

Modbus TCP / EtherNet/IP Gateway GT200-MT-EI

User Manual

V1.7

Rev B



SST Automation

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1 Product Overview

1.1 Product Overview

GT200-MT-EI is a gateway which can realize the interconnection of different industrial Ethernet devices. The gateway supports Modbus TCP master/slave and EtherNet/IP slave. It can finish the data exchange between Modbus TCP network and EtherNet/IP network. Also, it supports the interconnection between Schneider PLC and AB PLC and connecting the Modbus TCP slave devices to the EtherNet/IP network.

1.2 Product Features

- Modbus TCP master or slave optional.
- EtherNet/IP slave.
- Redundant power.
- Support network status monitor function.
- Support I/O data monitor function.
- Provide easy-to-use configuration software SST-EE-CFG.



1.3 Technical Specifications

EtherNet/IP Interface Features	
Ethernet Interface	One (1) half-duplex/full-duplex auto-negotiation RJ45 Ethernet port shared by Modbus TCP and EtherNet/IP
IP Address Assignment Modes Supported	Static IP Addressing (Manual Configuration) DHCP (Auto IP)
EtherNet/IP Operation Mode	Functions as an EtherNet/IP Adapter (Slave) Supports the ODVA standard EtherNet/IP communication protocol.
EtherNet/IP Communication Modes Supported	Implicit Messaging (I/O Messaging) Explicit Messaging (MSG Instruction Blocks)
Max Input Bytes	492 Bytes
Max Output Bytes	492 Bytes
Byte Swap Modes	No swap Double-byte swap (0x1234 => 0x3412) Four-byte swap (0x12345678 => 0x78563412)

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Modbus TCP Interface Features	
Ethernet Interface	One (1) half-duplex/full-duplex auto-negotiation RJ45 Ethernet port shared by Modbus TCP and EtherNet/IP
IP Address Assignment Modes Supported	Static IP Addressing (Manual Configuration) DCHP (Auto IP)
Modbus TCP Operation Modes Supported	Modbus TCP Client (Master) Modbus TCP Server (Slave)
Maximum Modbus TCP Server Devices in Modbus TCP Client Mode	Up to 36 Modbus TCP Server connections
Maximum Modbus TCP Client Connections in Modbus TCP Server Mode	Up to 36 Modbus TCP Client connections
Modbus TCP Function Codes Supported in Modbus TCP Client Mode	01H: Read Coils 0x 02H: Read Discrete Inputs 1x 03H: Read Holding Registers 4x 04H: Read Input Registers 3x 05H: Single Coil Write 0x 06H: Single Register Write 4x 0FH: Multiple Coil Write 0x 10H: Multiple Register Write 4x
Modbus TCP Function Codes Supported in Modbus TCP Server Mode	03H: Read Holding Registers 4x 04H: Read Input Registers 3x 06H: Single Register Write 4x 10H: Multiple Register Write 4x
Electrical/Environmental	
Power Supply	24VDC Nominal
Operating temperature	-4°F - 140°F (-20°C - 60°C)
Humidity:	5% - 95% (non-condensing)
Certification	CE Compliant



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Hardware	
Dimensions (W xH x D)	1.6 in x 5.0 in x 4.6 in (40mm x 125mm x 110mm)
Mounting	35mm DIN rail
Enclosure Rating	IP20
Ethernet Port	One (1) 10/100 Base-T, RJ45 Connector
Power Interfaces	Two (2) 3-Pin Terminal Blocks
Mounting	35mm DIN rail

1.4 Related Products

The related products include GT200-MT-RS485, GT200-MT-2RS485, GT200-MT-2R232, GT200-MT-2RS, GT200-MT-EI, GT200-MT-CA, and GT200-MT-CO.

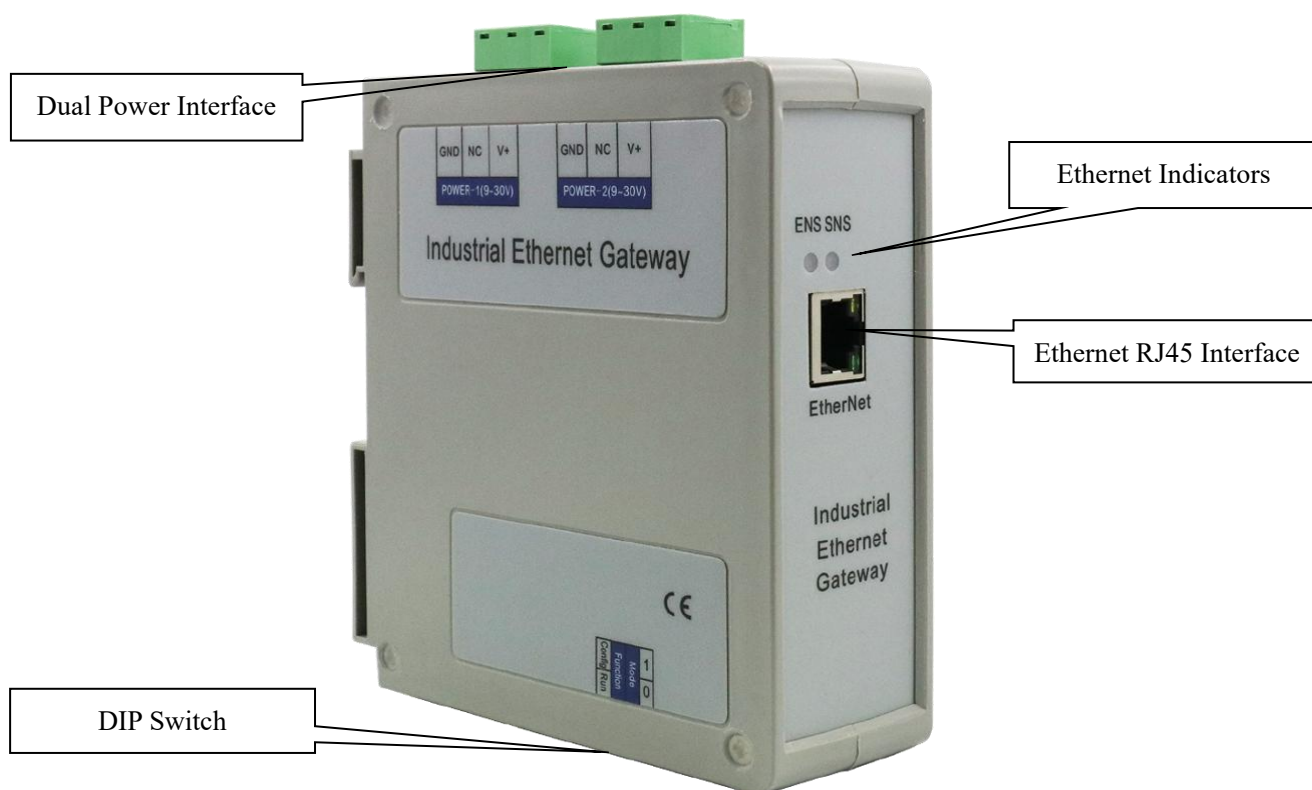
For more information about related products, please visit SST Automation's website: www.sstautomation.com.

1.5 Revision History

Revision	Date	Chapter	Description
V17, RevB	11/20/2024	Chapters 6, 7	Added tables to explain the data mapping between Modbus TCP and EtherNet/IP. Updated the EtherNet/IP connection instructions to use with Studio 5000 Logix Designer.
V1.7, RevA	12/28/2021	ALL	Update format

2 Hardware Descriptions

2.1 Product Appearance



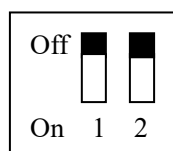
Note: This picture is for reference only and the appearance of the product is subject to change in the actual product.

2.2 Indicators

Indicators	Status	Descriptions
ENS (EtherNet/IP network status indicators)	Green on	EtherNet/IP connection is established.
	Blinking(Green)	EtherNet/IP connection is not established.
	Red on	Indicates conflict with IP address.
	Blinking(Red)	EtherNet/IP connection is off or DHCP state.
SNS (Modbus TCP network status indicators)	Green on	At least one Modbus TCP connection has been established.
	Blinking(Green)	Modbus TCP no connection
	Blinking(Red)	Modbus TCP connection is off and no longer exists.
	Blinking(Red) (lasts 3 seconds)	Modbus TCP connection is off.
ENS (Orange) and SNS (Orange) (Orange: Red and green light on at the same time)	Simultaneously on	Start-up state
	Blink alternately	Configuration state

2.3 DIP Switch

The DIP switch is located at the bottom of the gateway, bit 1 is mode bit and bit 2 is function bit.



Mode (bit 1)	Function (bit 2)	Description
Off	Off	Run mode, allow reading and writing configuration data.
Off	On	Run mode, forbid reading and writing configuration data.
On	Off	Configuration mode, IP address is 192.168.0.10 (fixed), this mode can read and write configuration data but cannot finish communication between EtherNet/IP and Modbus TCP.
On	On	Reserved

Notes:

Restart GT200-MT-EI (power off and power on) after resetting the configuration to make the configuration take effect!

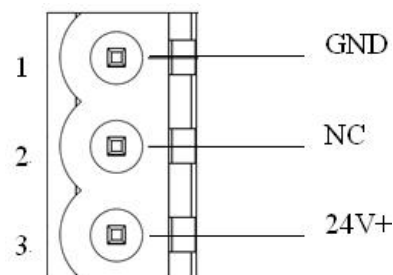


2.4 Interface

2.4.1 Power Interface

GT200-MT-EI has two power interfaces and power redundant function. When one power fails, another power can keep supplying power.

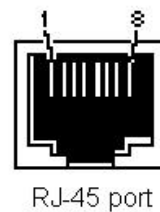
Pin	Function
1	GND
2	NC, not connected
3	24V+ , DC 24V



2.4.2 Ethernet Interface

Ethernet interface uses RJ-45 connector. Its pin (standard Ethernet signal) is defined as below:

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



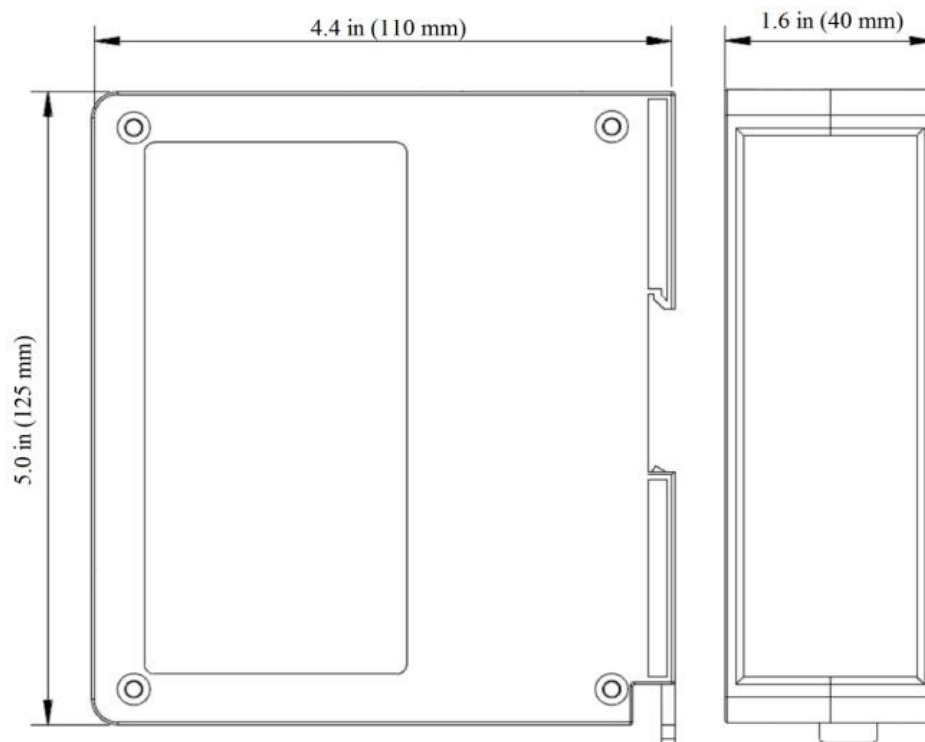


3 Hardware Installation

3.1 Machine Dimension

Size (width * height * depth):

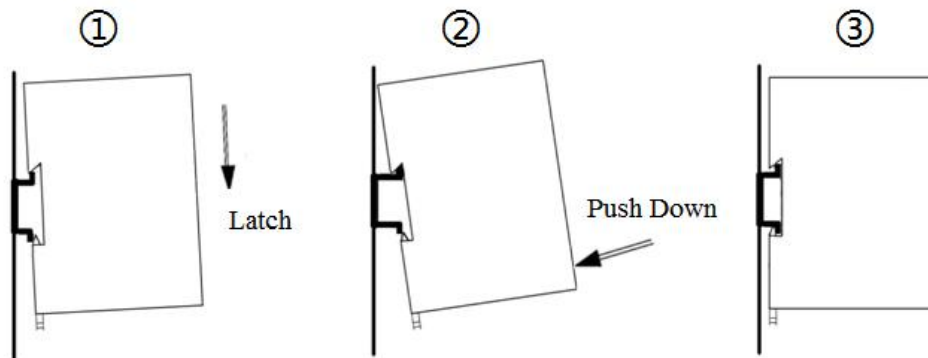
1.6 in * 5.0 in * 4.4 in (40 mm * 125 mm * 110 mm)



3.2 Installation Method

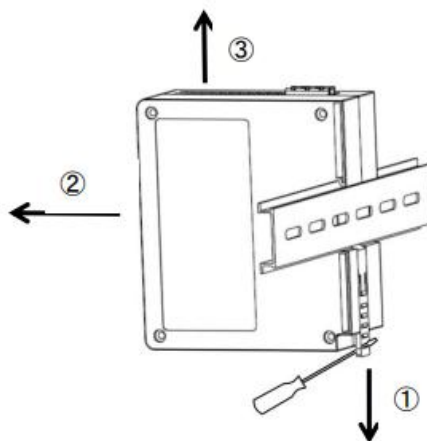
Using 1.4 in (35mm) DIN RAIL.

Install the gateway



Uninstall the gateway

1. Use a screwdriver to pass through the DIN RAIL bar, pull down and hold.
2. Pull out the gateway.
3. Lift up the gateway.





4 Quick Start Guide

The following steps will help users to quickly configure GT200-MT-EI:

1. Wiring: Please see [Chapter2.4](#).
 - a) Please connect the gateway's network port to the router. Connect to the PC with a network cable for configuring the gateway. And use other network cables to connect to Modbus TCP network and Ethernet IP network equipment.
 - b) GT200-MT-EI has two power interfaces, which are redundant, use DC 24V power supply. The user can connect one or both.
2. Download SST-EE-CFG software from www.sstcomm.com/Download1/ and install it.
3. Open the SST-EE-CFG configuration software and configure the parameters of Ethernet IP and Modbus TCP respectively. See [Chapter5](#) Software Instructions.

Note:

- a) The network factory setting of GT200-MT-EI is DHCP. If no DHCP Server on the network, users can set DIP Switch to "1(ON) , 2(OFF)" and restart gateway to make the settings take effect. Now, the IP address of GT200-MT-EI is 192.168.0.10 (fixed), subnet mask is 255.255.255.0, gateway address is 192.168.0.1. For other dial switch settings, see [Chapter2.3](#).
 - b) Make sure that the GT200-MT-EI and your computer are in the same network segment.
 - c) If you can't discover any gateways, please test the network connection first. Please refer to the note "[How to Use the Ping Command](#)" located on our Support page on the sstcomm.com website.
4. Configure the EtherNet IP network as required. Make sure that the configuration matches the configuration present in the GT200-MT-EI. Refer to the instructions in [Chapter 6.3](#) and [6.4](#).



5 Software Instructions

SST-EE-CFG is the software based on Windows platform. It is used to configure GT200-MT-EI series gateway and set the relevant parameters of two different industrial Ethernet.

Double click the software icon on the desktop after installation to enter the “Select device” interface:



Select “GT200-MT-EI”, click OK to enter into the main interface of GT200-MT-EI (enter into the default parameters setting interface of EtherNet/IP). Click the Ethernet type of equipment view interface to switch the parameters setting interface.

5.1 Software Interface

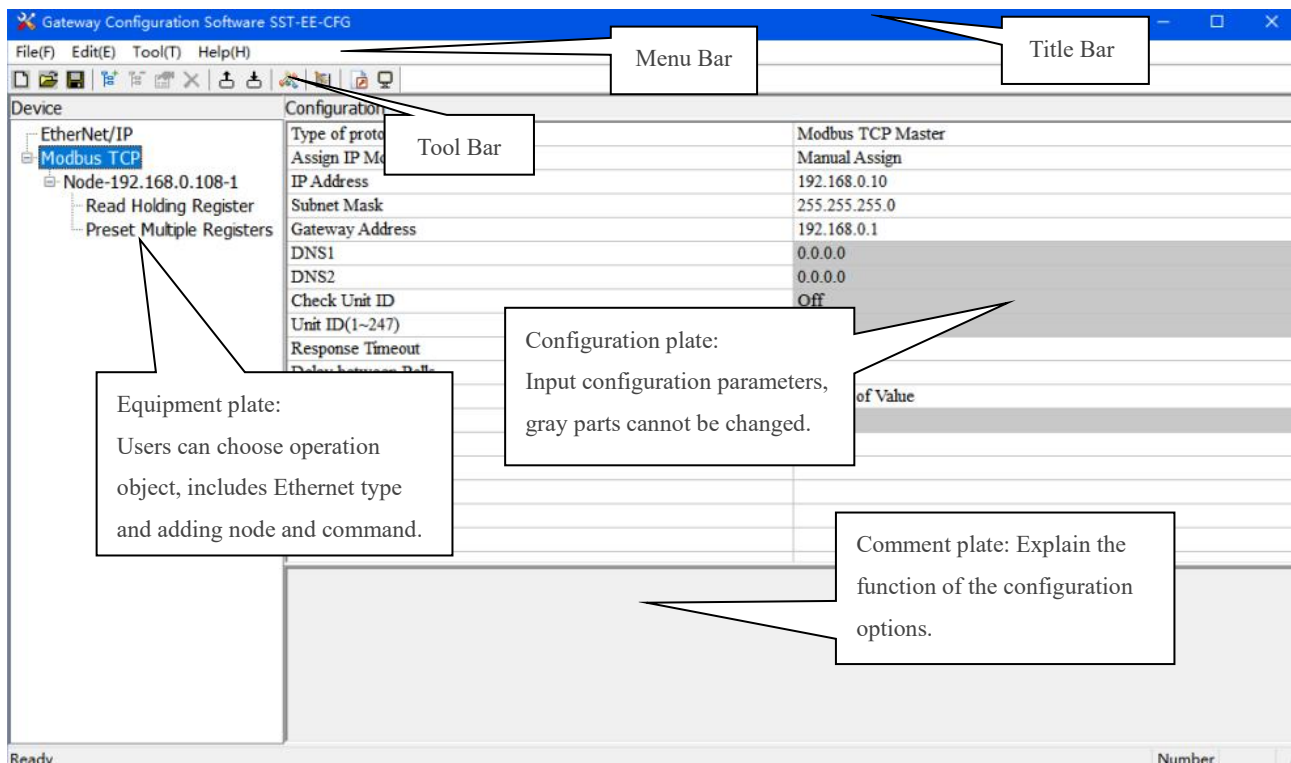
The main interface of SST-EE-CFG includes: Title bar, Menu bar, Tool bar, Status bar, equipment plate, configuration plate and comment plate.

Note: In this software, all gray parts are the part which cannot be changed.

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Tool Bar:

Toolbar interface shown as follow:



The function from left to right is: New, Open, Save, Add Node, Delete Node, Add Command, Delete Command, Upload Config, Download Config, Conflict Detect, Auto Mapping, Export Xls and Debug.

-  New: Create a new configuration project.
-  Open: Open a configuration project.
-  Save: Save current configuration.
-  Add Node: Add a Modbus TCP slave node.
-  Del Node: Delete a Modbus TCP slave node.
-  Add Command: Add a Modbus command.
-  Delete Command: Delete a Modbus command.
-  Upload Config: Read the configuration information from the module and shown in the software.



Download Config: Download the configuration file to the gateway.



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



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



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



Debug: Monitor the gateway memory buffer data.

5.2 Device view

5.2.1 EtherNet/IP

Click “EtherNet/IP” ,configuration view interface is as below.

Device	Configuration
EtherNet/IP	Type of Fieldbus
Modbus TCP	Number of input bytes (Instance 102)
	Number of output bytes (Instance 101)
	Data cleared of continuous no-response from Modbus TCP slave

Type of Fieldbus: EtherNet/IP slave.

Number of input bytes(Instance 102): Input bytes number of EtherNet IP, range: 5~496, the default is 496.

Number of output bytes(Instance 101): Output bytes number of EtherNet/IP, range: 1~492, the default is 492.

Data cleared of continuous no-response from Modbus TCP slave: When one Modbus TCP node happens three consecutive no-response,clear corresponding input data of this node.

Only take effect when the gateway acts as Modbus TCP Master.“On/Off” optional. There are “On” and “Off” options.



5.2.2 Modbus TCP

1. Modbus TCP Master Configuration

Device	Configuration	
EtherNet/IP Modbus TCP	Type of protocol	Modbus TCP Master
	Assign IP Mode	Manual Assign
	IP Address	192.168.0.10
	Subnet Mask	255.255.255.0
	Gateway Address	192.168.0.1
	DNS1	0.0.0.0
	DNS2	0.0.0.0
	Check Unit ID	Off
	Unit ID(1~247)	
	Response Timeout	1000
	Delay between Polls	0
	Output Mode	Change of Value
	Scan Rate(1~255)	10

The configurable parameters are as follows:

Type of Protocol: Modbus TCP Master.

Assign IP Mode: Manual Assign, BOOTP and DHCP.

IP Address: The IP Address of the device.

Subnet Mask: The Subnet Mask of the device.

Gateway Address: The Gateway Address of the device.

DNS1: The DNS1 of the device.

DNS2: The DNS2 of the device.

Response Timeout: When Modbus TCP master sends out commands, it waits for the response from slave. Range: 300~60000ms, the default is 1000.

Delay between Polls: Receive the right response after one Modbus command has been sent or sending next Modbus command after response timeout, the range is 0~ 2500ms, the default is 0.

Output Mode: Three options: Cycle, Forbidden, Change of Value.

Cycle: The write command will be sent periodically.

Forbidden: The write command won't be sent.

Change of Value: When the output data change, the write command will be sent.

Scan Rate: Scan Rate is ratio of fast scan to slow scan. Every Modbus command can be set to fast scan or slow scan. If this parameter value is set to 10 then every fast scan command will be sent 10 times and those slow

commands will be sent once.

2. Node

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

- [1] **Add node:** Left click on Modbus TCP or existing nodes, and then perform the operation of adding a new node. Then there is a new node named “New node” under Modbus TCP.
- [2] **Delete node:** Left click on the node to be deleted, and then perform the operation of deleting the node. The node and all commands will be deleted.
- [3] **Copy node:** Left click the existing node, choose the node and execute the operation of copying nodes (include all commands under the node)
- [4] **Paste node:** Left click and choose any existing node, execute operation of paste node. Then at the Ethernet rear part you can see a new node (include all commands under the node). Node parameters of new node is default setting, it needs to be reset.

The node interface is displayed as follows:

Device	Configuration	
- EtherNet/IP - Modbus TCP - Node-192.168.0.108-1	Unit ID(1~247)	1
	IP address to access Modbus TCP slaves	192.168.0.108
	Device Status	On
	Mapping Address (HEX)	
	Mapping Bit (0~7)	

Unit ID: Slave address of Modbus TCP, 1~247 optional.

IP address to access Modbus TCP slaves: Input IP address of Modbus TCP slave which gateway wants to visit.

Device Status: On, Off optional. When “On”, “mapping address” and “mapping bit ” is optional. Users can see the communication state between this node and gateway in EtherNet/IP input data.

Mapping Address: Address range that equipment state is mapped in the module memory, 0x0000~0x01EB. Calculate by clicking “Auto mapping”.

Mapping Bit: Bit x of device status located in memory mapping bytes. Range: 0~7.

3. Command

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

[1] **Add command:** Left click on the node, and then perform the operation of adding command to add a command for the node.

[2] **Delete command:** Left click on the command to be deleted, perform the operation of deleting the command.

It supports the commands: 01, 02, 03, 04, 05, 06, 15 and 16. Double click the command to select the command.



The command interface is displayed as follows:

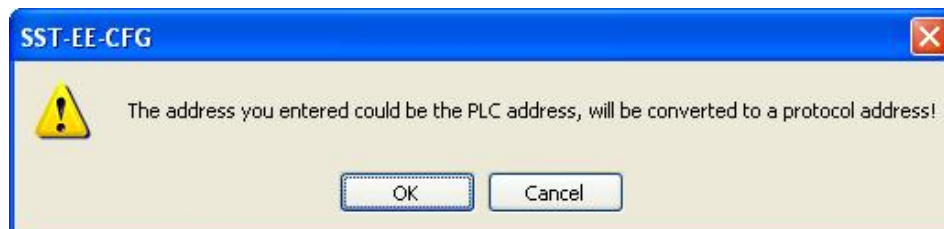
Device	Configuration
EtherNet/IP	Slave Address (1~247) 1
Modbus TCP	Function Code 1
Node-192.168.0.108-1	Starting Address
Read Coil Status	Number of Data
	Mapping Address (HEX)
	Mapping Bit (0~7)
	Number of Bytes
	Byte Swap no swap
	Type of Check CRC
	Type of Scan Fast Scan

Slave Address: Modbus Slave address.

Function Code: Modbus Function Code.

Starting Address: The starting address of status or register. Range: 0~65535.

Note: This item of SST-EE-CFG indicates protocol address. When users input PLC address, it will pop up the dialog box below. After clicking OK, the PLC address users input will be converted into the protocol address.



Here is the example of PLC address and corresponding protocol address.

Command	PLC Address	Protocol Address
Coil Status	00001 ~ 00010	00000 ~ 00009
Input Status	10001 ~ 10010	00000 ~ 00009
Holding Register	40001 ~ 40010	00000 ~ 00009
Input Register	30001 ~ 30010	00000 ~ 00009

For example: When Modbus command is configured as 03H (read holding register), when users input 40001 in this item (Modbus register starting address), it will pop up the dialog box after confirming. When clicking OK, PLC address 40001 will be converted into 0.

Number of Data: The number of data.

Modbus function code (3,4,16): The number of registers 1~112.

Modbus function code (1,2,15): The number of switching value or coil 1~400.

Mapping Address (HEX): Data starting address in module memory buffer.

- When the device status “Off”, address range that data is mapped in the module memory:

Read command: 0x0000~0x01EB

Write command: 0x4000~0x41EB

- When the device status “On” recommended “Auto Mapping” to calculate mapping address by software.
- Users can also use this area after write command is about local data exchange: 0x0000~0x01EB.

Mapping Bit (0~7): When reading/writing a coil or reading input status, its value will be mapped into bits of input or output buffer.

Number of Bytes: The number of the data bytes.

Byte Swap: There are three types: no swap, double-byte swap and four-byte swap.

Type of Check: Data communication error check.

Type of Scan: Every Modbus command can be set to fast scan or slow scan. The gateway will send Modbus command according to the Scan Rate. Scan Rate is the ratio of fast-scan command to slow-scan command.

4. Modbus TCP Slave Configuration

Device	Configuration
EtherNet/IP	Type of protocol
Modbus TCP	Assign IP Mode
	IP Address
	Subnet Mask
	Gateway Address
	DNS1
	DNS2
	Check Unit ID
	Unit ID(1~247)
	Response Timeout
	Delay between Polls
	Output Mode
	Scan Rate(1~255)
	Network status indicator
	Byte Swap

Check Unit ID: On, Off optional.

Unit ID (1~247): Valid when “Check unit ID” is “On”, range: 1~247.

Network status indicator: Two ends network monitor with each other, EtherNet/IP end monitors Modbus TCP network status, Modbus TCP end monitors EtherNet/IP network status and no indicating optional.

Byte Swap: No swap, double-byte swap, four-byte swap optional, the default is no swap.

Please see the “Modbus TCP Master” section for other parameter descriptions.

5.3 Tool

The “Tool” option on the menu bar contains the following functions:

- Config Ethernet
- Upload Config
- Download Config
- Conflict Detect
- Export Xls
- Monitor I/O Data

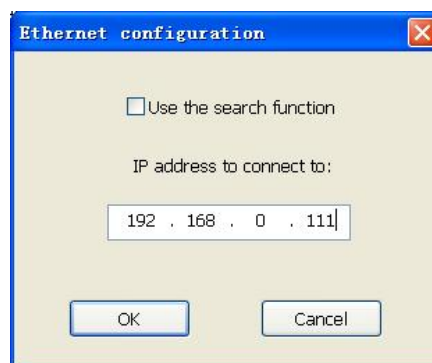


5.3.1 Config Ethernet

“Config Ethernet” has two options.

- (1) The default option is to check “use the search function”. The users can search all GT200-MT-EI gateways on the network.
- (2) When “use the search function” is not checked, users can search a gateway with the specified IP address.

Fill in the IP address of the gateway you want to search, and click “OK” button to confirm search.

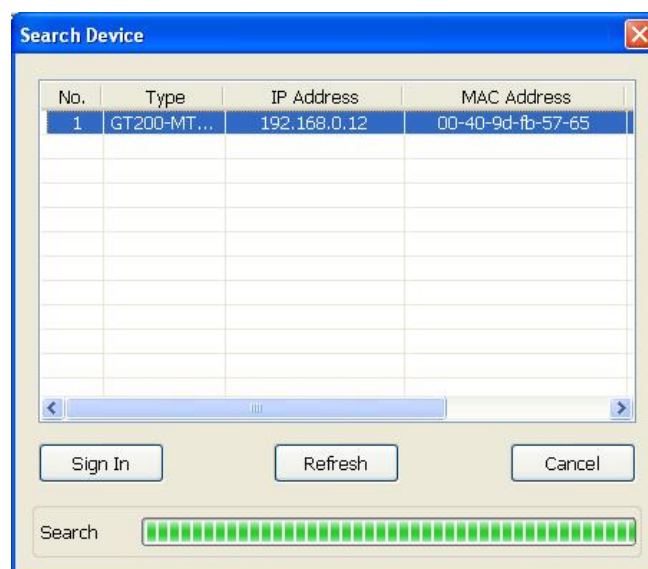


5.3.2 Upload Config and Download Config

1. Upload Config

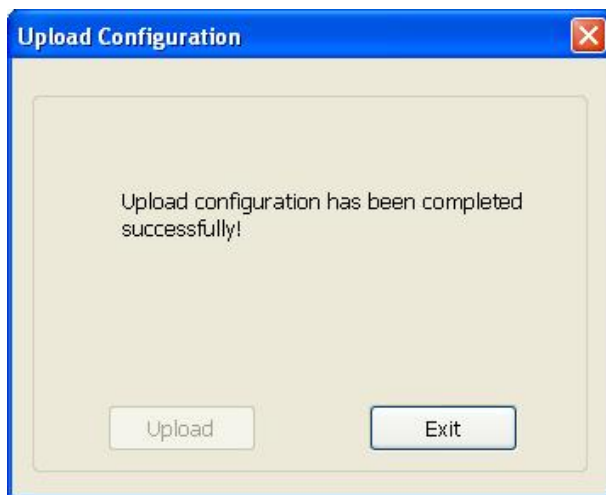
Select “Upload” to upload the gateway configuration information from the device to the software.

When uploading the configuration from the gateway to the software, the pop-up window is as below:



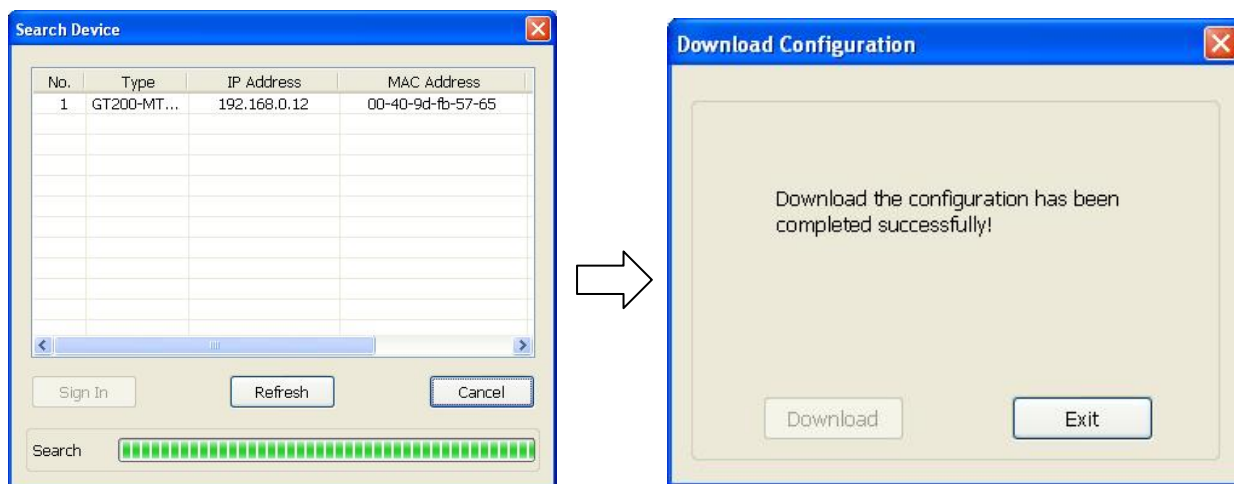
Click “refresh” button will search equipment on the Ethernet again.

Select the equipment you want to configure and click “Sign In” to enter into the upload dialog box. The interface is shown below:



2. Download Config

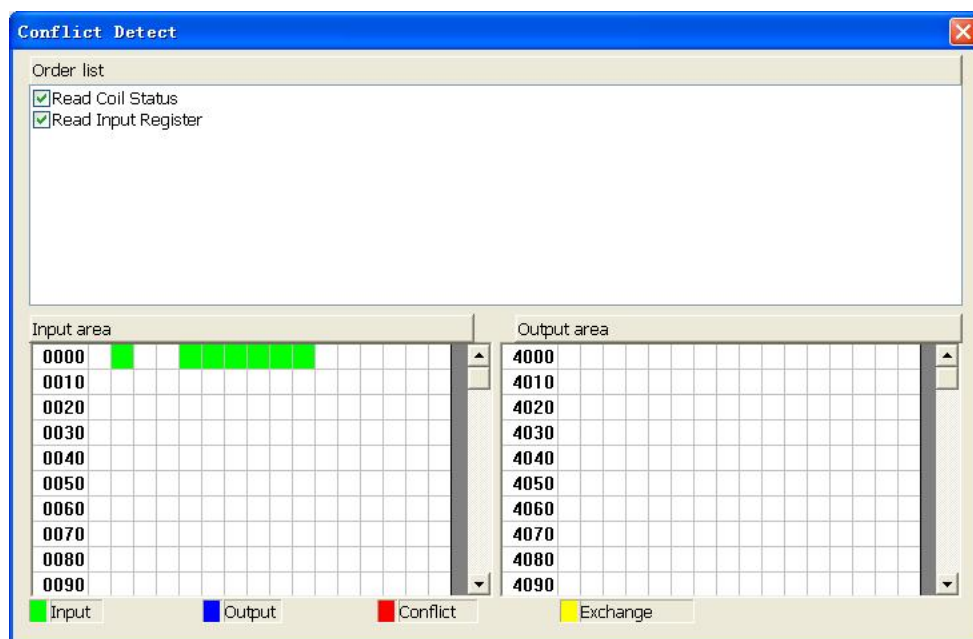
Select “Download” to download the configured gateway information to the gateway device. The operation of download configuration is the same as upload configuration:



Notes: Before downloading, please confirm all configurations have been completed and right.

5.3.3 Conflict Detect

It is used to check whether there exists confliction in “memory mapping data”. If users find confliction, it can be adjusted in time. The interface is shown below:



1. Command List Operation

It shows configured command in the command list interface. Check box before each command is used to check the position of this command in memory mapping area. Click one command and check the box, it will show the position where relevant commands occupy in the memory mapping area. Click the command again and uncheck the box, the command will not be shown in the mapping area. This function will be used for confliction detect among commands in memory mapping area.



2. Memory Mapping Operation

Memory mapping area divides into input area and output area.

Input mapping address range: 0x0000~0x3FFF.

Output mapping address range: 0x4000~0x7FFF.

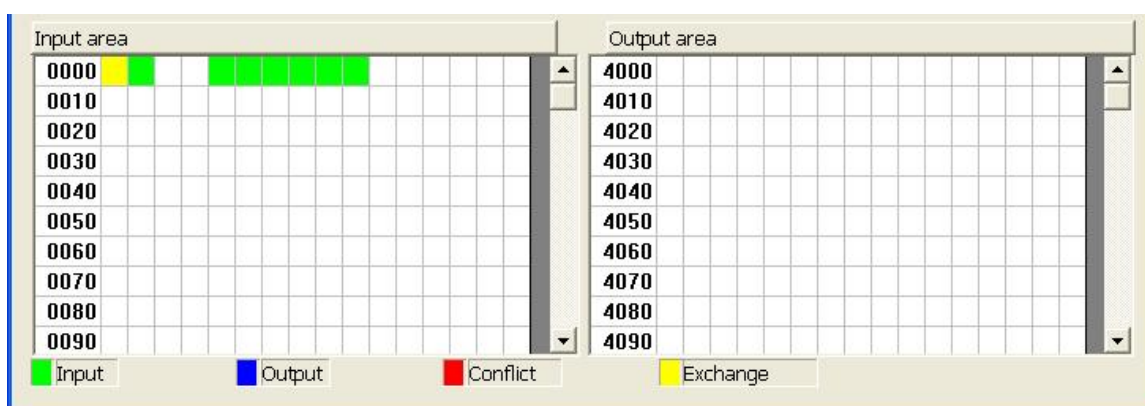
Each grid represents one byte address.

Green: Read command is shown in input mapping area, it will be in green without conflict.

Yellow: Write command: When address mapping area is located in input area, it will be in yellow without conflict.

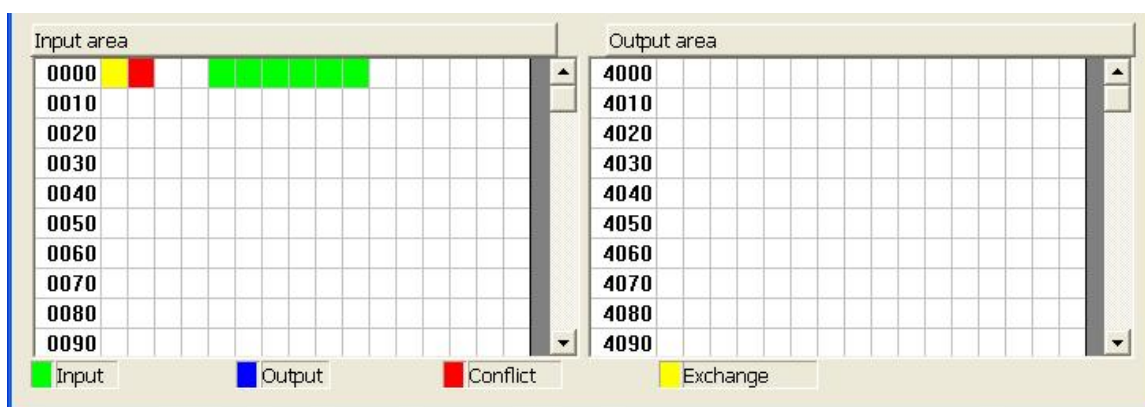
Blue: When address mapping area is located in output area, it will be in blue without conflict.

Red: In input area or output area, different command occupied on the same byte, this byte area will be in red.



For bit operation command, the above grid displaying meaning works the same.

Click input/output area grids, each bit of relevant byte in the grid will show whether each bit is occupied. As is shown below:



5.3.4 Export Xls

Excel configuration Excel file will help users to check the relevant configuration.

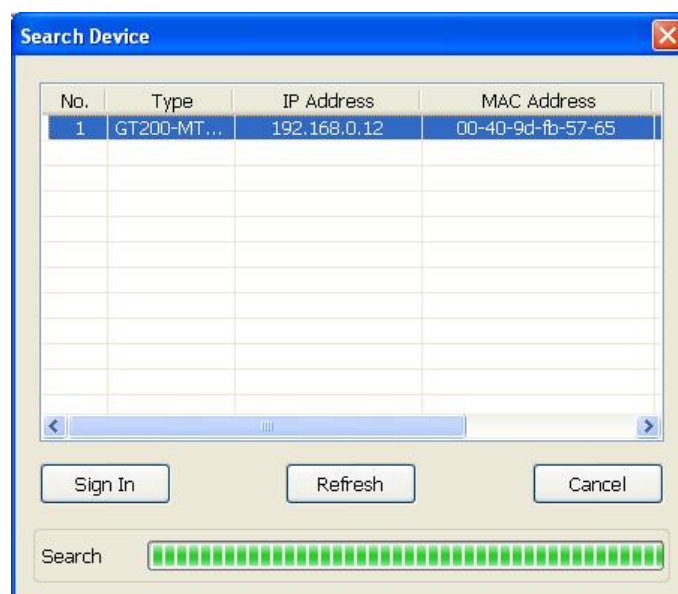
Select the export xls icon , export the configuration information to excel and save. Select the appropriate path,

shown as below:



5.3.5 Monitor I/O Data

This function is used to monitor the buffer data, click “Monitor I/O Data” and it will pop up the dialog box of searching equipment:

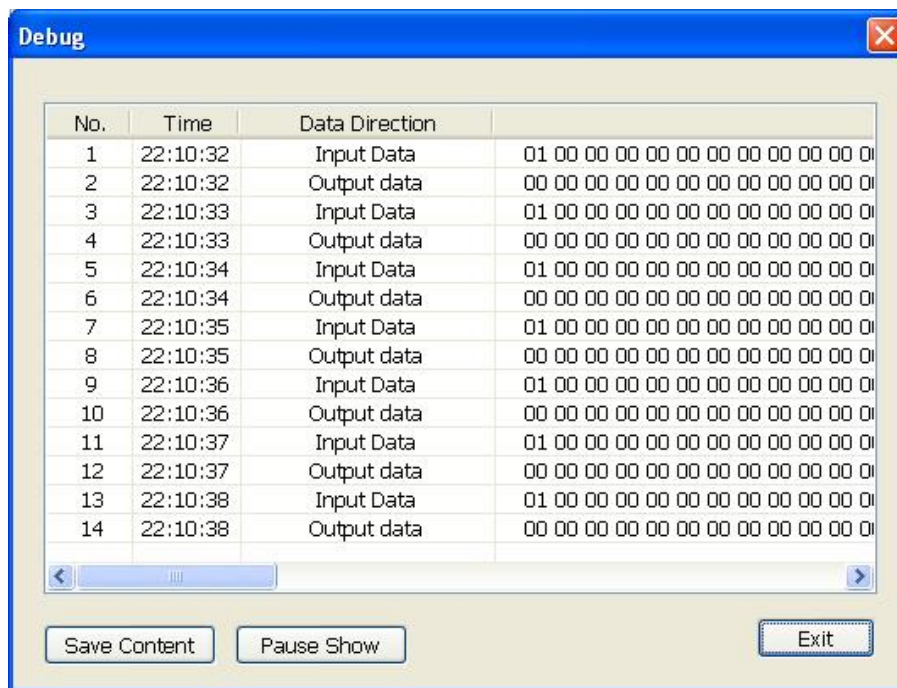


Click “Sign In”, it will pop up the I/O data monitor dialog box below:

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No.	Time	Data Direction	
1	22:10:32	Input Data	01 00 00 00 00 00 00 00 00 00 00 01
2	22:10:32	Output data	00 00 00 00 00 00 00 00 00 00 00 01
3	22:10:33	Input Data	01 00 00 00 00 00 00 00 00 00 00 01
4	22:10:33	Output data	00 00 00 00 00 00 00 00 00 00 00 01
5	22:10:34	Input Data	01 00 00 00 00 00 00 00 00 00 00 01
6	22:10:34	Output data	00 00 00 00 00 00 00 00 00 00 00 01
7	22:10:35	Input Data	01 00 00 00 00 00 00 00 00 00 00 01
8	22:10:35	Output data	00 00 00 00 00 00 00 00 00 00 00 01
9	22:10:36	Input Data	01 00 00 00 00 00 00 00 00 00 00 01
10	22:10:36	Output data	00 00 00 00 00 00 00 00 00 00 00 01
11	22:10:37	Input Data	01 00 00 00 00 00 00 00 00 00 00 01
12	22:10:37	Output data	00 00 00 00 00 00 00 00 00 00 00 01
13	22:10:38	Input Data	01 00 00 00 00 00 00 00 00 00 00 01
14	22:10:38	Output data	00 00 00 00 00 00 00 00 00 00 00 01

Save Content Pause Show Exit

Click “Save Content” button can save relevant content to the PC hard disk. This button becomes “Stop saving”. If you want to finish saving, you can press “Stop saving” button. It can pause displaying buffer data by clicking “Pause displaying”.



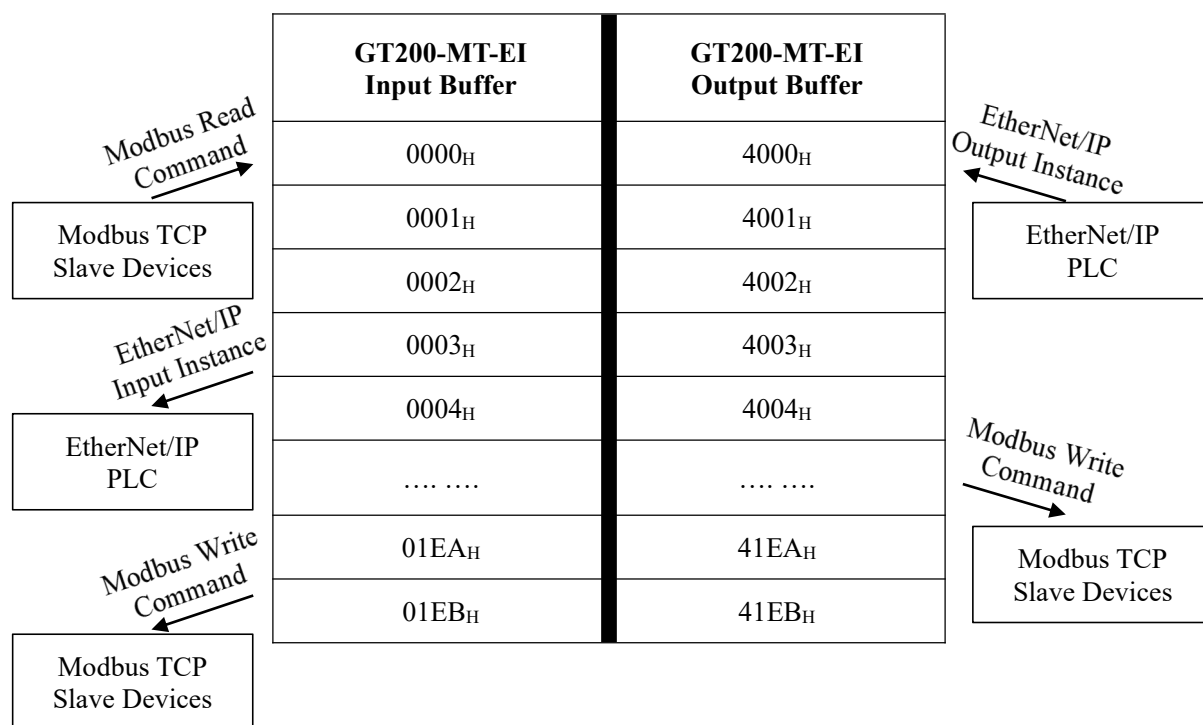
6 Interface Design Description

6.1 Modbus TCP Client (Master)

6.1.1 Data Exchange

The ethernet side of the gateway supports Modbus TCP function, as described below:

Data exchange of Modbus TCP and EtherNet/IP of GT200-MT-EI is set up through "mapping". There are two data buffer areas, one is EtherNet/IP network input buffer and the other is EtherNet/IP network output buffer. Network input and output buffer is all for EtherNet/IP master. When the gateway is a Modbus TCP master, the Modbus read command will write the read data to the network input buffer for EtherNet/IP accessing. The Modbus write register command gets the data from the network output buffer and exports it to the Modbus TCP server equipment through the write command.



As shown above, the Network input buffer range is from 0000H to 01EBH. It supports function codes 01H, 02H, 03H, and 04H as data input, and function codes 05H, 06H, 15H, and 16H for local data exchange. The network output buffer range is from 4000H to 41EBH, supporting function codes 05H, 06H, 15H, and 16H as data output.

The ethernet can support at maximum of 48 commands, with each command capable of reading a group of continuous Modbus registers.



6.1.2 Device Status Monitor

When the gateway functions as a Modbus TCP Client, it has a device status monitor feature as described below:

- On the EtherNet/IP side of the connection, the first word (2 bytes) of input data following the gateway status bytes (4 bytes) monitors the connection status of each Modbus TCP Server (Slave) node that is connected to the gateway. If the node status monitor function is disabled, then the gateway will not show this data.

GT200-MT-EI Input Buffer	EtherNet/IP Input Data			Description																					
	32-Bit	16-Bit	8-Bit																						
	Input.Data[0]	Input.Data[0]	Input.Data[0]	GT200-MT-EI Status Bytes: 00 00 00 00 _H = Disconnected 01 00 00 00 _H = Connected																					
			Input.Data[1]																						
		Input.Data[1]	Input.Data[2]																						
			Input.Data[3]																						
0000 _H	Input.Data[1]	Input.Data[2]	Input.Data[4]	Node 1-8 Status Monitor Bits:																					
<table><tr><th colspan="8">Mapping Bit</th></tr><tr><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td><td>0</td></tr></table>								Mapping Bit								7	6	5	4	3	2	1	0		
Mapping Bit																									
7		6		5	4	3	2	1	0																
0 _B = Connected 1 _B = Disconnected																									
0001 _H	Input.Data[3]	Input.Data[5]	Node 9-16 Status Monitor Bits:																						
			<table><tr><th colspan="8">Mapping Bit</th></tr><tr><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td><td>0</td></tr></table>								Mapping Bit								7	6	5	4	3	2	1
	Mapping Bit																								
7	6		5	4	3	2	1	0																	
0 _B = Connected 1 _B = Disconnected																									
0002 _H	Input.Data[5]	Input.Data[4]	Input.Data[6]	Modbus Address 4x0001 (Holding Register 0)																					
0003 _H		Input.Data[5]	Input.Data[7]	Modbus Address 4x0002 (Holding Register 1)																					
.... .																									

Note: To enable the node status monitor function, set the "Device Status" field to "On" in the SST-EE-CFG configuration software. To disable the node status monitor function, set this field to "Off"

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- b. On the Modbus TCP side of the connection, the EtherNet/IP monitor data is located on Modbus register address 3x5001 (Base-0 Input Register address 5000). When EtherNet/IP network fails, this register is set to 0, and set to 1 if network is normal.
- c. Regardless if the EtherNet/IP monitor function is enabled or disabled, Modbus Clients can still get the EtherNet/IP network status by reading Modbus register address 3x5001 (Base-0 Input Register address 5000).
- d. If the EtherNet/IP monitor function is enabled, it will map the register at address 3x5001 (Input Register 5000) to the register at address 3x0001 (Input Register 0), and the EtherNet/IP output data will be mapped to the Modbus register address starting from 3x0002 (Input Register 1).

GT200-MT-EI Output Buffer	Modbus TCP Register Address	Description		
4000 _H	3x0001	EtherNet/IP Monitor Bytes: 00 00H = EtherNet/IP Disconnected 00 01H = EtherNet/IP Connected		
4001 _H	Input Register 0			
4002 _H	3x0002	EtherNet/IP 32-Bit Index Output.Data[0]	EtherNet/IP 16-Bit Index Output.Data[0]	EIP 8-Bit Index Output.Data[0]
4003 _H	Input Register 1			EIP 8-Bit Index Output.Data[0]
4004 _H	3x0003		EtherNet/IP 16-Bit Index	EIP 8-Bit Index Output.Data[0]
4005 _H	Input Register 2		Output.Data[1]	EIP 8-Bit Index Output.Data[0]
4006 _H	3x0004		EtherNet/IP 16-Bit Index	EIP 8-Bit Index Output.Data[0]
4007 _H	Input Register 3		Output.Data[2]	EIP 8-Bit Index Output.Data[0]
4008 _H	3x0005	EtherNet/IP 32-Bit Index Output.Data[1]	EtherNet/IP 16-Bit Index	EIP 8-Bit Index Output.Data[0]
4009 _H	Input Register 4		Output.Data[3]	EIP 8-Bit Index Output.Data[0]
.... .				
	3x5001 Input Register 5000	EtherNet/IP Monitor Bytes: 00 00 _H = Disconnected 00 01 _H = Connected		



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- e. If the EtherNet/IP monitor function is disabled, the EtherNet/IP output data will be mapped to the Modbus register address starting from 3x0001 (Input Register 0).

GT200-MT-EI Output Buffer	Modbus TCP Register Address	Description		
4000 _H	3x0001 Input Register 0	EtherNet/IP 32-Bit Index Output.Data[0]	EtherNet/IP 16-Bit Index	EIP 8-Bit Index Output.Data[0]
4001 _H			Output.Data[0]	EIP 8-Bit Index Output.Data[1]
4002 _H	3x0002 Input Register 1		EtherNet/IP 16-Bit Index	EIP 8-Bit Index Output.Data[2]
4003 _H			Output.Data[1]	EIP 8-Bit Index Output.Data[3]
4004 _H	3x0003 Input Register 2	EtherNet/IP 32-Bit Index Output.Data[1]	EtherNet/IP 16-Bit Index	EIP 8-Bit Index Output.Data[4]
4005 _H			Output.Data[2]	EIP 8-Bit Index Output.Data[5]
4006 _H	3x0004 Input Register 3		EtherNet/IP 16-Bit Index	EIP 8-Bit Index Output.Data[6]
4007 _H			Output.Data[3]	EIP 8-Bit Index Output.Data[7]
.... .				
	3x5001 Input Register 5000	EtherNet/IP Monitor Bytes: 00 00 _H = Disconnected 00 01 _H = Connected		

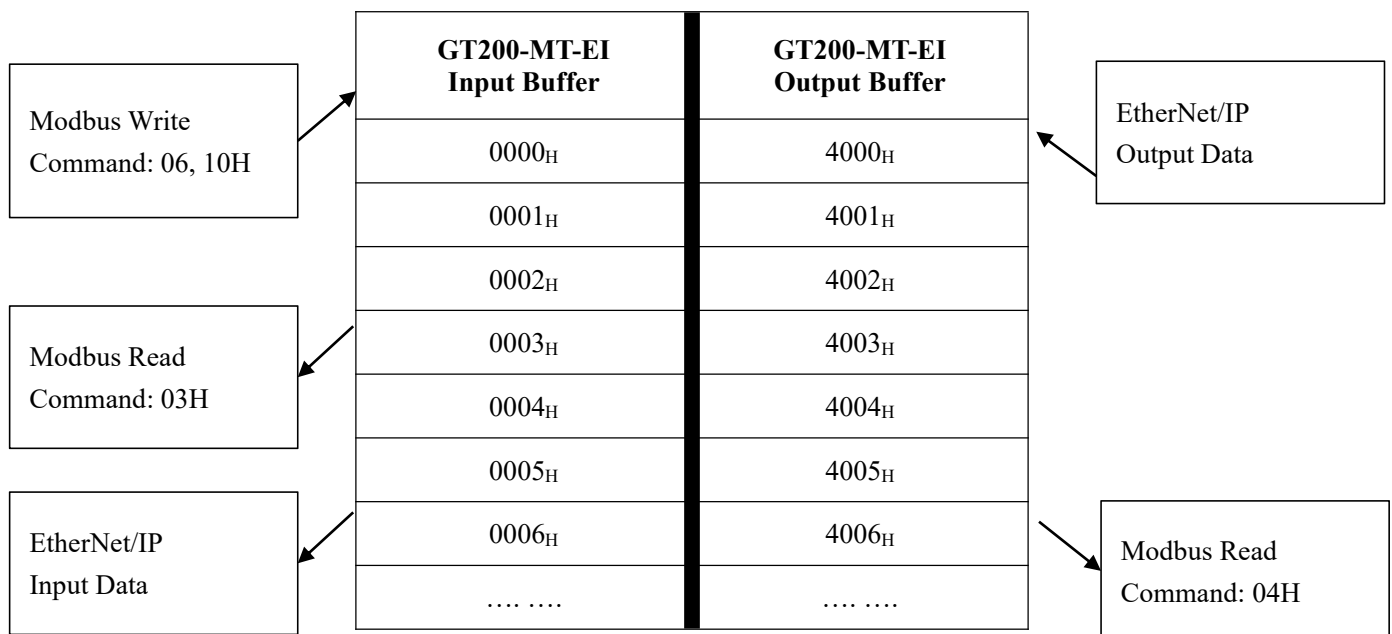
Note: To enable the EtherNet/IP monitor function, set the "Network Status Indication" field to either "Two ends network monitor with each other" or "Modbus TCP end monitors EtherNet/IP network status" in the SST-EE-CFG configuration software. To disable the EtherNet/IP monitor function, set this field to either "EtherNet/IP end monitors Modbus TCP network status" or "No Indication".



6.2 Modbus TCP Server (Slave)

6.2.1 Data Exchange

Data exchange of Modbus TCP and EtherNet/IP of GT200-MT-EI is set up through "mapping". There are two data buffer areas, one is the EtherNet/IP network input buffer and the other is the EtherNet/IP network output buffer. The network input and output buffer are all for EtherNet/IP. When the gateway is set to Modbus TCP server, the Modbus write register command will write the read data to the network input buffer for EtherNet/IP access. The Modbus read command retrieves data from the network output buffer and exports it to the Modbus TCP master equipment through a response message.



This gateway functions as a Modbus TCP Server and supports Function Codes 03H, 04H, 06H, and 10H.

The GT200-MT-EI Input Buffer is used to process output data from the Modbus TCP Master and is mapped to the Modbus Holding Registers. Function Code 03 is used to read this data back. The Input Buffer supports Function Codes 03H, 06H, and 10H. The starting address register is 4x0001 (Holding Register 0).

The GT200-MT-EI Output Buffer is used to process input data to the Modbus TCP Master and is mapped to the Modbus Input Registers. Function Code 04 is used to read this data. The Output Buffer only supports Function Code 04H. The starting address register is 3x0001 (Input Register 0).



6.2.2 Network Status Monitor

When the gateway functions as a Modbus TCP Server, it has a network status monitor feature as described below:

- On the EtherNet/IP side of the connection, the first word (2 bytes) of input data following the gateway status bytes (4 bytes) monitors the number of Modbus TCP Clients (Masters) that are connected to the gateway. If the Modbus TCP monitor function is disabled, then the gateway will not show this data.

GT200-MT-EI Input Buffer	EtherNet/IP Input Data			Description
	32-Bit	16-Bit	8-Bit	
	Input.Data[0]	Input.Data[0]	Input.Data[0]	GT200-MT-EI Status Bytes: 00 00 00 00 _H = Disconnected 01 00 00 00 _H = Connected
			Input.Data[1]	
		Input.Data[1]	Input.Data[2]	
			Input.Data[3]	
0000 _H	Input.Data[1]	Input.Data[2]	Input.Data[4]	Modbus TCP Monitor Bytes: Total number of Modbus TCP Clients connected
0001 _H			Input.Data[5]	
0002 _H		Input.Data[3]	Input.Data[6]	Modbus Address 4x0001 (Holding Register 0)
0003 _H			Input.Data[7]	
0004 _H	Input.Data[2]	Input.Data[4]	Input.Data[8]	Modbus Address 4x0002 (Holding Register 1)
0005 _H		Input.Data[5]	Input.Data[9]	
0006 _H		Input.Data[6]	Input.Data[10]	Modbus Address 4x0003 (Holding Register 2)
0007 _H		Input.Data[7]	Input.Data[11]	
.... .				

Note: To enable the Modbus TCP monitor function, set the "Network Status Indication" field to either "Two ends network monitor with each other" or "EtherNet/IP end monitors Modbus TCP network status" in the SST-EE-CFG configuration software. To disable the Modbus TCP monitor function, set this field to either "Modbus TCP end monitors EtherNet/IP network status" or "No Indication".

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- b. On the Modbus TCP side of the connection, the EtherNet/IP monitor data is located on Modbus register address 3x5001 (Base-0 Input Register address 5000). When EtherNet/IP network fails, this register is set to 0, and set to 1 if network is normal.
- c. Regardless if the EtherNet/IP monitor function is enabled or disabled, Modbus Clients can still get the EtherNet/IP network status by reading Modbus register address 3x5001 (Base-0 Input Register address 5000).
- d. If the EtherNet/IP monitor function is enabled, it will map the register at address 3x5001 (Input Register 5000) to the register at address 3x0001 (Input Register 0), and the EtherNet/IP output data will be mapped to the Modbus register address starting from 3x0002 (Input Register 1).

GT200-MT-EI Output Buffer	Modbus TCP Register Address	Description		
4000 _H	3x0001 Input Register 0	EtherNet/IP Monitor Bytes: 00 00H = EtherNet/IP Disconnected 00 01H = EtherNet/IP Connected		
4001 _H				
4002 _H	3x0002 Input Register 1	EtherNet/IP 32-Bit Index Output.Data[0]	EtherNet/IP 16-Bit Index Output.Data[0]	EIP 8-Bit Index Output.Data[0]
4003 _H				EIP 8-Bit Index Output.Data[1]
4004 _H	3x0003 Input Register 2	EtherNet/IP 32-Bit Index Output.Data[0]	EtherNet/IP 16-Bit Index Output.Data[1]	EIP 8-Bit Index Output.Data[2]
4005 _H				EIP 8-Bit Index Output.Data[3]
4006 _H	3x0004 Input Register 3	EtherNet/IP 32-Bit Index Output.Data[0]	EtherNet/IP 16-Bit Index Output.Data[2]	EIP 8-Bit Index Output.Data[4]
4007 _H				EIP 8-Bit Index Output.Data[5]
4008 _H	3x0005 Input Register 4	EtherNet/IP 32-Bit Index Output.Data[1]	EtherNet/IP 16-Bit Index Output.Data[3]	EIP 8-Bit Index Output.Data[6]
4009 _H				EIP 8-Bit Index Output.Data[7]
.....				
	3x5001 Input Register	EtherNet/IP Monitor Bytes: 00 00 _H = Disconnected		

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	5000	00 01 _H = Connected
--	------	--------------------------------

- e. If the EtherNet/IP monitor function is disabled, the EtherNet/IP output data will be mapped to the Modbus register address starting from 3x0001 (Input Register 0).

GT200-MT-EI Output Buffer	Modbus TCP Register Address	Description		
4000 _H	3x0001 Input Register 0	EtherNet/IP 32-Bit Index Output.Data[0]	EtherNet/IP 16-Bit Index Output.Data[1]	EIP 8-Bit Index Output.Data[0]
4001 _H				EIP 8-Bit Index Output.Data[1]
4002 _H	3x0002 Input Register 1	EtherNet/IP 32-Bit Index Output.Data[0]	EtherNet/IP 16-Bit Index Output.Data[2]	EIP 8-Bit Index Output.Data[2]
4003 _H				EIP 8-Bit Index Output.Data[3]
4004 _H	3x0003 Input Register 2	EtherNet/IP 32-Bit Index Output.Data[1]	EtherNet/IP 16-Bit Index Output.Data[3]	EIP 8-Bit Index Output.Data[4]
4005 _H				EIP 8-Bit Index Output.Data[5]
4006 _H	3x0004 Input Register 3	EtherNet/IP 32-Bit Index Output.Data[1]	EtherNet/IP 16-Bit Index Output.Data[4]	EIP 8-Bit Index Output.Data[6]
4007 _H				EIP 8-Bit Index Output.Data[7]
....				
	3x5001 Input Register 5000	EtherNet/IP Monitor Bytes: 00 00 _H = Disconnected 00 01 _H = Connected		

Note: To enable the EtherNet/IP monitor function, set the "Network Status Indication" field to either "Two ends network monitor with each other" or "Modbus TCP end monitors EtherNet/IP network status" in the SST-EE-CFG configuration software. To disable the EtherNet/IP monitor function, set this field to either "EtherNet/IP end monitors Modbus TCP network status" or "No Indication".

7 EtherNet/IP Connection Parameters

The EtherNet/IP connection parameters for the GT200-MT-EI gateway are as follows:

Parameters	Instance Number	Data Size (Bytes)
Input	102	Range: 5-496 Default: 496
Output	101	Range: 1-492 Default: 492
Configuration	113	10 (Fixed)

The data size of input instance 102 can be configured within the range of 5 to 496 bytes using the SST-EE-CFG configuration software, where the first 4 bytes are reserved for the real-time frame header.

The data size of output instance 101 can be configured within the range of 1 to 492 bytes using the SST-EE-CFG configuration software.

Note: The following example shows how to enter the configuration parameters in Studio 5000 Logix:

New Module

Type: ETHERNET-MODULE Generic Ethernet Module
Vendor: Rockwell Automation/Allen-Bradley
Parent: ENET
Name: SSTGateway
Description:
Comm Format: Data - DINT
Address / Host Name
☒ IP Address: 192 . 168 . 0 . 10
☐ Host Name:
☒ Open Module Properties

Connection Parameters

	Assembly Instance:	Size:	
Input:	102	124	(32-bit)
Output:	101	123	(32-bit)
Configuration:	113	10	(8-bit)
Status Input:			
Status Output:			

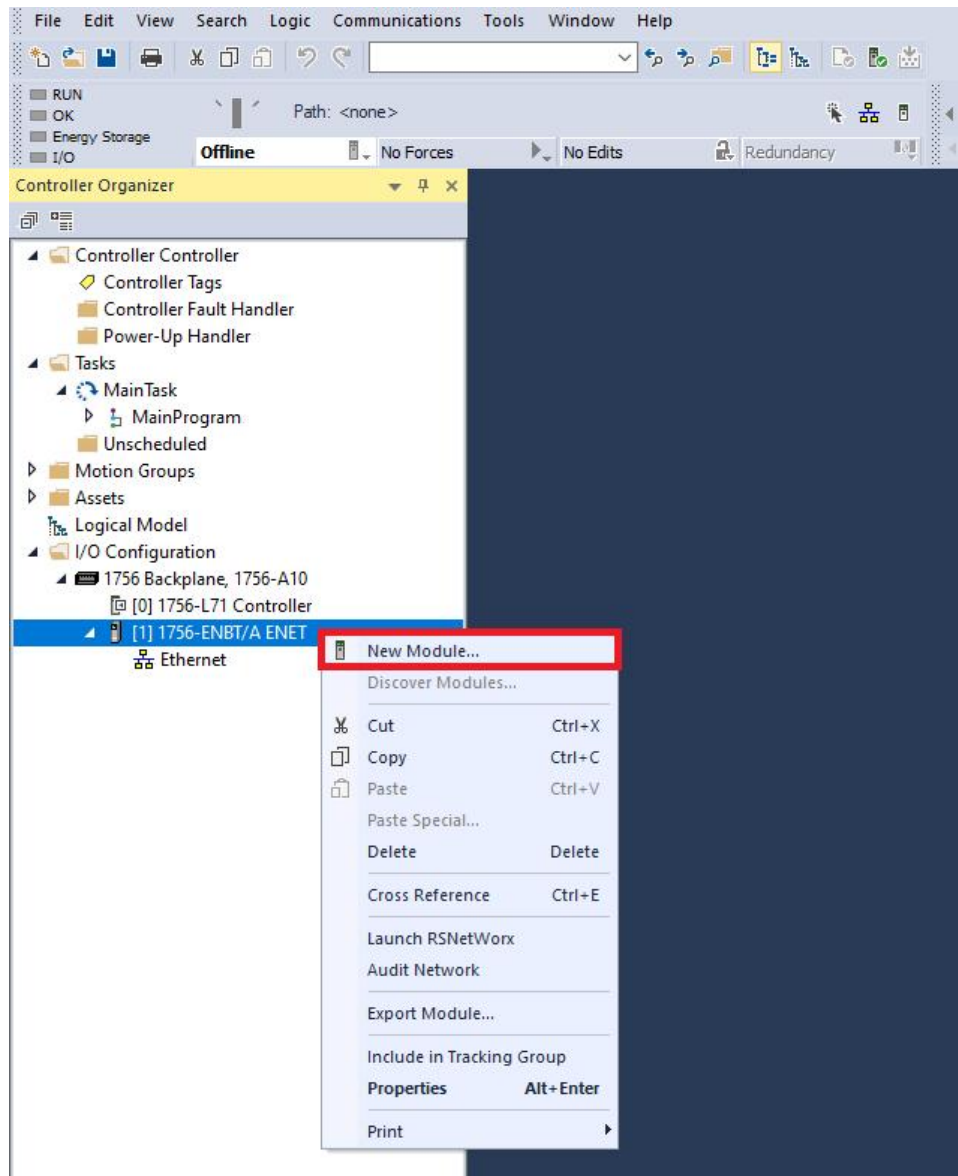
OK Cancel Help

The data size configured in Studio 5000 Logix must match the data size configured in the SST-EE-CFG configuration software. For example, if the input data size configured in the SST software is 496 bytes, and if Studio 5000 Logix is using DINT (32-bit), then the input data size must be set to 124 ($496 \times 8/32 = 124$).

7.1 Implicit I/O Messaging Connection Method (Recommended)

The following Studio 5000 Logix example will show how to connect using Implicit I/O Messaging.

First, right click on the EtherNet/IP scanner module and click "New Module", as shown below:

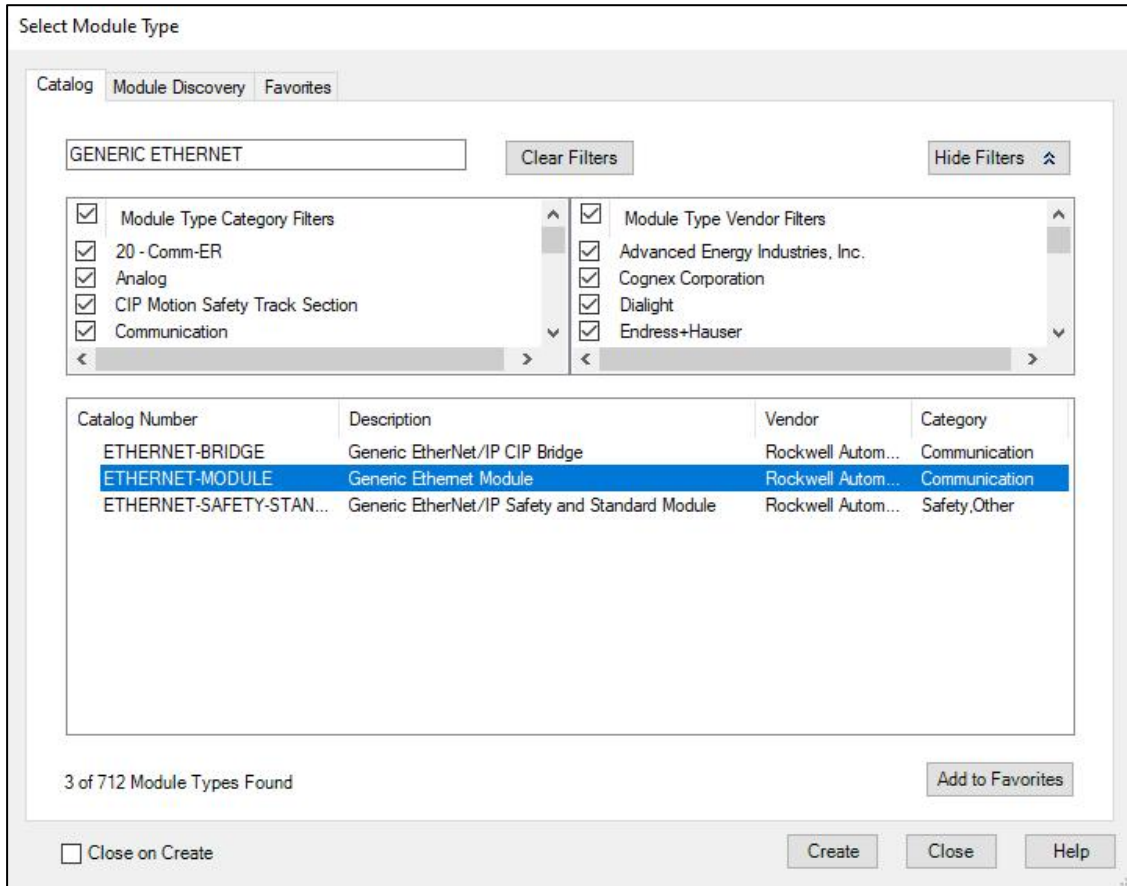


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In the pop-up dialog box, search for "GENERIC ETHERNET", choose "ETHERNET-MODULE", and click "Create" as shown below:



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

New Module

Type: ETHERNET-MODULE Generic Ethernet Module
 Vendor: Rockwell Automation/Allen-Bradley
 Parent: ENET
 Name: SSTGateway
 Description:
 Comm Format: Data - DINT
 Address / Host Name
☒ IP Address: 192 . 168 . 0 . 10
☐ Host Name:
☒ Open Module Properties
 OK Cancel Help

Connection Parameters

Assembly Instance:	Size:
Input: 102	124 (32-bit)
Output: 101	123 (32-bit)
Configuration: 113	10 (8-bit)
Status Input:	

Set the Connection Parameters. Please refer to [Chapter 7](#).

Set the device name.

IP address of the SST gateway.

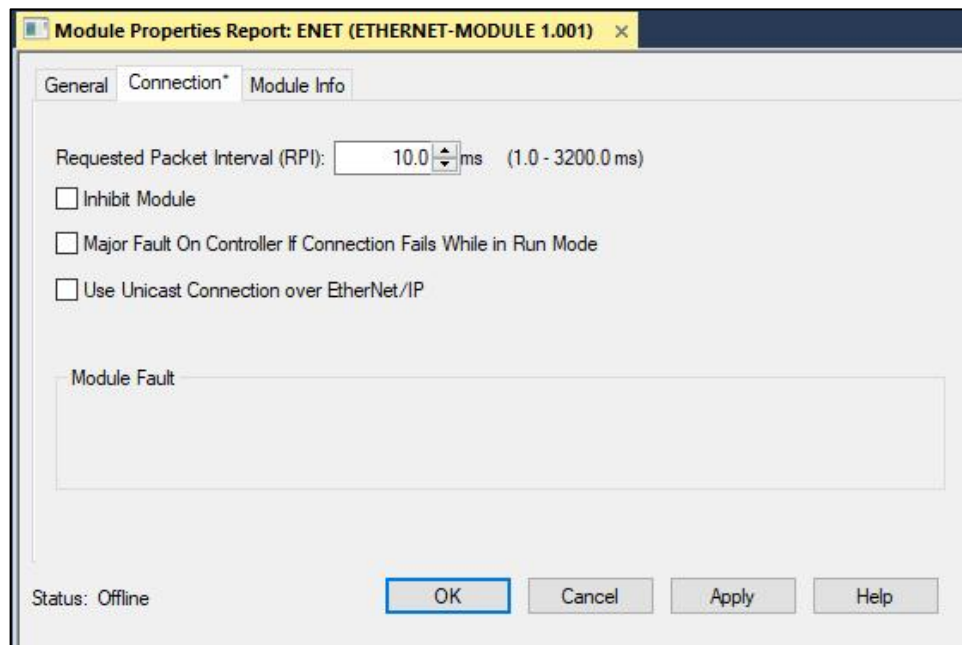
In the image above, the module information needs to be configured, which includes the following:

- Name:** The name of the added EtherNet/IP device module.
- Comm Format:** Configure data types such as DINT, INT, SINT, REAL and etc. After confirmation, this cannot be changed. To change data types, a new module must be created.
- IP Address:** Set the IP address of the added EtherNet/IP device module (The IP address of GT200-MT-EI, which is configured by the software SST-EE-CFG).
- Connection Parameters:** Set the Connection Parameters for communication. For more details, please refer to the beginning of [Chapter 7](#).

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

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Click "OK", and set the 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.

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To view the output data, first double click the "Controller Tags" tree. Then expand the "SSTGateway:O" tag as shown below:

The screenshot displays the SST Automation software interface. On the left, the 'Controller Organizer' tree is expanded to show the 'Controller Tags' section. Under 'Controller Tags', the 'SSTGateway:O' tag is selected. The main window shows a table of tags for 'SSTGateway:O'. The table has columns for Name, Value, Force Mask, Style, Data Type, Description, and Constant. The tags are listed as SSTGateway:O.Data[0] through SSTGateway:O.Data[28].

Name	Value	Force Mask	Style	Data Type	Description	Constant
SSTGateway:C		{...}	{...}	AB:ETHERNET_MODU...		☐
SSTGateway:I		{...}	{...}	AB:ETHERNET_MODU...		☐
SSTGateway:O		{...}	{...}	AB:ETHERNET_MODU...		☐
SSTGateway:O.Data		{...}	{...}	DINT[124]		
SSTGateway:O.Data[0]	0		Decimal	DINT		
SSTGateway:O.Data[1]	0		Decimal	DINT		
SSTGateway:O.Data[2]	0		Decimal	DINT		
SSTGateway:O.Data[3]	0		Decimal	DINT		
SSTGateway:O.Data[4]	0		Decimal	DINT		
SSTGateway:O.Data[5]	0		Decimal	DINT		
SSTGateway:O.Data[6]	0		Decimal	DINT		
SSTGateway:O.Data[7]	0		Decimal	DINT		
SSTGateway:O.Data[8]	0		Decimal	DINT		
SSTGateway:O.Data[9]	0		Decimal	DINT		
SSTGateway:O.Data[10]	0		Decimal	DINT		
SSTGateway:O.Data[11]	0		Decimal	DINT		
SSTGateway:O.Data[12]	0		Decimal	DINT		
SSTGateway:O.Data[13]	0		Decimal	DINT		
SSTGateway:O.Data[14]	0		Decimal	DINT		
SSTGateway:O.Data[15]	0		Decimal	DINT		
SSTGateway:O.Data[16]	0		Decimal	DINT		
SSTGateway:O.Data[17]	0		Decimal	DINT		
SSTGateway:O.Data[18]	0		Decimal	DINT		
SSTGateway:O.Data[19]	0		Decimal	DINT		
SSTGateway:O.Data[20]	0		Decimal	DINT		
SSTGateway:O.Data[21]	0		Decimal	DINT		
SSTGateway:O.Data[22]	0		Decimal	DINT		
SSTGateway:O.Data[23]	0		Decimal	DINT		
SSTGateway:O.Data[24]	0		Decimal	DINT		
SSTGateway:O.Data[25]	0		Decimal	DINT		
SSTGateway:O.Data[26]	0		Decimal	DINT		
SSTGateway:O.Data[27]	0		Decimal	DINT		
SSTGateway:O.Data[28]	0		Decimal	DINT		

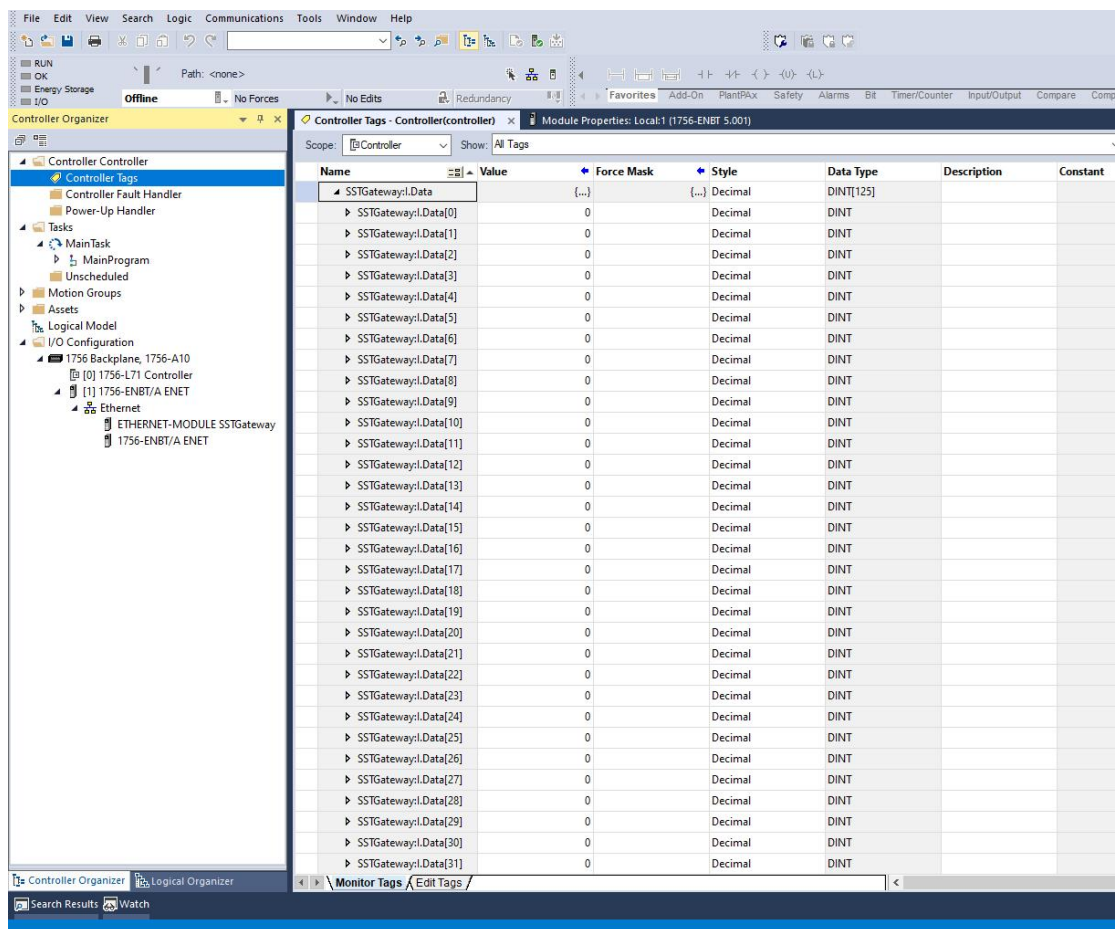
The SSTGateway:O data tag represents the corresponding output data addresses of the SST Gateway.

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To view the input data, expand the "SSTGateway: I" tag as shown below:



The SSTGateway:I data tag represents the corresponding input data addresses of the SST Gateway.

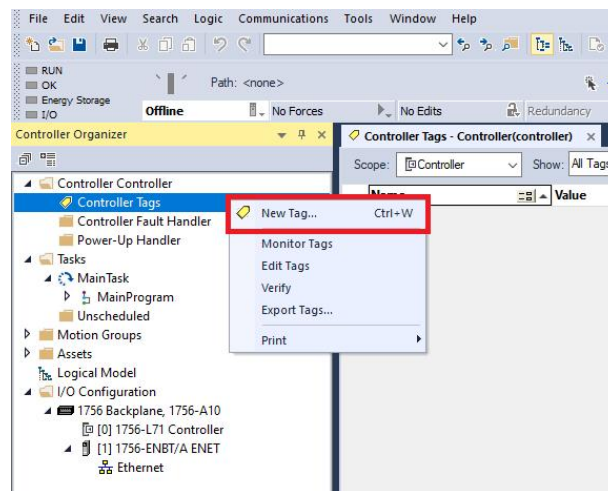
Please note that the first 4 input bytes are used to display the status bytes of the SST Gateway. See [Chapter 6](#) for more details.

7.2 Explicit MSG Connection Method

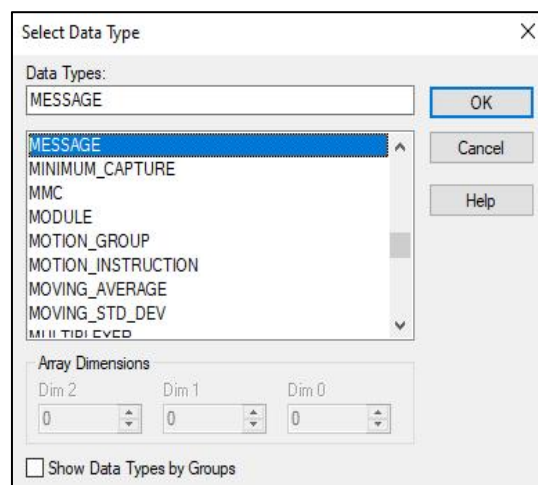
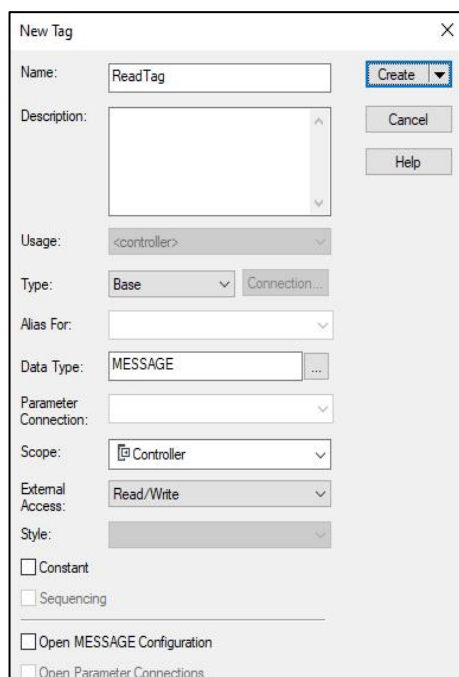
The following Studio 5000 Logix example will describe how to read/write EtherNet/IP data using explicit MSG messaging.

7.2.1 Read MSG Instruction Block

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":

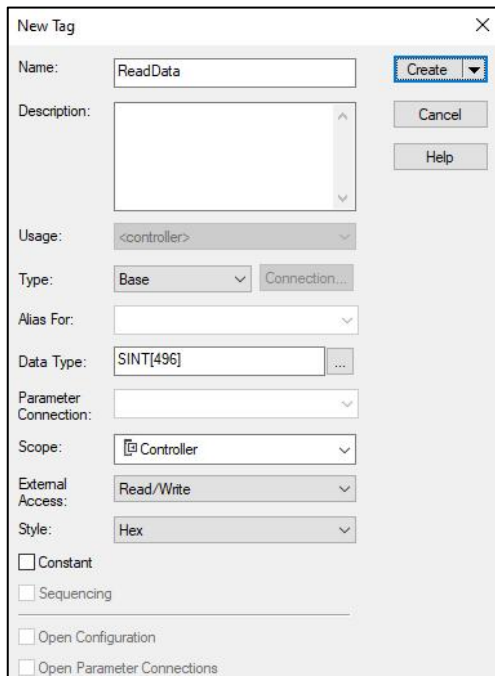


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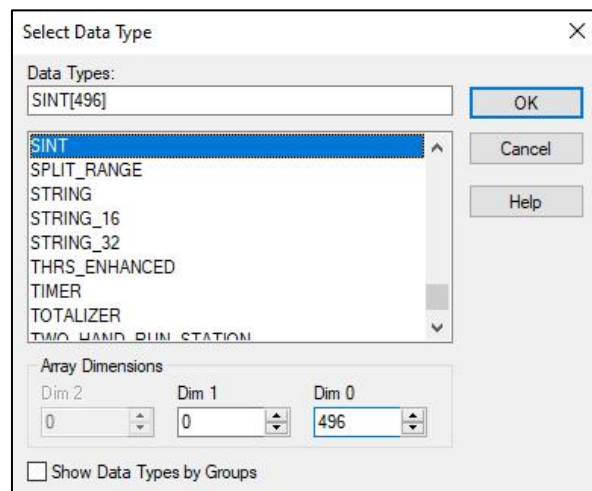
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Set the data type of "ReadData" as "SINT", then set the Array Dimension "Dim 0" to match the Input Data Size. Refer to the connection parameters from the beginning of [Chapter 7](#):



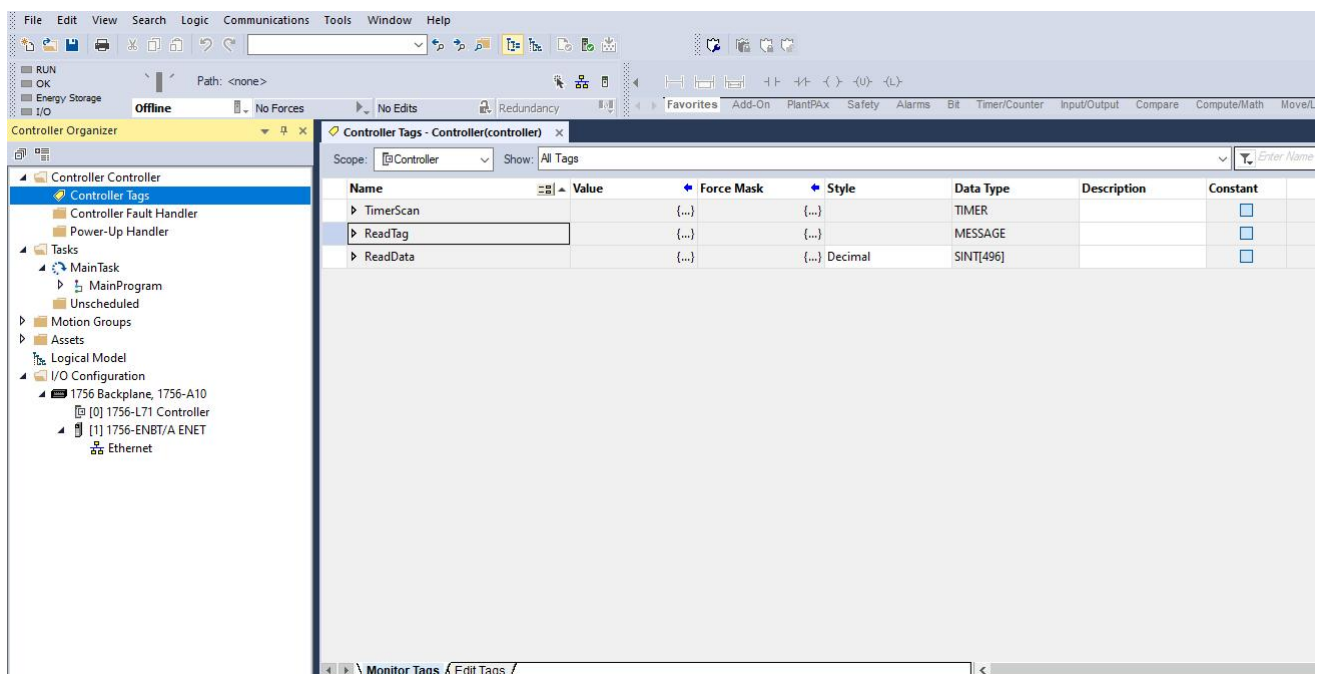
The "New Tag" dialog box is shown with the following settings:

- Name: ReadData
- Description: (empty)
- Usage: <controller>
- Type: Base
- Alias For: (empty)
- Data Type: SINT[496]
- Parameter Connection: (empty)
- Scope: Controller
- External Access: Read/Write
- Style: Hex
- Constant: ☐
- Sequencing: ☐
- Open Configuration: ☐
- Open Parameter Connections: ☐



The "Select Data Type" dialog box is shown with the following settings:

- Data Types: SINT[496]
- Array Dimensions: Dim 2: 0, Dim 1: 0, Dim 0: 496
- Show Data Types by Groups: ☐



The screenshot shows the SST Automation software interface. The "Controller Organizer" on the left lists the following structure:

- Controller Controller
 - Controller Tags
 - Controller Fault Handler
 - Power-Up Handler
 - Tasks
 - MainTask
 - MainProgram
 - Unscheduled
 - Motion Groups
 - Assets
 - Logical Model
 - I/O Configuration
 - 1756 Backplane, 1756-A10
 - [0] 1756-L71 Controller
 - [1] 1756-ENBT/A ENET
 - Ethernet

The "Controller Tags - Controller(controller)" window is open, showing a table of tags:

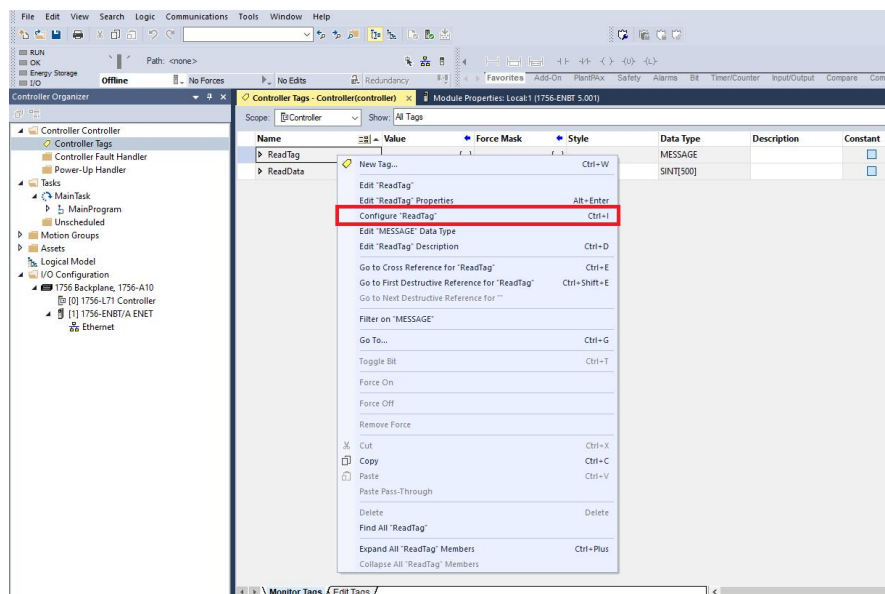
Name	Value	Force Mask	Style	Data Type	Description	Constant
TimerScan	{...}	{...}	{...}	TIMER		☐
ReadTag	{...}	{...}	{...}	MESSAGE		☐
ReadData	{...}	{...}	{...} Decimal	SINT[496]		☐

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



In pop-up window, configure the following settings:

- Message Type:** CIP Generic.
- Service Type:** Select "Get Attribute Single". The relevant service code will become "e (Hex)".
- Class:** 4 (Hex)
- Instance:** 102
- Attribute:** 3 (Hex)
- Destination:** Select the "ReadData" tag. The obtained data will be saved in this tag.

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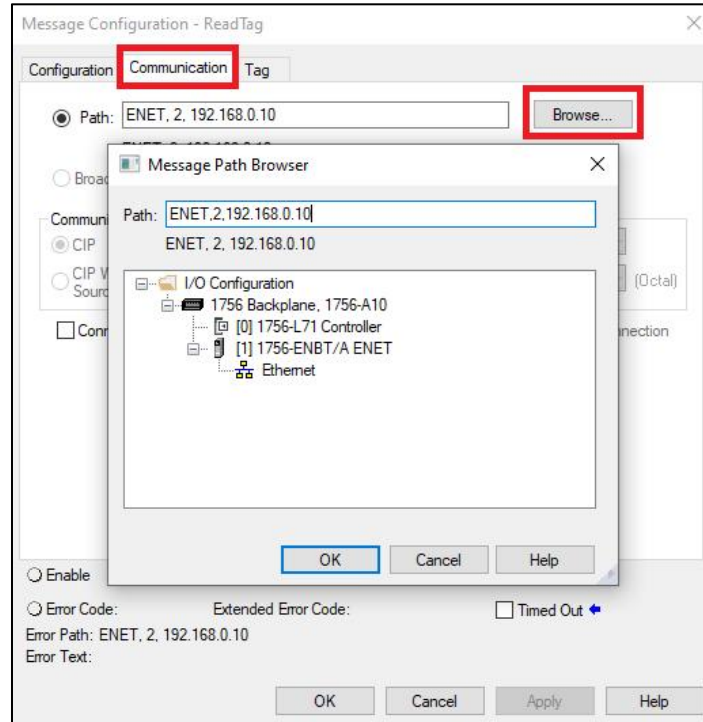
User Manual

Select the "Communication" tab and click the "Browse" button. Then input the network path to connect to the GT200-MT-EI.

Enter the network path in the following format:

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

Then click "OK" to confirm:

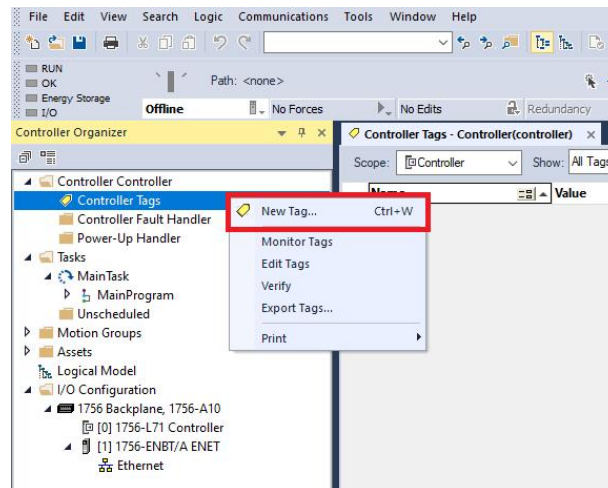


Download the program to the PLC and set PLC into "Online" state.

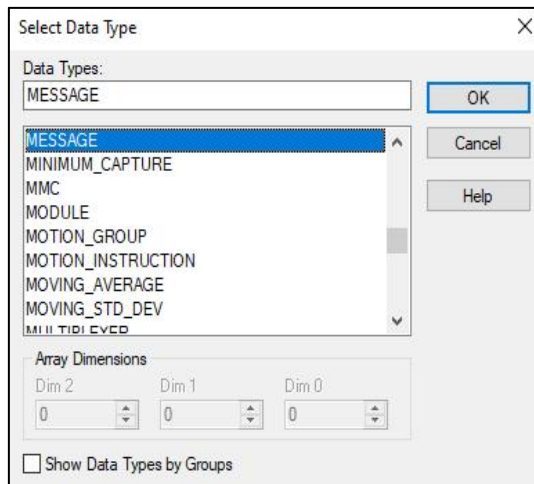
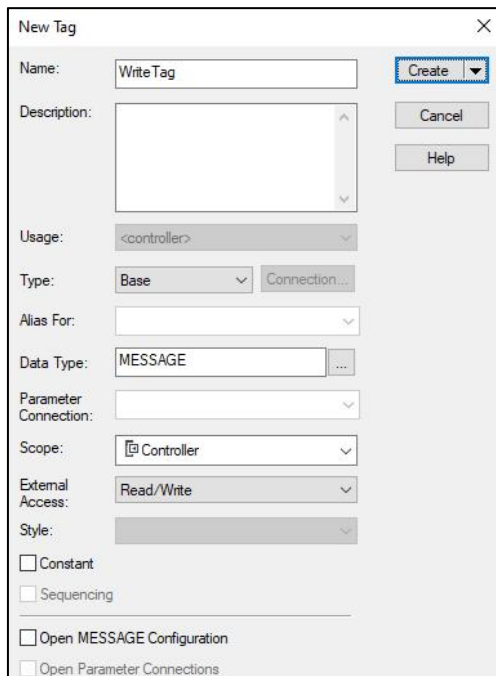


7.2.2 Write MSG Instruction

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":

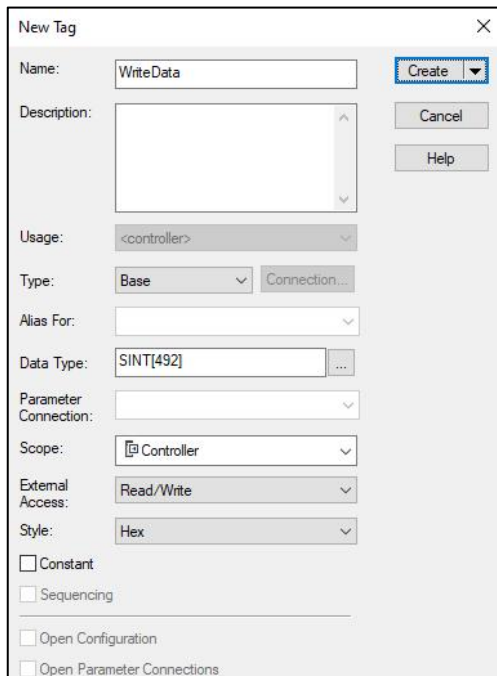


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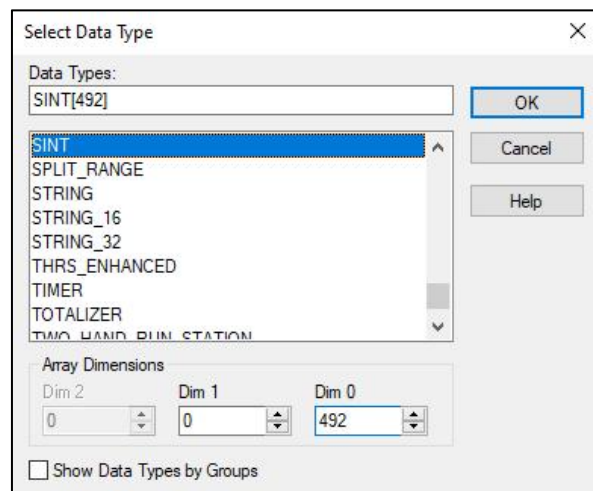
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Set the data type of "WriteData" as "SINT", then set the Array Dimension "Dim 0" to match the Output Data Size. Refer to the connection parameters from the beginning of [Chapter 7](#):



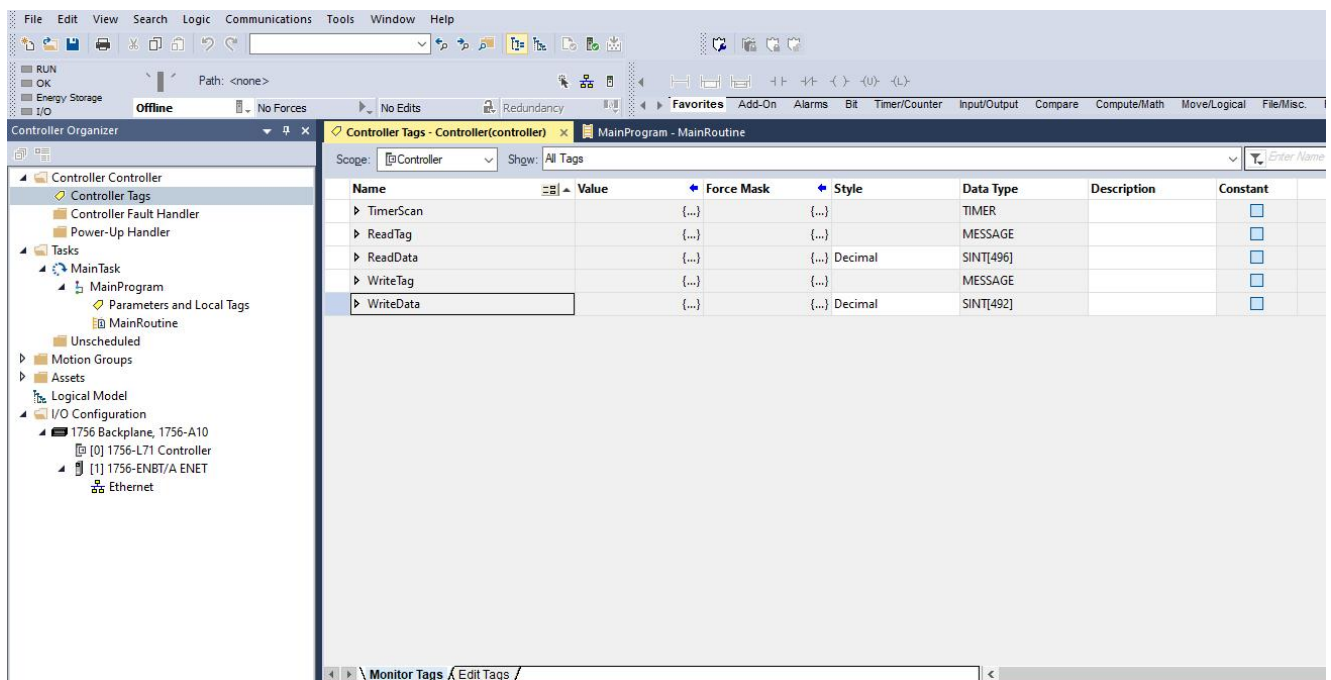
The "New Tag" dialog box is shown with the following settings:

- Name: WriteData
- Description: (empty)
- Usage: <controller>
- Type: Base
- Alias For: (empty)
- Data Type: SINT[492]
- Parameter Connection: (empty)
- Scope: Controller
- External Access: Read/Write
- Style: Hex
- Constant: ☐
- Sequencing: ☐
- Open Configuration: ☐
- Open Parameter Connections: ☐



The "Select Data Type" dialog box is shown with the following settings:

- Data Types: SINT[492]
- Array Dimensions: Dim 2: 0, Dim 1: 0, Dim 0: 492
- Show Data Types by Groups: ☐



The screenshot shows the SST Automation software interface with the "Controller Tags - Controller(controller)" window open. The "WriteData" tag is selected in the "MainRoutine" task.

Name	Value	Force Mask	Style	Data Type	Description	Constant
TimerScan		{...}	{...}	TIMER		☐
ReadTag		{...}	{...}	MESSAGE		☐
ReadData		{...}	{...} Decimal	SINT[496]		☐
WriteTag		{...}	{...}	MESSAGE		☐
WriteData		{...}	{...} Decimal	SINT[492]		☐

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Enter into the "Monitor Tags" interface and input some data in the "WriteData" tag. This data will be outputted to GT200-MT-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.

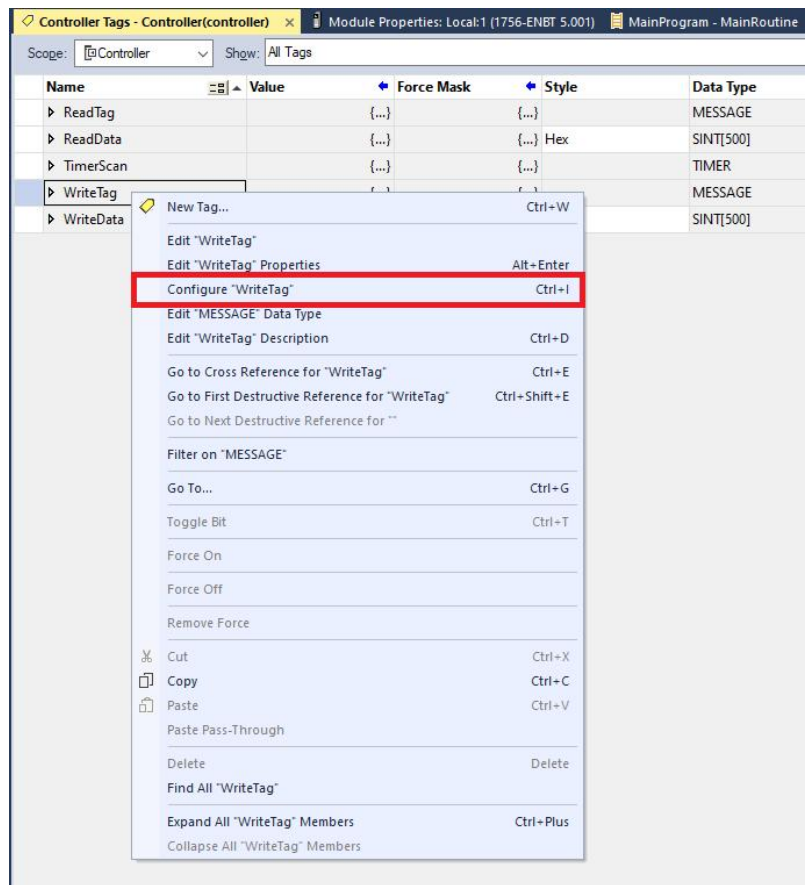
Controller Tags - Controller(controller) x MainProgram - MainRoutine						
Scope: Controller		Shgw: All Tags				
Name	Value	Force Mask	Style	Data Type	Description	
▶ TimerScan	{...}		{...}	TIMER		
▶ ReadTag	{...}		{...}	MESSAGE		
▶ ReadData	{...}		{...} Hex	SINT[496]		
▶ WriteTag	{...}		{...}	MESSAGE		
▲ WriteData	{...}		{...} Hex	SINT[492]		
▶ WriteData[0]	16#10		Hex	SINT		
▶ WriteData[1]	16#20		Hex	SINT		
▶ WriteData[2]	16#30		Hex	SINT		
▶ WriteData[3]	16#40		Hex	SINT		
▶ WriteData[4]	16#50		Hex	SINT		
▶ WriteData[5]	16#60		Hex	SINT		
▶ WriteData[6]	16#70		Hex	SINT		
▶ WriteData[7]	16#80		Hex	SINT		
▶ WriteData[8]	16#90		Hex	SINT		
▶ WriteData[9]	16#00		Hex	SINT		
▶ WriteData[10]	16#00		Hex	SINT		

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





In the new pop-up window, configure the following settings:

Message Type:	CIP Generic
Service Type:	Select "Set Attribute Single", and the relevant Service Code will become "10 (Hex)"
Class:	4 (Hex)
Instance:	101
Attribute:	3 (Hex)
Source Element:	Select "WriteData" tag, indicating that the data in the "WriteData" tag will become the data PLC outputs.
Source Length:	Use byte as unit, and this value should be less than or equal to the currently selecting bytes which instance represents (Configured bytes number in SST-EE-CFG).

Message Configuration - WriteTag

Configuration* Communication Tag

Message Type: CIP Generic

Service Type: Set Attribute Single

Source Element: WriteData

Source Length: 492 (Bytes)

Service Code: 10 (Hex) Class: 4 (Hex) Instance: 101 Attribute: 3 (Hex)

Destination Element:

New Tag...

☐ Enable ☐ Enable Waiting ☐ Start ☐ Done Done Length: 0

☐ Error Code: Extended Error Code: ☐ Timed Out

Error Path:

Error Text:

OK Cancel Apply Help

Select the "Communication" tab and click the "Browse" button. Then input the network path to connect to the GT200-MT-EI.

Enter the network path in the following format:

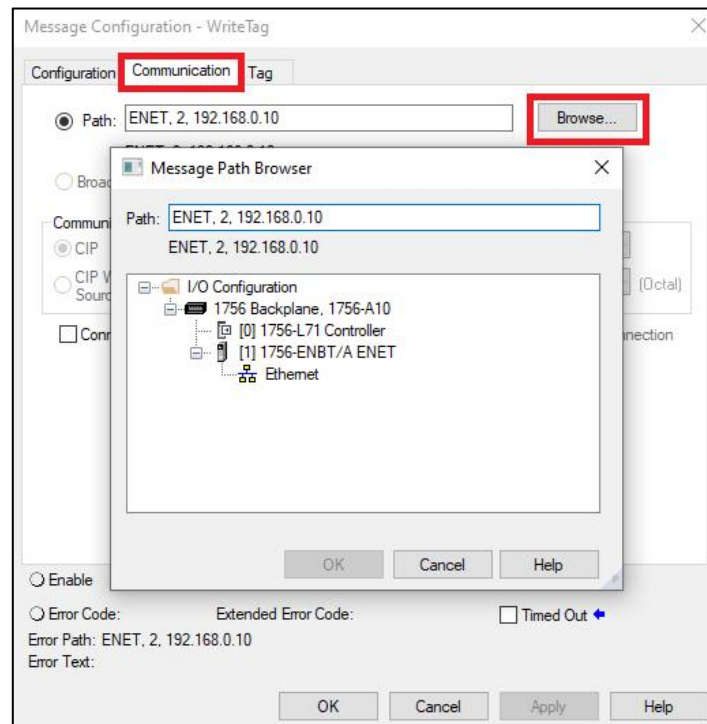
[EtherNet/IP Interface Name], 2 (Ethernet Communication), [GT200-MT-EI IP Address]

Then click "OK" to confirm:

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Add a "MSG" command in the "MainRoutine" of "MainProgram" and select "WriteTag" as "Message Control" as shown below.

Download the PLC program to the PLC and set PLC to "Online" state,. The data in "WriteData" will be outputted to Modbus TCP master or server through GT200-MT-EI.

