




Chapter 10 LSIS: XGI PLC (Including XGREnet)

10.1 PLC List

InfoUis able to connect to XGI PLC.

PLC	CPU module	Connection method	Comm. method	Connection Module	Remarks
XGI	CPUE CPUH CPUS CPUU CPUU/D	CPU direct connection	RS-232C	CPU Module	-
		Link	RS-232C	XGL-C22A XGL-CH2A	Cnet
		Link	RS-422/485	XGL-C42A XGL-CH2A	Cnet
		Link	Ethernet	XGL-EFMT	-
XGR	CPUH INC	Link	EtherNet/IP	XGL-EIPT	
XGB	XECH				

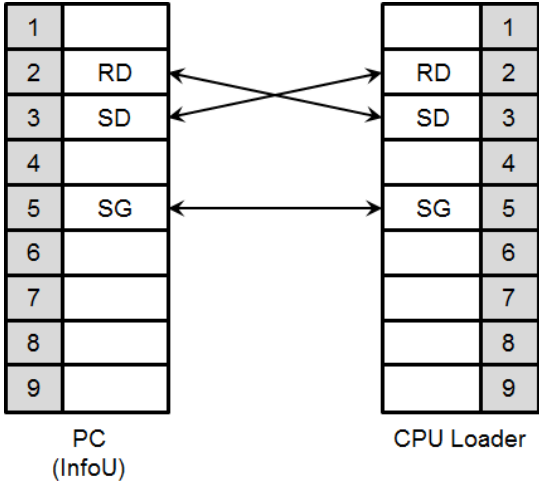
Notice

1. PLC
- Fiber-optic Ethernet module (XGL-EFMF) is not supported.
2. Terminology
- CPU module direct connection: executes serial communication through the loader port of the CPU module.
- Link: executing serial communication with the communication module of the PLC.

10.2 Wiring Diagram

10.2.1 CPU module direct connection method: Loader

Connecting InfoU and XGI PLC with CPU module direct connection method (RS-232C) is as follows.



Notice

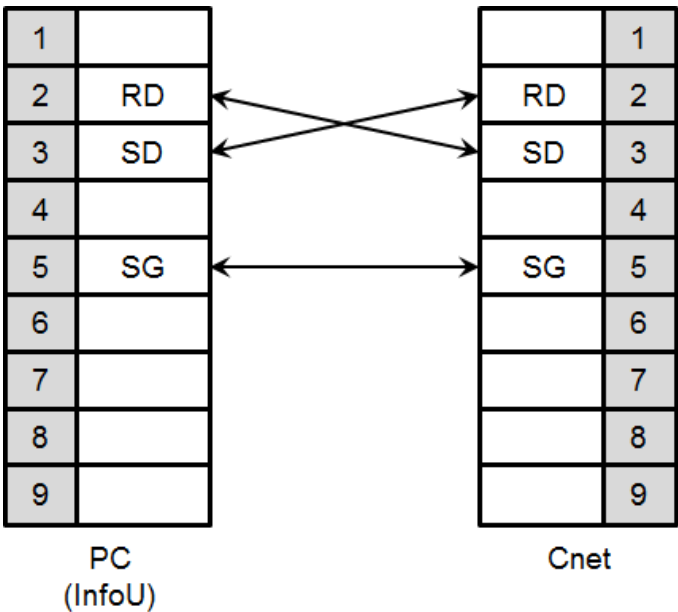
Cautions when wiring cable

- In the CPU module loader port is a CPU module that provides built-in Cnet. Be careful not to connect to other pins when wiring.
- CPU module loader port is D-SUB 9P, Female. Use a Male connector when wiring the cable.

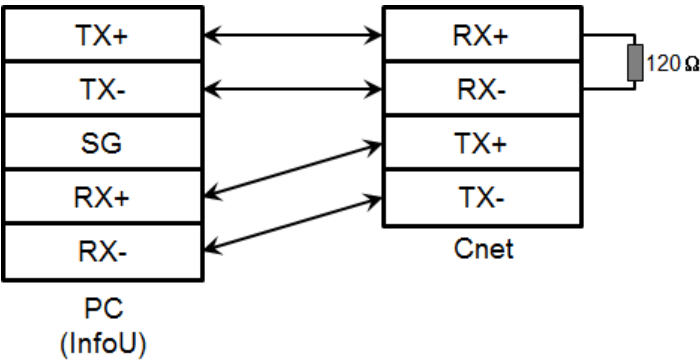
10.2.2 Link method: Cnet

Cnet is specified into RS-232C and RS-422/485 type.

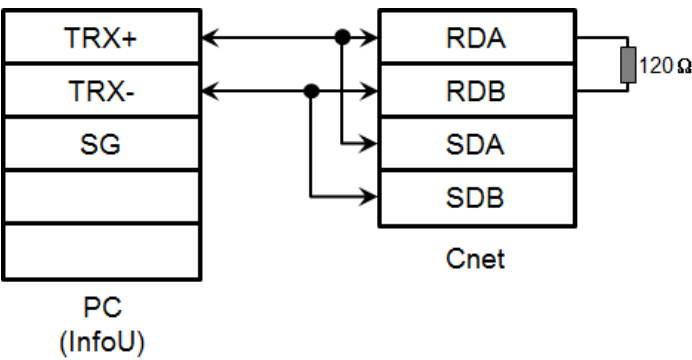
Below is the wiring of RS-232C Cnet.



RS-422 Cnet wiring is as below.



RS-485 Cnet wiring is as below.



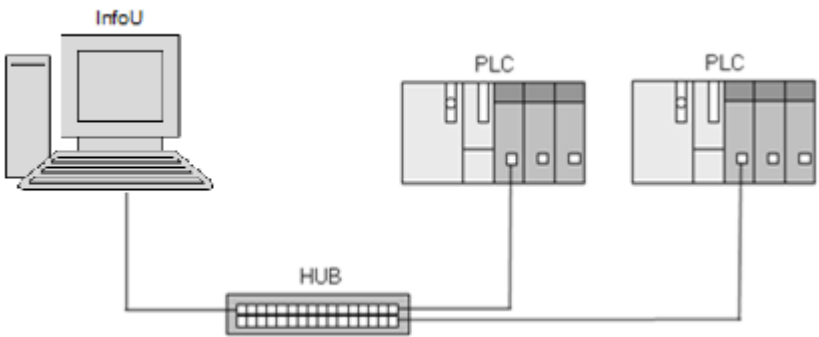
Notice

- ☞ It is needed RS232 to RS422/485 Converter to use RS422/485 configuration on PC side.
- ☞ It is not need RS232 to RS422/485 Converter on PLC side because PLC support RS422/485 port.

10.2.3 Link method: FEnet

(1) Ethernet specification

Ethernet can be connected in 2 ways as below figure.





Notice

When connecting hub-node, direct cable has to be used and cross cable has to be used when connecting 1:1.

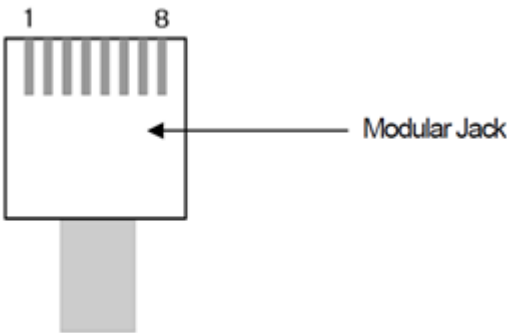
(2) Ethernet cable

Ethernet cable gets specified into 2 cables according to its type.

When communicating through LAN, connected to network equipment like a hub, direct cable is used. (In case of hub-node connection) Direct connection is available among equipments and in this case, cross cable is used.

Method for wiring a direct cable is as follows.

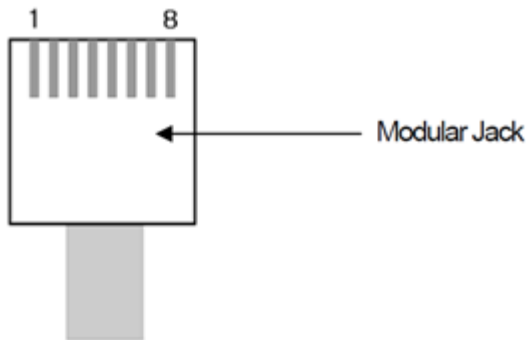
1	White-oragne	↔	White-oragne	1
2	Orange	↔	Orange	2
3	White-green	↔	White-green	3
4	Blue	↔	Blue	4
5	White-blue	↔	White-blue	5
6	Green	↔	Green	6
7	White-brown	↔	White-brown	7
8	Brown	↔	Brown	8



‘White-yellow’, ‘White-green’, ‘White-blue’, ‘White-brown’ from above figure is indicated on the coating of the cable. For example, ‘white-blue’ has blue stripes on white coating.

Method for wiring of cross cable is as follows.

1	White-orange	↔	White-green	1
2	Orange	↔	Green	2
3	White-green	↔	White-orange	3
4	Blue	↔	Blue	4
5	White-blue	↔	White-blue	5
6	Green	↔	Orange	6
7	White-brown	↔	White-brown	7
8	Brown	↔	Brown	8



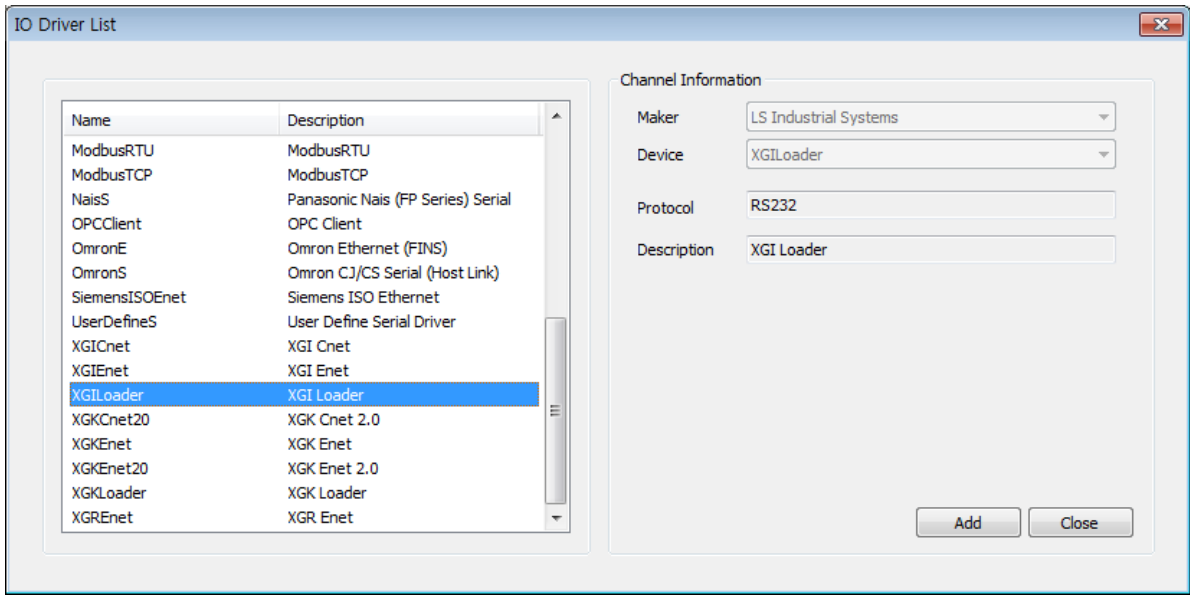
Notice

- ☞ Use according to the connection method.
- ☞ Wire the cable by using a modular tool. Bad connection may occur.
- ☞ If the lock part of the modular jack gets damaged, it may not get fixed to the RJ45 connector (Ethernet connector) and bad connection may occur.
- ☞ The UTP cable is made out of solid wire material. Therefore, it may break when heavily bent or shaken.
- ☞ It is advisory to use a plug cover when wiring cables.

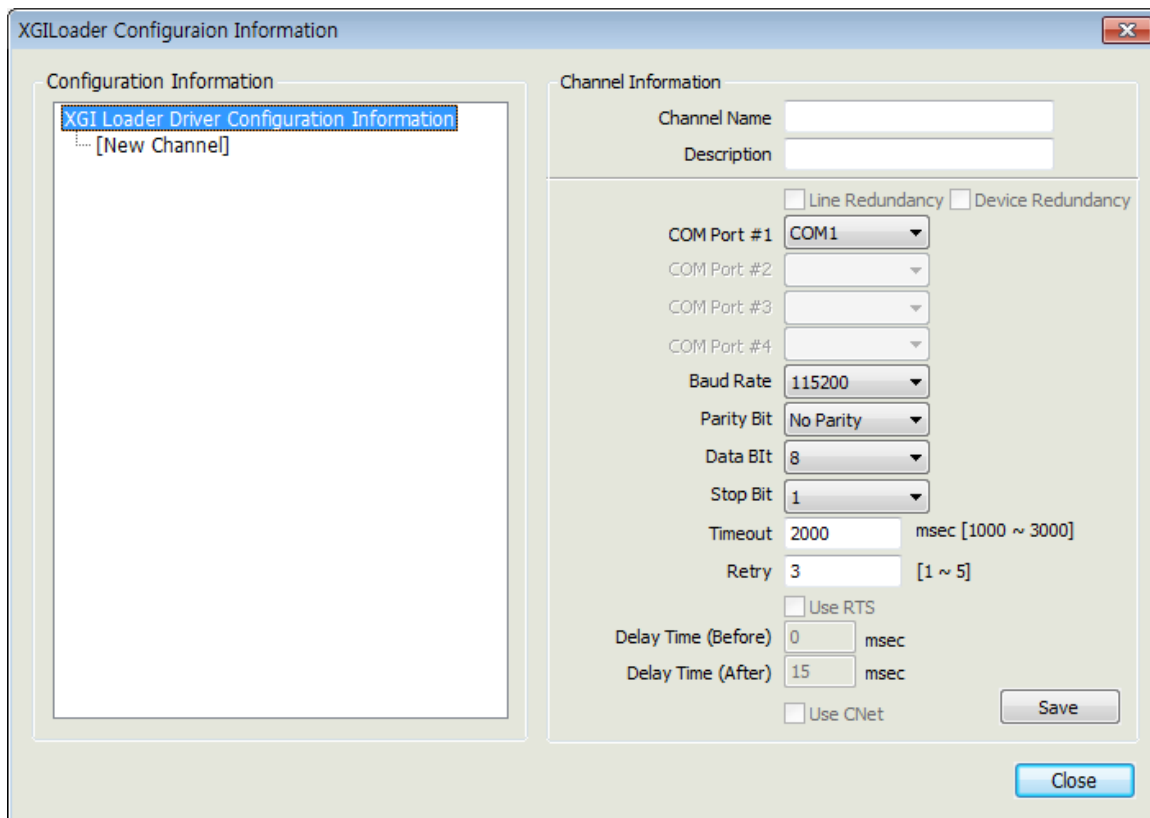
10.3 I/O Driver Setting

10.3.1 CPU module direct connection method: Loader

- (1) PLC Setting
PLC Loader communication settings are set using the XG5000 program.
- (2) InfoU Setting: XGILoader
 - 1) Add Channel



Select “XGILoader”from the I/O driver list and press “Add”.



The dialog box is titled "XGILoader Configuration Information". It is divided into two main sections: "Configuration Information" on the left and "Channel Information" on the right.

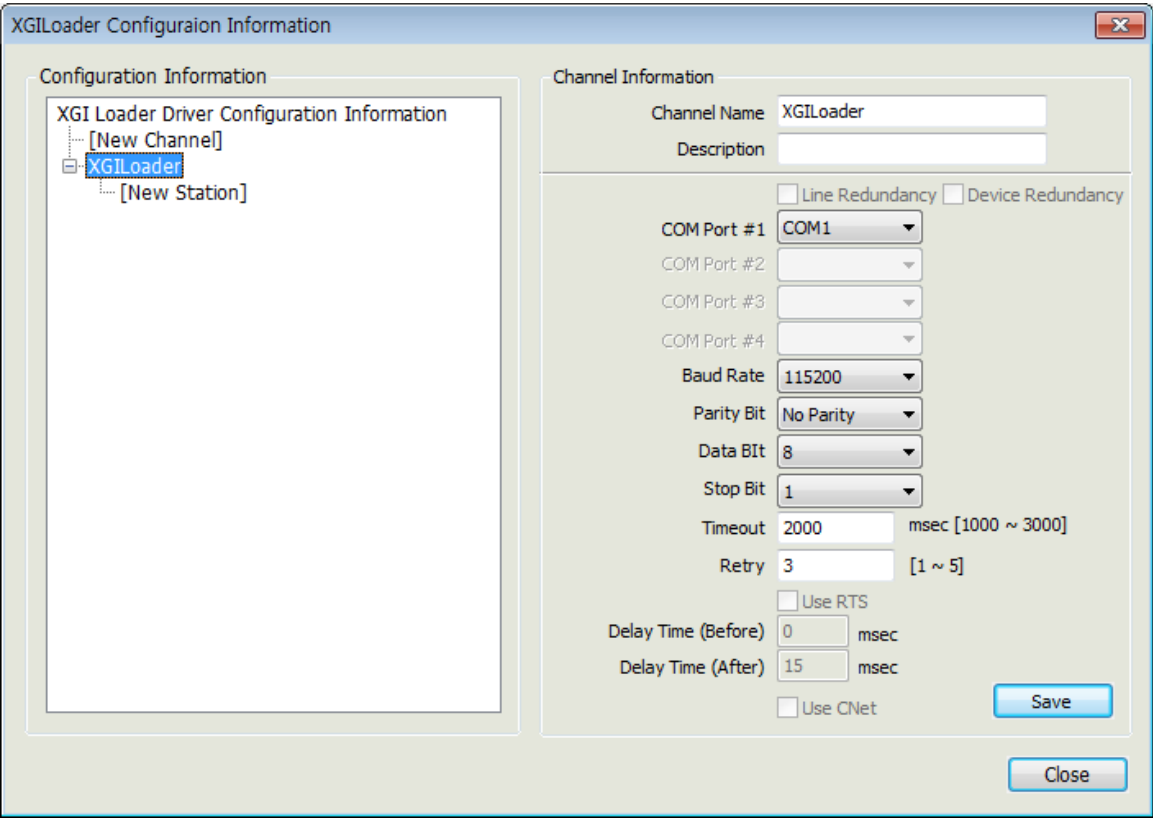
Configuration Information: This section contains a tree view. The root node is "XGI Loader Driver Configuration Information", which has a sub-node "[New Channel]".

Channel Information: This section contains various configuration fields for a channel:

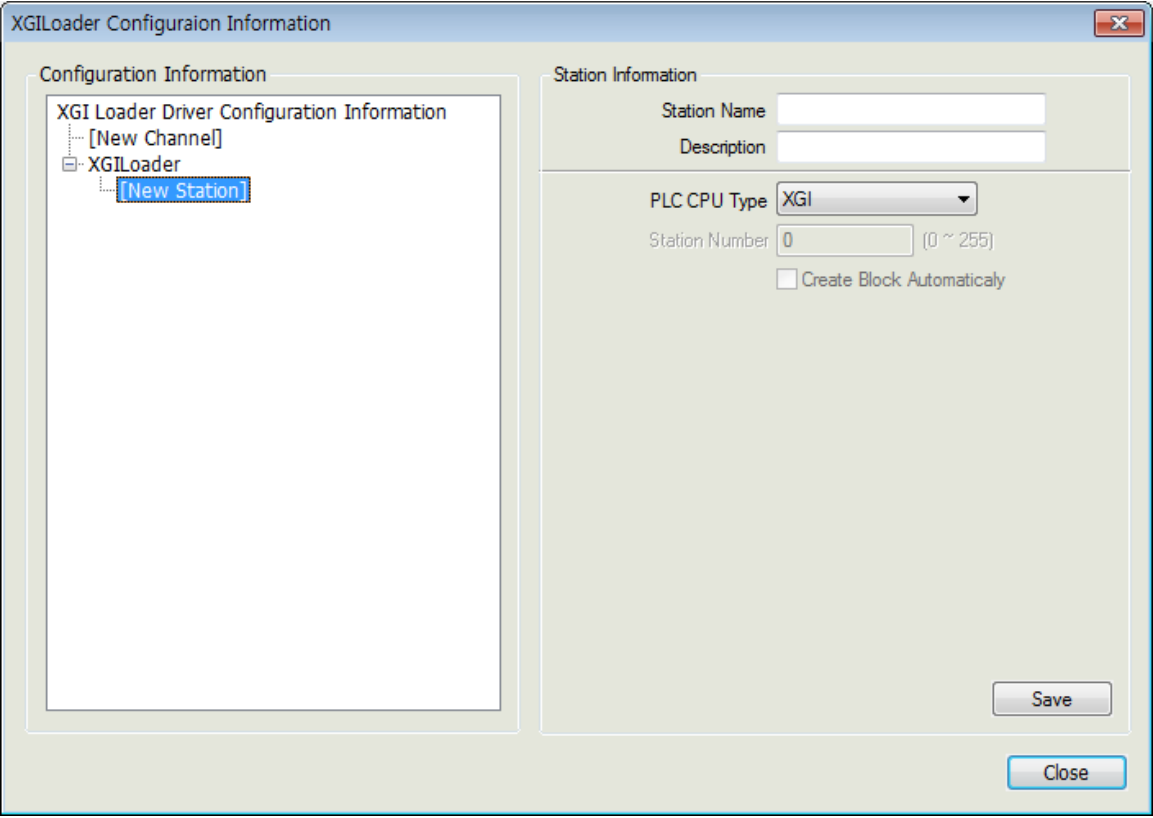
- Channel Name:** A text input field.
- Description:** A text input field.
- Line Redundancy:** A checkbox.
- Device Redundancy:** A checkbox.
- COM Port #1:** A dropdown menu with "COM1" selected.
- COM Port #2:** A dropdown menu.
- COM Port #3:** A dropdown menu.
- COM Port #4:** A dropdown menu.
- Baud Rate:** A dropdown menu with "115200" selected.
- Parity Bit:** A dropdown menu with "No Parity" selected.
- Data Bit:** A dropdown menu with "8" selected.
- Stop Bit:** A dropdown menu with "1" selected.
- Timeout:** A text input field with "2000" and a unit "msec [1000 ~ 3000]".
- Retry:** A text input field with "3" and a unit "[1 ~ 5]".
- Use RTS:** A checkbox.
- Delay Time (Before):** A text input field with "0" and a unit "msec".
- Delay Time (After):** A text input field with "15" and a unit "msec".
- Use CNet:** A checkbox.

At the bottom right of the dialog box, there are two buttons: "Save" and "Close".

- Channel Name: Input a channel name.
- Description: Input some information on the channel.
- COM Port #1: Select a communication port.
- Baud Rate: Select a communication speed.
- Parity Bit: Select a parity bit.
- Data Bit: Select a data bit.
- Stop Bit: Select a stop bit.
- Time Out : It refers to a certain time period during which any response to the request for data is not made and after passing such a time period, the system will declare timeout to move on to the next process. The time period to be set will be a base to judge communication errors.
- Retry: Set up the number of times to retry when communication fails.
- Save: If 'Save' button is pressed, Channel information will be saved and the saved information will add to the left "Configuration Information" tree.

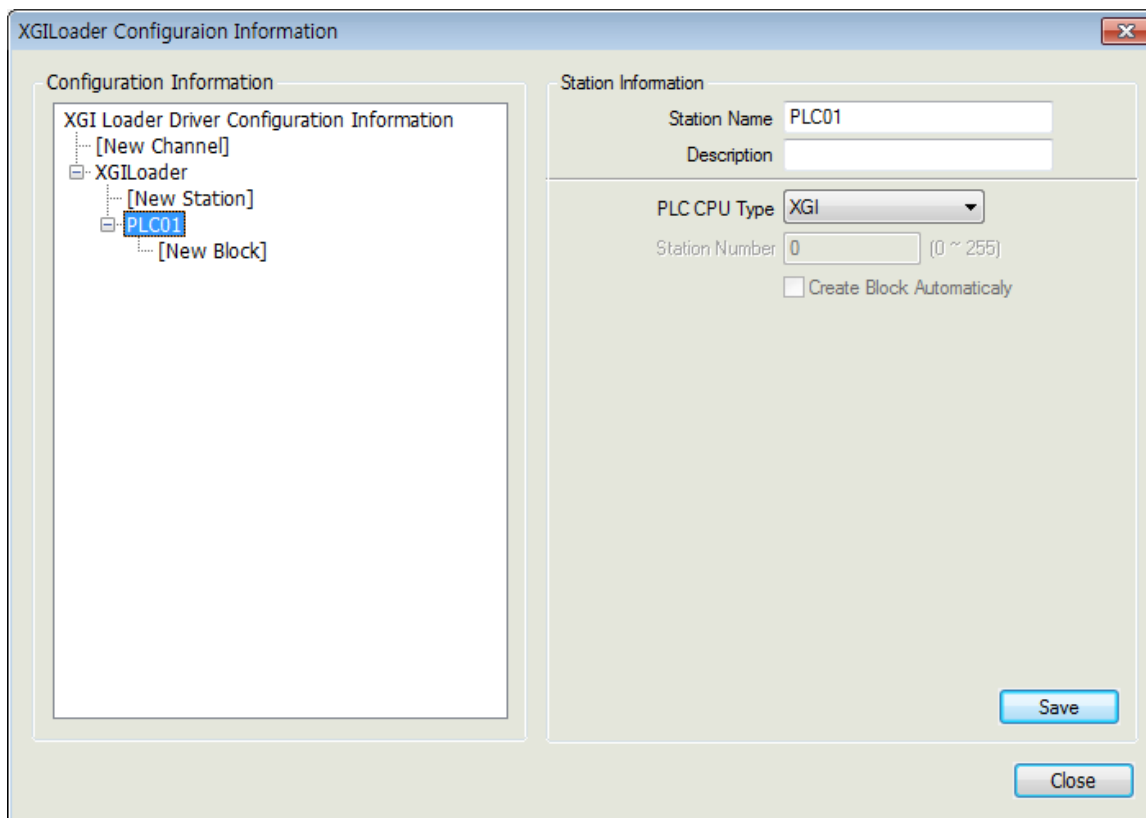


2) Add Station

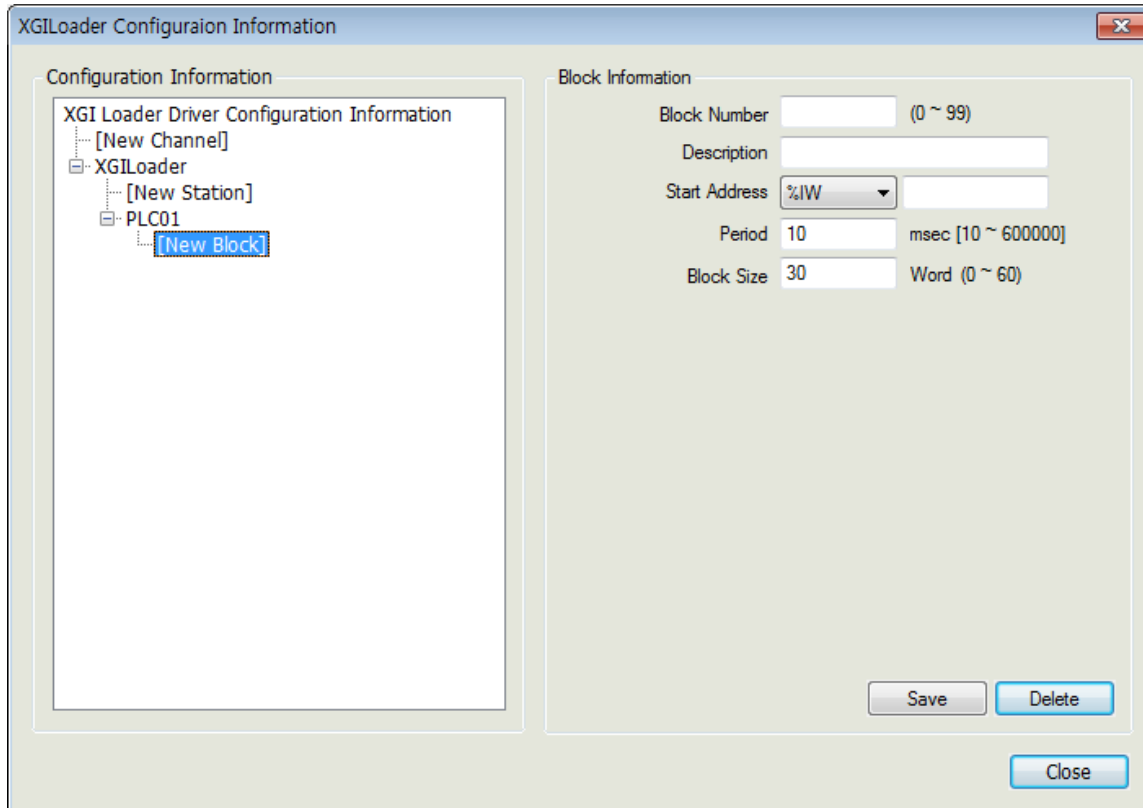


- Select [New Station] from “Configuration Information” tree.

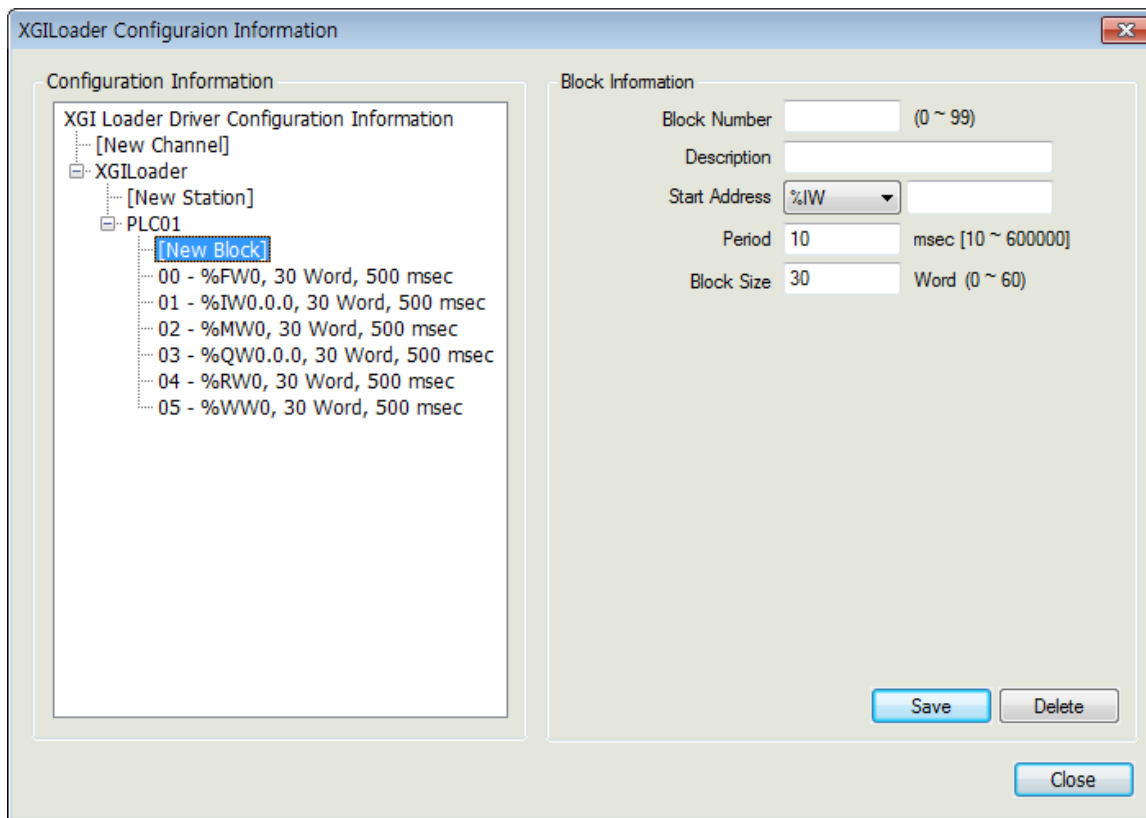
- Station Name: Input a station name.
- Description: Input some information on the station.
- PLC CPU Type: Select a PLC CPU type.
- Save: If 'Save' button is pressed, Station information will be saved and the saved information will add to the left "Configuration Information" tree.



3) Add Block



- Select [New Block] from “Configuration Information” tree.
- Block Number: This number is a unique code of the block. The user needs to designate a different code to each block.
- Description: Input some information on the block.
- Start Address: Input the Block’s Start Address. There are six kinds and each address is designated as the following ways respectively:
 - Right example: %MW0, %MW20, %IW0.0.0, %QW1.0.0
 - Wrong example: %MW0.0.0, %IW0, %QW0
- Period: Input an interval to collect data of the relevant block (unit: msec).
- Block Size: Input a block size of the relevant block (unit: Word (2 byte)).
- Save: If ‘Save’ button is pressed, Block information will be saved and the saved information will add to the left “Configuration Information” tree.
- Delete: If “Delete” button is pressed, the currently selected Block will be deleted.



4) I/O Address

- Type

- Analog: %MX0, %MB0, %MW0, %MD0, %ML0, %IW0.0.0, %QW0.0.0
- Digital: %MB0.0, %MW0.0, %MD0.0, %ML0.0, %IX0.0.0, %QX0.0.0

- Available devices

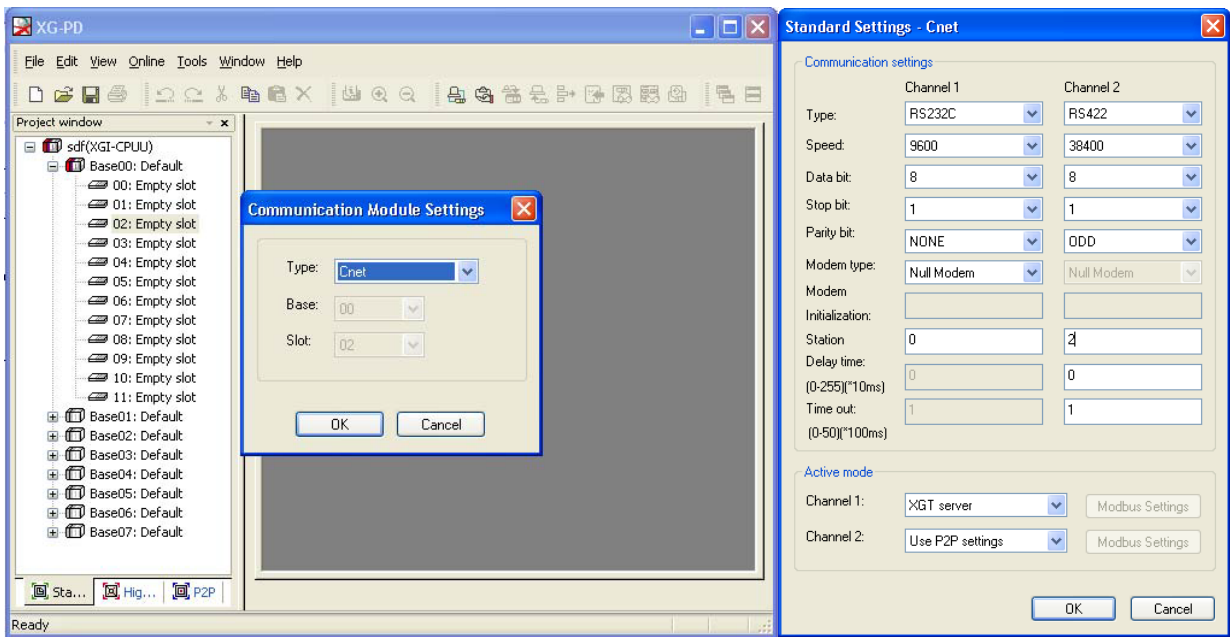
- A, F, I, M, Q, R, W

10.3.2 Link method: Cnet

(1) PLC Setting

Set Cnet communication parameter of the PLC through XG-PD. (Refer to XGT Cnet instruction manual)

Set Cnet as below.



Set up communication parameters to the channel for the use of the communication. Select XGT server at the operation mode.

When write is done and PLC is reset, setting is done.

Notice

1.Communication state check

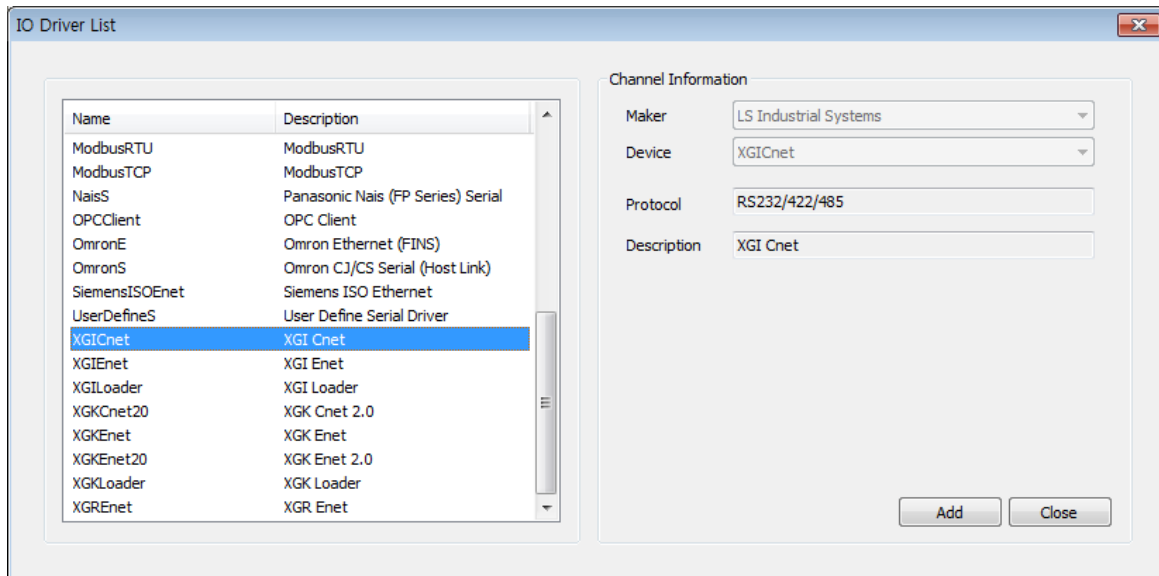
- ☞ XG-PD has a monitoring function. Communication data may be checked using this function.
- ☞ There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.

2.Cautions when setting PLC

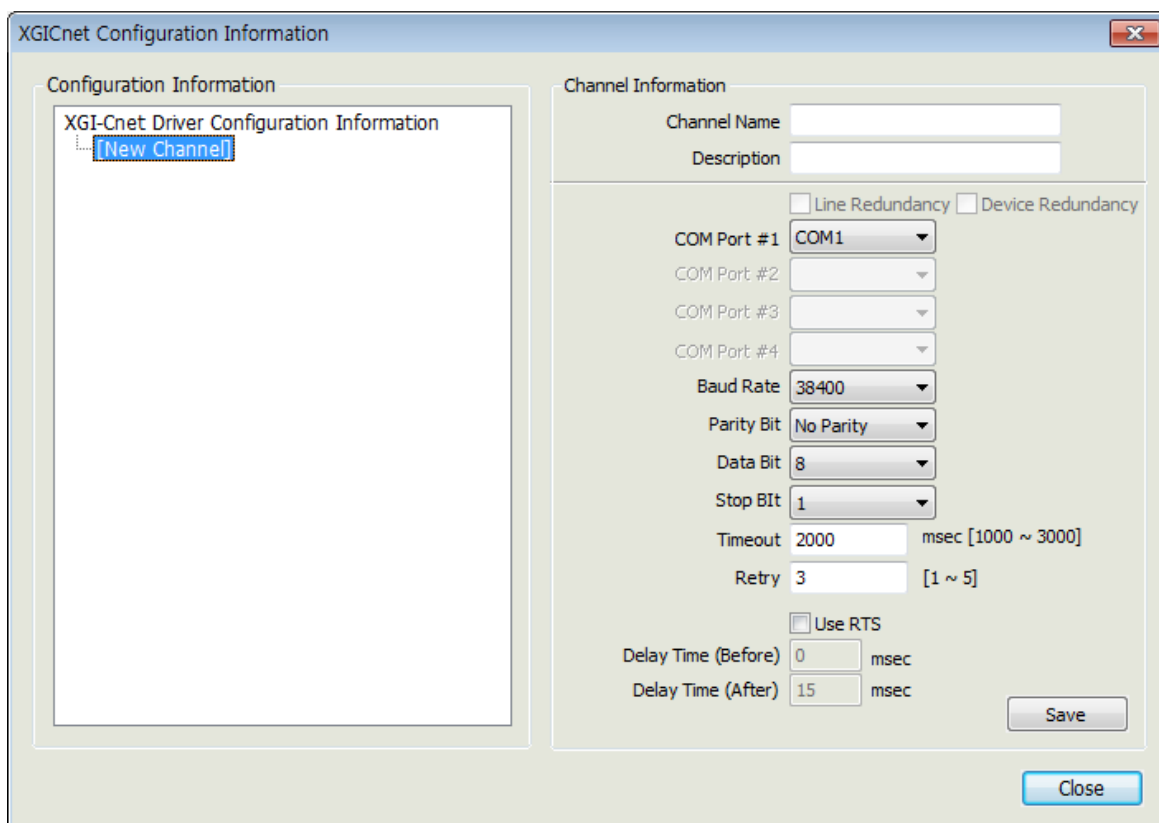
- ☞ Be sure to reset the PLC after setting the communication parameter.
- ☞ This manual explains in brief. Please refer to XGT Cnet operating manual.
- ☞ Even if you use only one channel, you should set up parameters of the other channel.

(2) InfoU Setting: XGICnet

1) Add Channel



Select “XGICnet” from the I/O driver list and press “Add”.



- Channel Name: Input a channel name.
- Description: Input some information on the channel.
- COM Port #1: Select a communication port.
- Baud Rate: Select a communication speed.
- Parity Bit: Select a parity bit.

- Data Bit: Select a data bit.
- Stop Bit: Select a stop bit.
- Time Out: It refers to a certain time period during which any response to the request for data is not made and after passing such a time period, the system will declare timeout to move on to the next process. The time period to be set will be a base to judge communication errors.
- Retry: Set up the number of times to retry when communication fails.
- Use RTS: Check ☒ in the box only when using Channel 485 and 422.
- Delay Time (Before): Information used only in Channel 485 and 422. The delay time right before requesting Data to PLC.
- Delay Time (After): Information used only in Channel 485 and 422. The delay time right after requesting Data to PLC.
- Save: If 'Save' button is pressed, Channel information will be saved and the saved information will add to the left "Configuration Information" tree.

XGICnet Configuration Information

Configuration Information

- XGI-Cnet Driver Configuration Information
 - [New Channel]
 - XGICnet**
 - [New Station]

Channel Information

Channel Name: XGICnet

Description:

☐ Line Redundancy ☐ Device Redundancy

COM Port #1: COM1

COM Port #2:

COM Port #3:

COM Port #4:

Baud Rate: 38400

Parity Bit: No Parity

Data Bit: 8

Stop Bit: 1

Timeout: 2000 msec [1000 ~ 3000]

Retry: 3 [1 ~ 5]

☐ Use RTS

Delay Time (Before): 0 msec

Delay Time (After): 15 msec

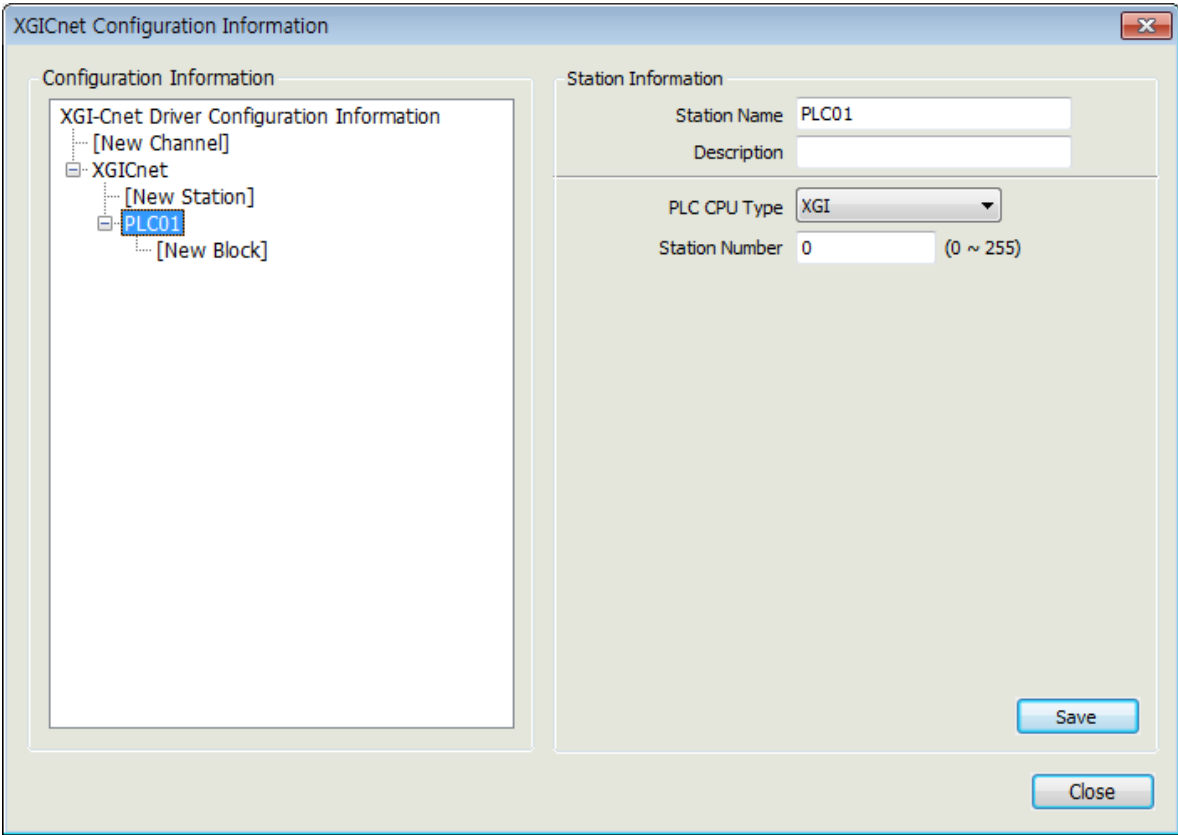
Save

Close

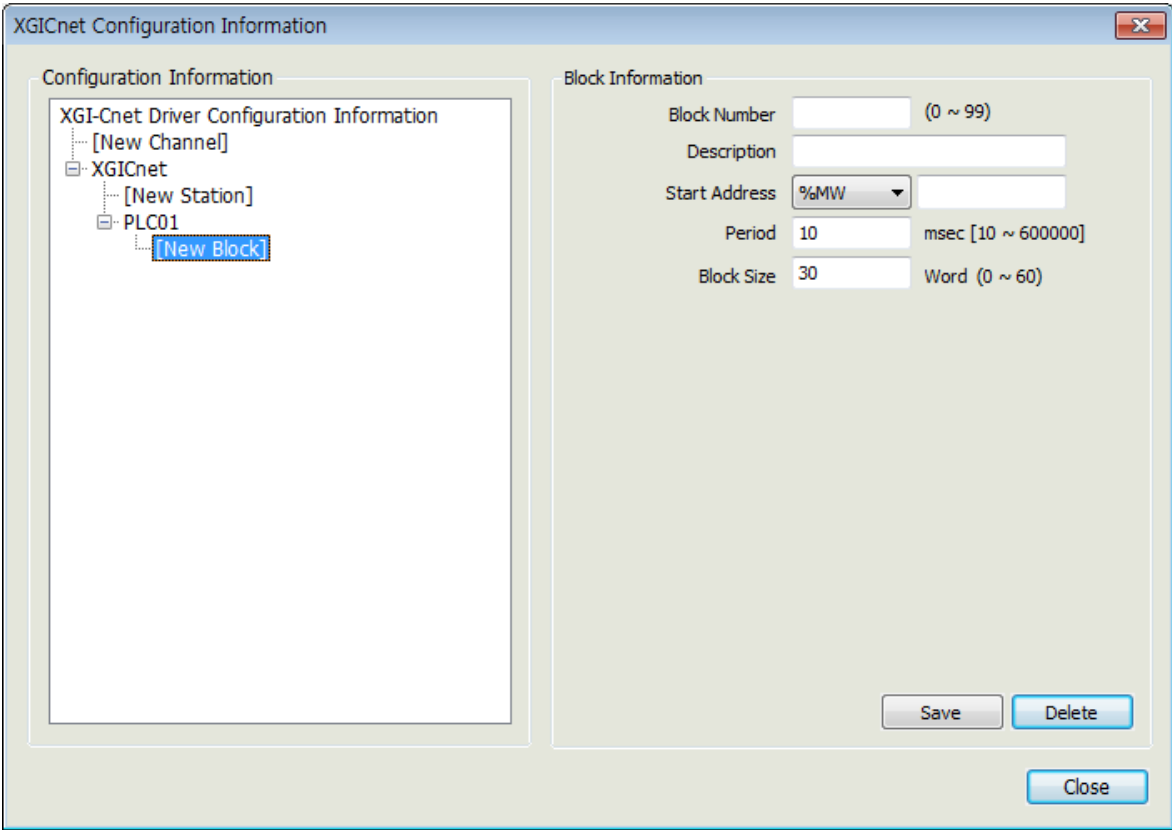
2) Add Station

The screenshot shows the 'XGICnet Configuration Information' dialog box. On the left, under 'Configuration Information', the tree structure shows 'XGI-Cnet Driver Configuration Information' expanded, with '[New Channel]' and 'XGICnet' listed. 'XGICnet' is expanded to show '[New Station]'. On the right, under 'Station Information', there are input fields for 'Station Name', 'Description', a 'PLC CPU Type' dropdown menu (set to 'XGI'), and a 'Station Number' input field (set to '0' with a range of '0 ~ 255'). At the bottom right of the dialog are 'Save' and 'Close' buttons.

- Select [New Station] from “Configuration Information” tree.
- Station Name: Input a station name.
- Description: Input some information on the station.
- PLC CPU Type: Select a PLC CPU type.
- Station Number: Input the prefix number of PLC Cnet Module.
- Save: If ‘Save’ button is pressed, Station information will be saved and the saved information will add to the left “Configuration Information” tree.

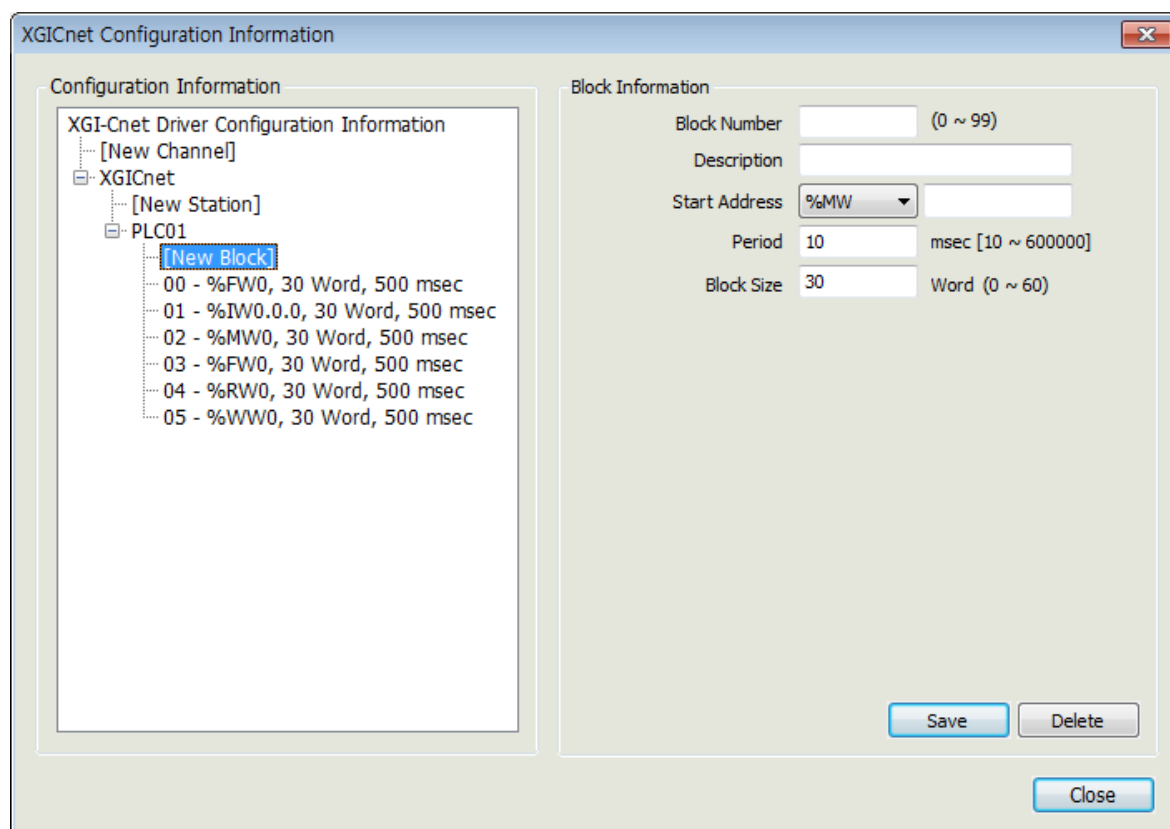


3) Add Block



- Select [New Block] from “Configuration Information” tree.

- **Block Number:** This number is a unique code of the block. The user needs to designate a different code to each block.
- **Description:** Input some information on the block.
- **Start Address:** Input the Block's Start Address. There are six kinds and each address is designated as the following ways respectively:
 - Right example: %MW0, %MW20, %IW0.0.0, %QW1.0.0
 - Wrong example: %MW0.0.0, %IW0, %QW0
- **Period:** Input an interval to collect data of the relevant block (unit: msec).
- **Block Size:** Input a block size of the relevant block (unit: Word (2 byte)).
- **Save:** If 'Save' button is pressed, Block information will be saved and the saved information will add to the left "Configuration Information" tree.
- **Delete:** If "Delete" button is pressed, the currently selected Block will be deleted.



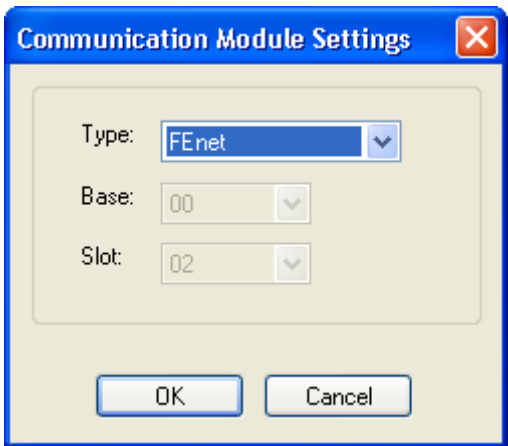
4) I/O Address

- **Type**
 - Analog: %MX0, %MB0, %MW0, %MD0, %ML0, %IW0.0.0, %QW0.0.0
 - Digital: %MB0.0, %MW0.0, %MD0.0, %ML0.0, %IX0.0.0, %QX0.0.0
- **Available devices**
 - A, F, I, M, Q, R, W

10.3.3 Link method: FEnet

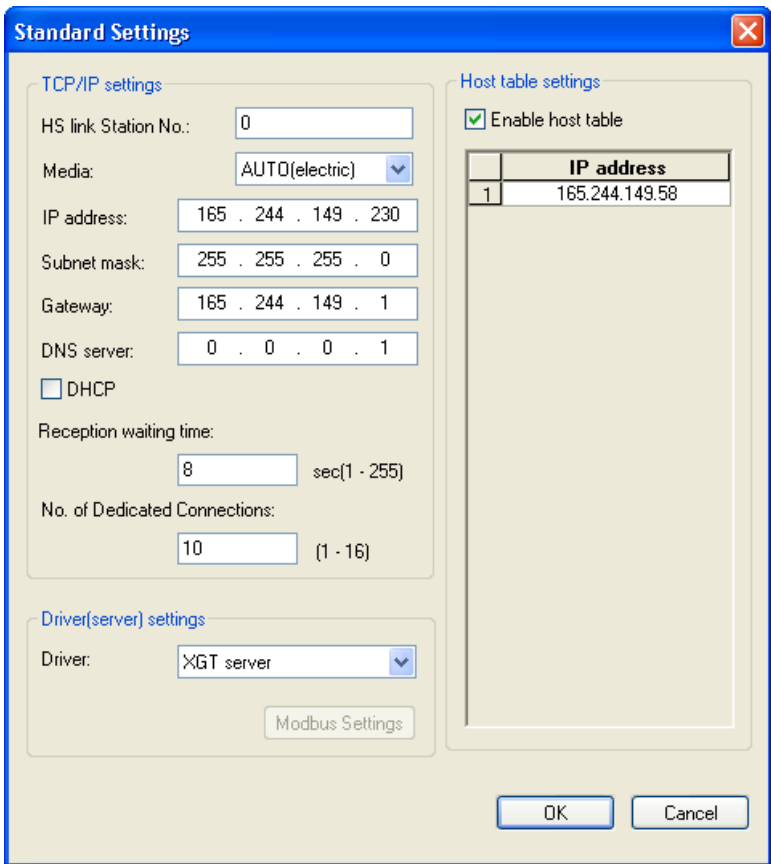
(1) PLC Setting

Set up FEnet communication parameters on the XG-PD. (Refer to XGT FEnet operating manual.)



Set up as FEnet for the communication module.

Write communication parameters such as an IP address and a gateway. Select XGT server at the driver setting.



When write is done and PLC is reset, setting is done.

Notice

Communication state check

There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.

(2) InfoU Setting: XGIEnet

1) Add Channel

IO Driver List

Name	Description
ModbusRTU	ModbusRTU
ModbusTCP	ModbusTCP
NaisS	Panasonic Nais (FP Series) Serial
OPCCClient	OPC Client
OmronE	Omron Ethernet (FINS)
OmronS	Omron CJ/CS Serial (Host Link)
SiemensISOEnet	Siemens ISO Ethernet
UserDefineS	User Define Serial Driver
XGICnet	XGI Cnet
XGIEnet	XGI Enet
XGILoader	XGI Loader
XGKCnet20	XGK Cnet 2.0
XGKEnet	XGK Enet
XGKEnet20	XGK Enet 2.0
XGKLoader	XGK Loader
XGREnet	XGR Enet

Channel Information

Maker: LS Industrial Systems
 Device: XGIEnet
 Protocol: TCP/UDP
 Description: XGI Enet

Add Close

Select "XGIEnet" from the I/O driver list and press "Add".

XGIEnet Configuration Information

Configuration Information

XGI-Enet Driver Configuration Information

[New Channel]

Channel Information

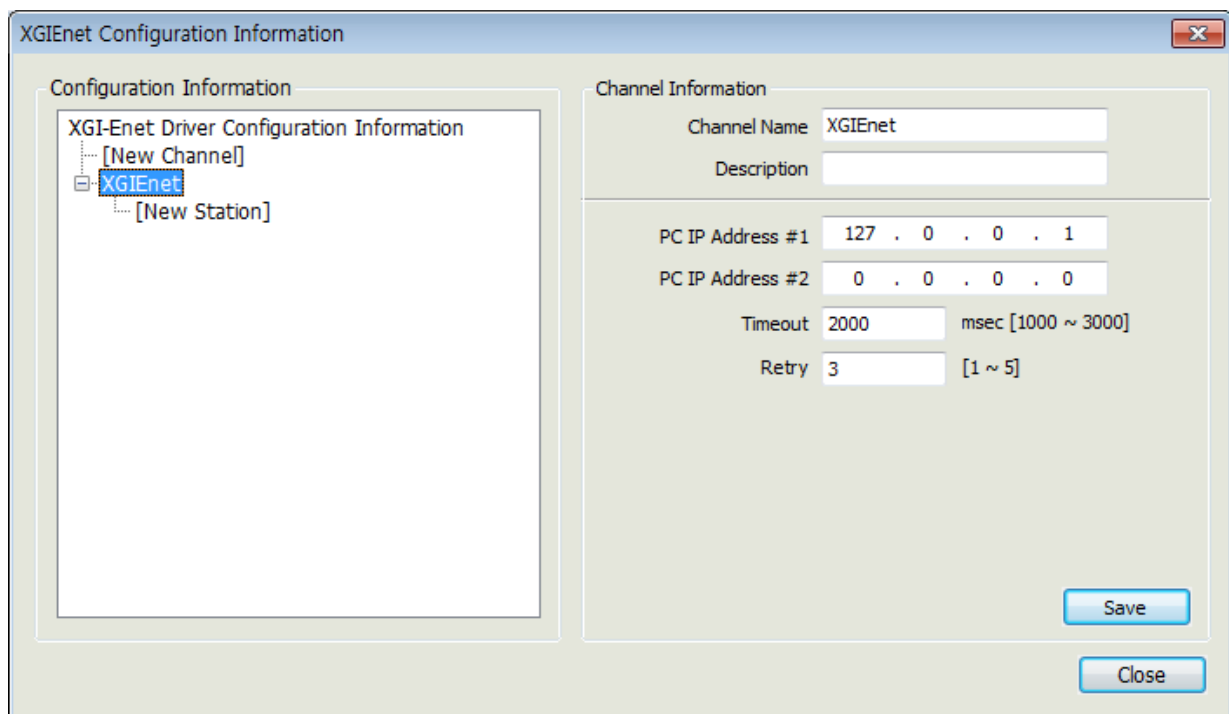
Channel Name:
 Description:

PC IP Address #1: 127 . 0 . 0 . 1
 PC IP Address #2: 0 . 0 . 0 . 0

Timeout: 2000 msec [1000 ~ 3000]
 Retry: 3 [1 ~ 5]

Save Close

- Channel Name: Input a channel name.
- Description: Input some information on the channel.
- Serve IP Address #1: Input PC's IP Address.
- Server IP Address #2: If Line Redundancy will be used, input the second IP Address to be used.
- Time Out: It refers to a certain time period during which any response to the request for data is not made and after passing such a time period, the system will declare timeout to move on to the next process. The time period to be set will be a base to judge communication errors.
- Retry: Set up the number of times to retry when communication fails.
- Save: If 'Save' button is pressed, Channel information will be saved and the saved information will add to the left "Configuration Information" tree.



The image shows a software window titled "XGEnet Configuration Information". It is divided into two main sections: "Configuration Information" on the left and "Channel Information" on the right.

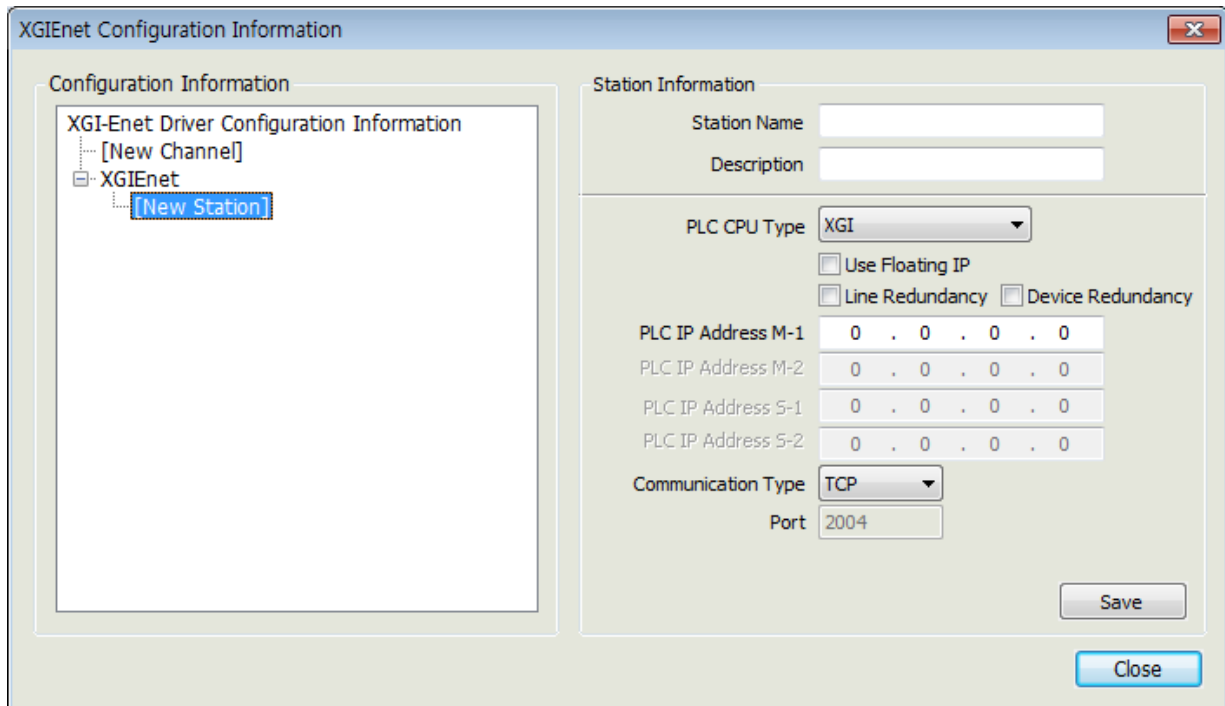
Configuration Information: This section contains a tree view under the heading "XGI-Enet Driver Configuration Information". The tree has a root node "[New Channel]", which has a sub-node "XGIEnet" (highlighted with a blue selection box), which in turn has a sub-node "[New Station]".

Channel Information: This section contains several input fields for configuring the channel:

- Channel Name:** A text box containing "XGIEnet".
- Description:** An empty text box.
- PC IP Address #1:** A text box containing "127 . 0 . 0 . 1".
- PC IP Address #2:** A text box containing "0 . 0 . 0 . 0".
- Timeout:** A text box containing "2000" followed by the unit "msec [1000 ~ 3000]".
- Retry:** A text box containing "3" followed by the range "[1 ~ 5]".

At the bottom right of the "Channel Information" section, there are two buttons: "Save" and "Close".

2) Add Station



The dialog box is titled "XGEnet Configuration Information". It is divided into two main sections: "Configuration Information" on the left and "Station Information" on the right.

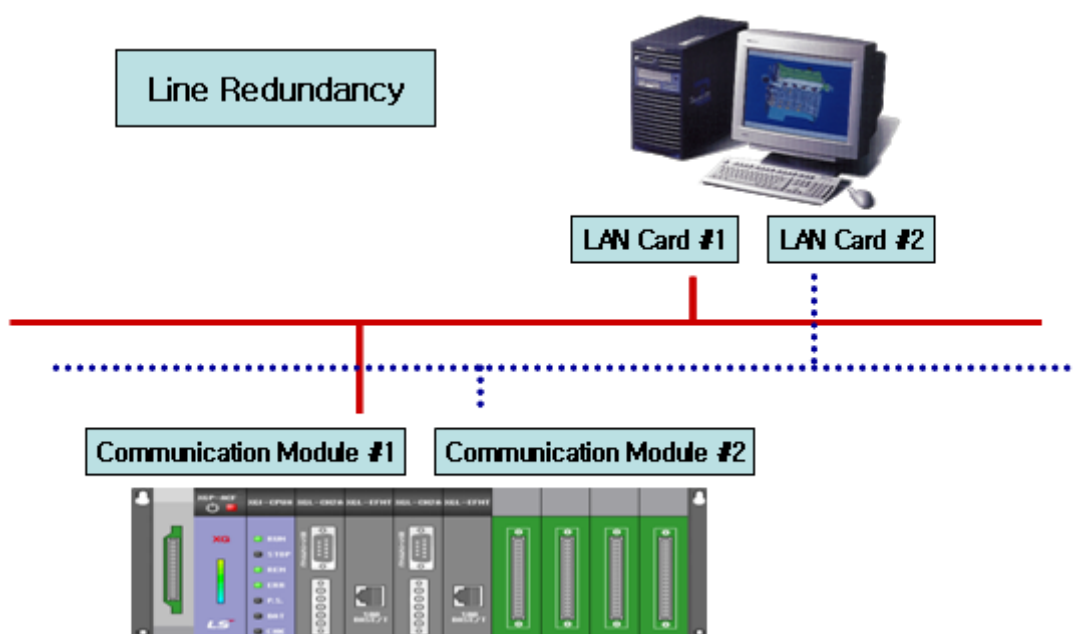
Configuration Information: A tree view shows "XGI-Enet Driver Configuration Information" expanded, with sub-items "[New Channel]" and "XGEnet". Under "XGEnet", "[New Station]" is selected and highlighted with a blue border.

Station Information: This section contains several input fields and checkboxes:

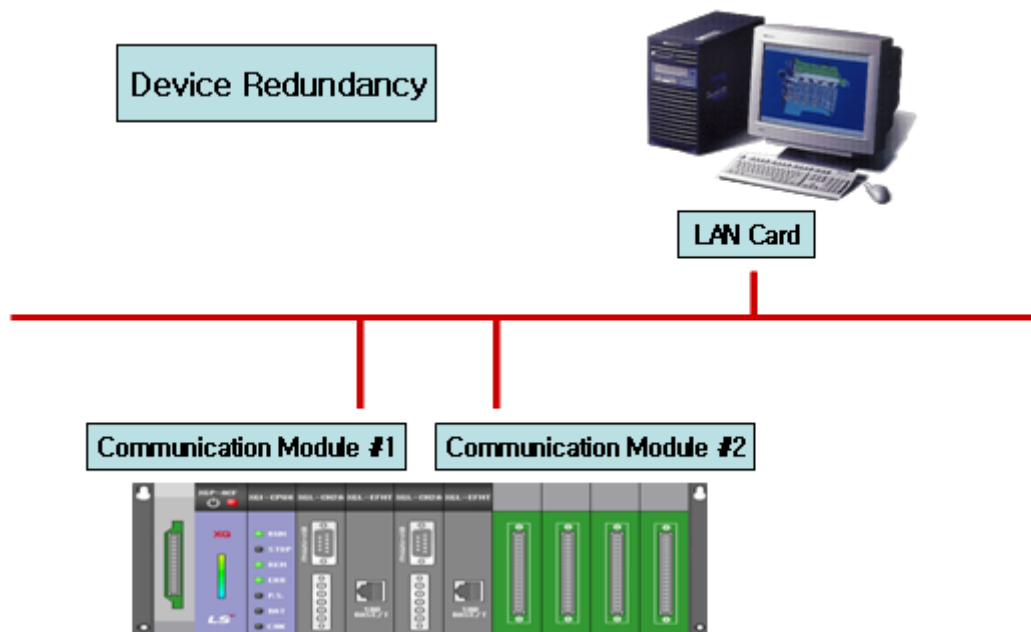
- Station Name:** A text input field.
- Description:** A text input field.
- PLC CPU Type:** A dropdown menu currently set to "XGI".
- Use Floating IP:** An unchecked checkbox.
- Line Redundancy:** An unchecked checkbox.
- Device Redundancy:** An unchecked checkbox.
- PLC IP Address M-1:** A field showing "0 . 0 . 0 . 0".
- PLC IP Address M-2:** A field showing "0 . 0 . 0 . 0".
- PLC IP Address S-1:** A field showing "0 . 0 . 0 . 0".
- PLC IP Address S-2:** A field showing "0 . 0 . 0 . 0".
- Communication Type:** A dropdown menu currently set to "TCP".
- Port:** A field showing "2004".

At the bottom right of the dialog box are two buttons: "Save" and "Close".

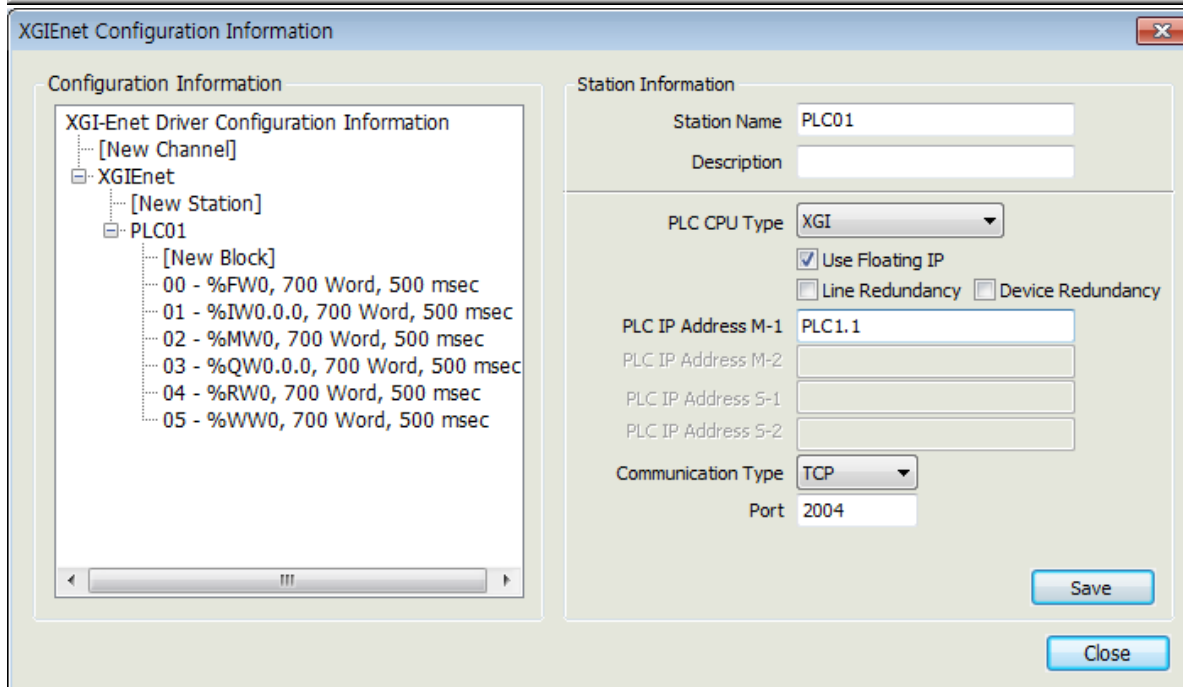
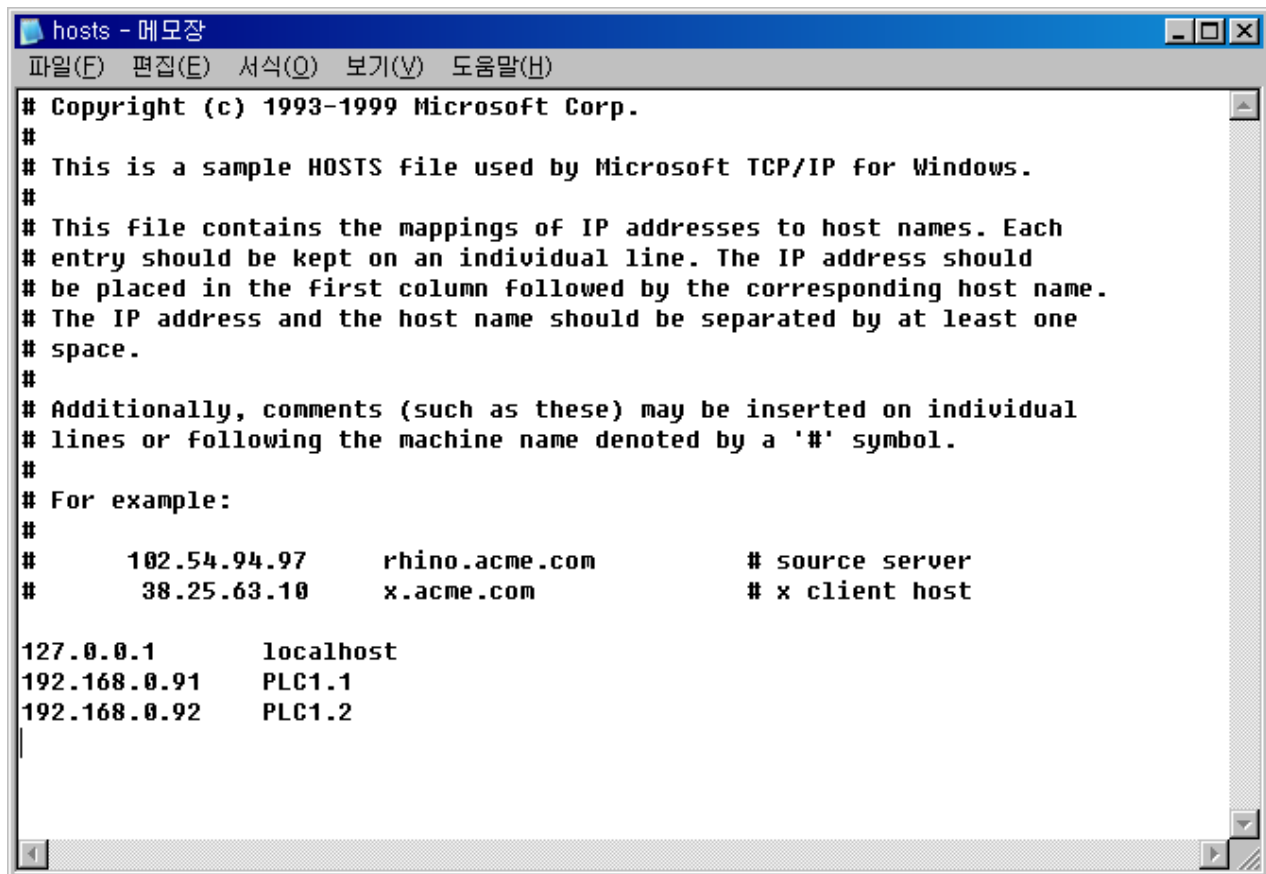
- Select [New Station] from "Configuration Information" tree.
- Station Name: Input a station name.
- Description: Input some information on the station.
- PLC CPU Type: Select a PLC CPU type.
- Line Redundancy: Check ☒ in the box to use Line Redundancy. It is used when the network is intended to be separated and communicated as seen in the figure below by installing two LAN cards on the computer and two Enet communication modules on PLC. It is a redundancy option for any failure in the network line.



- **Device Redundancy:** Check ☒ in the box to use Device Redundancy. It is used when the communication module is separated as seen in the figure below by installing one LAN card on the computer and two Enet communication modules on PLC. It is a redundancy option for any failure in the PLC communication module.



- **PLC IP Address #1-1:** Input PLC's IP Address.
- **PLC IP Address #1-2:** Input PLC's IP Address. Input the address when using Device Redundancy.
- **PLC IP Address #2-1:** Input PLC's IP Address. Input the address when using Device Redundancy.
- **PLC IP Address #2-2:** Input PLC's IP Address. Input the address when using Line Redundancy along with Device Redundancy.
- **Communication Type:** Select either TCP or UDP.
- **Port:** The port number is automatically inputted according to the selected communication type.
- **Flexible IP Support:** Check the following if the user wants to use a flexible IP. A flexible IP uses hosts files to communicate and they are located in C:\WINDOWS\system32\drivers\etc. Once they are saved as follow, set up a flexible IP according to the inst



●Save: If 'Save' button is pressed, Station information will be saved and the saved information will add to the left "Configuration Information" tree.

The dialog box is titled "XGEnet Configuration Information". It has two main sections: "Configuration Information" on the left and "Station Information" on the right.

Configuration Information: A tree view showing the hierarchy: XGI-Enet Driver Configuration Information > [New Channel] > XGEnet > [New Station] > PLC01 > [New Block]. The "PLC01" node is selected.

Station Information:

- Station Name: PLC01
- Description: (empty)
- PLC CPU Type: XGI (dropdown)
- ☐ Use Floating IP
- ☐ Line Redundancy ☐ Device Redundancy
- PLC IP Address M-1: 192 . 168 . 0 . 91
- PLC IP Address M-2: 0 . 0 . 0 . 0
- PLC IP Address S-1: 0 . 0 . 0 . 0
- PLC IP Address S-2: 0 . 0 . 0 . 0
- Communication Type: TCP (dropdown)
- Port: 2004

Buttons: Save, Close.

3) Add Block

The dialog box is titled "XGEnet Configuration Information". It has two main sections: "Configuration Information" on the left and "Block Information" on the right.

Configuration Information: A tree view showing the hierarchy: XGI-Enet Driver Configuration Information > [New Channel] > XGEnet > [New Station] > PLC01 > [New Block]. The "[New Block]" node is selected.

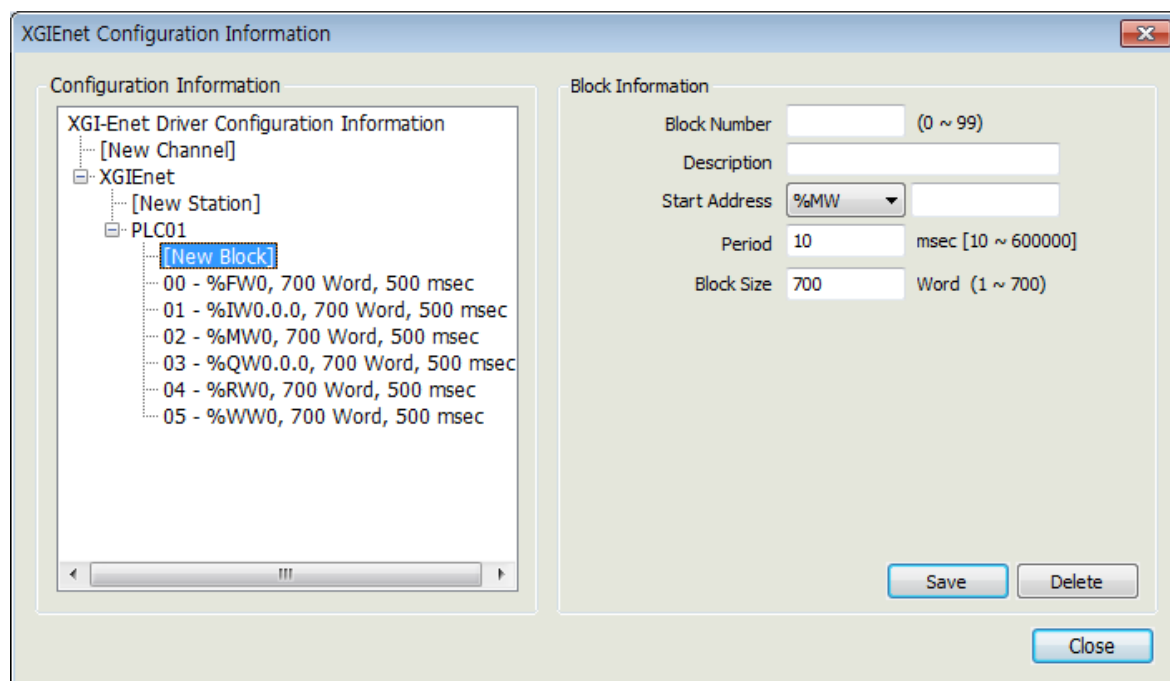
Block Information:

- Block Number: (empty) (0 ~ 99)
- Description: (empty)
- Start Address: %MW (dropdown) (empty)
- Period: 10 msec [10 ~ 600000]
- Block Size: 700 Word (1 ~ 700)

Buttons: Save, Delete, Close.

- Select [New Block] from "Configuration Information" tree.
- Block Number: This number is a unique code of the block. The user needs to designate a different code to each block.
- Description: Input some information on the block.
- Start Address: Input the Block's Start Address. There are six kinds and each address is designated as the following ways respectively:
 - Right example: %MW0, %MW20, %IW0.0.0, %QW1.0.0
 - Wrong example: %MW0.0.0, %IW0, %QW0

- Period: Input an interval to collect data of the relevant block (unit: msec).
- Block Size: Input a block size of the relevant block (unit: Word (2 byte)).
- Save: If 'Save' button is pressed, Block information will be saved and the saved information will add to the left "Configuration Information" tree.
- Delete: If "Delete" button is pressed, the currently selected Block will be deleted.



4) I/O Address

- Type
 - Analog: %MX0, %MB0, %MW0, %MD0, %ML0, %IW0.0.0, %QW0.0.0
 - Digital: %MB0.0, %MW0.0, %MD0.0, %ML0.0, %IX0.0.0, %QX0.0.0
- Available devices
 - A, F, I, K, L, M, N, Q, R, U, W

(3) InfoU Setting: XGREnet

Refer to XGIEnet manual.

10.4 Available Device

Available devices of the InfoU are as below.

Area	Size	Bit points	Word data
%IX	131072 point	%IX0.0.0 ~ %IX127.15.63	-
%QX	131072 point	%QX0.0.0 ~ %QX127.15.63	-
%MX	2097152 point	%MX0 ~ %MX2097151	-
%WX	8388608 point	%WX0 ~ %WX8388607	-
%FX	32768 point	%FX0 ~ %FX32767	-
%KX	132960 point	%KX0 ~ %KX132959	-
%LX	180224 point	%LX0 ~ %LX180223	-
%RX	524288 point	%RX0 ~ %RX524287	-
%AX	4194304 point	%AX0 ~ %AX4194303	-
%UX	1048576 point	%UX0.0.0 ~ %UX7.15.511	-
%IW	8192 word	-	%IW0.0.0 ~ %IW127.15.3
%QW	8192 word	-	%QW0.0.0 ~ %QW127.15.3
%MW	131072 word	%MW0.0 ~ %MW131071.15	%MW0 ~ %MW131071
%WW	524288 word	%WW0.0 ~ %WW512287.15	%WW0 ~ %WW524287
%FW	2048 word	%FW0.0 ~ %FW2047.15	%FW0 ~ %FW2047
%KW	8310 word	%KW0.0 ~ %KW8309.15	%KW0 ~ %KW8309
%LW	11264 word	%LW0.0 ~ %LW11263.15	%LW0 ~ %LW11263
%RW	32768 word	%RW0.0 ~ %RW32767.15	%RW0 ~ %RW32767
%AW	262144 word	%AW0.0 ~ %AW262143.15	%AW0 ~ %AW262143
%UW	65536 word	-	%UW0.0.0 ~ %UW7.15.31

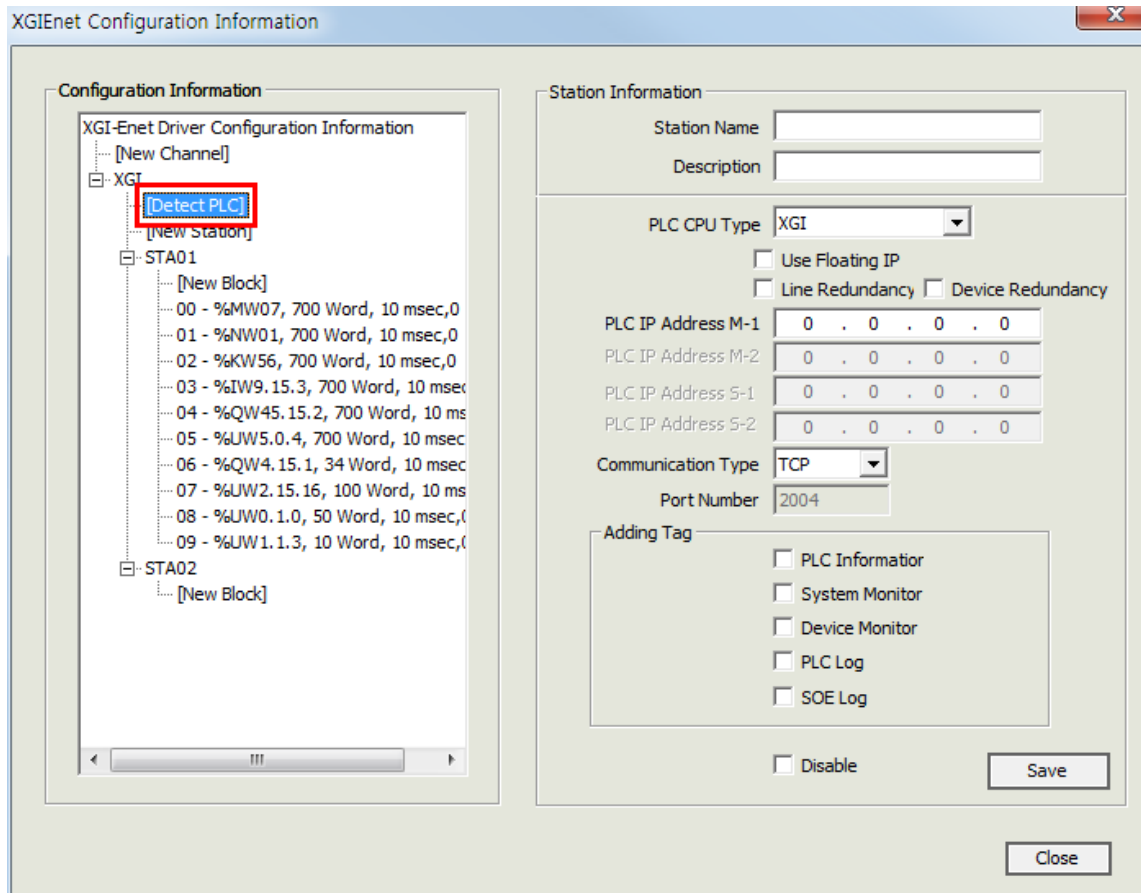
Notice

- Please make sure to use the device within the range.
- Device range may differ according to the CPU module. Refer to each CPU module’s instruction manual.

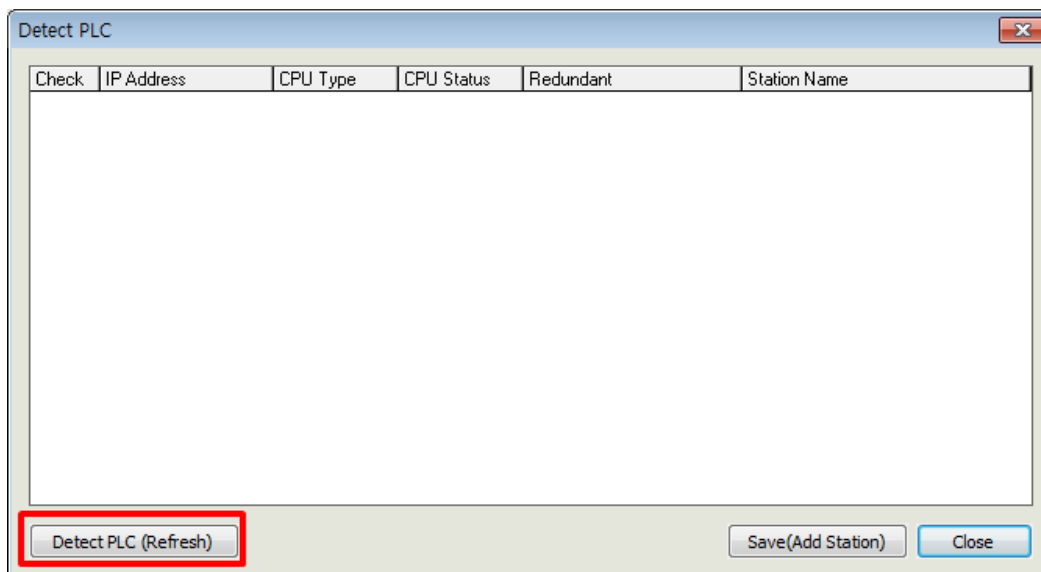
10.5 Automatic Setting Diagnostics

10.5.1 PLC search and information inquiry

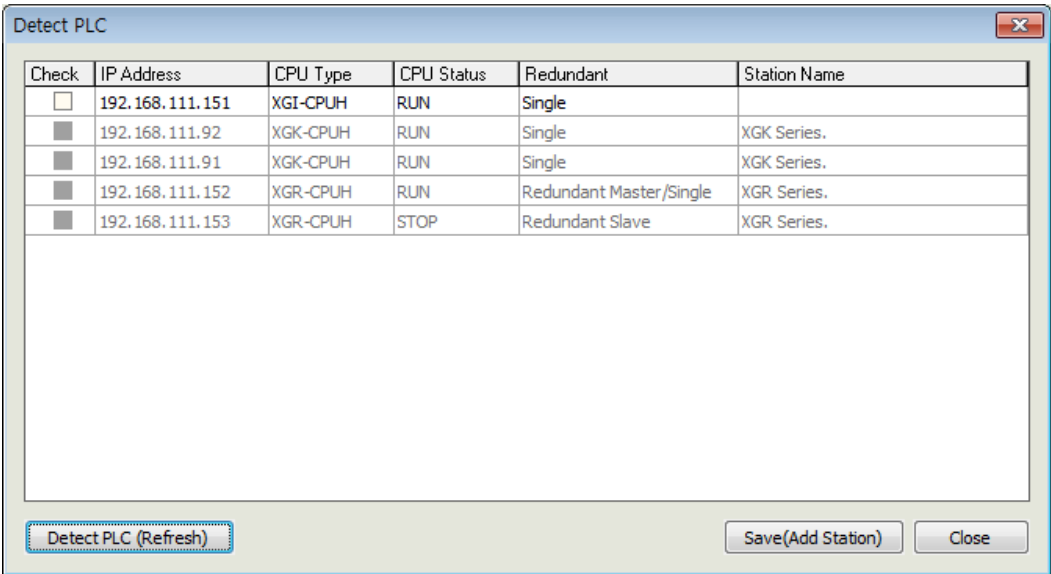
(1) PLC search and information inquiry (XGI)



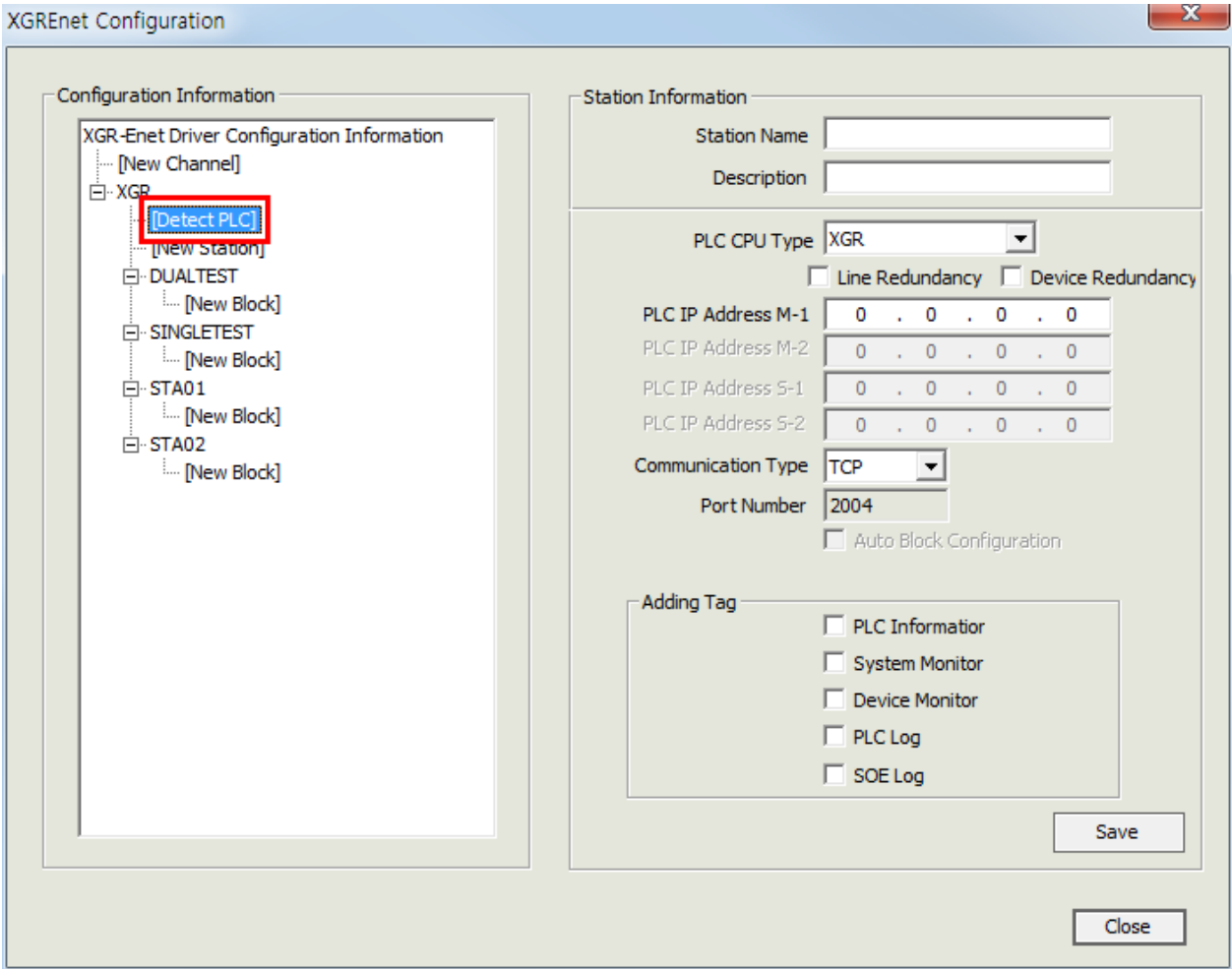
Double click [Delete PLC] in the XGEnet communication driver registration information tree and the window appears on the screen as shown below.



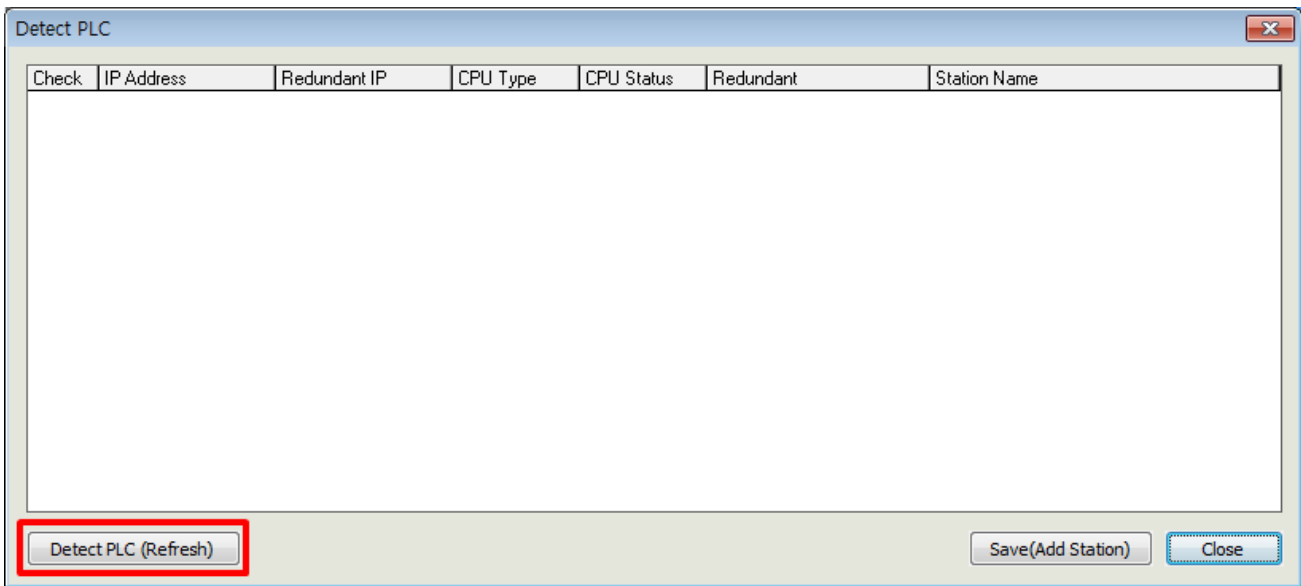
Click "Detect PLC (Refresh)" button, and PLC on the same network is detected and displayed on the screen.



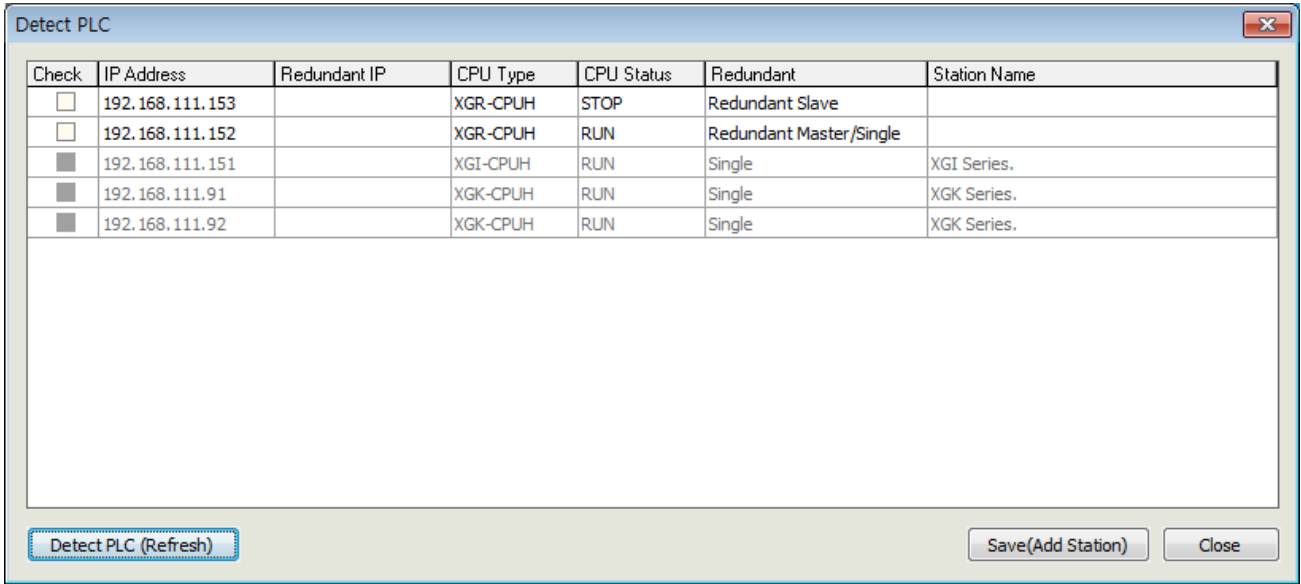
(2) PLC search and information inquiry (XGR)



Double click [Delete PLC] in the XGEnet communication driver registration information tree and the window appears on the screen as shown below.



Click “Detect PLC (Refresh)” button, and PLC on the same network is detected and displayed on the screen.



Notice

- ☞ Only PLC connected on the same network with PC in which InfoU is installed is detected. (XGK, XGI and XGR are only supported)
- ☞ XGL-EFMT Ethernet module must be installed on the PLC system and connected to the network.

10.5.2 Station registration

(1) Station registration (XGI)

10.5.1 Check PLC items you wish to add from the list of PLC detected through the PLC search and information inquiry and enter the Station Name.

Detect PLC

Check	IP Address	CPU Type	CPU Status	Redundant	Station Name
<input checked="" type="checkbox"/>	192.168.111.151	XGI-CPUH	RUN	Single	AutoStation
<input type="checkbox"/>	192.168.111.92	XGK-CPUH	RUN	Single	XGK Series.
<input type="checkbox"/>	192.168.111.91	XGK-CPUH	RUN	Single	XGK Series.
<input type="checkbox"/>	192.168.111.152	XGR-CPUH	RUN	Redundant Master/Single	XGR Series.
<input type="checkbox"/>	192.168.111.153	XGR-CPUH	STOP	Redundant Slave	XGR Series.

Detect PLC (Refresh) Save(Add Station) Close

The added stations are registered on the XGInet driver registration information tree and displayed on the screen.

The screenshot displays the XG5000 Configuration Manager interface. On the left, the 'Configuration Information' pane shows a tree structure where 'AUTOSTATION' is highlighted under the 'XGI-Ethernet' section. The right pane, titled 'Station Information', contains the following details:

- Station Name:** AUTOSTATION
- Description:** (empty field)
- PLC CPU Type:** XGI (selected from a dropdown)
- Use Floating IP:** ☐
- Line Redundancy:** ☐ **Device Redundancy:** ☐
- PLC IP Address M-1:** 192 . 168 . 111 . 151
- PLC IP Address M-2:** 0 . 0 . 0 . 0
- PLC IP Address S-1:** 0 . 0 . 0 . 0
- PLC IP Address S-2:** 0 . 0 . 0 . 0
- Communication Type:** TCP (selected from a dropdown)
- Port Number:** 2004
- Adding Tag:**
 - ☐ PLC Information
 - ☐ System Monitor
 - ☐ Device Monitor
 - ☐ PLC Log
 - ☐ SOE Log
- Disable:** ☐
- Save:** (button)

At the bottom right of the window, there is a 'Close' button.

(2) Station registration (XGR)

10.5.1 Check PLC items you wish to add from the list of PLC detected through the PLC search and information inquiry and enter the Station Name.

Check	IP Address	Redundant IP	CPU Type	CPU Status	Redundant	Station Name
<input checked="" type="checkbox"/>	192.168.111.152	192.168.111.153	XGR-CPUH	RUN	Redundant Master/Single	AutoStation
<input type="checkbox"/>	192.168.111.153		XGR-CPUH	STOP	Redundant Slave	
<input type="checkbox"/>	192.168.111.151		XGI-CPUH	RUN	Single	XGI Series.
<input type="checkbox"/>	192.168.111.92		XGK-CPUH	RUN	Single	XGK Series.
<input type="checkbox"/>	192.168.111.91		XGK-CPUH	RUN	Single	XGK Series.

Buttons: Detect PLC (Refresh), Save(Add Station), Close

In the case of the XGR PLC redundancy environment, enter the standby PLC IP into the “Redundant IP”. The input value is entered in the “PLC IP Address S-1” of the Station information.

The added Station is registered in the XGEnet driver information tree and displayed on the screen.

Configuration Information

- XGR-Enet Driver Configuration Information
 - [New Channel]
 - XGR
 - [Detect PLC]
 - [New Station]
 - AUTOSTATION**
 - [New Block]
 - DUALTEST
 - [New Block]
 - SINGLETTEST
 - [New Block]
 - STA01
 - [New Block]
 - STA02
 - [New Block]

Station Information

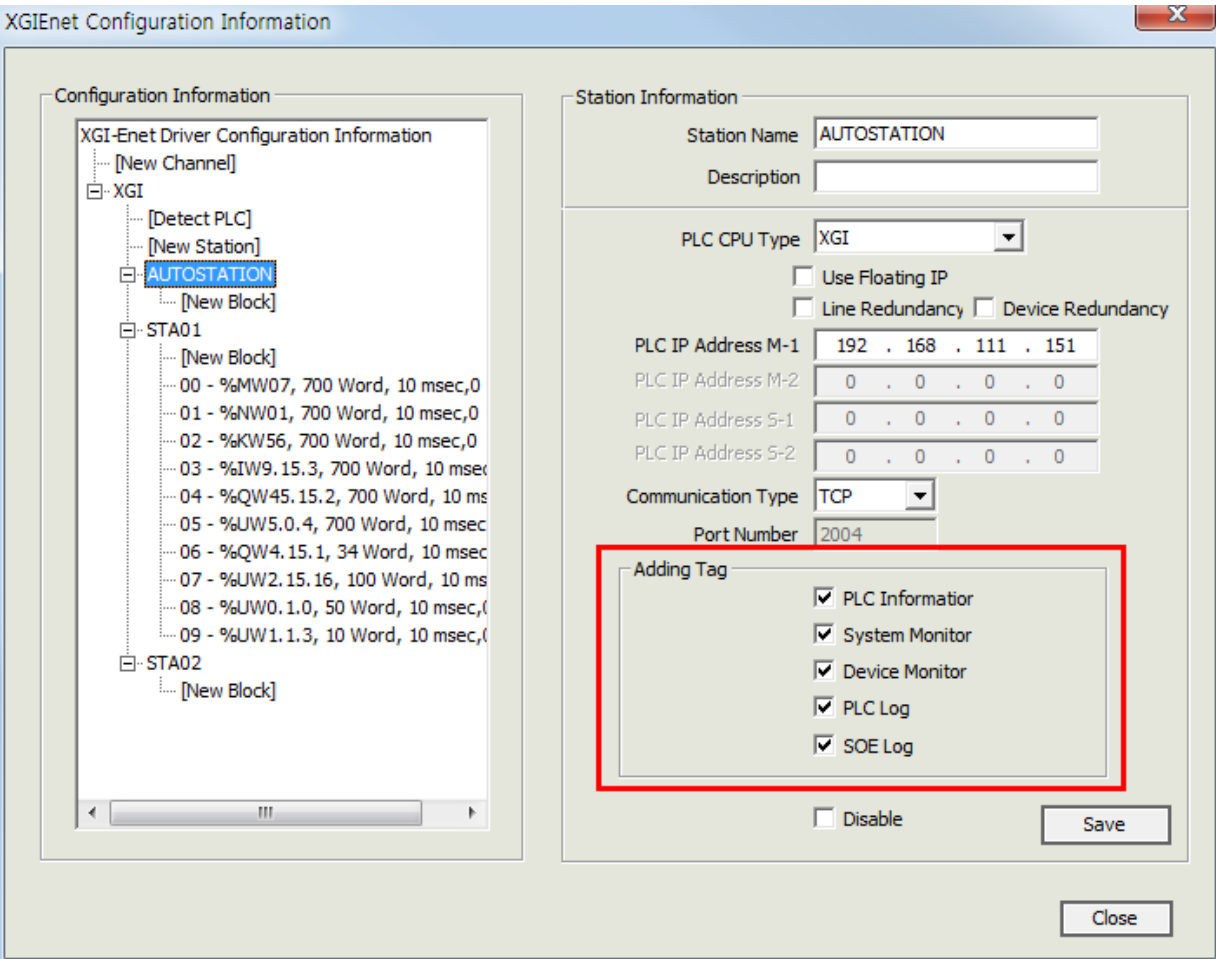
Station Name: AUTOSTATION
 Description:
 PLC CPU Type: XGR
☐ Line Redundancy ☒ Device Redundancy
 PLC IP Address M-1: 192 . 168 . 111 . 152
 PLC IP Address M-2: 0 . 0 . 0 . 0
 PLC IP Address S-1: 192 . 168 . 111 . 153
 PLC IP Address S-2: 0 . 0 . 0 . 0
 Communication Type: TCP
 Port Number: 2004
☐ Auto Block Configuration
 Adding Tag:
☐ PLC Informator
☐ System Monitor
☐ Device Monitor
☐ PLC Log
☐ SOE Log
 Buttons: Save, Close

10.5.3 Adding tags by function

Automatic setting diagnostics support five functions, and tags to be added for each function are as follows.


Functions to support	List of tags to be added
PLC Information	[Channel Name]_[Station Name]_Auto_PI_CNF_ER [Channel Name]_[Station Name]_Auto_PI_CNF_WAR [Channel Name]_[Station Name]_Auto_PI_SYS_STATE [Channel Name]_[Station Name]_Auto_PI_SB_CNF_ER (Only XGR) [Channel Name]_[Station Name]_Auto_PI_SB_CNF_WAR (Only XGR) [Channel Name]_[Station Name]_Auto_PI_SB_SYS_STATE (Only XGR) [Channel Name]_[Station Name]_Auto_PI_REDUN_STATE (Only XGR)
System Monitor	[Channel Name]_[Station Name]_Auto_SM_BaseNo [Channel Name]_[Station Name]_Auto_SM_CpuInfo [Channel Name]_[Station Name]_Auto_SM_CpuType [Channel Name]_[Station Name]_Auto_SM_FEnetBaseNo [Channel Name]_[Station Name]_Auto_SM_FEnetSlotNo [Channel Name]_[Station Name]_Auto_SM_OperationError [Channel Name]_[Station Name]_Auto_SM_Redundant [Channel Name]_[Station Name]_Auto_SM_Slot00 [Channel Name]_[Station Name]_Auto_SM_Slot01 [Channel Name]_[Station Name]_Auto_SM_Slot02 [Channel Name]_[Station Name]_Auto_SM_Slot03 [Channel Name]_[Station Name]_Auto_SM_Slot04 [Channel Name]_[Station Name]_Auto_SM_Slot05 [Channel Name]_[Station Name]_Auto_SM_Slot06 [Channel Name]_[Station Name]_Auto_SM_Slot07 [Channel Name]_[Station Name]_Auto_SM_Slot08 [Channel Name]_[Station Name]_Auto_SM_Slot09 [Channel Name]_[Station Name]_Auto_SM_Slot10 [Channel Name]_[Station Name]_Auto_SM_Slot11 [Channel Name]_[Station Name]_Auto_SM_SystemStatus
Device Monitor	[Channel Name]_[Station Name]_Auto_DM_UserDevice00 [Channel Name]_[Station Name]_Auto_DM_UserDevice01 [Channel Name]_[Station Name]_Auto_DM_UserDevice02 [Channel Name]_[Station Name]_Auto_DM_UserDevice03 [Channel Name]_[Station Name]_Auto_DM_UserDevice04 [Channel Name]_[Station Name]_Auto_DM_UserDevice05 [Channel Name]_[Station Name]_Auto_DM_UserDevice06 [Channel Name]_[Station Name]_Auto_DM_UserDevice07

	[Channel Name]_[Station Name]_Auto_DM_UserDevice08 [Channel Name]_[Station Name]_Auto_DM_UserDevice09 [Channel Name]_[Station Name]_Auto_DM_UserDevice10 [Channel Name]_[Station Name]_Auto_DM_UserDevice11 [Channel Name]_[Station Name]_Auto_DM_UserDevice12 [Channel Name]_[Station Name]_Auto_DM_UserDevice13 [Channel Name]_[Station Name]_Auto_DM_UserDevice14 [Channel Name]_[Station Name]_Auto_DM_UserDevice15
PLC Log	[Channel Name]_[Station Name]_Auto_PL_USE_LOG
SOE Log	[Channel Name]_[Station Name]_Auto_SL_USE_SOE



Check the function you wish to use from the Station setting window and press the “Save” button, and tags corresponding to the selected functions are added.

Notice

 You must delete the tags added by the auto setup diagnostic function directly(manually) in the tag editor.
(Even if you uncheck it because you do not use the function, the added tags will not be deleted.)

Tag Editor [Manual_160202]

File(E)Tools(T)

Device Tag

IO Tag

XGI

AUTOSTATION

STA01

STA02

XGK

XGR

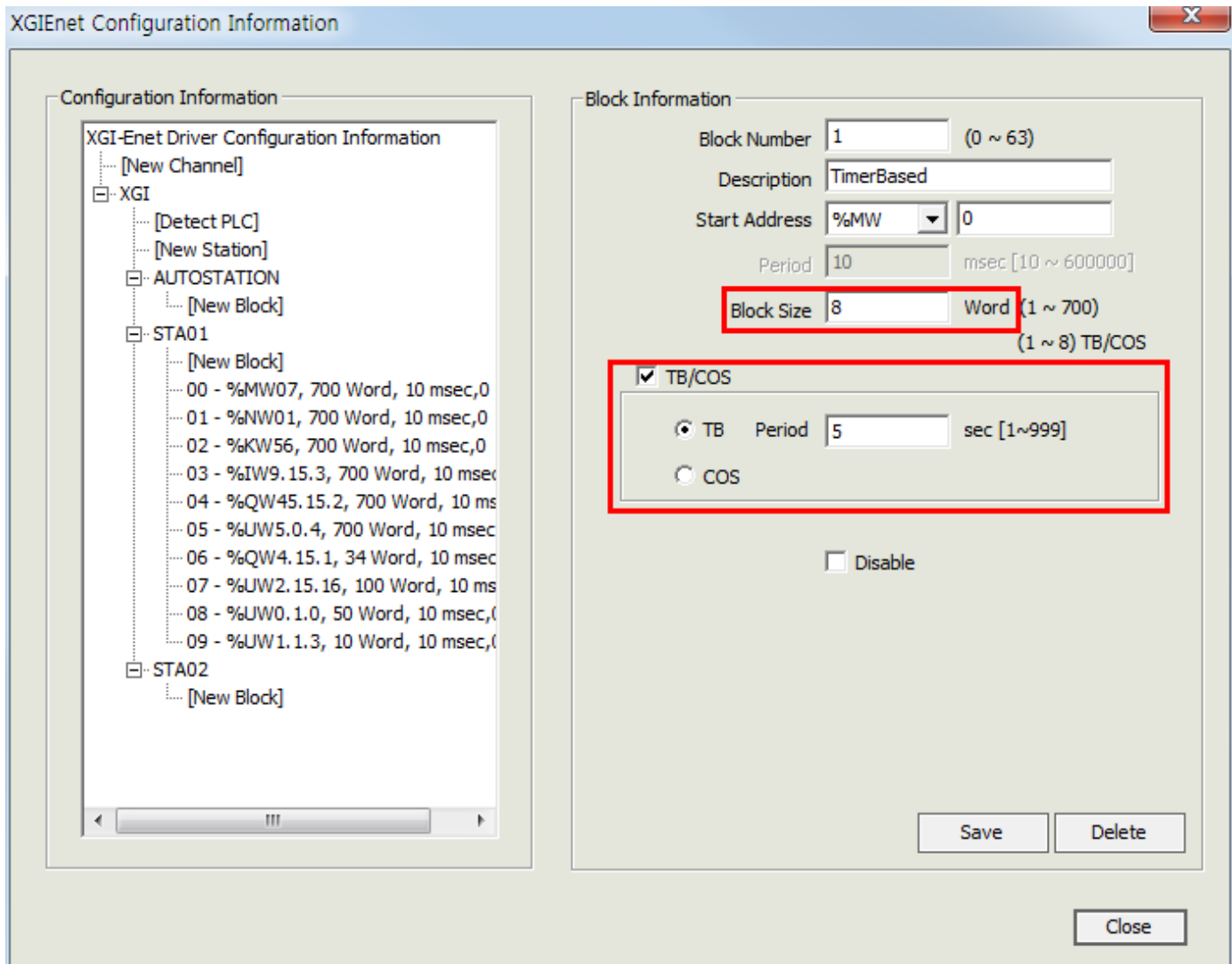
Memory Tag

Tag Name	Tag Type	Kind	Channel	Station	Address	
XGI_AUTOSTATION_Auto_DM_UserDevice00	String	General	XGI	AUTOSTATION	\$UserDevice00	U
XGI_AUTOSTATION_Auto_DM_UserDevice01	String	General	XGI	AUTOSTATION	\$UserDevice01	U
XGI_AUTOSTATION_Auto_DM_UserDevice02	String	General	XGI	AUTOSTATION	\$UserDevice02	U
XGI_AUTOSTATION_Auto_DM_UserDevice03	String	General	XGI	AUTOSTATION	\$UserDevice03	U
XGI_AUTOSTATION_Auto_DM_UserDevice04	String	General	XGI	AUTOSTATION	\$UserDevice04	U
XGI_AUTOSTATION_Auto_DM_UserDevice05	String	General	XGI	AUTOSTATION	\$UserDevice05	U
XGI_AUTOSTATION_Auto_DM_UserDevice06	String	General	XGI	AUTOSTATION	\$UserDevice06	U
XGI_AUTOSTATION_Auto_DM_UserDevice07	String	General	XGI	AUTOSTATION	\$UserDevice07	U
XGI_AUTOSTATION_Auto_DM_UserDevice08	String	General	XGI	AUTOSTATION	\$UserDevice08	U
XGI_AUTOSTATION_Auto_DM_UserDevice09	String	General	XGI	AUTOSTATION	\$UserDevice09	U
XGI_AUTOSTATION_Auto_DM_UserDevice10	String	General	XGI	AUTOSTATION	\$UserDevice10	U
XGI_AUTOSTATION_Auto_DM_UserDevice11	String	General	XGI	AUTOSTATION	\$UserDevice11	U
XGI_AUTOSTATION_Auto_DM_UserDevice12	String	General	XGI	AUTOSTATION	\$UserDevice12	U
XGI_AUTOSTATION_Auto_DM_UserDevice13	String	General	XGI	AUTOSTATION	\$UserDevice13	U
XGI_AUTOSTATION_Auto_DM_UserDevice14	String	General	XGI	AUTOSTATION	\$UserDevice14	U
XGI_AUTOSTATION_Auto_DM_UserDevice15	String	General	XGI	AUTOSTATION	\$UserDevice15	U
XGI_AUTOSTATION_Auto_PI_CNF_ER	Analog	General	XGI	AUTOSTATION	\$\$FD1	A
XGI_AUTOSTATION_Auto_PI_CNF_WAR	Analog	General	XGI	AUTOSTATION	\$\$FD2	A
XGI_AUTOSTATION_Auto_PI_SYS_STATE	Analog	General	XGI	AUTOSTATION	\$\$FD0	P
XGI_AUTOSTATION_Auto_PL_USE_LOG	Analog	General	XGI	AUTOSTATION	\$USE_LOG	P
XGI_AUTOSTATION_Auto_SL_USE_SOE	Analog	General	XGI	AUTOSTATION	\$USE_SOE	S
XGI_AUTOSTATION_Auto_SM_BaseNo	Analog	General	XGI	AUTOSTATION	\$BaseNo	B
XGI_AUTOSTATION_Auto_SM_CpuInfo	Analog	General	XGI	AUTOSTATION	\$CpuInfo	C
XGI_AUTOSTATION_Auto_SM_CpuType	Analog	General	XGI	AUTOSTATION	\$CpuType	C
XGI_AUTOSTATION_Auto_SM_FENetBaseNo	Analog	General	XGI	AUTOSTATION	\$FENetBaseNo	F
XGI_AUTOSTATION_Auto_SM_FENetSlotNo	Analog	General	XGI	AUTOSTATION	\$FENetSlotNo	F
XGI_AUTOSTATION_Auto_SM_OperationError	Analog	General	XGI	AUTOSTATION	\$OperationError	O
XGI_AUTOSTATION_Auto_SM_Redundant	Analog	General	XGI	AUTOSTATION	\$Redundant	R
XGI_AUTOSTATION_Auto_SM_Slot00	Analog	General	XGI	AUTOSTATION	\$Slot00	S
XGI_AUTOSTATION_Auto_SM_Slot01	Analog	General	XGI	AUTOSTATION	\$Slot01	S
XGI_AUTOSTATION_Auto_SM_Slot02	Analog	General	XGI	AUTOSTATION	\$Slot02	S
XGI_AUTOSTATION_Auto_SM_Slot03	Analog	General	XGI	AUTOSTATION	\$Slot03	S
XGI_AUTOSTATION_Auto_SM_Slot04	Analog	General	XGI	AUTOSTATION	\$Slot04	S
XGI_AUTOSTATION_Auto_SM_Slot05	Analog	General	XGI	AUTOSTATION	\$Slot05	S
XGI_AUTOSTATION_Auto_SM_Slot06	Analog	General	XGI	AUTOSTATION	\$Slot06	S
XGI_AUTOSTATION_Auto_SM_Slot07	Analog	General	XGI	AUTOSTATION	\$Slot07	S
XGI_AUTOSTATION_Auto_SM_Slot08	Analog	General	XGI	AUTOSTATION	\$Slot08	S
XGI_AUTOSTATION_Auto_SM_Slot09	Analog	General	XGI	AUTOSTATION	\$Slot09	S
XGI_AUTOSTATION_Auto_SM_Slot10	Analog	General	XGI	AUTOSTATION	\$Slot10	S
XGI_AUTOSTATION_Auto_SM_Slot11	Analog	General	XGI	AUTOSTATION	\$Slot11	S
XGI_AUTOSTATION_Auto_SM_SystemStatus	Analog	General	XGI	AUTOSTATION	\$\$SystemStatus	S
XGI_AUTOSTATION_ReadSuccess	Analog	System	XGI	AUTOSTATION	COM.ReadSucc...	S
XGI_AUTOSTATION_ReadTotal	Analog	System	XGI	AUTOSTATION	COM.Read Total	S
XGI_AUTOSTATION_RunMode	Analog	System	XGI	AUTOSTATION	COM.RunMode	0
XGI_AUTOSTATION_StationOK	Digital	System	XGI	AUTOSTATION	COM.StationOK	0
XGI_AUTOSTATION_WriteSuccess	Analog	System	XGI	AUTOSTATION	COM.WriteSuc...	A
XGI_AUTOSTATION_WriteTotal	Analog	System	XGI	AUTOSTATION	COM.Write Total	A

List : 47 / Total : 59License : Unlimited

10.5.4 TB (Timer Based) block setting

TB (Timer Based) function can be set in the XGIEnet and XGREnet driver block information setting window.



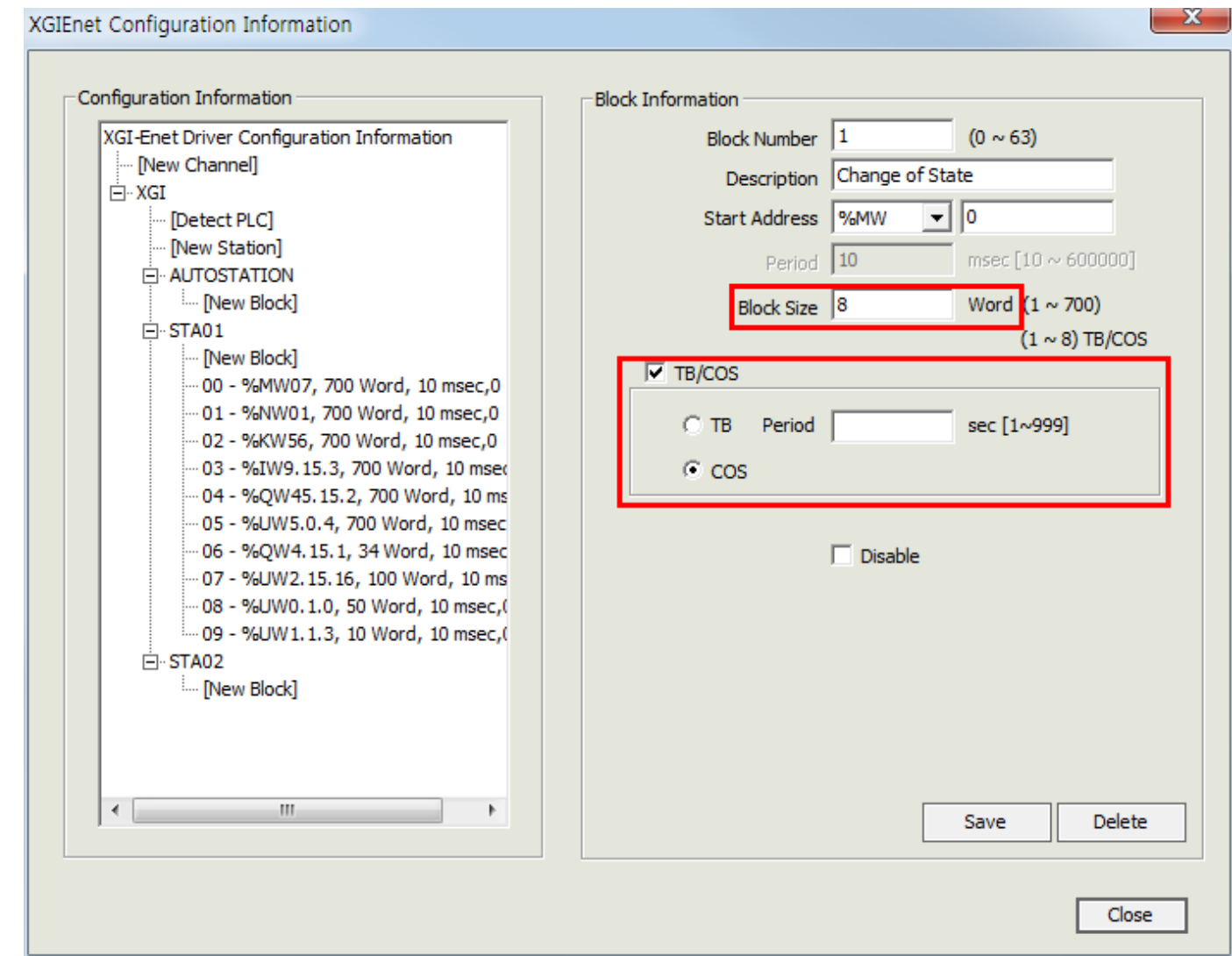
Enter basic block creation items. Check "TB/COS", select TB and then enter the cycle to be used in TB.

Notice

- ☞ The size of block used in TB should be set within the range of 1 to 8 words.
- ☞ The cycle of TB should be set within the range of 1 to 999 seconds.

10.5.5 COS (Change of State) block setting

COS (Change of State) function can be set in the XGIEnet and XGRENnet driver block information setting window.



Enter basic block creation items. Check “TB/COS” and select TB to set whether to use COS function.

Notice

The size of block used in COS should be set within the range of 1 to 8 words.