

Unity Pro XL Communication with SCADA

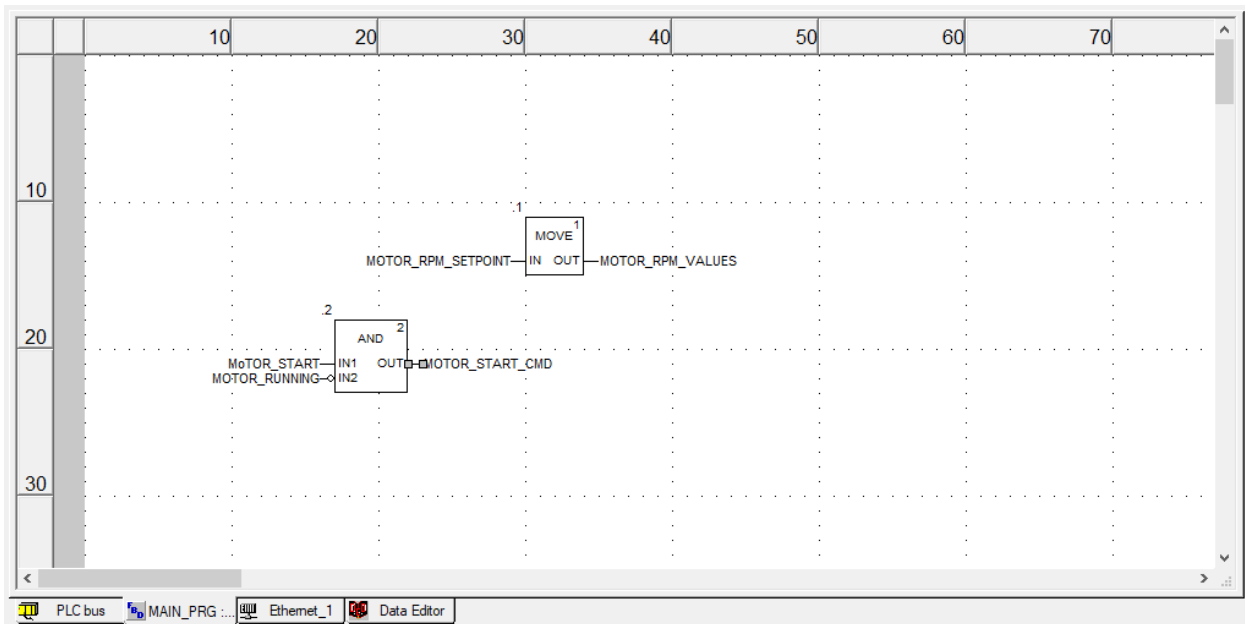
- If you want to communicate your PLC logic with SCADA, Follow further procedure and do as well.
- Follow below procedure,

Introduction :

- Write PLC Logic first in Unity Pro XL.
- Here I have created a simple program to help you better understand this.
- Also I have given information of the require configuration in SCADA as well as PLC.
- Follow further procedure for the communication.

Step 1 :

- **Create PLC Program as you have require in the Unity Pro XL.**

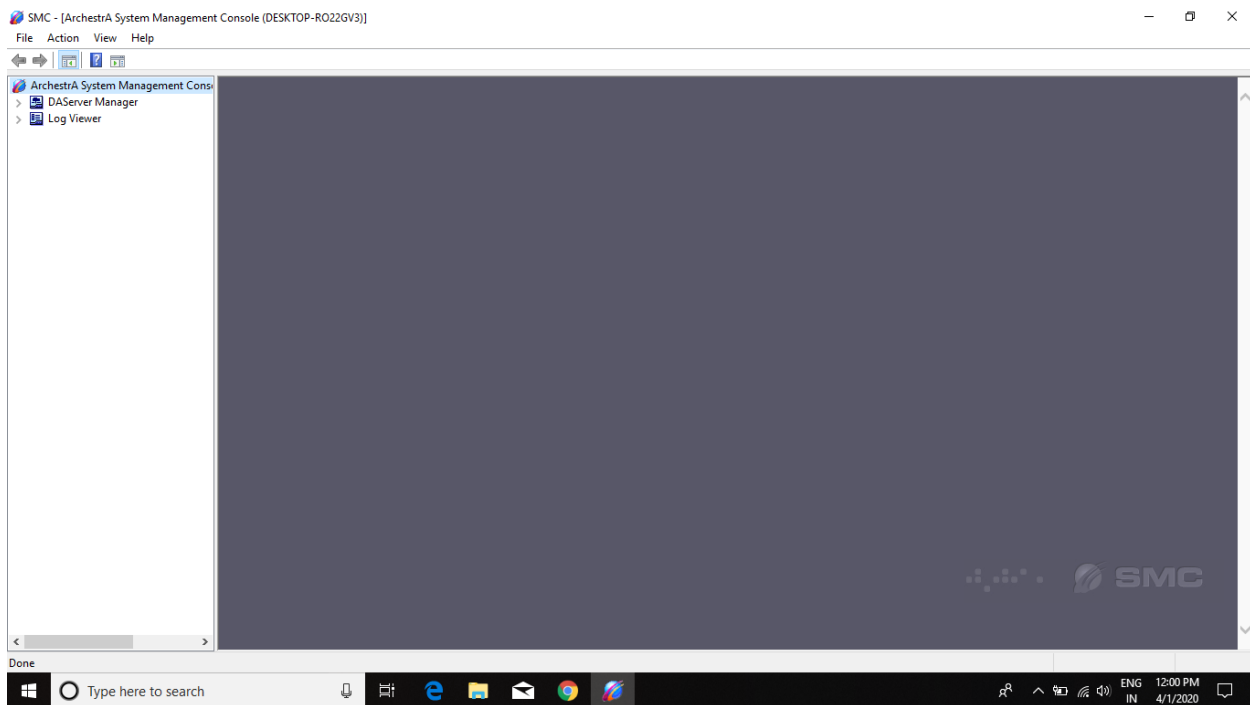


Unity Pro XL Sample PLC Program

- Here, I have assigned addresses to below variables.
- **MOTOR_RPM_SETPOINT** and **MOTOR_RPM_VALUES**.

- **%MW0 assigned to MOTOR_RPM_SETPOINT variable and %MW100 assigned to MOTOR_RPM_VALUES.**
- I will show you, how it will be communicate on which particular Modbus address.
- Follow **Step 2** procedure.

Step 2 :

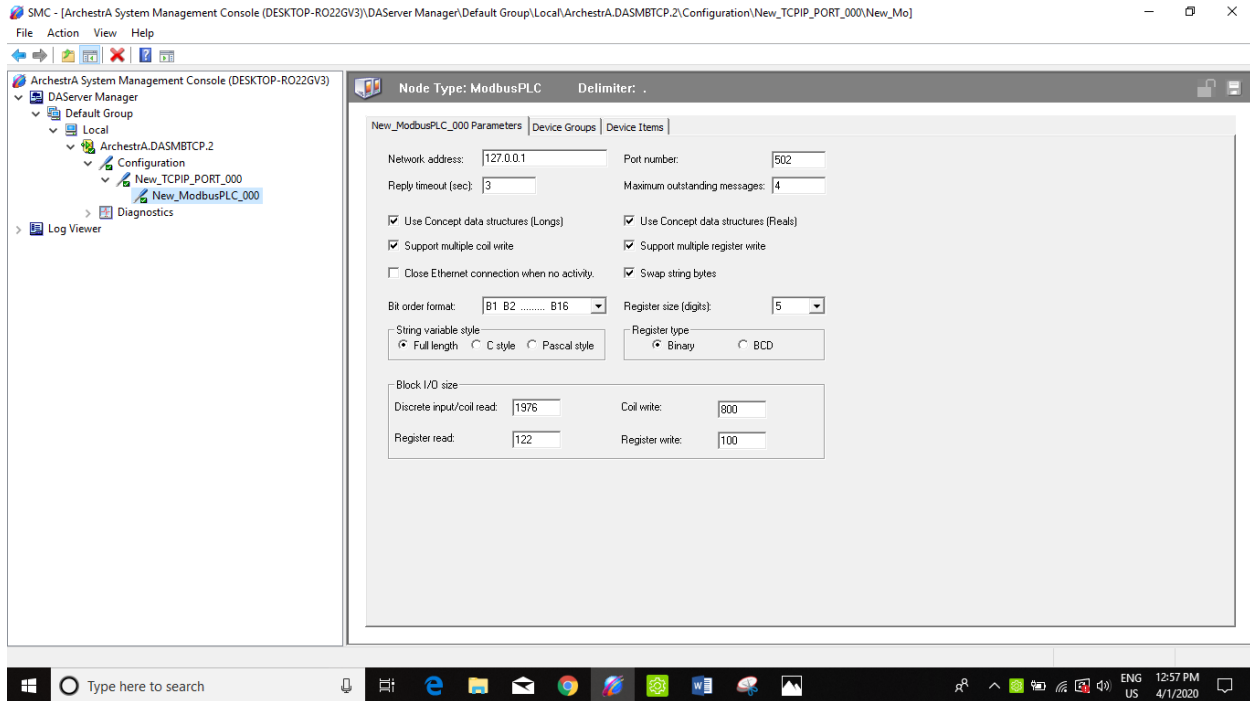


DASMBTCP Configuration in SCADA PC

- **Configure DASMBTCP in user PC or which you have used for visualize SCADA.**
- Before configuration of the DASMBTCP you need to install DASMBTCP Driver on that PC.
- After Completion of the DASMBTCP driver, follow below procedure.
- Open System Management Console.

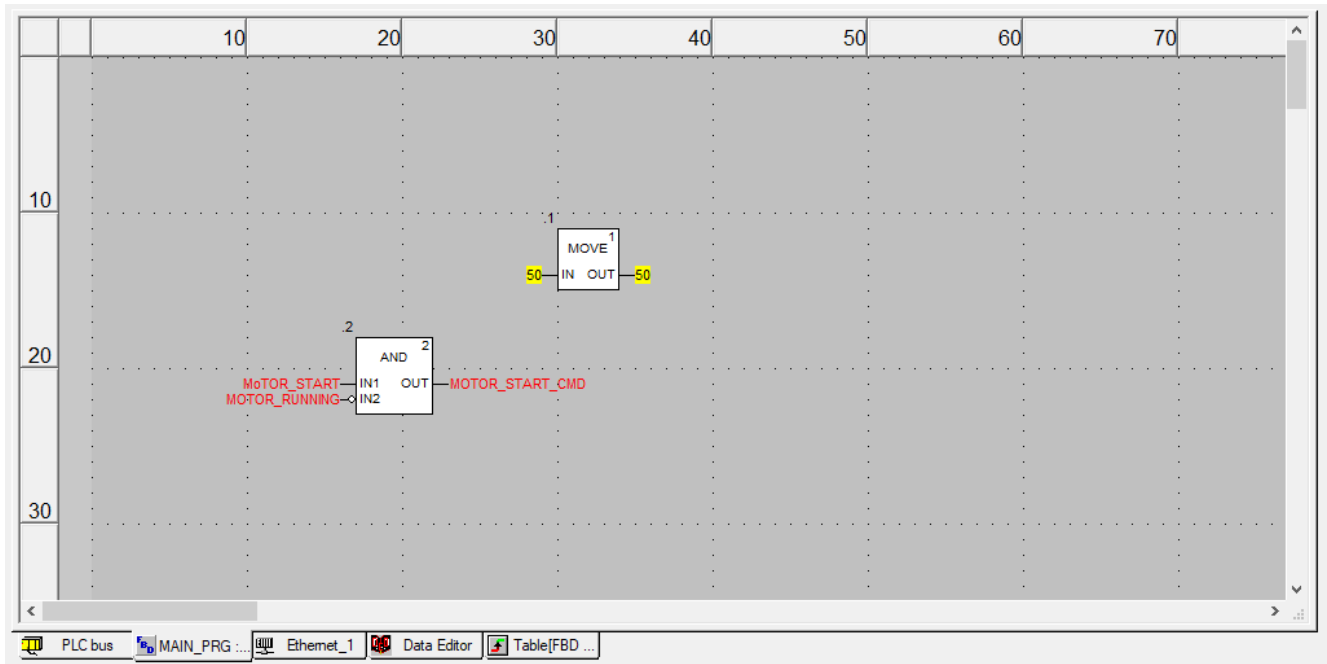
Step 3 :

- Type your controller IP Address and save settings.
- Example: 127.0.0.1
- Create Topic and save configuration.
- **Configuration in System Management console.**



ModbusTCP Configuration in System Management Console

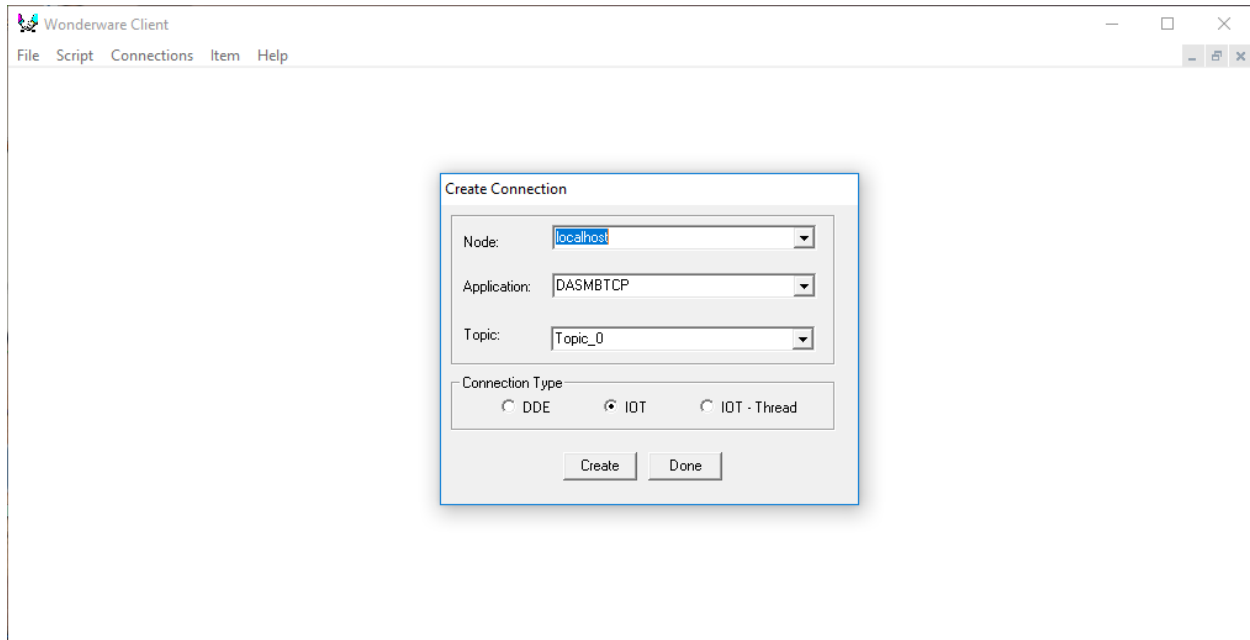
- Start Simulator in Unity Pro XL.
- Here, I have moved different values in **%MW0 Address**.
- Now, I have to check data in Wwclient.
- **Connect Wwclient and checked data.**



Unity Pro XL Simulation Mode

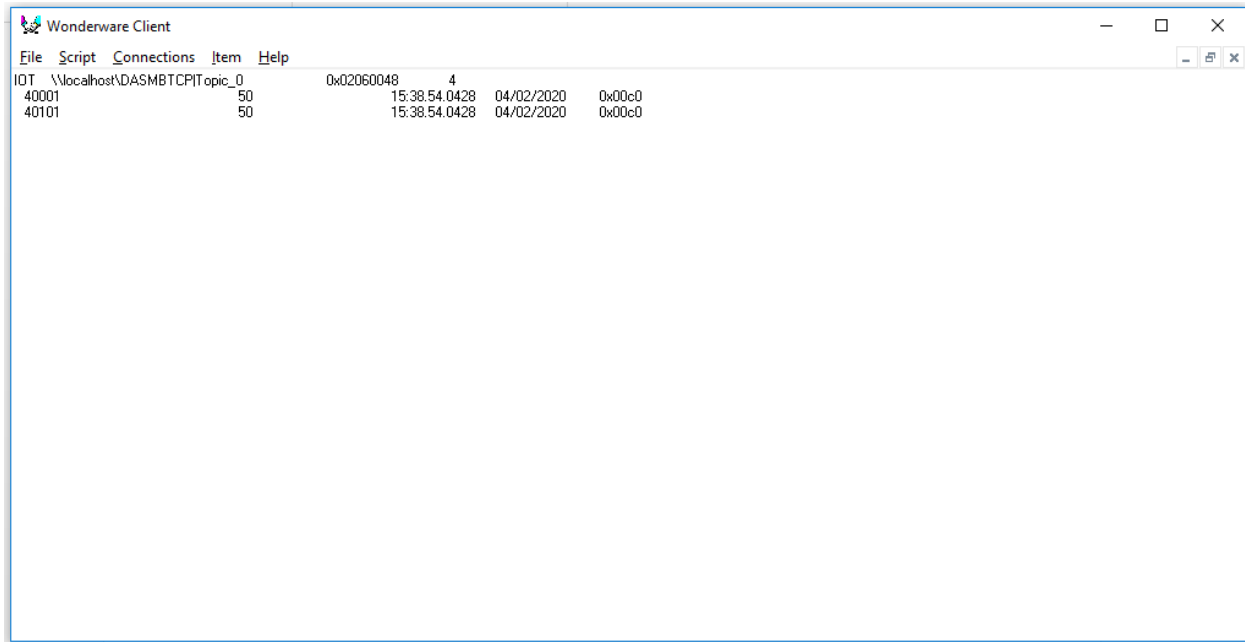
Step 4 :

- **Wwclient Configuration.**



Wwclient Configuration

- Create Connection in Wwclient.
- Node address, Application and Topic and done the changes.
- Check data.
- See below attached image, while I have passed 50 values in %MW0 address, then Wwclient have capture data on 40051 address.
- Change values in particular address and check on Wwclient.
- Check your data as per configuration of the System Management console.



The screenshot shows the 'Wonderware Client' application window. It has a menu bar with 'File', 'Script', 'Connections', 'Item', and 'Help'. Below the menu bar is a table with the following data:

IOT		\\localhost\DA5MBTCPITopic_0		0x02060048		4	
40001	50	15:38:54.0428	04/02/2020	0x00c0			
40101	50	15:38:54.0428	04/02/2020	0x00c0			

Wwclient Data Capturing

- Here, you can show 50 values in 40001 address.
- As per PLC program, while I have passed 50 values in %MW0 then Wwclient capturing data on 40001 address.
- As per this you can easily check PLC data in the wwclient.
- SCADA communicate on based of Modbus addresses.