PROFIBUS DP to EtherNet/IP / Modbus TCP Gateway
GT200-DPM-EI

User Manual

V 2.2

SST Automation

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Important Information

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Table of Contents

1 Product Overview

1.1 Product Function

The GT200-DPM-EI connects multiple PROFIBUS DP devices to EtherNet/IP or Modbus TCP control systems. It serves as a PROFIBUS DP master and operates as an EtherNet/IP adapter or Modbus TCP server, enabling reliable communication with various industrial controllers.

1.2 Product Feature

- Wide Application: Enables connection between PROFIBUS DP networks and EtherNet/IP or Modbus TCP networks. For example, it facilitates bidirectional data exchange between EtherNet/IP Scanner PLCs such as Rockwell or Omron, or Modbus TCP Client like Schneider and WINCC,KEPServerEX,etc.
- Easy to Use: Users don't need the details of PROFIBUS DP, EtherNet/IP or Modbus TCP protocols, just refer to this manual and application examples, finish network configuration and establish the communication in a short time.
- High Real-Time Performance: The communication cycle time between the gateway's two protocols is 10ms, which enables fast data exchange and ensures real-time performance and high efficiency.

1.3 Technical Specifications

[1] Supports PROFIBUS DP V0 Master functions. Supports up to 40 slave devices and complies with PROFIBUS specifications.

[2] The module provides a photoelectric isolated PROFIBUS DP interface and an EtherNet/IP or Modbus TCP interface, with 2.5KV isolation.

[3] On the EtherNet/IP side, it operates as a adapter and supports the ODVA standard.

[4] EtherNet/IP input and output byte counts:

Maximum input bytes: 492 Bytes

Maximum output bytes: 492 Bytes

[5] On the Modbus TCP side, it operates as a Server, supporting up to 8 client connections.

[6] Supported function codes:0x03, 0x04, 0x06, 0x10.

[7] Supports byte swapping options:No swap, 2-byte swap, 4-byte swap.

[8] Modbus TCP input and output byte counts:

Maximum input bytes: 1800 Bytes

Maximum output bytes: 1800 Bytes

[9] Dual Ethernet ports with built-in Ethernet switch functionality.

[10] Multiple LED status indicators for convenient on-site debugging.

[11] Power supply: 24 VDC (9-30 VDC), maximum 4W.

[12] Operating temperature: -4°F~140°F(-20°C~60 °C); Humidity: 5% ~ 95% (non-condensing).

[13] External dimensions (W*H*D):1.33 in*4.56 in*4.13 in (34mm*116mm*105mm).

[14] Installation: 1.4in (35mm) DIN Rail.

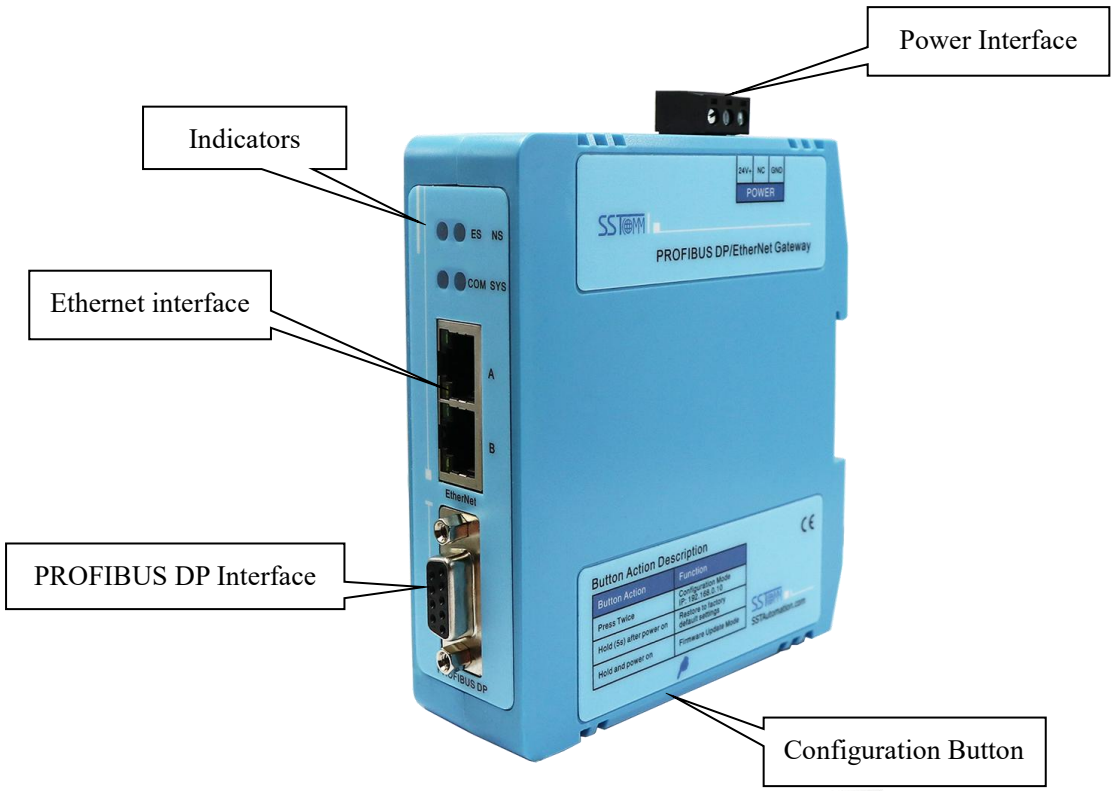
[15] Protection level: IP20.

1.4 Revision History

Revision	Date	Chapter	Description
V2.2	6/26/2025	ALL	Modbus TCP
V2.1	4/16/2025	ALL	New release
V1.4	5/8/2024	ALL	New release
V1.3	7/15/2021	ALL	New release
V1.1	8/17/2017	ALL	New release

2 Hardware Descriptions

2.1 Product Appearance



Notes: This picture is for reference only. The product appearance is subject to the actual product.

2.2 Indicators

PROFIBUS DP Status LEDs

LED	State	Description
COM	Green(Steady)	All DP slaves connected normally
	Red(Steady)	At least one DP slave connection failure
	OFF	PROFIBUS DP master not configured
SYS	Green(Steady)	At least one DP slave connected
	Green (Blinking)	DP master configured, but no slave connection established
	OFF	No power or hardware fault

EtherNet/IP Status LEDs

Indicator	State	Description
ES	Red blinking	IP address configuration in progress
	Red	DHCP mode
	Green	IP address started normally
NS	Green	EtherNet/IP connection established (communication normal)
	Green blinking	EtherNet/IP connection not established (check network/cable)

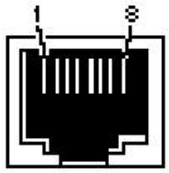
Modbus TCP Status LEDs

Indicator	State	Description
ES	Red blinking	IP address configuration in progress
	Red	DHCP mode
	Green	IP address started normally
NS	Green	Modbus TCP connection established (communication normal)
	Green blinking	Modbus TCP connection not established (check network/cable)

2.3 Interfaces

2.3.1 Ethernet Interface

The Ethernet interface uses RJ45 interface, follows the IEEE802.3u 100BASE-T standard, 10/100M adaptive. its pin (standard Ethernet signal) is defined as below:

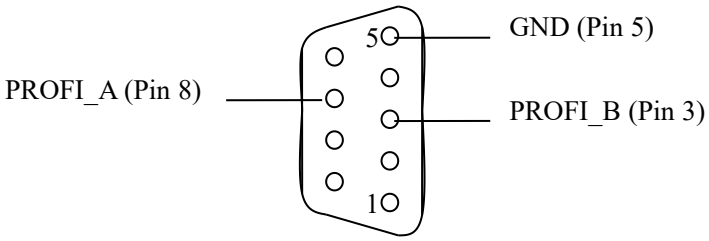


RJ-45 port

Pin	Description
S1	TXD+, Transmit Data+
S2	TXD-, Transmit Data-
S3	RXD+, Receive Data+
S6	RXD-, Receive Data-
S4,,5,7,8	reserved

2.3.2 PROFIBUS DP Interface

PROFIBUS DP wiring instructions as shown below:

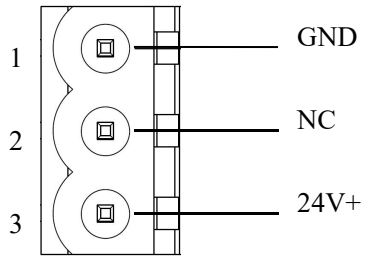


Pin	Signal	Description
3	PROFI_B	PROFI_B, Data+
5	GND	GND
8	PROFI_A	PROFI_A, Data-

2.3.3 Configuration Button

Button action	Description	exit
Within 10 seconds of powering on, press and hold the button for 5 seconds until the ES LED turns orange, then release.	Restores the gateway to factory default settings.	The device will automatically reboot with default configurations.
Double-click the button. Status Indication: ES LED: Orange blinking NS LED: Green blinking (indicates successful entry)	Enters configuration mode for parameter adjustments.	Double-click the button again, Device reboots into normal operation.
Press and hold the button while powering on the device. ES LED: Orange blinking NS LED: Orange blinking	Activates firmware upgrade mode. Open a web browser and enter: 192.168.0.10 Log in with: Username: user Password: sstcomm	The device will automatically reboot upon successful completion. If the upgrade fails, power cycle the device and retry.

2.3.4 Power Interface

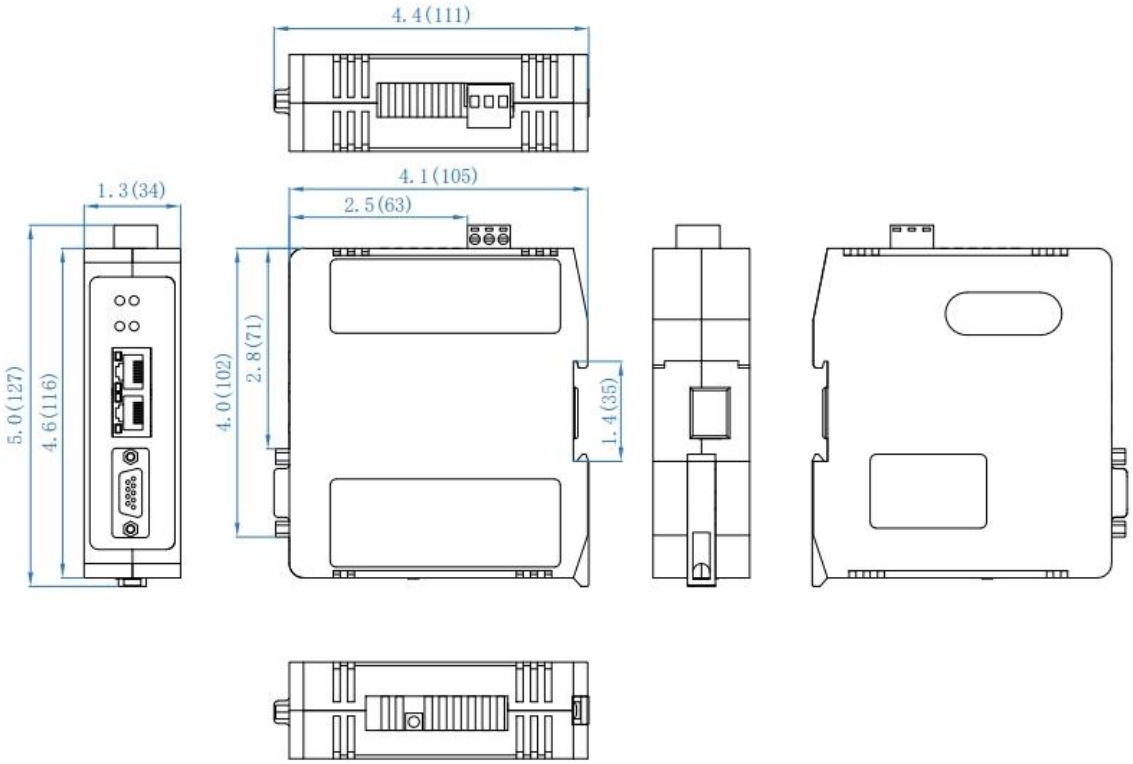


Pin	Description
1	Power GND
2	NC，(Not Connected)
3	24V+, DC

3 Hardware Installation

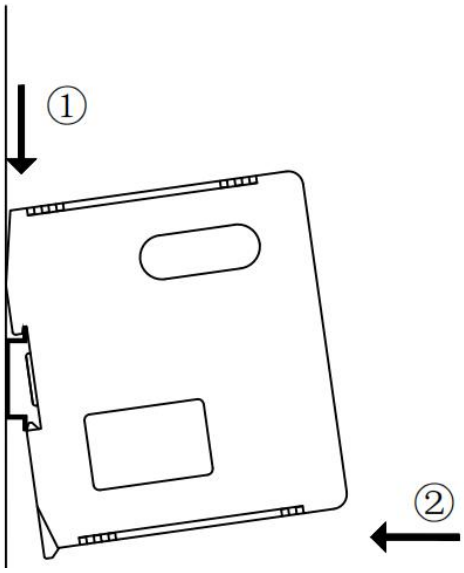
3.1 Mechanical Dimensions

Size (width * height * depth):1.33 in * 4.56 in * 4.13 in (34mm * 116mm * 105mm)

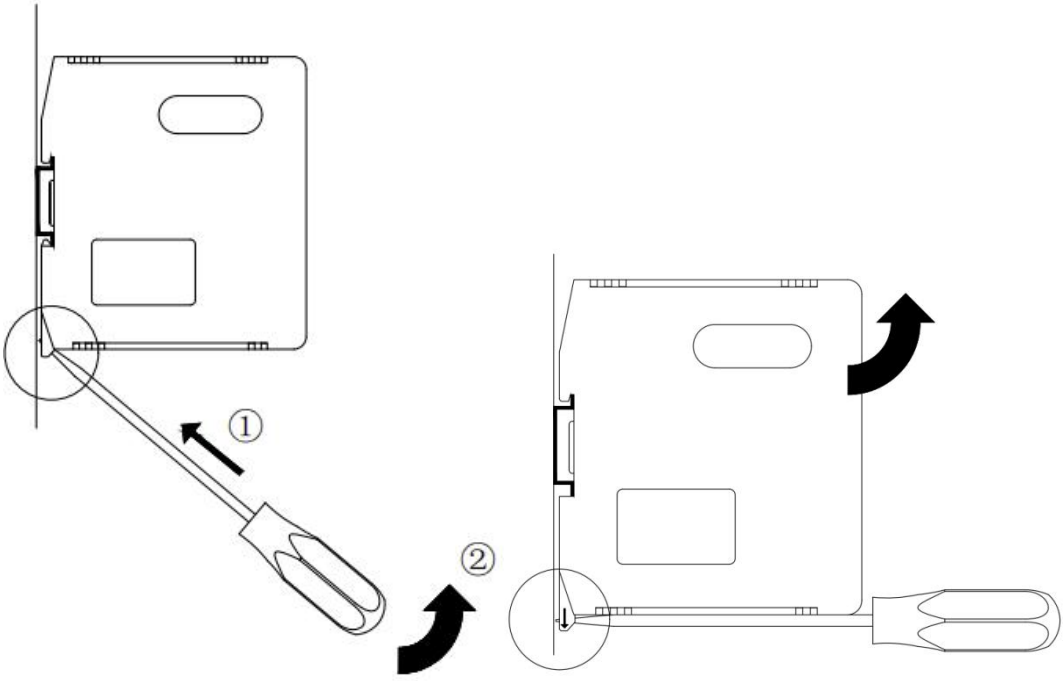


3.2 Mounting Method

Use 1.4 in (35 mm) DIN Rail.



Uninstall：



4 Quick Start Guide

Follow these steps to quickly deploy the GT200-DPM-EI PROFIBUS DP to EtherNet/IP / Modbus TCP gateway.

Step 1: Import GSD Files

Action:

Import the GSD files of PROFIBUS DP slave devices into the SST-DPM-CFG configuration software.

Use the "Import GSD" option in the software menu.

Purpose:

Ensures the DP slaves are recognized for configuration.

Step 2: Configure DP Slaves & Gateway IP

Tasks:

Set PROFIBUS DP slave addresses (unique for each device).

Define input/output byte sizes for each slave.

Assign the gateway's IP address (e.g., 192.168.0.10).

Tool:

Use SST-DPM-CFG software (Section 6 of the manual).

Step 3: Enter Config Mode & Download Settings

Action:

Double-click the gateway button to enter configuration mode:

ES LED: Orange blinking

NS LED: Green blinking (confirms successful entry)

Steps:

Download the configured settings to the GT200-DPM-EI.

Connect PROFIBUS DP wiring (refer to Section 2.3.2 for pinouts).

Verification:

COM LED (Green): All DP slaves connected successfully.

SYS LED (Green): Gateway communicating with ≥1 slave.

Step 4: Set Up EtherNet/IP on PLC

Tasks:

Configure the PLC (EtherNet/IP master) with:

Gateway IP address.

Input/Output instance sizes (e.g., 260/492 bytes).

Establish the EtherNet/IP connection (see Sections 7–8).

Validation:

SNS LED (Green Steady): EtherNet/IP link active.

Use PLC software (e.g., RSLogix 5000) to monitor data.

Troubleshooting Tips

PROFIBUS DP Issues:

Check slave addresses and baud rates.

Verify cable termination (Section 3.2.2).

EtherNet/IP Issues:

Confirm PLC and gateway IPs are in the same subnet.

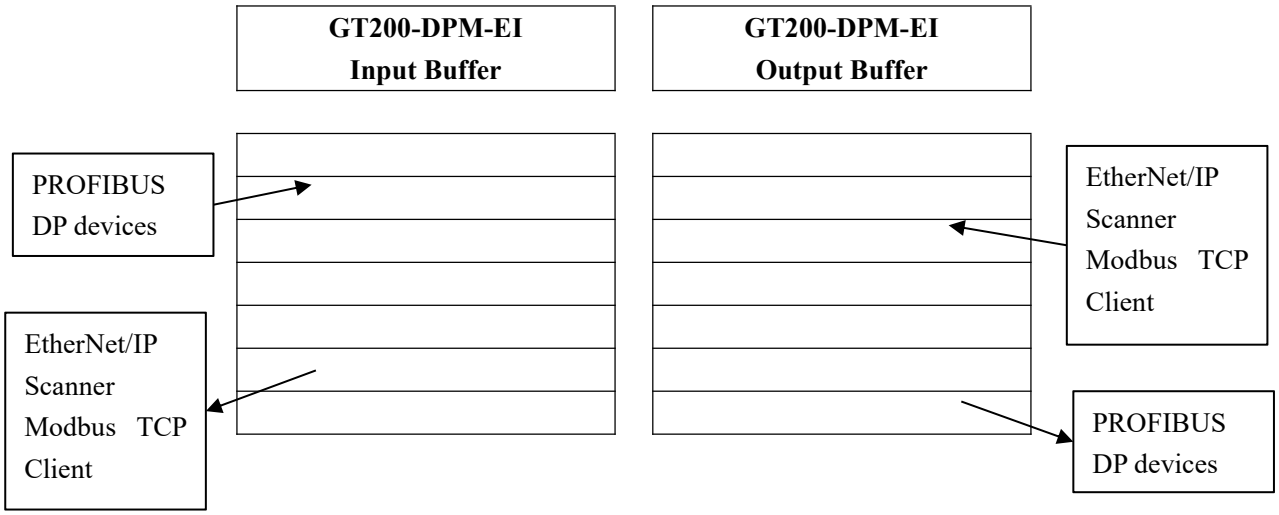
Ensure correct instance sizes (Section 7).

If the Modbus TCP mode is selected, using Modbus POLL as the client for example, choose Modbus TCP/IP, set the gateway's IP address and port number (default is 502), and select function code 03 or 04 along with the Modbus register starting address and the number of registers to read/write data (see Chapter 9 for details).

5 Working Principle

By creating the data conversion between the EtherNet/IP, Modbus TCP and PROFIBUS DP through mapping, there are two data buffers in the GT200-DPM-EI.

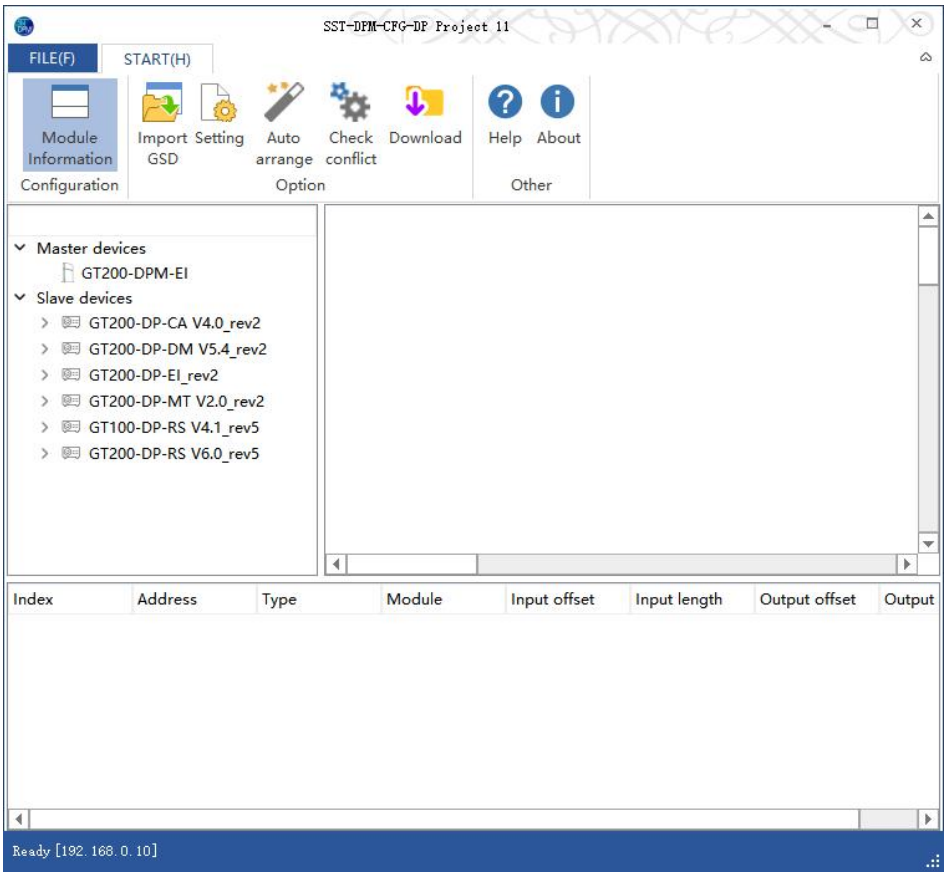
The gateway will write the data from the PROFIBUS DP devices to the network input buffer, then output to the corresponding EtherNet/IP Scanner or Modbus TCP Client by POLL I/O write command. At the same time gateway take the data from the output buffer and write to the PROFIBUS DP devices.



6 Gateway configuration

6.1 SST-DPM-CFG Software Installation

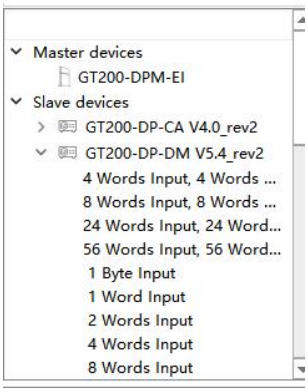
Install SST-DPM-CFG and launch via desktop shortcut.



6.2 GSD File Import

Navigate to Options > Import GSD in the menu. Browse and select the GSD file(s), then click Open.

Imported GSD appear under the "Slave Devices" tree view.



To remove a PROFIBUS DP slave device from the configuration:Navigate to the GSD file directory,Default path:C:\Program Files (x86)\SST Automation\SST-DPM-CFG V1.0.X\GSD,delete the corresponding GSD file(s) for the slave device(s).

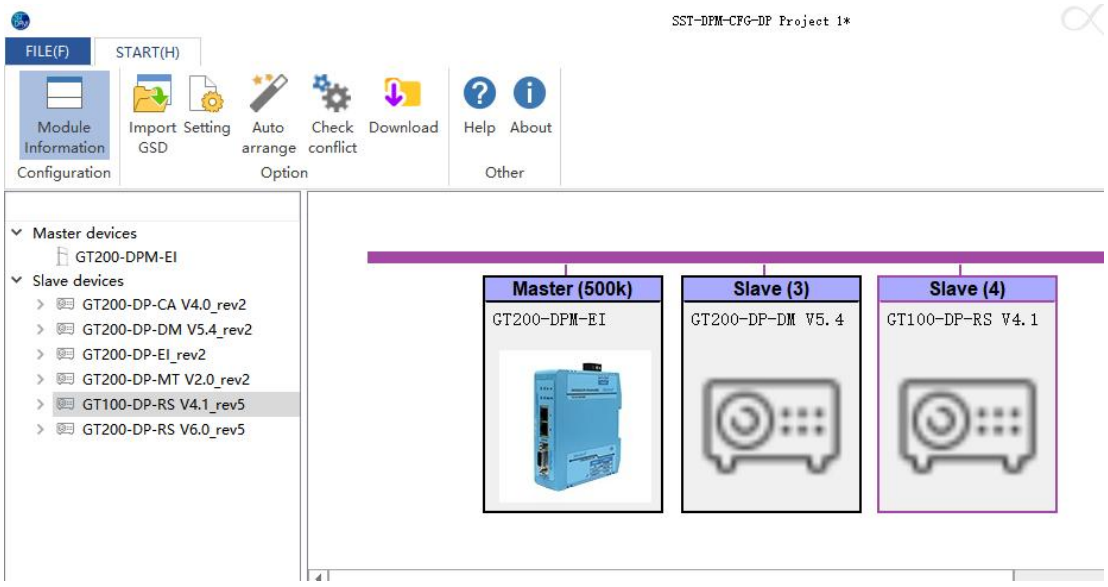
6.3 Building Network Topology

Add DP Master (GT200-DPM-EI):

Drag the GT200-DPM-EI from the device tree to the topology view. A PROFIBUS DP bus is automatically created.

Add DP Slaves:

Drag DP slave devices (imported via GSD) to the bus. Set a unique address for each slave (e.g., 3, 4, 5...).

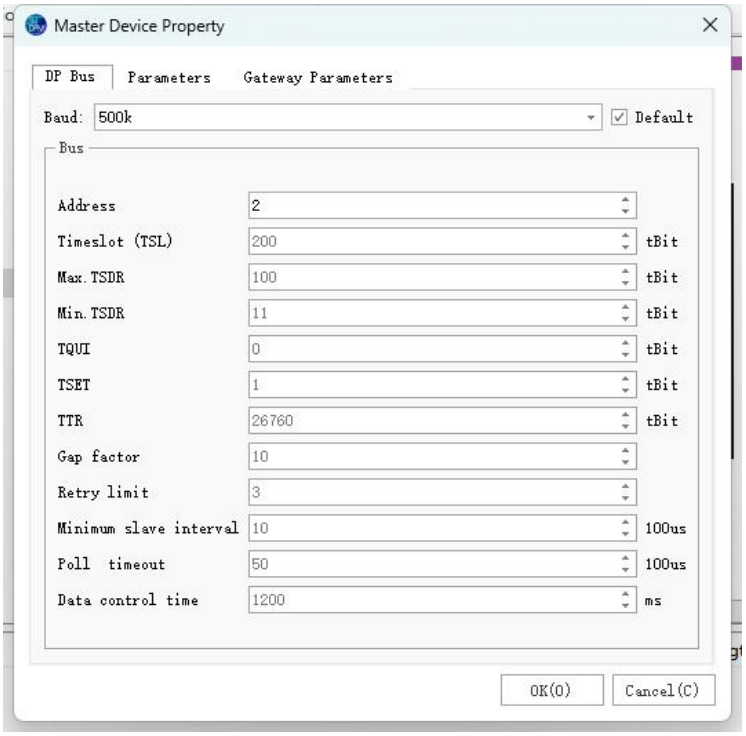


6.4 Parameter Settings

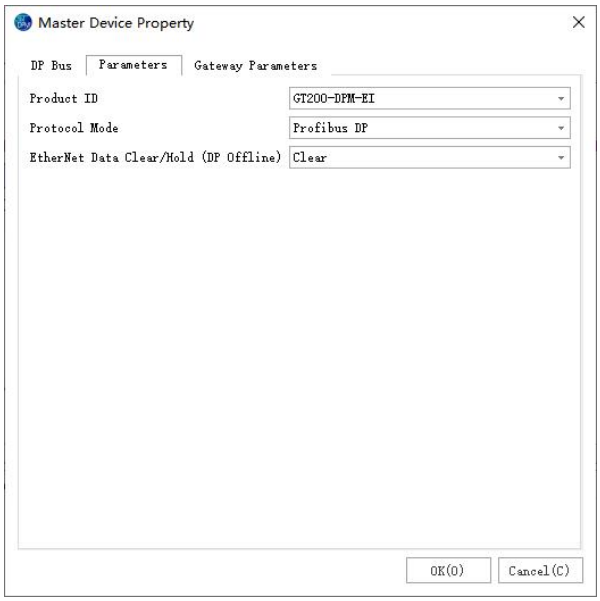
6.4.1 DP Master Configure:

6.4.1.1 Double click the Master icon to bring up the "Master Device Properties" dialog box.

On the "DP Bus" tab, you'll find the bus baud rate and related parameters. The default master station address is 2, and the default baud rate is 500 Kbps. Simply select the corresponding master station' baud rate from the dropdown menu.

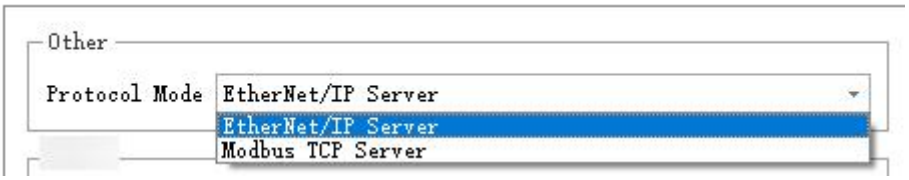


6.4.1.2 On the "Parameters" tab, you can view and configure the PROFIBUS DP settings.



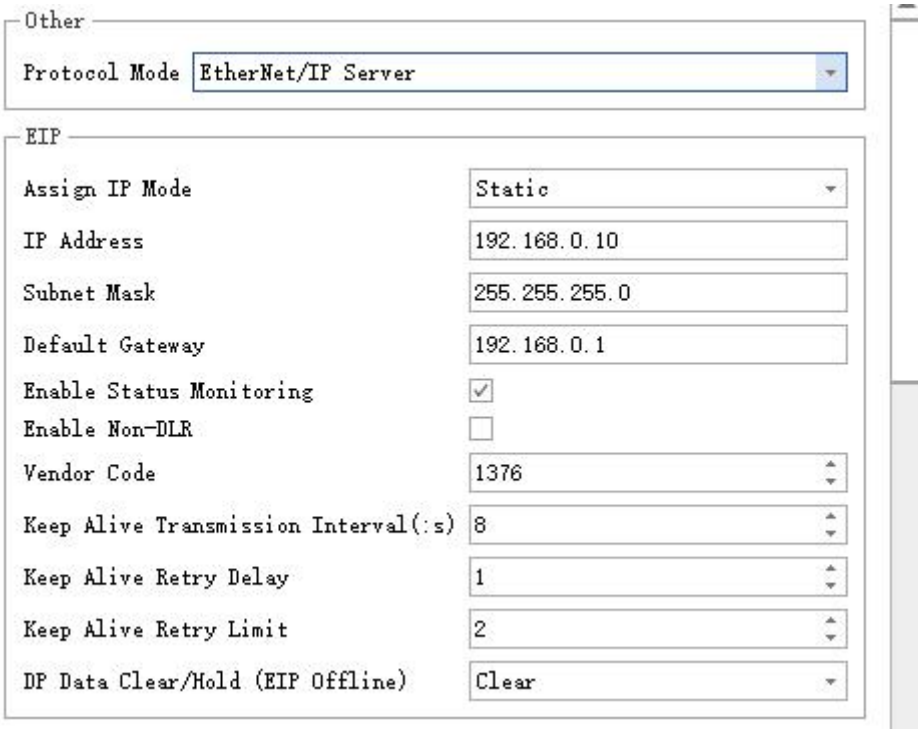
- Product ID: Displays the gateway device name: GT200-DPM-EI.
- Protocol Mode: PROFIBUS DP protocol.
- EtherNet Data Cear/Hold(DP offline): Choose between Clear or Hold:
  - When a DP Slave disconnects from the master, the corresponding output data (i.e., input data on the EtherNet/IP or Modbus TCP side) can either be cleared or retained.

6.4.1.3 On the "Gateway Parameters" tab, configure the EtherNet/IP and Modbus TCP network settings, including:IP Address、Subnet Mask、Gateway Address、Monitoring Status Enable/Disable.



Other:

- Protocol Mode: Can choose EtherNet/IP Server or Modbus TCP Server.



EIP:

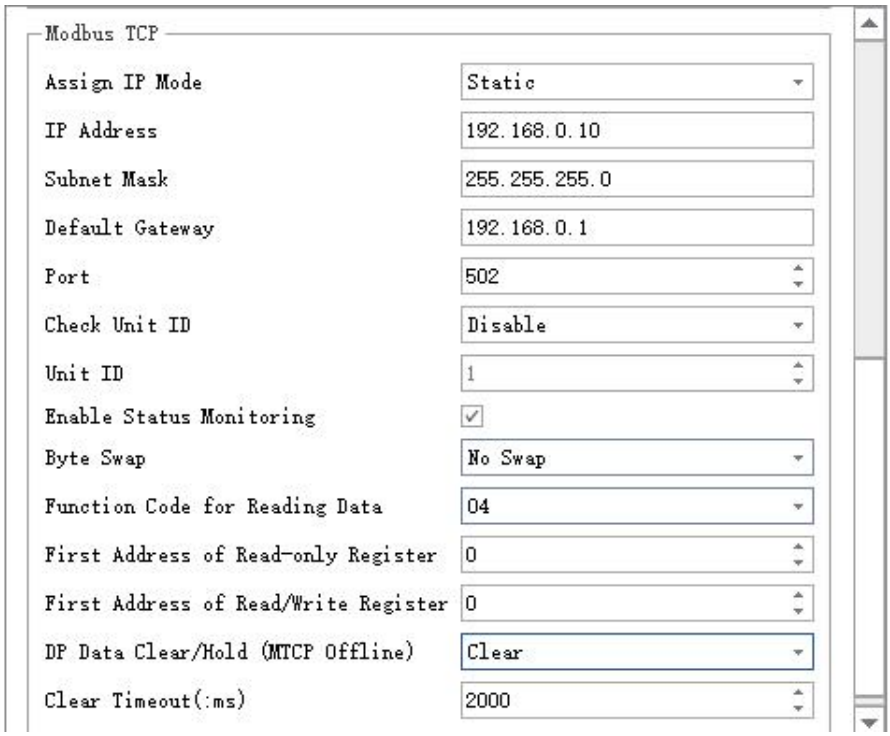
- Assign IP Mode: Can choose between static configuration and DHCP
- IP Address: Set the IP address of the GT200-DPM-EI.
- Subnet Mask: Set the subnet mask of the GT200-DPM-EI.
- Default Gateway:Set the IP address of default gateway.
- Enable Status Monitoring : DP Slave Status Monitoring via EtherNet/IP.To enable DP slave status monitoring:Enable the option to read status data starting from the first byte of EtherNet/IP input data.Status Word Configuration

  1-byte status word represents the connection state of 8 DP slave nodes:
  Bit = 1: Slave is connected and normal
  Bit = 0: Slave is disconnected or faulty
  (Number of Status Word Bytes (n): Automatically adapts based on the maximum configured DP slave node number, aligned to an even number of bytes. For example: If the maximum configured slave node is 15, 2 bytes of status words are displayed; if the maximum node is 17, the connection status of node 17 is displayed in the third byte, and with even-byte alignment, 4 bytes of status words are displayed, with the fourth byte padded with 0.)

Byte-to-Slave	Corresponding Slave Node	Byte-to-Slave	Corresponding Slave Node
1	7~0	9	71~64
2	15~8	10	79~72

3	23~16	11	87~80
4	31~24	12	95~88
5	39~32	13	103~96
6	47~40	14	111~104
7	55~48	15	119~112
8	63~56	16	125~120

- Non-DLR:When selected, enables access to an EtherNet/IP DLR network
- Vendor Code: Can be modified according to needs, the input range is: 1-65535. The default value is 1.
- Keep Alive Sending Rate: After the gateway sends Keep Alive and receives a correct reply, the rate that it sends the next packet of Keep Alive. The default is 8, unit: second. The range: 1-60000.
- Keep Alive Retry Interval: The time interval to send the next packet of Keep Alive after it does not receive a correct reply when sending a Keep Alive. The default is 1, unit: second. The range: 1-50.
- Keep Alive Retry Times: The number of times the gateway resends a Keep Alive packet after sending a Keep Alive packet without receiving a correct reply. The gateway will disconnect after sending N consecutive Keep Alive packets without receiving a correct reply. The default is 2. The range: 1-20.
- DP Data Clear/Hold (EIP Offline): When the EtherNet/IP connection is disconnected, the data output from EIP to DP slaves can be cleared to zero or retained.



Modbus TCP :

- Assign IP Mode: Supports static configuration or DHCP.
- IP Address: Sets the IP address of the gateway device.
- Subnet Mask: Sets the subnet mask of the gateway device.
- Default Gateway: Sets the gateway address of the gateway device.
- Port : Configures the port number for the Modbus TCP slave device. Range: 1 - 65535, Default: 502.
- Check Unit ID:

Enabled: The gateway, as a Modbus TCP slave device, validates the address bit of the master station's command, receiving, processing, and responding to the command only when the address matches; otherwise, it does not respond.

Disabled: The gateway, as a Modbus TCP slave device, responds to commands from the master station regardless of the address.

- Unit ID: Modbus TCP slave address. Effective when enabled. Range: 1 - 255, Default: 1.
- Enable Status Monitoring : DP Slave Status Monitoring via Modbus TCP.To enable DP slave status monitoring:Enable the option to read status data starting from the first byte of Modbus TCP input data.Status Word Configuration

1-byte status word represents the connection state of 8 DP slave nodes:

Bit = 1: Slave is connected and normal

Bit = 0: Slave is disconnected or faulty

(Number of Status Word Bytes (n): Automatically adapts based on the maximum configured DP slave node number, aligned to an even number of bytes. For example: If the maximum configured slave node is 15, 2 bytes of status words are displayed; if the maximum node is 17, the connection status of node 17 is displayed in the third byte, and with even-byte alignment, 4 bytes of status words are displayed, with the fourth byte padded with 0.)

Byte-to-Slave	Corresponding Slave Node	Byte-to-Slave	Corresponding Slave Node
1	7~0	9	71~64
2	15~8	10	79~72
3	23~16	11	87~80
4	31~24	12	95~88
5	39~32	13	103~96
6	47~40	14	111~104
7	55~48	15	119~112
8	63~56	16	125~120

- Byte Swap:Three types: No Swap, Two-Byte Swap, Four-Byte Swap.

No Swap: No byte order swapping is performed.

Two-Byte Swap: The high byte and low byte within 2 bytes are swapped. For example: 0x1234 is converted to 0x3412.

Four-Byte Swap: The high byte and low byte within 4 bytes are swapped, and the second-highest byte and second-lowest byte are swapped. For example: 0x12345678 is converted to 0x78563412.

- Function Code for Reading Data

Function Code 04 Read Input Data, 03 Read Back Output Data: "04 reads data from DP slave to Modbus, 03 reads back data written from Modbus to DP slave."

Function Code 03 Read Input Data, 04 Read Back Output Data: "03 reads data from DP slave to Modbus, 04 reads back data written from DP slave to Modbus."

- First Address of Read-only Register: Range: 0-64635, Default: 0.
- First Address of Read/Write Register: Range: 0-64635, Default: 0.
- DP Data Clear/Hold (MTCP Offline): After the Modbus TCP connection is disconnected and the clear timeout period is exceeded, the data output to the DP slave is cleared/kept.

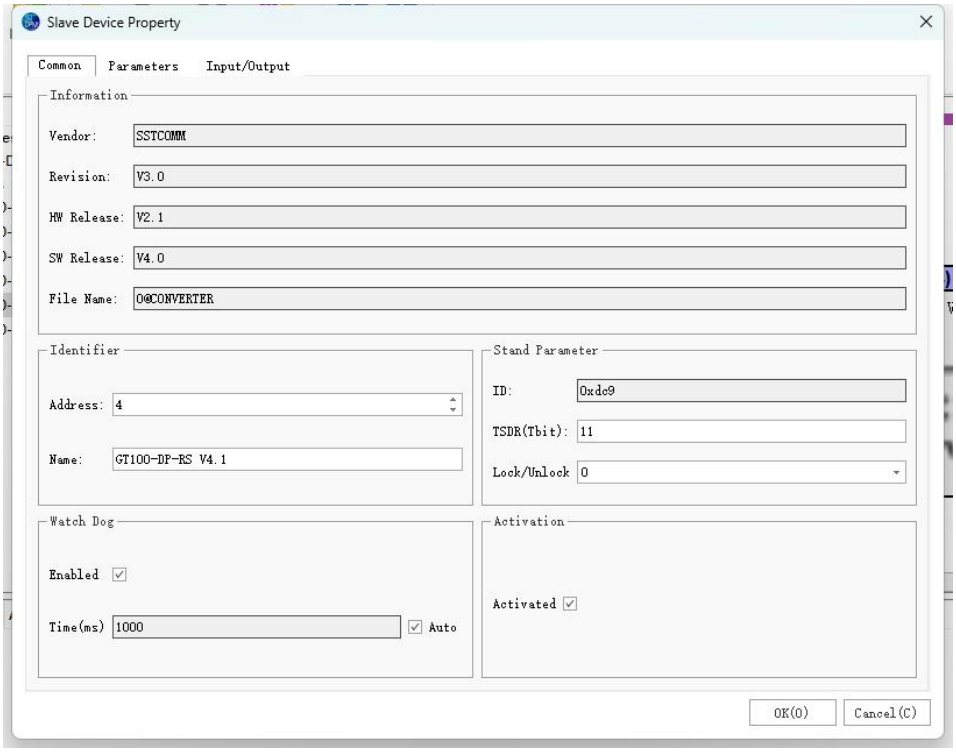
- Clear Timeout(:ms): Range: 300-65535, Default: 2000. If the Modbus TCP connection is disconnected and remains unrecovered after this time, the data output from Modbus TCP to the DP side is cleared (effective when “DP Data Clear/Hold (MTCP Offline)” is configured to clear).

After completing the configuration, click "OK" to apply the changes.

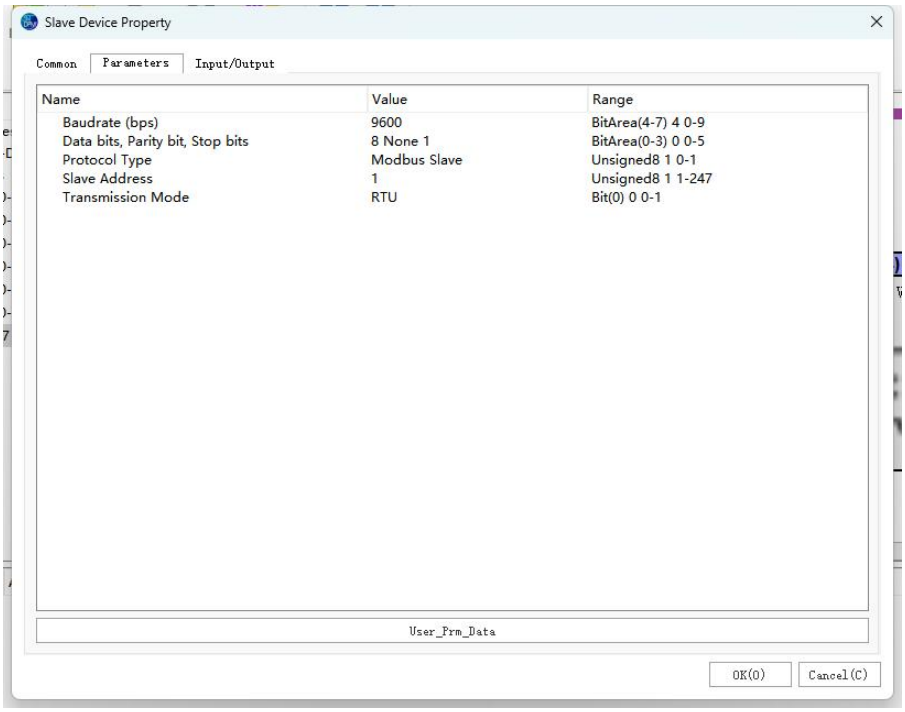
6.4.2 DP Slave:

6.4.2.1 Double-click the Slave icon to open the Slave Device Common dialog.

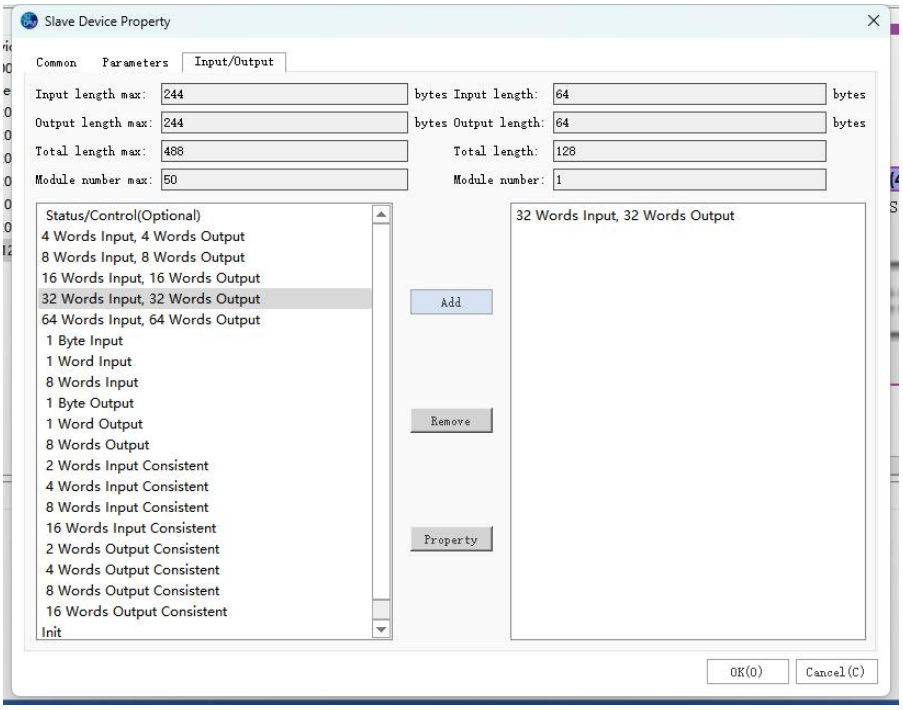
Navigate to the General tab to access: Device information、Identifier、stand parameters、Watch dog and Activation



6.4.2.2 On the "Parameters" tab, display the configuration parameters contained in the GSD file, and double-click on the parameter values to modify the configuration parameters.

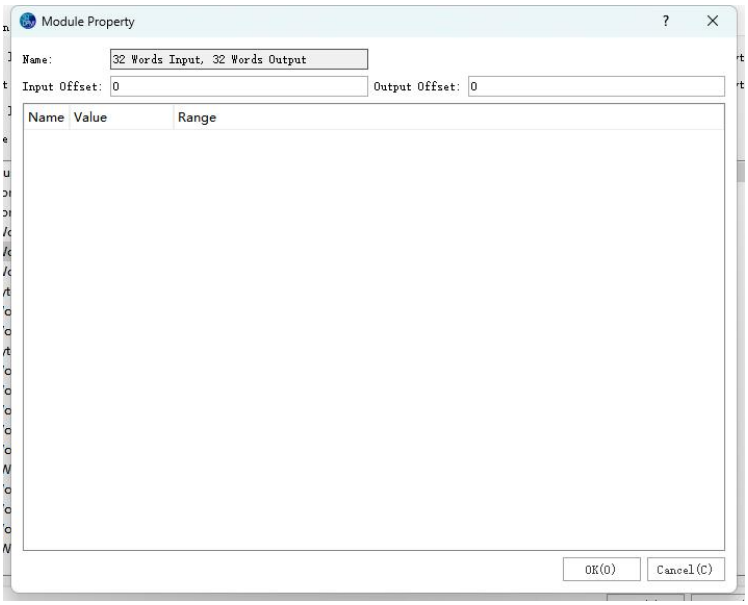


6.4.2.3 On the "Input/Output" tab, configure the communication mapping area for the slave device. Select the communication submodule from the left communication area list, choose "32 Word Input, 32 Word Output", and click "Add" to complete the loading process.

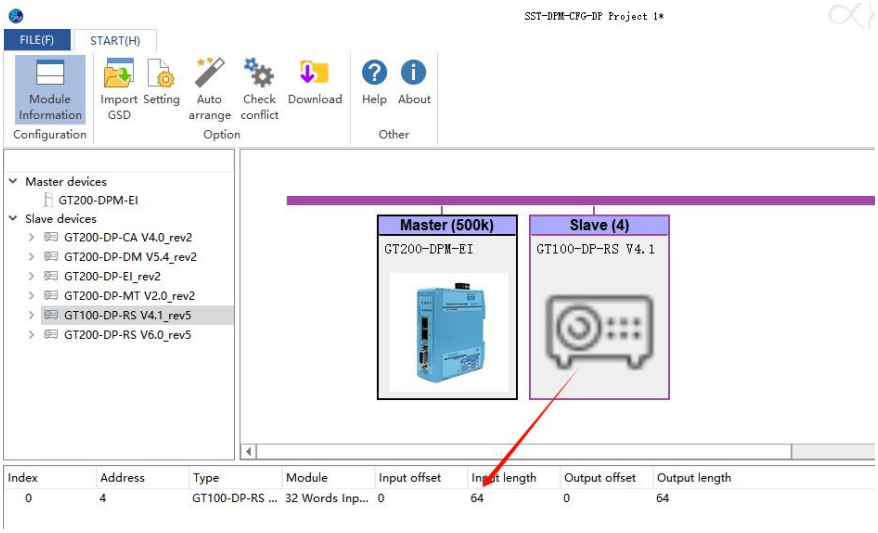


6.4.2.4 Select the communication submodule, click on "Property", and view or modify the input/output offset parameters in the module properties.

Item	Description
Module Name	Input/output submodule added in the slave
Offset Address	PROFIBUS DP input/output starting offset, e.g., adding 4 Word Input, 4 Word Output with offset starting at 0: i.e., 8 consecutive bytes starting from byte 0



6.4.2.5 After completing the configuration of the slave station, select the corresponding slave station, and the slave station attribute parameters can be displayed in the description window;

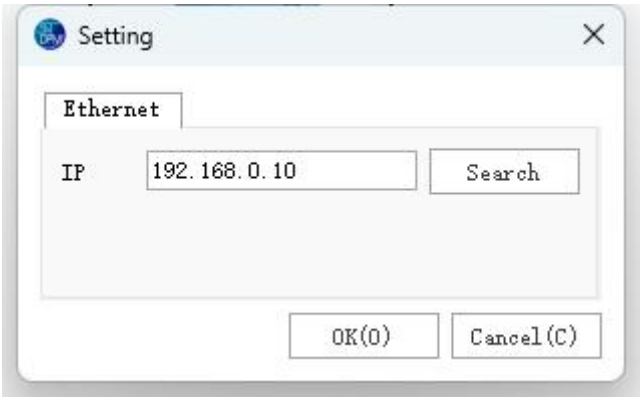


6.5 Download Configuration

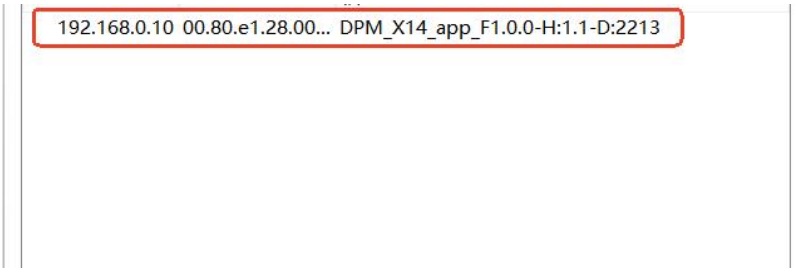
6.5.1 After all configuration information is set, search for the device. Click the "Settings" button on the toolbar to perform search settings;

6.5.1.1 Double click the gateway button, the ES light will flash orange, and enter configuration mode;

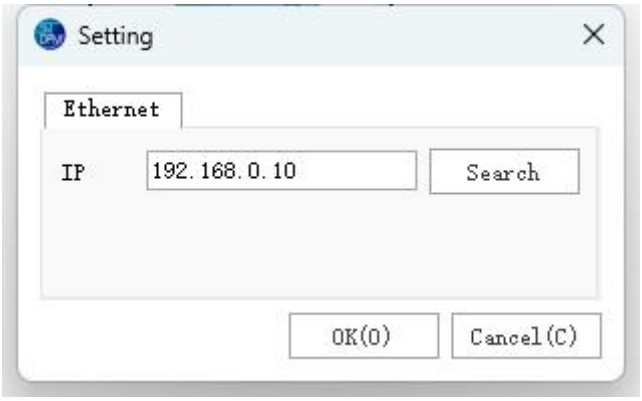
6.5.1.2 Click the "Settings" button on the toolbar;



6.5.1.3 Click on search and double-click on the device after finding the gateway:



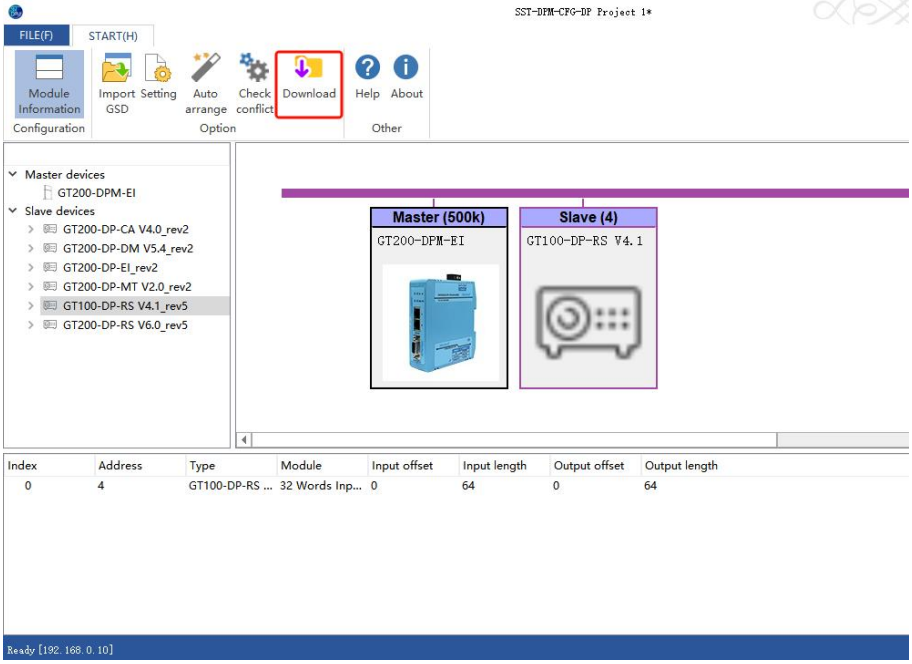
6.5.1.4 Click "OK":



6.5.2 Click the download button on the toolbar, and after the download is complete, the gateway will restart and take effect.

6.5.2.1 Double click the gateway button, the ES indicator light will flash orange, and the gateway will enter configuration mode;

6.5.2.2 Click the "Download" button on the toolbar, and it will prompt "Download configuration successful". The gateway will automatically restart and enable the new configuration to run;



6.5.2.3 Reason for gateway download failure:

Confirm whether the gateway is in configuration mode.

Is the gateway IP address consistent with the 'Configure' IP address? If not, click on 'Configure' again to search for the gateway.

Is the gateway IP address in the same network segment as the PC IP address.

7 EtherNet/IP Communication Parameters

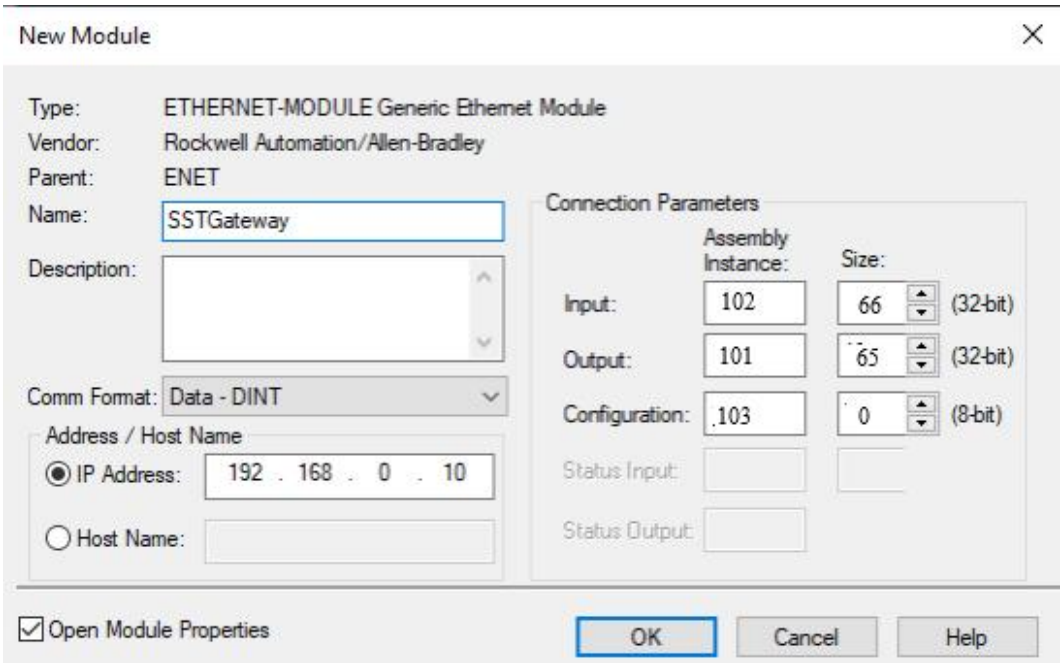
Connection parameters the adapter provides are as below:

Parameters \ Data Size	260 Bytes	492 Bytes
Input Instance	102	112
Output Instance	101	111
Configuration Instance	103	113

Notes: The Input data size should include 4-byte status. For example, when using the 260-byte parameters, the input size should be 264 bytes.

Take Studio 5000 as an example:

Because the data format is “DINT”, the data size is based on 32-bit and the “260 byte” should divide by 4.



The following Studio 5000 examples will describe how to read/write data in two ways.

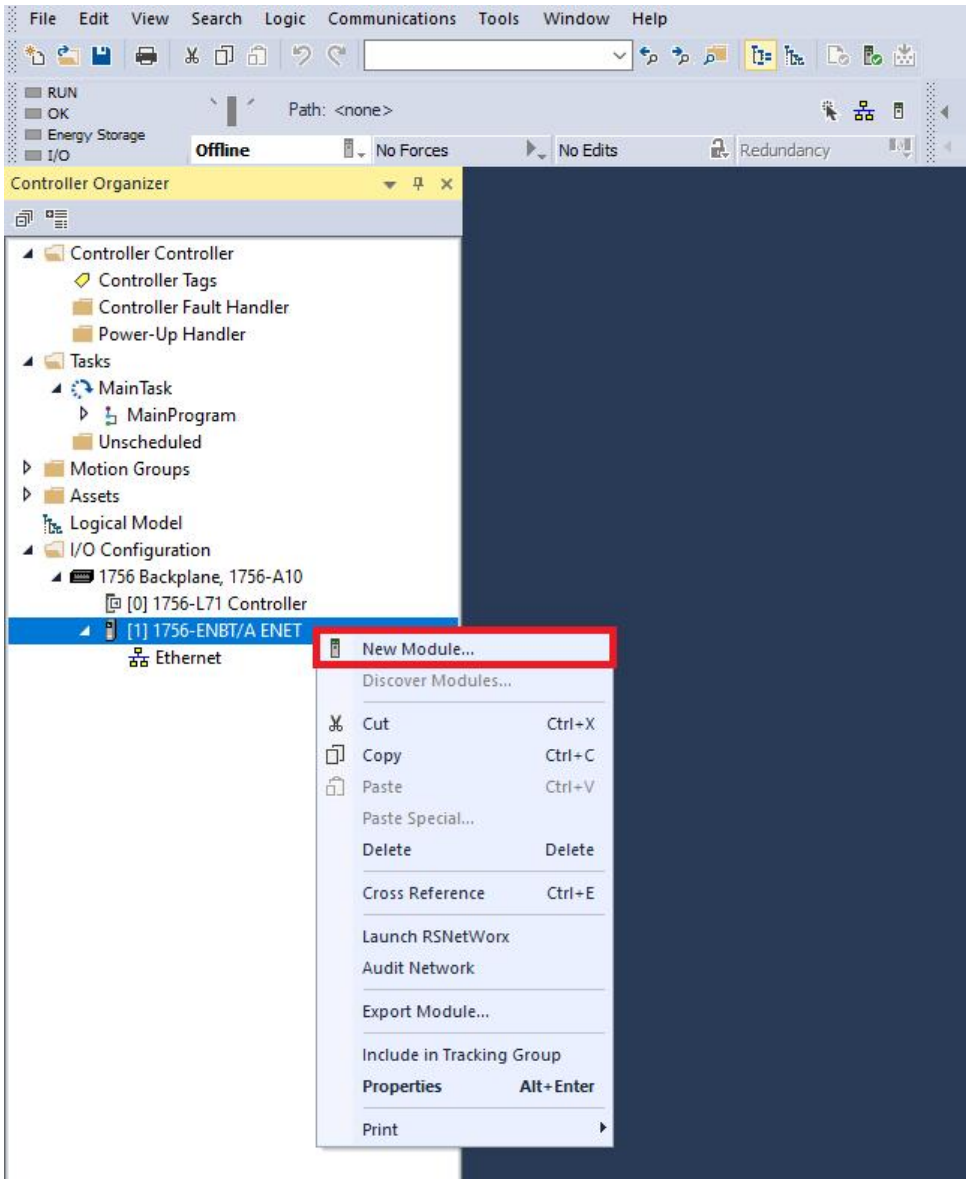
8 Communication with EtherNet/IP Scanner

8.1 Configure the IP address of GT200-DPM-EI

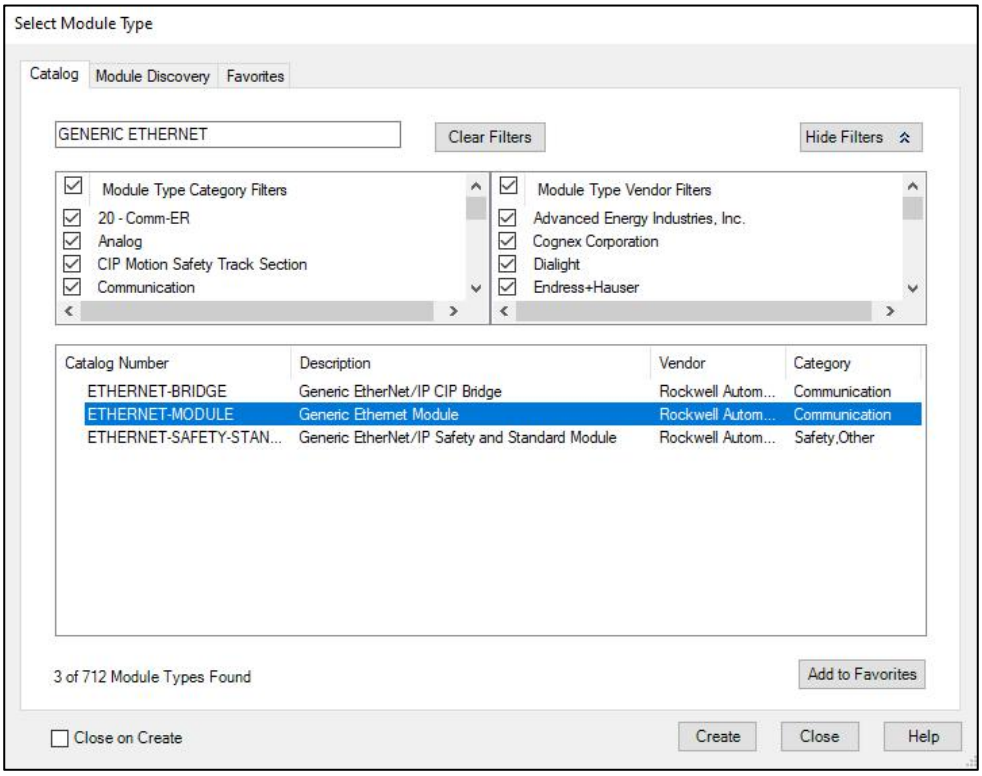
Firstly, confirm the IP address of the gateway in the SST-DPM-CFG software EIP parameter.

8.2 Read/Write Data by IO Messaging (Recommend)

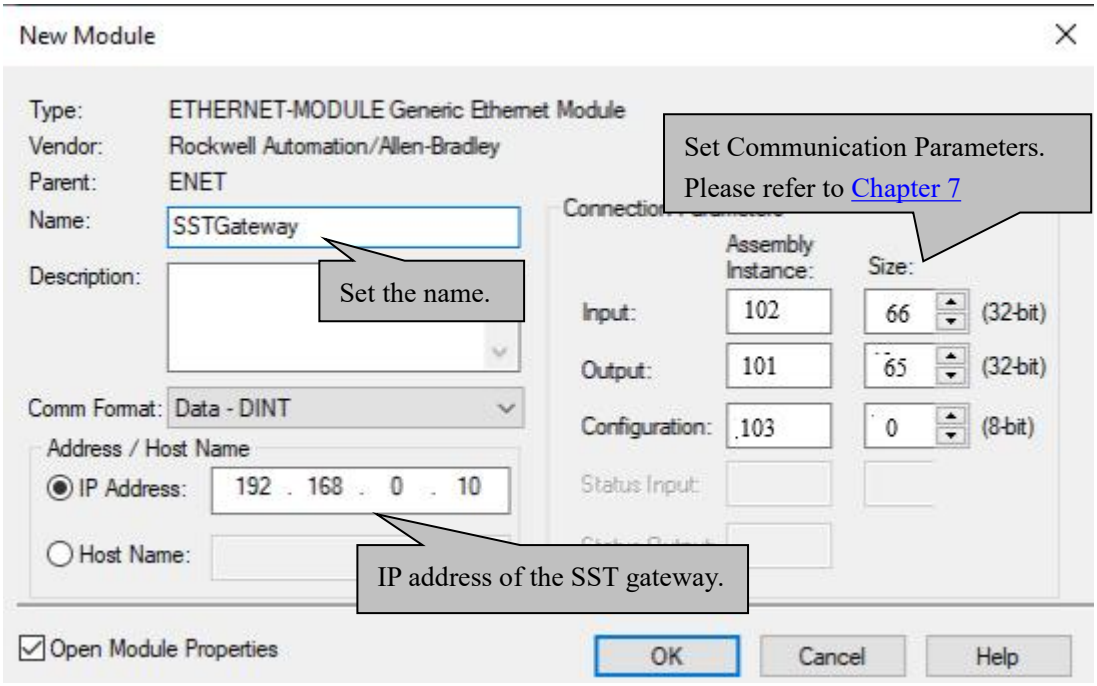
Right click on EtherNet/IP scanner module, click "New Module", as shown below:



In the pop-up dialog box, search for "GENERIC ETHERNET", choose "ETHERNET-MODULE", and click "Create" as shown below:



Configure relevant information in the pop-up window, as shown below:



In the above picture, the module information needs to be configured includes:

Name: Name the added EtherNet/IP adapter module.

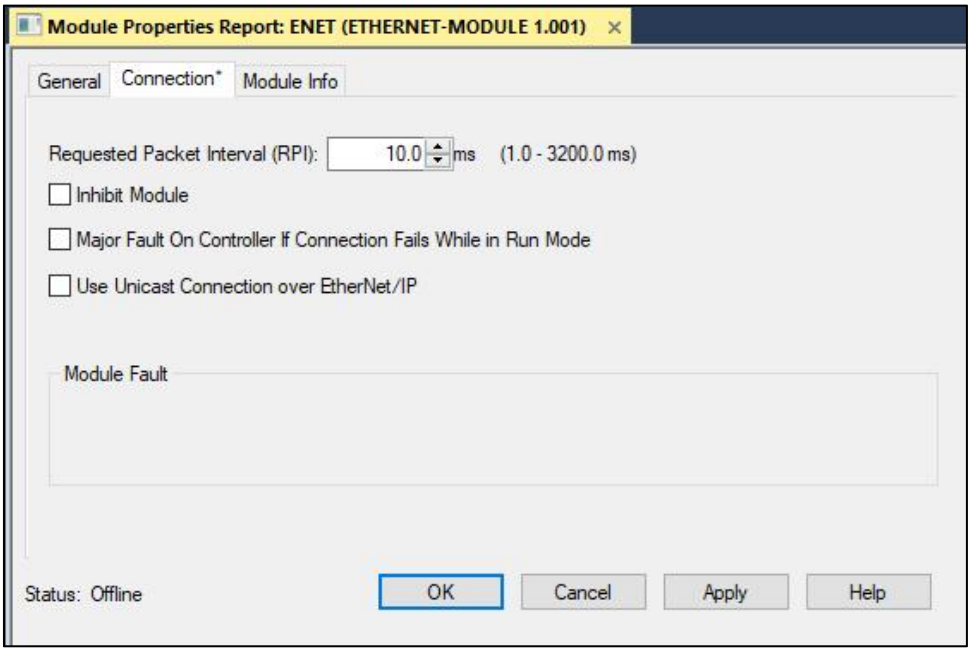
Comm Format: Configure data types. Users can choose data types as DINT, INT, SINT and REAL, etc. After confirmation, this cannot be changed. If you want to change data types, you can create new module.

IP Address: Set IP address of the EtherNet/IP adapter module (IP address of GT200-DPM-EI, configured by the software SST-DPM-CFG).

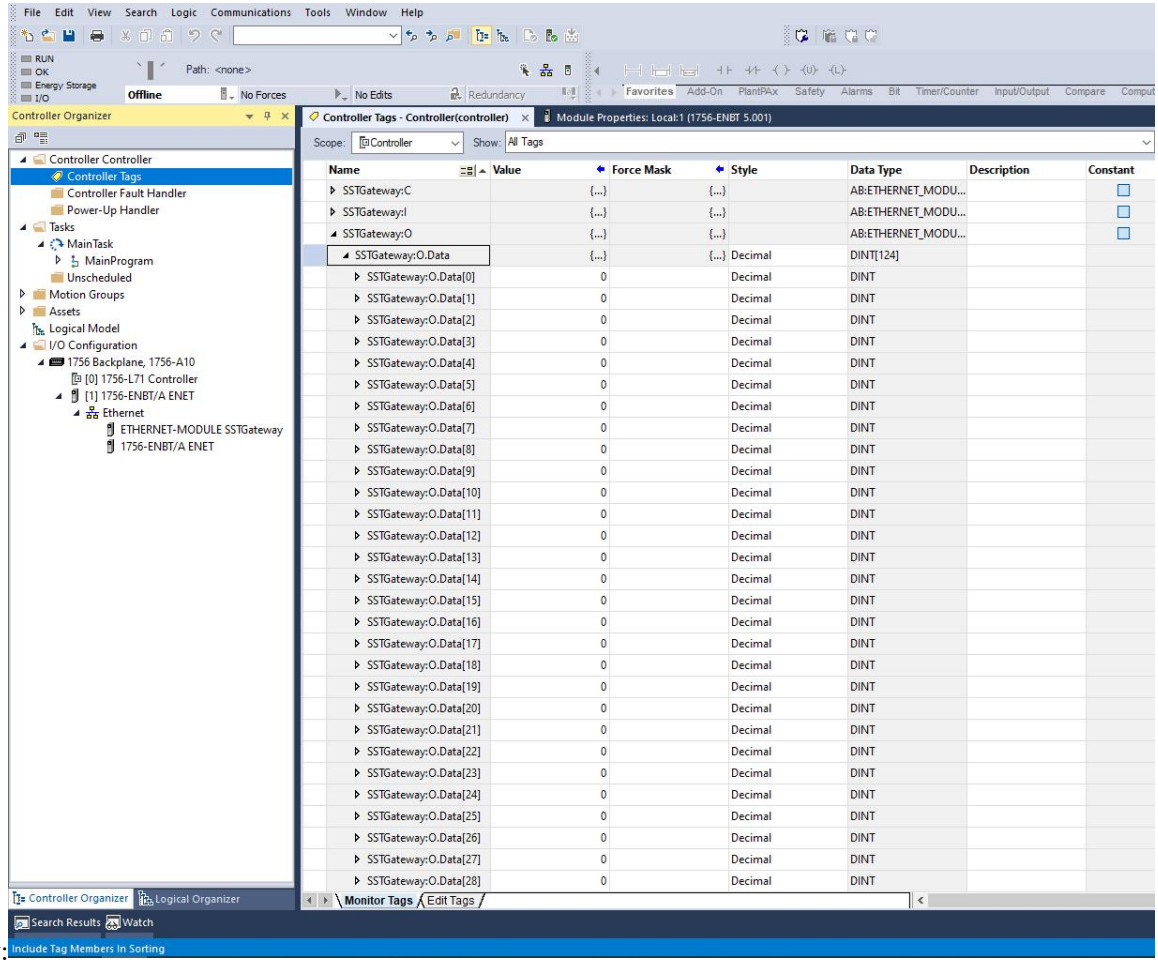
Connection Parameters: Set Connection parameters during communication. Please refer to chapter 7.

Note: "Size" (configured bytes) in the above picture should be the consistent with relevant input and output bytes of Instance in the above chapter.

Click "OK", set scanner polling time interval in the pop-up dialog box, the default is 10ms, as shown below:



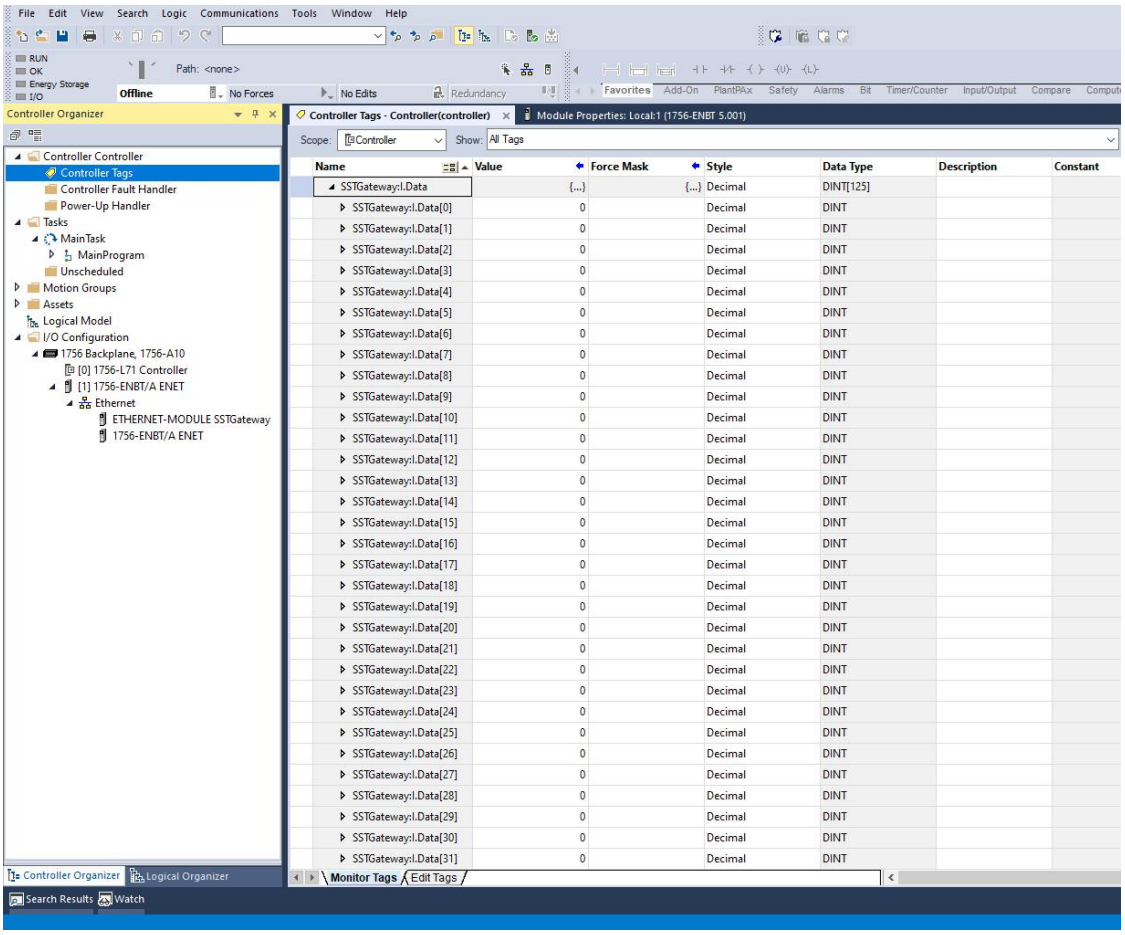
After setting this interval, click "OK" to save. Double click "Controller Tags", unfold "SSTGateway: O", as shown



below:

In the above picture, SSTGateway:O.Data [0] ~SSTGateway:O.Data [64] is the corresponding output data address of SST Gateway module in scanner.

Unfold "SSTGateway: I", as shown below:



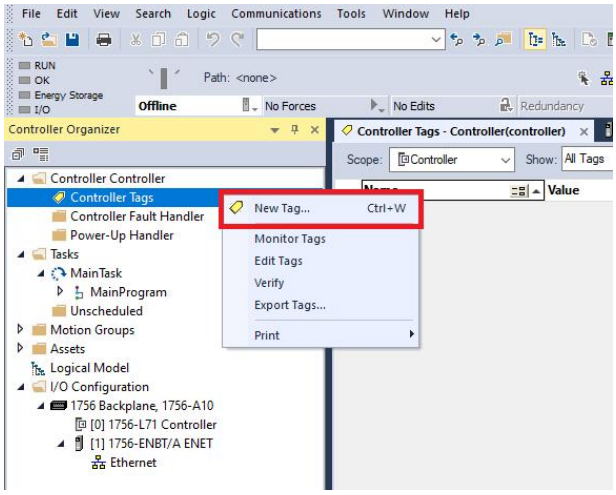
In the above picture, the first 4 bytes of SSTGateway: I. Data [0] are the status bytes. SSTGateway:I.Data [1] ~SSTGateway: I. Data [65] are the input data from GT200-DPM-EI.

8.3 Explicit MSG Connection Method

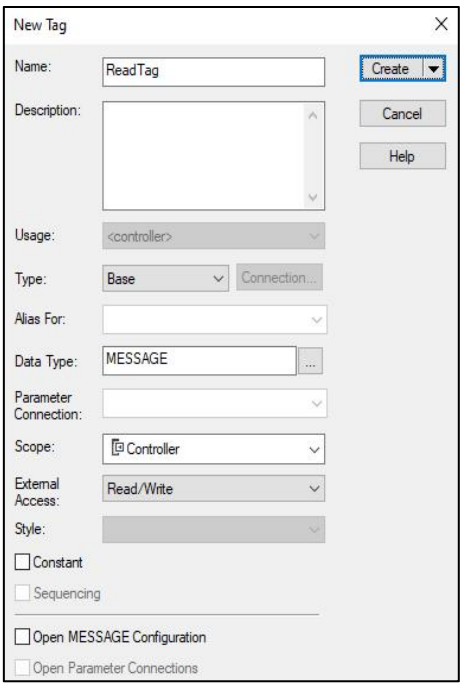
The following Studio 5000 example will describe how to read/write EtherNet/IP data using explicit MSG messaging.

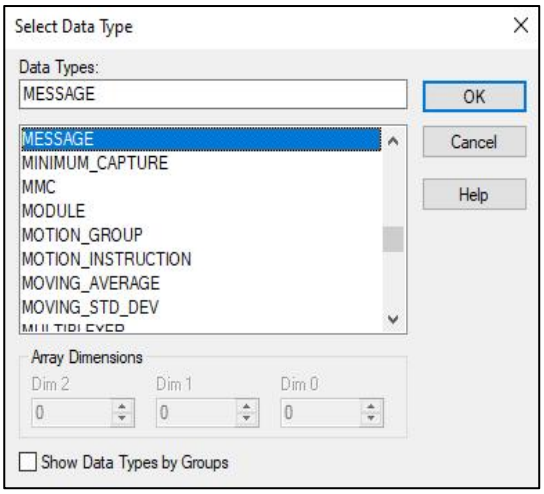
8.3.1 Read Data

To start, create a new project in "Offline" mode. Then under "Controller Tags", add two new tags named "ReadTag" and "ReadData" as shown below:

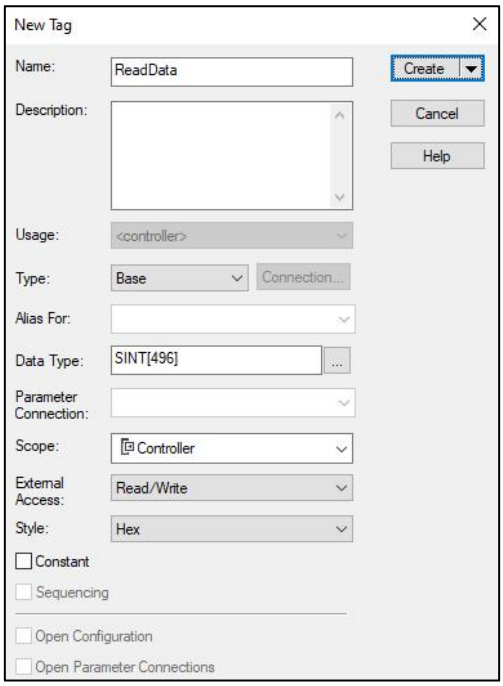


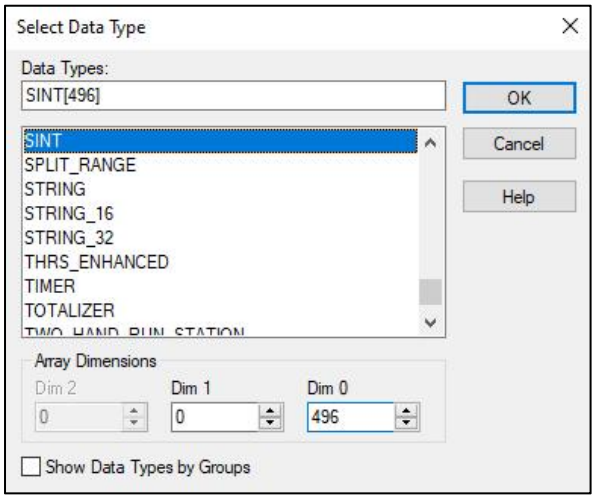
Set the data type of "ReadTag" as "MESSAGE":

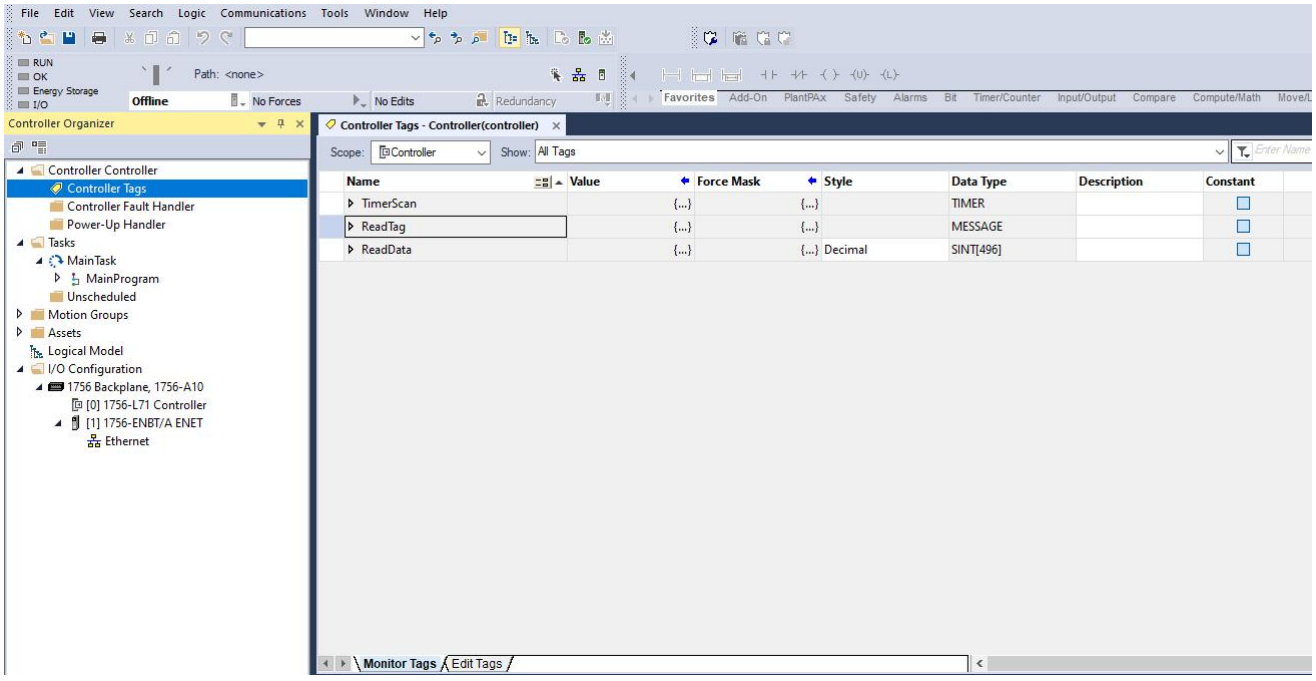




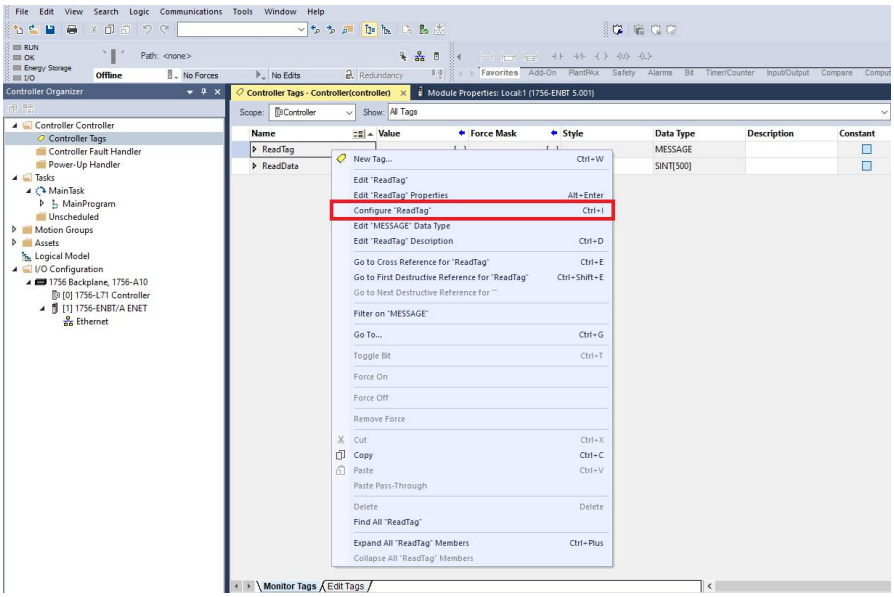
Set the data type of "ReadData" as "SINT", then set the Array Dimension "Dim 0" to match the Input Data Size. Refer to the connection parameters from the beginning of Chapter 7:







Right click on "ReadTag", select "Configure "ReadTag" as shown below:



In the new pop-up window, it needs to set some parameters as below:

Message Type: CIP Generic

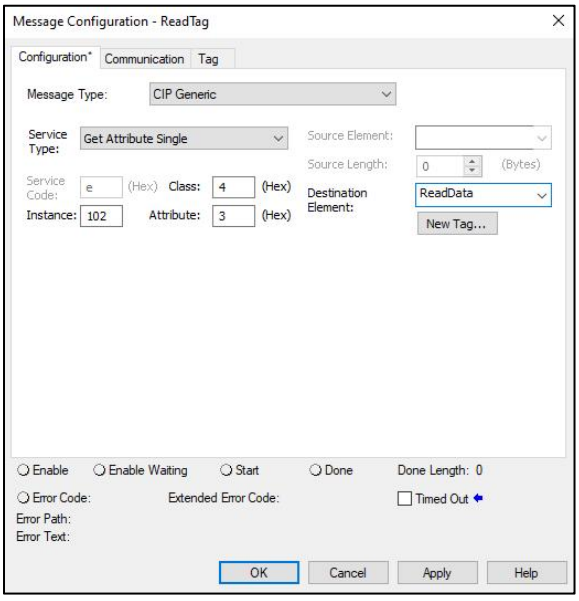
Service Type: Select "Get Attribute Single", now, relevant service code will become "e (Hex)"

Class: 4 (Hex)

Instance: Please refer to chapter 7 EtherNet/IP Connection Parameters.

Attribute: 3 (Hex)

Destination: Select "ReadData" label, now, the data that have been received will be saved in this tag.

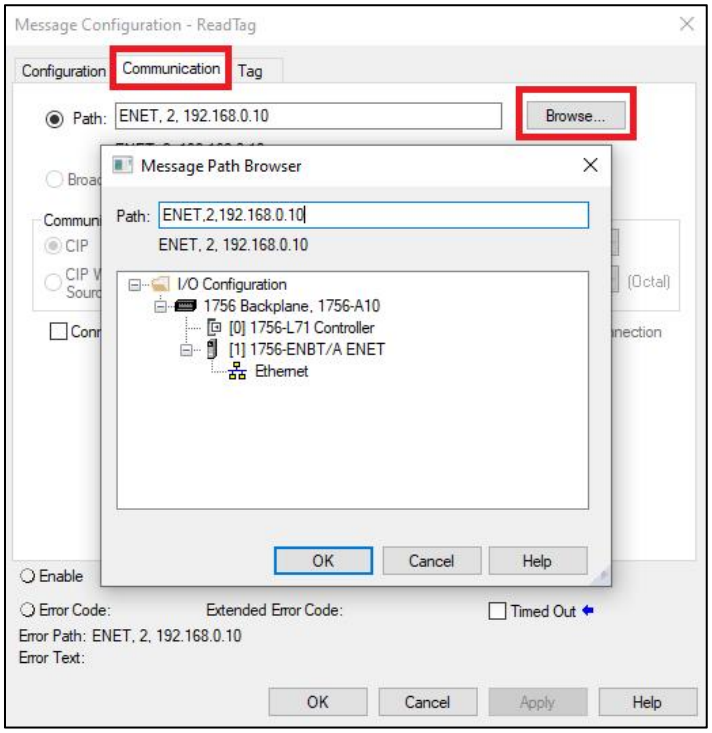


Choose "Communication" label, input the relevant path of connecting EtherNet/IP adapter in the blank space

behind the Path, the path format is: EthetNet IP hostname, EtherNet/IP scanner slot No., IP address of EtherNet/IP adapter, after setting the path, click "Apply", "Confirm". As is shown below:

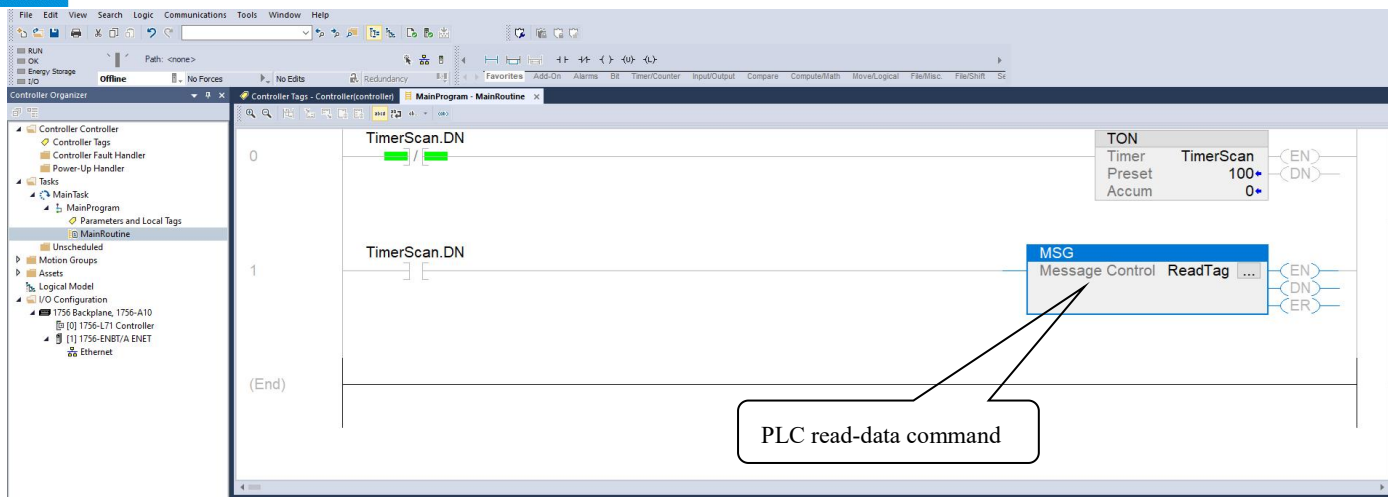
[EtherNet/IP Interface Name], 2 (Ethernet Communication), [GT200-DPM-EI IP Address]

In this instance, EtherNet/IP hostname is "Scanner", EtherNet/IP scanner slot No. Is "2", EtherNet/IP adapter (SST Gateway) is "192.168.0.10". IP address of SST Gateway is the address which is configured by the configuration software.



Add a "MSG" command and select "ReadTag" as "Message Control" in the "MainRoutine" of "MainProgram" as shown in the image below. This is a simple command which can send a read request. The user still needs to add some logic commands to trigger this command in common program. For further details, please refer to Studio 5000 Logix reference material.

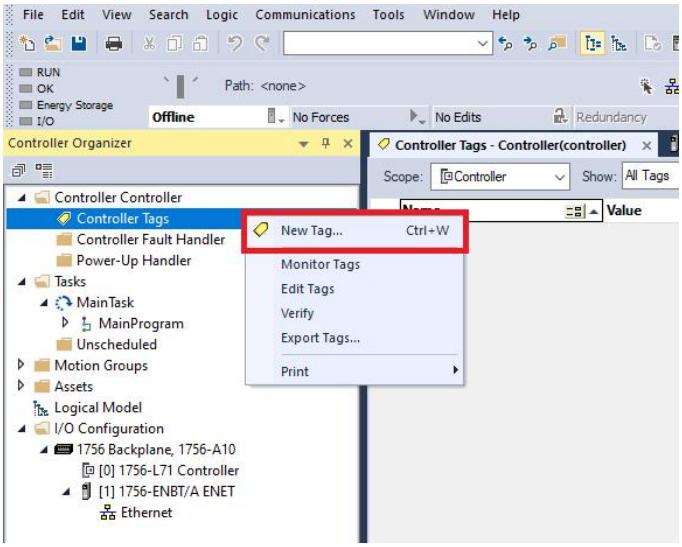
Download the program to the PLC and set PLC into "Online" state.



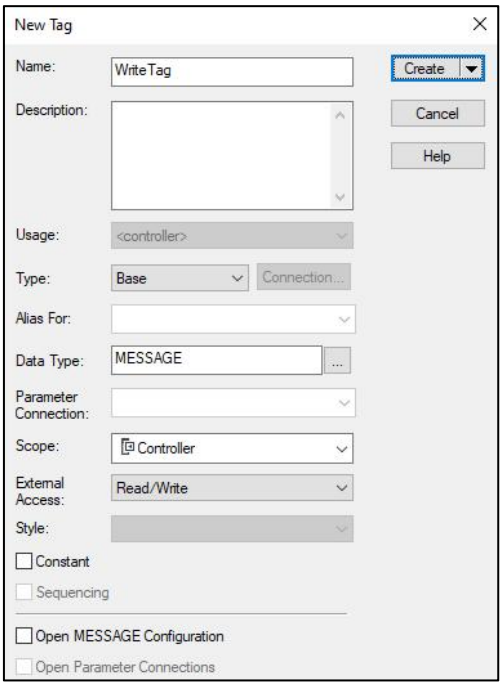
Click "Control Tags" and select "Monitor Tags". Expand "ReadData" to see that PLC can read DP data through the GT200-DPM-EI gateway.

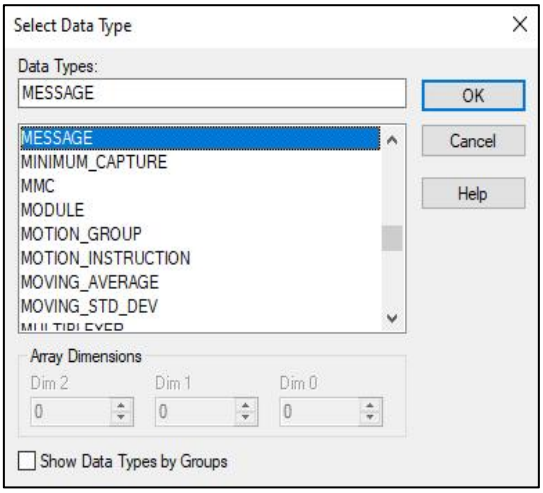
8.3.2 Write MSG Instruction

Switch to "Offline" mode and add two new tags "WriteTag" and WriteData", under the "Controller Tags". Define the type of "WriteTag" as "MESSAGE" and "WriteData" as "SINT[500]" as shown below:

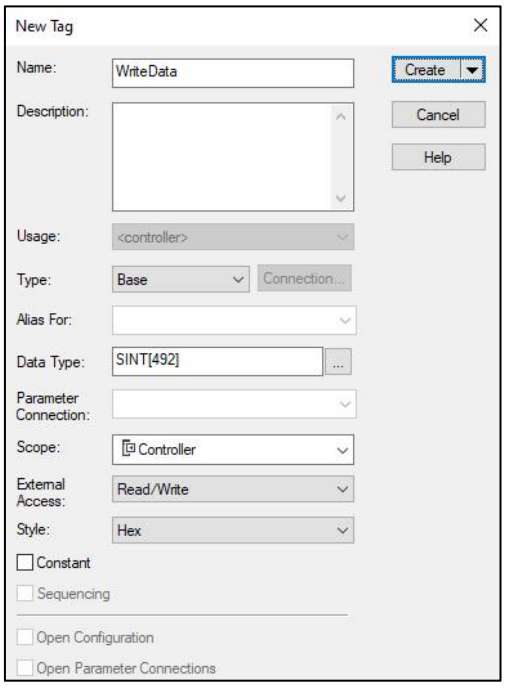


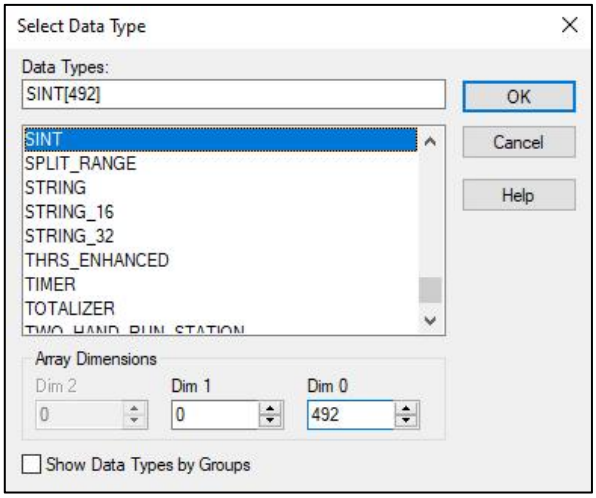
Set the data type of "WriteTag" as "MESSAGE":

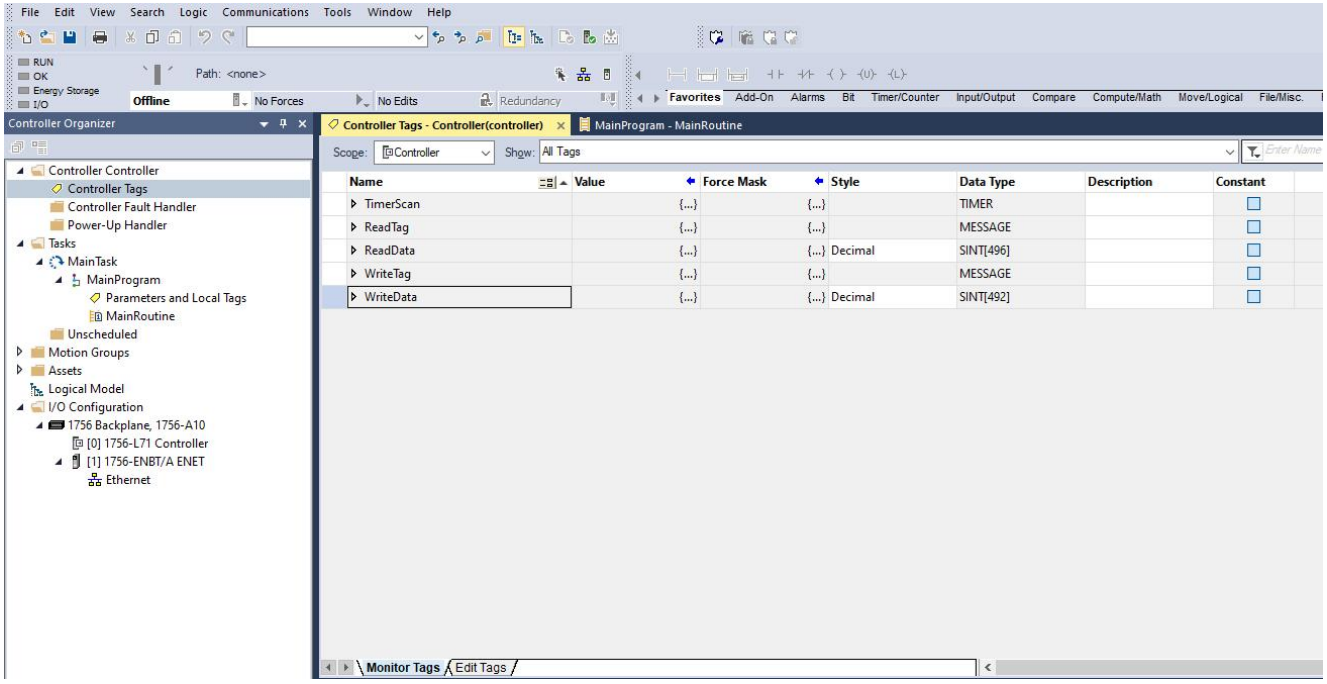




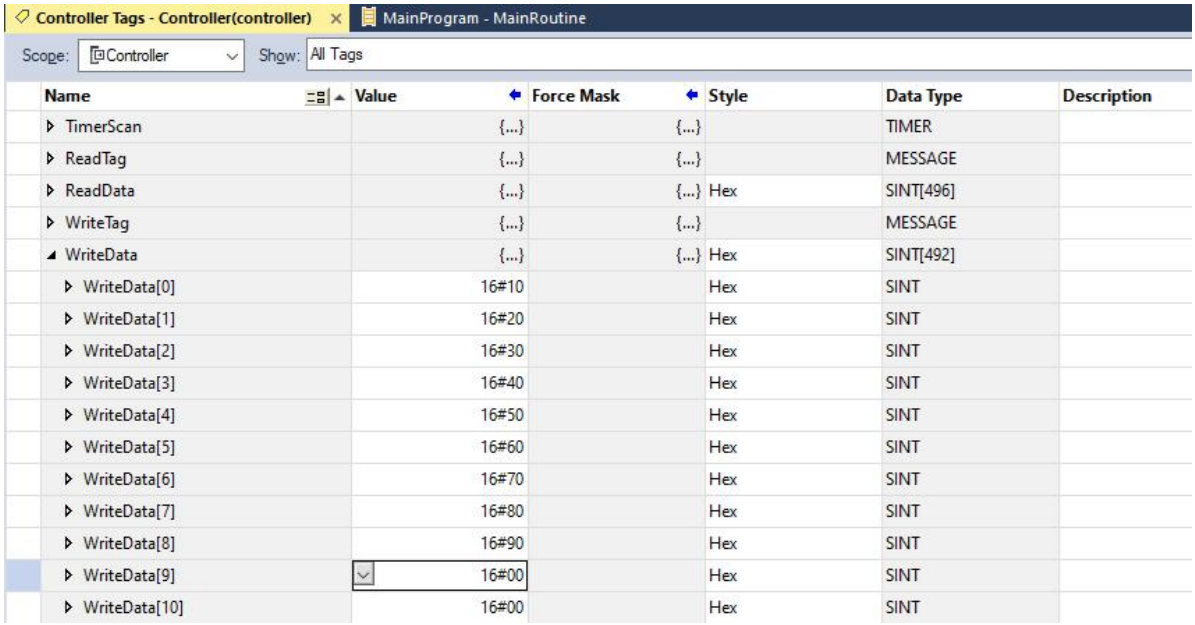
Set the data type of "WriteData" as "SINT", then set the Array Dimension "Dim 0" to match the Output Data Size. Refer to the connection parameters from the beginning of Chapter 7:



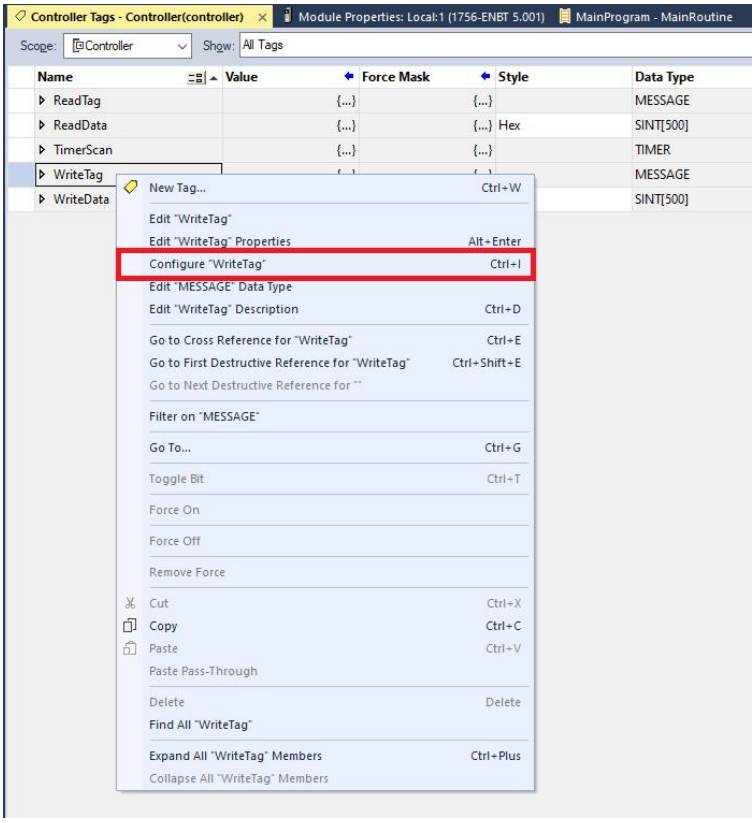




Enter into the "Monitor Tags" interface and input some data in the "WriteData" tag. This data will be outputted to GT200-DPM-EI through PLC. As shown in the image below, 0x10, 0x20, 0x30, 0x40, 0x50, 0x60, 0x70, 0x80 and 0x90 are the data that will be outputted.



Right click "WriteTag" and select "Configure "WriteTag" as shown below:



In the new pop-up window, it needs to configure as below:

Message Type: CIP Generic

Service Type: Select "Set Attribute Single", now, relevant Service Code will become "10 (Hex)"

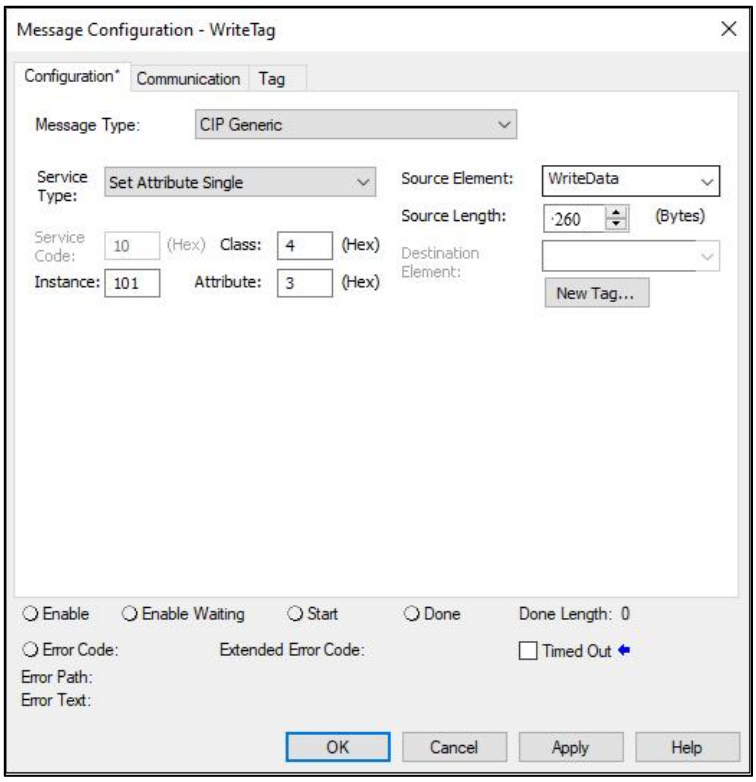
Class: 4 (Hex)

Instance: Please refer to chapter 7 EtherNet/IP Connection Parameters.

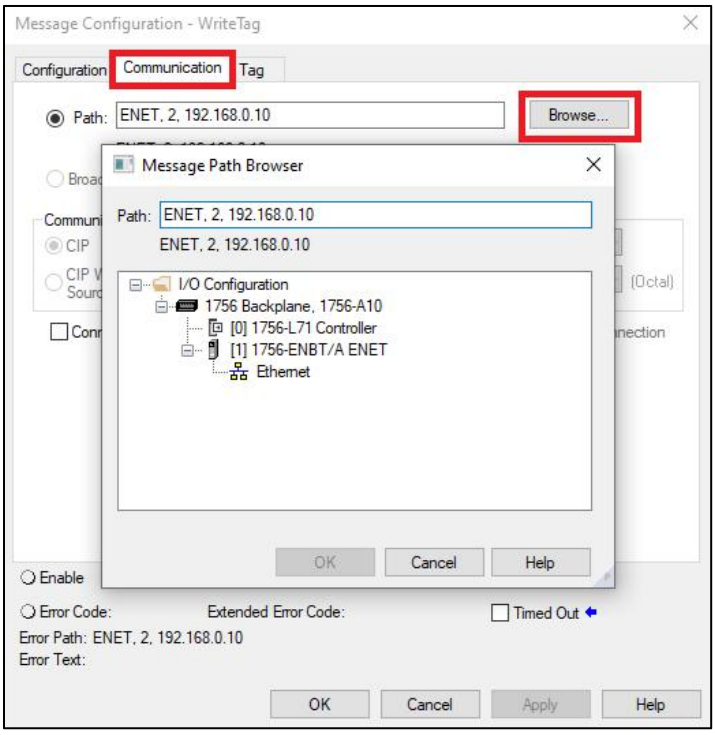
Attribute: 3 (Hex)

Source Element: Select "WriteData" tag, it indicates the data in the "WriteData" tag will become the data PLC outputs.

Source Length: Use byte as unit, this value should be less than or equal to the current selecting bytes which Instance represents.

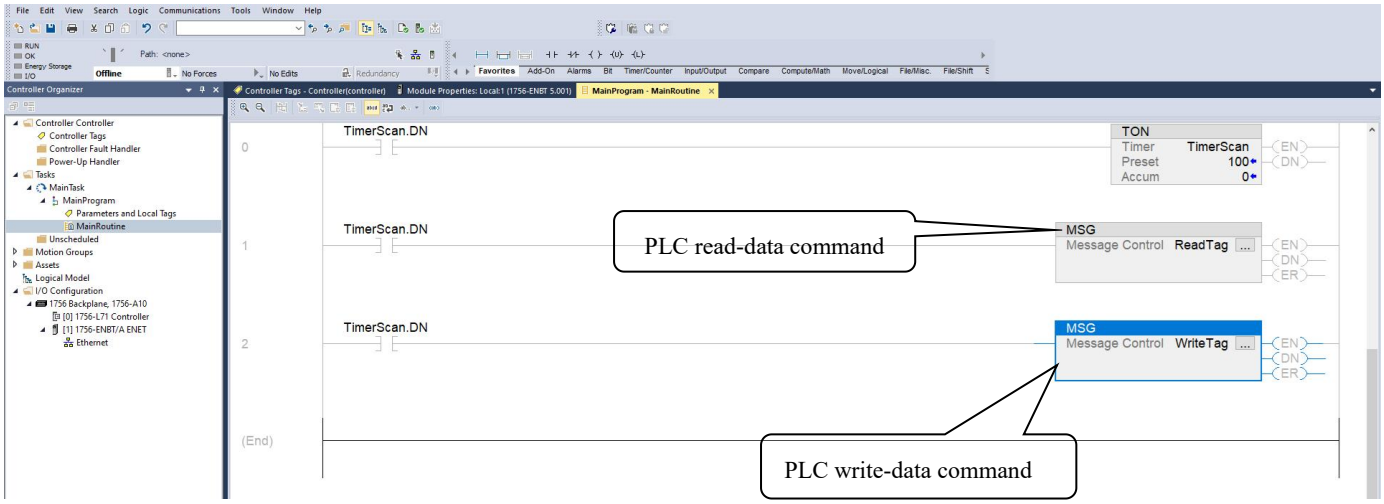


Choose "Communication" label, input the relevant path of connecting EtherNet/IP adapter in the blank space behind the Path, the path format is: EthetNet IP hostname, EtherNet/IP scanner slot No., IP address of EtherNet/IP adapter, after setting the path, click "Apply", "Confirm". As is shown below:



In this instance, EtherNet/IP hostname is "Scanner", EtherNet/IP scanner slot No. Is "2", EtherNet/IP adapter (SST Gateway) is "192.168.0.10". IP address of SST Gateway is the address which is configured by the configuration software.

Add a "MSG" command in "MainRoutine" under the "MainProgram" and choose "WriteTag" as "Message Control", as shown below:

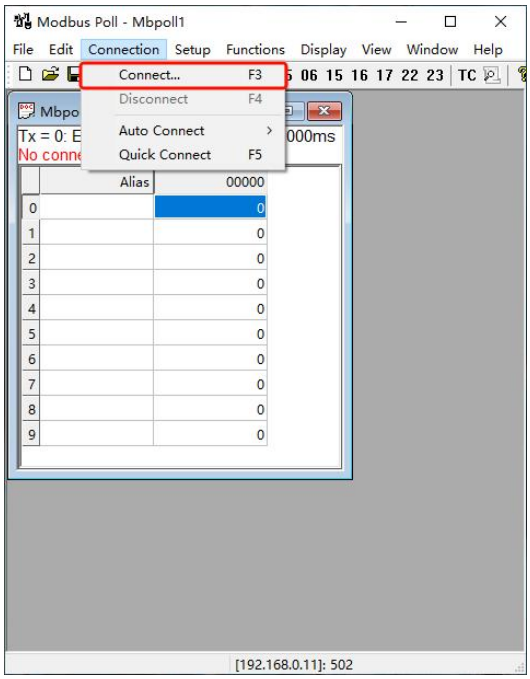


Download PLC program to the PLC and set PLC to "Online" state, the data in "WriteData" will be outputted to EtherNet/IP adapter (SST Gateway).

9 Communication with Modbus poll

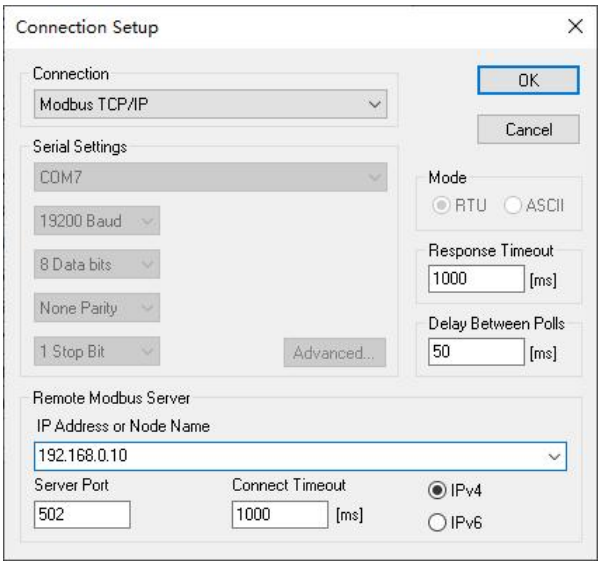
9.1 Connection

Open Modbus Poll, click on Connection, and select Modbus TCP as the connection method.



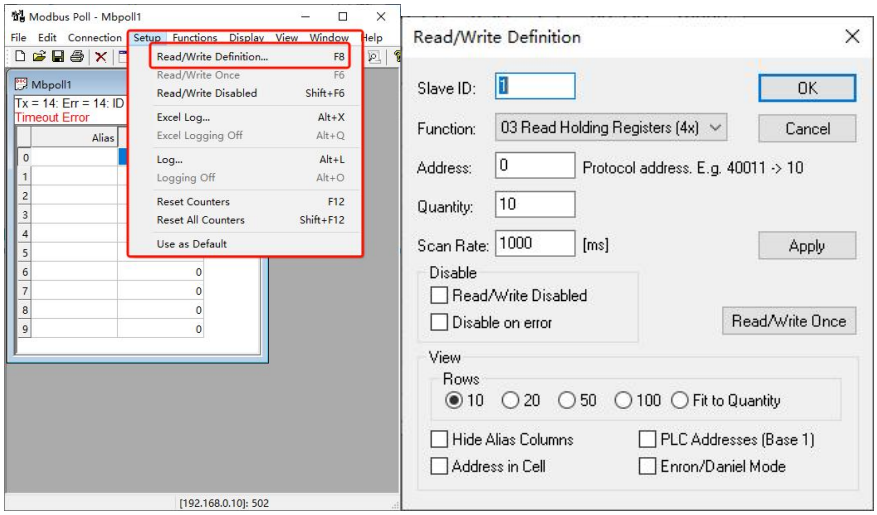
9.2 Assign IP Address

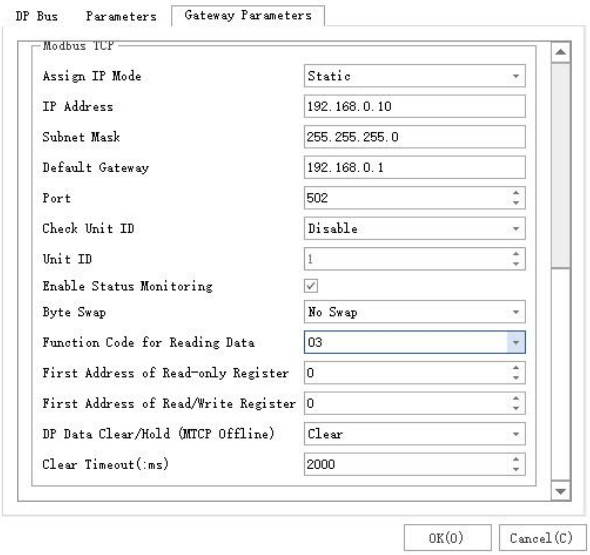
In the "IP Address or Node Name" field, enter the gateway's IP address: 192.168.0.10 and Server Port: 502, then click OK after entering. Connect the computer and the gateway using a Network Cable.



9.3 Modbus TCP Command Settings

After connecting to the gateway, configure the commands by clicking on "Read/Write Definition" in the SETUP menu.





Slave ID:GT200-DPM-EI's Unit ID (must ensure Check Unit ID is enabled; otherwise, it can be filled in arbitrarily).(Refer to Section 6)

Function:Corresponding to “Function Code for Reading Data”, select the corresponding function code according to the configuration.

Address:Select the corresponding address based on “First Address of Read-only Register” or “First Address of Read/Write Register”.

Example:

When the” Function Code for Reading Data” is set to 04, the "First Address of Read-only Register" corresponds to the starting register address for function code 04, and the "First Address of Read/Write Register" corresponds to the starting register address for function code 03.

Quantity:Allocate data size based on the data read from the DP slave.

After completing the selection, you can see the data from the Modbus TCP slave GT200-DPM-EI being read in Modbus Poll.