

M221 PLC Modbus TCP

What is the purpose

Deploy the variable inside PLC to Ethernet network system

What units are effected

1. PLC M221
2. Third Party PLC support Modbus TCP/OPC server
3. So Machine Basic

Details

This application is divided into several parts

Section	Title
1	Parts List
2	Step by step setup
3	Online Testing
4	Remarks

Section 1: Parts list

Parts List table

Items used in the test

Items	Part numbers	Description
PLC	TM221ME16T	PLC Hardware
Software	• V1.4	Software SoMachine Basic V 1.4

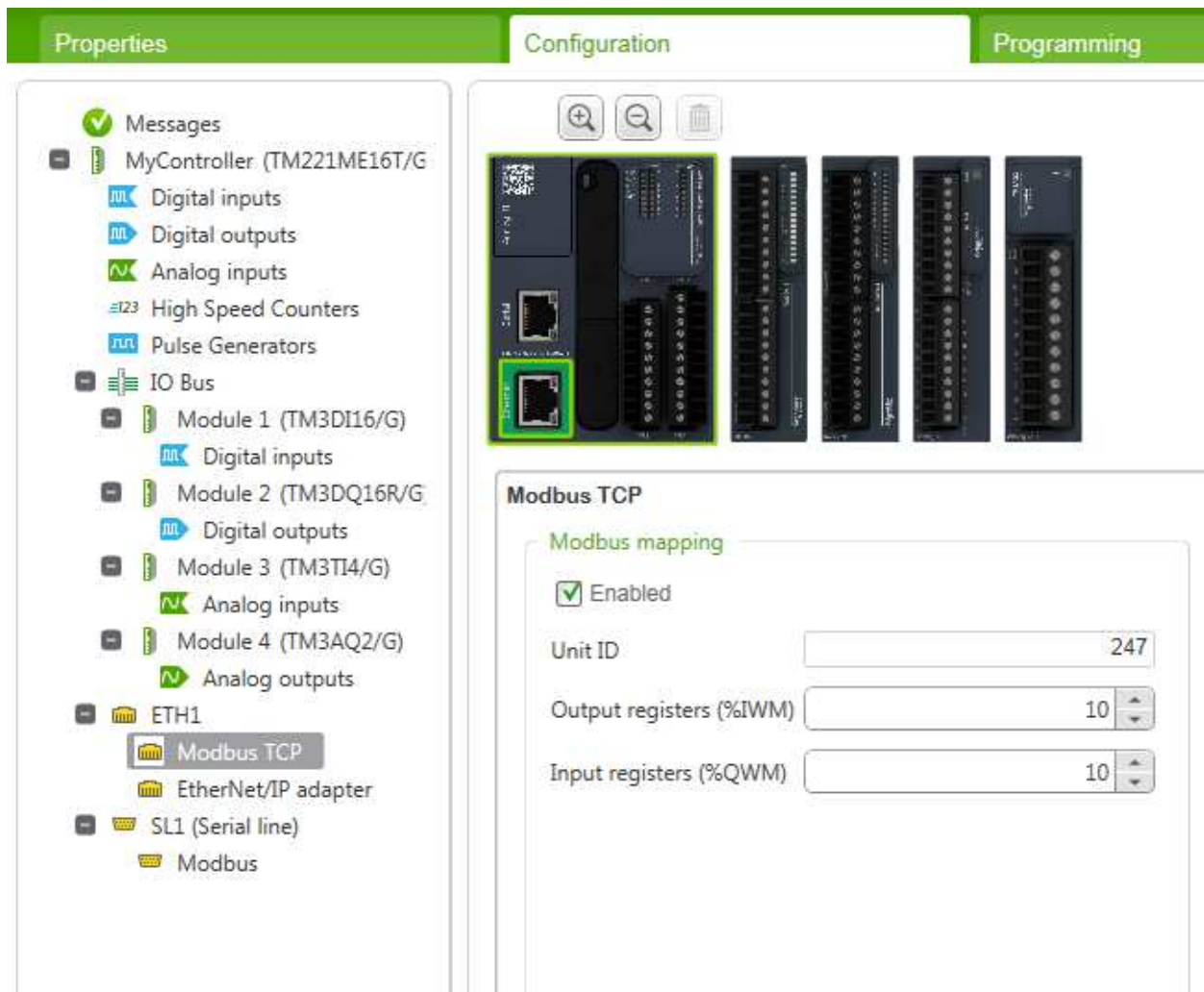
Continued on next page

Section 1: Parts liststep by step

Step by step configuration software on SoMachine Basic :

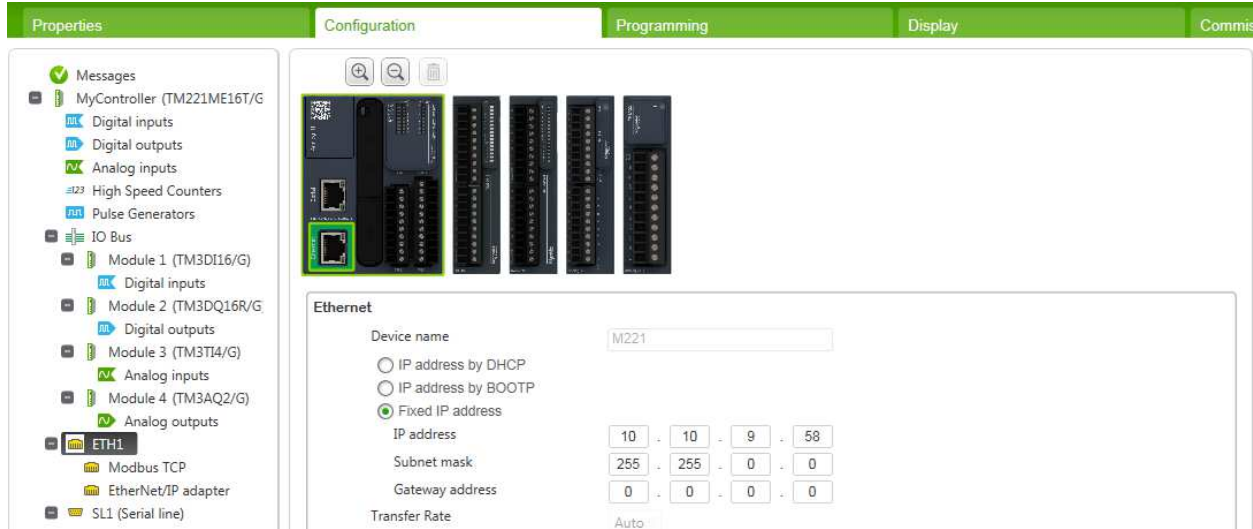
Hardware Configuration:

1. Enable the Modbus TCP mapping, to enhance the communication capability of Ethernet Port



The screenshot displays the Schneider Electric SoMachine Basic configuration software. The 'Configuration' tab is selected, showing a hardware rack and a configuration tree on the left. The tree lists various modules, including 'Modbus TCP' under the 'ETH1' section, which is highlighted. The 'Modbus TCP' configuration panel on the right shows the 'Modbus mapping' option is checked and enabled. The 'Unit ID' is set to 247, 'Output registers (%IWM)' is set to 10, and 'Input registers (%QWM)' is set to 10.

2. Setting the IP address of ethernet port



Section 3: Online Testing

Online testing :

1. Download the program to PLC
 2. If the connection success the PLC and OPC can transfer data (Read/write)
 3. Test your program
-

Section 5: Remark

This procedure is used as reference how to setting the Ethernet port to be linked with third part client/server devices

More complex setting configuration of M221 PLC shows the performance of smart PLC and give extra benefits to others third party devices without any additional converter.

The Ethernet port also support Ethernet IP protocol which can connect to ODVA third party devices directly
