Modbus / EtherNet/IP Gateway

GT200-EI-2RS485

User Manual

V 3.3

SST Automation

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www.SSTAutomation.com

Important Information

Warning

The data and examples in this manual cannot be copied without authorization. SSTCOMM reserves the right to upgrade the product without notifying users.

The product has many applications. The users must make sure that all operations and results are in accordance with the safety of relevant fields, and the safety includes laws, rules, codes and standards.

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Catalog

1 Product Overview

1.1 Product Function

GT200-EI-2RS485 is a gateway which can exchange data between Modbus to EtherNet/IP protocol. The gateway acts as the adapter at the EtherNet/IP side and the master at the Modbus side. If needed, user can also change the EtherNet/IP to Modbus TCP function. Then, user can realize the Modbus to Modbus TCP conversion. More details, please refer to Appendix A.

1.2 Feature

- Redundant Power Supply
- Two independent RS-485 interfaces 1KV photoelectric isolation
- Ethernet 10/100M adaptive
- IP address conflict detection
- Modbus network debugging
- Easy to use configuration software SST-GT-CFG

1.3 Technical specification

[1] EtherNet/IP network is independent with two Modbus subnet;

[2] Ethernet 10/100M adaptive;

[3] Support IP addresses conflict detection function;

[4] Support the ODVA Standard EtherNet/IP communication protocol;

[5] Two serial RS-485 ports, half-duplex, and baud rate support: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200; parity mode support: none, odd, even, mark, space; 1 or 2 stop bits;

[6] GT200-EI-2RS485 acts as master at the side of Modbus network and supports 01H, 02H, 03H, 04H, 05H, 06H, 0FH, 10H function codes, can be configured up to 48 Modbus commands for each RS-485 interface; Modbus function codes 03H, 04H, 06H and 10H support "Byte Swap" function, and it can help users solve

the problem of data format between two different networks;

[7] Two independent RS-485 interfaces with 1KV optical isolation;

[8] The maximum number of input and output bytes of EtherNet/IP:

Maximum number of input bytes: 492Bytes

Maximum number of output bytes: 492Bytes

[9] Power supply: 24VDC (9V ~ 30V), 90mA (24VDC);

[10] Working temperature:-4°F~140°F(-20°C~ 60°C), relative humidity: 5% ~ 95% (no condensation);

[11] External dimensions (W*H*D): 1.33 in*4.56 in*4.21 in (34mm*116mm*107mm).

[12] Installation: 35mm DIN rail;

[13] Protection class: IP20;

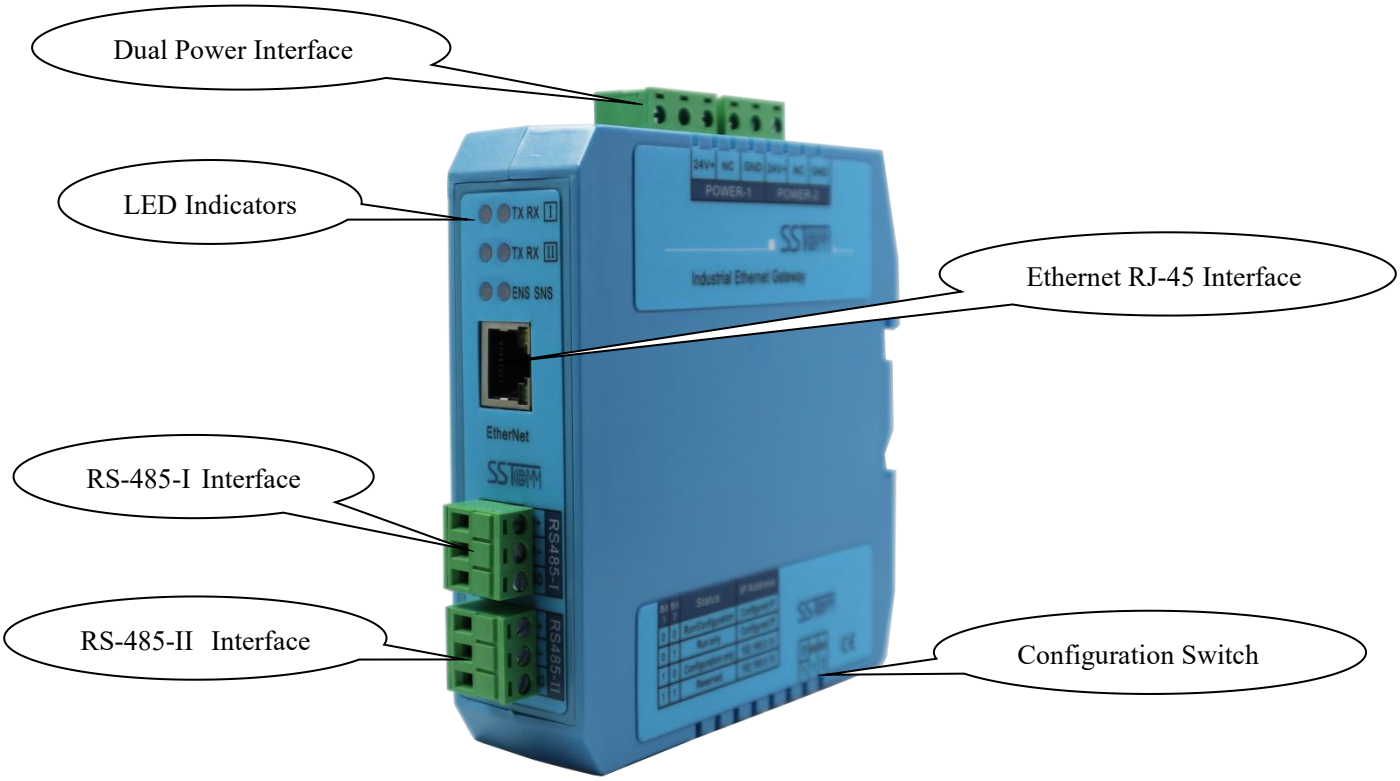
[14] Test standard: EMC test standards.

1.4 Revision History

Revision	Date	Chapter	Description
V2.3	7/14/2017	ALL	New release
V2.3, Rev A	3/26/2021	ALL	Supports changing to Modbus TCP function
V3.3	8/23/2022	PART	Updated the product picture and dimensions

2 Hardware Description

2.1 Appearance



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

2.2 LED Indicators

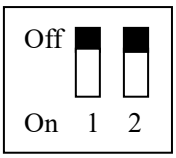
Indicator	State	Description
TX	Flashing	Sending Modbus data
	OFF	No data transferring
RX	Flashing	Receiving Modbus data
	OFF	No data transferring
ENS	Green	EtherNet/IP connection is established
	Flashing Green	EtherNet/IP connection is not established
	Red	IP address conflict
	Flashing Red	EtherNet/IP connection timed out; DHCP, BOOTP , IP address conflict detection
SNS	Green	Modbus Communication is normal
	Red	At least one Modbus channel response timed out, exception or error
	Flashing, red and green alternately	At least parts of devices in a Modbus channel timed out, exception or error

* Special States

Indicator	State	Description
ENS & SNS Orange	Light up together	The gateway is starting up
	Flashing alternately	Configuration mode

2.3 Configuration Switch

Configuration switch is located on the bottom of the gateway, bit 1 is mode bit, bit 2 is function bit.



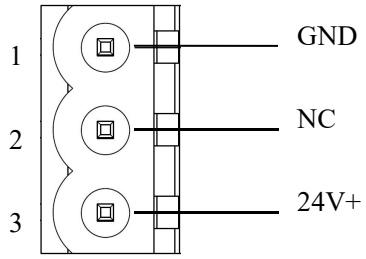
Mode (Bit 1)	Function (Bit 2)	Description
Off	Off	Operation mode, allowed to upload/download configuration.
Off	On	Operation mode, not allowed to upload/download configuration.
On	Off	Configuration mode, IP address is fixed at 192.168.0.10. In this mode, the gateway is allowed to upload/download configuration but does not transfer data between EtherNet/IP and Modbus network.

Notes: If you changed the DIP switch, you have to restart GT200-EI-2RS485 (power off and power on) to make the settings take effect.

2.4 Interface

2.4.1 Power Interface

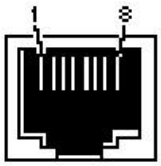
GT200-EI-2RS485 has two power interfaces, with power redundancy function, when one the way to power failure, power can continue to supply the other way.



Pin	Function
1	GND,
2	NC, no connection
3	24V+ , DC

2.4.2 Ethernet Interface

Ethernet interface apply RJ-45 connector, 10/100M adaptive.

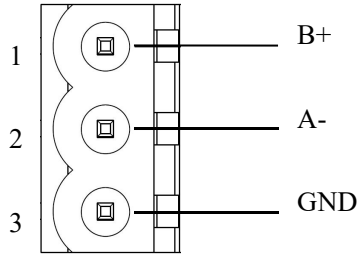


RJ-45 port

Pin	Signal Description
S1	TXD+, Tranceive Data+, Output
S2	TXD-, Tranceive Data-, Output
S3	RXD+, Receive Data+, Input
S4	Bi-directional Data+
S5	Bi-directional Data-
S6	RXD-, Receive Data-, Input
S7	Bi-directional Data+
S8	Bi-directional Data-

2.4.3 RS-485 Interface

Serial interface uses 3-pin pluggable terminal and users can wire it according to the wiring instructions on the panel.

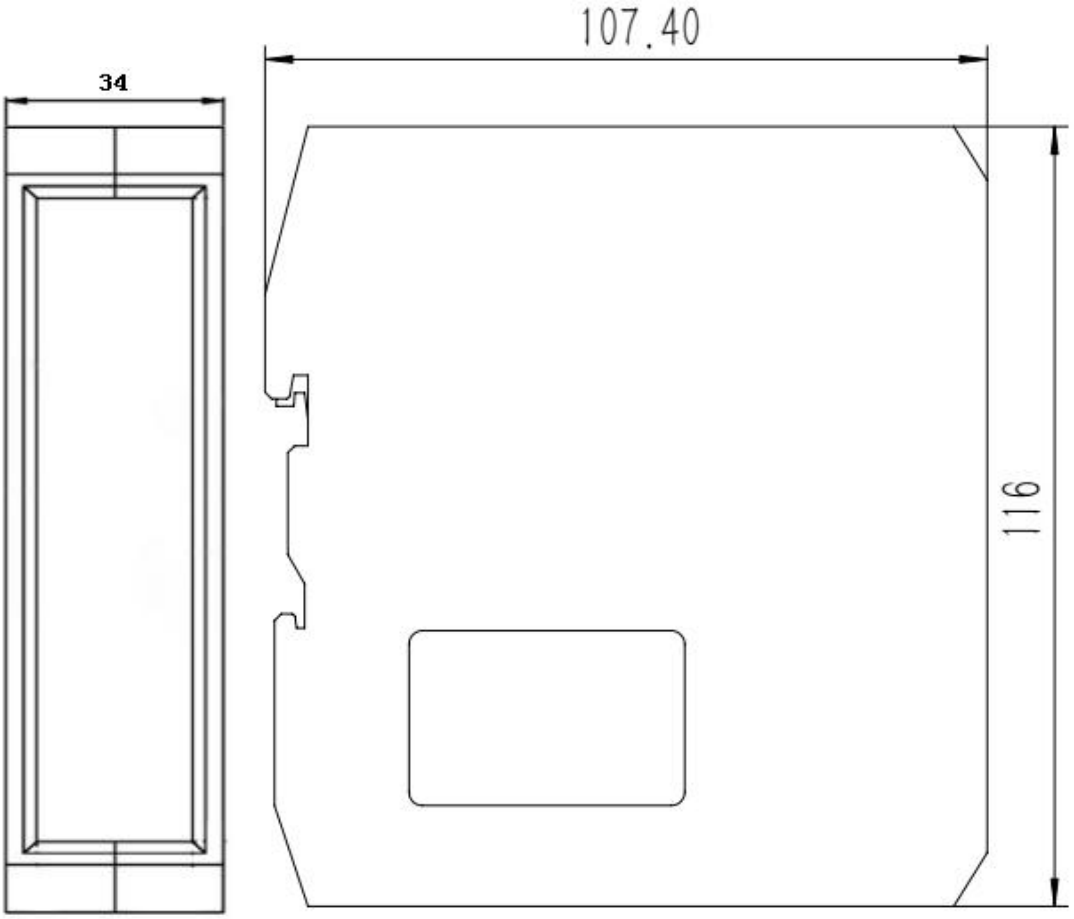


Pin	Function
1	B(+), RS-485
2	A(-), RS-485
3	GND

3 Hardware Installation

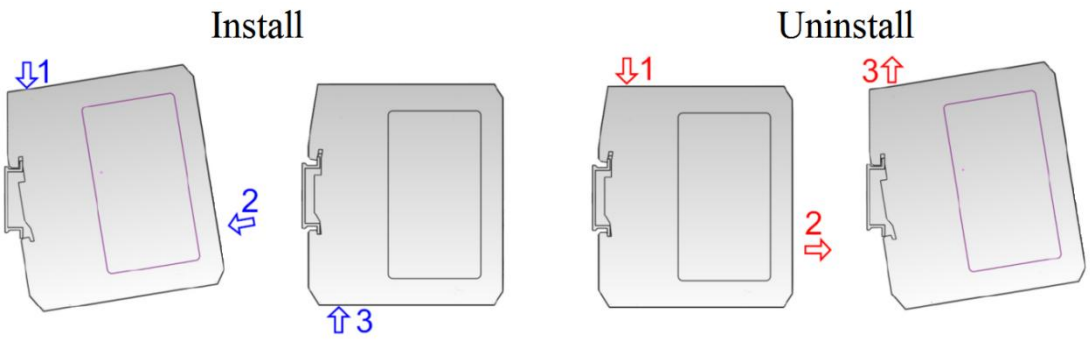
3.1 Mechanical Dimensions

1.33in * 4.56in * 4.21in (34mm * 116mm * 107.4mm)



3.2 Installation Method

Using 1.4 in (35mm) DIN RAIL.

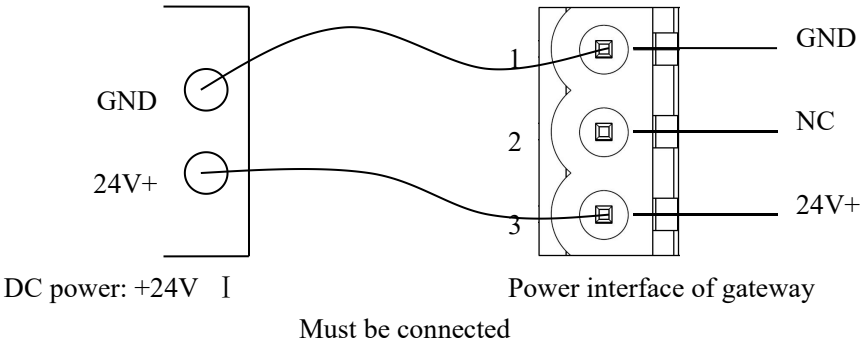


4 How to Start

4.1 Connect to the Power

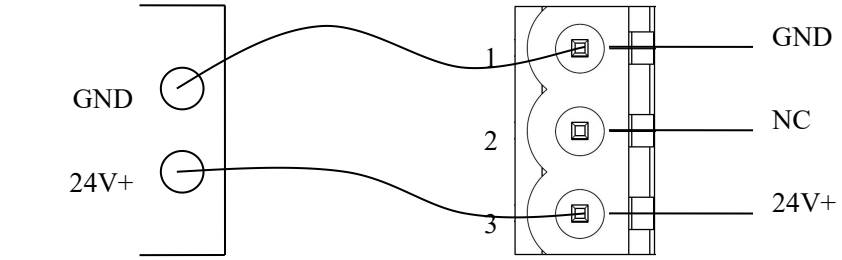
DC 24V power supply, dual power supply interface, a redundant function, users can use one or two power supply. If you are using two power supply, when the way in which the power fails, the other way you can continue to supply power to ensure normal operation.

Power supply wiring as shown below:



DC power: +24V Ⅰ　　Power interface of gateway

Must be connected

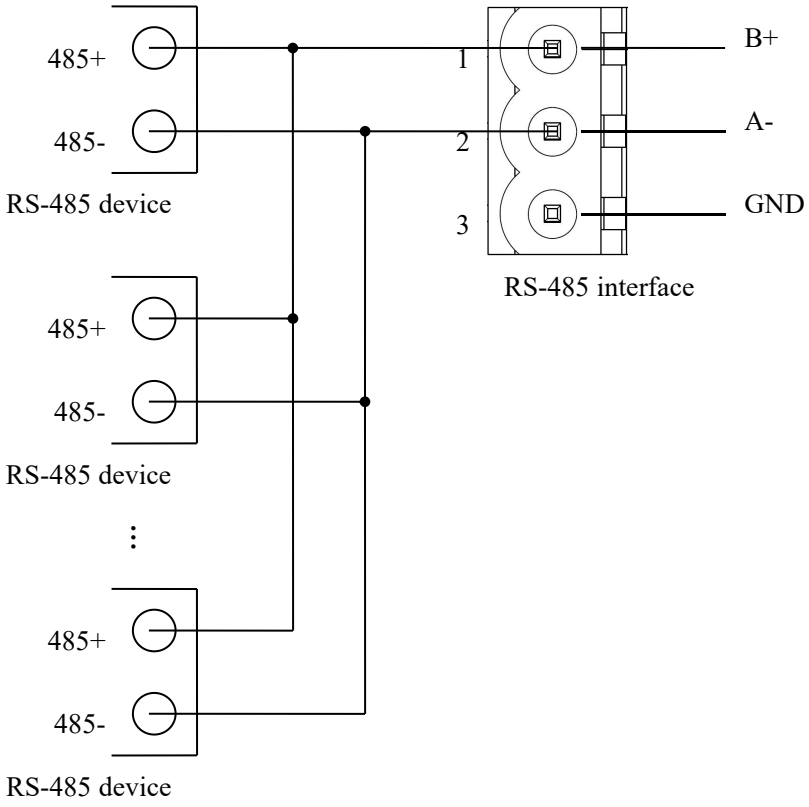


DC power: +24V Ⅱ　　Power interface of gateway (the other)

Optionally be connected

4.2 Connect Serial Devices

RS-485 connection as shown below:

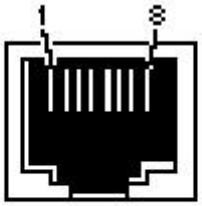


In order to prevent signal reflection and interference in RS-485 multipoint communication, adding one terminal resistor at the both farthest ends of the line is necessary, and the argument is 120Ω 1/2W.

Notes: There is no internal termination resistor in the RS-485 interface of GT200-EI-2RS485.

4.3 Ethernet Connection

Connect the GT200-EI-2RS485 to your computer with the Ethernet cable, in the RJ-45 port.



RJ-45 port

4.4 Configuration Switch

Configuration switches located on the bottom of the gateway, set the mode bit (bit 1) to 0 (Off), and set function bit (bit 2) to 0 (Off), power (or restart) the device to work.

Mode (Bit 1)	Function (Bit 2)	Description
Off	Off	Operation mode, allowed to upload/download configuration.
Off	On	Operation mode, not allowed to upload/download configuration.
On	Off	Configuration mode, IP address is fixed at 192.168.0.10. In this mode, the gateway is allowed to upload/download configuration but does not transfer data between EtherNet/IP and Modbus network.

4.5 Installing Software

Double click the SST-GT-CFG software installation package and install the configuration software SST-GT-CFG, you can easily follow the prompts to complete the installation. Then open the configuration software and finish the configuration of GT200-EI-2RS485!

Notes: The network setting of GT200-EI-RS: IP address is 192.168.0.X, subnet mask is 255.255.255.0, gateway address is 192.168.0.1.

If the Assign IP mode is DHCP, and there is no DHCP Server or you can't search the GT200-EI-2RS485. You can set mode bit (bit 1) to On, and restart GT200-EI-2RS485 (power off and power on), then the fixed IP address of GT200-EI-2RS485 is 192.168.0.10, subnet mask is 255.255.255.0, gateway address is 192.168.0.1.

The serial factory setting is 19200, 8, N, 1.

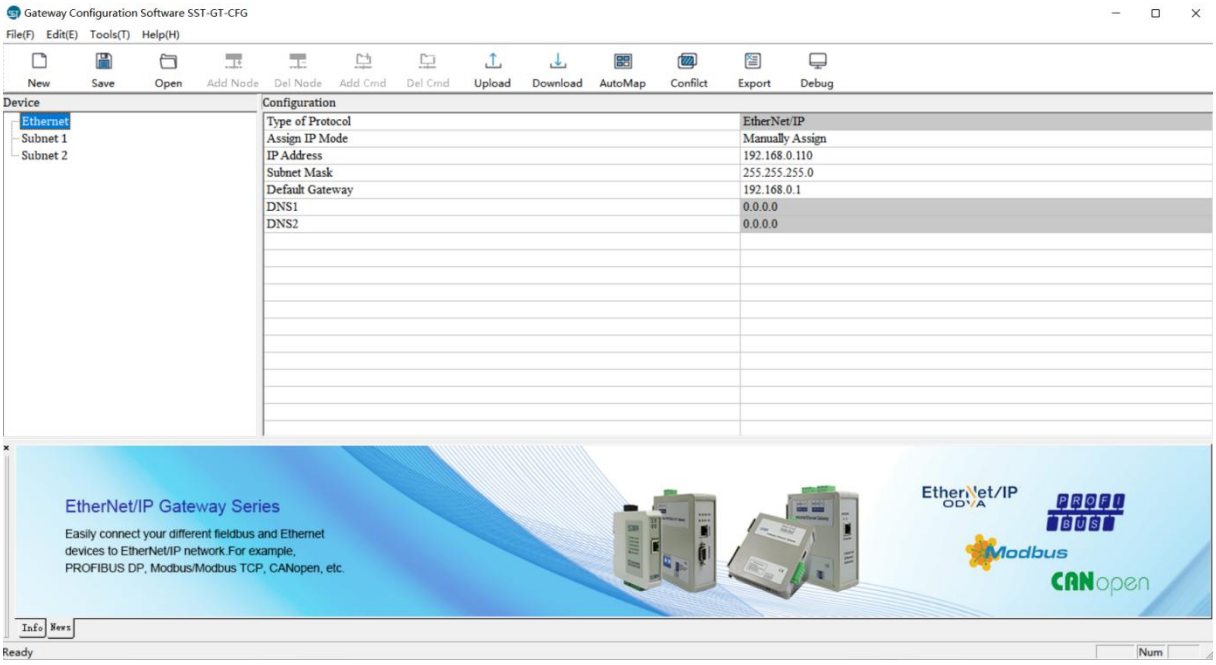
5 Configuration Software

5.1 Notes before Configuration

SST-GT-CFG is a product based on Windows platform, and used to configure GT200-EI-2RS485. It can set related parameters and commands of Modbus and other bus.

The document mainly introduces the use method of GT200-EI-2RS485.

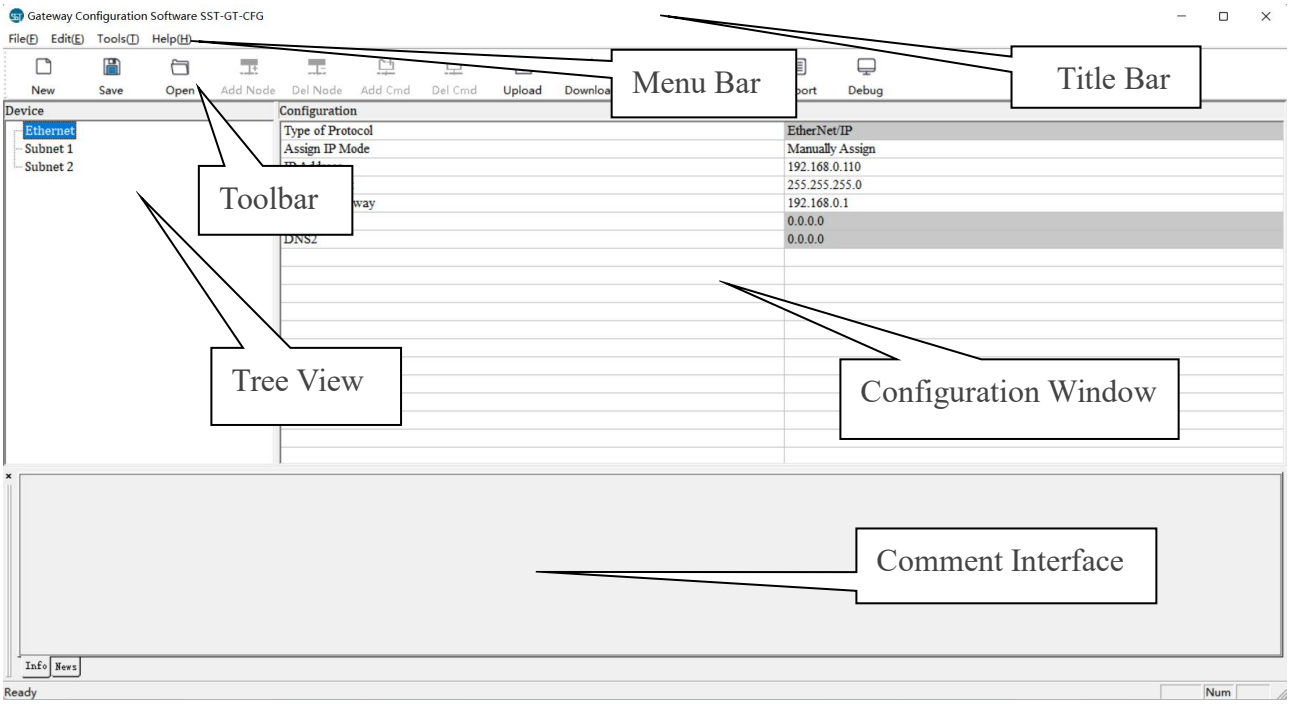
Double-click the icon to enter the main interface of the software:



5.2 User Interface

SST-GT-CFG interface include: title bar, menu bar, toolbar, status bar, equipment section, configuration section and notes section.

Notes: All the gray part in the software can not be changed.



Tool bar interface is shown as below:

New: Create a new configuration project.

Save: Save the configuration project.

Open: Open the configuration project.

Add Node: Add a Modbus slave node.

Delete Node: Delete a Modbus slave node.

Add Command: Add a Modbus command.

Delete Command: Delete a Modbus command.

Upload: Read the configuration information from the module and shown in the software.

Download: Download the configuration file to the gateway.

AutoMap: Used to automatically calculate the mapped memory address without confliction by each command.

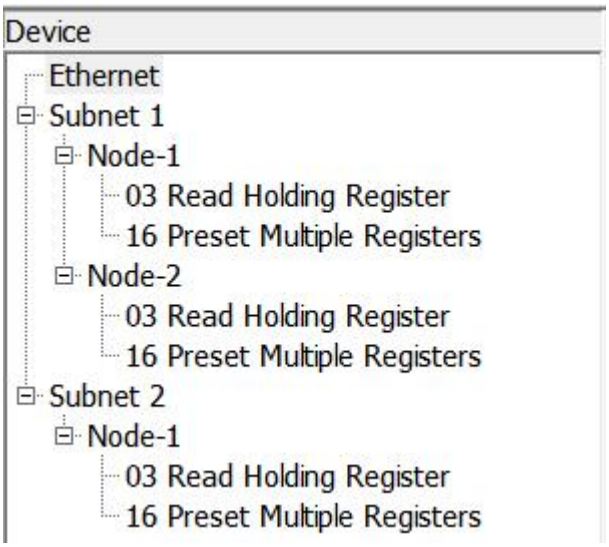
Conflict Detection: To check whether there are conflicts with configured commands in the gateway memory data buffer.

Export EXCEL: Export current configuration to the local hard disk, saved as .xls file.

Debug: Monitor or modify the gateway memory buffer data.

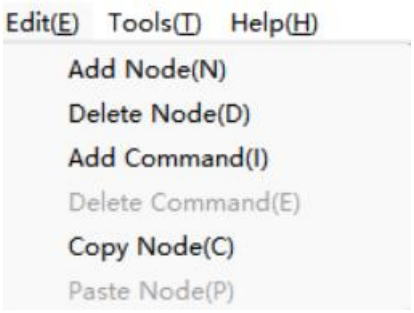
5.3 Operation of Devices view

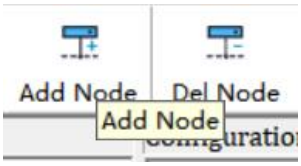
5.3.1 Devices View Interface

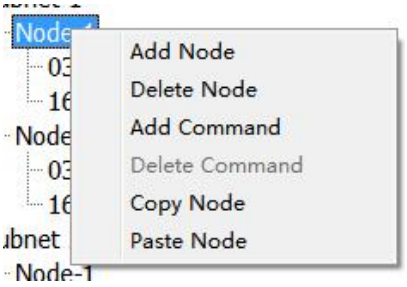


5.3.2 Operation Mode

The equipment view supports three types of operation: Edit Menu, Edit Toolbar and Right click edit Menu.







5.3.3 Operation types

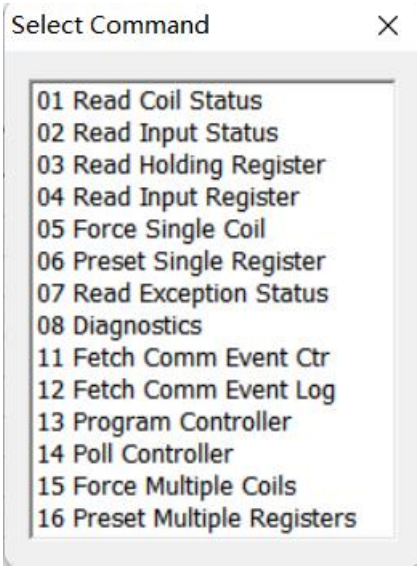
1. Add nodes: Right click on subnet or existing nodes, and then perform the operation of adding a new node. Then there is a new node named "new node" under subnet.

2. Delete nodes: Right click on the node to be deleted, and then perform the operation of deleting the node. The node and its all commands will be deleted.

3. Add commands: Right click on the node, and then perform the operation of adding command to add a command for the node. The dialog box will be shown as follow:

Currently, it supports the commands: 01, 02, 03, 04, 05, 06, 15 and 16.

Select the command: Double click the command



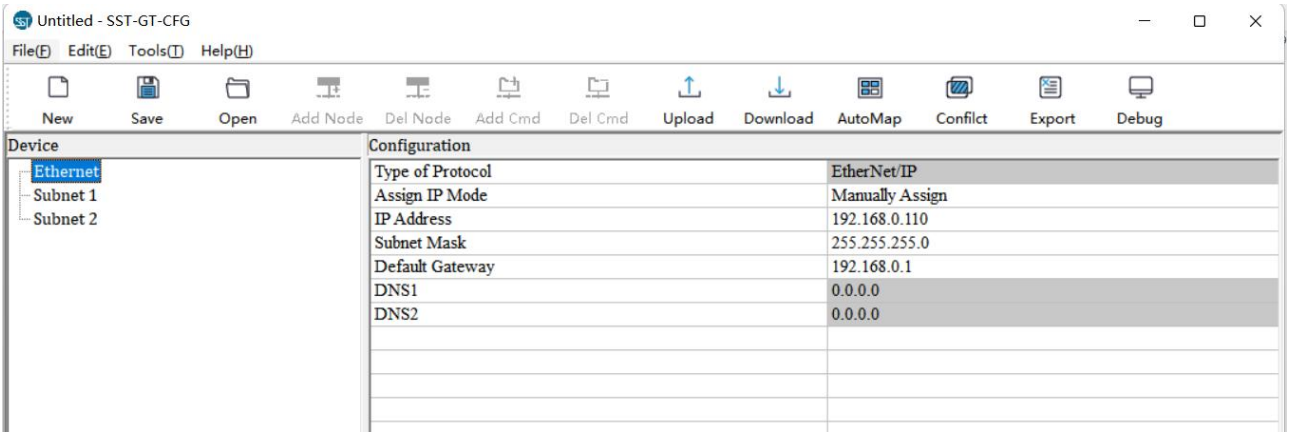
4. Delete commands: Right-click on the command and then perform the operation of deleting the command.

5.4 Operation of Configuration View

5.4.1 Ethernet Configuration

In the interface of device view, click Ethernet, and then the configuration view is shown as follows:

Configurable items include: Assign IP Mode, IP Address, Subnet Mask, Gateway Address, DNS1, DNS2.



Assign IP Mode: Manual Assign, BOOTP, DHCP can be selected.

IP Address: Set the device IP address.

Subnet Mask: Set subnet mask of the device.

Gateway Address: Set gateway address.

DNS1: Set the device DNS1 address.

DNS2: Set the device DNS2 address.

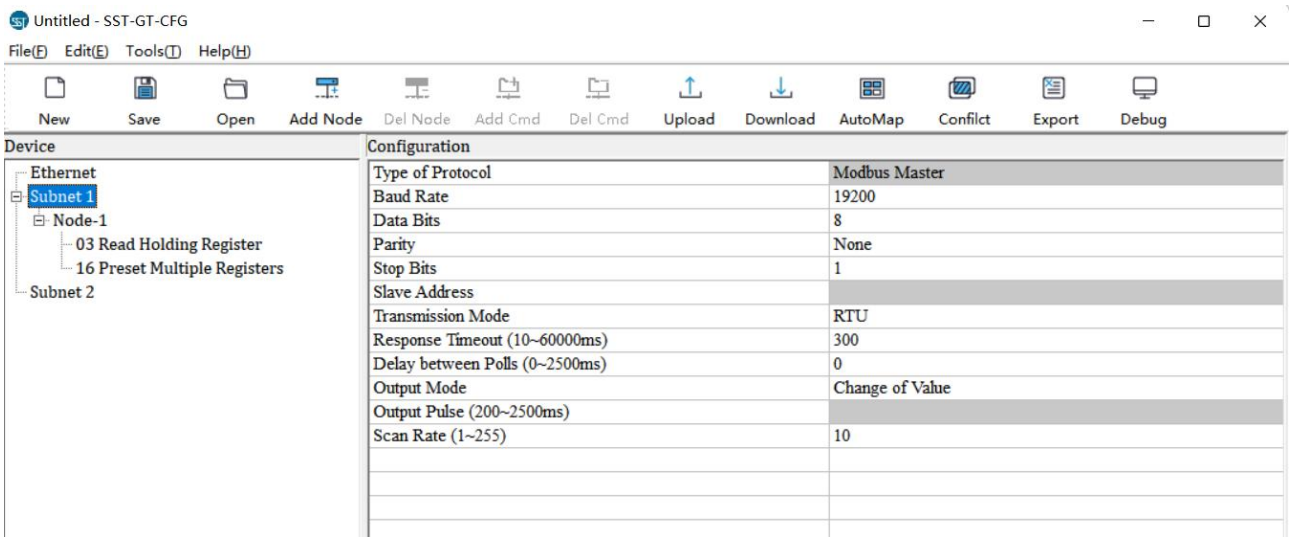
5.4.2 Subnet Configuration

Protocol is Modbus master

Configurable parameters are shown as follows:

Baud Rate, Data Bits, Parity check mode, Stop bit, Transmission mode, Response timeout, Delay between polls, Polling mode of outputting commands, Time between two continuous pluses (the polling mode of outputting commands is pulse output), Scanning ratio

Interface of configuration view is shown as follow:



Baud Rate: There are 300, 600, 1200, 2400, 9600, 19200, 38400, 57600 and 115200bps to be selected.

Data bits: 8 bits

Parity: There are none, odd, even, mark and space to be selected.

Stop Bits: There are 1 and 2 to be selected.

Transmission Mode: There are RTU and ASCII to be selected.

Response timeout: When the Modbus master send commands, the time waiting for response from the slave, the range is 300~60000ms.

Delay between polls: After an command of Modbus having been sent and having received correct response, the time before next command being sent, the range is: 0 ~ 2500ms.

Output Mode:

Modbus writing command (output command) has 3 kinds of outputting modes: Cycle, Forbidden, Change of Value.

Cycle: The same with Modbus read command, and output according to the scanning ratio.

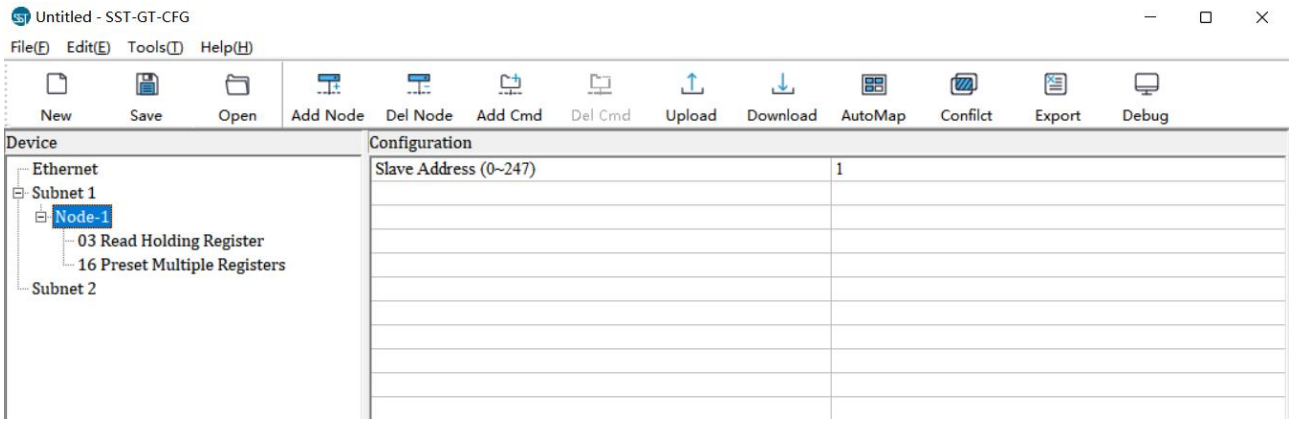
Forbidden: Prohibit outputting Modbus write command.

Change of Value: When the output data has changed, it output the write command and stop outputting after receiving correct response.

Scan Rate: Rate of slow-scan and quick-scan. If the quick-scan command sends 10 times, slow-scan command sends 1 time.

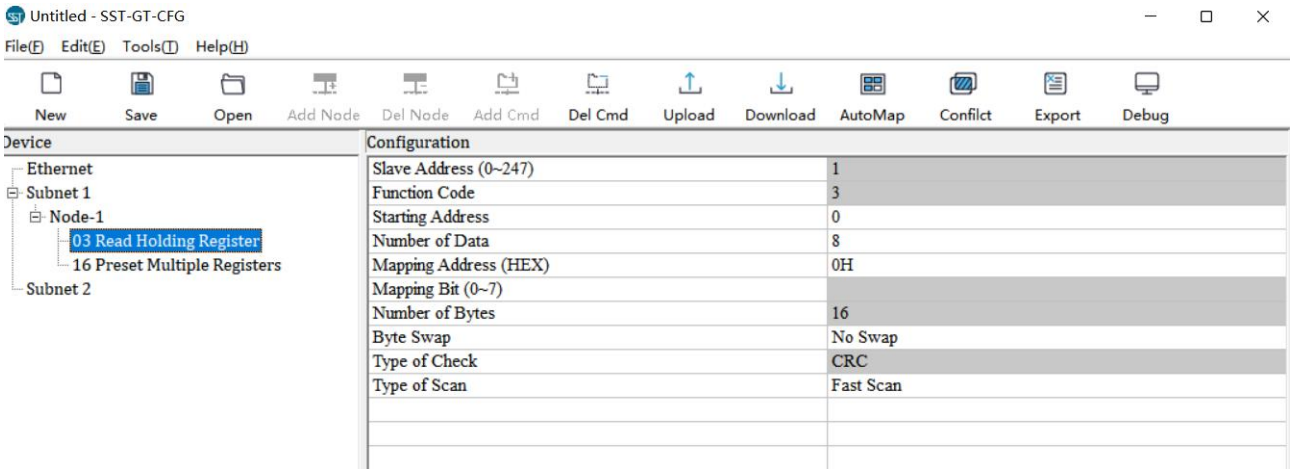
5.4.3 Node Configuration

In the interface of device view, left click a node and then configuration interface is shown as follow:



5.4.4 Command Configuration

In the interface of device view, left click a command and then configuration interface is shown as follow:



Starting Address: The starting address of register or switching value or loop and so on in Modbus slave and the range is 0~65535.

Number of Data: The length of data. Two bytes are one data length.

Mapping Address: The starting address of data in memory buffer of the module.

The address range of data mapping in the module memory:

Read command: 0x0000~ 0x01FF

Write command: 0x4000 ~ 0x41FF

When write command is used exchanging locally, it also can use: 0x0000 ~ 0x01FF

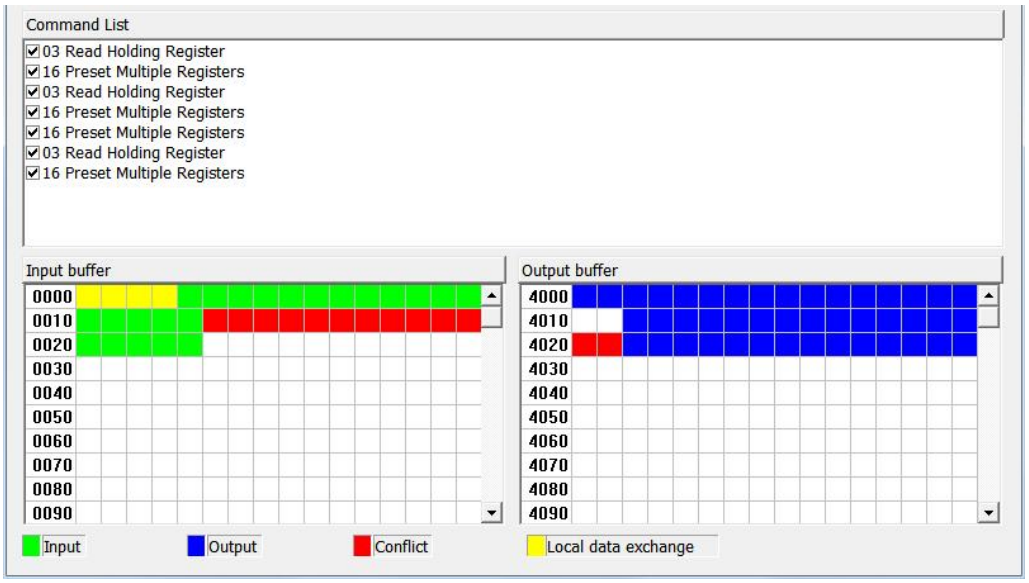
Mapping Bit: For the bit operation commands, the position range of start-bit byte is 0 ~ 7.

Bytes Swap: There are three kinds of type, No swapping, two bytes swapping, four bytes swapping. The byte display order of Modbus and Profibus-DP is MSB being preferential; the byte display order of DeviceNet is LSB being preferential. Users can exchange the byte display order to get correct value.

Type of Scan: There are two kinds of scanning mode: quick-scan and slow-scan. It is fit for requests of user about quick-scan or slow-scan of different commands. Slow-scan is equal to quick-scan being multiplied by scan ratio. (Configure it in the interface of subnet configuration interface)

5.5 Conflict Detection

For the detection of whether there is conflict of "the starting address of memory mapping", if conflict it can adjust in time. The interface is shown as follow:



5.5.1 Operation of Command List

All the configuration commands can be shown at the command list. Each select box before command is used for checking the memory-mapping location of that command. Click on the command can select the check box, and in the memory-mapping area it can show the corresponding share of spatial location. Click the command again will

remove the selected box and it doesn't show the mapping location. The function can be used to conflict detect of memory-mapping area.

5.5.2 Operation of Memory Mapping Area

Memory mapping area is divided two parts: input area and output area.

Input-mapping address: 0x0000 ~ 0x3FFF;

Output-mapping address: 0x4000 ~ 0x7FFF.

Each box represents a byte address.

Green: Read command show in the input-mapping area; no conflict;

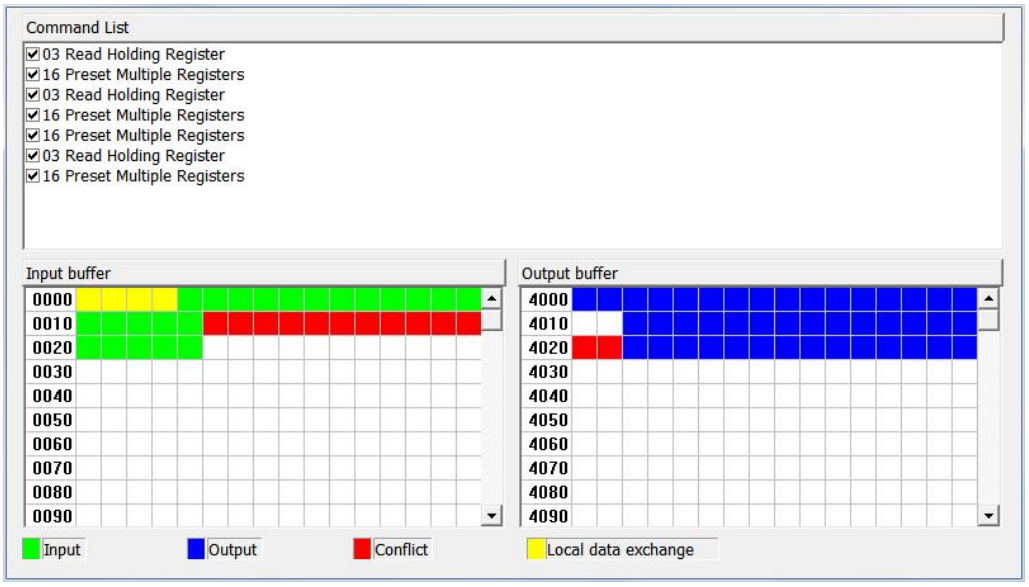
Yellow: Write command show when the mapping addresses in the input area; no conflict;

Blue: When the address mapping area is located in the output area; no conflict.

Red: Output area or input area, different commands occupy the same byte address, the byte is shown as red.

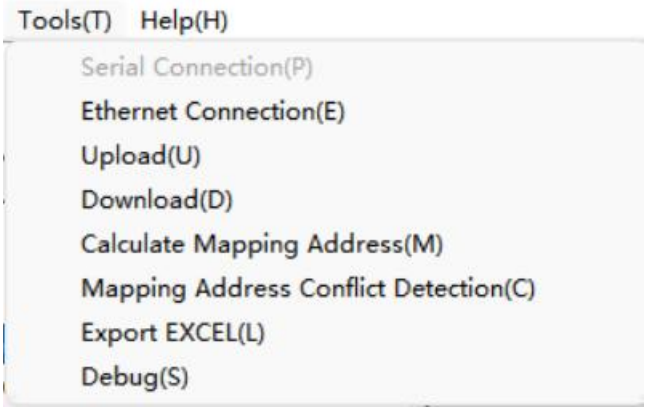
For bit operation commands, the meanings of above shows are also applicable.

Click the input-output regional grid, whether the grid is occupied or not is shown as follows:



5.6 Hardware Communication

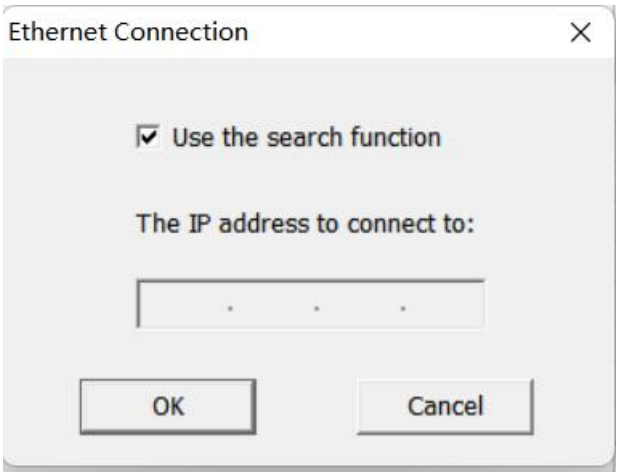
Hardware communications' menu items are shown as follow:

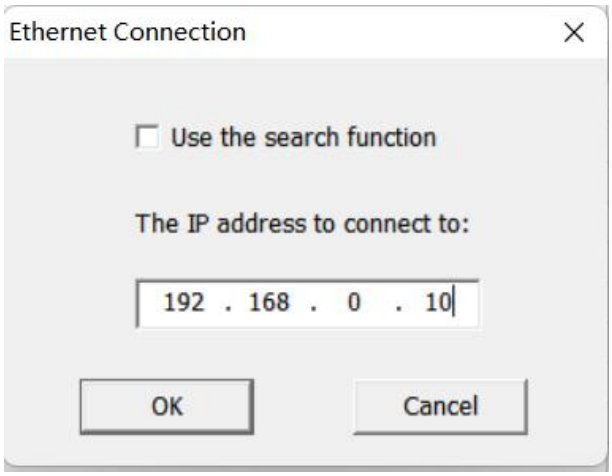


5.6.1 Ethernet Configuration

Users can choose whether to use the search function. When users use the search feature, upload or download configuration when you can search for all Ethernet equipment ENB302-MI; when the user does not use the search feature, users must specify their own devices to connect to, in the configuration when the upload or download only lists the devices.

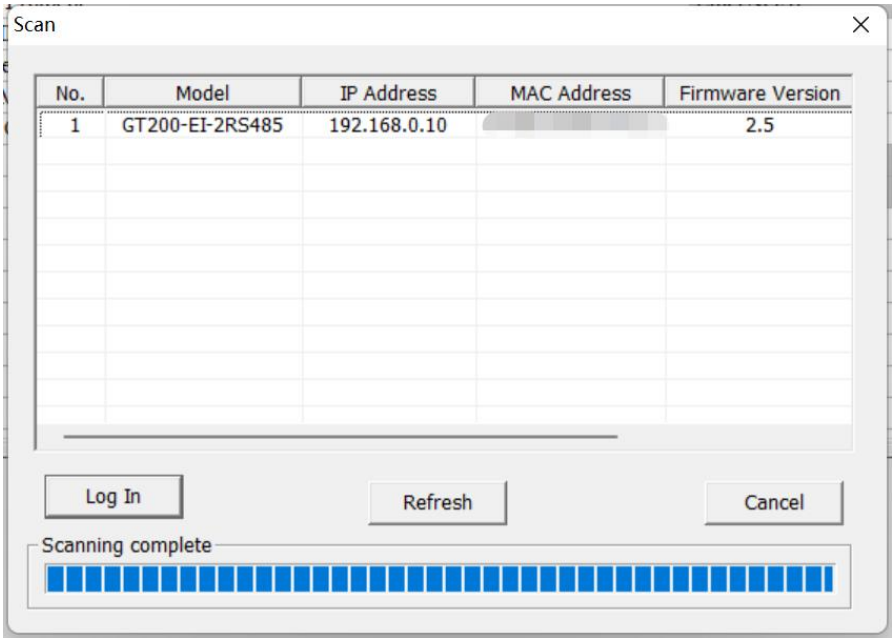
Notes: Please click "OK" button to confirm, click "Cancel" button will be enabled as a search function.



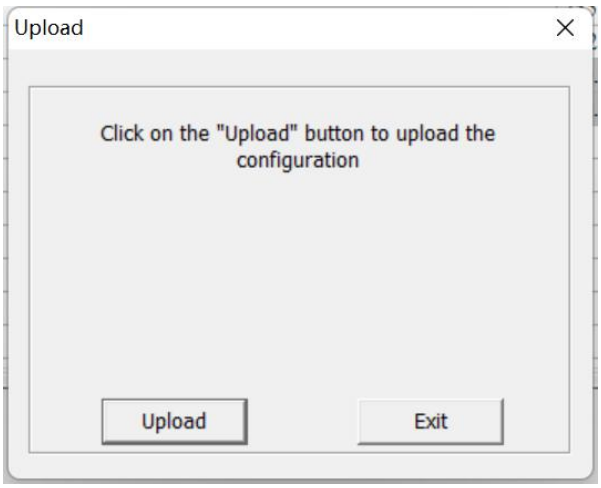


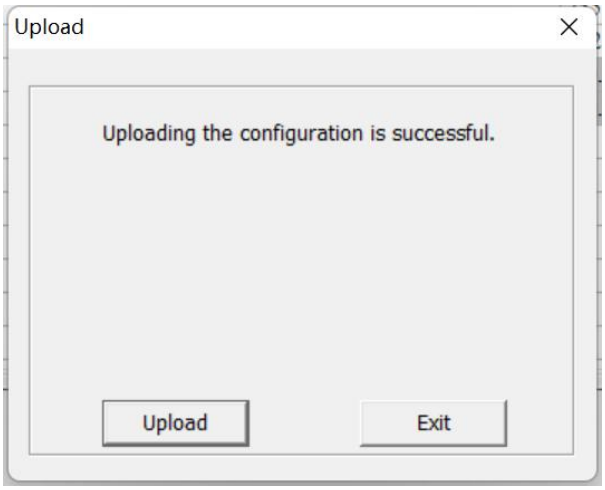
5.6.2 Upload

Choose to upload configuration dialog box will pop up the search appliance:



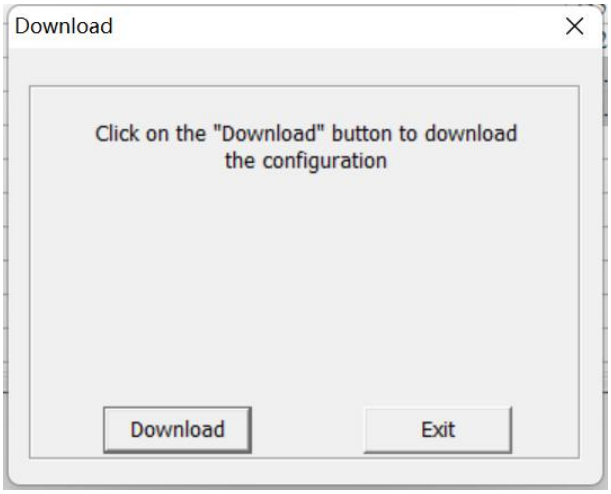
Select the device you want to configure and click "Log In". Gateway configuration information will be uploaded to the software from the device. The pop-up window is as follows:

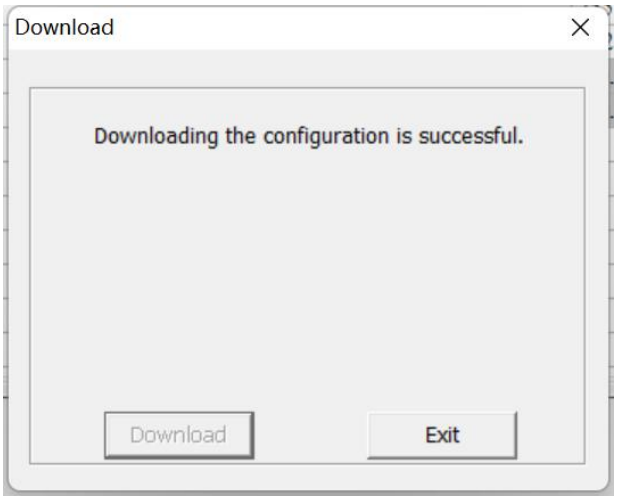




5.6.3 Download

Download configuration and upload configuration similarly:



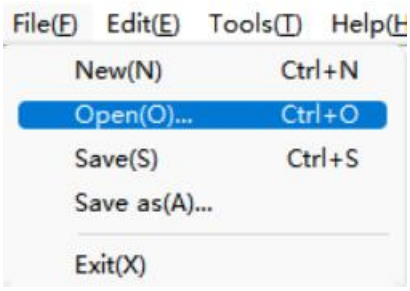


Notes: Before downloading, make sure all the configuration has been completed and correct.

5.7 Load and Save Configuration

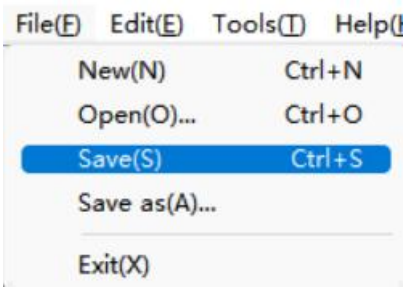
5.7.1 Load Configuration Project

Select “Open” and then you can open a project:



5.7.2 Save Configuration Project

Select “Save” can save the project:



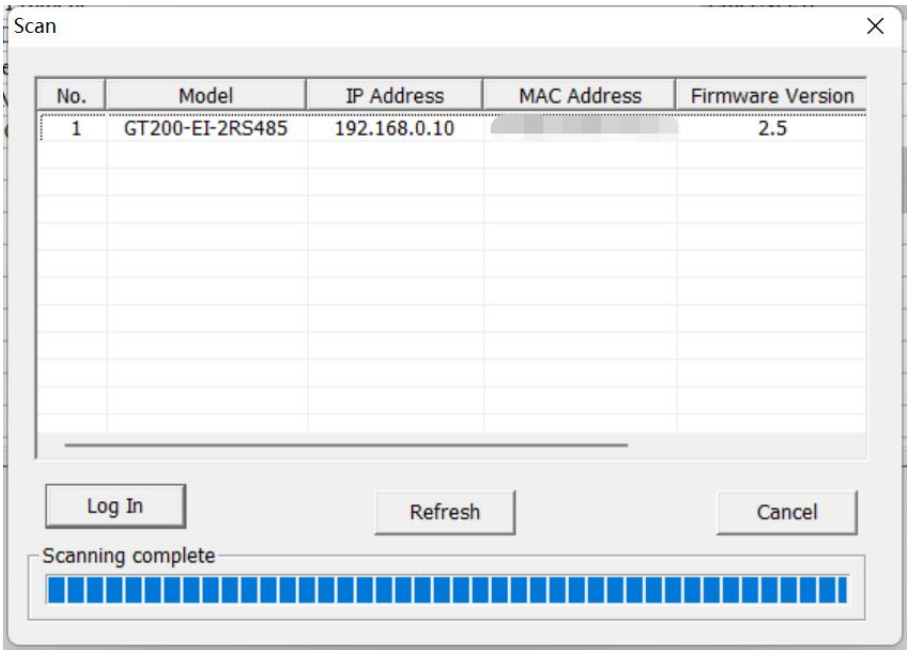
5.8 Export Excel

Excel document helps users to examine the configuration related.

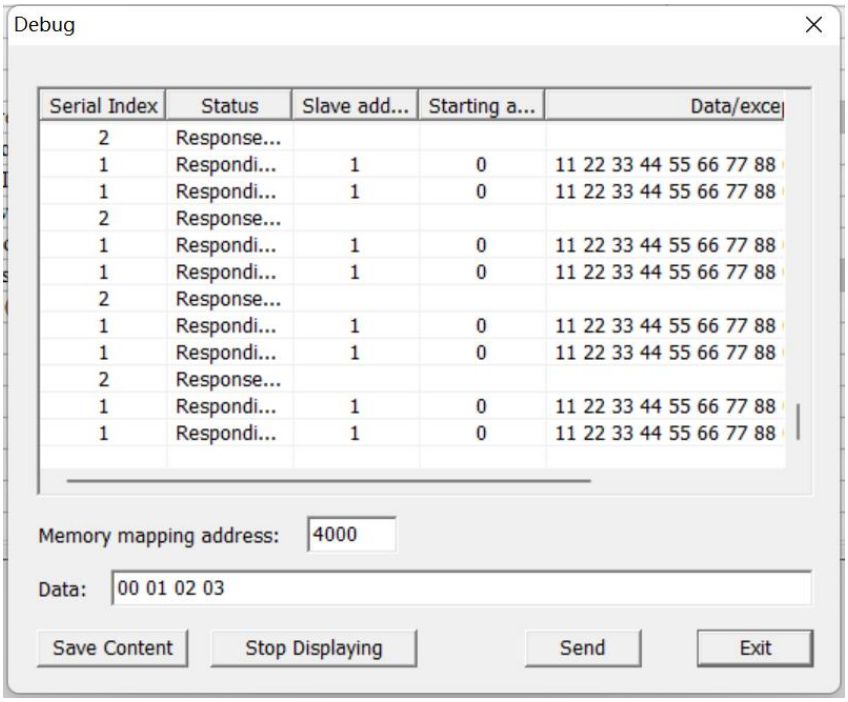
Choose the icon  , save the configuration as excel document and choose the right path.

5.9 Debug

This function is used to monitor the gateway memory data. The scan window will pop up:



Select the device and click "Log In", then enter the debug dialog. Display interface as follows:



Memory-mapped address: Memory starting address of writing data in the gateway

Data: Data being written to memory of gateway

Users can debug Modbus communication through transmitting data.

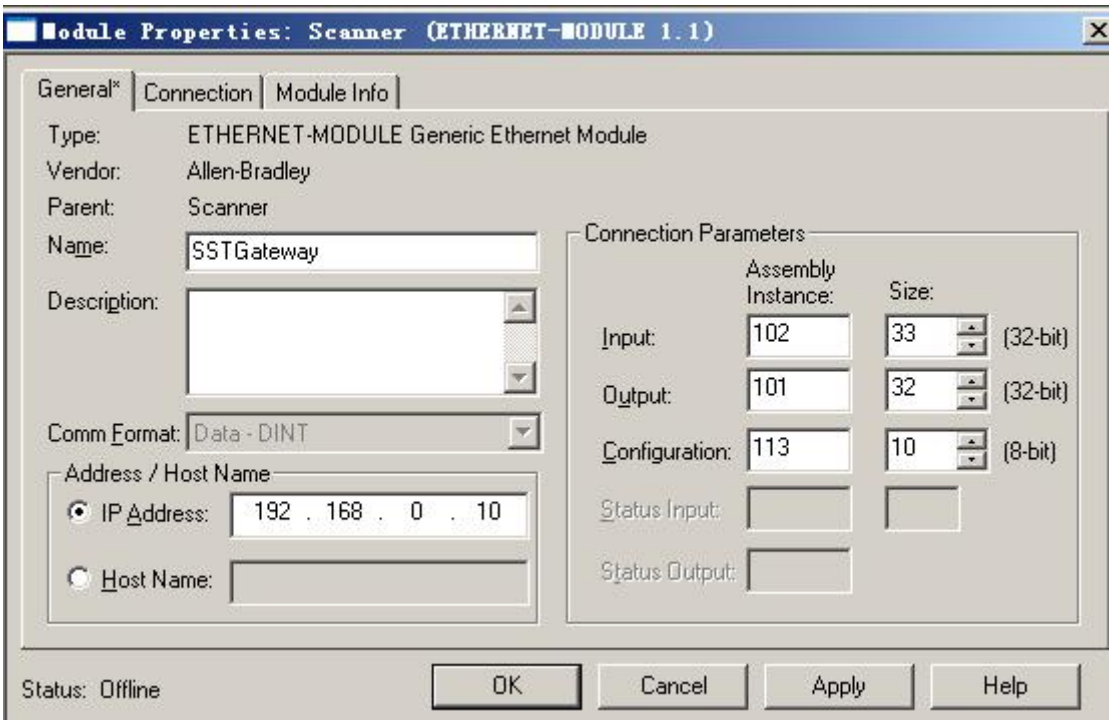
6 EtherNet/IP Connection Parameters

Connection parameters the adapter provides are as below:

Parameters \ Data Size	128 Bytes	256 Bytes	492 Bytes
Input Instance	102	112	122
Output Instance	101	111	121
Configuration Instance	103	113	123

Notes: The Input data size should include 4-byte status. For example, when using the 256-byte parameters, the input size should be 260 bytes.

Take configuration parameters of RSLogix5000 as an example:

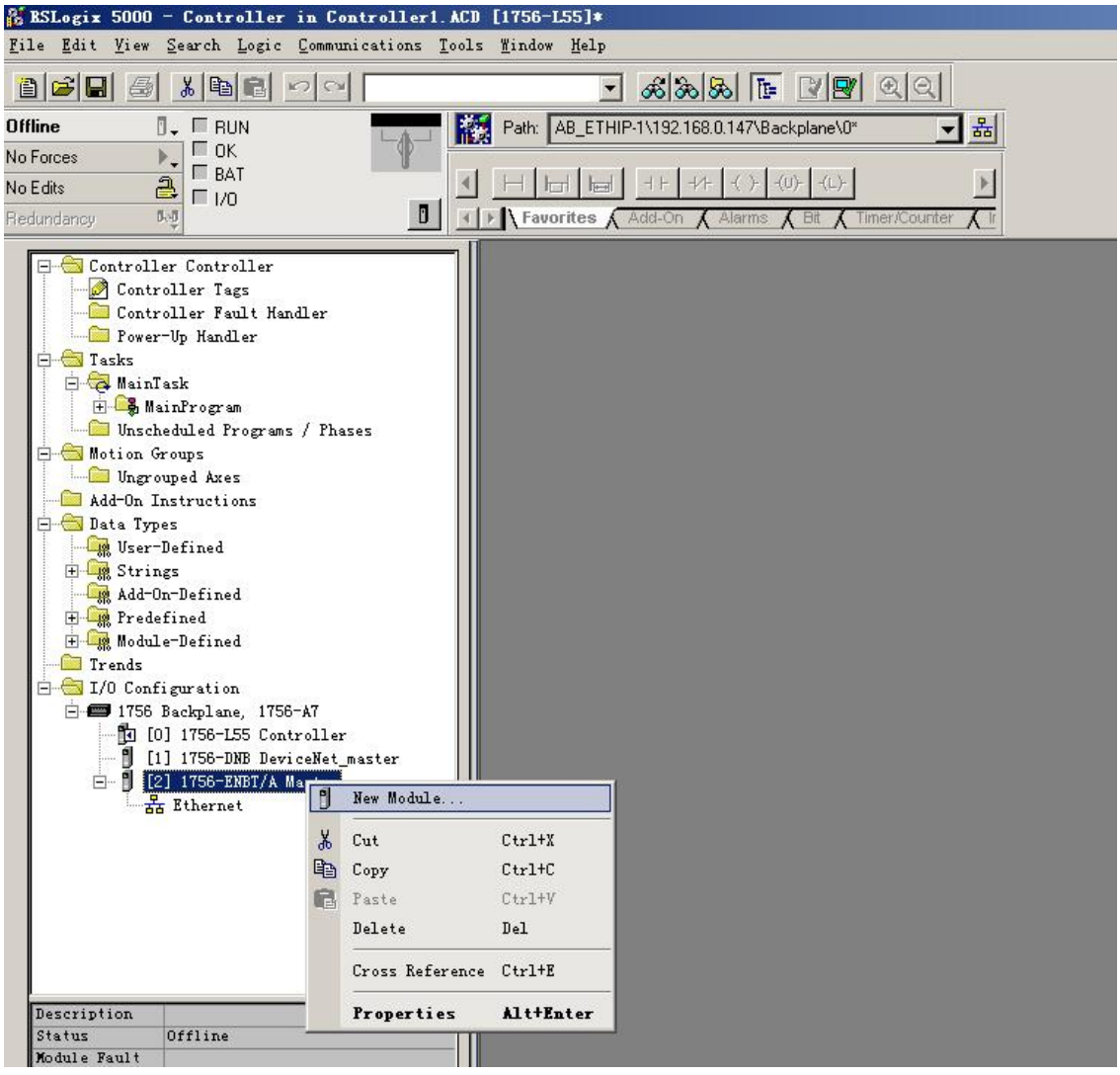


7 How to Read/Write I/O Data

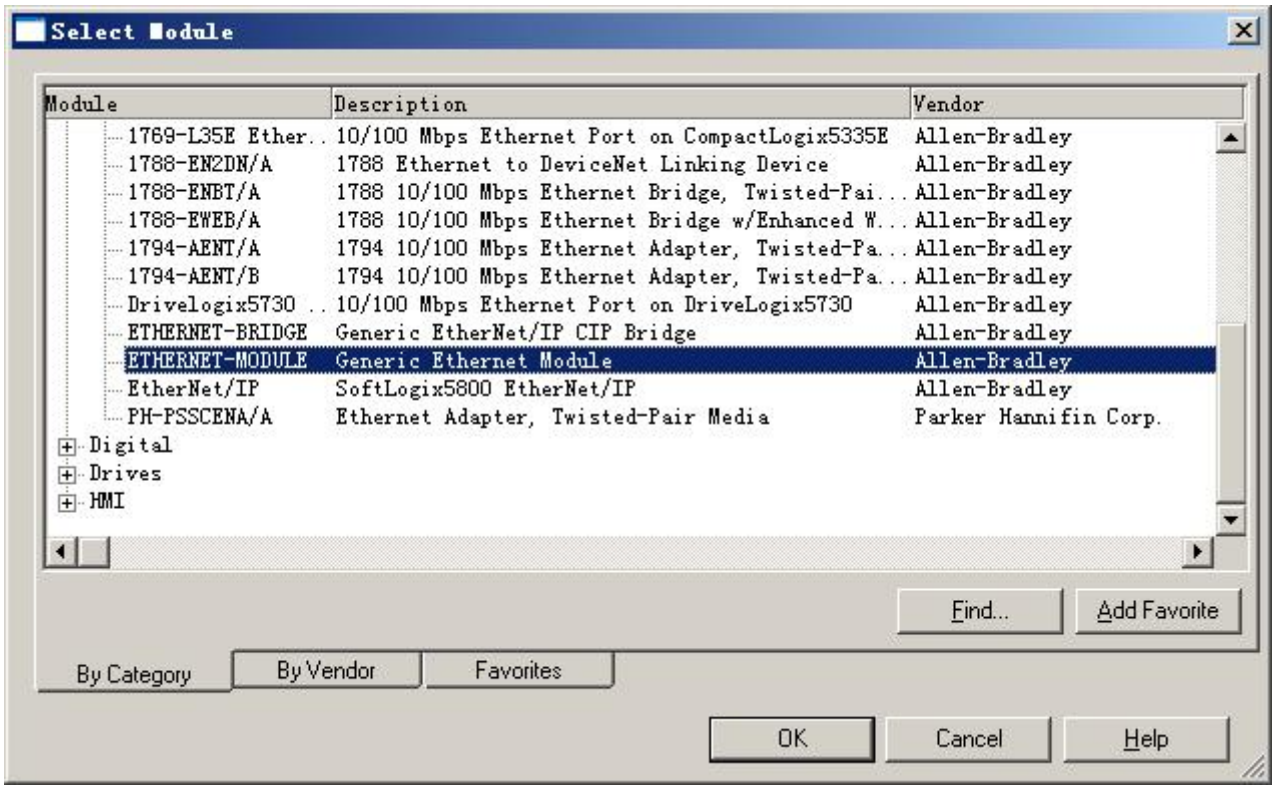
The following RSLogix 5000 example will describe how to read/write I/O data.

7.1 Read/Write Data by IO Messaging (Recommend)

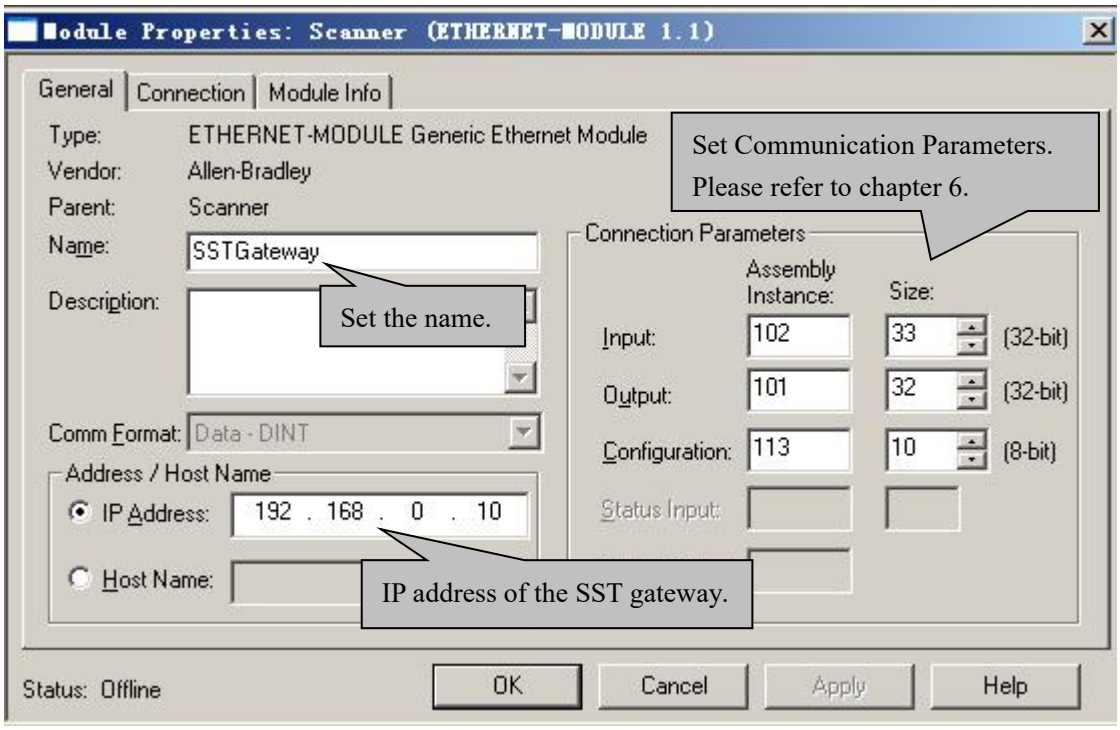
Right click on EtherNet/IP scanner module, click "New Module", as shown below:



In the pop-up dialog box, unfold "+" before "Communications", choose "ETHERNET-MODULE", click "OK", 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.

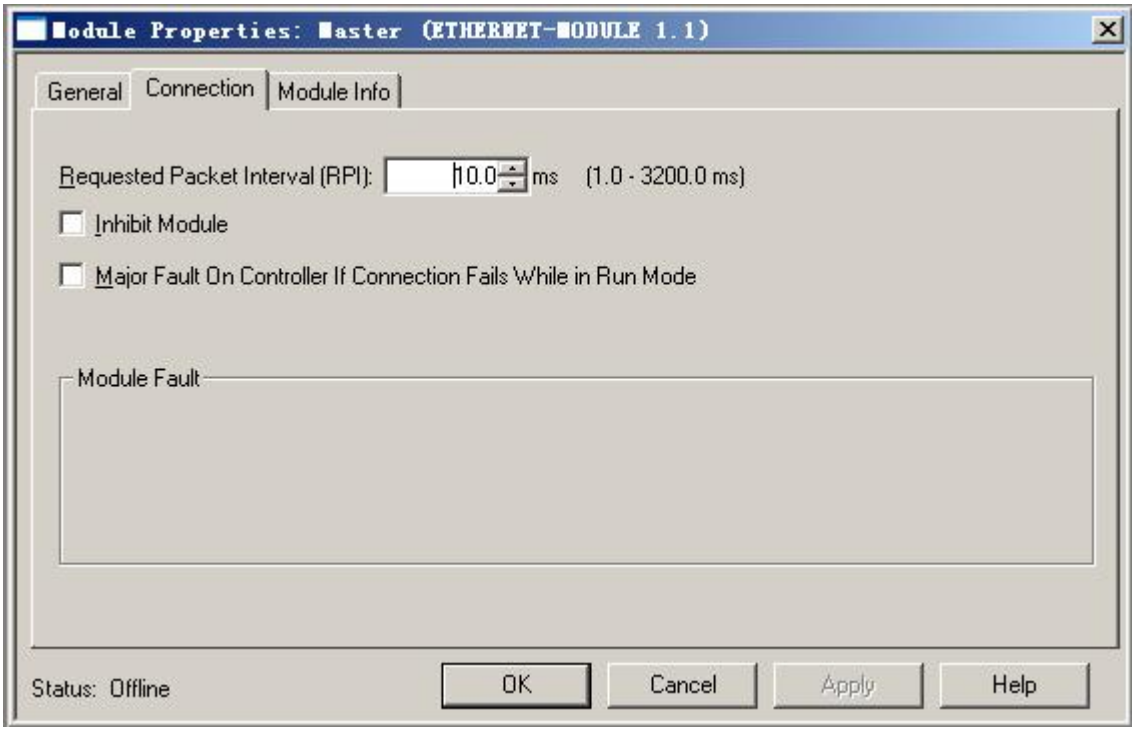
Comm Format: Configure data types. Users can choose data types as DINT, INT, SINT and REAL, etc. After confirmation, this cannot be changed. If you want to change data types, you can create new module.

IP Address: Set IP address of the EtherNet/IP adapter module (IP address of GT200-EI-2RS485, configured by the software SST-GT-CFG).

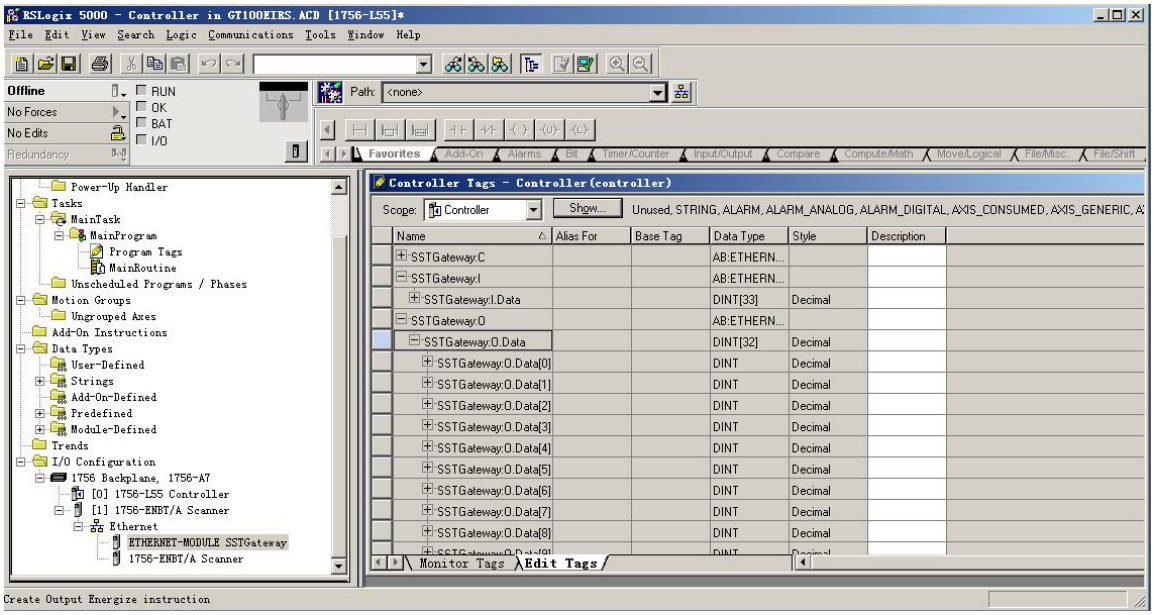
Connection Parameters: Set Connection parameters during communication. Please refer to chapter 6.

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:

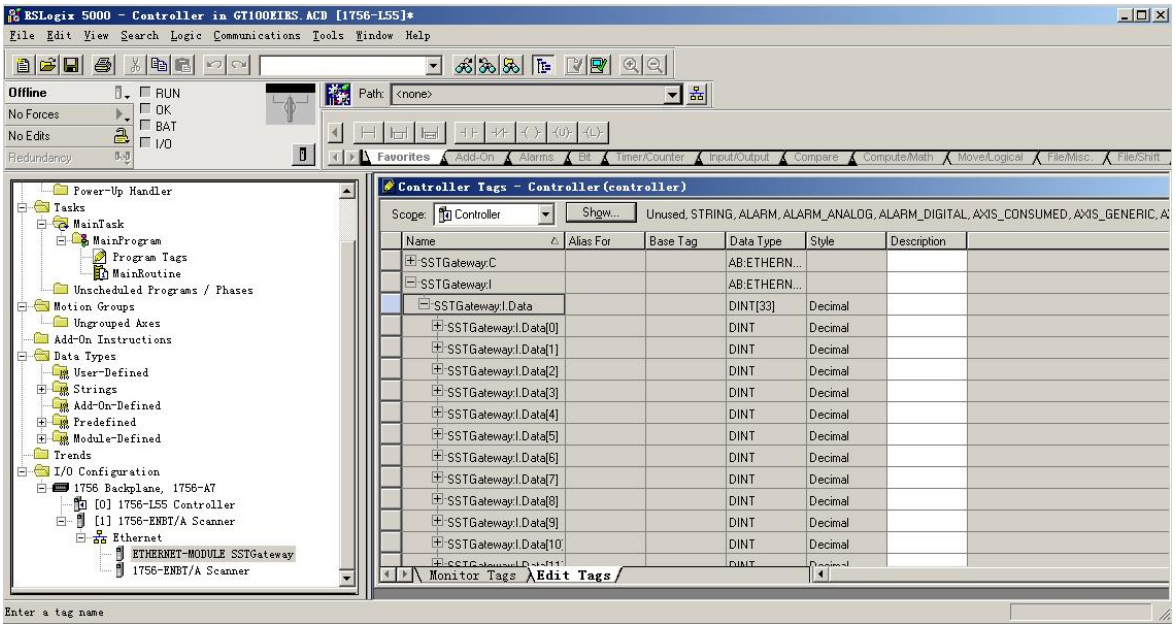


After setting this interval, click "OK" to save. Double click "Controller Tags", unfold "SSTGateway: O", as shown below:



In the above picture, SSTGateway:O.Data [0] ~SSTGateway:O.Data [31] is the corresponding output data address of SST Gateway module in scanner.

Unfold "SSTGateway: I", as shown below:

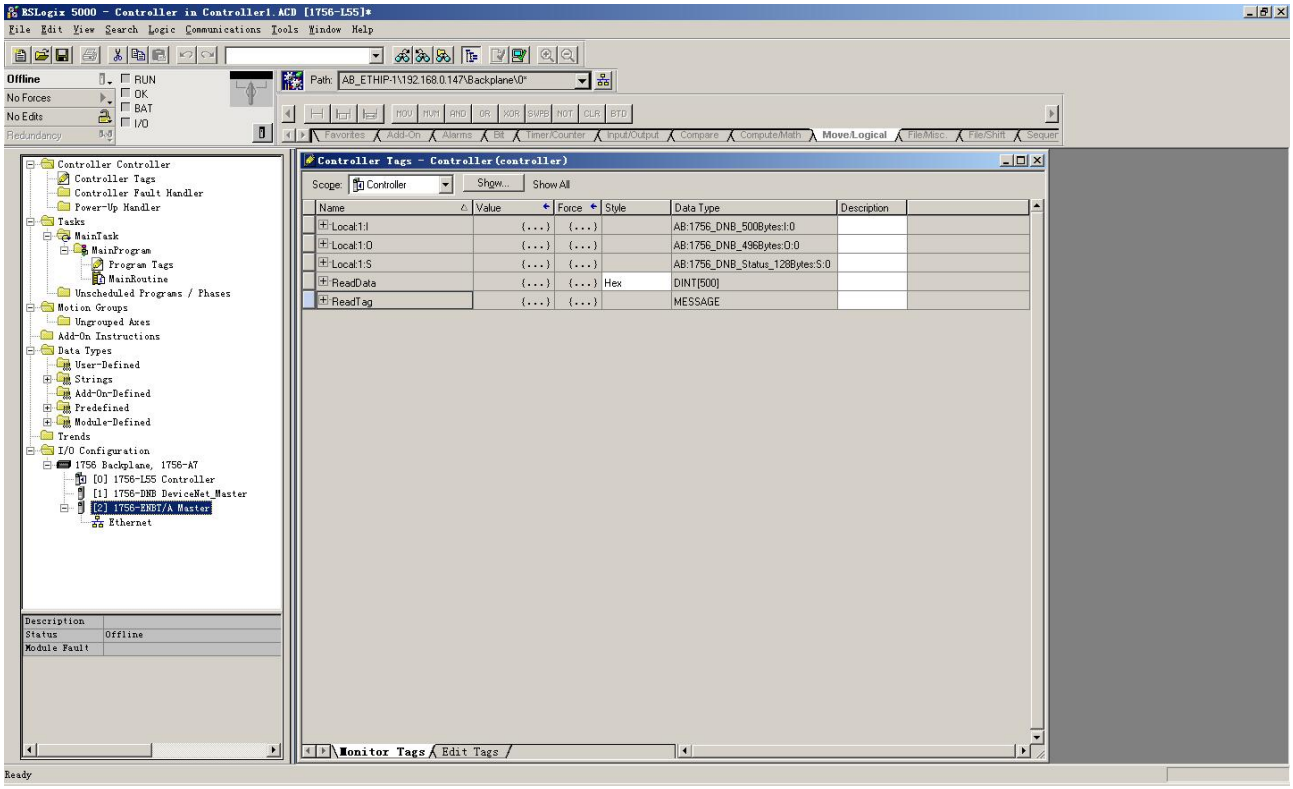


In the above picture, the first 4 bytes of SSTGateway: I. Data [0] are the status bytes. SSTGateway:I.Data [1] ~SSTGateway: I. Data [32] are the input data from the SST Gateway.

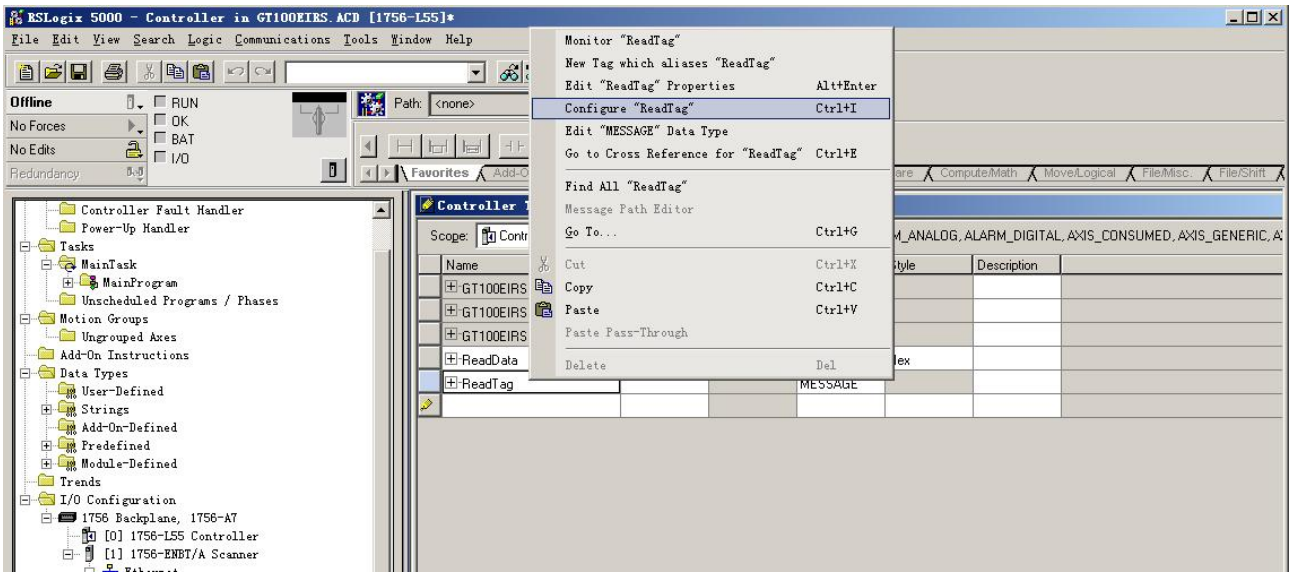
7.2 Read/Write Data by MSG

7.2.1 Read Data

Create a new project; it is in the "Offline" mode. Add two new tags "ReadTag" and "ReadData" under the "Controller Tags" and set the type of "ReadTag" as "MESSAGE" and "ReadData" as "DINT [500]".



Right click "ReadTag", select "Configure "ReadTag":



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

Message Type: CIP Generic

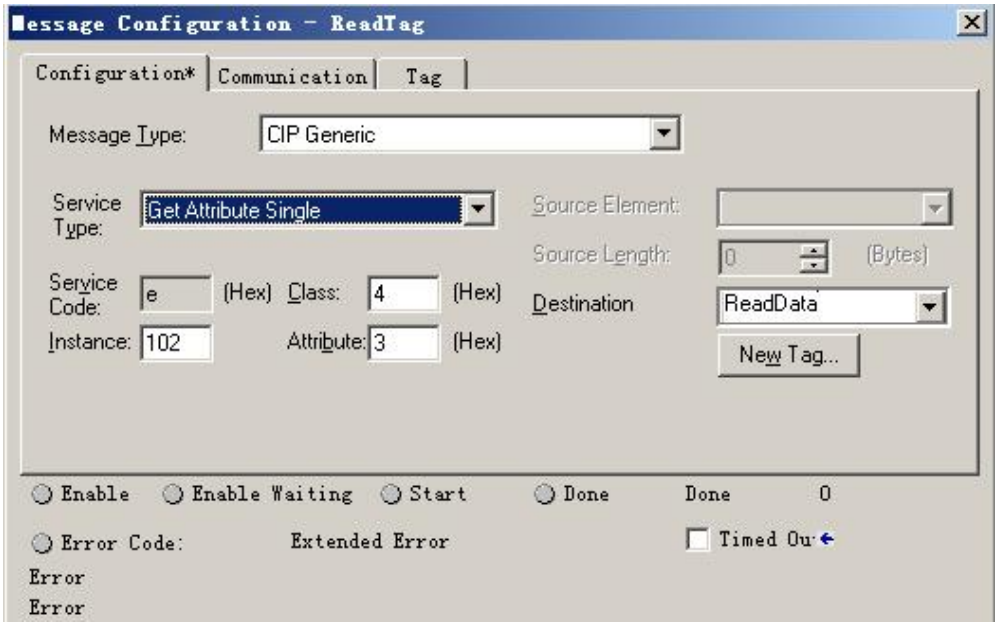
Service Type: Select "Get Attribute Single", now, relevant service code will become "e (Hex)"

Class: 4 (Hex)

Instance: Please refer to chapter 6 EtherNet/IP Connection Parameters.

Attribute: 3 (Hex)

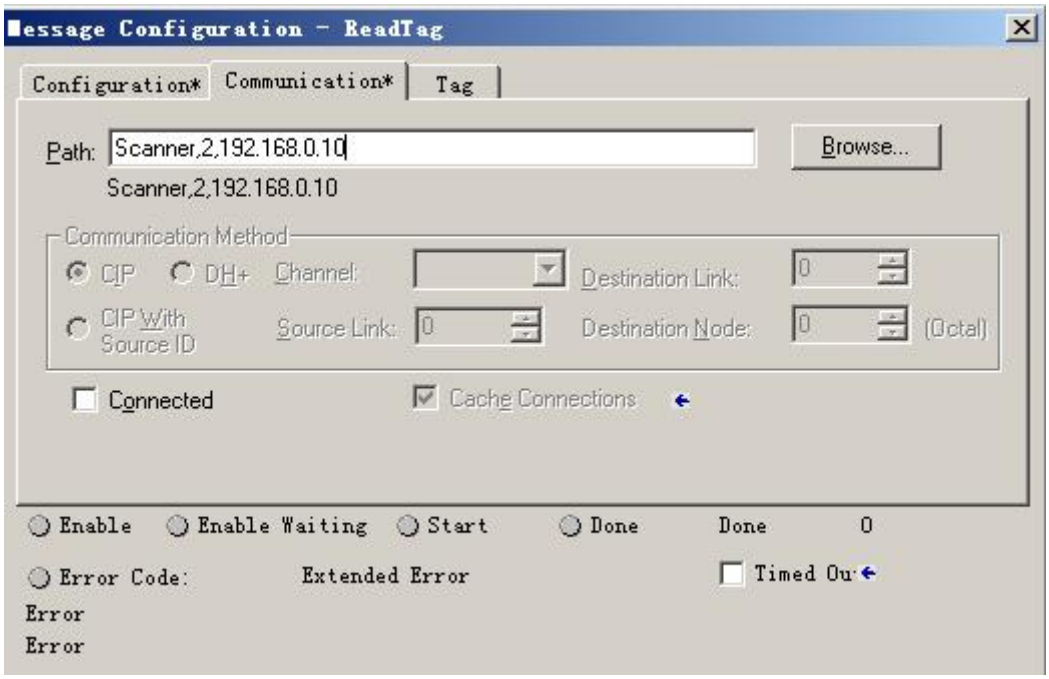
Destination: Select "ReadData" label, now, the data that have been received will be saved in this tag.



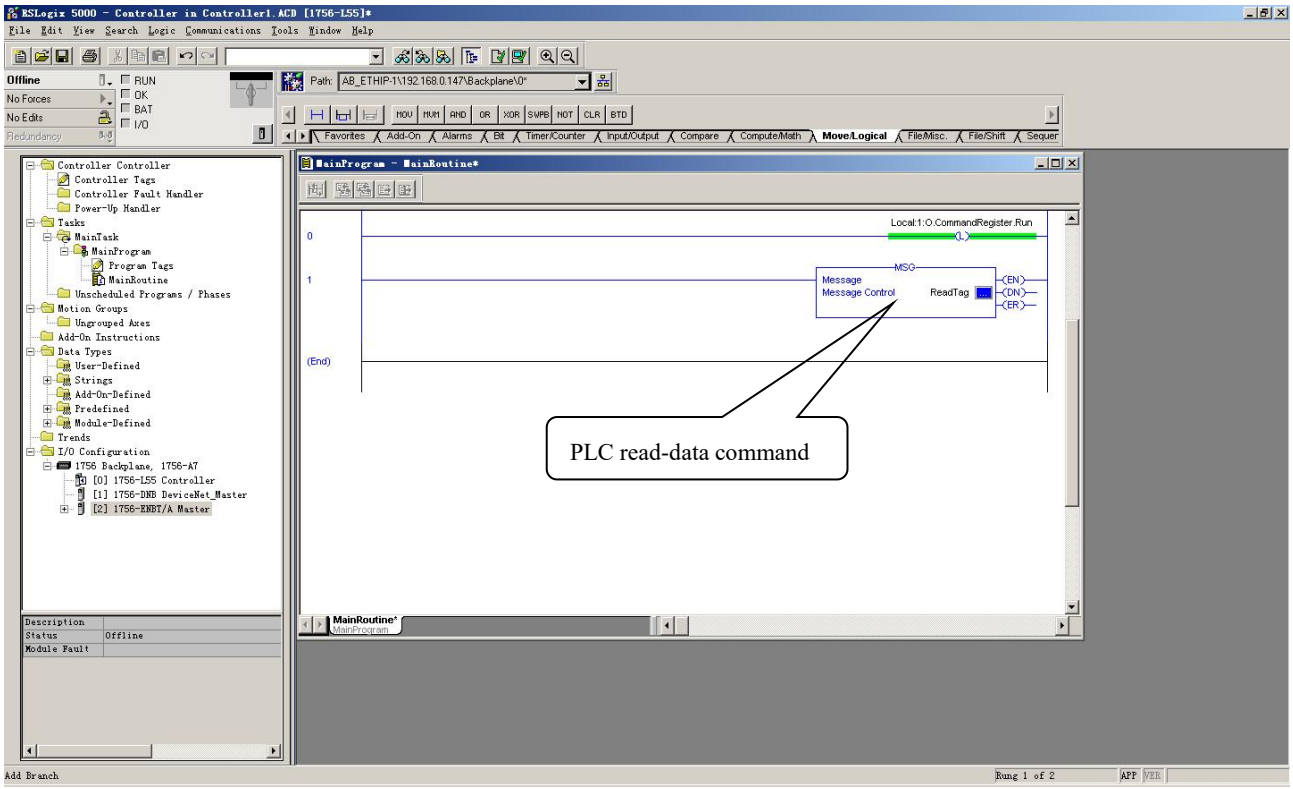
Choose "Communication" label, input the relevant path of connecting EtherNet/IP adapter in the blank space

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:

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



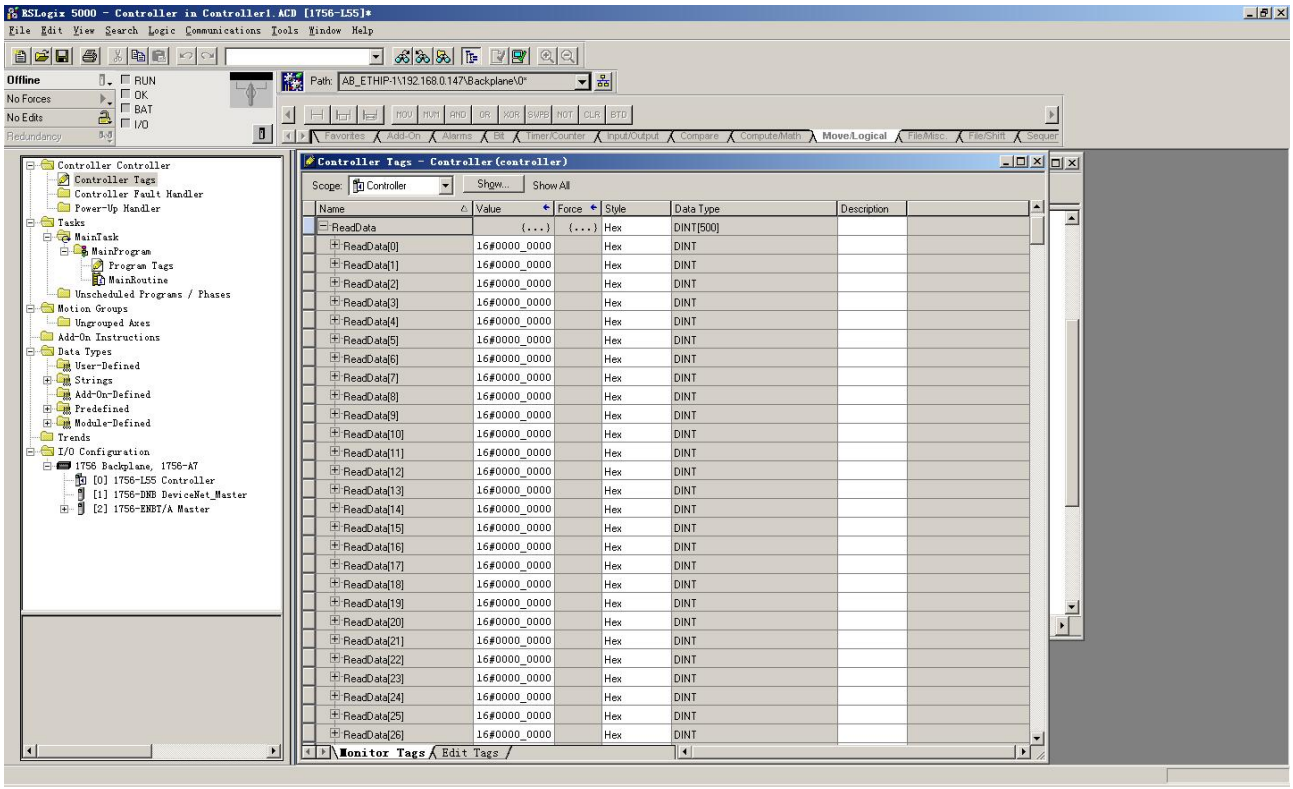
Add a "MSG" command in "MainRoutine" under the "MainProgram" and choose "ReadTag" as "Message Control", as shown below:



This is a simple command which can sent a read request, it still needs to add some logic commands to trigger this command in common program. About the detailed information, please refer to RSLogix5000.

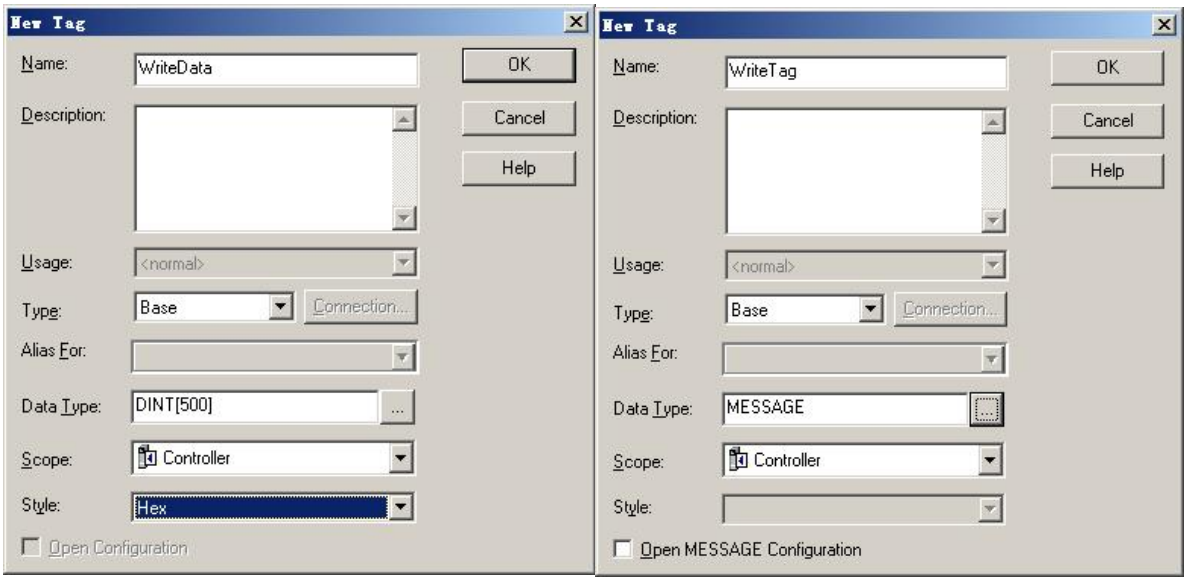
Download the program to the PLC and set PLC into "Online" state.

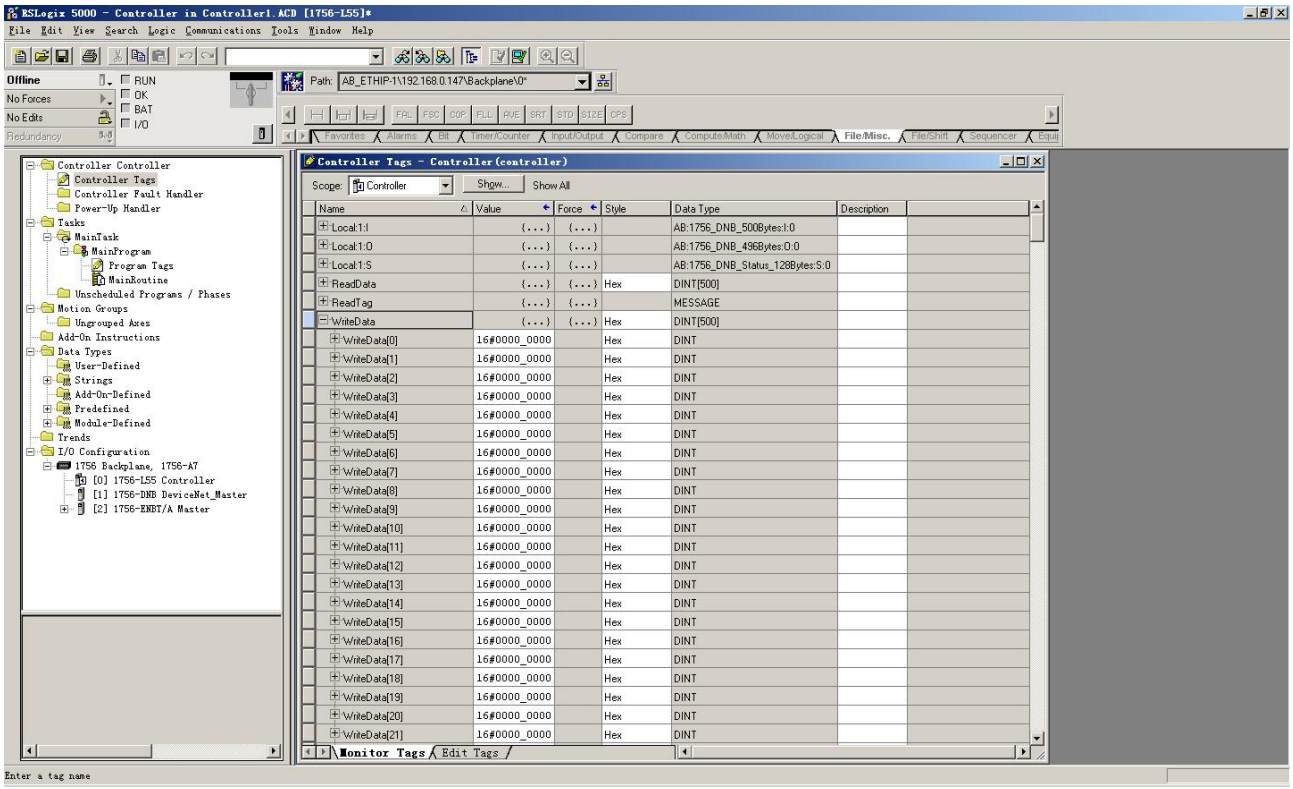
Click "Control Tags" and select "Monitor Tags", unfold "ReadData", you will see that PLC can read the data from EtherNet/IP adapter SST Gateway.



7.2.2 Write Data

Enter the "Offline" mode, add two new tags "WriteTag" and WriteData" under the "Controller Tags". Define the type of "WriteTag" as "MESSAGE" and "WriteData" as "DINT [500]":

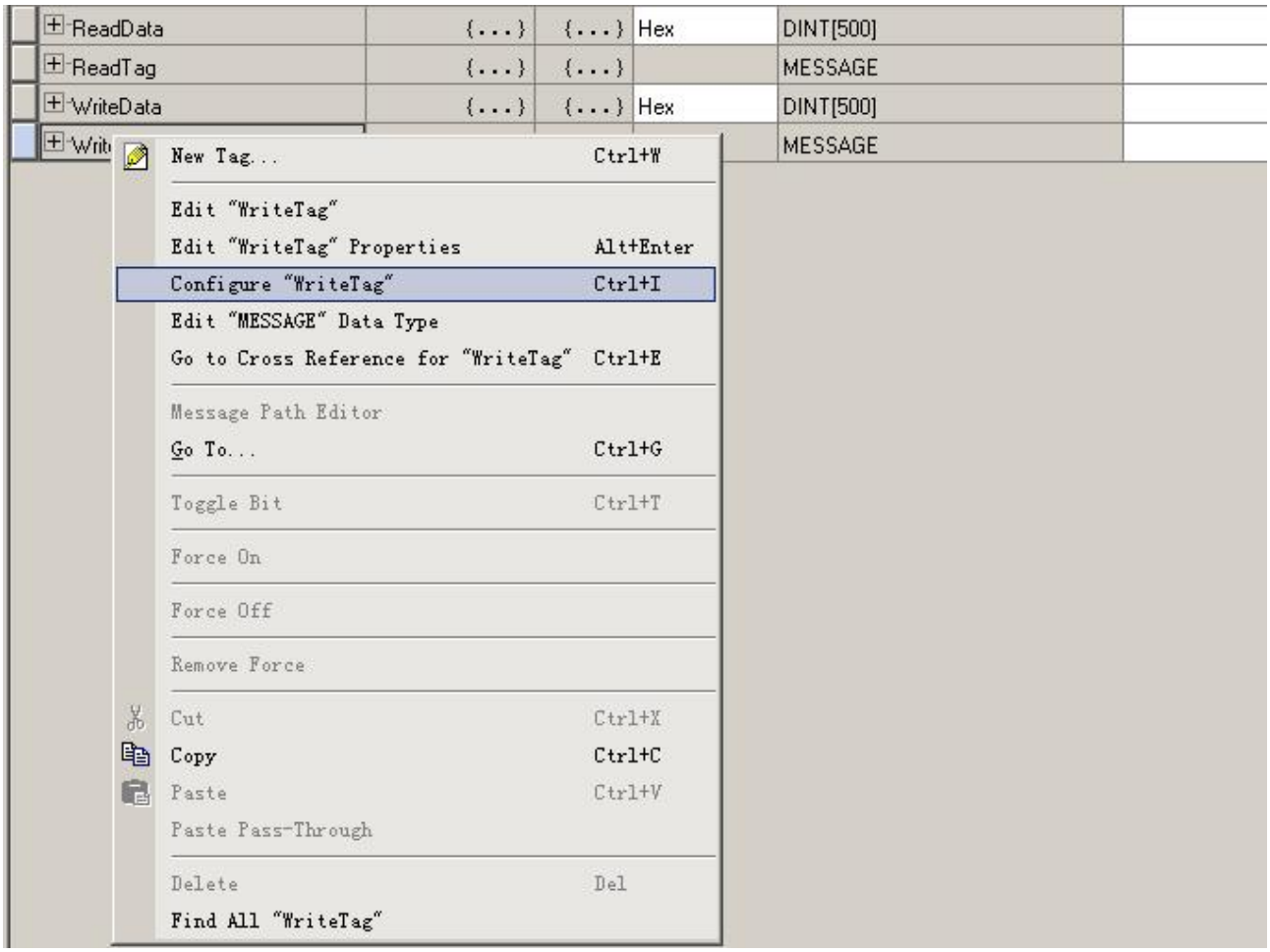




Enter the "Monitor Tags" interface; input some data beginning from address WriteData[0] in the "WriteData" tag.

There data will be outputted to SST Gateway.

Right click "WriteTag", select "Configure "WriteTag"":



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)"

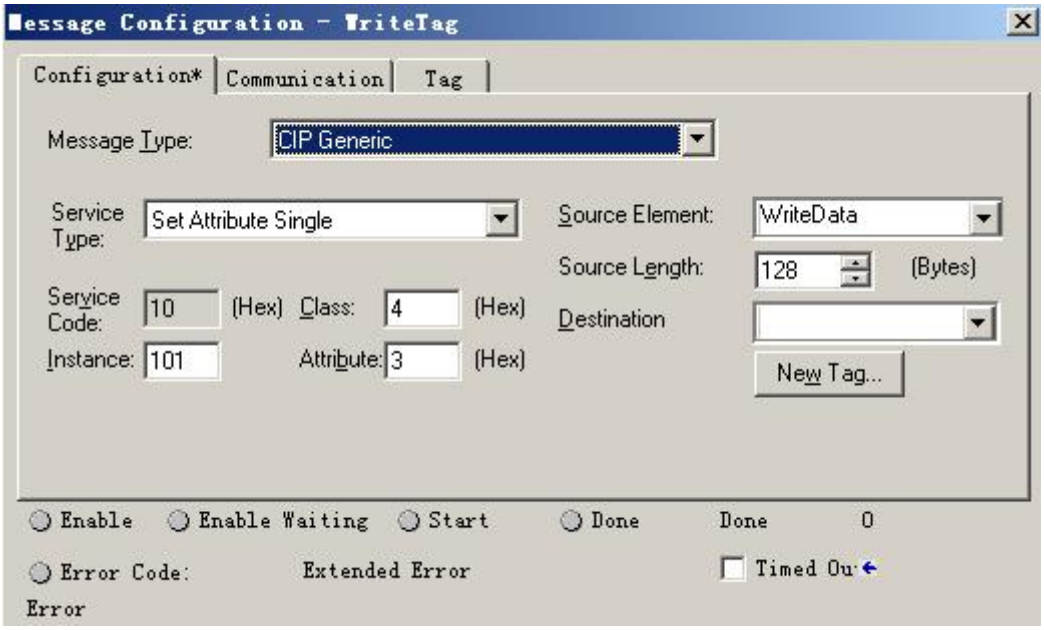
Class: 4 (Hex)

Instance: Please refer to chapter 6 EtherNet/IP Connection Parameters.

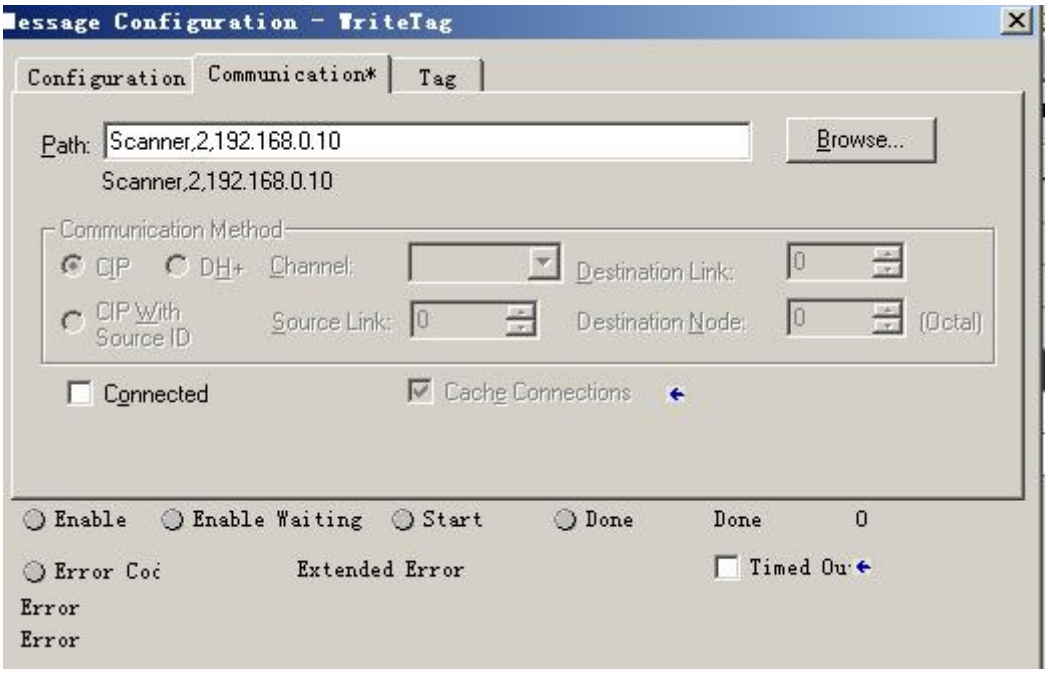
Attribute: 3 (Hex)

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.



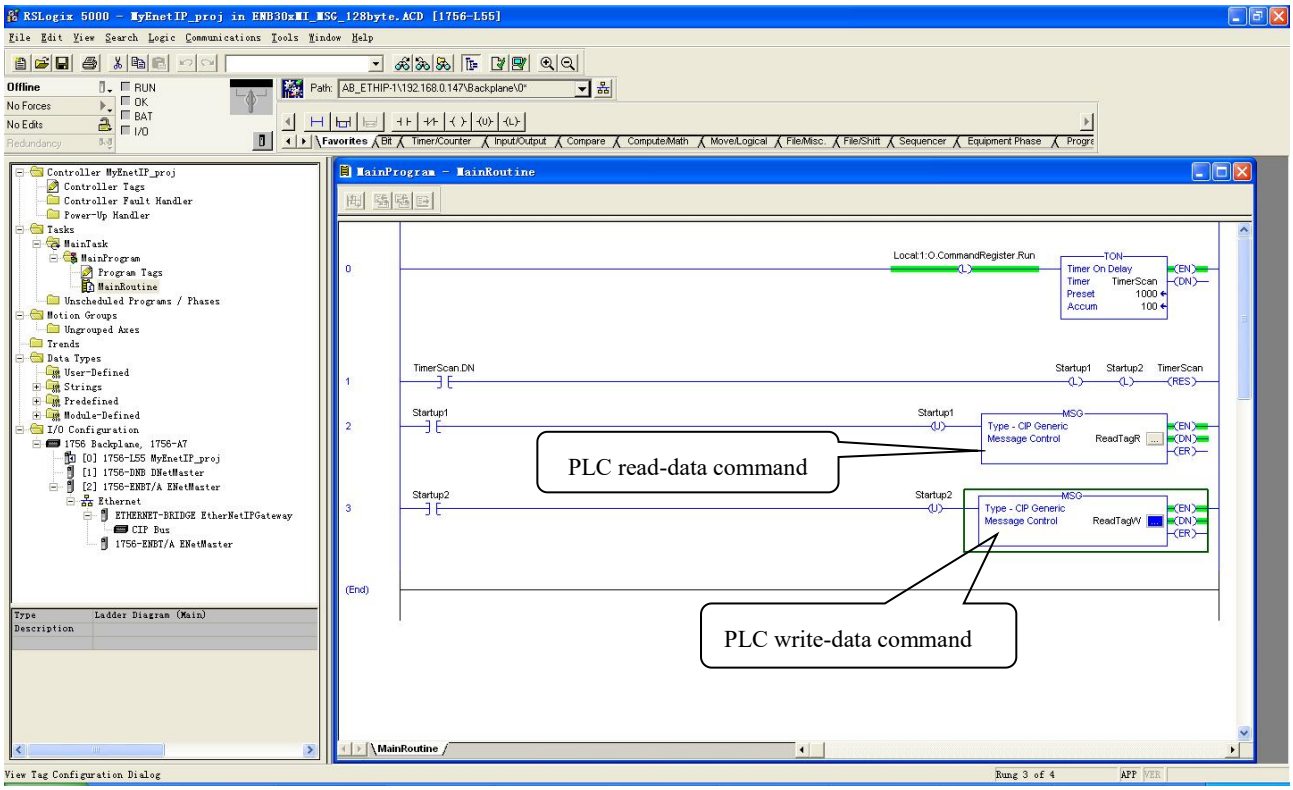
Choose "Communication" label, input the relevant path of connecting EtherNet/IP adapter in the blank space behind the Path, the path format is: EthetNet IP hostname, EtherNet/IP scanner slot No., IP address of EtherNet/IP adapter, after setting the path, click "Apply", "Confirm". As is shown below:



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

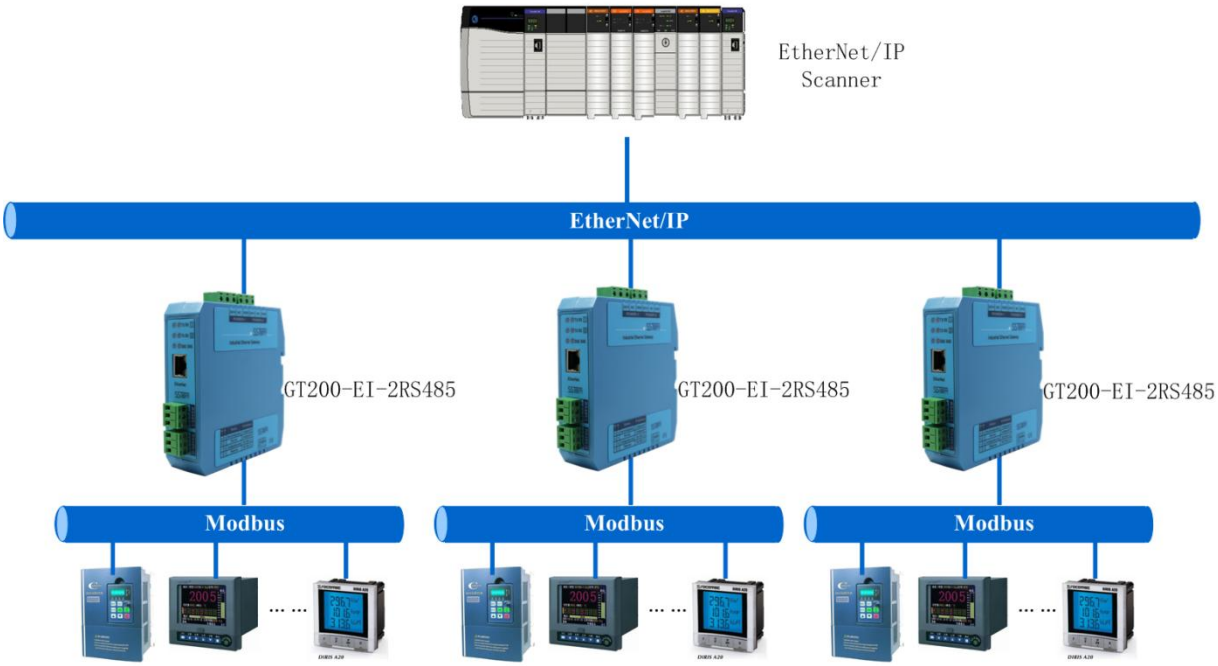
Control", as shown below:



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)..

8 Typical Application

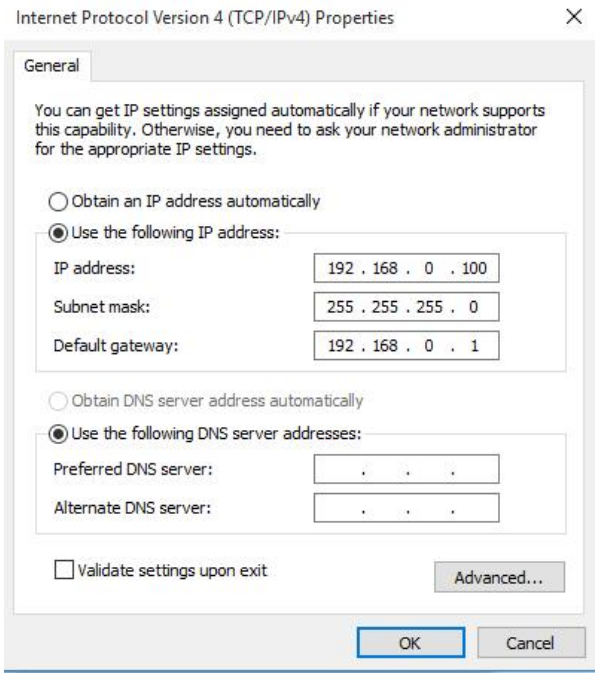
GT200-EI-2RS485 can connect Modbus devices to the EtherNet/IP network, and achieve communication between PLC (or PC) with EtherNet / IP interface and Modbus devices:



Appendix A: Upgrade to Modbus TCP Function

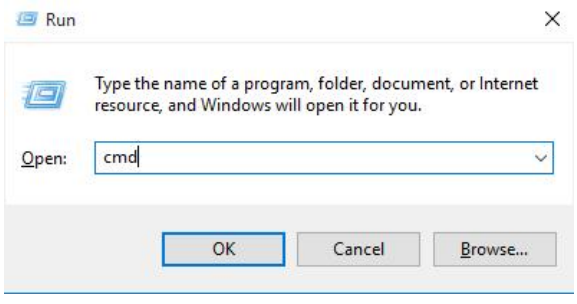
A.1 How to Upgrade to Modbus TCP

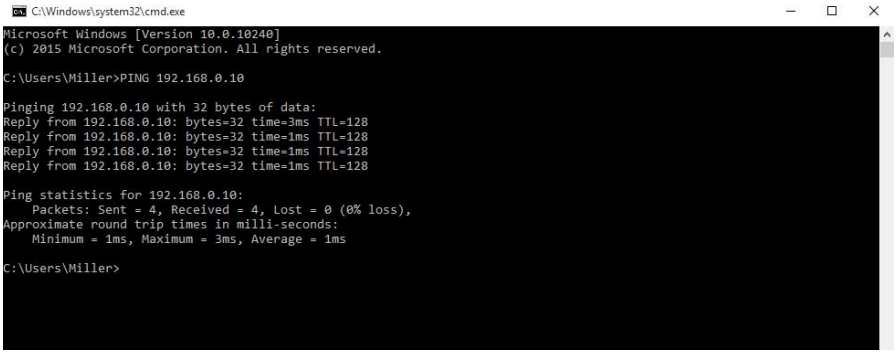
1. Connect to the gateway with your computer through wired RJ 45 cable. Make sure your IP address of local network adapter is set to 192.168.0.XXX (not 192.168.0.10), network mask is 255.255.255.0. Gateway address is 192.168.0.1.



2. Turn the DIP switch to 1ON and 2OFF, power off and power on to enter FTP state. At this time, the orange lights of ENS and SNS is flashing alternately;

3. Click WIN+R, input cmd and use PING 192.168.0.10 in the cmd window. Make sure he PING is successful.





4. Unzip the “Upgrade_to_Modbus_TCP_Function.zip”, double click the “FtpFwUpdate.bat” file in the folder. Check the private networks and public network checkbox, and click “Allow access”.

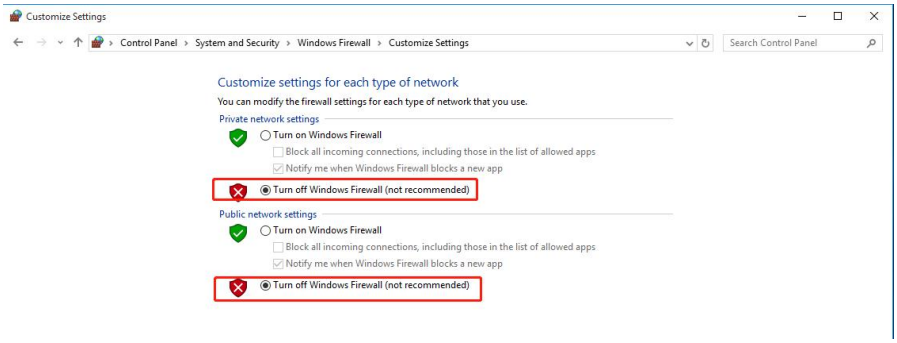
5. When it shows the following sentences, that means the upgrade process is normal. Please don’t power off the gateway now.

It will take about 2 minutes to wait for the program to be upgraded. When the below red marked sentences appear, that means the upgrade process is successful. Please don't power off the gateway now.

When the below red marked sentences does not appear more than 5 minutes. Please do the following steps to fix the issue.

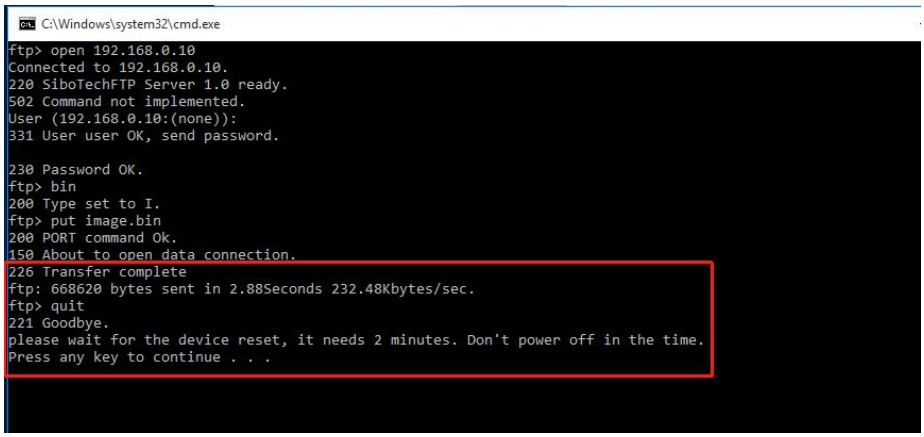
(1) please shut down the cmd window.

(2) You can turn off the windows firewall temporarily.



(3) Double click the FtpFwUpdate.bat file to do the upgrade again.

6. When the device restarts automatically, it means that the upgrade process is completed.



When showing "Press any key to continue...", the upgrade is finished.

Now, you can power off the gateway and set DIP switch to 1OFF and 2OFF. Use SST-MT-CFG to configure the GT200-EI-2RS485 (Modbus TCP).

A.2 Configuration

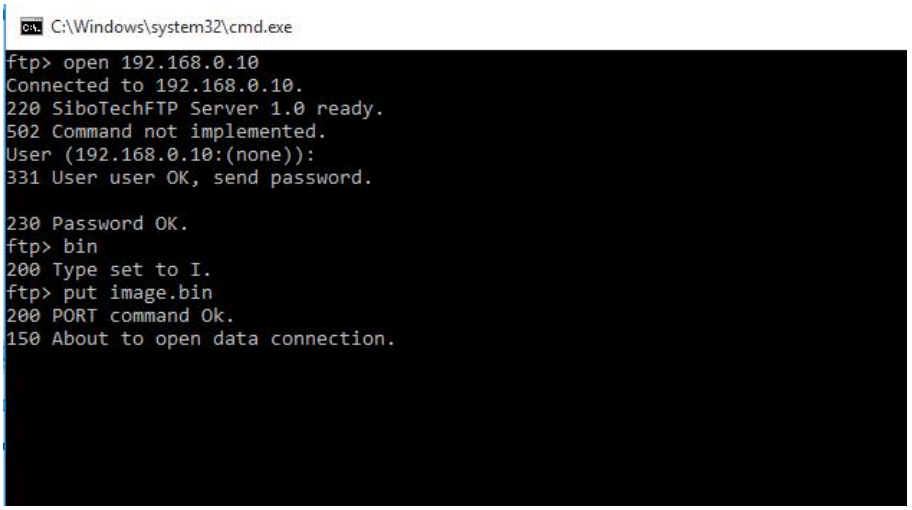
Turn DIP switch to 1OFF and 2OFF to start configuring the GT200-EI-2RS485 (Modbus TCP) NOW.

To configure the GT200-EI-2RS485 (Modbus TCP), please download the SST-MT-CFG configuration software on https://www.sstautomation.com/Download1/.

A.3 Restore to EtherNet/IP

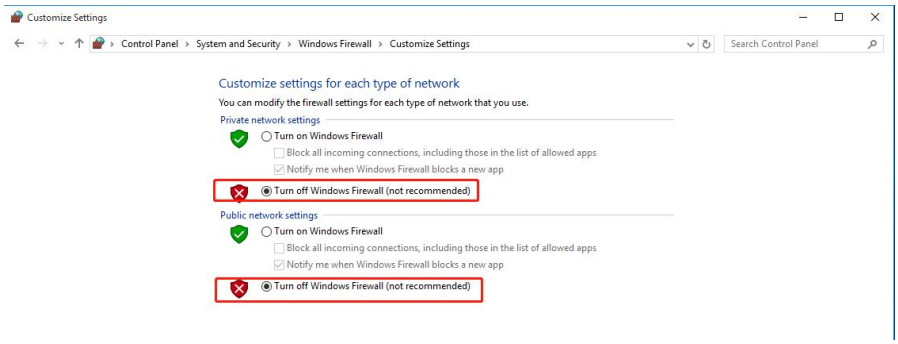
1. Do the same from Step 1 to Step 3 on Appendix A.1.

2. Unzip the Restore_to_EtherNet_IP_Function.zip, double click the FtpFwUpdate.bat file in the folder.
   Check the private networks and public network checkbox, and click “Allow access”.



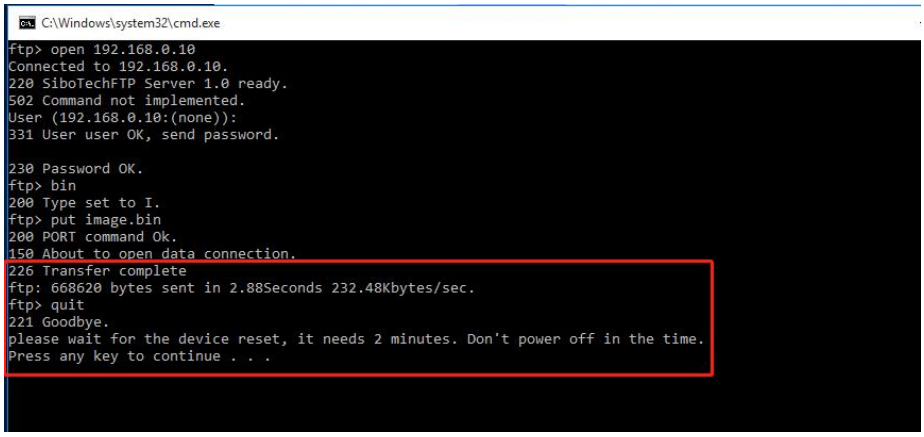
3. When it shows the following sentences, that means the upgrade process is normal.
   Please don’t power off the gateway now.
   It will take about 2 minutes to wait for the program to be upgraded. When the below red marked sentences appear, that mean the upgrade process is successful. Please don’t power off the gateway now.
   When the below red marked sentences does not appear more than 5 minutes. Please do the following steps to fix the issue.
   (1) Please shut down the cmd window.

(2) You can turn off the windows firewall temporarily.



(3) Double click the FtpFwUpdate.bat file to do the upgrade again.

4. When the device restarts automatically, it means that the upgrade process is completed.



When showing “Press any key to continue...”, the upgrade is finished.

Now, you can power off the gateway and set DIP switch to 1OFF and 2OFF. Use SST-GT-CFG to configure the GT200-EI-2RS485.