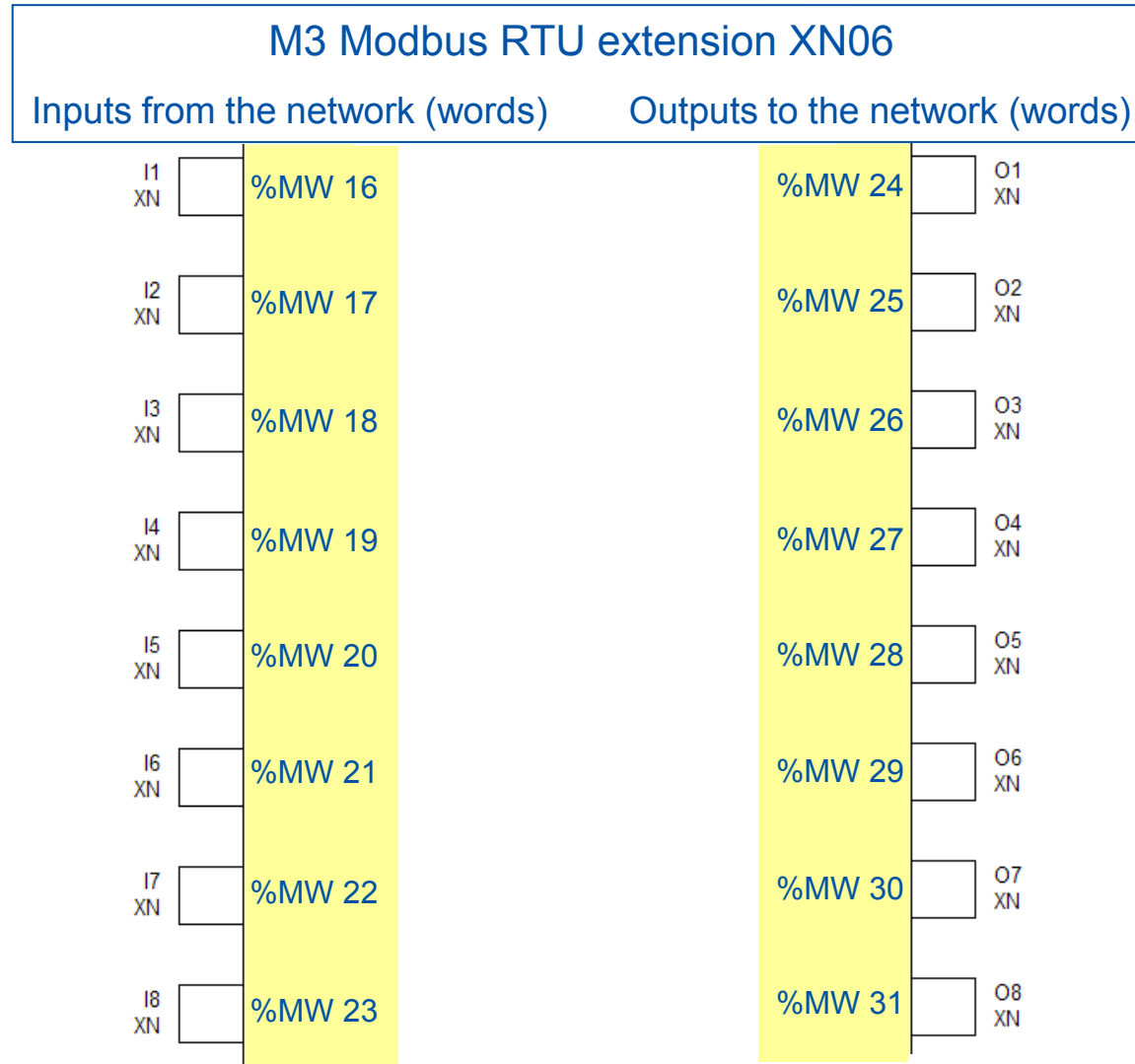


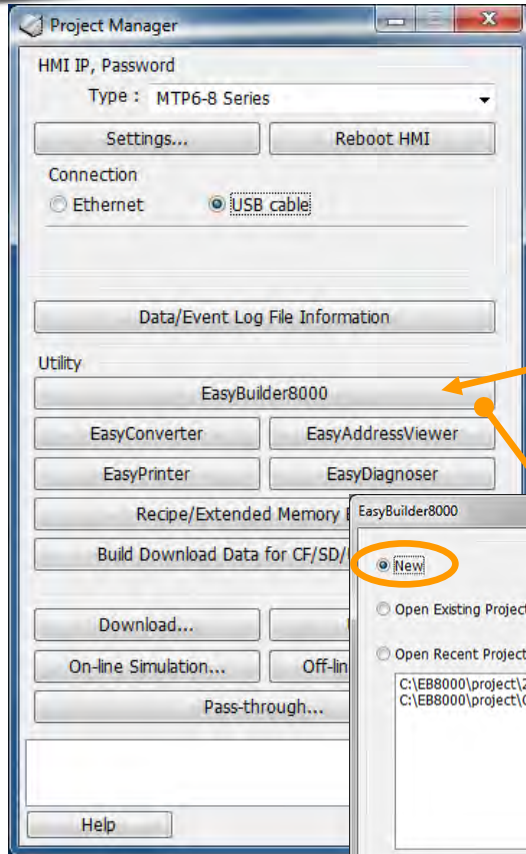
EB Modbus RTU Addressing (for XN06)

Millenium 3 and EB MTPX/XX Software



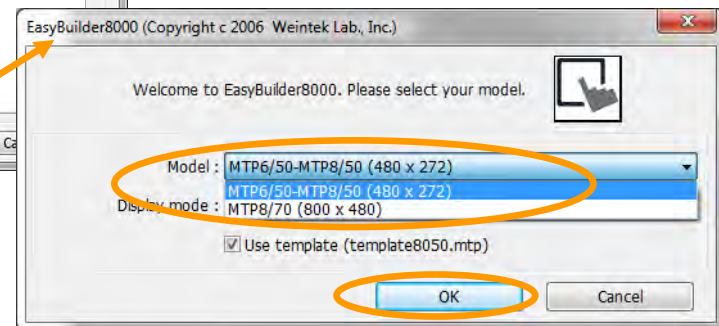
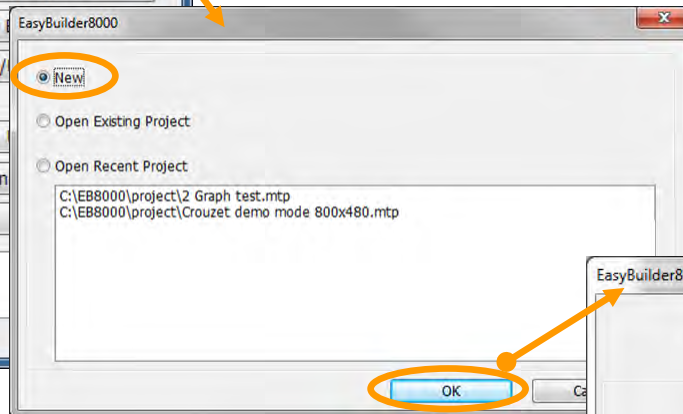


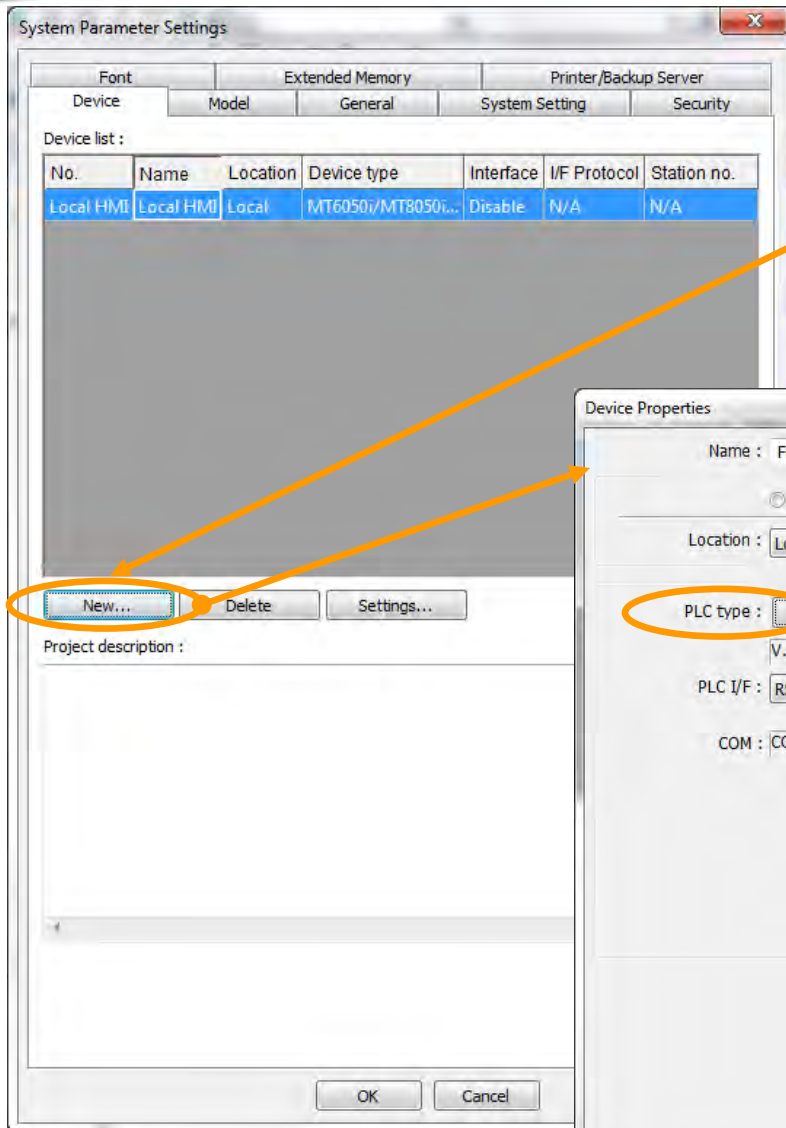
- Insert the *88 970 503 Modbus adapter cable* to the serial port of the *MTPX/50*
or
- The *88 970 504 Modbus adapter cable* to the serial port of the *MTP8/70*
- Use the *RJ45* to connect to the Modbus network



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

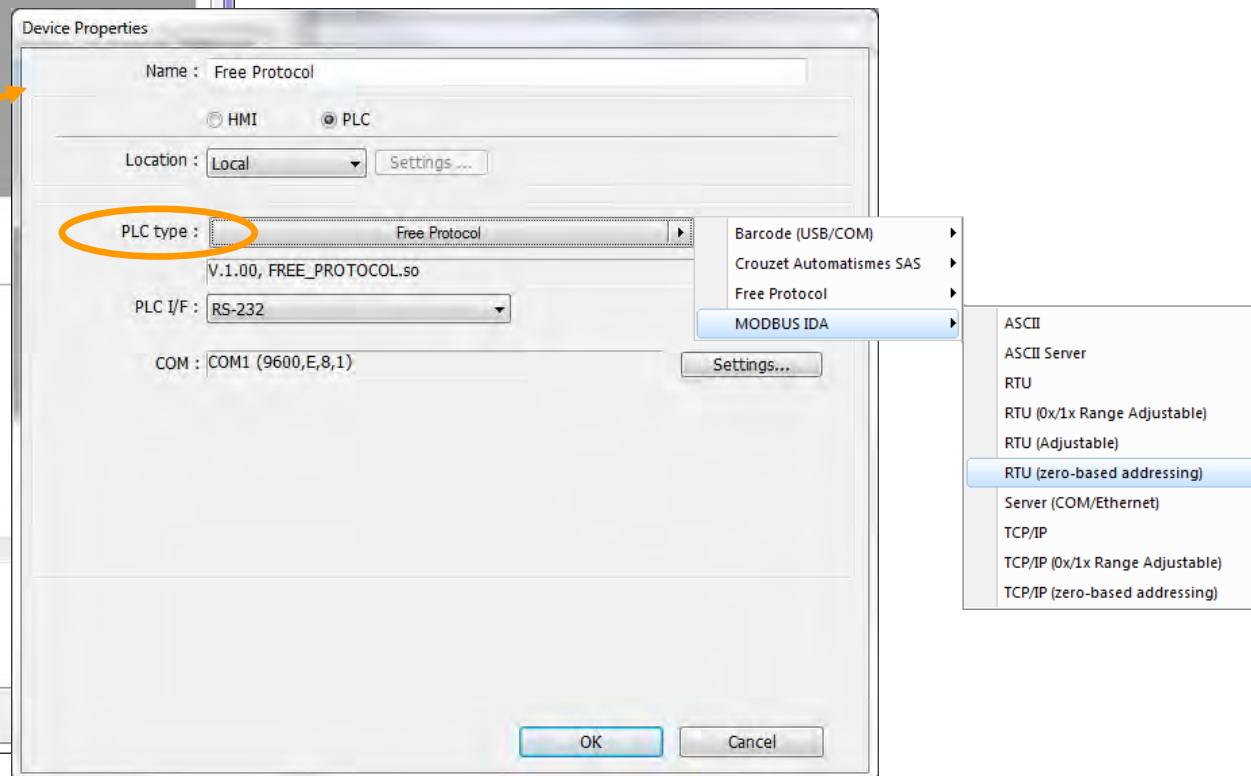
- Create a new project
- Select the MTP screen version that is to be used and click on **OK**





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

- In *PLC type* select *Modbus IDA*, then *RTU* (zero-based addressing)



Device Properties

Name : MODBUS RTU (zero-based addressing)

☐ HMI ☒ PLC

Location : Local Settings ...

PLC type : MODBUS RTU (zero-based addressing)
V.1.30, MODBUS_RTU_ZERO_BASED.so

PLC I/F : RS-485 2W

COM : COM1 (9600,E,8,1) Settings...

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

- Click *Settings* to define the communication parameters (Speed, Parity ...)
- These parameters have to be *identical* in the MTPX/XX and in each XN06 extension!

COM Port Settings

COM : COM 1

Baud rate : 9600

Data bits : 7 Bits

Parity : None

Stop bits : 1 Bit

Timeout (sec) : 3.0

Turn around delay (ms) : 0

Send ACK delay (ms) : 0

Parameter 1 : 0

Parameter 2 : 0

Parameter 3 : 0

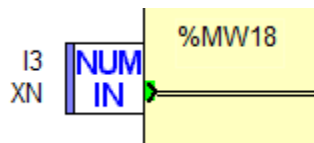
The number of resending commands : 0

OK Cancel

Example of how to address a word

Writing a setpoint from MTP to M3
(slave n° 5)

M3: %MW18



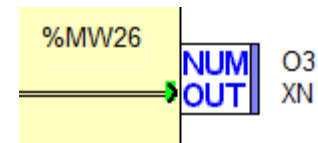
⇒ EB: *Device type* 4x

Address 5#18

Slave n°5, write address %MW18

Reading an M3 value (slave n° 5) by
the MTP

M3: %MW26



⇒ EB: *Device type* 4x

Address 5#26

Slave n°5, read address %MW26

Address

PLC name : MODBUS RTU (zero-based addressing)

Device type : 4x

Address : 5#18

Address format : DDDDD [range : 0 ~ 65535]

Address

PLC name : MODBUS RTU (zero-based addressing)

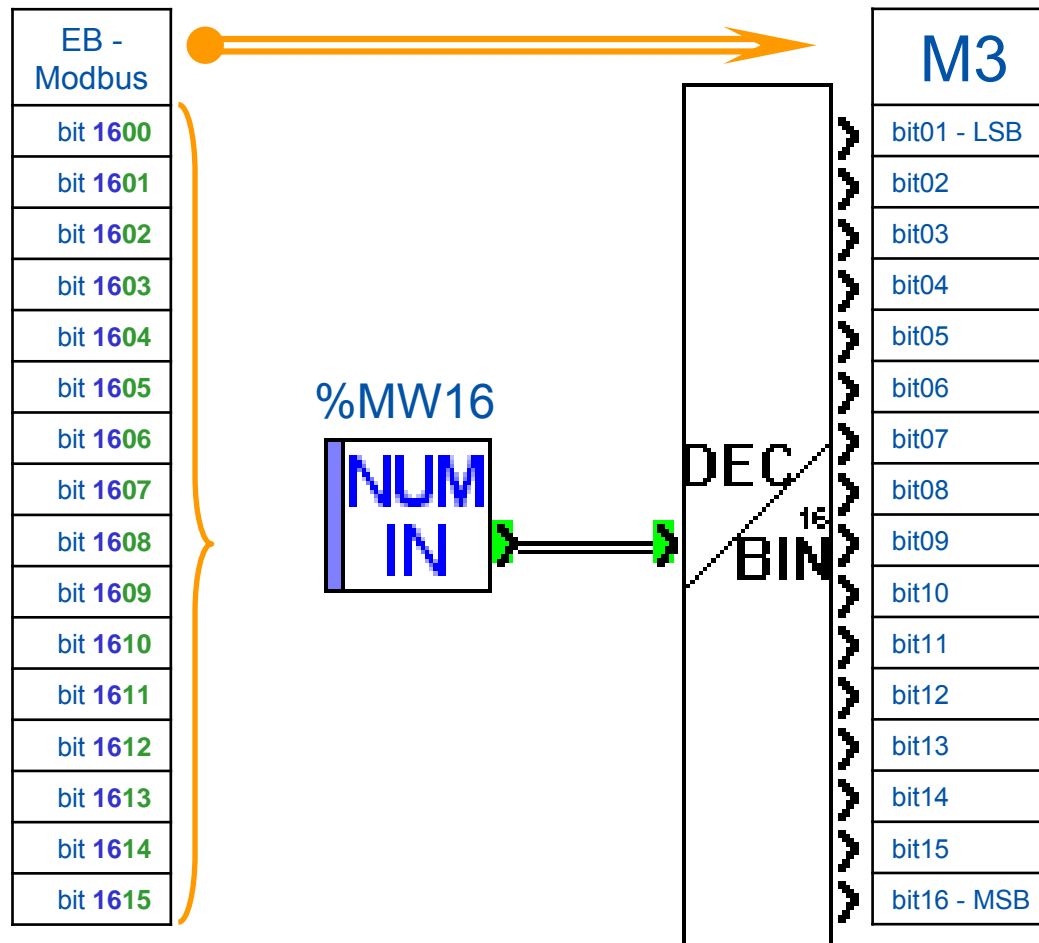
Device type : 4x

Address : 5#26

Address format : DDDDD [range : 0 ~ 65535]

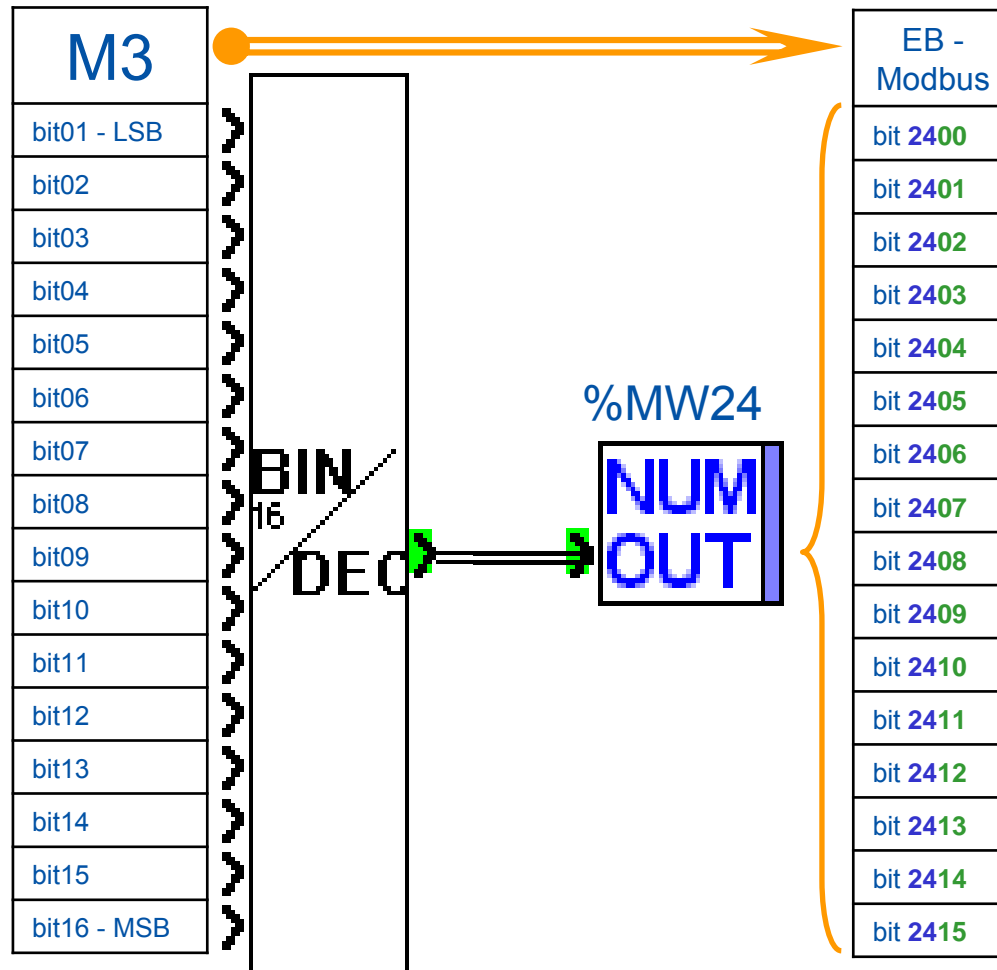
EB software: writing/reading an M3 bit via Modbus RTU

Modbus to M3



EB software: reading a bit from M3 via Modbus RTU

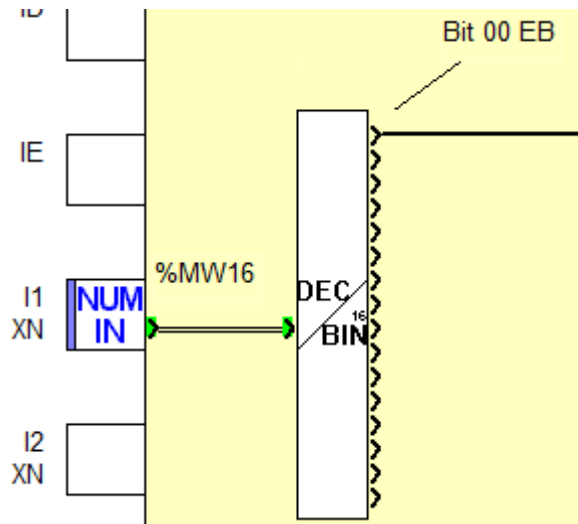
M3 to Modbus



Example of how to address a bit

Writing a bit from the MTP to M3
(slave n°5)

M3: %MW16, bit 01 \Rightarrow EB: 4x_Bit 5#1600



Address

PLC name : MODBUS RTU (zero-based addressing)

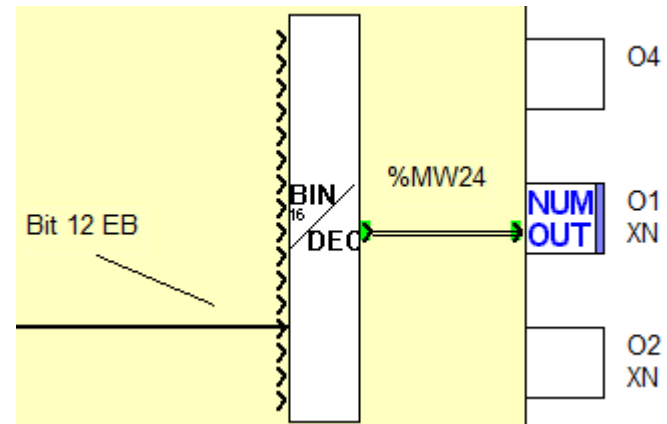
Device type : 4x_Bit

Address : 5#1600

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

Reading an M3 bit (slave n°5) by
the MTP

M3: %MW24, bit 13 \Rightarrow EB: 4x_Bit 5#2412



Address

PLC name : MODBUS RTU (zero-based addressing)

Device type : 4x_Bit

Address : 5#2412

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