ADISRA® SmartView

Communicating ADISRA SmartView with Mitsubishi FX5U PLC via SLMP Protocol

Document Information

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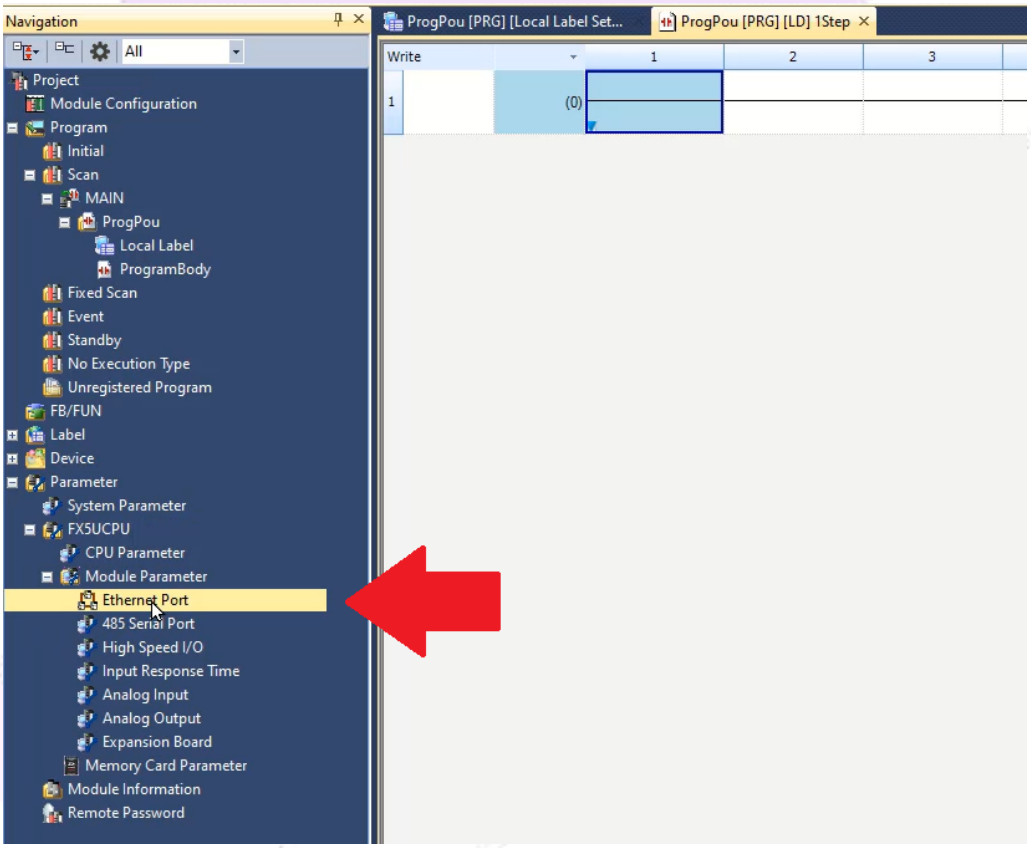
1. Purpose of this article

This article aims to show you how to communicate ADISRA SmartView with Mitsubishi FX5U PLC via SLMP Protocol.

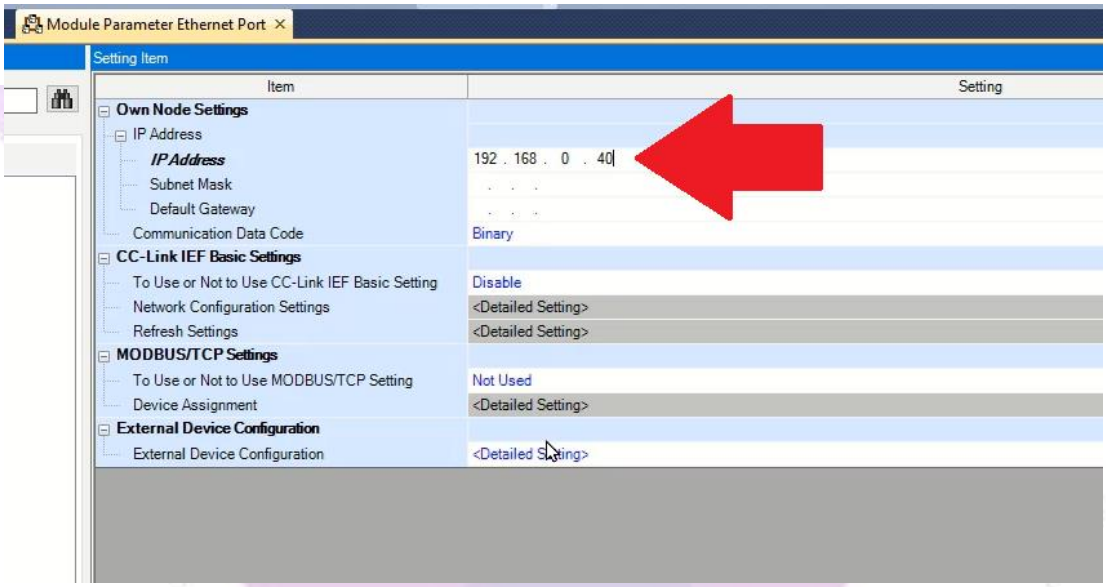
Next, the step-by-step configuration of the Melsoft GX Works3 software and ADISRA SmartView will be shown.

2. Configuring Melsoft GX Works3

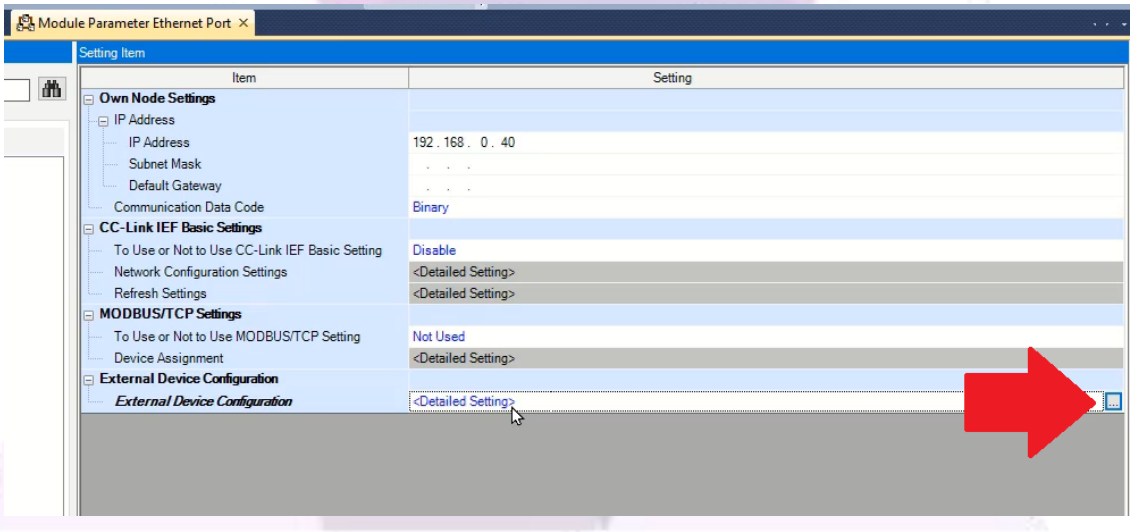
1. Open the software and in the navigation tree located on the left, select the item parameter > FX5UCPU -> Module Parameter -> Ethernet Port.



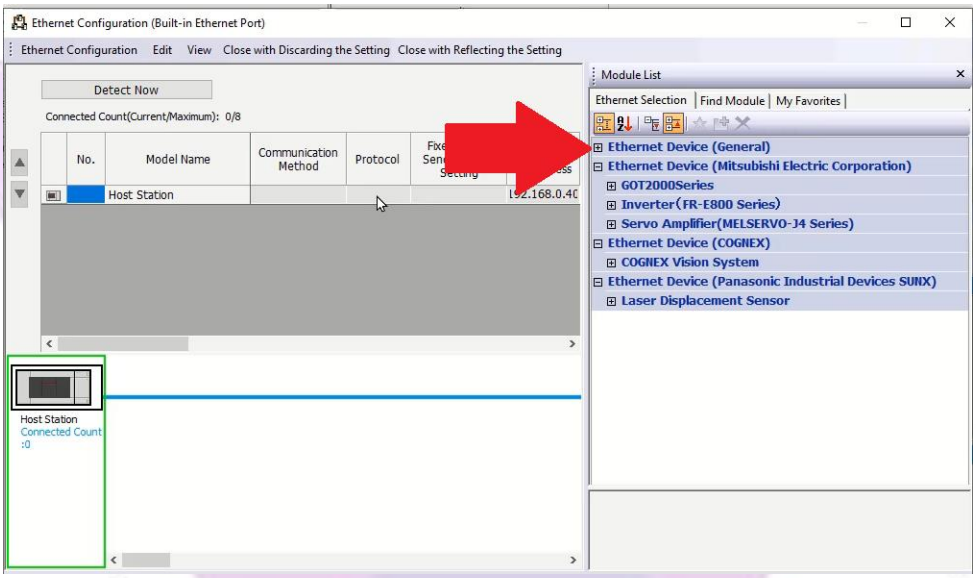
2. In the “Ip Address” field, add the IP of the Mitsubishi PLC FX5U.



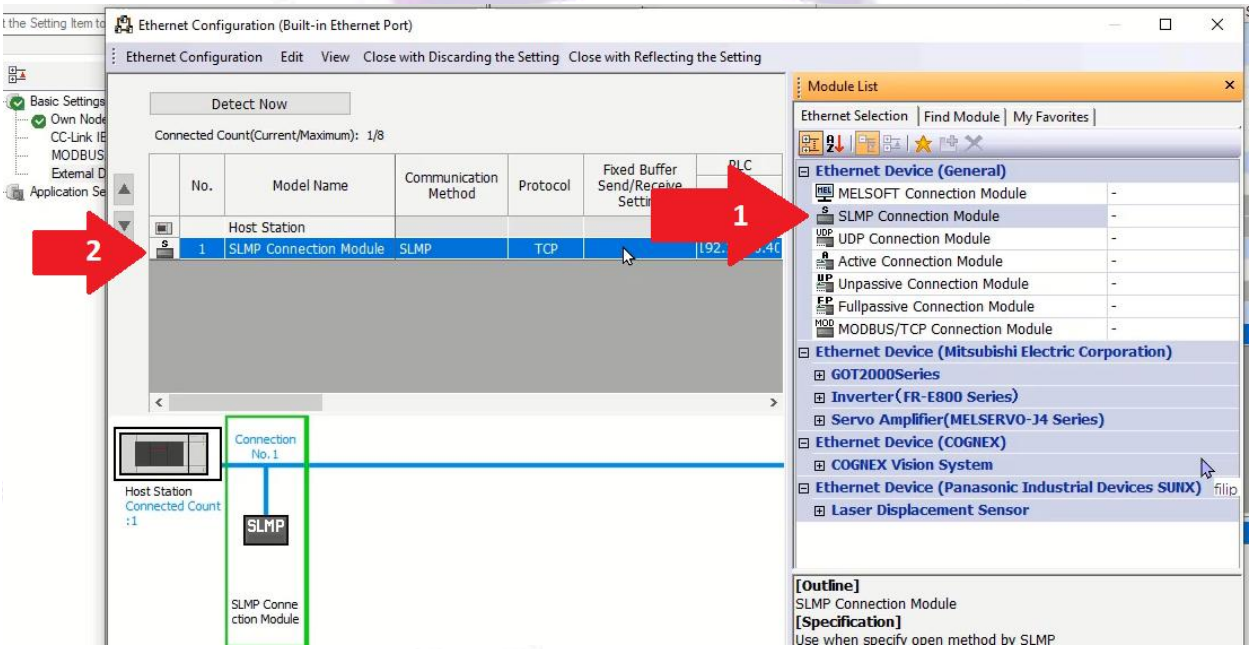
3. Then, click on the three dots to the right of the “External Device Configuration” field.



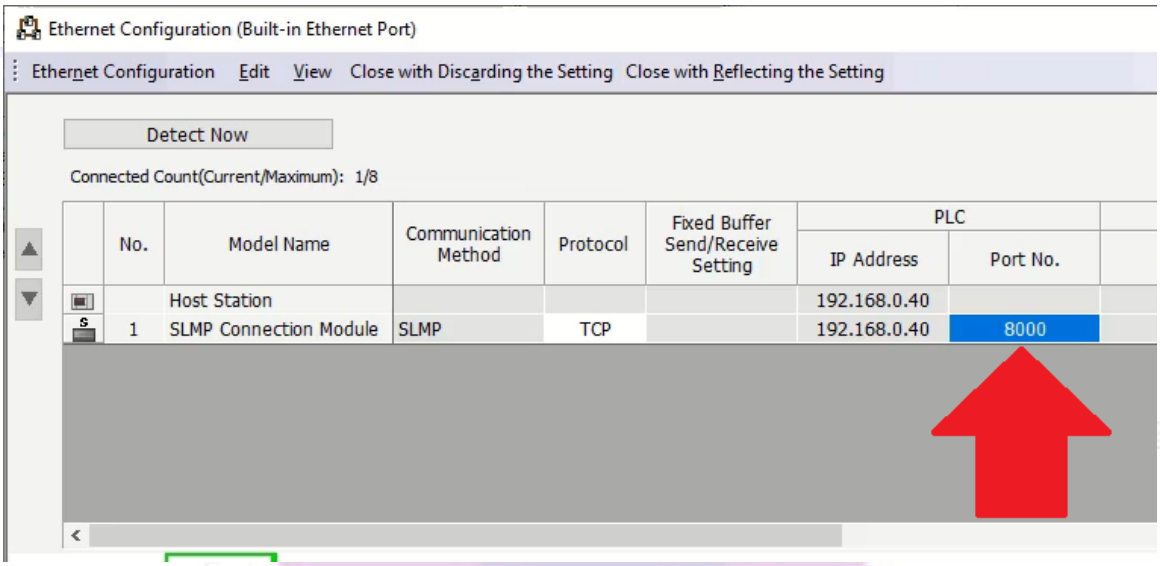
4. Expand the “Ethernet Device (general)” tab.



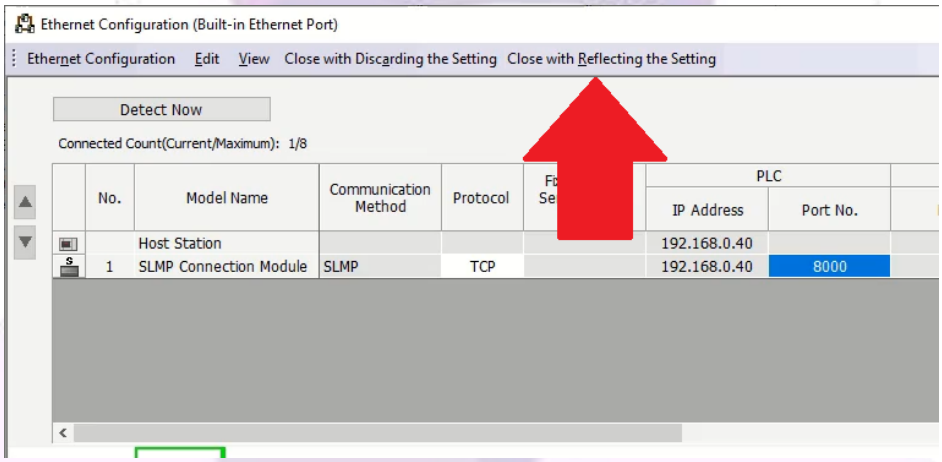
5. Click on the item “SLMP Connection Module” and drag it to the side list to add it.



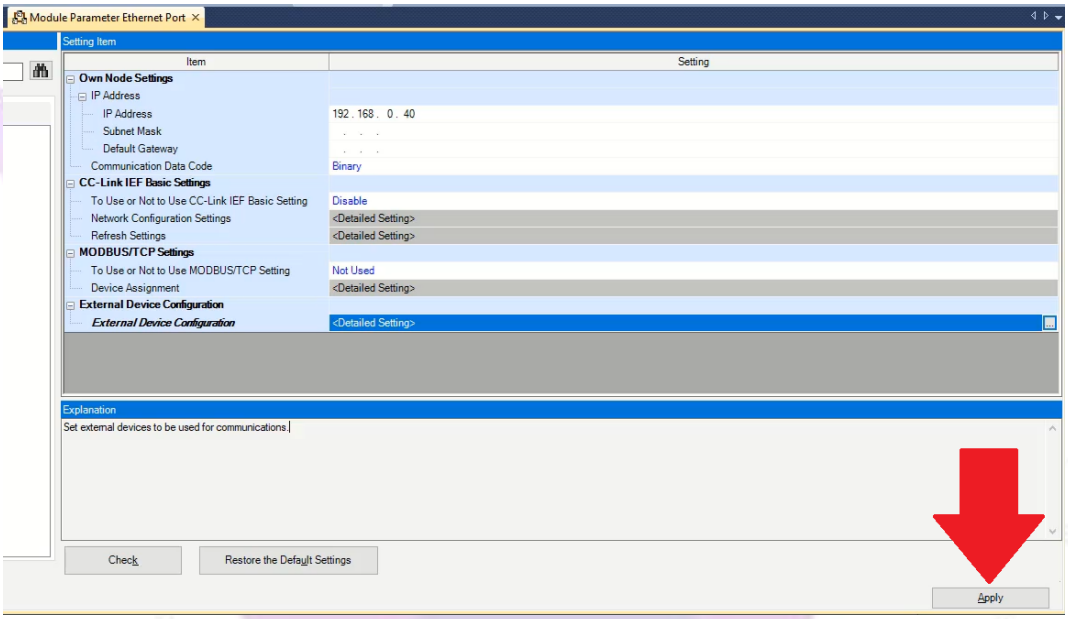
6. After adding the new item to the list, click the “Port No.” column. and add port 8000, which is the same port used in ADISRA SmartView.



7. Now click on the “Close with Reflecting the Setting” button.

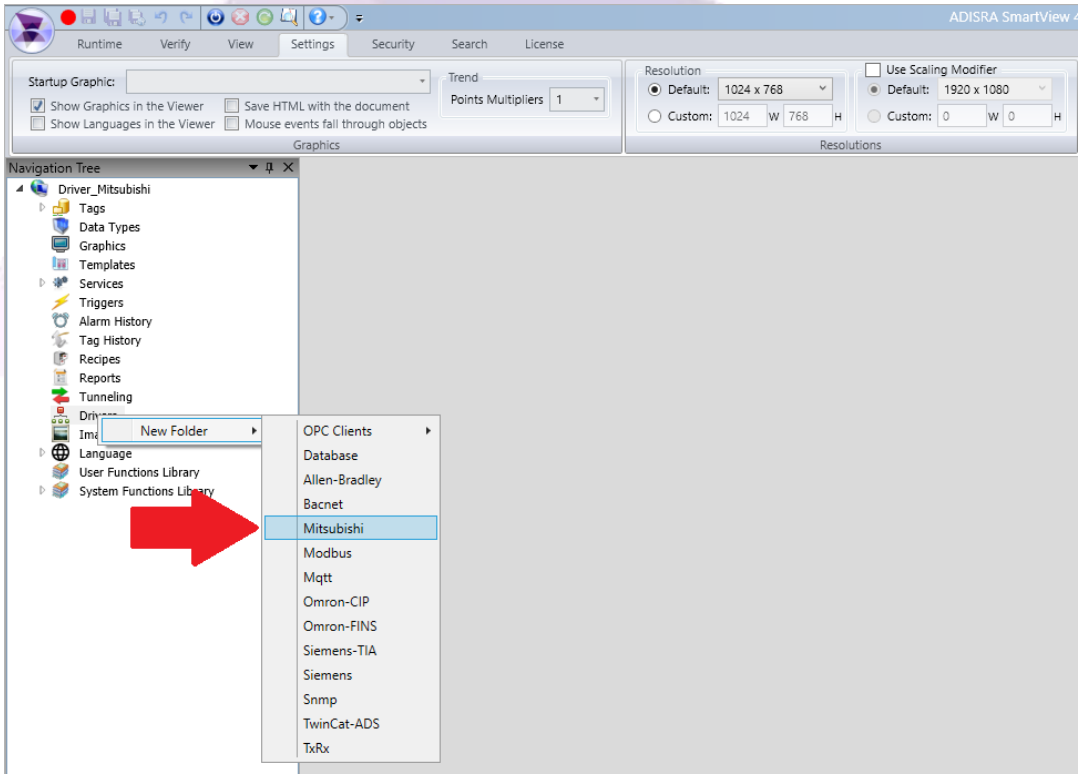


8. Click the “Apply” button to apply all new settings.



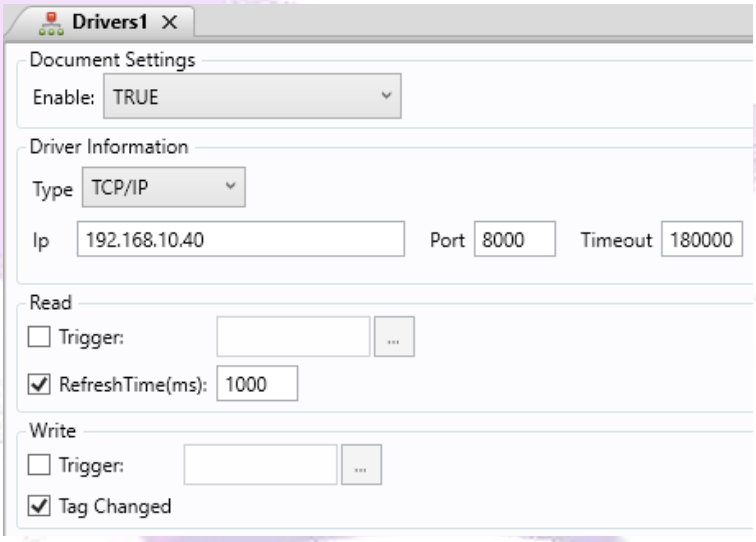
3. Configuring ADISRA SmartView

1. After configuring and saving the settings in Melsoft GX Works3 Software, open ADSIRA SmartView. Once this is done, in the navigation tree, click on the “Drivers” document, New Folder and add the “Mitsubishi” Driver.

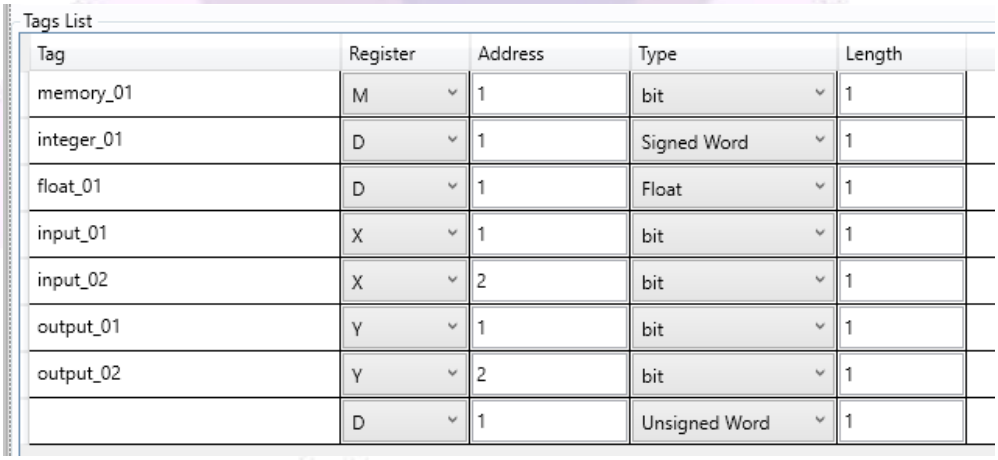


2. The required settings are:
    a. The type will be “TCP/IP”.
    b. The “IP” will be the same configured in Melsoft.
    c. The “Port” will be the same configured in Melsoft.

Note: The other settings you are free to set the values.



3. After configuring the above fields, the tag list below the settings, enter the addresses to which the ADISRA SmartView will read and write. For example: As shown in the image below, the first line contains an ADISRA SmartView tag called “memory_01”, which will represent the plc address “M1”. In the second line, the tag “Integer_01” will represent the PLC address “D1”, which is of type Decimal and so on.



Tag	Register	Address	Type	Length
memory_01	M	1	bit	1
integer_01	D	1	Signed Word	1
float_01	D	1	Float	1
input_01	X	1	bit	1
input_02	X	2	bit	1
output_01	Y	1	bit	1
output_02	Y	2	bit	1
	D	1	Unsigned Word	1

The table below shows all types of PLC addresses that can be read and written to.

Registers Type	Length	Representation	Write	Read	Bit Access	Dword	String
SM (Special Relay)	1 bit	Decimal	✓	✓	X	X	X
SD (Special register)	2 bytes	Decimal	✓	✓	✓	✓	✓
X (Input relay)	1 bit	Hexadecimal	✓	✓	X	X	X
Y (Output relay)	1 bit	Hexadecimal	✓	✓	X	X	X
M (Internal relay)	1 bit	Decimal	✓	✓	X	X	X
L (Latch relay)	1 bit	Decimal	✓	✓	X	X	X
F (Annunciator)	1 bit	Decimal	✓	✓	X	X	X
V (Edge relay)	1 bit	Decimal	✓	✓	X	X	X
B (Link relay)	1 bit	Hexadecimal	✓	✓	X	X	X
D (Data register)	2 bytes	Decimal	✓	✓	✓	✓	✓
W (Link register)	2 bytes	Hexadecimal	✓	✓	✓	✓	✓
T (Timer Current Value)	2 bytes	Decimal	✓	✓	✓	✓	✓
ST (Retentive Timer Current Value)	2 bytes	Decimal	✓	✓	✓	✓	✓
C (Counter Current Value)	2 bytes	Decimal	✓	✓	✓	✓	✓
SB (Special link relay)	1 bit	Hexadecimal	✓	✓	X	X	X
SW (Special link regiser)	2 bytes	Hexadecimal	✓	✓	✓	✓	✓
Z (Index register)	2 bytes	Decimal	✓	✓	✓	✓	✓

4. After making all the above settings, put the PLC in RUN mode and the ADISRA SmartView in RunTime mode to view the communication.