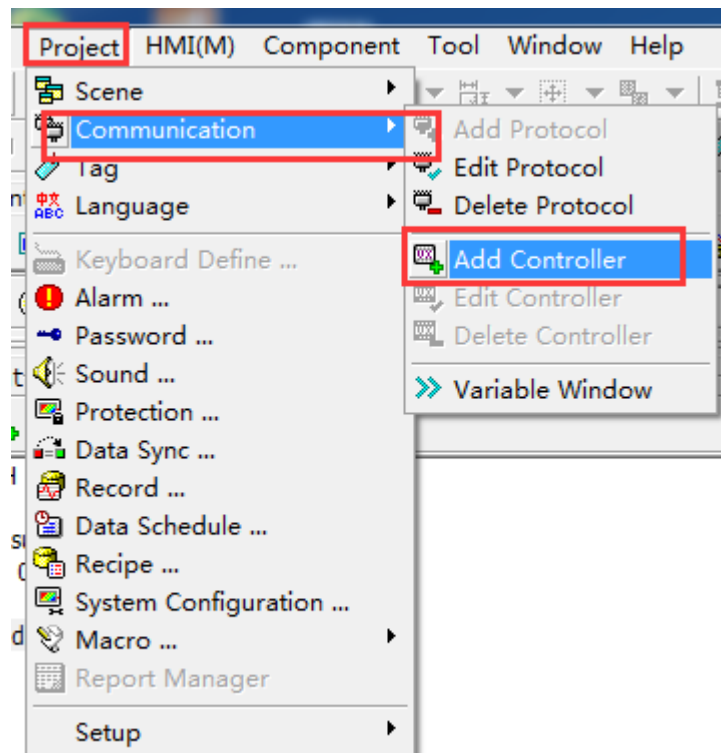
1.4. Place the corresponding variable on the HMI screen and use 485 to connect the modbus communication device, that is, you can read/write the data of the corresponding variable address, as shown in the following figure:



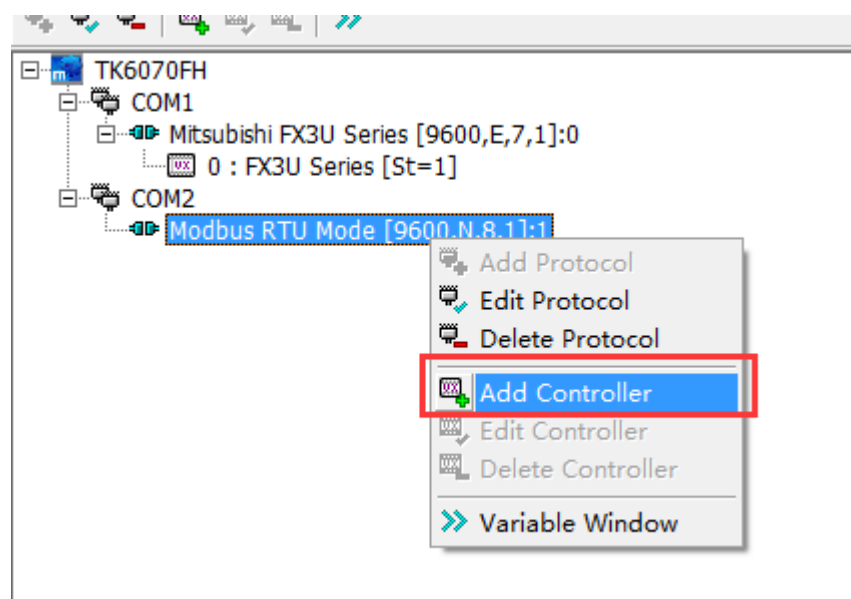
2. Set up the master with multiple slaves

2.1. Communication parameter setting, use 485 communication to select COM2 to add communication protocol.

If you need to connect multiple slaves, you need to add multiple controllers. Each controller corresponds to a device that reads/writes a different slave station number. [Project] → [Communication] → [Add Controller], as shown below Shown

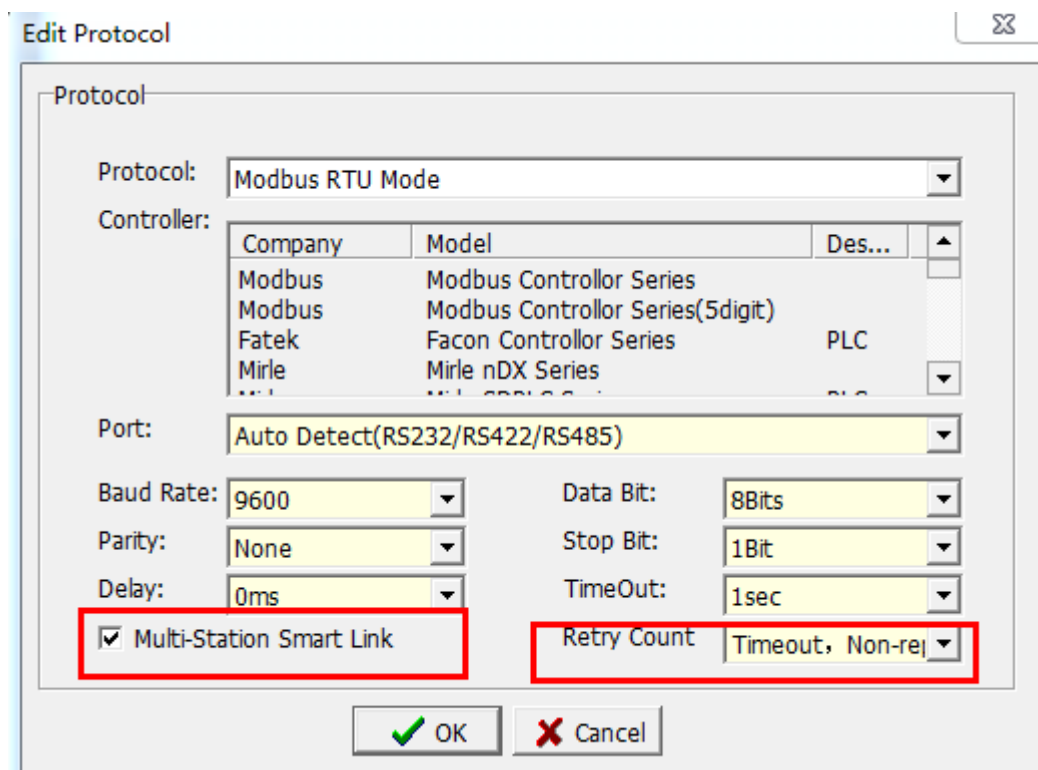


Or directly select the communication protocol, right click mouse → [Add controller]

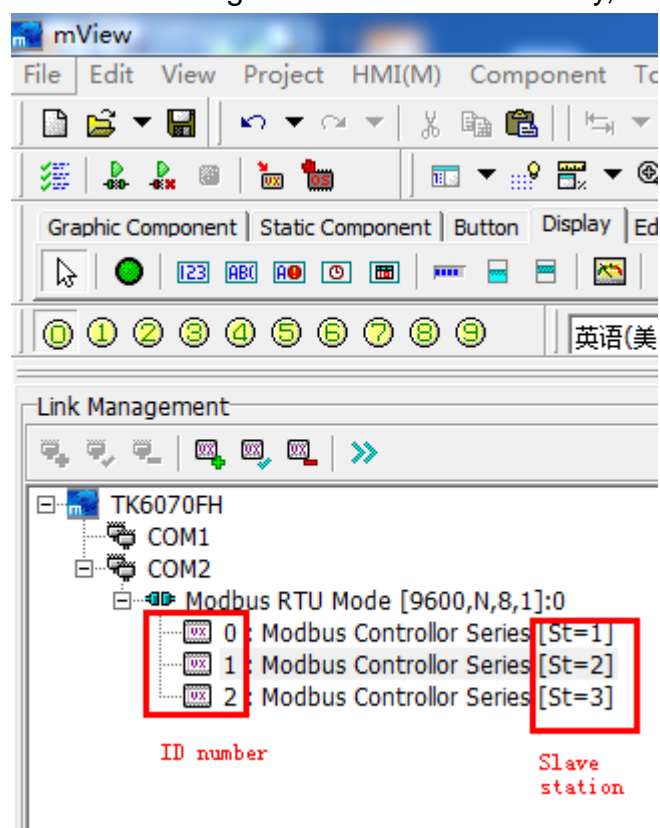


Note that when connecting multiple products for communication, you need to

tick [Multi-Station Smart Link] and select [Timeout, Non- retransmission]

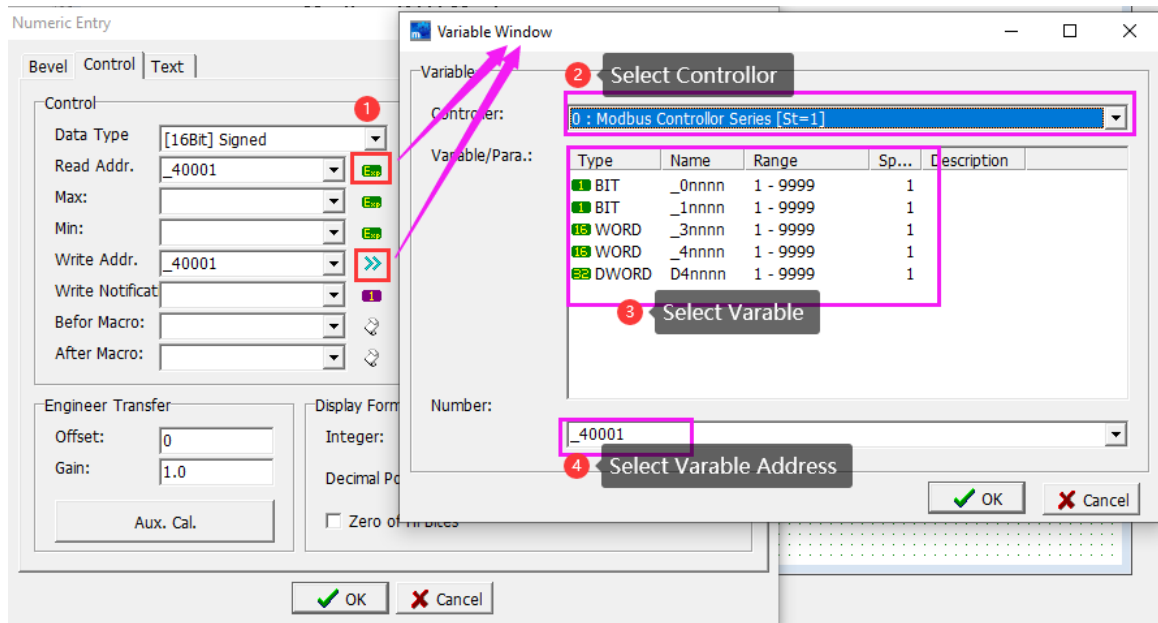


2.2. After adding 3 controllers successfully, it is as follows:

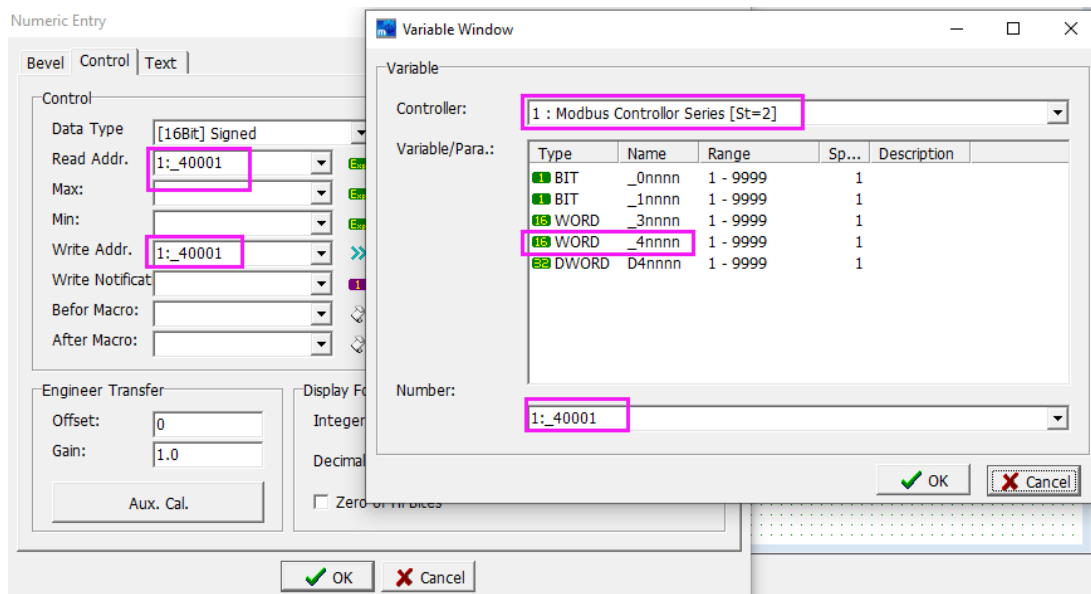


2.3. Add the variable requesting to read/write the slave station number in the

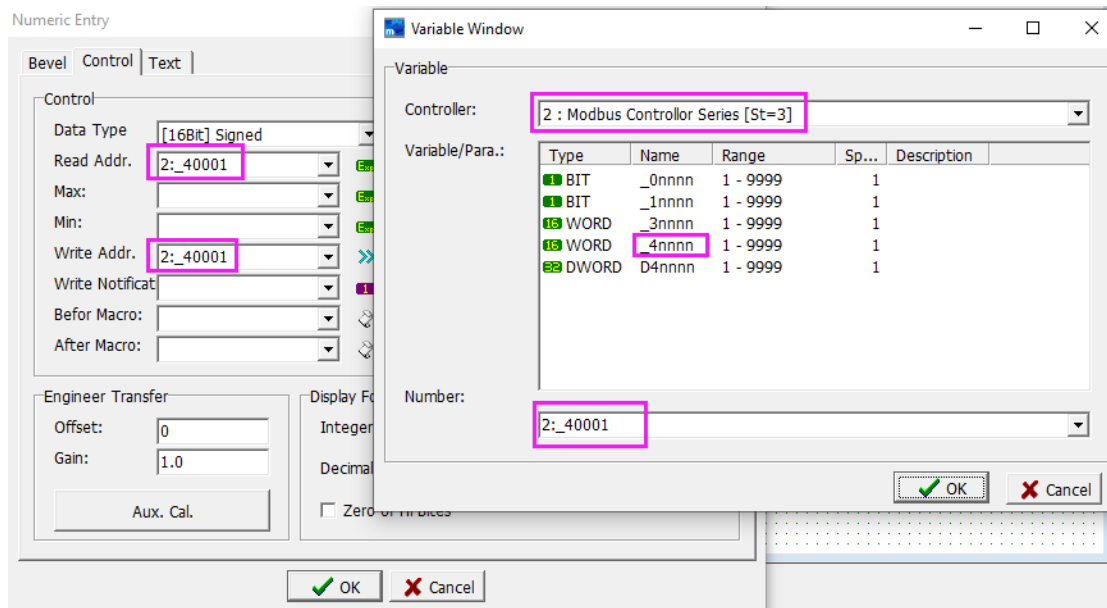
order of ①②③④ as follows, ②Select the slave station corresponding to the variable address



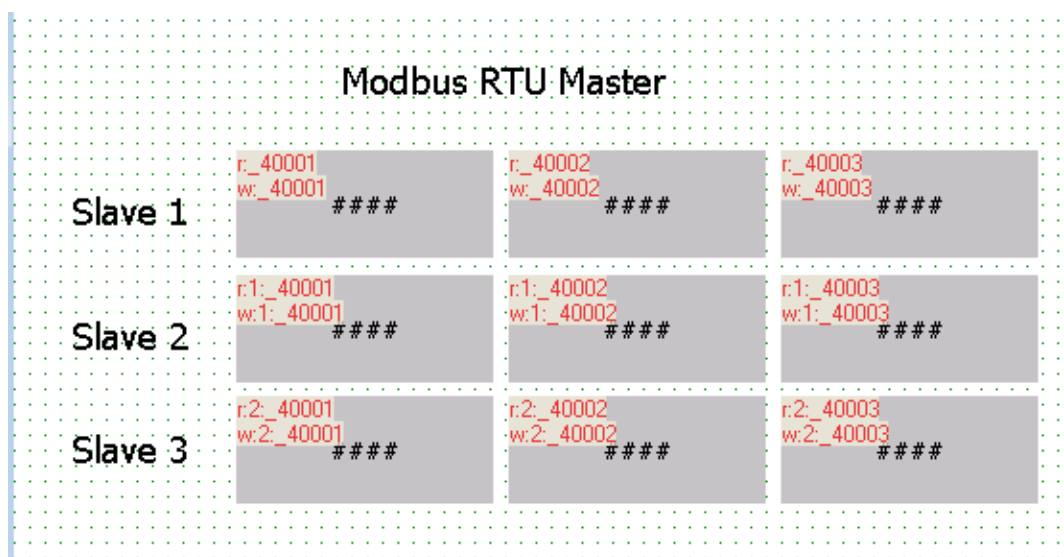
For example, slave 2 variable address:



Slave 3 variable address:



2.4. Place the corresponding variable on the HMI screen and use 485 to connect the modbus communication device, that is, you can read/write the data of the corresponding variable address, as shown in the following figure:

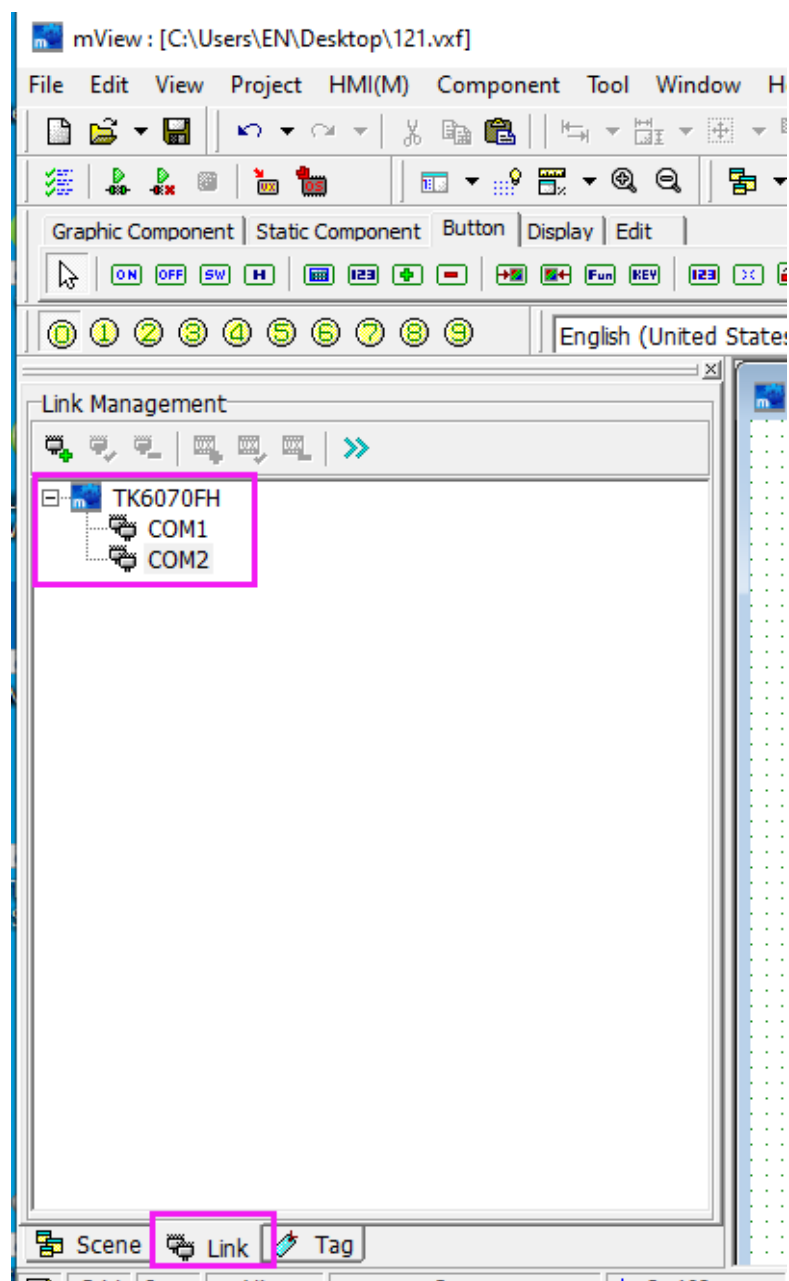


3. Setting of HMI as slave

Note: Without adding any protocol and device, the HMI will act as MODBUS RTU slave.

How to set the station number of the slave station:

- ① Project>Setup>ID.
- ② Use N65128 to set directly on HMI.



Currently only supports MODBUS RTU. Two methods for setting communication parameters on HMI:

- ① Draw a diagonal line from the upper left corner of the HMI to enter the system settings.
- ② Use the jump screen button to switch the screen to [65005: System

setting screen]

