

OMRON Industrial Automation

SYSMAC CS/CJ/CP Series

ETHERNET Driver

Compatible version OS Over 4.0



XDesignerPlus Over 4.0.0.0

CONTENTS

Thank you for using M2I's "Touch Operation Panel(M2I TOP) Series". Please read out this manual and make sure to learn connection method and process of TOP – External device"

1. System configuration **Page 2**



It explains device for connection, setup of, cable and structural system.

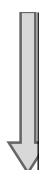
Please choose proper system referring to this point.

2. Selecting TOP model and external devices **Page 4**



Select TOP model and external device..

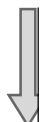
3. Example of system settings **Page 5**



It explains setup example for communication connection between the device and external terminal.

Select example according to the system you choose in "1. System structure"

4. Communication settings details **Page 15**



It explains the way of configuring TOP communication.

If external setup is changed, make sure to have same setup of TOP with external device by referring to this chapter.

5. Support address **Page 17**

Check available addresses to communicate with external devices referring to this chapter.

1. System configuration

System configuration of TOP and "OMRON Industrial Automation - SYSMAC CS/CJ/CP Series ETHERNET" is as below.

Series	CPU	Link I/F	Method	System settings	Cable	
CS	CS1H-CPU67 CS1H-CPU66 CS1H-CPU65 CS1H-CPU64 CS1G-CPU45 CS1G-CPU44 CS1G-CPU43 CS1G-CPU42	CS1W-ETN01	Ethernet (UDP)	3.1 설정 예제 13.1 Setting Examples 1 (Page 5)	Twisted pair cable*Caution1)	
	CS1H-CPU67H CS1H-CPU66H CS1H-CPU65H CS1H-CPU64H CS1H-CPU63H CS1G-CPU45H CS1G-CPU44H CS1G-CPU43H CS1G-CPU42H	CS1W-ETN11				
	CS1H-CPU67-V1 CS1H-CPU66-V1 CS1H-CPU65-V1 CS1H-CPU64-V1 CS1H-CPU63-V1 CS1G-CPU45-V1 CS1G-CPU44-V1 CS1G-CPU43-V1 CS1G-CPU42-V1	CS1W-ETN21	Ethernet (UDP)	3.2 Setting Examples 2 (Page 7)		
	Ethernet (TCP)		3.3 Setting Examples 3 (Page 9)			
	CJ1	CJ1G-CPU45 CJ1G-CPU44 CJ1M-CPU23 CJ1M-CPU22 CJ1M-CPU21 CJ1M-CPU13 CJ1M-CPU12	CJ1W-ETN11	Ethernet (UDP)		3.1 설정 예제 13.1 Setting Examples 1 (Page 5)
		CJ1M-CPU11 CJ1H-CPU66H CJ1H-CPU65H CJ1G-CPU45H CJ1G-CPU44H CJ1G-CPU43H CJ1G-CPU42H	CJ1W-ETN21			
						Ethernet (TCP)

*Caution1) Twisted pair cable

- This means STP(Shielded Twisted Pair cable) or UTP (Unshielded Twisted Pair cable) category 3,4,5.

- You can connect to other devices such as hub, transceiver depends on the configuration and in this case, use direct cable.

☞ Continue on the next page.

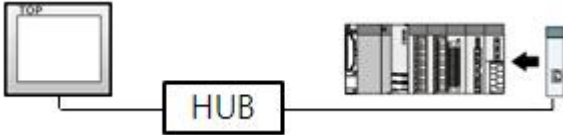
Series	CPU	Link I/F	Method	System settings	Cable
CJ2	CJ2H-CPU64-EIP	CPU Integrated EtherNet/IP Port	Ethernet (UDP)	3.4 Setting Examples 4 (Page 11)	Twisted pair cable*Caution1)
	CJ2H-CPU65-EIP				
	CJ2H-CPU66-EIP		Ethernet (TCP)	3.5 Setting Examples 5 (Page 13)	
	CJ2H-CPU67-EIP				
	CJ2H-CPU68-EIP	CJ1W-ETN21	Ethernet (UDP)	3.2 Setting Examples 2 (Page 7)	
	CJ2M-CPU35				
	CJ2M-CPU34		Ethernet (TCP)	3.3 Setting Examples 3 (Page 9)	
	CJ2M-CPU33				
CJ2M-CPU32					
CJ2M-CPU31					
CP1	CP1H-X□□R-A	CJ1W-ETN21	Ethernet (UDP)	3.2 Setting Examples 2 (Page 7)	
	CP1H-X□□T-D				
	CP1H-X□□T1-D				
	CP1H-XA□□DR-A				
	CP1H-XA□□DT-D		Ethernet (TCP)	3.3 Setting Examples 3 (Page 9)	
	CP1H-XA□□DT1-D				
	CP1H-Y□□DT-D				

*Caution1) Twisted pair cable

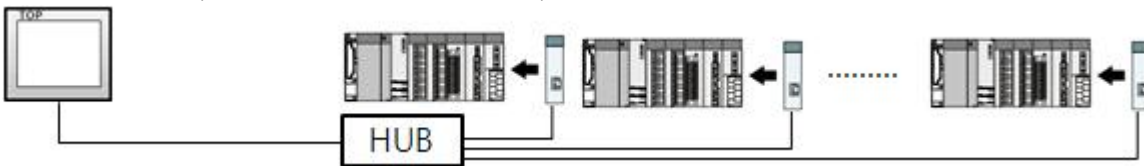
- This means STP(Shielded Twisted Pair cable) or UTP (Unshielded Twisted Pair cable) category 3,4,5.
- You can connect to other devices such as hub, transceiver depends on the configuration and in this case, use direct cable.

■ Possible Connecting Configuration

- 1 : 1 connection(1 TOP and 1 External Device)

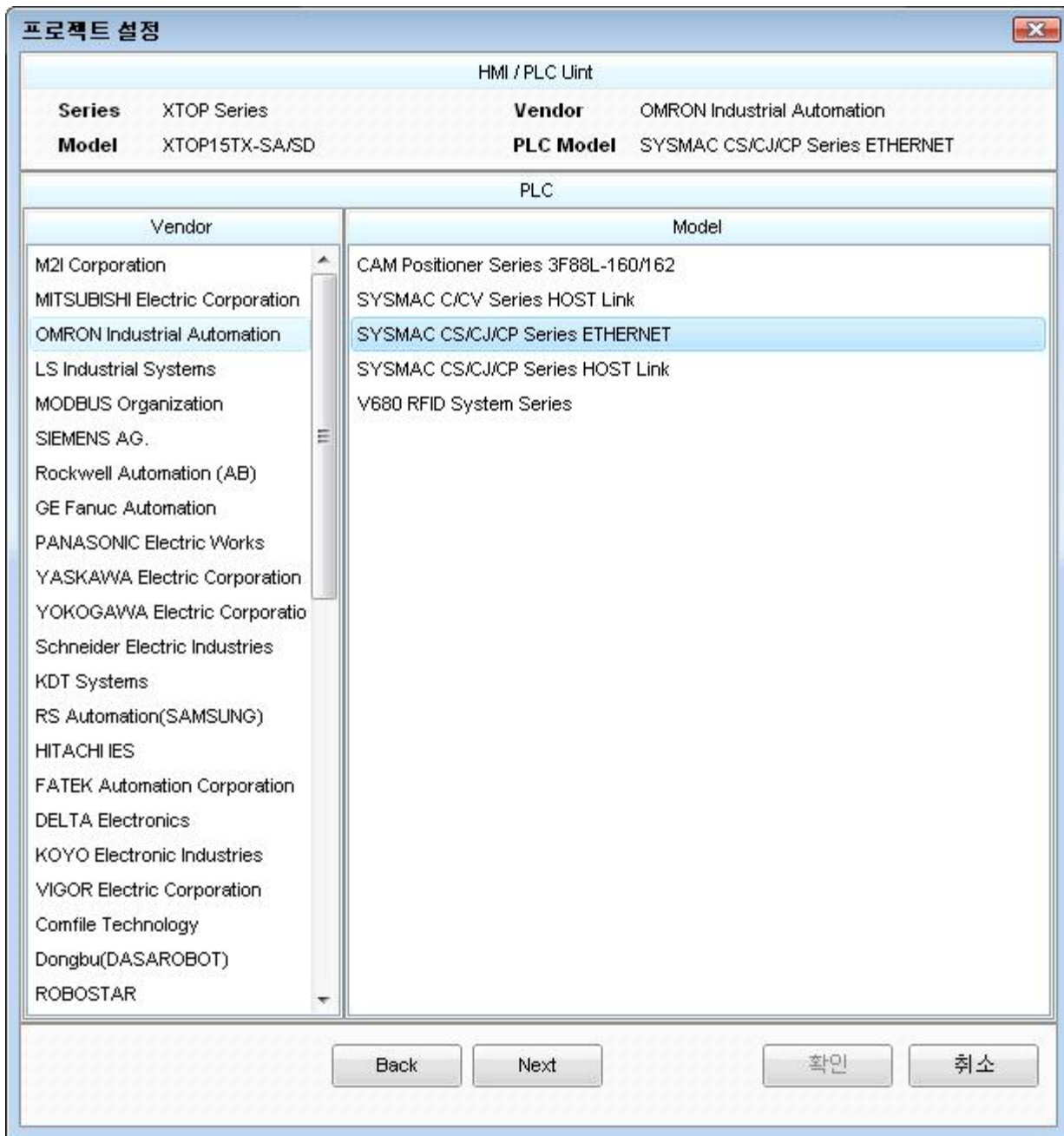


- 1 : N Connection (1 TOP and several external devices) Connection



2. Selecting TOP model and external devices

Select the external devices to connect to TOP.



Setting details		Contents				
TOP	Series	Select the name of a TOP series that is to be connected to PLC. Before downloading the settings, install the OS version specified in the table below according to TOP series. <table border="1" style="width: 100%;"> <thead> <tr> <th>Series</th> <th>Version name</th> </tr> </thead> <tbody> <tr> <td>XTOP / HTOP</td> <td>V4.0</td> </tr> </tbody> </table>	Series	Version name	XTOP / HTOP	V4.0
	Series	Version name				
XTOP / HTOP	V4.0					
Name	Select the model name of TOP product.					
External device	Manufacturer	Select the manufacturer of external devices to be connected to TOP. Please select "OMRON Industrial Automation".				
	PLC	Select the model series of external devices to be connected to TOP. Please select "SYSMAC CS/CJ/CP Series Ethernet". Please check, in the "1. System configuration", if the relevant external device is available to set a				

		system configuration.
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3. Example of system settings

We suggest the communication interface setting of TOP and "SYSMAC CS/CJ/CP SERIES" as below.

3.1 Setting Examples 1

Set the system as below.

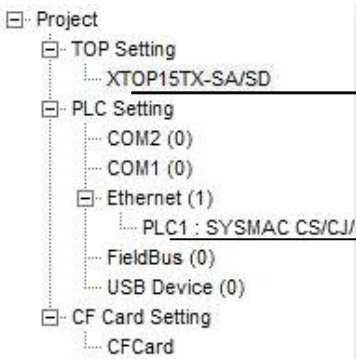
Details	TOP	"SYSMAC CS/CJ/CP SERIES"	Remark
IP Address*Caution1)Caution2)	192.168.0.50	192.168.0.51	User settings
Protocol	UDP	UDP	User settings
Port	1024	9600	User settings
Node Address	Auto set	1	User settings

*Caution1) The network address (the 3 front digits of IP, 192.168.000) TOP and external device must be identical.

*Caution2) Please do not use the same IP address in the same network.

(1) XDesignerPlus setup

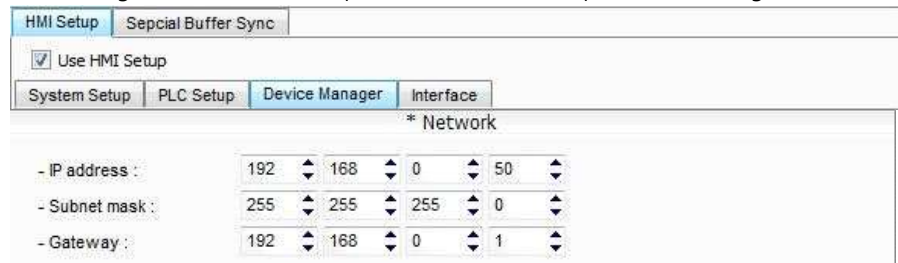
After setting the below details in [Project > Project Settings], download the detailed settings using TOP tool.



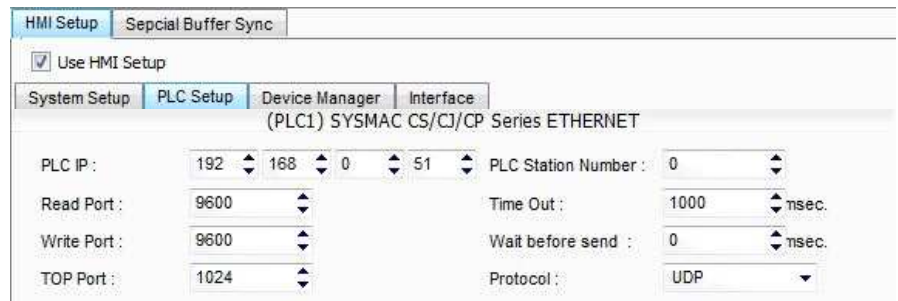
■ [Project > Project property > Project > Settings > TOP Name]

Set the communication interface of TOP tool.

- From right window [HMI Setup > check Use HMI Setup > Device Manager]

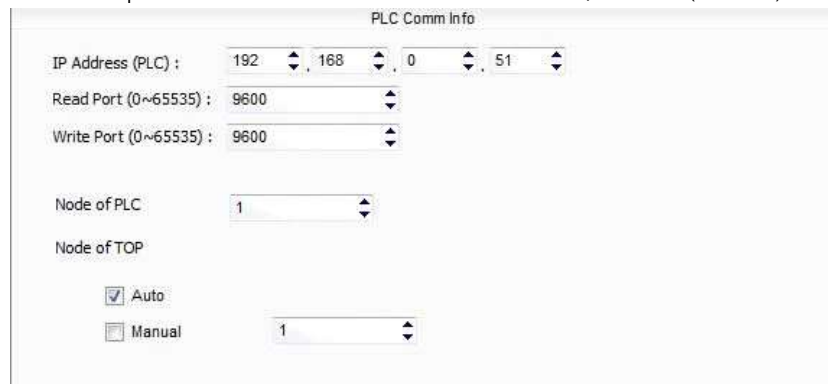


- From right window [HMI Setup > check Use HMI Setup > PLC Setup]



■ External device settings

It sets the option of communication driver for "SYSMAC CS/CJ Series (Ethernet)".



- IP Address (PLC): Type the IP address that the external device was given.
- Reading port / writing port: Choose the port number for ethernet communication.
- PLC Node Number : Node Address that set from PLC.
- TOP Node Number : TOP's Node Address that is used in Communication Protocol;

(2) External device settings

Set as below through Rotary Switch (Ethernet Module, Front) and Ladder Software CX-ONE for communication setting. Please refer the PLC user manual for more detailed information if you need.

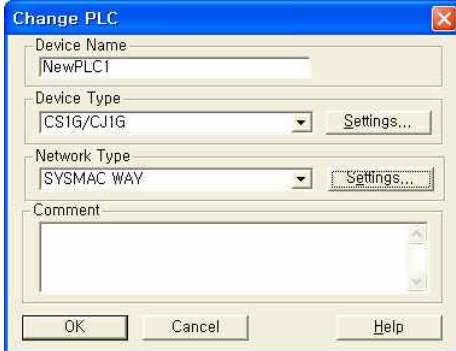


Please do not use the same IP address in the same network.

1. Set the Rotary Switch which is located in front of ethernet module as below.

Details		Contents	
Unit No.		1	
NODE No.	x16 ¹	0	Select "Connection Method between PC-PLC from [Network Type]" in "[Device Type] - PLC Name". Select detailed setting information from [Setting...].
	x16 ⁰	1	

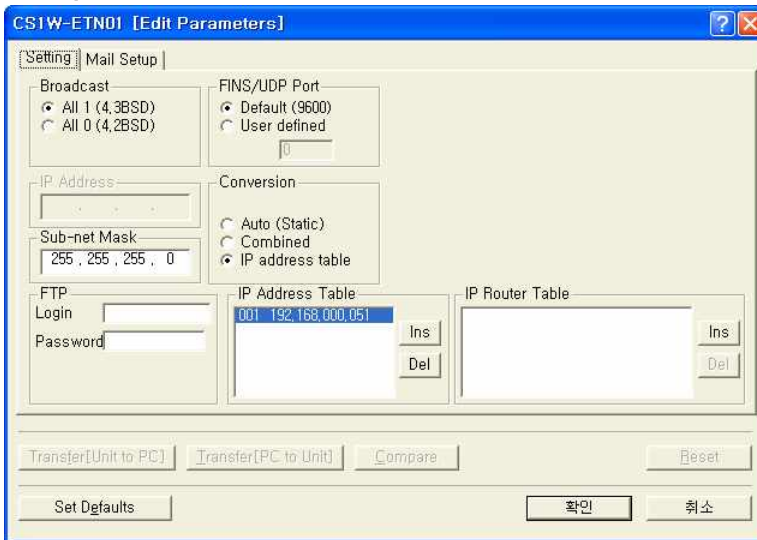
2. Start [CX-Programmer]. Select CPU name that you want to use and PC-PLC communication method from [Change PLC] dialog box.



3. Register the slot information that ethernet communication module is installed in the project.

- (1) Double Click [IO Table and Unit Setup] → [PLC IO Table] dialog box Popup
- (2) From [PLC IO Table] dialog box double click slot number that is connected the communication module from the [Main Rack] Tree, → [Select Unit] dialog popup
- (3) Select ethernet communication module which is to use from [Communications Adapter] in [Select Unit] dialog box
- (4) Input unit number in the [Add Unit] dialog box. (Input "1" for this current example.)

4. Please input ethernet setting information in [Edit Parameters] dialog box by double clicking ethernet communication module that is registered [PLC IO Table].



※ Set IP address of ethernet communication module, Node Address by using IP address table.

Details	Settings
FINS/UDP Port	Default (9600)
Conversion	IP address table
IP Address Table (Click Ins Key)	

Sub-net Mask	255.255.255.0
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5. Reset power of PLC after sending communication setting information to PLC.

3.2 Setting Examples 2

Set the system as below.

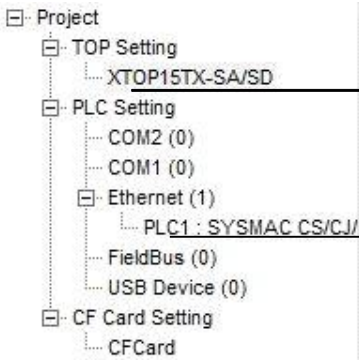
Details	TOP	"SYSMAC CS/CJ/CP SERIES"	Remark
IP Address*Caution1)Caution2)	192.168.0.50	192.168.0.51	User settings
Protocol	UDP	UDP	User settings
Port	1024	9600	User settings
Node Address	Auto set	1	User settings

*Caution1) The network address (the 3 front digits of IP, 192.168.000) TOP and external device must be identical.

*Caution2) Please do not use the same IP address in the same network.

(1) XDesignerPlus setup

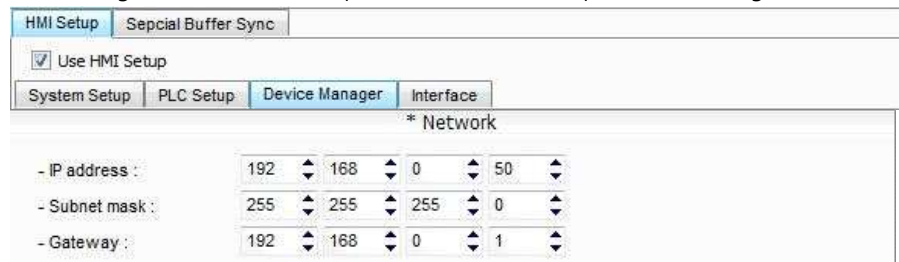
After setting the below details in [Project > Project Settings], download the detailed settings using TOP tool.



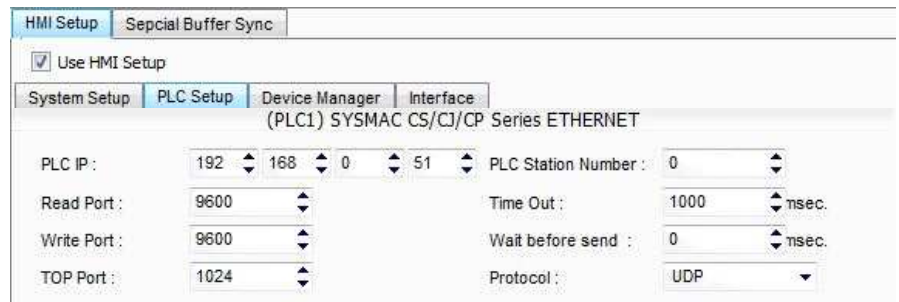
■ [Project > Project property > Project > Settings > TOP Name]

Set the communication interface of TOP tool.

- From right window [HMI Setup > check Use HMI Setup > Device Manager]

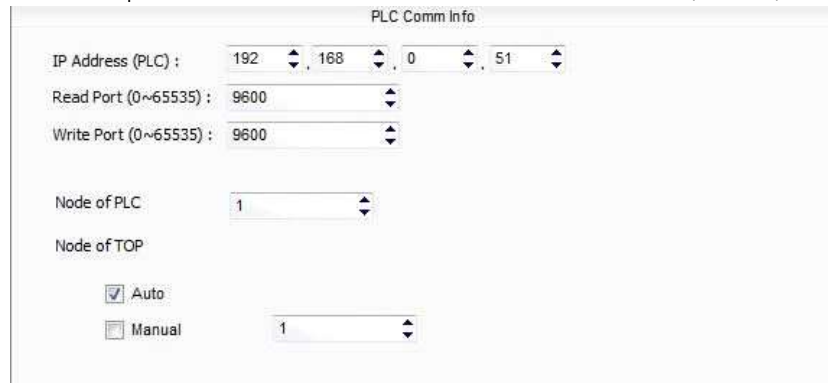


- From right window [HMI Setup > check Use HMI Setup > PLC Setup]



■ External device settings

It sets the option of communication driver for "SYSMAC CS/CJ Series (Ethernet)".



- IP Address (PLC): Type the IP address that the external device was given.

- Reading port / writing port: Choose the port number for ethernet communication.

- PLC Node Number : Node Address that has been set from PLC.

- TOP Node Number : TOP's Node Address that is used in Communication Protocol;

(2) External device settings

Set as below through Rotary Switch (Ethernet Module, Front) and Ladder Software CX-ONE for communication setting. Please refer the PLC user manual for more detailed information if you need.

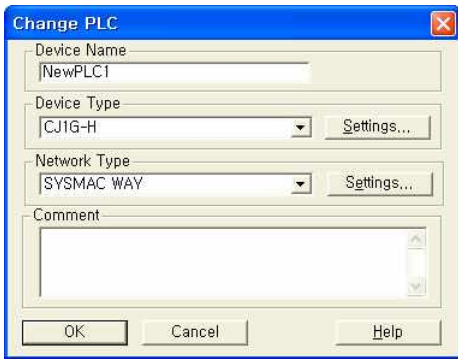


Please do not use the same IP address in the same network.

1. Set the Rotary Switch which is located in front of ethernet module as below.

Details		Contents	
Unit No.		1	Select "Connection Method between PC-PLC from [Network Type]" in "[Device Type] - PLC Name".
NODE No.	x16 ¹	0	Select detailed setting information from [Setting...].
	x16 ⁰	1	

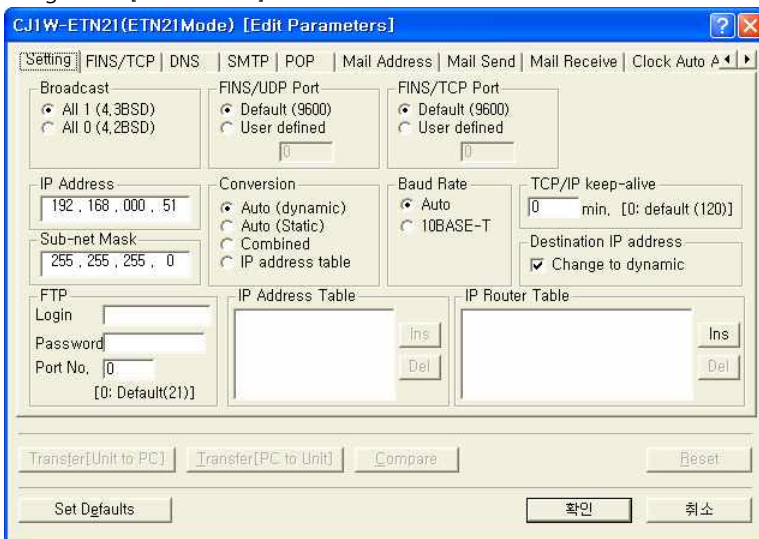
2. Start [CX-Programmer]. Select CPU name that you want to use and PC-PLC communication method from [Change PLC] dialog box.



3. Register the slot information that ethernet communication module is installed in the project.

- (1) Double Click [IO Table and Unit Setup] ([PLC IO Table] dialog box Popup
- (2) From [PLC IO Table] dialog box double click slot number that is connected the communication module from the [Main Rack] Tree, [Select Unit] dialog popup
- (3) Select ethernet communication module which is to use from [Communications Adapter] in [Select Unit] dialog box
- (4) Input unit number in the [Add Unit] dialog box. (Input "1" for this current example.)

4. Please input ethernet setting information in [Edit Parameters] dialog box by double clicking ethernet communication module that is registered [PLC IO Table].



Details	Settings
FINS/UDP Port	Default (9600)
Conversion	Auto (dynamic)
Baud Rate	Auto
IP Address	192.168.000.51
Sub-net Mask	255.255.255.0

5. Reset power of PLC after sending communication setting information to PLC.

3.3 Setting Examples 3

Set the system as below.

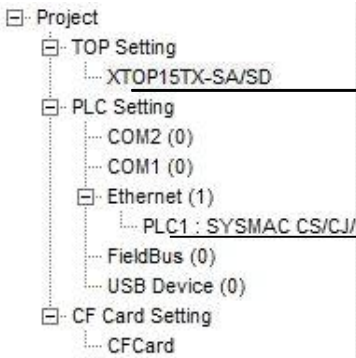
Details	TOP	"SYSMAC CS/CJ/CP SERIES"	Remark
IP Address*Caution1)Caution2)	192.168.0.50	192.168.0.51	User settings
Protocol	TCP	TCP	User settings
Port	1024	9600	User settings
Node Address	Auto set	1	User settings

*Caution1) The network address (the 3 front digits of IP, 192.168.000) TOP and external device must be identical.

*Caution2) Please do not use the same IP address in the same network.

(1) XDesignerPlus setup

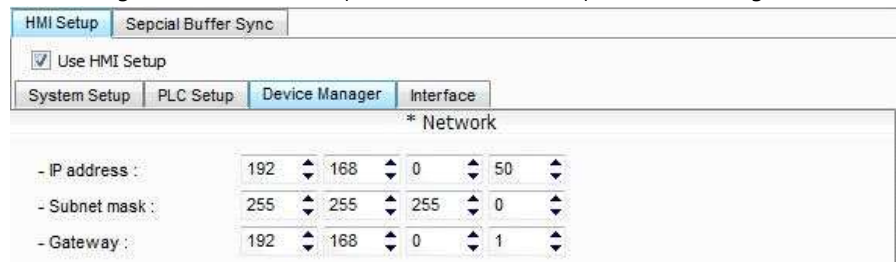
After setting the below details in [Project > Project Settings], download the detailed settings using TOP tool.



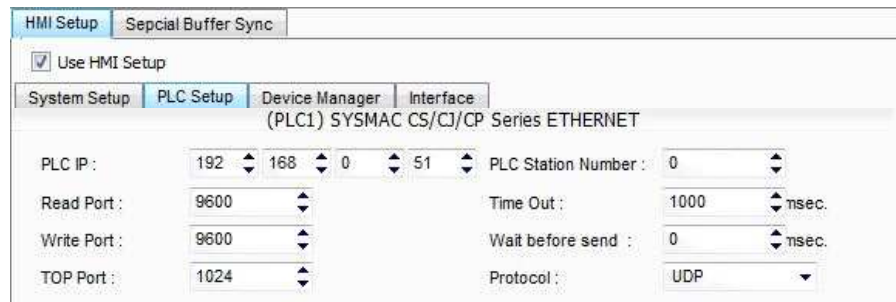
■ [Project > Project property > Project > Settings > TOP Name]

Set the communication interface of TOP tool.

- From right window [HMI Setup > check Use HMI Setup > Device Manager]

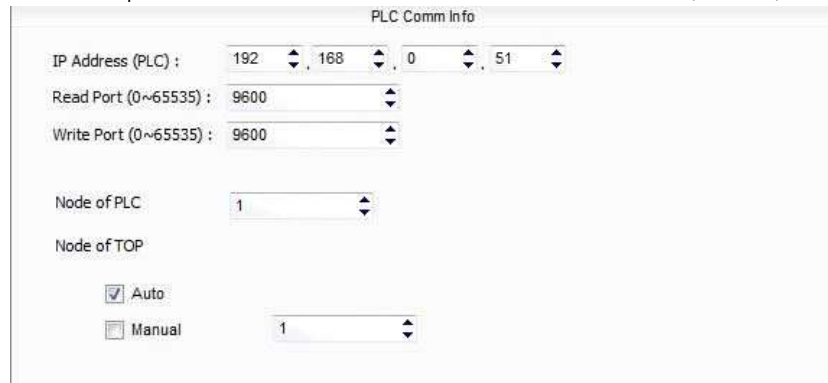


- From right window [HMI Setup > check Use HMI Setup > PLC Setup]



■ External device settings

It sets the option of communication driver for "SYSMAC CS/CJ Series (Ethernet)".



- IP Address (PLC): Type the IP address that the external device was given.

- Reading port / writing port: Choose the port number that will be used for ethernet communication.

- PLC Node Number : Node Address that has been set from PLC.

- TOP Node Number : TOP's Node Address that is used in Communication Protocol;

(2) External device settings

Set as below through Rotary Switch (Ethernet Module, Front) and Ladder Software CX-ONE for communication setting. Please refer the PLC user manual for more detailed information if you need.

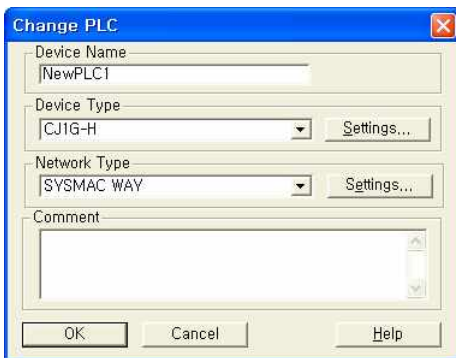


Please do not use the same IP address in the same network.

1. Set the Rotary Switch which is located in front of ethernet module as below.

Details		Contents	
Unit No.		1	Select "Connection Method between PC-PLC from [Network Type]" in "[Device Type] - PLC Name".
NODE No.	x16 ¹	0	Select detailed setting information from [Setting...].
	x16 ⁰	1	

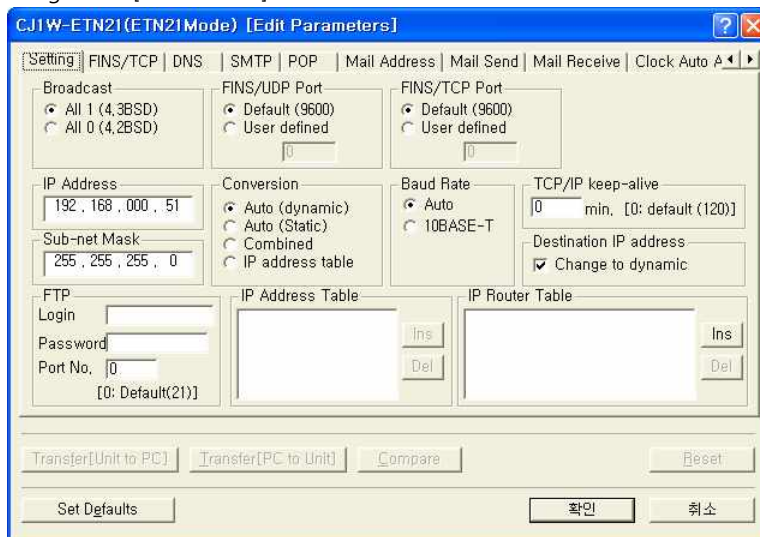
2. Start [CX-Programmer]. Select CPU name that you want to use and PC-PLC communication method from [Change PLC] dialog box.



3. Register the slot information that ethernet communication module is installed in the project.

- (1) Double Click [IO Table and Unit Setup] ([PLC IO Table] dialog box Pop up
- (2) From [PLC IO Table] dialog box double click slot number that is connected the communication module from the [Main Rack] Tree, [Select Unit] dialog pop up
- (3) Select ethernet communication module which is to use from [Communications Adapter] in [Select Unit] dialog box
- (4) Input unit number in the [Add Unit] dialog box. (Input "1" for this current example.)

4. Please input ethernet setting information in [Edit Parameters] dialog box by double clicking ethernet communication module that is registered [PLC IO Table].



Details	Settings
FINS/TCP Port	Default (9600)
Conversion	Auto (dynamic)
Baud Rate	Auto
IP Address	192.168.000.51
Sub-net Mask	255.255.255.0

5. Reset power of PLC after sending communication setting information to PLC.

3.4 Setting Examples 4

Set the system as below.

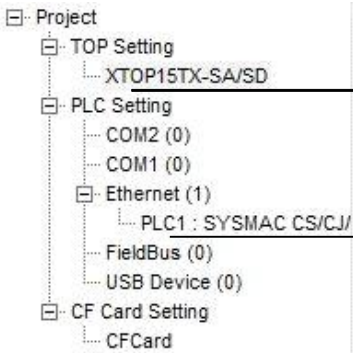
Details	TOP	"SYSMAC CS/CJ/CP SERIES"	Remark
IP Address*Caution1)Caution2)	192.168.0.50	192.168.0.51	User settings
Protocol	UDP	UDP	User settings
Port	1024	9600	User settings
Node Address	Auto set	1	User settings

*Caution1) The network address (the 3 front digits of IP, 192.168.000) TOP and external device must be identical.

*Caution2) Please do not use the same IP address in the same network.

(1) XDesignerPlus setup

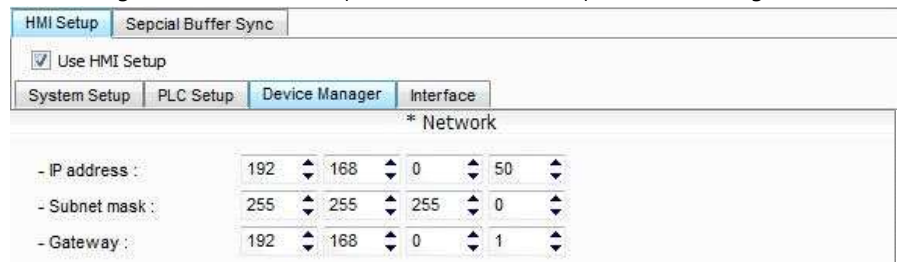
After setting the below details in [Project > Project Settings], download the detailed settings using TOP tool.



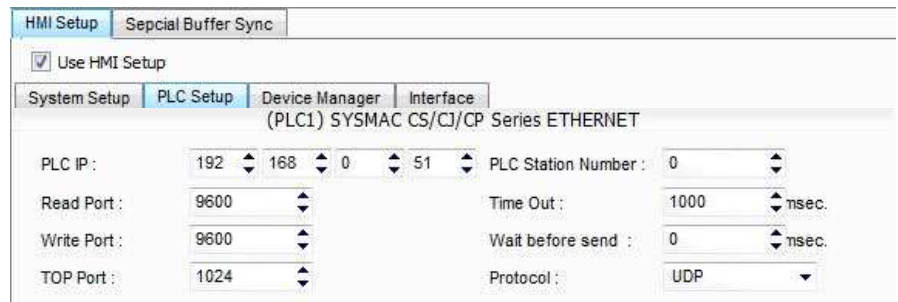
■ [Project > Project property > Project > Settings > TOP Name]

Set the communication interface of TOP tool.

- From right window [HMI Setup > check Use HMI Setup > Device Manager]

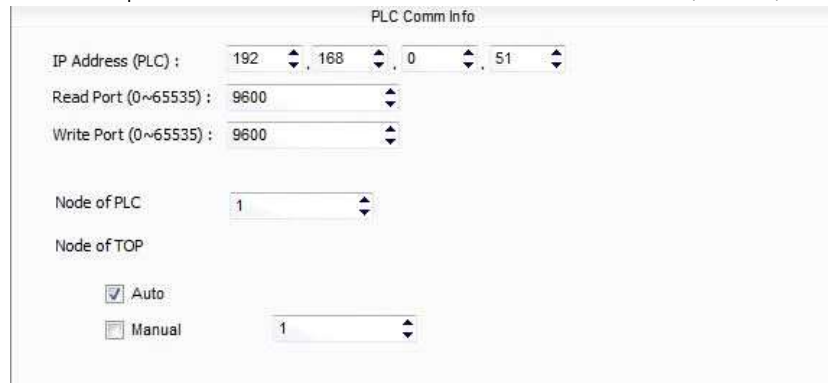


- From right window [HMI Setup > check Use HMI Setup > PLC Setup]



■ External device settings

It sets the option of communication driver for "SYSMAC CS/CJ Series (Ethernet)".



- IP Address (PLC): Type the IP address that the external device was given.

- Reading port / writing port: Choose the port number that will be used for ethernet communication.

- PLC Node Number : Node Address that has been set from PLC.

- TOP Node Number : TOP's Node Address that is used in Communication Protocol;

(2) External device settings

Set as below through Rotary Switch (Ethernet Module, Front) and Ladder Software CX-ONE for communication setting. Please refer the PLC user manual for more detailed information if you need.



Please do not use the same IP address in the same network.

Set the Rotary Switch which is located in front of ethernet module as below.

Dip Switch	Settings	Dip Switch	Settings	Rotary Switch		Settings
SW1	OFF	SW5	OFF	Unit No.		0
SW2	OFF	SW6	OFF	NODE No.	x16 ¹	0
SW3	OFF	SW7	OFF		x16 ⁰	1
SW4	OFF	SW8	OFF			

2. Start [CX-Programmer]. Select CPU name that you want to use and PC-PLC communication method from [Change PLC] dialog box.

Select "Connection Method between PC-PLC from [Network Type]" in "[Device Type] - PLC Name". Select detailed setting information from [Setting...].

3. Double Click [IO Table and Unit Setup] ([PLC IO Table] dialog box Popup

4. Input ethernet setting information from [Edit Parameters] dialog box by double clicking "built-in Ethernet/IP port" from [PLC IO Table] dialog box - [Built-in Port/Inner-Board] tree.

Details	Settings
IP Address	192.168.000.51
Sub-net Mask	255.255.255.0

5. Reset power of PLC after sending communication setting information to PLC.

3.5 Setting Examples 5

Set the system as below.

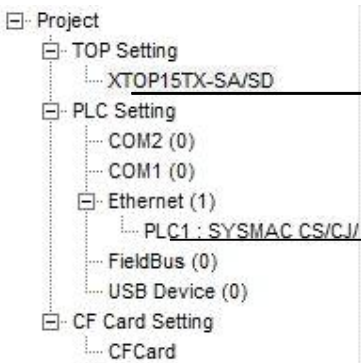
Details	TOP	"SYSMAC CS/CJ/CP SERIES"	Remark
IP Address*Caution1)Caution2)	192.168.0.50	192.168.0.51	User settings
Protocol	TCP	TCP	User settings
Port	1024	9600	User settings
Node Address	Auto set	1	User settings

*Caution1) The network address (the 3 front digits of IP, 192.168.000) TOP and external device must be identical.

*Caution2) Please do not use the same IP address in the same network.

(1) XDesignerPlus setup

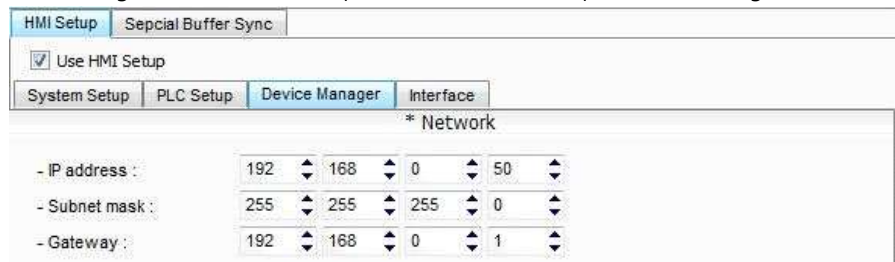
After setting the below details in [Project > Project Settings], download the detailed settings using TOP tool.



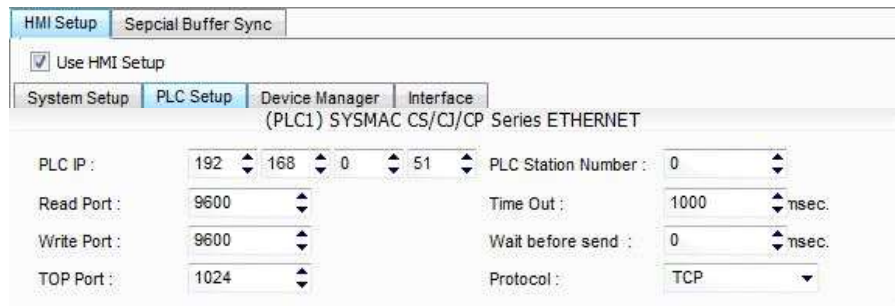
■ [Project > Project property > Project > Settings > TOP Name]

Set the communication interface of TOP tool.

- From right window [HMI Setup > check Use HMI Setup > Device Manager]

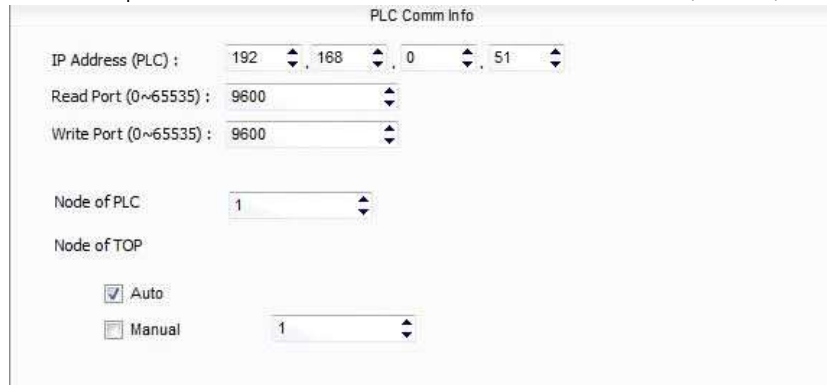


- From right window [HMI Setup > check Use HMI Setup > PLC Setup]



■ External device settings

It sets the option of communication driver for "SYSMAC CS/CJ Series (Ethernet)".



- IP Address (PLC): Type the IP address that the external device was given.
- Reading port / writing port: Choose the port number for ethernet communication.
- PLC Node Number : Node Address that has been set from PLC.
- TOP Node Number : TOP's Node Address that is used in Communication Protocol;

(2) External device settings

Set as below through Rotary Switch (Ethernet Module, Front) and Ladder Software CX-ONE for communication setting. Please refer the PLC user manual for more detailed information if you need.



Please do not use the same IP address in the same network.

Set the Rotary Switch which is located in front of ethernet module as below.

Dip Switch	Settings	Dip Switch	Settings
SW1	OFF	SW5	OFF
SW2	OFF	SW6	OFF
SW3	OFF	SW7	OFF
SW4	OFF	SW8	OFF

Rotary Switch		Settings
Unit No.		0
NODE No.	x16 ¹	0
	x16 ⁰	1

2. Start [CX-Programmer]. Select CPU name that you want to use and PC-PLC communication method from [Change PLC] dialog box. Select "Connection Method between PC-PLC from [Network Type]" in "[Device Type] - PLC Name". Select detailed setting information from [Setting...].

3. Double Click [IO Table and Unit Setup] ([PLC IO Table] dialog box Popup

4. Input ethernet setting information from [Edit Parameters] dialog box by double clicking "built-in Ethernet/IP port" from [PLC IO Table] dialog box - [Built-in Port/Inner-Board] tree.

Details	Settings
IP Address	192.168.000.51
Sub-net Mask	255.255.255.0

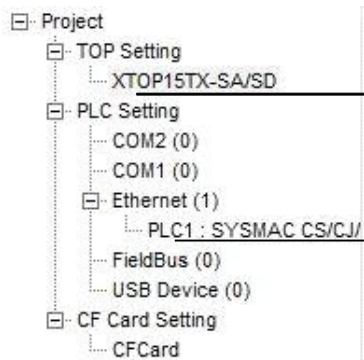
5. Reset power of PLC after sending communication setting information to PLC.

4. Communication settings details

Communication settings are available at XDesignerPlus or TOP main menu. Communication settings must be identical with the external devices.

4.1 XDesignerPlus settings details

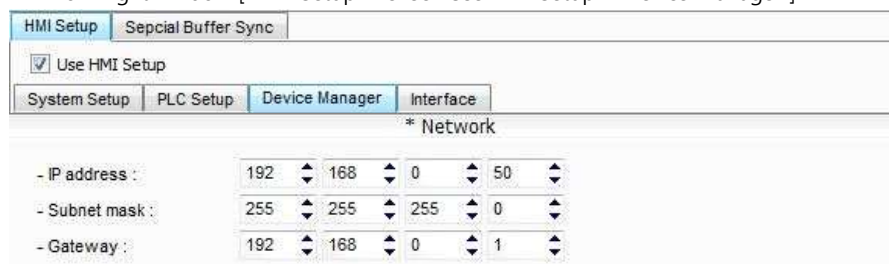
Select [Project > Project property] to show the below window.



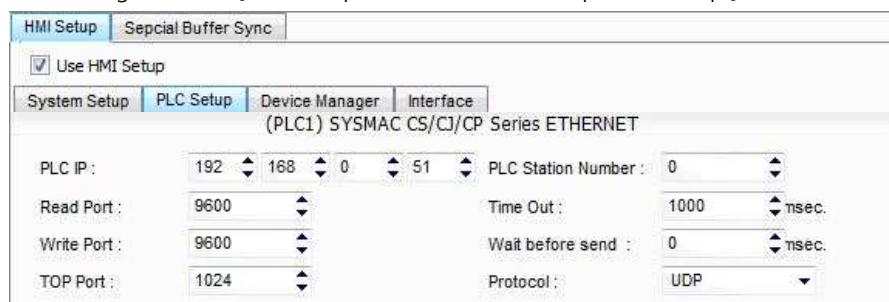
■ [Project > Project property > Project > Settings > TOP Name]

Set the communication interface of TOP tool.

- From right window [HMI Setup > check Use HMI Setup > Device Manager]

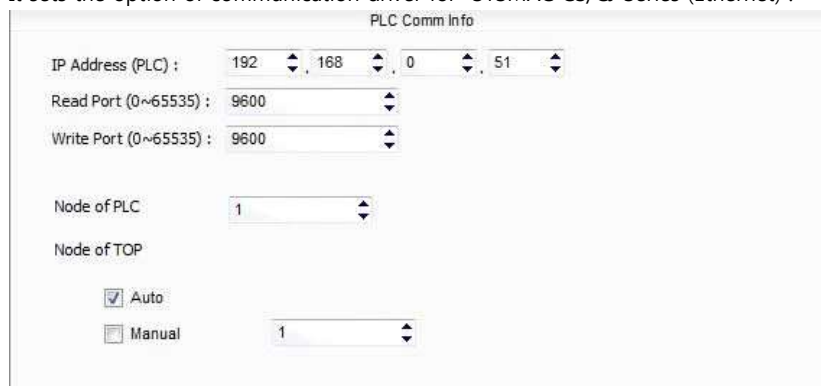


- From right window [HMI Setup > check Use HMI Setup > PLC Setup]



■ External device settings

It sets the option of communication driver for "SYSMAC CS/CJ Series (Ethernet)".



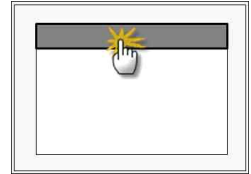
■ Communication Interface Settings

Details	Contents
IP Address	Setup the IP address that TOP receives in the network.
Subnet mask	Input subnet mask of network
Gateway	Input subnet mask of network
PLC IP address	Input IP address that external device gets received.
Read Port / Write Port	Choose port number that will be used for ethernet communication of external device.
TOP port	Port number will be automatically setup if ethernet communication with external device
PLC address [0~65535]	Address of other device. Select between [0 - 65535].
Ethernet time out	Set up TOP's waiting time from external device at [0 - 99] x 100mSec.
Delay time of transmission	Set up TOP's waiting time between response receiving – next command request transmission

[x1 mSec]	from external device at [0 – 5000] x 1 mSec.
Protocol	Choose the protocol type that are authorized to use following devices and setup port number.

4.2 TOP main menu setup item

- When a buzzer is on during the power reset, touch 1 spot at the upper LCD to move to "TOP Management Main" display.
- Set up driver interface at TOP according to below Step1 → Step2.
(Press "TOP ethernet setup" in Step 1 to change setup at Step 2.)



Step 1. [PLC setup] .Setup driver interface.

PLC setup	
PLC IP : 192 . 168 . 0 . 51 Protocol : UDP PLC Read Port : 9600 PLC Read Port : 9600 TOP Port : 1024 PLC address : 1 Timeout : 1000 [mSec] Delay time of transmission : 0 [mSec] TOP IP : 192 . 168 . 0 . 50	Communication Interface Settings
TOP Ethernet setting communication diagnosis	

Step 1-Reference.

Details	Contents
PLC IP	It is an IP address that external device was given.
Protocol	Choose the protocol type that are authorized to use following devices and setup port number.
PLC Read Port	It is the port address that will be used for ethernet of external device.
PLC Write Port	It is the port address that will be used for ethernet of external device.
TOP port	Port number will be automatically setup if ethernet communication with external device
PLC address [0~65535]	Address of other device. Select between [0 - 65535].
Timeout [x1 mSec]	Set up TOP's waiting time from external device at [0 - 5000] x 1mSec.
Delay Time before transmitting [x1 mSec]	Set up TOP's waiting time between response receiving – next command request transmission from external device at [0 – 5000] x 1 mSec.
TOP IP	Setup the IP address that TOP receives in the network.

Step 2. [PLC Setup] > [TOP Ethernet Setup] - Setup the serial parameter of correspond port.

Port Settings	
* Ethernet Communication + Network setting - MAC : 00 - 15 - ID - 00 - 30 - 52 (each device has different address) - IP Address : 192. 168 . 0 . 50 - Subnet mask : 255 255 . 255 . 0 - Gateway : 192 168 . 0 . 1	Ethernet Port Communication Interface Settings

Step 2-Reference.

Details	Contents
MAC	Physical official address in the network.
IP Address	Setup the IP address that TOP receives in the network.
Subnet mask	An address that divides the network ID and host ID regarding of IP address.
Gateway	An address that connects a network to another network.

4.3 Communication diagnosis

- TOP - Confirming interface setting condition between external devices
- Move to Menu by clicking the top side of LCD screen as resetting the power of TOP.
- [Main Menu>Communication setting] Confirm if detail in number 20~24 is identical as setup information of "■Setup exercise 1".
- PLC Setup > Click the button in "Communication diagnosis" of TOP Ethernet.
- Diagnostics dialog box will pop up on the screen, you can judge by following information that are shown on box no. 3 section.

OK! Communication setting succeeded

Time Out Error! Communication setting error
 - Error in the setting situation of Cable and TOP / External device
(reference : Communication Diagnosis sheet)

■ Communication Diagnosis Sheet

- Please refer to the information below if you have a problem between external devices and communication connection.

Details	Contents			Confirm			
TOP	Version Information	xDesignerPlus :	O.S :				
	Name of Driver				OK	NG	
	External device information (xDesignerPlus Project setting)	IP Address				OK	NG
		Subnet mask				OK	NG
	Gateway				OK	NG	
	TOP Information (Main Device Menu Setting)	Protocol	UDP/IP	TCP/IP		OK	NG
		IP Address				OK	NG
		Subnet mask				OK	NG
	Gateway				OK	NG	
Other specified setting info				OK	NG		
System configuration	System Connection Method	1:1	1:N	N:1	OK	NG	
	Name of cable (Hub usage)	Direct (Use Hub)		Cross (No Hub)	OK	NG	
External device	Name of CPU				OK	NG	
	Name of communication device				OK	NG	
	Protocol(mode)				OK	NG	
	Other specified setting info				OK	NG	
	IP Address	(Local)	(Destination)		OK	NG	
	Port number	(Local)	(Destination)		OK	NG	
	Subnet mask				OK	NG	
	Gateway				OK	NG	
Address range confirm (other docs)				OK	NG		

5. Support address

Devices that are usable with TOP is as below.

There might be difference in the range of device (address) by type / series of CPU module TOP series supports the maximum address range that external device series use Please refer each CPU module user manual carefully for devices that you desired to use to prevent not getting out of range.

6.1 CS1/CJ1 Series

Device	Bit Address	Word Address	32 Bits	Remarks
Channel I/O	CIO0000.00 – CIO6143.15	CIO0000 – CIO6143	L/H	
Internal Auxiliary Relay	W000.00 – W511.15	W000 – W511		
Special Auxiliary Relay	A000.00 – A959.15	A000 – A959		* caution1)
Latch Relay	H000.00 – H511.15	H000 – H511		
Timer (Time up flag)	T0000 – T4095	—		* caution2)
Counter (Count up flag)	C0000 – C4095	—		
Timer (Current value)	—	T0000 – T4095		
Counter (Current value)	—	C0000 – C4095		
Data Memory	D00000.00 – D32767.15	D00000 – D32767		* caution3)
Extension Data Memory (E0 – EC)	E00000.00 – EC32767.15	E00000 – EC32767		*caution4caution5)
Extension Data Memory (Current Bank)	—	EM00000 – EM32767	*caution5caution6)	

*caution1) A000 - A447 Range : Not authorized data writing.

*caution2) not authorized writing


*caution3) Do not use it because "D device" range is utilized as a system setting range depends on which communication card that the user uses.

Types of Communication Card	Not authorized Using Range
Communication Unit : CS1W-SCU21	D30000 – D31599
Communication Board : CS1W-SCU21/41	D32000 – D32767

*caution4) Depends on CPU type, the range of address is different and it is possible to use up to 13 Bank(E0 - EC) x 32767 word max.

*caution5) CJM1 series does not contain Extension data memory part.

*caution6) CJ1 series does not contain Current Bank EM part.

 Continue on the next page.

6.2 CJ2 Series

Device	Bit Address	Word Address	32 Bits	Remarks
Channel I/O	CIO0000.00 –CIO6143.15	CIO0000 –CIO6143	L/H	* caution1)
Internal Auxiliary Relay	W000.00 – W511.15	W000 – W511		
Special Auxiliary Relay	A000.00 – A1471.15 A10000.00 – A11535.15	A000 – A1471 A10000 – A11535		* caution2)
Latch Relay	H000.00 – H511.15	H000 – H511		
Timer (Time up flag)	T0000 – T4095	—		* caution3)
Counter (Count up flag)	C0000 – C4095	—		* caution3)
Timer (Current value)	—	T0000 – T4095		
Counter (Current value)	—	C0000 – C4095		
Data Memory	D00000.00 – D32767.15	D00000 – D32767		* caution1)
Extension Data Memory (E0 – EC)	E00000.00 – EC32767.15	E00000 – EC32767		* caution4)
Extension Data Memory (Current Bank)	—	EM00000 – EM32767		

*caution1) Do not use it because it is utilized as a system setting range depends on which communication card that the user uses.

Types of Communication Card	Not authorized Using Range
Channel I/O	CIO1500 – CIO1899
Data Memory	D30000 – D31599

*caution2) A000 - A447 and A10000 - A11535 Range : Not authorized writing

*caution3) not authorized writing

*caution4) Depends on CPU type, the range of address is different and it is possible to use up to 13 Bank(E0 - EC) x 32767 word max.

6.3 CP1 Series

Device	Bit Address	Word Address	32 Bits	Remarks
Channel I/O	CIO0000.00 –CIO6143.15	CIO0000 –CIO6143	L/H	
Internal Auxiliary Relay	W000.00 – W511.15	W000 – W511		
Special Auxiliary Relay	A000.00 – A959	A000 – A959		*caution1)
Latch Relay	H000.00 – H511.15	H000 – H511		
Timer (Time up flag)	T0000 – T4095	—		*caution2)
Counter (Count up flag)	C0000 – C4095	—		*caution2)
Timer (Current value)	—	T0000 – T4095		

Counter (Current value)	—	C0000 – C4095		
Data Memory	D00000.00 – D32767.15	D00000 – D32767		

*caution1) A000 - A447 Range : Not authorized data writing.

*caution2) not authorized writing