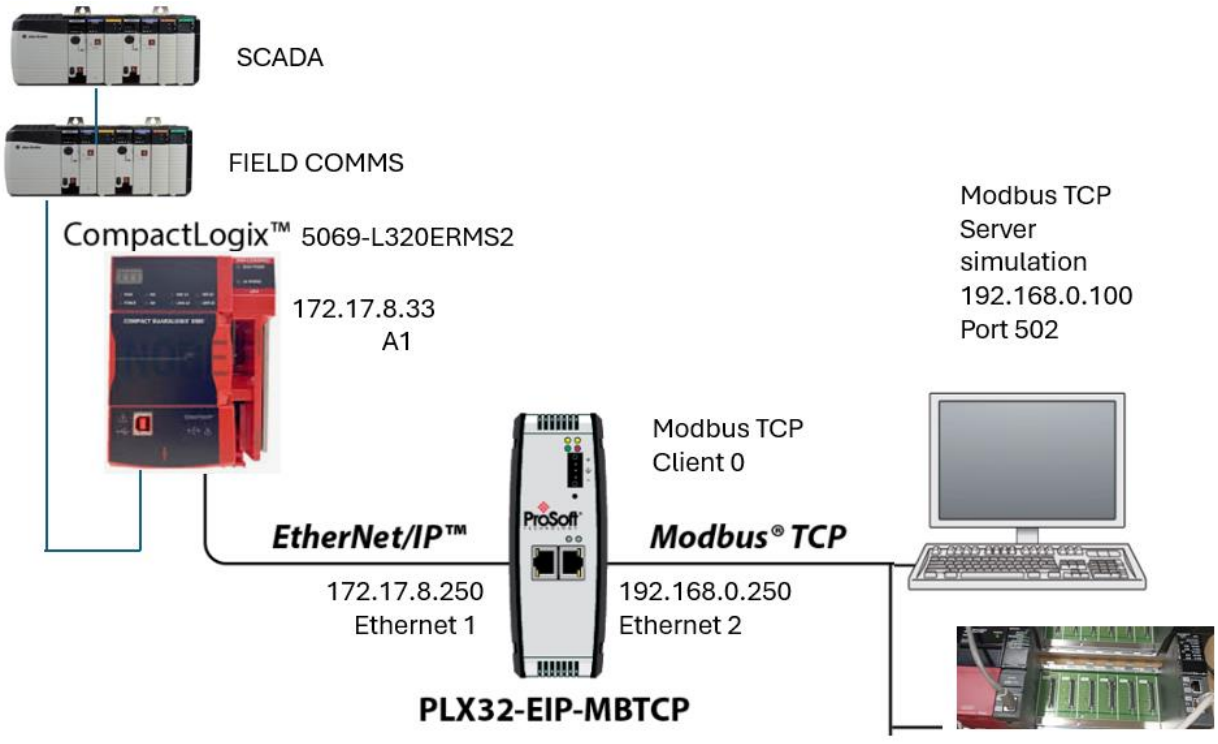
Configuring Prosoft ETHIP to MODBUS PLX32-EIP-MBTCP

Contents

Test Layout



Configuring the module

Follow the instructions on the video to configure the Prosoft module

Start Prosoft Configuration Builder.

https://www.youtube.com/watch?v=H__rMW2oBYQ

Configuring IP addresses on all setup

Use different subnets for Port 1 and 2

Laptop is the Modbus server on address 192.168.0.100

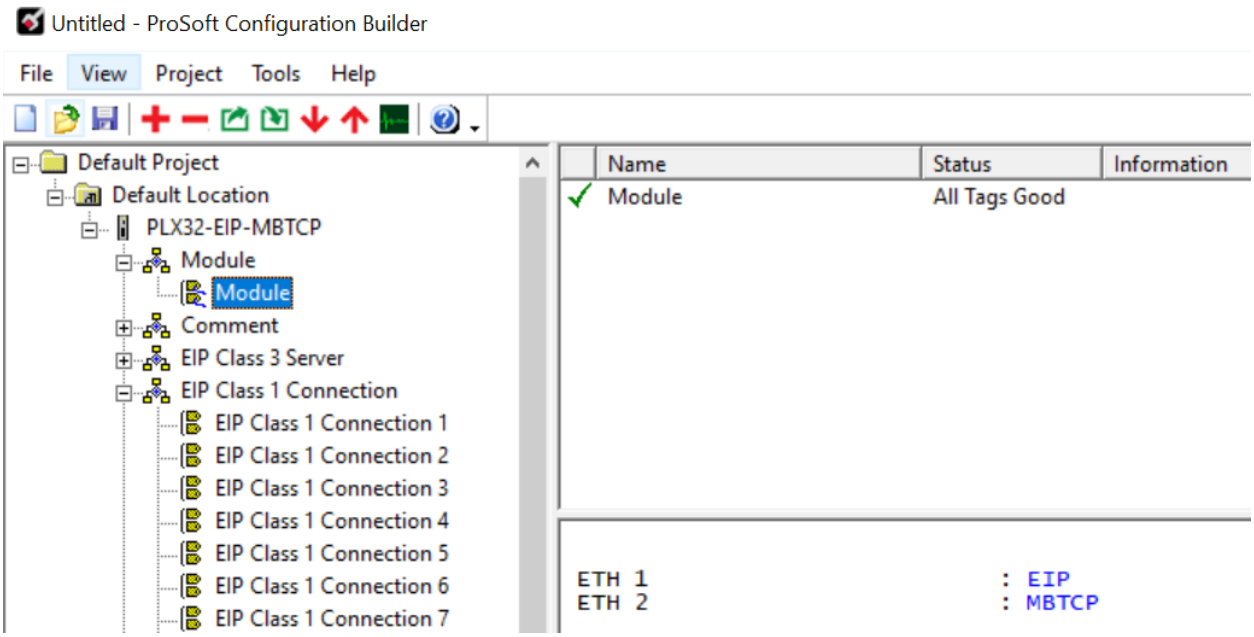
PC identifier: CATPROLP1003-23

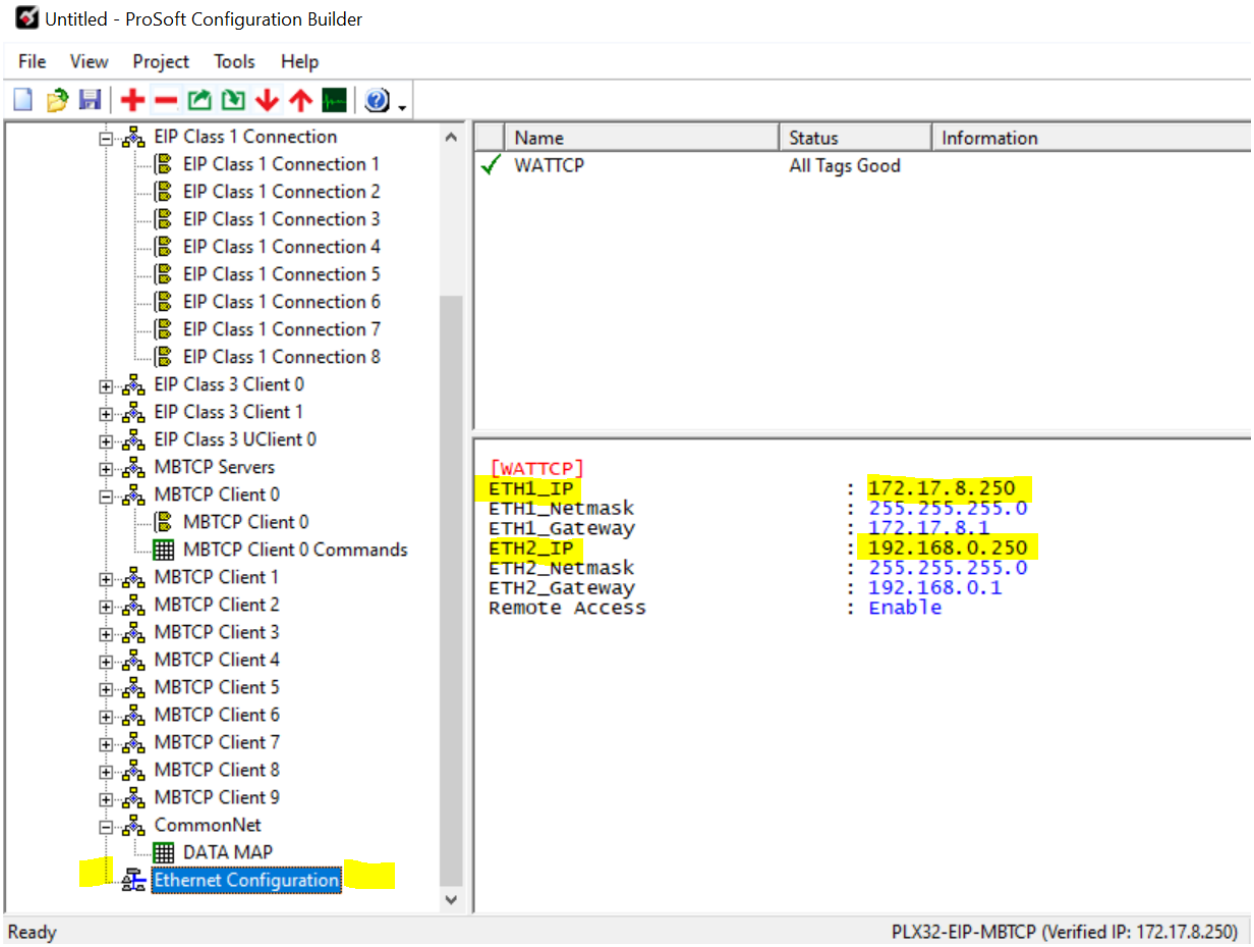
Ethernet Port 1 is 192.168.0.250

Ethernet Port 2 is 172.17.8.250

PLC address is 172.17.8.33

Run Prosoft Configuration Builder to set up the Prosoft IP address



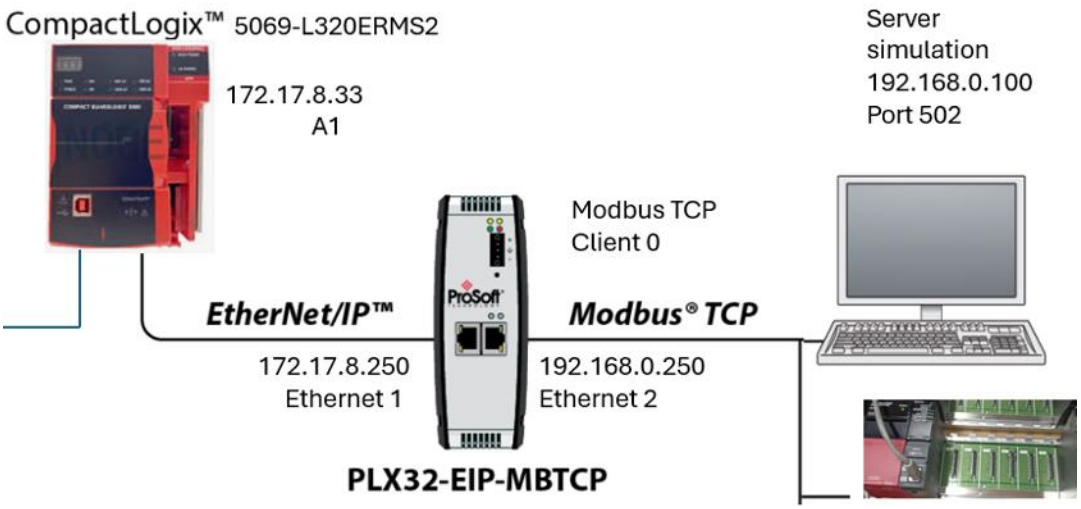


Download configuration to Prosoft device using Eth1

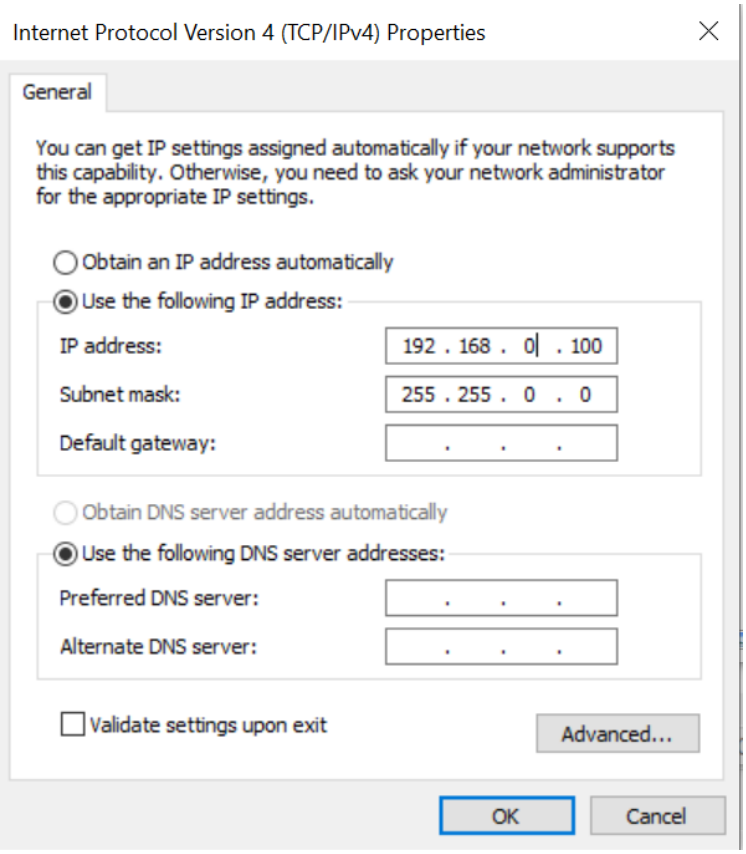
Then unplug patchcord between PC and Prosoft and plug Patchcord between PLC and Prosoft

So swap patchcords

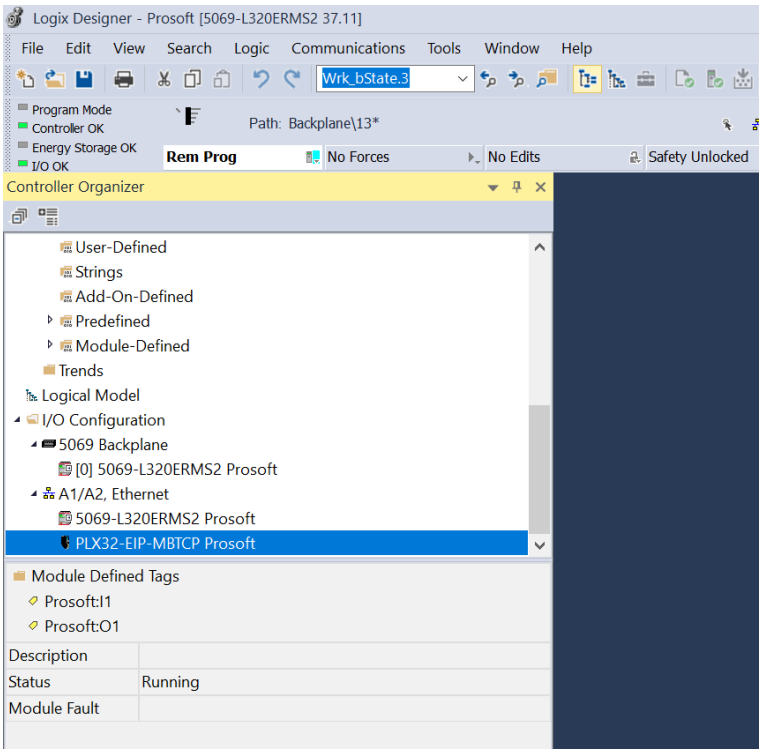
Using layout configuration

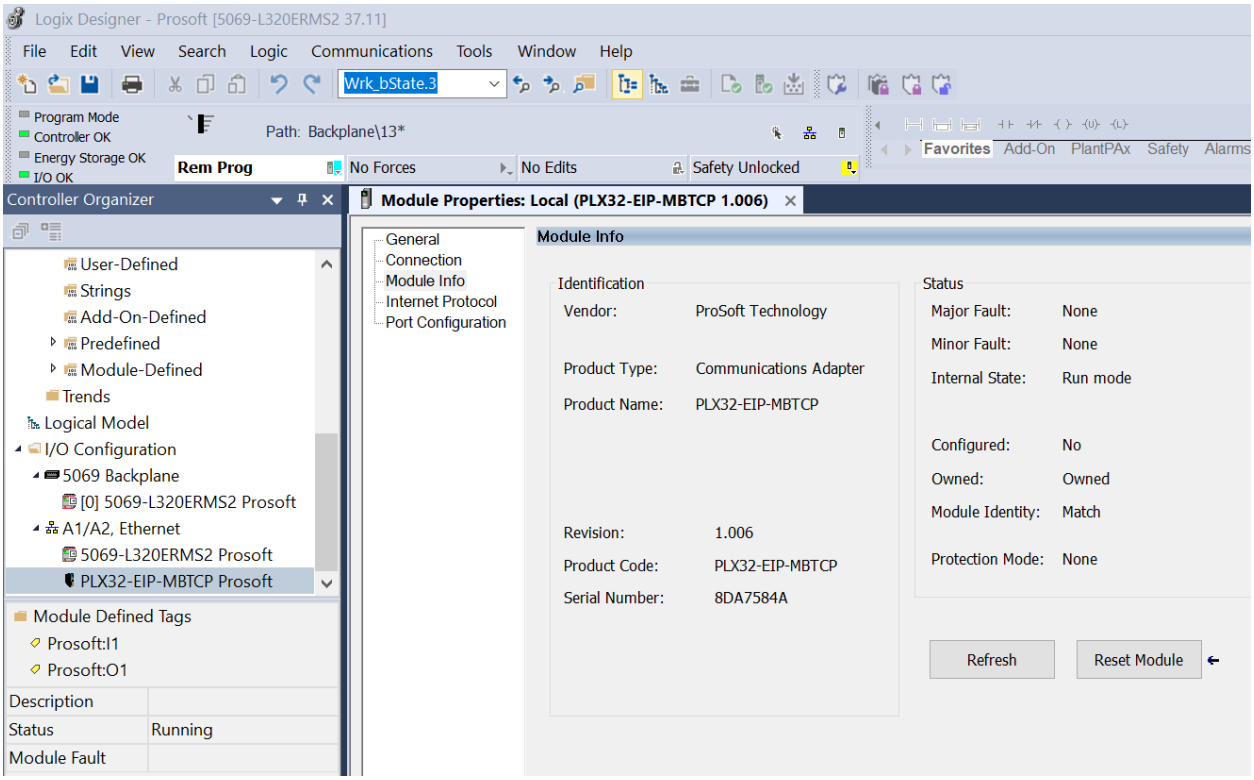


Change IP settings on computer



Now the Prosoft module does not gives timeout error


Logix Designer - Prosoft [5069-L320ERMS2 37.11]
File Edit View Search Logic Communications Tools Window Help
Wrk_bState.3
Program Mode
Controller OK
Energy Storage OK
I/O OK
Path: Backplane\13*
Rem Prog
No Forces
No Edits
Safety Unlocked
Controller Organizer
User-Defined
Strings
Add-On-Defined
Predefined
Module-Defined
Trends
Logical Model
I/O Configuration
5069 Backplane
[0] 5069-L320ERMS2 Prosoft
A1/A2, Ethernet
5069-L320ERMS2 Prosoft
PLX32-EIP-MBTCP Prosoft
Module Defined Tags
Prosoft:I1
Prosoft:O1
Description
Status
Running
Module Fault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I/O OK
Path: Backplane\13*
Rem Prog
No Forces
No Edits
Safety Unlocked
Favorites
Add-On
PlantPAx
Safety
Alarms
Controller Organizer
Module Properties: Local (PLX32-EIP-MBTCP 1.006)
General
Connection
Module Info
Internet Protocol
Port Configuration
Module Info
Identification
Vendor: ProSoft Technology
Product Type: Communications Adapter
Product Name: PLX32-EIP-MBTCP
Revision: 1.006
Product Code: PLX32-EIP-MBTCP
Serial Number: 8DA7584A
Status
Major Fault: None
Minor Fault: None
Internal State: Run mode
Configured: No
Owned: Owned
Module Identity: Match
Protection Mode: None
Refresh
Reset Module
User-Defined
Strings
Add-On-Defined
Predefined
Module-Defined
Trends
Logical Model
I/O Configuration
5069 Backplane
[0] 5069-L320ERMS2 Prosoft
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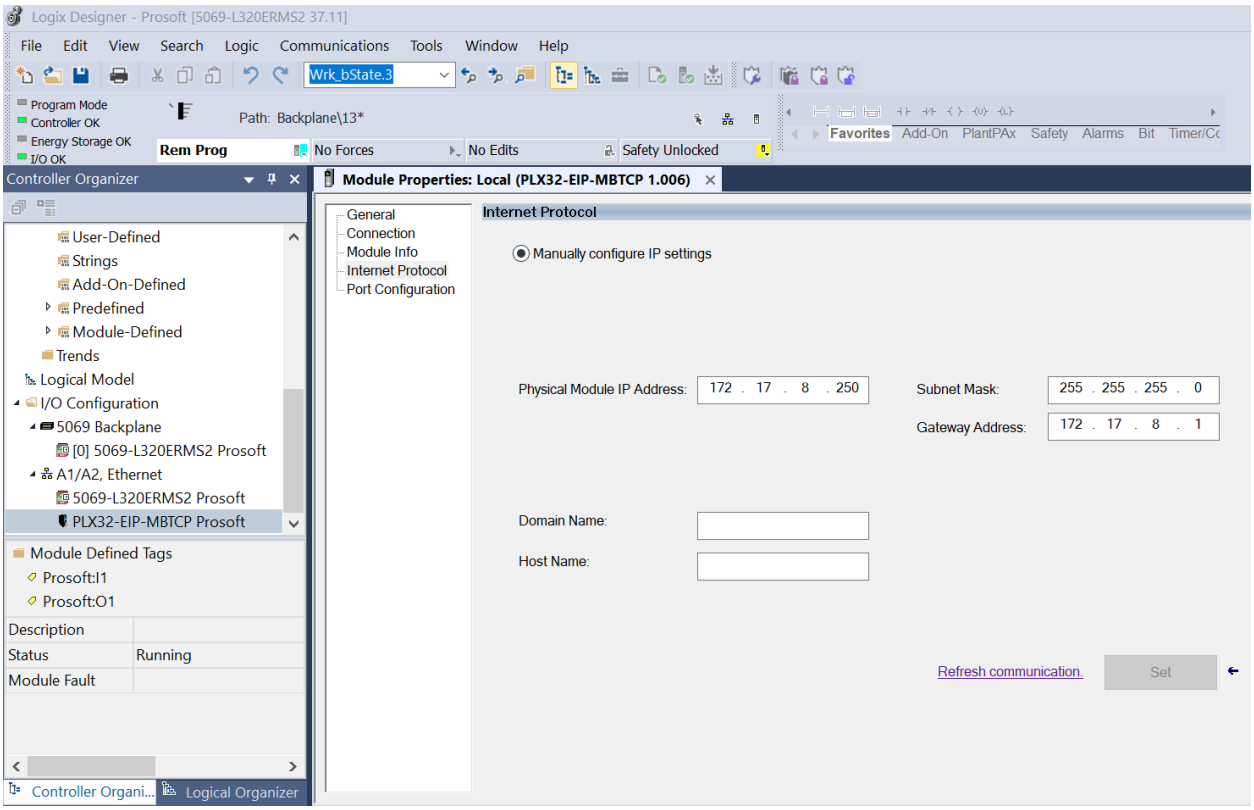
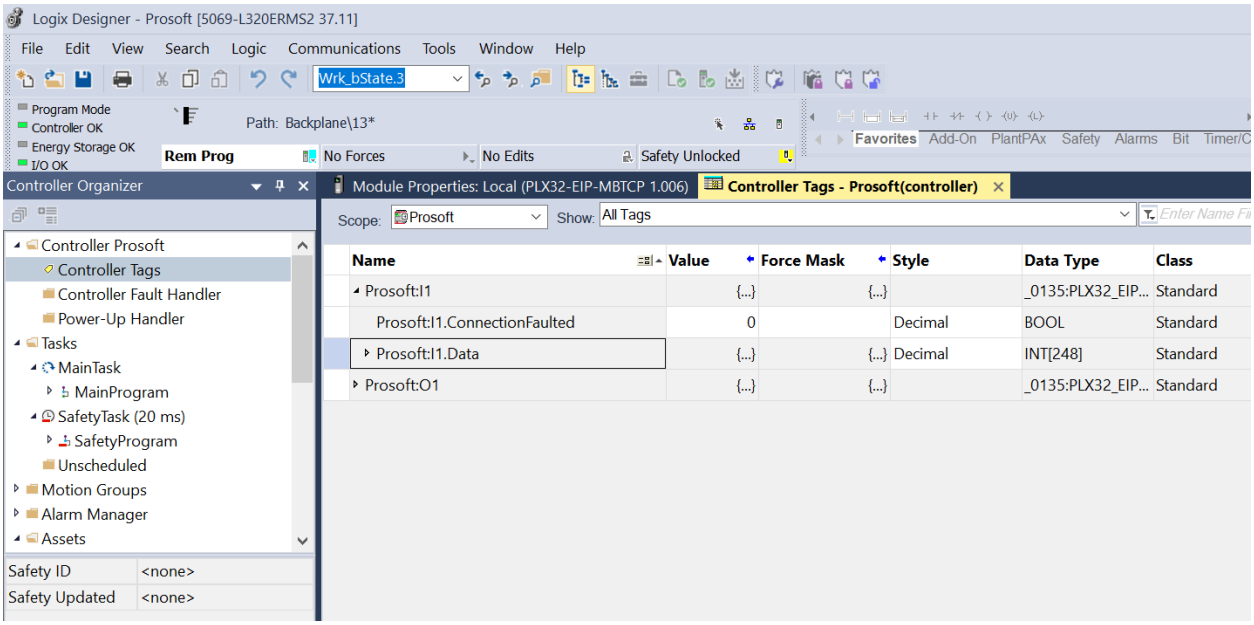
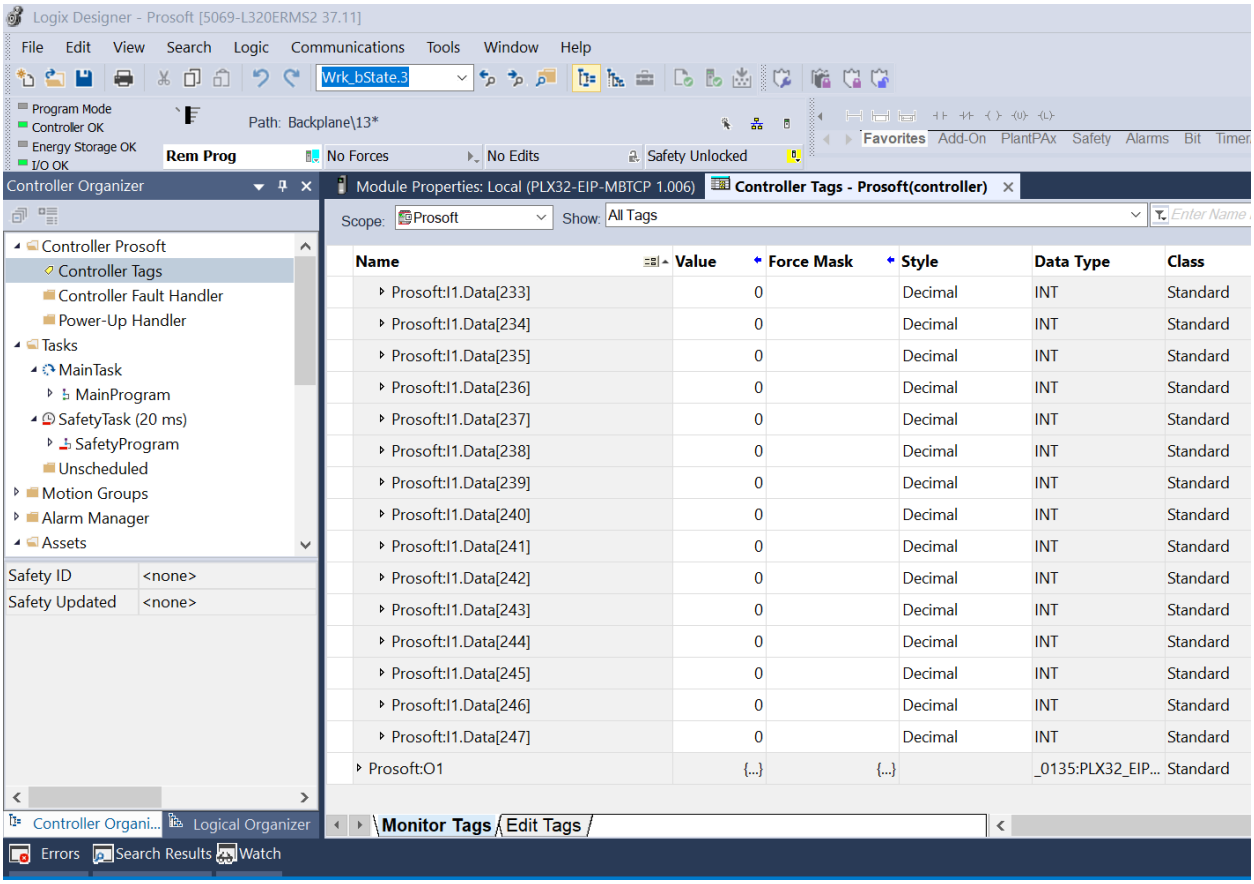


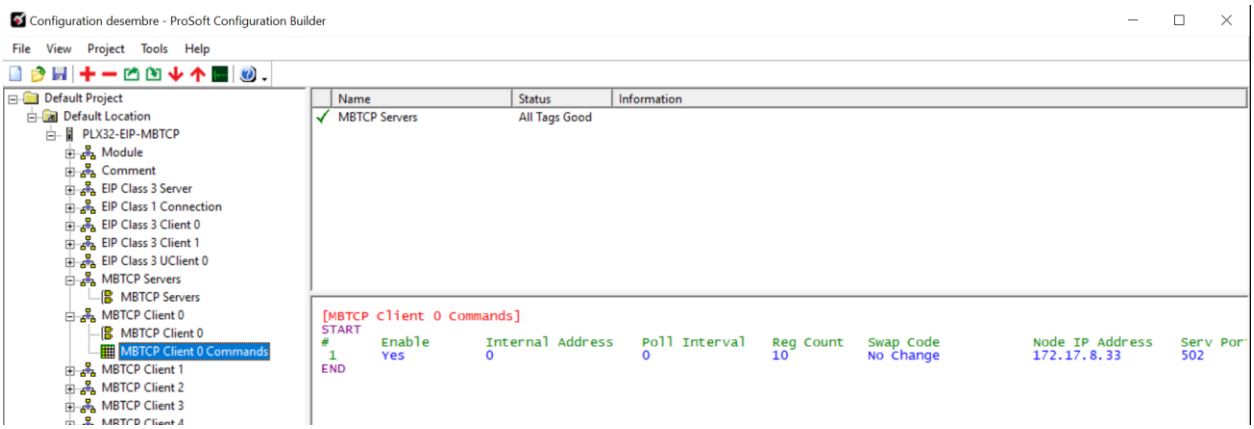
We have the PLC Tags on Controller Tags corresponding to Prosoft Module, if we use class 1.

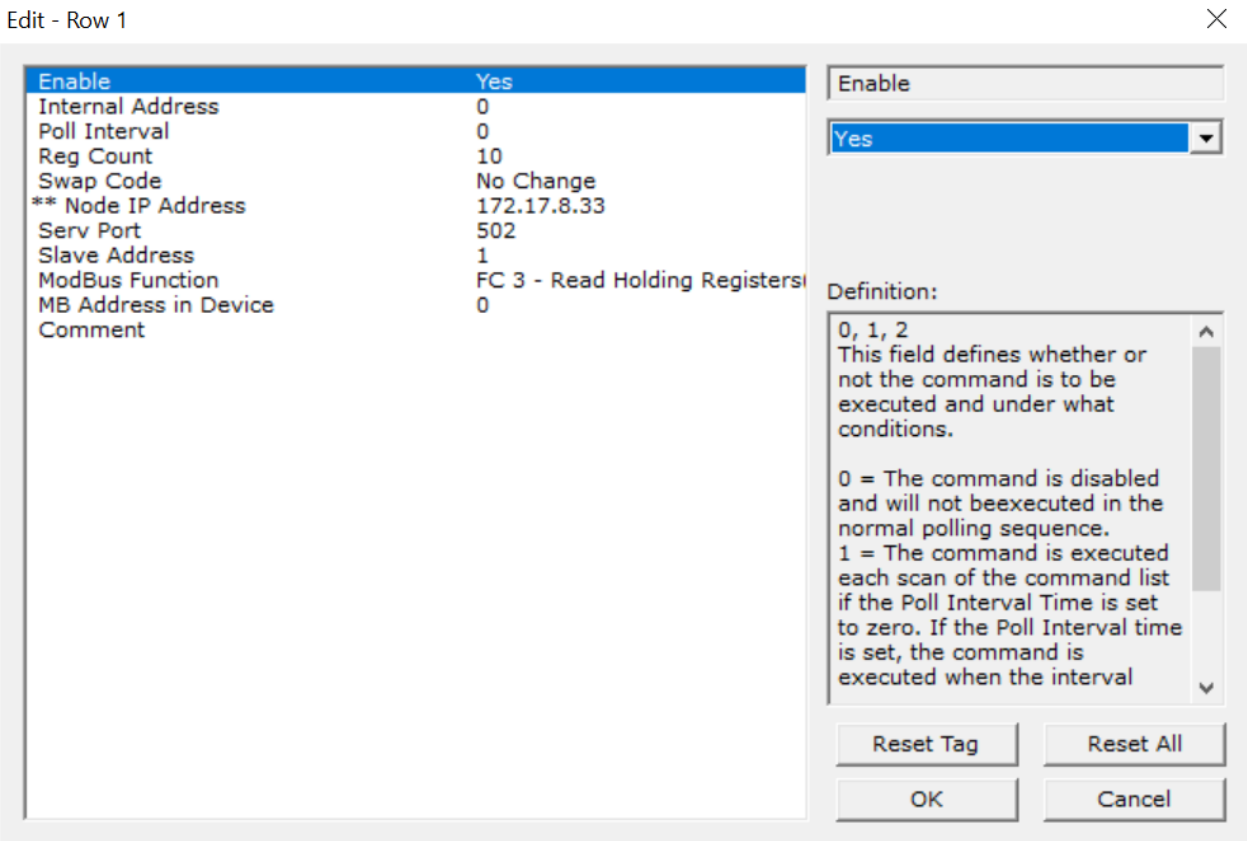




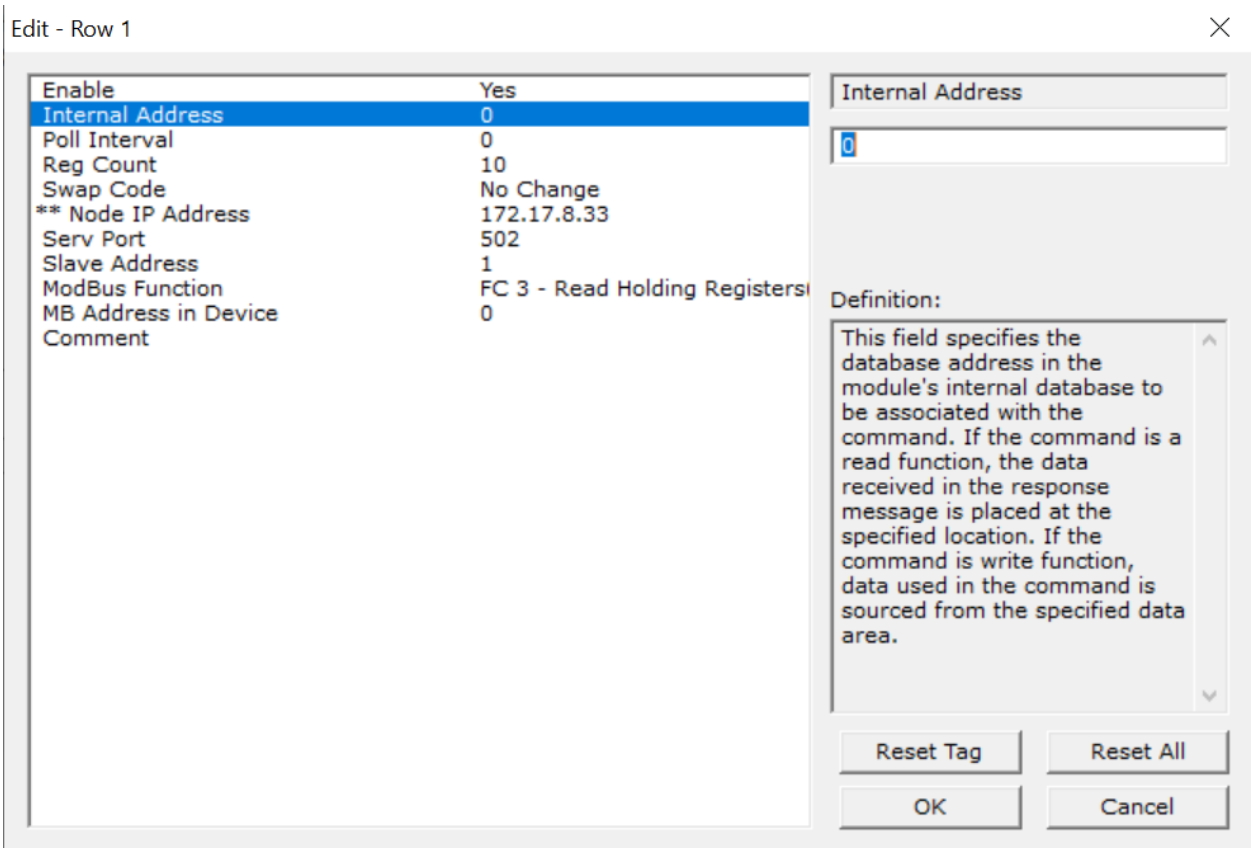
Configure Modbus Transaction

Configuring Prosoft Client 0

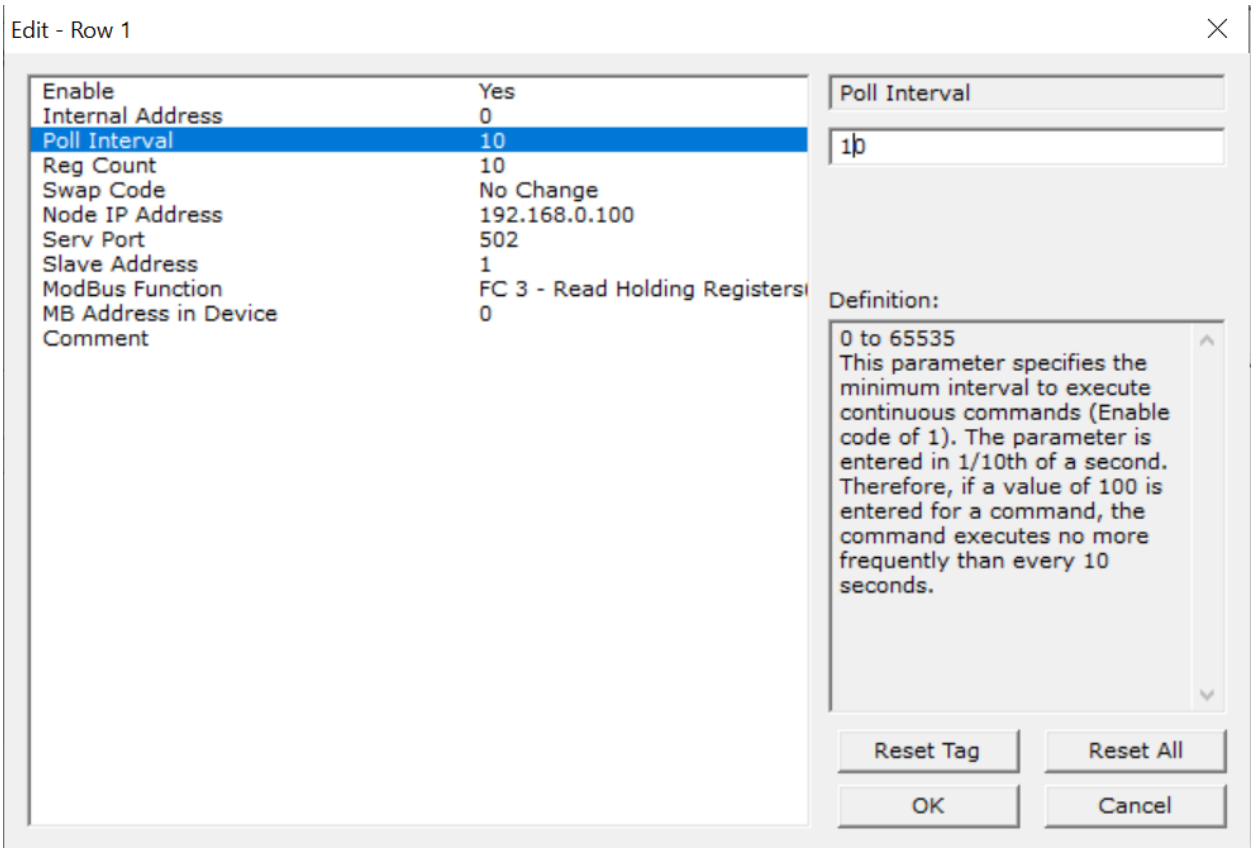




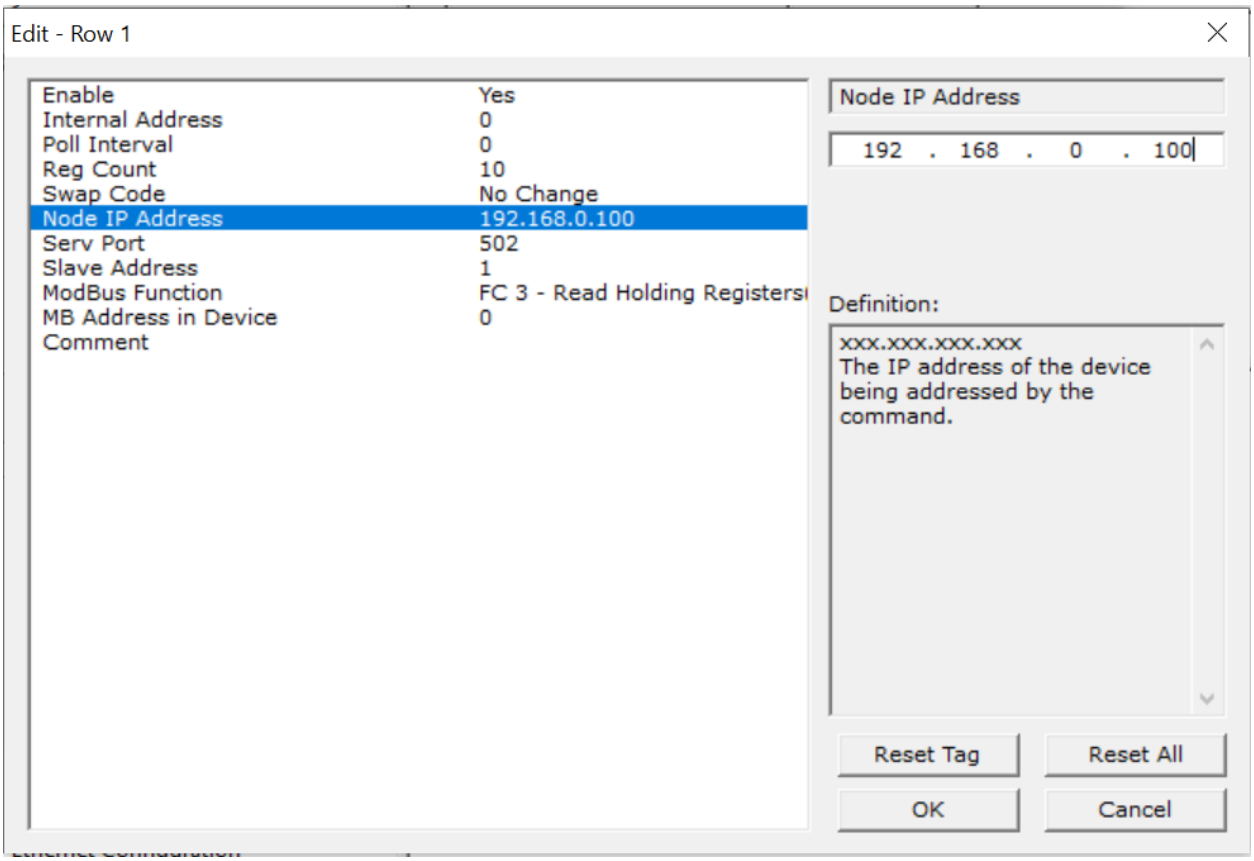
We will use the internal address (Prosoft) 0 to store he data coming from the server (PC)



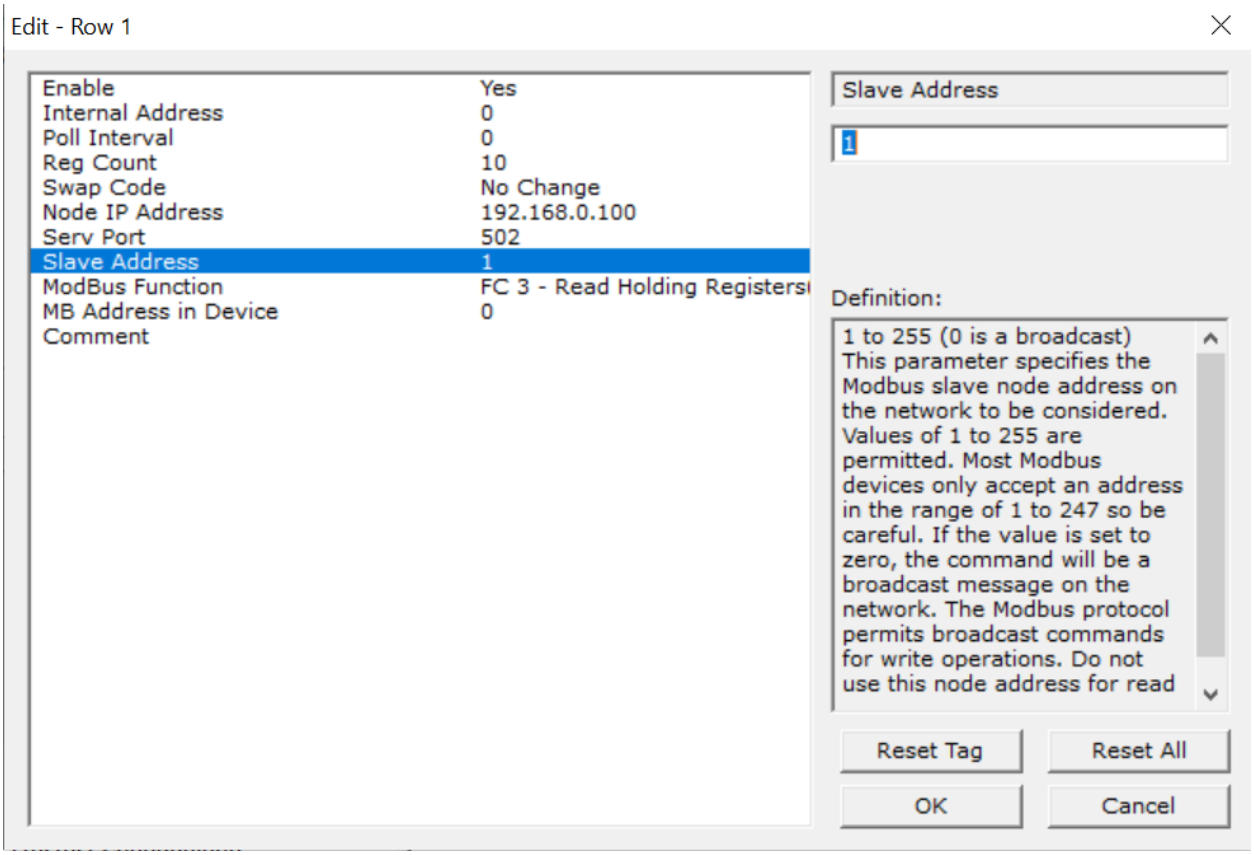
Poll interval 10 (The Modbus Transaction will be made each second)



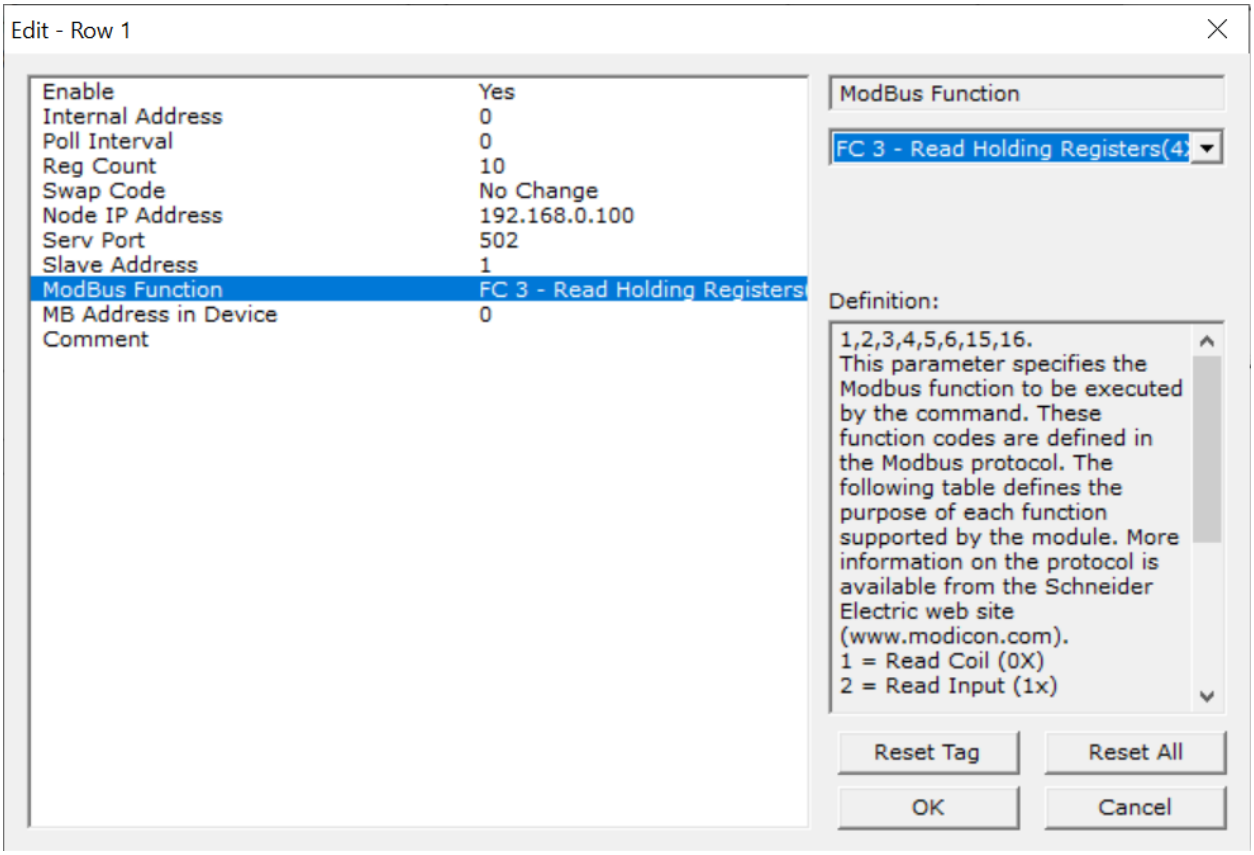
Server (PC) address



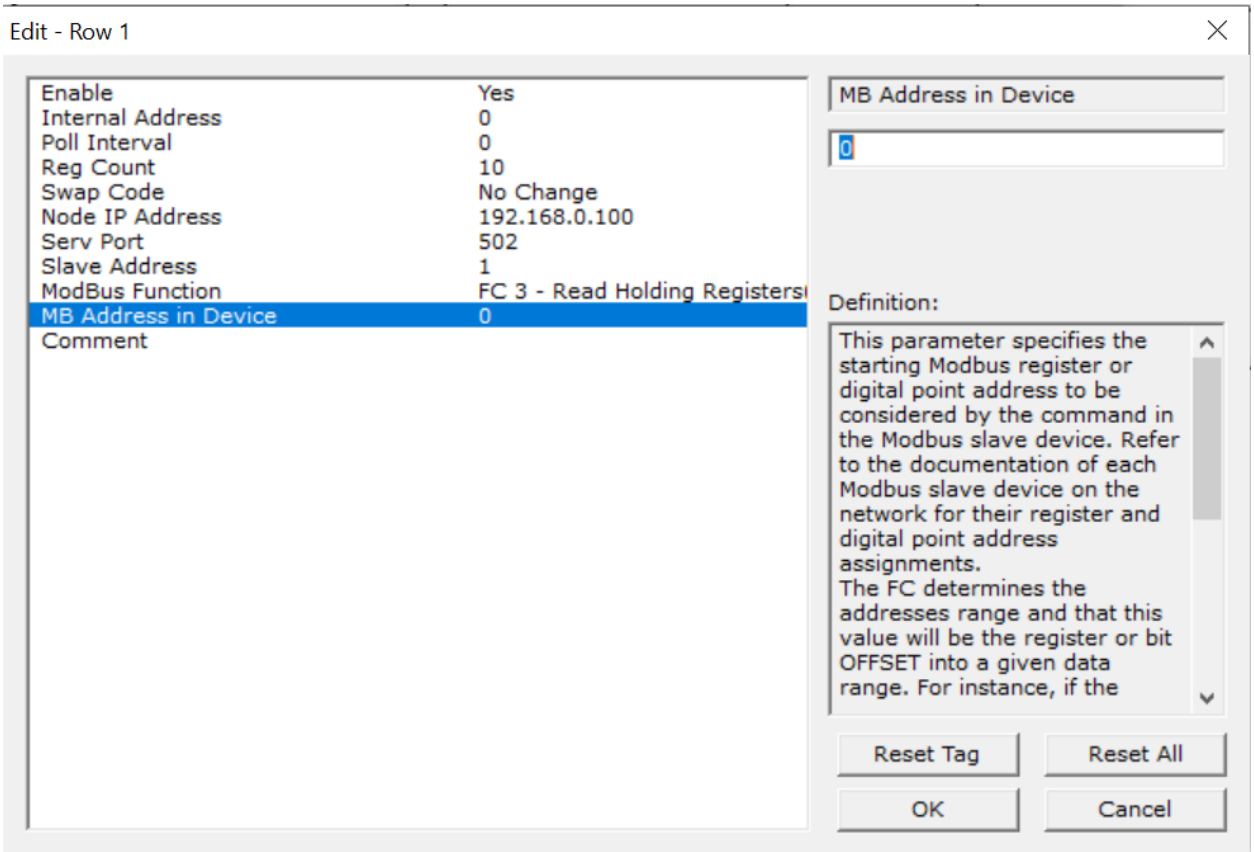
Slave address (PC) as 1



We are going to read from Server (PC)

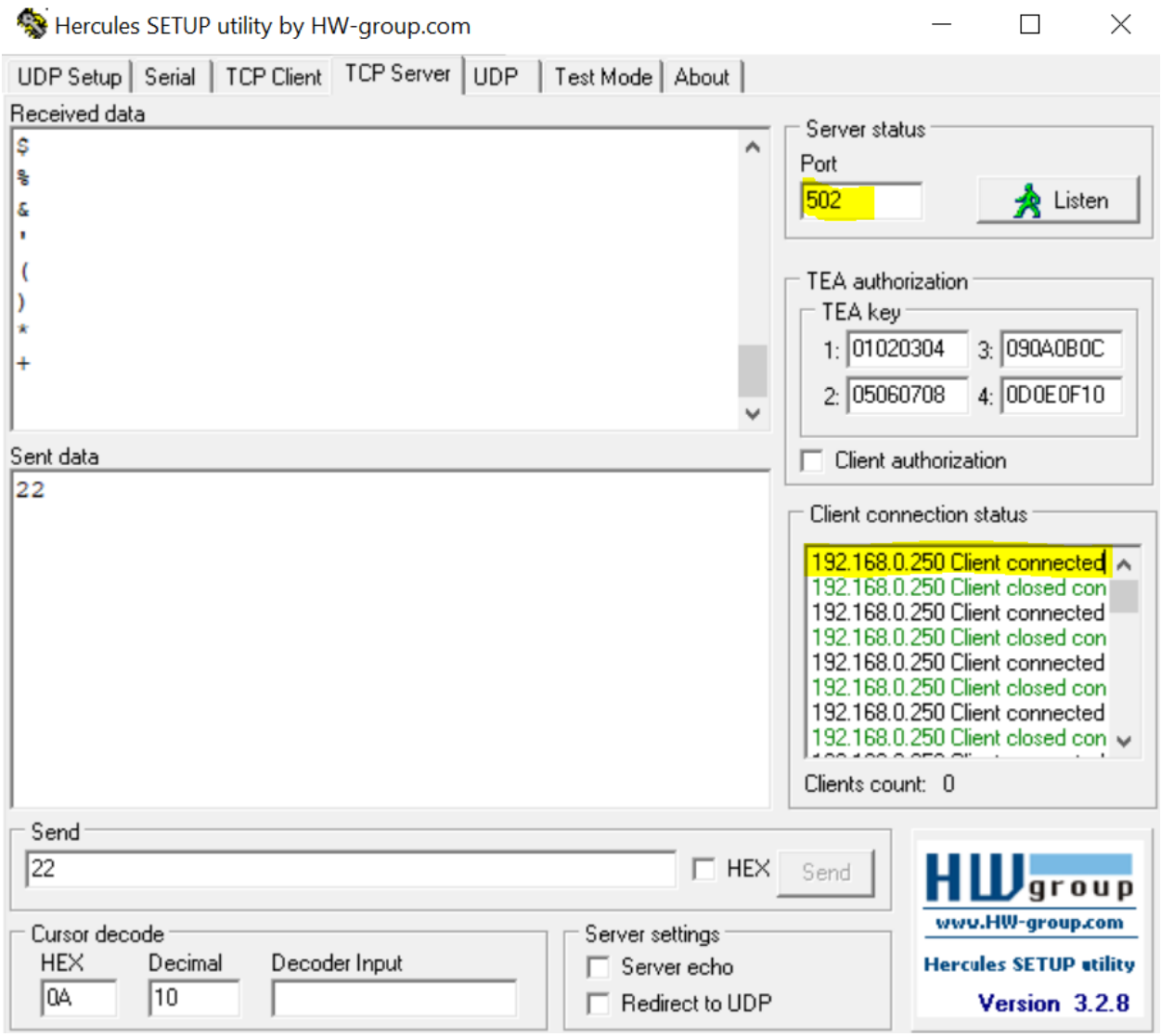


Starting memory address on Server device (PC) as 0

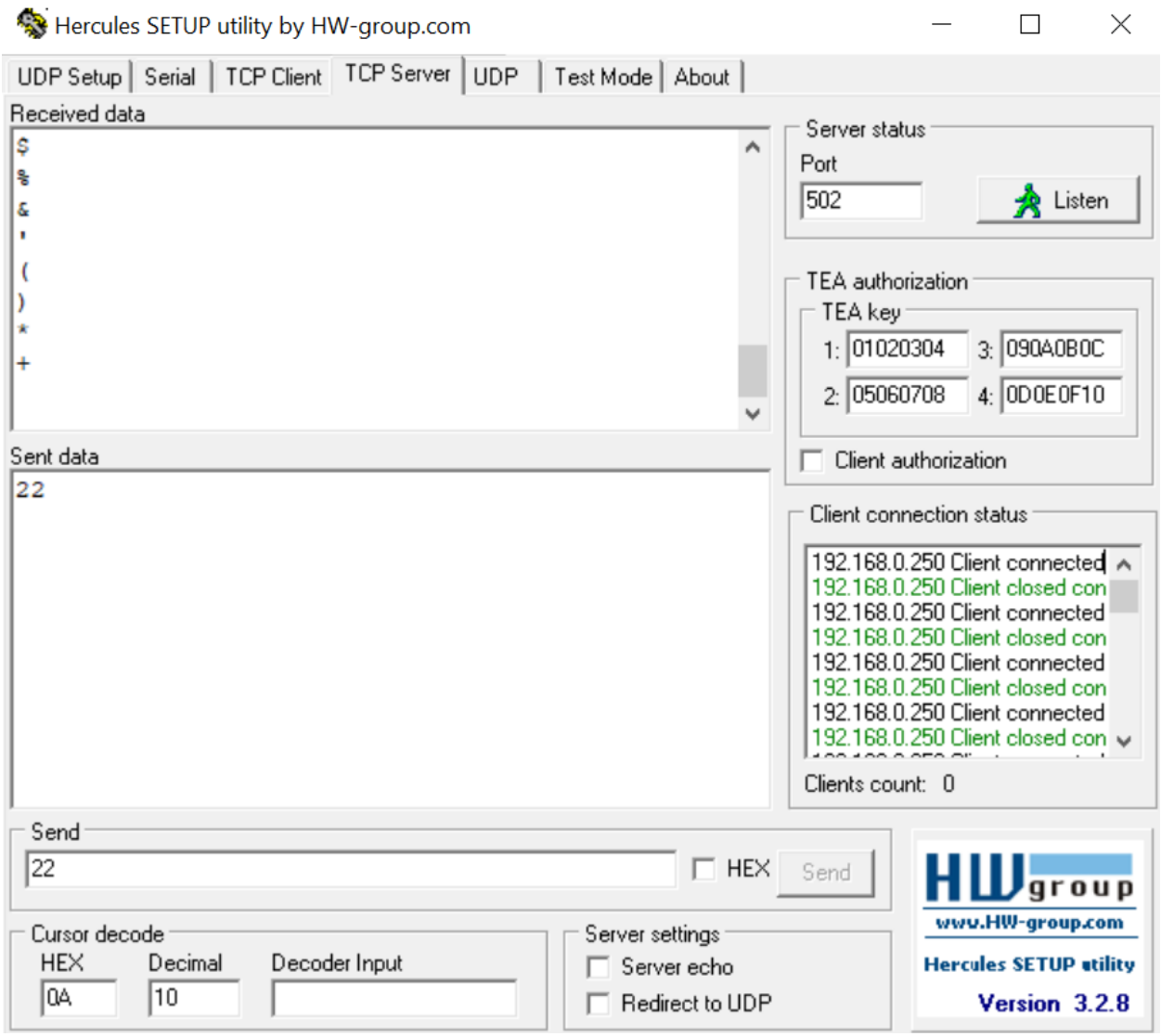


Testing the connection

We see that each second the client (Prosoft) is connected to the server (PC) on port 502

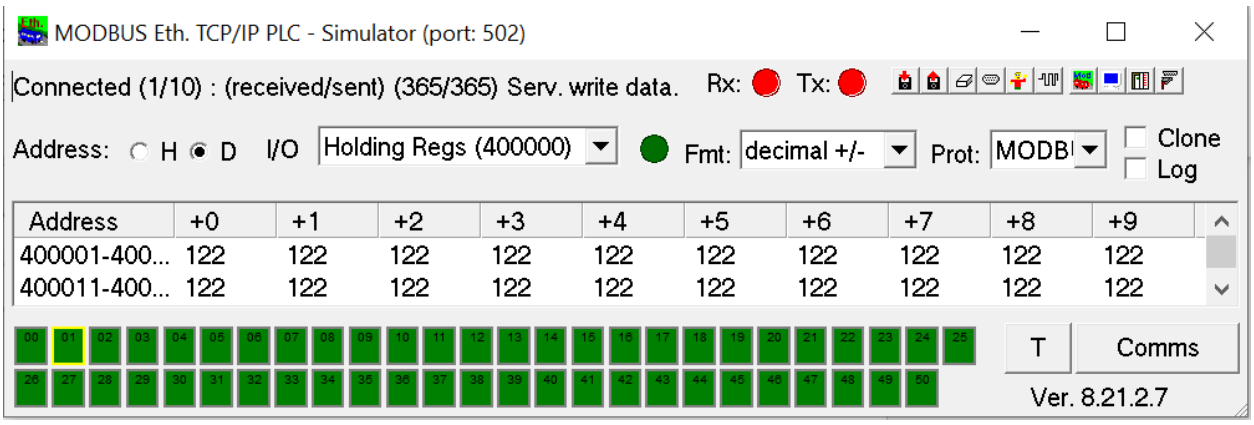


But still we are getting errors on Prosoft Module (Error LED blinking)

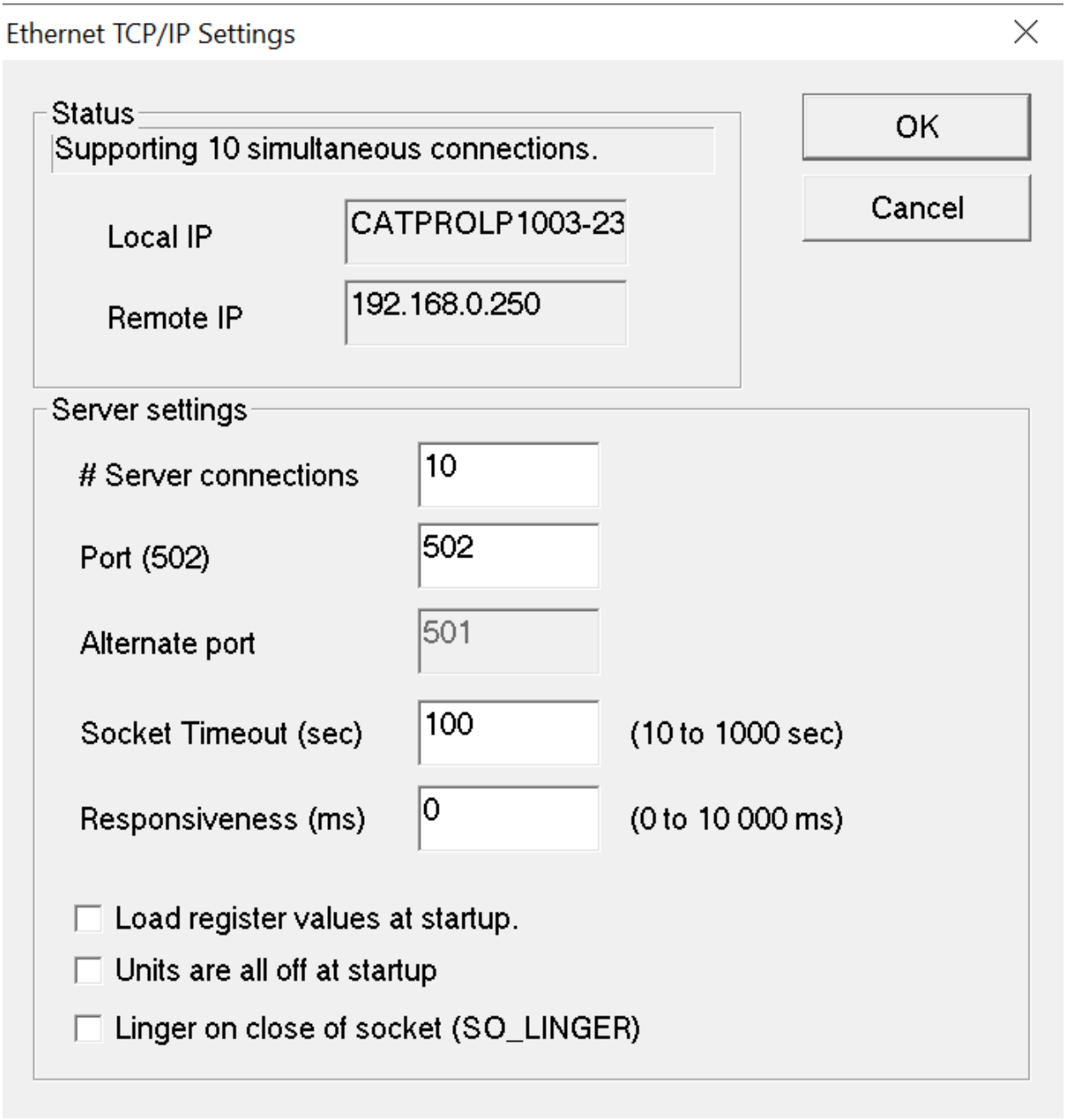


But we need another software to be able to use a Server memory map

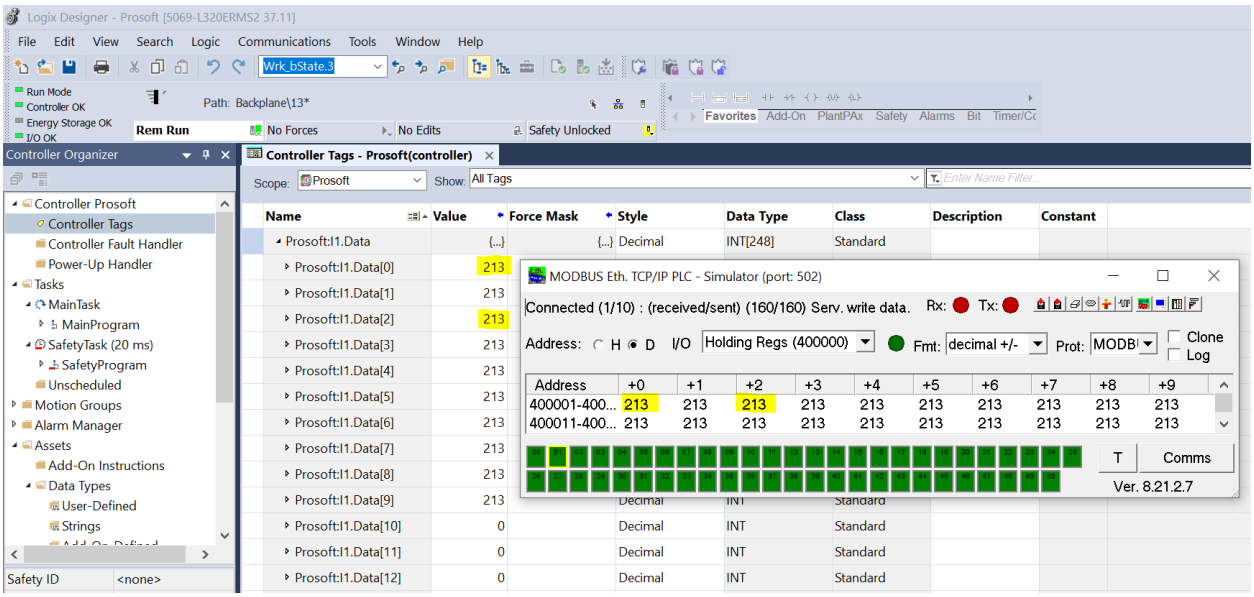
Let's try with this one, with a incrementing value on all addresses each 5 seconds



With this configuration



Now the transactions are successful!!



As you can see on this video

https://youtu.be/yglcjhCR0w0

You can find the code here including PLC program and Prosoft configuration file here on github

https://github.com/xavierflorensa/Prosoft-EtherNet-IP-to-Modbus-TCP.git