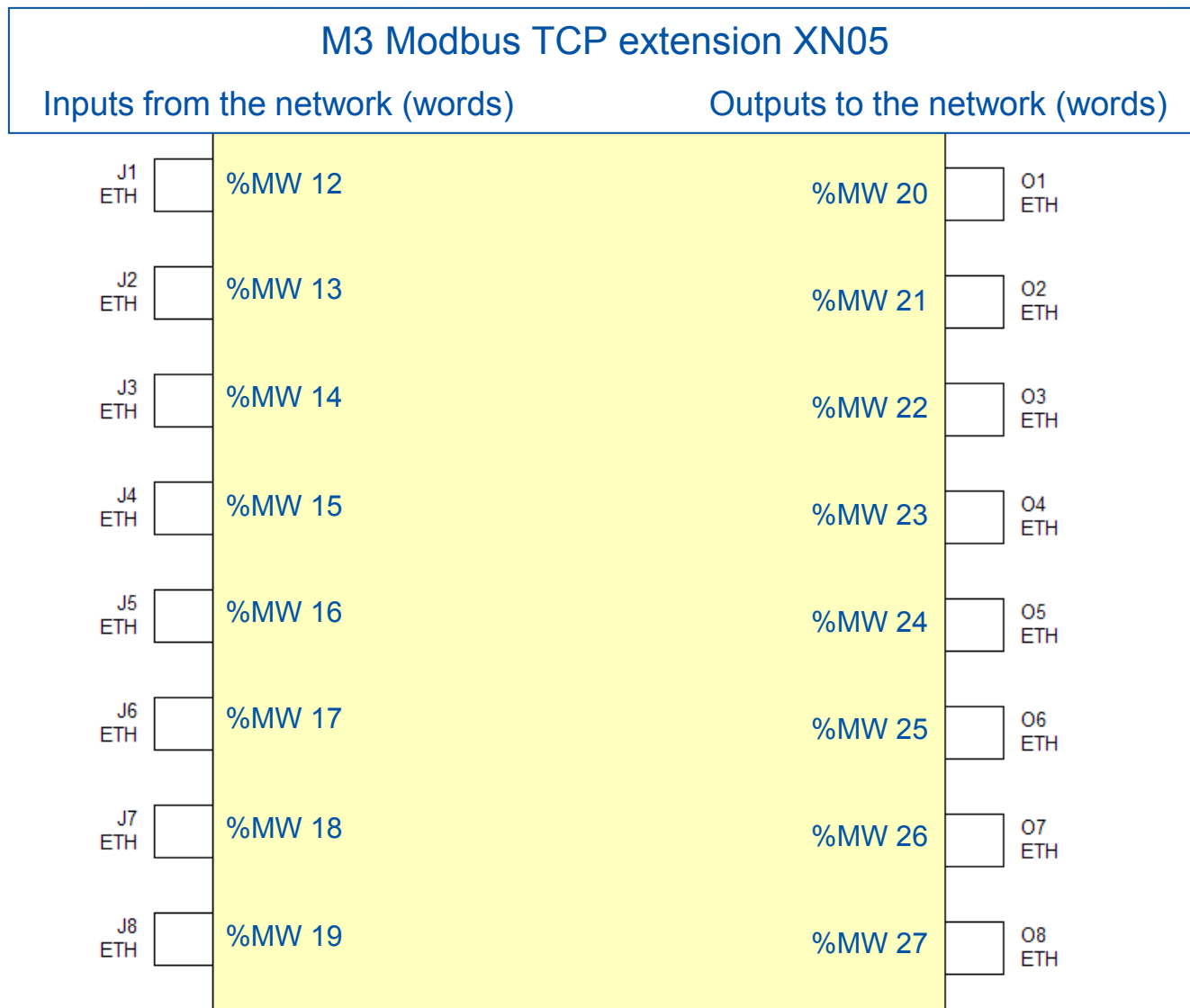
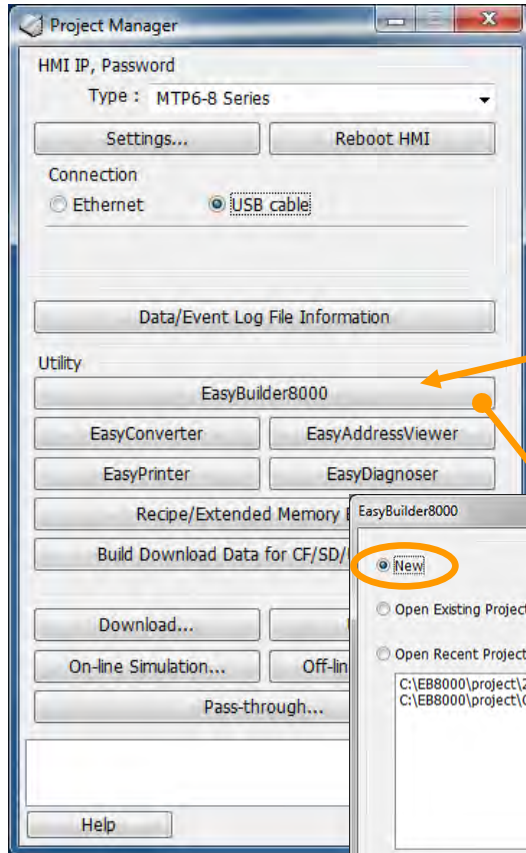


# EB Modbus TCP Addressing (for XN05)

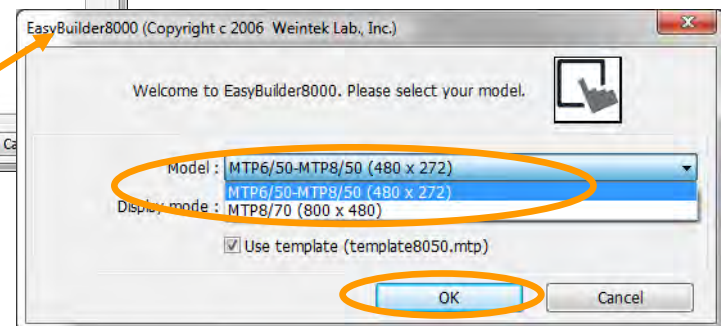
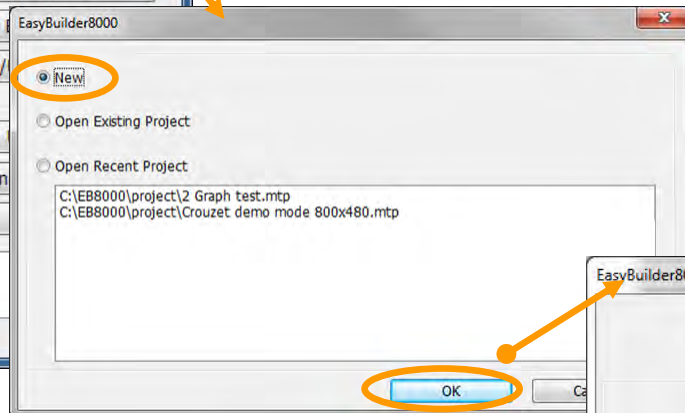
Millenium 3 and EB MTPX/XX Software

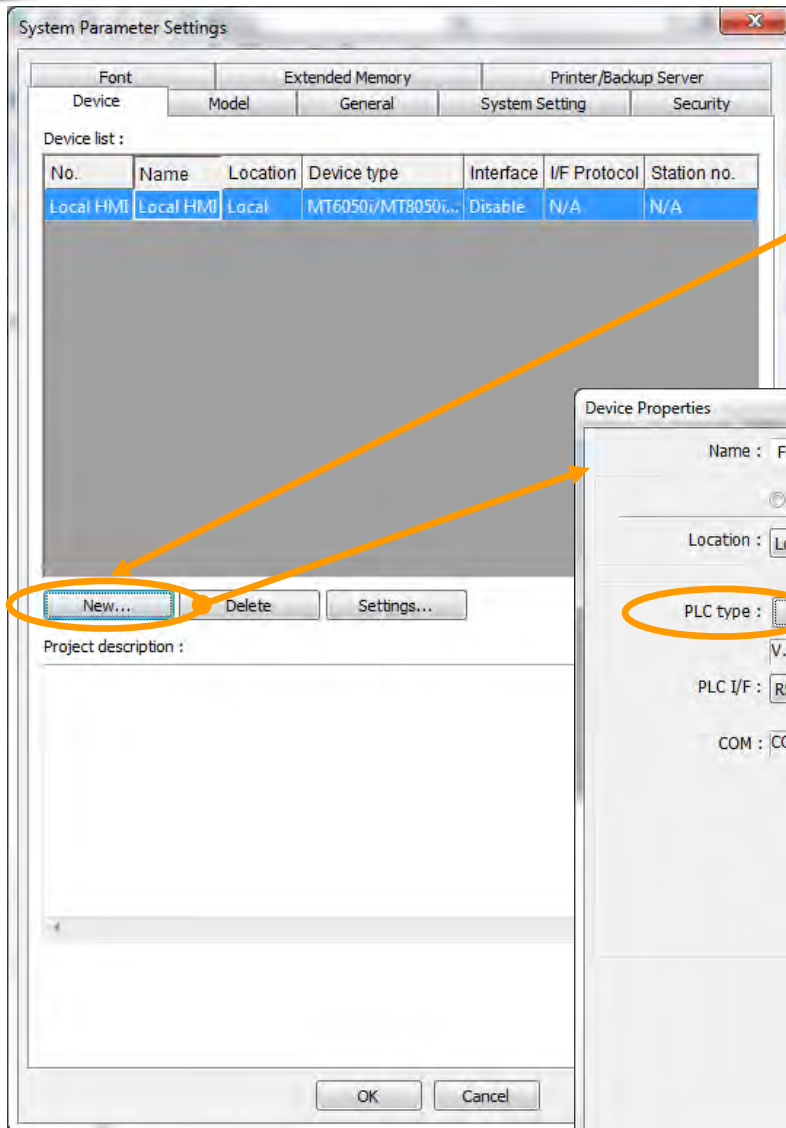




In order to define the Modbus TCP network in the EB software:

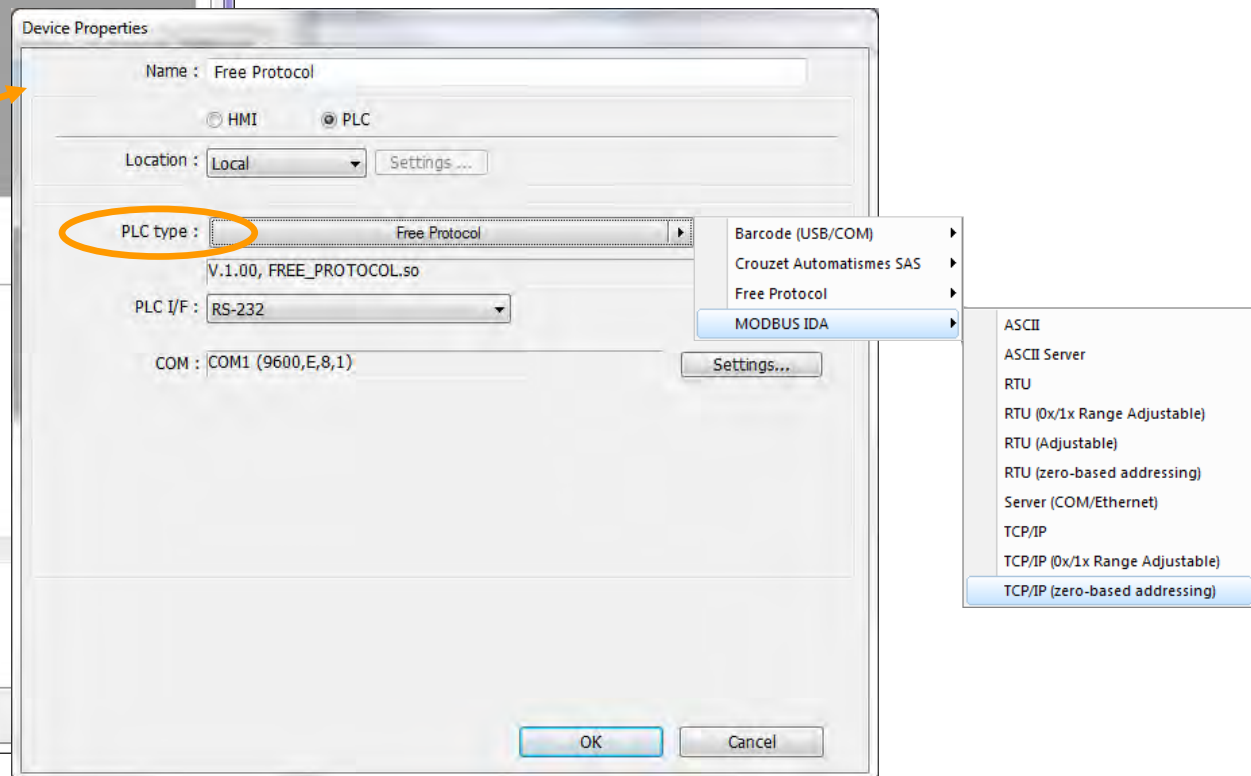
- Create a new project
- Select the MTP screen version that is to be used and click on **OK**

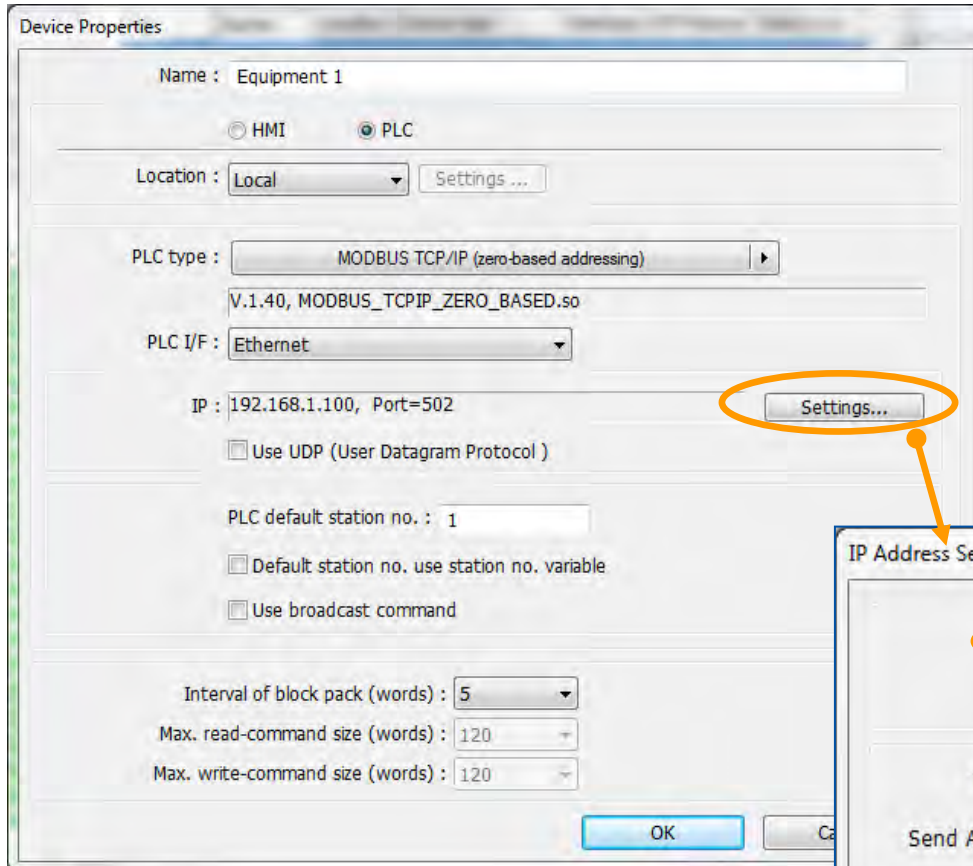




In the window that opens click *New* to define the *Device* (the network)

- In *PLC type* select *Modbus IDA*, then *TCP/IP* (zero-based addressing)





Device Properties

Name : Equipment 1

☐ HMI ☒ PLC

Location : Local Settings ...

PLC type : MODBUS TCP/IP (zero-based addressing)  
V.1.40, MODBUS\_TCP/IP\_ZERO\_BASED.so

PLC I/F : Ethernet

IP : 192.168.1.100, Port=502 Settings...

☐ Use UDP (User Datagram Protocol)

PLC default station no. : 1

☐ Default station no. use station no. variable

☐ Use broadcast command

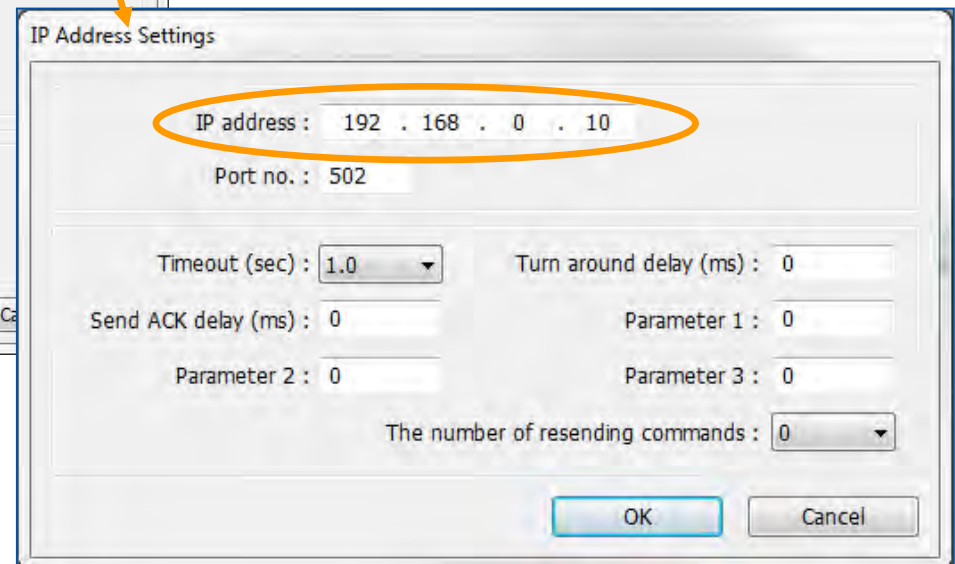
Interval of block pack (words) : 5

Max. read-command size (words) : 120

Max. write-command size (words) : 120

OK Cancel

- Define the equipment *Name* (Equipment 1 for example)
- Click *Settings* to define the IP address of the Modbus TCP equipment (XN05 extension)
- Repeat this procedure for each XN05 extension in the network.



IP Address Settings

IP address : 192 . 168 . 0 . 10

Port no. : 502

Timeout (sec) : 1.0 Turn around delay (ms) : 0

Send ACK delay (ms) : 0 Parameter 1 : 0

Parameter 2 : 0 Parameter 3 : 0

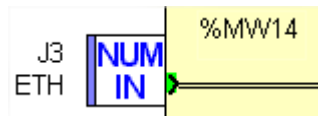
The number of resending commands : 0

OK Cancel

## Example of how to address a word

Writing a set point from MTP to  
M3 (Equipment 1)

M3: %MW14



⇒ EB: *PLC name* Equipment 1  
*Device type* 4x

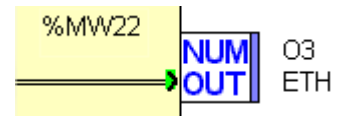
*Address* 14

Write address %MW14

Address	
PLC name :	Equipment 1
Device type :	4x
Address :	14
Address format : DDDDD [range : 0 ~ 65535]	

Reading an M3 value (Equipment 1)  
by the MTP

M3: %MW22



⇒ EB: *PLC name* Equipment 1  
*Device type* 4x

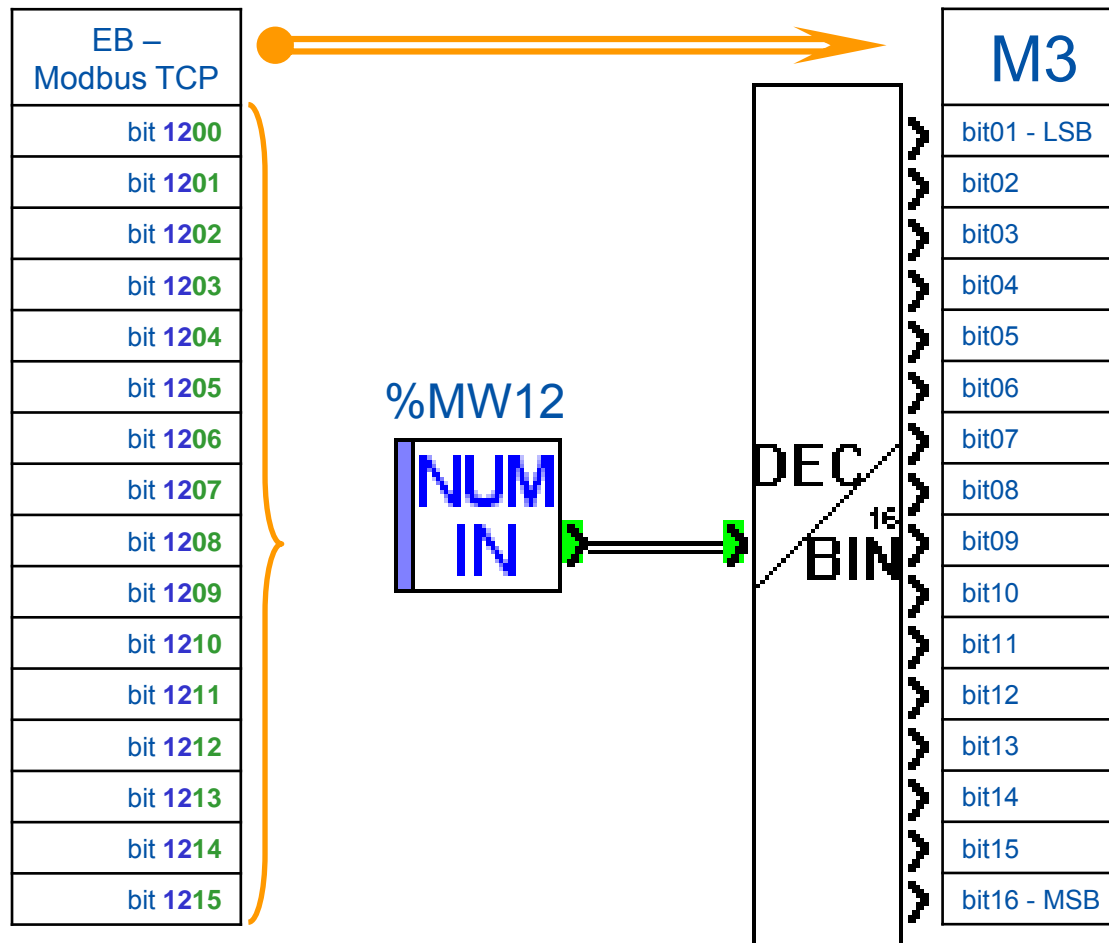
*Address* 22

Read address %MW22

Address	
PLC name :	Equipment 1
Device type :	4x
Address :	22
Address format : DDDDD [range : 0 ~ 65535]	

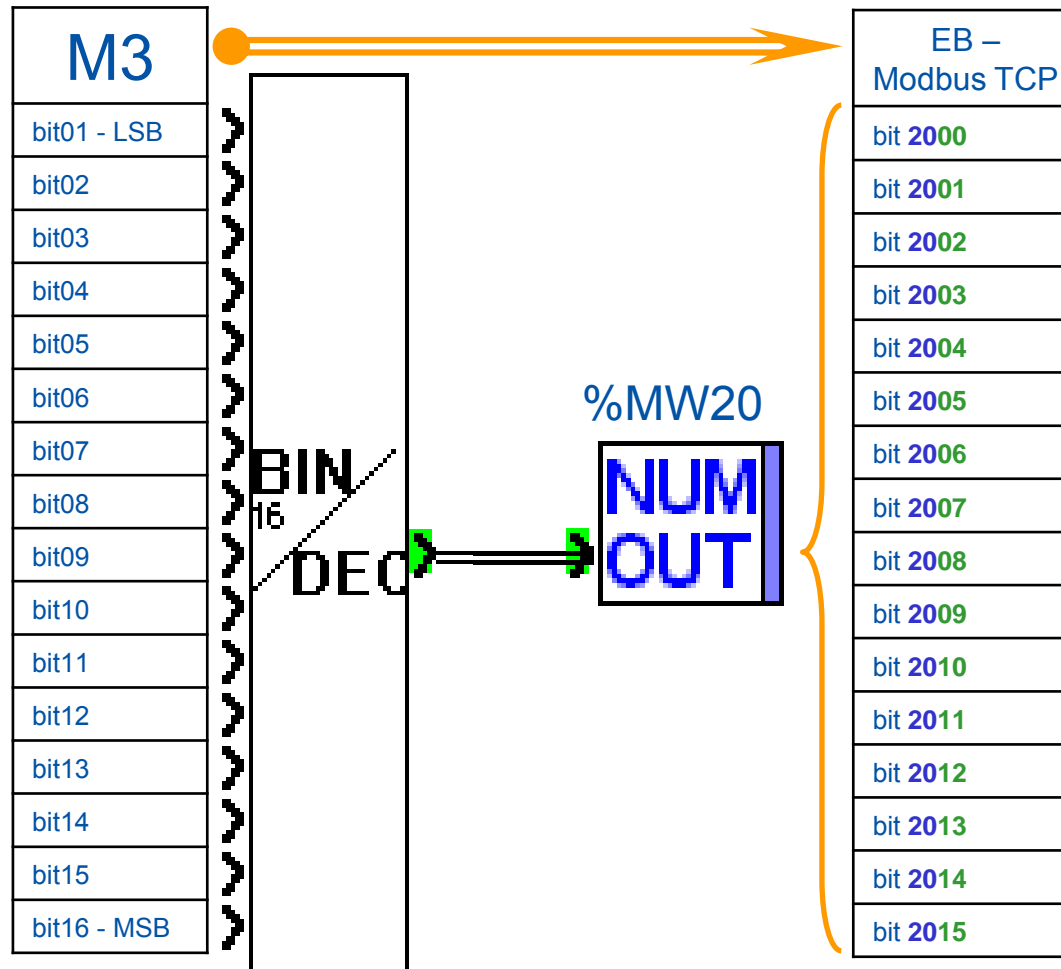
## EB software: writing/reading an M3 bit via Modbus TCP

Modbus TCP  
to M3



## EB software: reading a bit from M3 via Modbus TCP

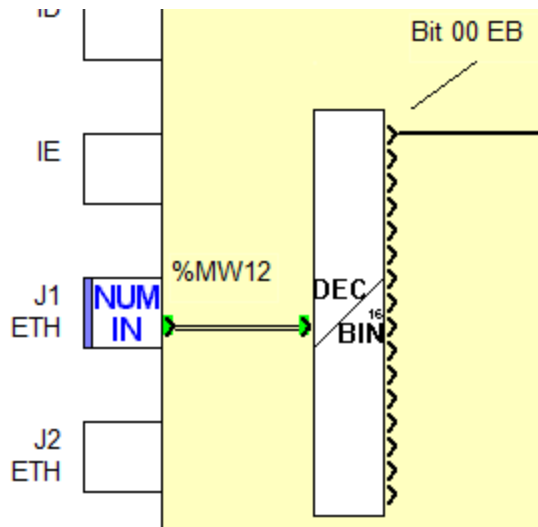
M3 to  
Modbus TCP



## Example of how to address a bit

Writing a bit from the MTP to M3  
(Equipment 1)

M3: %MW12, bit 01  $\Rightarrow$  EB: *4x\_Bit* 1200



Address

PLC name : Equipment 1

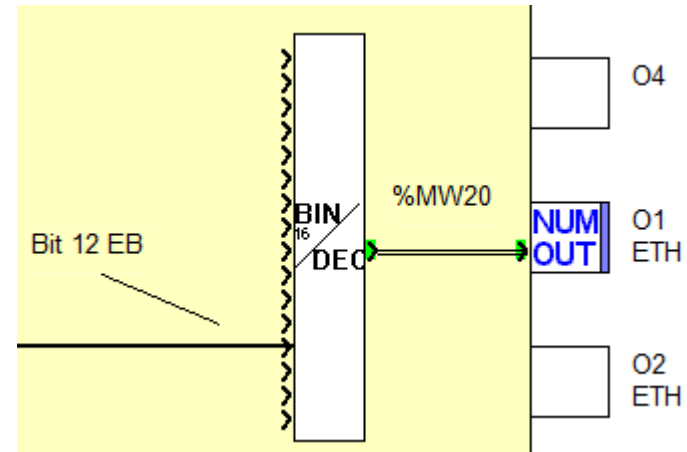
Device type : *4x\_Bit*

Address : 1200

Address format : DDDDDdd [range : 0 ~ 6553515, dd (bit no.) : 00 ~ 15]

Reading an M3 bit (Equipment 1)  
by the MTP

M3: %MW20, bit 13  $\Rightarrow$  EB: *4x\_Bit* 2012



Address

PLC name : Equipment 1

Device type : *4x\_Bit*

Address : 2012

Address format : DDDDDdd [range : 0 ~ 6553515, dd (bit no.) : 00 ~ 15]