

GRAPHIC OPERATION TERMINAL

GT SoftGOT2000 Version1

Operating Manual



Thank you for choosing Mitsubishi Graphic Operation Terminal (Mitsubishi GOT).
Read this manual and make sure you understand the functions and performance of the GOT thoroughly in advance to ensure correct use.

● SAFETY PRECAUTIONS ●

(Always read these precautions before using this equipment.)

Before using this product, please read this manual and the relevant manuals introduced in this manual carefully and pay full attention to safety to handle the product correctly.

The precautions given in this manual are concerned with this product.

In this manual, the safety precautions are ranked as "WARNING" and "CAUTION".




WARNING

Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.



CAUTION

Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight personal injury or physical damage.

Note that the  caution level may lead to a serious accident according to the circumstances. Always follow the instructions of both levels because they are important to personal safety.

Please save this manual to make it accessible when required and always forward it to the end user.

[DESIGN PRECAUTIONS]



WARNING

- Some failures of the GOT, communication unit or cable may keep the outputs on or off.
Some failures of a touch panel may cause malfunction of the input objects such as a touch switch.
An external monitoring circuit should be provided to check for output signals which may lead to a serious accident.
Not doing so can cause an accident due to false output or malfunction.
- Do not use the GOT as the warning device that may cause a serious accident.
An independent and redundant hardware or mechanical interlock is required to configure the device that displays and outputs serious warning.
Failure to observe this instruction may result in an accident due to incorrect output or malfunction.
- The GOT backlight failure disables the operation on the touch switch(s).
When the GOT backlight has a failure, the POWER LED blinks (orange/blue) and the display section dims.
In such a case, the input by the touch switch(s) is disabled.
- The display section of the GOT is an analog-resistive type touch panel.
The GOT is multi-touch compliant; however, do not touch three points or more simultaneously on the display section.
Doing so may cause an accident due to incorrect output or malfunction.

[DESIGN PRECAUTIONS]

WARNING

- When programs or parameters of the controller (such as a PLC) that is monitored by the GOT are changed, be sure to reset the GOT or shut off the power of the GOT at the same time.
Not doing so can cause an accident due to false output or malfunction.
- If a communication fault (including cable disconnection) occurs during monitoring on the GOT, communication between the GOT and PLC CPU is suspended and the GOT becomes inoperative.
For bus connection : The CPU becomes faulty and the GOT becomes inoperative.
For other than bus connection : The GOT becomes inoperative.
A system where the GOT is used should be configured to perform any significant operation to the system by using the switches of a device other than the GOT on the assumption that a GOT communication fault will occur.
Not doing so can cause an accident due to false output or malfunction.

CAUTION

- Do not bundle the control and communication cables with main-circuit, power or other wiring.
Run the above cables separately from such wiring and keep them a minimum of 100mm apart.
Not doing so noise can cause a malfunction.
- Do not press the GOT display section with a pointed material as a pen or driver.
Doing so can result in a damage or failure of the display section.
- When the GOT is connected to the Ethernet network, the available IP address is restricted according to the system configuration.
 - When multiple GOTs are connected to the Ethernet network :
Do not set the IP address (192.168.3.18) for the GOTs and the controllers in the network.
 - When a single GOT is connected to the Ethernet network :
Do not set the IP address (192.168.3.18) for the controllers except the GOT in the network.Doing so can cause the IP address duplication.
The duplication can negatively affect the communication of the device with the IP address (192.168.3.18).
The operation at the IP address duplication depends on the devices and the system.
- Turn on the controllers and the network devices to be ready for communication before they communicate with the GOT.
Failure to do so can cause a communication error on the GOT.
- When the GOT is subject to shock or vibration, or some colors appear on the screen of the GOT, the screen of the GOT might flicker.

[MOUNTING PRECAUTIONS]



WARNING

- Be sure to shut off all phases of the external power supply used by the system before mounting or removing the GOT main unit to/from the panel.
Not doing so can cause the unit to fail or malfunction.
- Be sure to shut off all phases of the external power supply used by the system before mounting or removing the option unit onto/from the GOT.

[MOUNTING PRECAUTIONS]



CAUTION

- Use the GOT in the environment that satisfies the general specifications described in this manual.
Not doing so can cause an electric shock, fire, malfunction or product damage or deterioration.
- When mounting the GOT to the control panel, tighten the mounting screws in the specified torque range (0.36 N·m to 0.48 N·m) with a Phillips-head screwdriver No.2.
Undertightening can cause the GOT to drop, short circuit or malfunction.
Overtightening can cause a drop, short circuit or malfunction due to the damage of the screws or the GOT.
- When loading the communication unit to the GOT, fit it to the connection interface of the GOT and tighten the mounting screws in the specified torque range (0.36 N·m to 0.48 N·m) with a Phillips-head screwdriver No.2.
Under tightening can cause the GOT to drop, short circuit or malfunction.
Overtightening can cause a drop, failure or malfunction due to the damage of the screws or unit.
- When closing the USB environmental protection cover, fix the cover to the GOT by pushing the [PUSH] mark on the latch firmly to comply with the protective structure.
- Remove the protective film of the GOT.
When the user continues using the GOT with the protective film, the film may not be removed. In addition, for the models equipped with the human sensor function, using the GOT with the protective film may cause the human sensor not to function properly
- Operate and store the GOT in environments without direct sunlight, high temperature, dust, humidity, and vibrations.
- When using the GOT in the environment of oil or chemicals, use the protective cover for oil. Failure to do so may cause failure or malfunction due to the oil or chemical entering into the GOT.

[WIRING PRECAUTIONS]



WARNING

- Be sure to shut off all phases of the external power supply used by the system before wiring.
Failure to do so may result in an electric shock, product damage or malfunctions.

[WIRING PRECAUTIONS]

CAUTION

- Make sure to ground the FG terminal and LG terminal of the GOT power supply section to the protective ground conductors dedicated to the GOT with a ground resistance of 100 Ω or less.
- When tightening the terminal screws, use a Phillips-head screwdriver No.2.
- Terminal screws which are not to be used must be tightened always at torque 0.5 N·m to 0.8 N·m. Otherwise there will be a danger of short circuit against the solderless terminals.
- Use applicable solderless terminals and tighten them with the specified torque.
If any solderless spade terminal is used, it may be disconnected when the terminal screw comes loose, resulting in failure.
- Correctly wire the GOT power supply section after confirming the rated voltage and terminal arrangement of the product.
Not doing so can cause a fire or failure.
- Tighten the terminal screws of the GOT power supply section in the specified torque range (0.5 N·m to 0.8 N·m).
Undertightening can cause a short circuit or malfunction.
Overtightening can cause a short circuit or malfunction due to the damage of the screws or the GOT.
- Exercise care to avoid foreign matter such as chips and wire offcuts entering the GOT.
Not doing so can cause a fire, failure or malfunction.
- The module has an ingress prevention label on its top to prevent foreign matter, such as wire offcuts, from entering the module during wiring.
Do not peel this label during wiring. Before starting system operation, be sure to peel this label because of heat dissipation.
- Plug the communication cable into the GOT interface or the connector of the connected unit, and tighten the mounting screws and the terminal screws in the specified torque range.
Undertightening can cause a short circuit or malfunction.
Overtightening can cause a short circuit or malfunction due to the damage of the screws or unit.
- Plug the QnA/ACPU/Motion controller(A series) bus connection cable by inserting it into the connector of the connected unit until it "clicks".
After plugging, check that it has been inserted snugly.
Not doing so can cause a malfunction due to a contact fault.

[TEST OPERATION PRECAUTIONS]

WARNING

- Before performing the test operations of the user creation monitor screen (such as turning ON or OFF bit device, changing the word device current value, changing the settings or current values of the timer or counter, and changing the buffer memory current value), read through the manual carefully and make yourself familiar with the operation method.
During test operation, never change the data of the devices which are used to perform significant operation for the system.
False output or malfunction can cause an accident.

[STARTUP/MAINTENANCE PRECAUTIONS]



WARNING

- When power is on, do not touch the terminals.
Doing so can cause an electric shock or malfunction.
- Correctly connect the battery connector.
Do not charge, disassemble, heat, short-circuit, solder, or throw the battery into the fire.
Doing so will cause the battery to produce heat, explode, or ignite, resulting in injury and fire.
- Before starting cleaning or terminal screw retightening, always switch off the power externally in all phases.
Not switching the power off in all phases can cause a unit failure or malfunction.
Undertightening can cause a short circuit or malfunction.
Overtightening can cause a short circuit or malfunction due to the damage of the screws or unit.



CAUTION

- Do not disassemble or modify the unit.
Doing so can cause a failure, malfunction, injury or fire.
- Do not touch the conductive and electronic parts of the unit directly.
Doing so can cause a unit malfunction or failure.
- The cables connected to the unit must be run in ducts or clamped.
Not doing so can cause the unit or cable to be damaged due to the dangling, motion or accidental pulling of the cables or can cause a malfunction due to a cable connection fault.
- When unplugging the cable connected to the unit, do not hold and pull from the cable portion.
Doing so can cause the unit or cable to be damaged or can cause a malfunction due to a cable connection fault.
- Do not drop the module or subject it to strong shock. A module damage may result.
- Do not drop or give an impact to the battery mounted to the unit.
Doing so may damage the battery, causing the battery fluid to leak inside the battery. If the battery is dropped or given an impact, dispose of it without using.
- Before touching the unit, always touch grounded metals, etc. to discharge static electricity from human body, etc.
Not doing so can cause the unit to fail or malfunction.
- Use the battery manufactured by Mitsubishi Electric Corporation.
Use of other batteries may cause a risk of fire or explosion.
- Dispose of used battery promptly.
Keep away from children. Do not disassemble and do not dispose of in fire.
- Be sure to shut off all phases of the external power supply before replacing the battery or using the dip switch of the terminating resistor.
Not doing so can cause the unit to fail or malfunction by static electricity.

[TOUCH PANEL PRECAUTIONS]

CAUTION

- For the analog-resistive film type touch panels, normally the adjustment is not required.
However, the difference between a touched position and the object position may occur as the period of use elapses.
When any difference between a touched position and the object position occurs, execute the touch panel calibration.
- When any difference between a touched position and the object position occurs, other object may be activated.
This may cause an unexpected operation due to incorrect output or malfunction.

[PRECAUTIONS WHEN THE DATA STORAGE IS IN USE]

WARNING

- If the SD card mounted on drive A of the GOT is removed while the GOT is accessed, processing for the GOT might be interrupted about for 20 seconds.
The GOT cannot be operated during this period.
The functions that run in the background including a screen updating, alarm, logging, scripts, and others are also interrupted.
Since this interruption makes an impact to the system operation, it might cause failure. After checking the light off of SD card access LED, remove the SD card.

CAUTION

- If the data storage mounted on the GOT is removed while the GOT is accessed, the data storage and files are damaged.
To remove the data storage from the GOT, check that the access to the data storage in SD card access LED, the system signal, and others is not performed.
- When inserting a SD card into the GOT, make sure to close the SD card cover.
Failure to do so causes the data not to be read or written.
- When removing the SD card from the GOT, make sure to support the SD card by hand as it may pop out.
Failure to do so may cause the SD card to drop from the GOT, resulting in a failure or break.
- When inserting a USB device into a USB interface of the GOT, make sure to insert the device into the interface firmly.
Failure to do so may cause the USB device to drop from the GOT, resulting in a failure or break.
- Before removing the USB device from the GOT, follow the procedure for removal on the utility screen of the GOT.
After the successful completion dialog is displayed, remove the USB device by hand carefully.
Failure to do so may cause the USB device to drop from the GOT, resulting in a failure or break.

[PRECAUTIONS FOR REMOTE CONTROL]

WARNING

- Remote control is available through a network by using GOT functions, including the SoftGOT-GOT link function, the remote personal computer operation function, the VNC server function, and the GOT Mobile function.
If these functions are used to perform remote control of control equipment, the field operator may not notice the remote control, possibly leading to an accident.
In addition, a communication delay or interruption may occur depending on the network environment, and remote control of control equipment cannot be performed normally in some cases. Before using the above functions to perform remote control, fully grasp the circumstances of the field site and ensure safety.

[DISPOSAL PRECAUTIONS]

CAUTION

- When disposing of this product, treat it as industrial waste.
When disposing of batteries, separate them from other wastes according to the local regulations. (Refer to the GOT2000 Series User's Manual (Hardware) for details of the battery directive in the EU member states.)

[TRANSPORTATION PRECAUTIONS]

CAUTION

- When transporting lithium batteries, make sure to treat them based on the transport regulations. (Refer to the GOT2000 Series User's Manual (Hardware) for details of the regulated models.)
- Make sure to transport the GOT main unit and/or relevant unit(s) in the manner they will not be exposed to the impact exceeding the impact resistance described in the general specifications of this manual, as they are precision devices.
Failure to do so may cause the unit to fail.
Check if the unit operates correctly after transportation.
- When fumigants that contain halogen materials such as fluorine, chlorine, bromine, and iodine are used for disinfecting and protecting wooden packaging from insects, they cause malfunction when entering our products.
Please take necessary precautions to ensure that remaining materials from fumigant do not enter our products, or treat packaging with methods other than fumigation (heat method).
Additionally, disinfect and protect wood from insects before packing products.

CAUTIONS FOR USING THIS SOFTWARE

1. Required PC memory

The processing may be terminated by Microsoft Windows on a personal computer of which main memory capacity is less than 128M bytes. Make sure to secure the capacity of 128M bytes or more.

2. Free capacity of hard disk

At least 100M bytes of free capacity of virtual memory should be secured within hard disk to run this software.

The processing may be terminated by Windows, if free space of 100M bytes or more cannot be secured within hard disk while running GTSOFTGOT2000.

Secure enough free capacity of virtual memory within hard disk space in order to run the software.

3. Display of GT SOFTGOT2000 and GOT

Display of GT SOFTGOT2000 may be different from display of GOT.

Confirm for actual display of GOT on the GOT.

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REVISIONS

List of Manuals for GT Works3

For the manuals related to this product, install the manuals with the drawing software.
If you need a printed manual, consult your local Mitsubishi representative or branch office.

■1. List of Manuals for GT Designer3(GOT2000)

(1) Screen drawing software manuals

Manual name	Manual number (Model code)
GT Works3 Version1 Installation Procedure Manual	-
GT Designer3 (GOT2000) Help	-
GT Converter2 Version3 Operating Manual for GT Works3	SH-080862ENG (1D7MB2)
GOT2000 Series MES Interface Function Manual for GT Works3 Version1	SH-081228ENG

(2) Connection manuals

Manual name	Manual number (Model code)
GOT2000 Series Connection Manual (Mitsubishi Products) For GT Works3 Version1	SH-081197ENG (1D7MJ8)
GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) For GT Works3 Version1	SH-081198ENG
GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) For GT Works3 Version1	SH-081199ENG
GOT2000 Series Connection Manual (Microcomputers, MODBUS/Fieldbus Products, Peripherals) For GT Works3 Version1	SH-081200ENG

(3) GT SoftGOT2000 manuals

Manual name	Manual number (Model code)
GT SoftGOT2000 Version1 Operating Manual	SH-081201ENG

(4) GOT2000 manuals

Manual name	Manual number (Model code)
GOT2000 Series User's Manual (Hardware)	SH-081194ENG (1D7MJ5)
GOT2000 Series User's Manual (Utility)	SH-081195ENG (1D7MJ6)
GOT2000 Series User's Manual (Monitor)	SH-081196ENG (1D7MJ7)
























■2. List of Manuals for GT Designer3(GOT1000)

Refer to the Help and manuals for GT Designer3(GOT1000)

Abbreviations, Generic Terms, Meanings of Icons

The following shows the abbreviations, generic terms, and meanings of icons used in this manual.

■1. GOT

Abbreviations and generic terms				Description	Meaning of icon	
					Support	Not support
GOT2000 Series	GT27	GT27-X	GT2715-X	GT2715-XTBA, GT2715-XTBD		
		GT27-S	GT2712-S	GT2712-STBA, GT2712-STWA, GT2712-STBD, GT2712-STWD		
			GT2710-S	GT2710-STBA, GT2710-STBD		
		GT27-V	GT2710-V	GT2710-VTBA, GT2710-VTWA, GT2710-VTBD, GT2710-VTWD		
		GT27-S	GT2708-S	GT2708-STBA, GT2708-STBD		
			GT27-V	GT2708-V		
		GT2705-V		GT2705-VTBD		
	GT25	GT25-S	GT2512-S	GT2512-STBA, GT2512-STBD		
		GT25-V	GT2510-V	GT2510-VTBA, GT2510-VTWA, GT2510-VTBD, GT2510-VTWD		
			GT2508-V	GT2508-VTBA, GT2508-VTWA, GT2508-VTBD, GT2508-VTWD		
	GT23	GT23-V	GT2310-V	GT2310-VTBA, GT2310-VTBD		
			GT2308-V	GT2308-VTBA, GT2308-VTBD		
	GT21			All GT21 models		
		GT21-R	GT2104-R	GT2104-RTBD		
			GT2104-P	GT2104-PMBD		
				GT2104-PMBDS		
			GT2103-P	GT2103-PMBD		
				GT2103-PMBDS		
				GT2103-PMBDS2		
				GT2103-PMBLS		
		GT SoftGOT2000			GT SoftGOT2000 Version1	
GOT1000 Series			GOT1000 Series	-		
GOT900 Series			GOT-A900 Series, GOT-F900 Series	-		
GOT800 Series			GOT-800 Series	-		

■2. Communication unit

Abbreviations and generic terms		Description
Bus connection unit		GT15-QBUS, GT15-QBUS2, GT15-ABUS, GT15-ABUS2, GT15-75QBUSL, GT15-75QBUS2L, GT15-75ABUSL, GT15-75ABUS2L
Serial communication unit		GT15-RS2-9P, GT15-RS4-9S, GT15-RS4-TE
MELSECNET/H communication unit		GT15-J71LP23-25, GT15-J71BR13
CC-Link IE Controller Network communication unit		GT15-J71GP23-SX
CC-Link IE Field Network communication unit		GT15-J71GF13-T2
CC-Link communication unit		GT15-J61BT13
Wireless LAN communication unit		GT25-WLAN
Serial multi-drop connection unit		GT01-RS4-M
Connection conversion adapter		GT10-9PT5S
Field network adapter unit		GT25-FNADP

■3. Option unit

Abbreviations and generic terms		Description
Printer unit		GT15-PRN
Video/RGB unit	Video input unit	GT27-V4-Z (A set of GT16M-V4-Z and GT27-IF1000)
	RGB input unit	GT27-R2, GT27-R2-Z (A set of GT16M-R2-Z and GT27-IF1000)
	Video/RGB input unit	GT27-V4R1-Z (A set of GT16M-V4R1-Z and GT27-IF1000)
	RGB output unit	GT27-ROUT, GT27-ROUT-Z (A set of GT16M-ROUT-Z and GT27-IF1000)
Multimedia unit		GT27-MMR-Z (A set of GT16M-MMR-Z and GT27-IF1000)
Video signal conversion unit		GT27-IF1000
External I/O unit		GT15-DIO, GT15-DIOR
Sound output unit		GT15-SOUT
SD card unit		GT21-03SDCD

■4. Option

Abbreviations and generic terms		Description
SD card		NZ1MEM-2GBSD, NZ1MEM-4GBSD, NZ1MEM-8GBSD, NZ1MEM-16GBSD, L1MEM-2GBSD, L1MEM-4GBSD
Battery		GT11-50BAT
Protective sheet		GT27-15PSGC, GT25-12PSGC, GT25-10PSGC, GT25-08PSGC, GT25-05PSGC, GT21-04RPSGC-UC, GT21-03PSGC-UC, GT21-04PSGC-UC, GT27-15PSCC, GT25-12PSCC, GT25-10PSCC, GT25-08PSCC, GT25-12PSCC-UC, GT25-10PSCC-UC, GT25-08PSCC-UC, GT25-05PSCC, GT21-04RPSCC-UC, GT21-04PSCC-UC, GT21-03PSCC-UC
Protective cover for oil		GT20-15PCO, GT20-12PCO, GT20-10PCO, GT20-08PCO, GT25-05PCO, GT21-04RPCO, GT10-30PCO, GT10-20PCO
USB environmental protection cover		GT25-UCOV, GT25-05UCOV
Stand		GT15-90STAND, GT15-80STAND, GT15-70STAND, GT15-60STAND, GT05-50STAND
Attachment		GT15-70ATT-98, GT15-70ATT-87, GT15-60ATT-97, GT15-60ATT-96, GT15-60ATT-87, GT15-60ATT-77

■5. Software

(1) Software related to GOT

Abbreviations and generic terms	Description
GT Works3	SW1DND-GTWK3-J, SW1DND-GTWK3-E, SW1DND-GTWK3-C
GT Designer3 Version1	Screen drawing software GT Designer3 for GOT2000/GOT1000 series
GT Designer3	Screen drawing software for GOT2000 series included in GT Works3
GT Designer3 (GOT2000)	
GT Designer3 (GOT1000)	Screen drawing software for GOT1000 series included in GT Works3
GT Simulator3	Screen simulator GT Simulator3 for GOT2000/GOT1000/GOT900 series
GT SoftGOT2000	Monitoring software GT SoftGOT2000 series
GT Converter2	Data conversion software GT Converter2 for GOT1000/GOT900 series
GT Designer2 Classic	Screen drawing software GT Designer2 Classic for GOT900 series
GT Designer2	Screen drawing software GT Designer2 for GOT1000/GOT900 series
DU/WIN	Screen drawing software FX-PCS-DU/WIN for GOT-F900 series

(2) Software related to iQ Works

Abbreviations and generic terms	Description
iQ Works	Abbreviation of iQ Platform compatible engineering environment MELSOFT iQ Works
MELSOFT Navigator	Generic term for integrated development environment software included in the SW DNC-IQWK (iQ Platform compatible engineering environment MELSOFT iQ Works) (□ indicates a version.)

(3) Other software

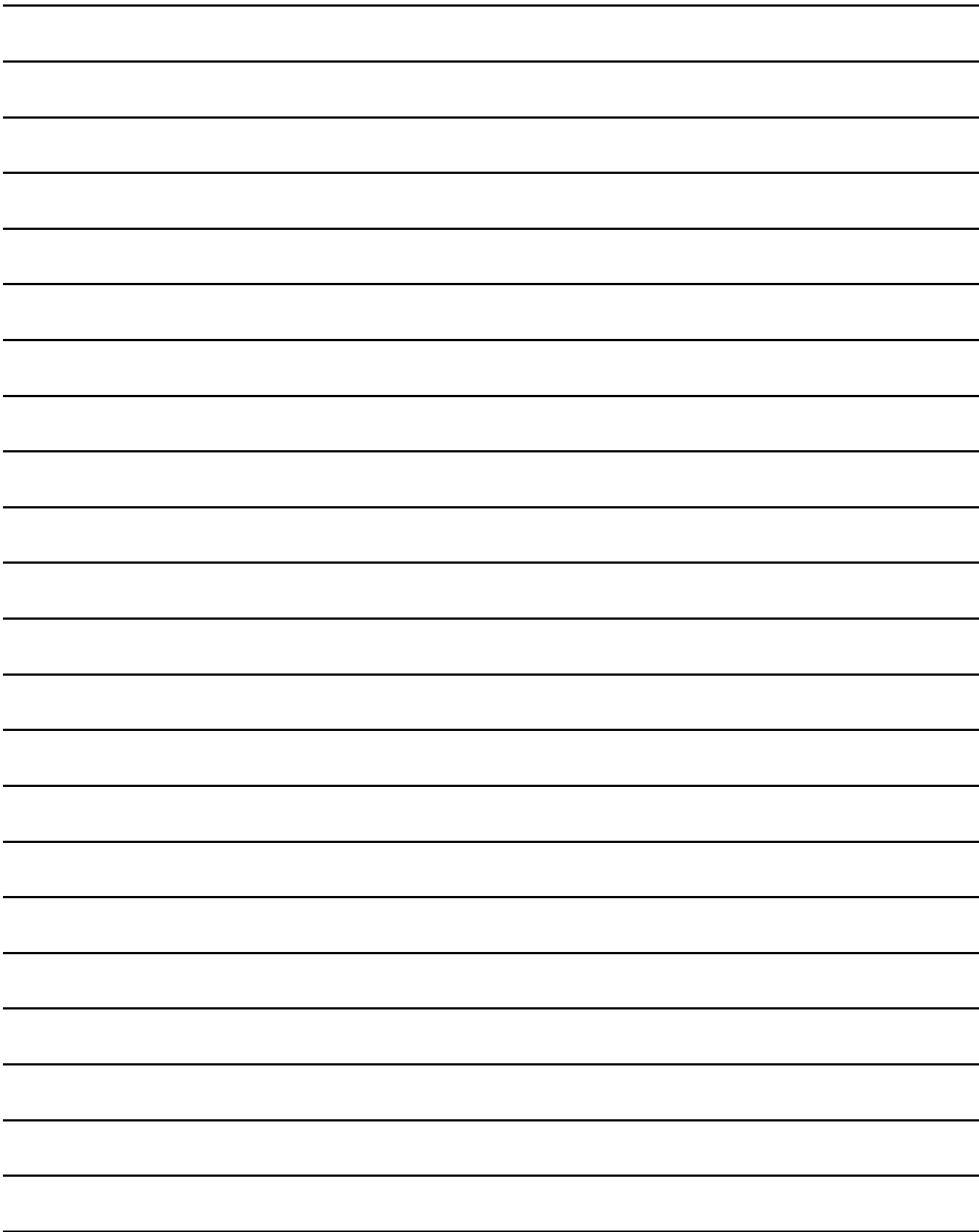
Abbreviations and generic terms		Description
GX Works3		SW□DND-GXW3-E (-EA) type programmable controller engineering software (□ indicates a version.)
GX Works2		SW□DNC-GXW2-□ type programmable controller engineering software (□ indicates a version.)
Controller simulator	GX Simulator3	Simulation function of GX Works3
	GX Simulator2	Simulation function of GX Works2
	GX Simulator	SW□D5C-LLT-E (-EV) type ladder logic test tool function software package (SW5D5C-LLT (-V) or later versions) (□ indicates a version.)
GX Developer		SW□D5C-GPPW-E (-EV)/SW□D5F-GPPW (-V) type software package (□ indicates a version.)
GX LogViewer		SW□DNN-VIEWER-E type software package (□ indicates a version.)
PX Developer		SW□D5C-FBDQ-E type FBD software package for process control (□ indicates a version.)
MT Works2		Motion controller engineering environment MELSOFT MT Works2(SW□DND-MTW2-E) (□ indicates a version.)
MT Developer		SW□RNC-GSV type integrated start-up support software for motion controller Q series (□ indicates a version.)
CW Configurator		C Controller module configuration and monitor tool (SW1DND-RCCPU-E) (□ indicates a version.)
MR Configurator2		SW□DNC-MRC2-E type servo configuration software (□ indicates a version.)
MR Configurator		MRZJW□-SETUP type servo configuration software (□ indicates a version.)
FR Configurator		Inverter setup software (FR-SW□-SETUP-WE) (□ indicates a version.)
NC Configurator2		CNC parameter setting support tool (FCSB1221)
NC Configurator		CNC parameter setting support tool
FX Configurator-FP		Parameter setting, monitoring, and testing software packages for FX3U-20SSC-H (SW□D5CFXSSCE) (□ indicates a version.)
FX3U-ENET-L Configuration tool		FX3U-ENET-L type Ethernet module setting software (SW1D5-FXENETL-E)
RT ToolBox2		Robot program creation software (3D-11C-WINE)
MX Component		MX Component Version□(SW□D5C-ACT-E, SW□D5C-ACT-EA) (□ indicates a version.)
MX Sheet		MX Sheet Version□(SW□D5C-SHEET-E, SW□D5C-SHEET-EA) (□ indicates a version.)
CPU Module Logging Configuration Tool		CPU module logging configuration tool (SW1DNN-LLUTL-E)

■6. License key (for GT SoftGOT2000)

Abbreviations and generic terms	Description
License key	GT27-SGTKEY-U

■7. Others

Abbreviations and generic terms	Description
IAI	IAI Corporation
AZBIL	Azbil Corporation
OMRON	OMRON Corporation
KEYENCE	KEYENCE CORPORATION
KOYO EI	KOYO ELECTRONICS INDUSTRIES CO., LTD.
JTEKT	JTEKT Corporation
SHARP	Sharp Manufacturing Systems Corporation
SHINKO	Shinko Technos Co., Ltd.
CHINO	CHINO CORPORATION
TOSHIBA	TOSHIBA CORPORATION
TOSHIBA MACHINE	TOSHIBA MACHINE CO., LTD.
PANASONIC	Panasonic Corporation
PANASONIC IDS	Panasonic Industrial Devices SUNX Co., Ltd.
HITACHI IES	Hitachi Industrial Equipment Systems Co., Ltd.
HITACHI	Hitachi, Ltd.
FUJI	FUJI ELECTRIC CO., LTD.
YASKAWA	YASKAWA Electric Corporation
YOKOGAWA	Yokogawa Electric Corporation
RKC	RKC INSTRUMENT INC.
ALLEN-BRADLEY	Allen-Bradley products manufactured by Rockwell Automation, Inc.
CLPA	CC-Link Partner Association
GE	GE Intelligent Platforms, Inc.
HMS	HMS Industrial Networks
LS IS	LS Industrial Systems Co., Ltd.
mitsubishi india	Mitsubishi Electric India Pvt. Ltd.
ODVA	Open DeviceNet Vendor Association, Inc.
SCHNEIDER	Schneider Electric SA
SICK	SICK AG
SIEMENS	Siemens AG
PLC	Programmable controller manufactured by each corporation
Control equipment	Control equipment manufactured by each corporation
Temperature controller	Temperature controller manufactured by each corporation
Indicating controller	Indicating controller manufactured by each corporation
Controller	Controller manufactured by each corporation



1. FUNDAMENTALS OF GT SoftGOT2000

1.1	GT SoftGOT2000	1 - 2
1.2	Before Using This Software	1 - 5

1.1 GT SoftGOT2000

This manual explains the system configuration, specifications, screen structure, and operating method of monitoring software GT SoftGOT2000 (hereinafter abbreviated as GT SoftGOT2000).

GT SoftGOT2000 is the software that has the same functions as the GOT2000 series and is used to display lamps, data, and messages on personal computers and panel controllers.

When applying the following program examples to the actual system, make sure to examine the applicability and confirm that it will not cause system control problems.

POINT

Described contents in this manual

This manual describes the operation method for GT SoftGOT2000.

For other than the operation method, refer to the following manuals.

(1) Installation method of GT SoftGOT2000

For the installation method of GT SoftGOT2000, refer to the following manuals.

➡ GT Works3 Version1 Installation Instructions Manual

(2) Project data creating method of GT Designer3

For the project data creating method of GT Designer3, refer to the following manuals.

➡ GT Designer3 (GOT2000) Help

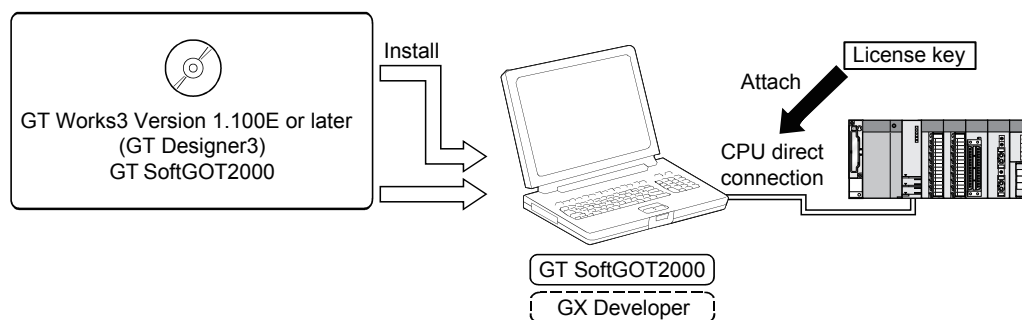
■ 1. The features of the GOT series and advantages of personal computer and panel computer are available

(1) Interactive use with applications (including MELSOFT)

(a) Interactive use with GT Designer3

Installation of GT SoftGOT2000 and GT Designer3 on the same personal computer allows operations from screen creation to monitoring to be supported by a single personal computer.

Immediately after creating or modifying a screen on GT Designer3, the screen can be monitored on GTSoftGOT2000. Therefore, design efficiency is improved greatly.



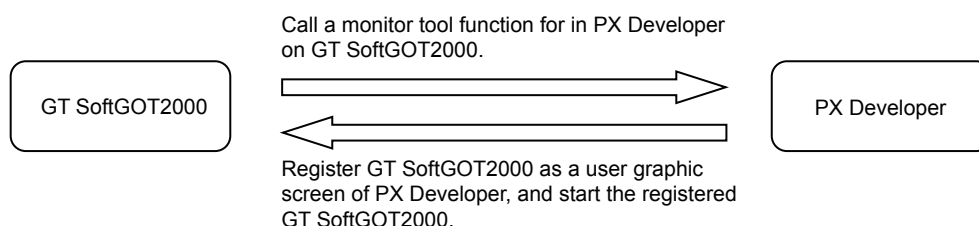
(b) Interaction with PX Developer

With interaction between GT SoftGOT2000 and PX Developer, monitor tool functions for PX Developer can be called on GT SoftGOT2000.

GT SoftGOT2000 can also be started on PX Developer, and the functions can be shared.

For the monitor tool of PX Developer, refer to the following manual.

➡ PX Developer Version □ Operating Manual (Monitor Tool)

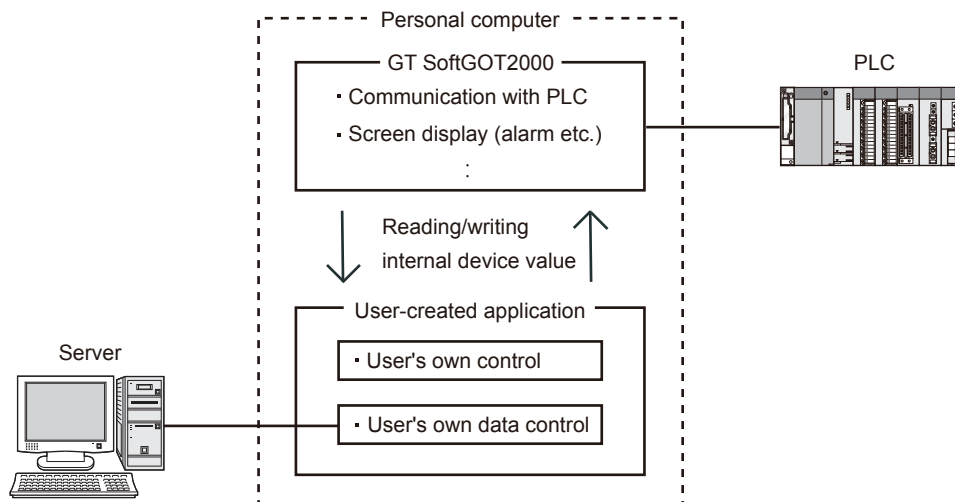


(c) Interactive use with Windows applications

A Windows application can be started up from GT SoftGOT2000.

Also, the data of GT SoftGOT2000 internal devices can be read/written from a user-created application.

With interaction between GT SoftGOT2000 and a user-created application, the user can control or manage data by own method.



(2) Flexible response to high-resolution

The user can select resolutions from UXGA to VGA and can set a resolution specification, which sets a resolution dot by dot depending on applications.

GT SoftGOT2000 supports the following resolutions.

(a) Selectable resolutions

- X:640, 800, 1024, 1280, 1600, 1920 dots)
- Y:480, 600, 768, 1024, 1200 dots)

(b) User setting

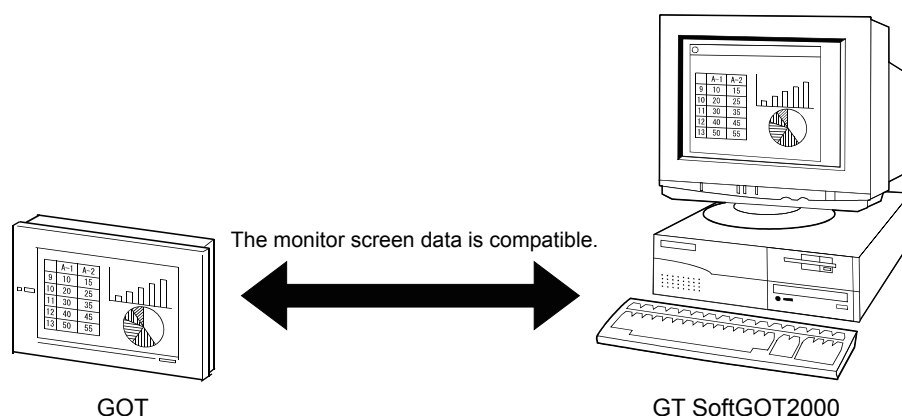
- X × Y (Resolution specification) (640 to 1920 × 480 to 1200 dots)

■2. The monitor screen data created for the GOT2000 series is applicable to GT SoftGOT2000.

The GT SoftGOT2000 uses monitor screen data created with GT Designer3.

By converting the GOT type for GT SoftGOT2000, the monitor screen data used for the GOT2000 series can be used without modification.

GT SoftGOT2000 uses the same screens and operations as GOT. Therefore, there will be no discomfort or confusion for the operators and maintenance personnel.

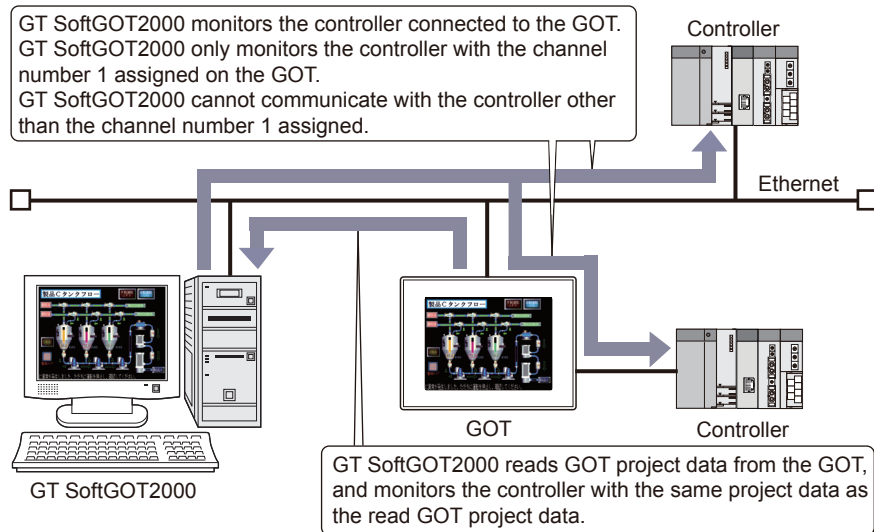


■3. Synchronizing GT SoftGOT2000 data with GOT data

The SoftGOT-GOT link function enables GT SoftGOT2000 to connect the GOT via Ethernet. And then, the function synchronizes GT SoftGOT2000 data with GOT project data and resource data.

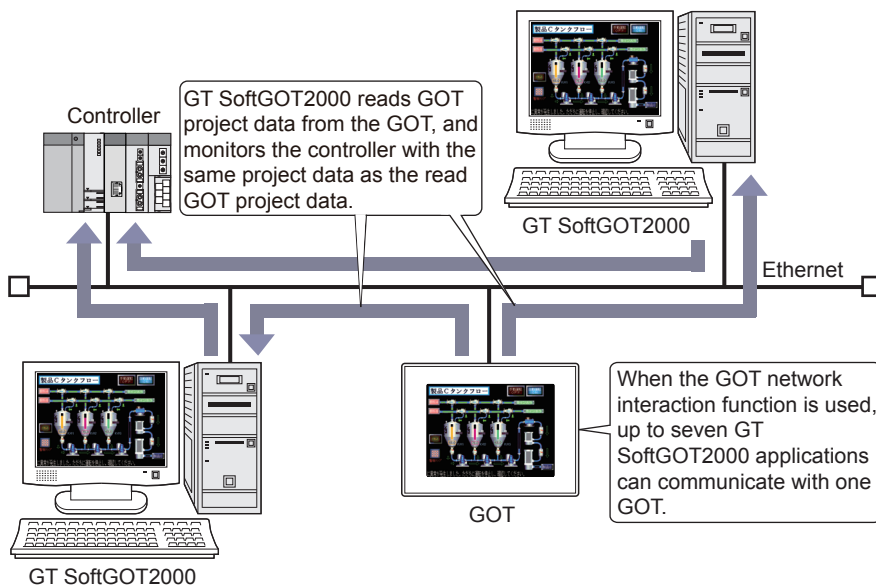
When input objects (touch switch, numerical input, and text input) are input or other operation is performed, the simultaneous operation between GT SoftGOT2000 and the GOT must be prevented. The operation by either GT SoftGOT2000 or the GOT is allowed.

GT SoftGOT2000 can monitor a controller connected to the GOT.



With the GOT network interaction function, multiple GT SoftGOT2000 applications can communicate with one GOT.

➡ 4.12 SoftGOT-GOT Link Function



1.2 Before Using This Software

1.2.1 Operating environment

The following shows the GT SoftGOT2000 operating environment.

Item	Description
Personal computer	<ul style="list-style-type: none"> A personal computer that can run Windows PPC-852-21G, and PPC-852-22F manufactured by CONTEC CO., LTD.*6
Operating system	<ul style="list-style-type: none"> Microsoft Windows 8.1 Enterprise (32 bit, 64 bit)*3*4*8*9 Microsoft Windows 8.1 Pro (32 bit, 64 bit)*3*4*8*9 Microsoft Windows 8.1 (32 bit, 64 bit)*3*4*9 Microsoft Windows 8 Enterprise (64-bit, 32-bit)*3*4*8*9 Microsoft Windows 8 Pro (64-bit, 32-bit)*3*4*8*9 Microsoft Windows 8 (64-bit, 32-bit)*3*4*9 Microsoft Windows 7 Ultimate (64-bit, 32-bit)*3*4*8*9 Microsoft Windows 7 Enterprise (64-bit, 32-bit)*3*4*8*9 Microsoft Windows 7 Professional (64-bit, 32-bit)*3*4*8*9 Microsoft Windows 7 Home Premium (64-bit, 32-bit)*3*4*9 Microsoft Windows 7 Starter (32-bit)*3*4 Microsoft Windows Vista Ultimate (32 bit) Service Pack1 or later*3*4 Microsoft Windows Vista Enterprise (32 bit) Service Pack1 or later*3*4 Microsoft Windows Vista Business (32 bit) Service Pack1 or later*3*4 Microsoft Windows Vista Home Premium (32 bit) Service Pack1 or later*3*4 Microsoft Windows Vista Home Basic (32 bit) Service Pack1 or later*3*4 Microsoft Windows XP Professional (32-bit) Service Pack3 or later*2*4 Microsoft Windows XP Home Edition (32-bit) Service Pack3 or later*2*4 Microsoft Windows XP Embedded (32-bit)*2*4*7
CPU	1GHz or more recommended
Memory	<ul style="list-style-type: none"> For Windows 8.1 (64 bit), Windows 8 (64 bit), Windows 7 (64 bit): 2GB or more recommended For Windows 8.1 (32 bit), Windows 8 (32 bit), Windows 7 (32 bit), Windows Vista (32 bit): 1GB or more recommended For Windows XP: 512 MB or more recommended
Display	Resolution XGA (1024 × 768 dots) or higher
Hard disk space*1	<ul style="list-style-type: none"> For installation: 5GB or more recommended For execution: 512MB or more recommended
Display color	High color (16 bits) or more
Hardware*6	<ul style="list-style-type: none"> GT27-SGTKEY-U (License key (for USB port))
Other software	<p>The following software is required to create the project data.</p> <ul style="list-style-type: none"> GT Designer3 Version1.100E or later*5
	<p>The following software is required for interaction with PX Developer.</p> <ul style="list-style-type: none"> PX Developer Version1.40S or later GT Designer3 Version 1.105K or later
	<p>The following software is required to connect with GX Simulator.</p> <ul style="list-style-type: none"> GX Simulator Version5.00A or later
	<p>The following software is required to connect with GX Simulator2.</p> <ul style="list-style-type: none"> GX Works2 Version1.12N or later
	<p>The following software is required to connect with GX Simulator3.</p> <ul style="list-style-type: none"> GX Works3 Version1.007H or later
	<p>The following software is required to connect with MT Simulator2.</p> <ul style="list-style-type: none"> MT Works2 Version1.70Y or later
Other hardware	<p>Use the hardware compatible with the above OSs.</p> <ul style="list-style-type: none"> For installation: Mouse, keyboard, or DVD-ROM drive For execution: Mouse or keyboard For printing: Printer <p>Prepare the following hardware if necessary.</p> <ul style="list-style-type: none"> For execution (only when outputting buzzer sound or others): Sound function or speaker

- *1 When using GT Designer3 or PX Developer besides GT SoftGOT2000, additional free space is required.
For the available space required when using GT Designer3, refer to the following manual.
 - GT Designer3 (GOT2000) Help
For the available space required when using monitor tool functions of PX Developer, refer to the following manual.
 - PX Developer Version □ Operating Manual (Monitor Tool)
When using a user-created application, free space is required separately.
- *2 Administrator authority is required for installing and using GT SoftGOT2000.
- *3 Administrator authority is required for installing and using GT SoftGOT2000.
When interacting other applications, use the applications with the administrator authority.
- *4 The following functions are not supported.
 - Activating the application with Windows compatibility mode
 - Fast user switching
 - Change your desktop themes (fonts)
 - Remote desktop
 - DPI setting other than the normal size
- *5 Use GT Designer3 included in GT Works3 that contains GT SoftGOT2000.
- *6 Refer to the manual of the PC CPU module to be used.
- *7 For using the PPC-852-22F, GT SoftGOT2000 can be used on the PPC-852-22F with the OS preinstalled only.
- *8 Windows XP Mode is not supported.
- *9 Windows Touch is not supported.

POINT

(1) Operating environment when using a user-created application

A user-created application is used with GT SoftGOT2000.

When using a user-created application, therefore, prepare an operating environment where both the user created application and GT SoftGOT2000 can operate.

(2) Resume function, suspend setting, power saving function and standby mode of the personal computer

The following phenomena may occur when the setting of resume function, suspend setting, power saving function and standby mode are made for the personal computer.

- A communication error occurs when communicating with the PLC CPU.
- License key becomes unrecognizable.

Therefore, do not set the above-mentioned items.

1.2.2 Specifications of GT SoftGOT2000

The following shows the specifications of GT SoftGOT2000.

Item	Specifications
Resolution (dots)	640 × 480, 800 × 600, 1024 × 768, 1280 × 1024, 1600 × 1200, X × Y (Resolution specification)*1
Display color (color)	65536
Memory capacity	57MB

*1 X and Y are resolution values set by the user.

➡ 2.3.1 [Environment Setup] dialog

POINT

Project data display

(1) Full screen mode

If the resolution of the personal computer used is the same as that of GT SoftGOT2000, it is recommended to hide the frame and menu part using the full screen mode function. When not using the full screen mode function, the top/bottom and left/right parts of the display are hidden by the frame and menu part.

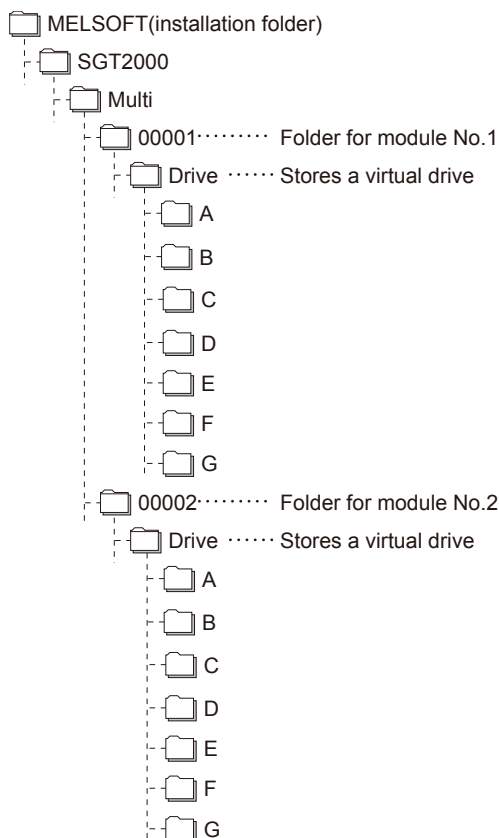
(2) GOT type and resolution

For GT SoftGOT2000, set the same resolution as the GOT type (model, resolution) of the project data created by GT Designer3.

If the resolution settings are different, the project data cannot be read into the GOT.

1. Virtual drive

GT SoftGOT2000 uses the following folder located on the hard disk of a personal computer as a virtual drive. A virtual drive is created for each module.



Any other folders can be set as the virtual A drive to the virtual G drive.

For changing folders for the virtual A drive to the virtual G drive, refer to the following.

➡ 2.3 Environment Setup

■ 2. Resource data storage destination

Resource data is stored to the virtual A drive or a user-specified folder with the configuration shown below.

Storage destination		Function
Virtual A Drive or user-specified folder	Folder name specified in project data	Alarm observation, Recipe, Logging, Hard copy (File save), Operation log function Time action
	G2SgtReport	Report (Print)
	G2SgtHardcopy	Hard copy (Print)

The file formats of resource data are described below.

Function	Folder name	File format and file name
Alarm Observation	Folder name set in project data	File name set in project data AAM****.G2A
		File name set in project data AAM****.CSV
		File name set in project data AAM****.TXT
Recipe	Folder name set in project data	File name set in project data ARP****.G2P
		File name set in project data ARP****.CSV
		File name set in project data ARP****.TXT
Logging	Folder name set in project data	File name set in project data LOG****_****.G2L
		File name set in project data LOG****_****.CSV
		File name set in project data LOG****_****.TXT
Hard copy (File save)	Folder name set in project data	File name set in project data SNAP***.BMP
		File name set in project data SNAP****.JPG
Hard copy (Print)	G2SgtHardcopy (Fixed)	HARDCOPY.BMP (Fixed)
Report (Print)*1	G2SgtReport (Fixed)	REP00001.CSV - REP00032.CSV
Operation log function	Folder name set in project data	File name set in project data OPELOG_YYYYMMDD_SSSS.G2O
		File name set in project data OPELOG_YYYYMMDD_SSSS.CSV
		File name set in project data OPELOG_YYYYMMDD_SSSS.TXT
Time action	Folder name set in project data	File name set in project data TIMEACTION.G2T

*1 When using any language other than Japanese and English for the report screen and outputting the data in CSV file, characters may not be displayed correctly.
Do not use any language other than Japanese and English.

POINT**Precautions on file names for the virtual drive**

As a folder name for the virtual drive, only ASCII characters (excluding "|", ";", and ";") can be used with up to 78 characters.

Set the file name with up to 256 characters including the path name for file storage destination and file name to be stored (including extension).

1.2.3 Precautions for using GT SoftGOT2000

■1. Numerical Display

When the [View Format] of [Numerical Display] is set to [Real] and if illegal value is stored, illegal value will be displayed on GT SoftGOT2000.

(GOT displays [non].)

■2. Time display

The clock data of the personal computer is used for clock display when monitoring on GT SoftGOT2000. (GOT reads and shows the clock data of the PLC CPU.)

When controlling a system using clock data, set the same clock data for the PLC CPU and personal computer.

GT SoftGOT2000 does not support the daylight saving function. Do not check [Automatically adjust clock for daylight saving changes] on the personal computer.

■3. Version of GT SoftGOT2000

Be sure to use the GT SoftGOT2000 of the same version as GT Designer3 that the project data is created.

When using different versions of GT SoftGOT2000 and GT Designer3, the file may not be opened, functions/settings may be invalid, or GT SoftGOT2000 may not work correctly.

Refer to the following for the project data compatibility.

⇒ 5.3 Applicable Project Data

■4. Printer to output function

(1) Hard copy output destination

Hard copy output destination can be specified on GT Designer3.

Settings that are required for each hard copy output destination are shown below.

(a) In the case [Printer] is selected as the output destination on the Hard copy setting screen of GT Designer3.

The hard copy outputs to the printer.

At the same time, to G2SgtHardcopy A folder in the virtual drive, I will save the print image of the hard copy.

(b) In the case [File] is selected as the output destination on the Hard copy setting screen of GT Designer3.

To the destination that you set in the hard copy set of GT Designer3, and then save the image printing of hard copy.

Refer to the following for hard copy functions.

⇒ GT Designer3 (GOT2000) Help

(2) System alarm during hard copying

The system alarm will not be displayed during hard copying.

Refer to the following for troubleshooting for the hard copy function.

⇒ 5.2.4 Troubleshooting for print

5.2.5 Troubleshooting for file save problems

(3) Report function

Data cannot be output to a printer directly.

Print images (in CSV format) are stored to the virtual A drive of a personal computer once. Output these images in each file to a printer.

■5. Functions in which data are stored in the memory card in advance by the user

When registering parts of BMP/JPEG files and document display data, store the data to the virtual A drive, the virtual B drive, or the virtual E drive.

(The drive to be used depends on the specifications and setting of the object.)

For details of each function, refer to the following manual.

➡ GT Designer3 (GOT2000) Help

Except for the virtual drive, GT SoftGOT2000 does not recognize BPM/JPEG files and other files.

Example) Storage destination for document display data

¥MELSOFT¥SGT1000¥Multi¥00001¥Drive¥A¥DOCIMG

1.2.4 License key specifications

To use GT SoftGOT2000, a license key is required.

Model name	Attachment type
GT27-SGTKEY-U	Attached to USB port

Be sure to attach the license key before starting monitoring on GT SoftGOT2000.

When starting monitoring without a license key, GT SoftGOT2000 automatically ends in about two hours.

Also, from starting monitoring to exiting it, use GT SoftGOT2000 with the license key attached.

If the license key is disconnected during monitoring, GT SoftGOT2000 will exit automatically.

POINT

License key

(1) Before using license key

The license key is authenticated by OS as a connected device.

If any system driver is not installed, the installation of a system driver (device driver) is automatically executed at the startup of GT SoftGOT2000.

(2) License key use target

The GT27-SGTKEY-U is dedicated for GT SoftGOT2000.

It cannot be used for GT SoftGOT1000 or GT SoftGOT2.

1.2.5 Precautions on license key

■1. When attaching GT27-SGTKEY-U

(1) Installation/uninstallation of the System Driver

Before installing or uninstalling the system driver, disconnect the GT27-SGTKEY-U.

When installing the system driver with the GT27-SGTKEY-U attached, the installation of the USB may be failed.

When the installation is failed, uninstall the system driver after disconnecting the GT27-SGTKEY-U, and install the system driver again.

(2) Use of a USB hub

Do not use GT27-SGTKEY-U through a USB hub.

When using GT27-SGTKEY-U, connect GT27-SGTKEY-U to a personal computer directly.

1.2.6 Function that can be used in GT SoftGOT2000, features that are not available

In GT SoftGOT2000, some functions available in GOT2000 series cannot be used.

Function that can be used in GT SoftGOT2000, it is identified in the following features that are not available.

■ 1. GT SoftGOT2000

(1) Common function

○: Available, -: Unavailable

Function	Supported/ Unsupported	Function	Supported/ Unsupported
System font display	○	Recipe	○
Option font display	○	Script	○
Superimposition of objects	○	Multi-channel connection	-
Base screen display	○	Vertical display	-
Overlap window display	○	Touch panel and touch key	○
Superimpose window display	○	Numerical display/input	○
Key window display	○	Text display/input	○
Set overlay screen	○	Historical data list display	○
Screen Switching	○	Clock display	○
Station No. Switching	○	Comment display	○
Buffer memory unit No. switching	○	Alarm display	○
Language Switching	○	Alarm popup display	○
System information	○	Panel meter display	○
Security authentication	○	Historical trend graph	○
Status observation	○	Line graph	○
Time action	○	Bar graph	○
Hard copy function	○	Scatter graph	○
Comment	○	Statistics graph	○
Figure	○	Level display	○
Internal device	○	Touch switch	○
Cursor movement	○	Slider	○
Operation Log	○	Video/RGB display object	-
Logging	○		

(2) Utility function

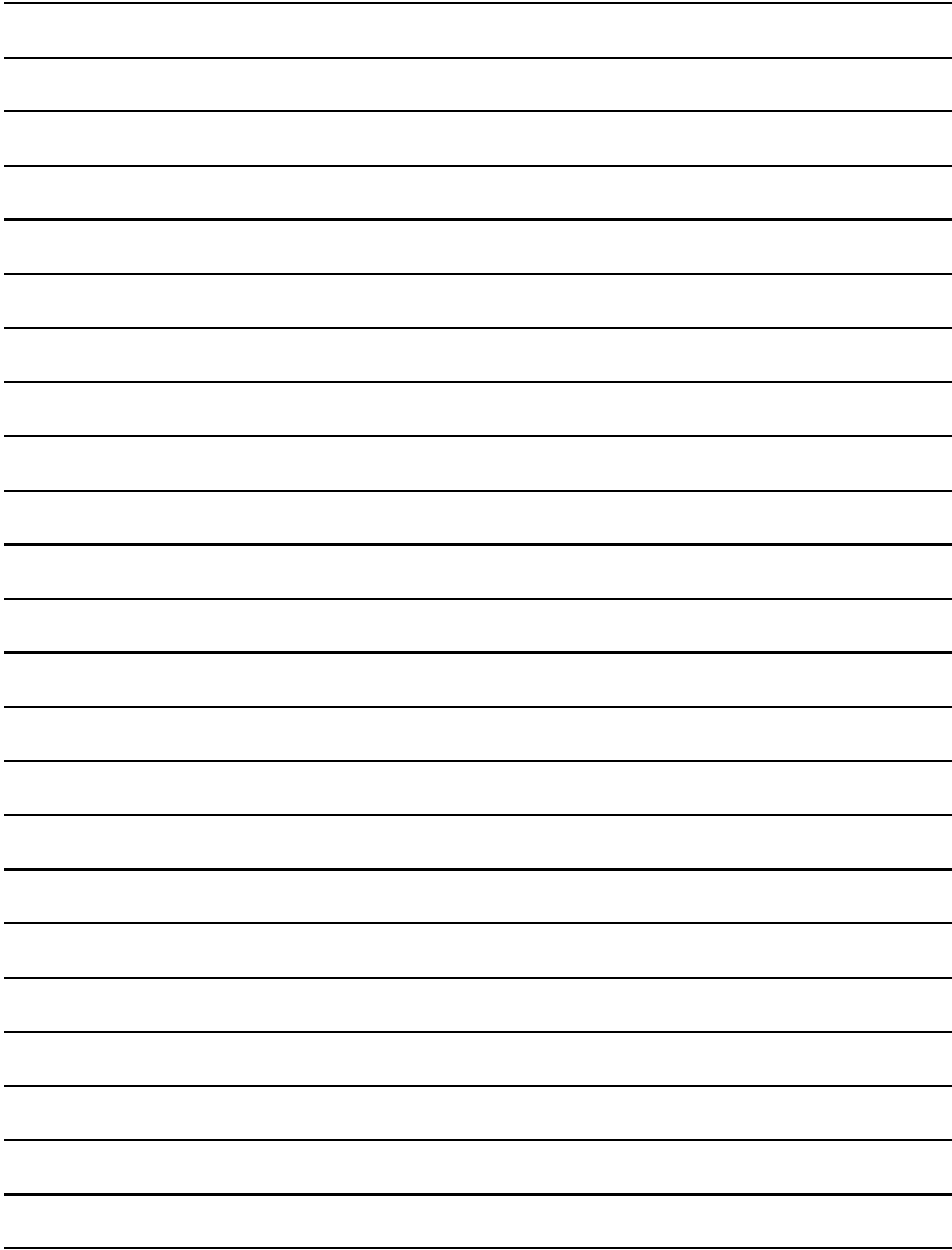
○: Available, -: Unavailable

Category	Function	Available/ Unavailable	Function	Available/ Unavailable
[GOT Setting]	[Display]	○	[Time]	○
	[Language]	○	[Controller]	-
	[Specific Information]	-	[Ethernet Communication]	-
	[IP Address]	-	[Transparent Mode]	○
	[Operation]	○	[Security]	○
	[Utility Call Key]	○	[Operator Authentication]	-
	[USB Host]	-		
[Extended Setting]	[SoftGOT-GOT Link Function]	-	[License Management]	-
	[VNC Server Function]	-	[Video/RGB]	-
	[Sequence Program Monitor]	-	[Multimedia]	-
	[Backup/Restore]	-		
[Maintenance]	[Batch Self Check]	-	[Drawing check]	-
	[USB Device Management]	-	[Font check]	-
	[Clean/Display Screen]	-	[Touch panel check]	-
	[Touch panel calibration]	-	[I/O check]	-
	[Maintenance Report]	-	[Ethernet Status Check]	-
	[System Alarm]	○	[GOT Information]	-
[Monitor]	[Device Monitor]	-	[SFC Monitor]	-
	[System Configuration]	-	[Motion SFC Monitor]	-
	[Sequence Ladder Monitor]	-	[Log Viewer]	-
	[Network monitor]	-	[Network Status Display]	-
	[Intelligent module monitor]	-	[A List Editor]	-
	[Servo amplifier monitor]	-	[FX List Editor]	-
	[Motion Monitor]	-	[Ladder Editor]	-
	[CNC Monitor]	-	[LCPU Troubleshooting]	-
[Data Control]	[Alarm information]	○	[Backup/Restore Function]	-
	[Image File Management]	○	[SRAM control]	-
	[Recipe Information]	○	[Memory card format]	-
	[Logging information]	○	[Memory check]	-
	[Operation log information]	○	[GOT Package Acquisition]	-
	[Package Management]	○		

(3) Extended function

○: Available, -: Unavailable

Function	Available/ Unavailable	Function	Available/ Unavailable
SoftGOT-GOT link function	-	Device Data Transfer	○
Authorization control	-	Device monitor	-
Backup/restore	-	Log viewer	-
Barcode	-	GOT Platform Library	-
RFID	-	Operation panel	-
Remote personal computer operation (Serial)	-	Video display	-
VNC client	-	RGB display	-
VNC server	-	[Multimedia]	-
Sequence program monitor	-	Document Display	○
Gateway	-	Video/RGB display object	-
65536-color display	○	Operation Log	○
Window scroll	○	Text input front end processor	○
Sound output	○	Object script	○
Network monitor	-	Historical trend graph	○
Intelligent module monitor	-	Recipe	○
Servo amplifier monitor	-	Logging	○
Q motion monitor	-	FTP client	-
FA list editor	-	FTP server	-
Operator authentication	○	Maintenance report	-
External I/O	-	Motion SFC monitor	-
Report	○		



2. MONITORING THE PROJECT DATA WITH GT SoftGOT2000

2.1	Starting and Exiting GT SoftGOT2000	2 - 2
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2.3	Environment Setup.....	2 - 16
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2.1 Starting and Exiting GT SoftGOT2000

2.1.1 Start GT SoftGOT2000

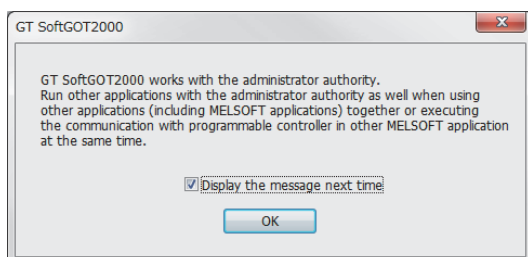
Start GT SoftGOT2000.

Step 1. From the Windows start menu^{*1}, select [MELSOFT]^{*2} → [GT Works3] → [GT SoftGOT2000] to start GT SoftGOT2000.

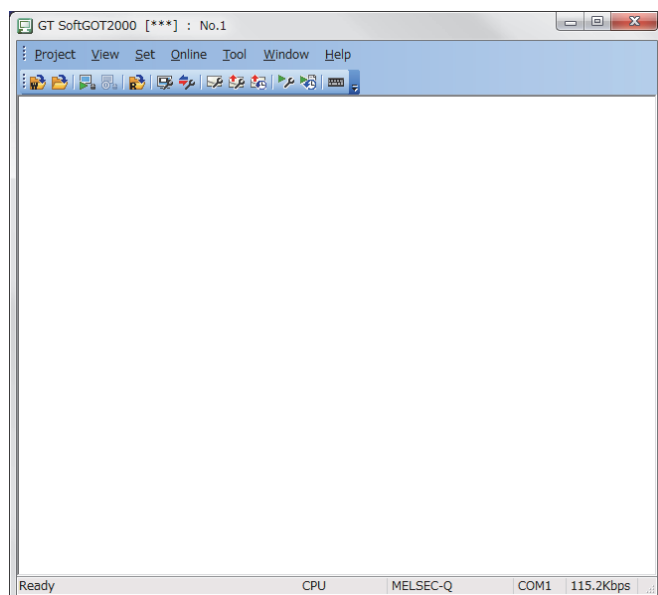
*1 Select [All Programs] on the [Start] screen, or select [Start] → [All Programs].

*2 [MELSOFT Application] appears for a version of GT Works3 earlier than 1.136S.

Step 2. Displays the dialog for the administrator privileges.
Click the [OK] button.



Step 3. GT SoftGOT2000 will start up.



POINT

(1) Display position when starting up the GT SoftGOT2000

When GT SoftGOT2000 is started, its window is displayed where the last time it was terminated.

However, if GT SoftGOT2000 was illegally terminated, the window is displayed where the last time GT SoftGOT2000 was normally closed.

Display position is stored for each CPU number of GT SoftGOT2000.

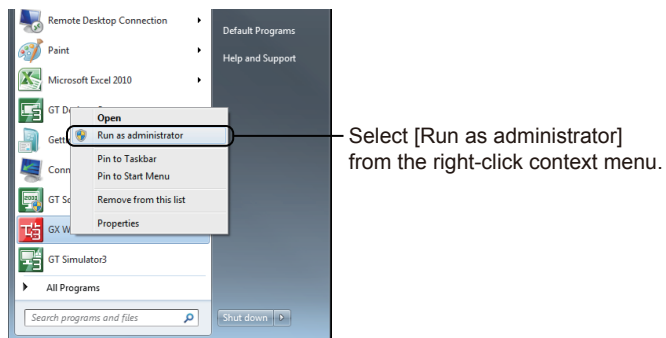
■ 1. Precautions for launching other MELSOFT applications while GT SoftGOT2000 is running

The User Account Control (UAC) has been introduced in Windows Vista or later.
Run other MELSOFT applications using the following procedure.

- (1) **When the User Account Control (UAC) is disabled**
Run an application with no need to select [Run as administrator].
- (2) **When the User Account Control (UAC) is enabled**
Run an application as the administrator.

Step 1. Right-click an application to execute in the Windows start menu.

Step 2. Select [Run as administrator] to run the application.



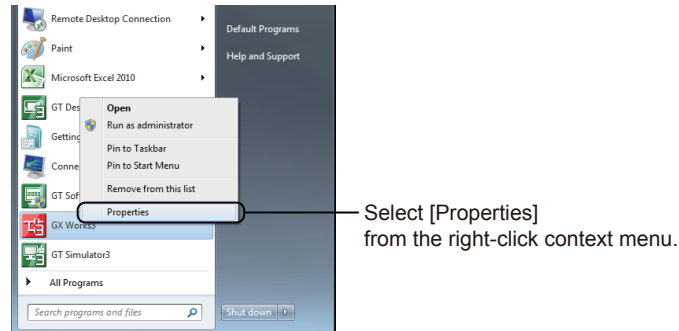
(3) Always running an application as an administrator

To always run an application as an administrator, configure the following setting.

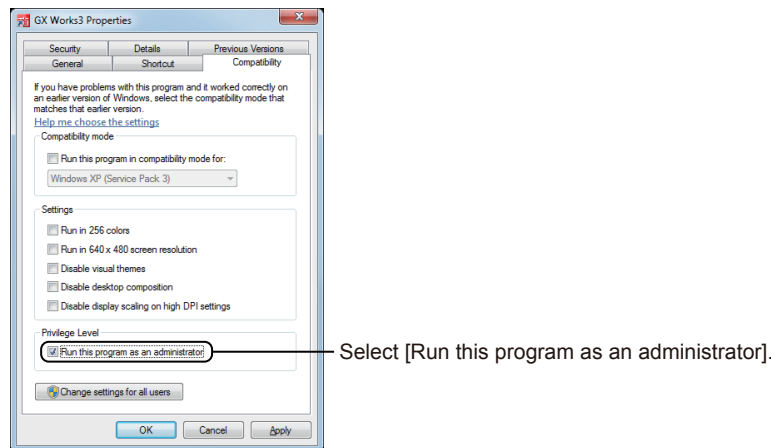
Step 1. Select and right-click the application to execute from the start menu of Windows.

Step 2. Right-click a MELSOFT application.

Step 3. Select [Properties] from the menu.



Step 4. In the [Properties] dialog, select the [Compatibility] tab. Select [Run this program as an administrator] in [Privilege Level].



Step 5. Click the [OK] button to close the dialog.

For Windows 8 and Windows 8.1, right-click a MELSOFT application and then select [Open file location] from the menu.

2.1.2 Starting up GT SoftGOT2000 automatically

The following explains how to start up GT SoftGOT2000 automatically when Windows is started up by using [Online after starting].

POINT

Before automatic startup

Make sure that the power supply to the connected PLC CPU is turned on before starting up Windows when performing automatic startup.

■1. Automatic startup settings on Windows 8.1, Windows 8, Windows 7, or Windows Vista

Configure the automatic startup settings using [Task Scheduler] of Windows.

- Step 1.** After starting up GT SoftGOT2000, the project data for which the monitoring should be automatically started up is read out and monitored by GT SoftGOT2000.
- Step 2.** Choose any of the following.
- [Online] → [Startup in Online Mode]
 - [Startup in Online Mode] by right-clicking the mouse
- Step 3.** Close GT SoftGOT2000.
- Step 4.** On Windows 8.1 or Windows 8, select [Search] in the charm bar and search tasks. Select [Task Scheduler] from the search results.
On Windows 7 or Windows Vista, select [Start] → [All Programs] → [Accessories] → [System Tools] → [Task Scheduler] from the menu.
- Step 5.** Select [Create Task] from [Actions] in [Task Scheduler].
- Step 6.** On the [General] tab, configure the following settings.
- Set a name for [Name].
 - Select [Run with highest privileges].
 - Select the used OS for [Configure for].
- Step 7.** On the [Triggers] tab, click the [New] button and configure the following settings.
- Select [At log on] for [Begin the task].
 - For only Windows 8 or later, select [Delay task for], and set [30 seconds]. (According to the personal computer environment, set the optimum time.)
 - Select [Enabled].
- Step 8.** On the [Actions] tab, click the [New] button and configure the following settings.
- Select [Start a program] for [Action].
 - Specify the executable file of GT SoftGOT1000 for [Program/script].
(Default: C:\Program Files\MELSOFT\SGT1000\SGT1000.exe)
 - To start a GT SoftGOT1000 module by specifying the module number, enter the keyword for the module in [Add arguments (optional)].
For the keyword for the module number, refer to the following.
⇒ ■1. Startup procedure
- Step 9.** On the [Settings] tab, configure the following settings.
- Set [If the task fails, restart every] as needed.
 - Change the setting of [Stop the task if it runs longer than] as needed. (Default: 3 days)
- Step 10.** Click the [OK] button to complete the settings.

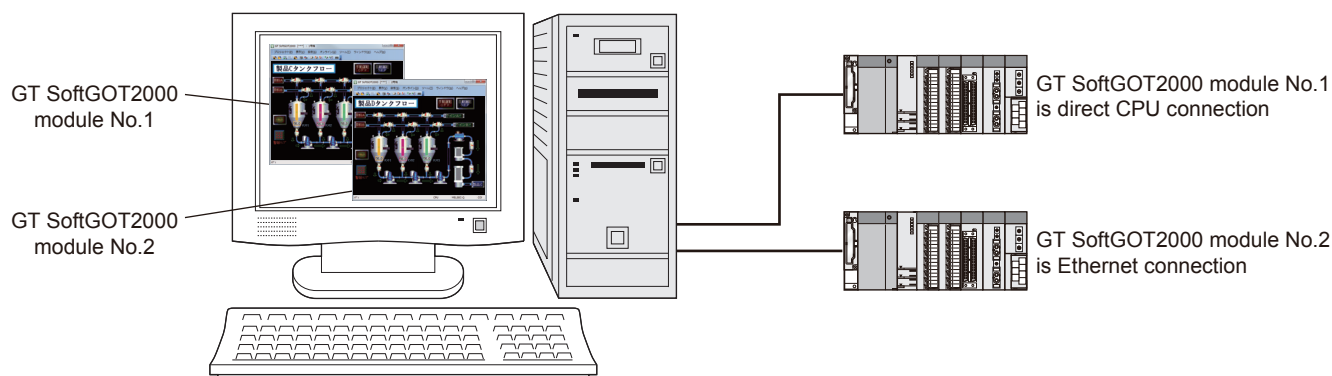
■ 2. Automatic startup settings on Windows XP

Set the automatic startup using the startup setting of Windows.

- Step 1.** After starting up GT SoftGOT2000, the project data for which the monitoring should be automatically started up is read out and monitored by GT SoftGOT2000.
- Step 2.** Choose any of the following.
- [Online] → [Startup in Online Mode]
 - [Startup in Online Mode] by right-clicking the mouse
- Step 3.** Close GT SoftGOT2000.
- Step 4.** Copy the GT SoftGOT2000 shortcut from [MELSOFT]^{*1} in the start menu to the Windows startup folder by using Windows Explorer or others.
- ^{*1} [MELSOFT Application] appears for a version of GT Works3 earlier than 1.136S.
- Step 5.** GT SoftGOT2000 automatically starts up when Windows is started up from the next time, and automatically begins monitoring.

2.1.3 Starting up multiple GT SoftGOT2000 modules

Multiple modules of GT SoftGOT2000 can be started up simultaneously by a single computer. Each module of GT SoftGOT2000 is started up as an "n" module, and can be monitored by different connection types. (Module numbers appear in the title bar. Module numbers can be shown or hidden by the Environment Setup screen.)



■ 1. Startup procedure

Take one of the following procedures to start up multiple modules of GT SoftGOT2000.

(1) When starting up multiple modules in the order of module numbers

If the GT SoftGOT2000 modules are started up by the normal startup procedures, they will start up in the order of module numbers (Module No. 1, No. 2, No. 3...).

(2) When starting up the specified module

Take the following procedures to start up the specified GT SoftGOT2000 module (e.g., module No. 3 only).

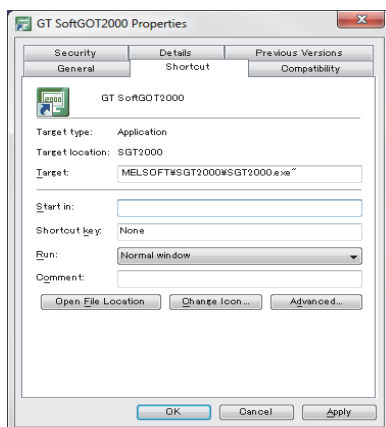
- Step 1.** From the Windows start menu^{*1}, select [MELSOFT]^{*2} → [GT Works3], right-click [GT SoftGOT2000], and select [Properties].

^{*1} Select [All Programs] on the [Start] screen, or select [Start] → [All Programs].

^{*2} [MELSOFT Application] appears for a version of GT Works3 earlier than 1.136S.

- Step 2.** Enter the keyword for the module to be started up at the end of the character strings in the [Target] field on the [Shortcut] tab on GT SoftGOT2000 Properties that appears.

Keyword	Description
-SGTn*1	Specifies the number of the module to be started up. Set the number of the module to be started up to "n". (1 to 32767)
*1 A single-byte space is required before " _".	



When starting up module No. 3

- Step 3.** Press the [OK] button after entering the module number.
- Step 4.** The specified module of GT SoftGOT2000 will start up at the next startup.
- Step 5.** Delete the keyword that was entered in the [Target] field when not specifying the module No.

POINT

Starting up multiple GT SoftGOT2000 modules

(1) When starting up multiple GT SoftGOT2000 modules by specifying the module numbers

Create a shortcut for each module to start up multiple GT SoftGOT2000 modules by specifying each module number.

(2) When multiple GT SoftGOT2000 modules are started up in the full screen mode

If multiple modules of GT SoftGOT2000 are started up in the full screen mode, only the very front screen is accessible.

To access other windows, rearrange the windows so that the window of the module to be operated is at the very front.

Refer to the following section for how to move the windows.

➡ 4.19 Moving the Window

(3) When starting the GT SoftGOT2000 with the specified module number in the full-screen mode

The specified module of GT SoftGOT2000 can be started in the full-screen by entering the keyword for both full screen mode and module No. in the [Target] of [GT SoftGOT2000 Properties]. (There are no rules for the order of entering keywords.)

Ex) When starting module No. 3 in the full-screen 1

C:\Program Files\MELSOFT\SGT2000\SGT2000.exe -SGT3 -NOFRAME

↑ ↑
A one-byte space is necessary in front of keyword

Refer to the following for the keyword for the full screen mode.

➡ 4.14 Full Screen Mode

■ 2. Precautions for use

(1) **Monitoring speed when starting up multiple GT SoftGOT2000 modules**

When starting up multiple GT SoftGOT2000 modules, the monitoring speed may be reduced according to the performance of the personal computer.

It is recommended to not activate five or more modules.

(The number of modules can be specified between 1 and 32767.)

(2) **GOT internal device when multiple modules are started up**

GOT internal device for each module is controlled separately.

GOT internal device cannot be shared by different modules.

(3) **Data save location when multiple applications are started up**

Data save location for each module is controlled separately.


(4) **Monitoring a third party PLC when starting up multiple modules**

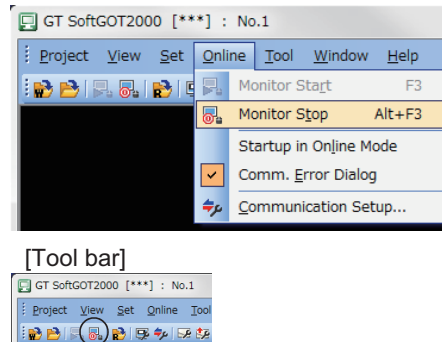
When connected to the third party PLC and the same COM port is designated as the monitor target for multiple GT SoftGOT2000 modules, only the first GT SoftGOT2000 module that starts monitoring is allowed to communicate.

Communication of the GT SoftGOT 1000 module that begins monitoring later will time out.

2.1.4 Exiting from GT SoftGOT2000

This section describes how to exit from GT SoftGOT2000.

- Step 1.** Perform either of the following operations.
- Select [Project] → [Exit] from the menu.
 - Click the  on the tool bar.
 - Right-click the mouse and select [Exit] from the menu.
- Step 2.** GT SoftGOT2000 is exited.



Select either method.

POINT

Exiting with GOT internal device

Turn ON the GOT internal device (system data area of GT SoftGOT2000: GS500.b0) to exit from GT SoftGOT2000.

Presetting the above device as a touch key enables to exit from GT SoftGOT2000 without selecting the menu.

(GT SoftGOT2000 may not be terminated if device ON time is too short. Keep the device ON until GT SoftGOT2000 is terminated.)

For details of the GOT internal device, refer to the following.

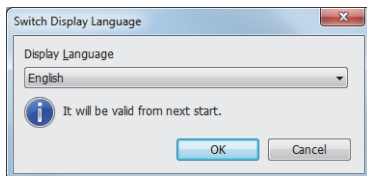
➡ GT Designer3 (GOT2000) Help

2.1.5 Switching the display language of GT SoftGOT2000

You can use GT SoftGOT2000 in multiple languages on one personal computer by switching the display language of GT SoftGOT2000.

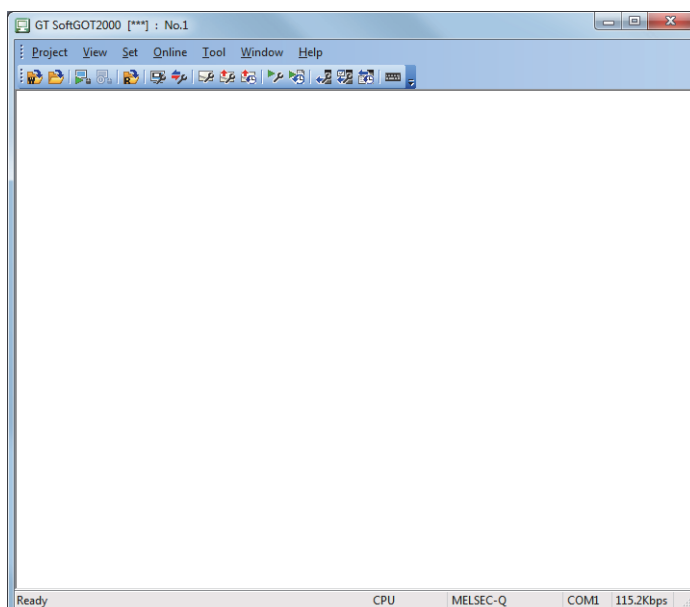
Step 1. Select [View] → [Switch Display Language] from the menu.

Step 2. The [Switch Display Language] dialog appears.
Configure the following setting and click the [OK] button.



Item	Description
[Display Language]	Select a display language. <ul style="list-style-type: none">• [Japanese]• [English]• [Chinese (Simplified)]

Step 3. Restart GT SoftGOT2000 to display the menu items, dialogs, messages, and others in the set language.



■ 1. Restrictions on the display language switching

(1) Languages supported on the personal computer

When the personal computer does not support a language to be switched to, screen layouts collapse and characters become garbled on GT SoftGOT2000.

Install a language pack or others on the personal computer as needed.

(2) Items to which the display language switching is not applied

The display language switching is not applied to the following items.

Item		Display specifications
Some right-click context menu items		The display language depends on the OS language.
Setting items and buttons in some dialogs		The display language depends on the OS language.
Manuals		The display language depends on the language version of the manual installed.
Advanced application setting	Advanced application setting files	The display language depends on the OS language.
	Log files of setting check	

(3) Language of history data

In the following functions, history data after a display language switching is created in the new display language and added into an existing history file.

Therefore, the history file may contain data in multiple display languages set before and after the switching.

If a history file of the mail send function has already been created with GT SoftGOT2000 whose version is earlier than 1.122C, another history file is created to record history data after a display language switching.

- Application start-up
- Mail send function
- Functions called from PX Developer

(4) Operation when multiple modules of GT SoftGOT2000 are started

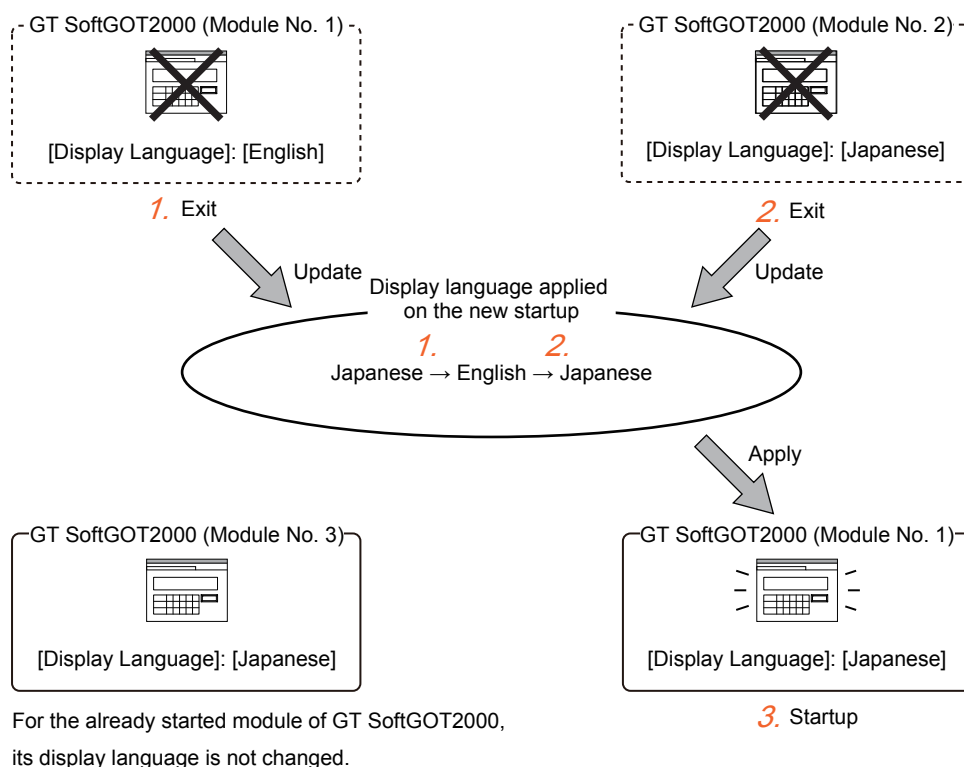
The display language is shared among all modules of GT SoftGOT2000.

When the display language setting is changed, the setting change is reflected by exiting GT SoftGOT2000 where the setting change is made.

The display language of the last exited GT SoftGOT2000 is applied when you newly start a GT SoftGOT2000 module.

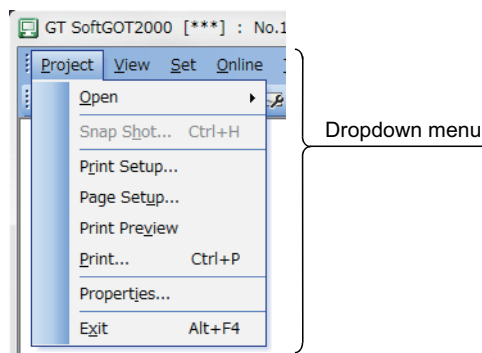
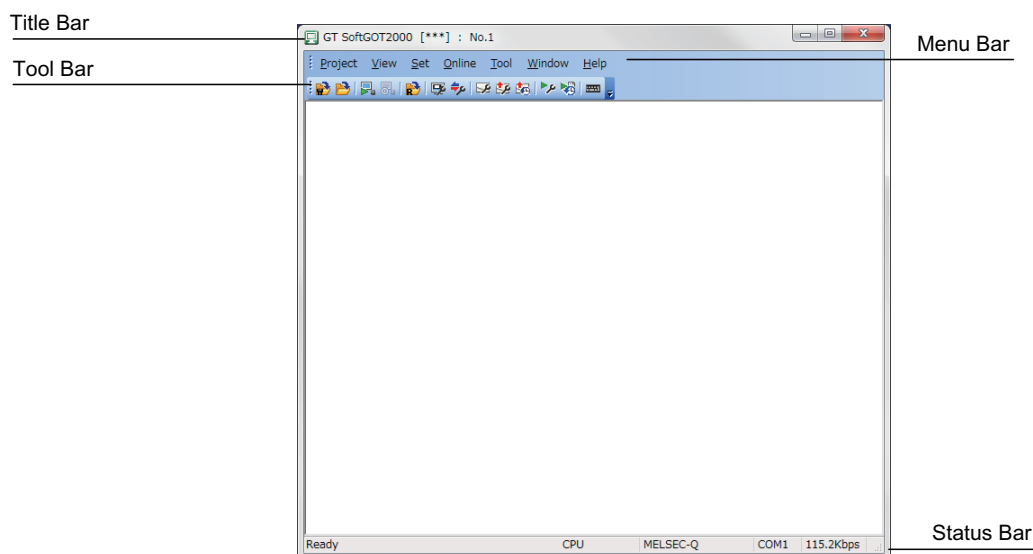
Example) When exiting GT SoftGOT2000 (Module No. 1) ([Display Language]: [English]), and then exiting GT SoftGOT2000 (Module No. 2) ([Display Language]: [Japanese])

Japanese is applied as the display language when GT SoftGOT2000 (Module No. 1) is newly started.



2.2 Screen Configuration of GT SoftGOT2000

This section describes screen configuration.

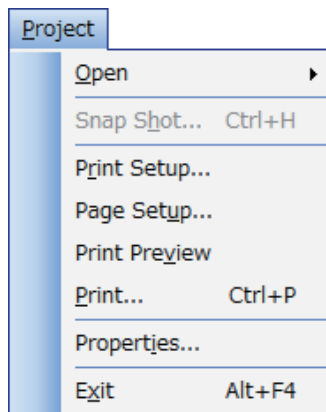


Item	Description
Title Bar	<p>Displays the project name and/or the module number, or the comment set with GT SoftGOT2000 Commander.</p> <ul style="list-style-type: none"> • Project name and module number If GT SoftGOT2000 displays the project data for the first time, the title bar displays [***] as the project name. If the project title is not set for the project data monitored by GT SoftGOT2000, the title bar displays [No title] as the project name. • Comment set with GT SoftGOT2000 Commander Display the comment set with GT SoftGOT2000 Commander. (The line feeds are disabled, and the comment is displayed in one line.) If GT SoftGOT2000 monitors the linked GOT for the first time, the title bar displays [***]. If the comment is not set with GT SoftGOT2000 Commander, the title bar displays [No comments (**.**.**.*)]. (**.**.**.* indicates the IP address of the linked GOT.) <p>To display the project name and/or the module number, or the comment set with GT SoftGOT2000 Commander, make a selection in the title bar setting in the [Environment Setup] dialog. For the details of the title bar setting, refer to the following. ➡ 2.3 Environment Setup</p>
Menu Bar	<p>Operate GT SoftGOT2000 by using a drop-down menu. For the details of the menu bar, refer to the following. ➡ 2.2.1 Menu Bar</p>
Tool Bar	<p>Operate GT SoftGOT2000 by selecting an icon. For the details of the tool bar, refer to the following. ➡ 2.2.2 Tool bar</p>
Status Bar	<p>Displays the description of a command or icon, and the connection method, the communication port and the baud rate in the communication setup.</p>

2.2.1 Menu Bar

This section describes commands assigned to the menu bar.

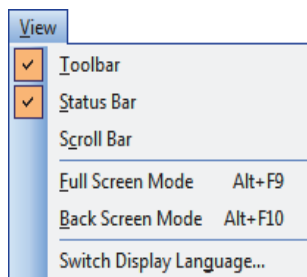
[Project]



The Project menu includes options for project data reading, Snap Shot and printing.

➡ 4. FUNCTIONS OF GT SoftGOT2000

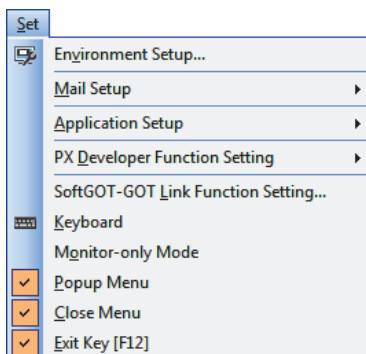
[View]



The View menu includes the following functions: displaying/hiding the toolbar, status bar, and scroll bar, enabling/disabling the full screen mode or the back screen mode, and switching the display language.

➡ 4. FUNCTIONS OF GT SoftGOT2000

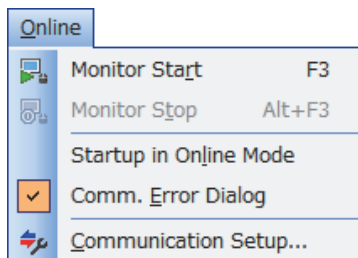
[Set]



The Set menu includes the functions for setting the environment, mail, application start-up, PX Developer, and SoftGOT-GOT link. The menu also includes the functions for enabling and disabling the keyboard input, monitor-only mode, popup menu, close menu, and exit key.

➡ 4. FUNCTIONS OF GT SoftGOT2000

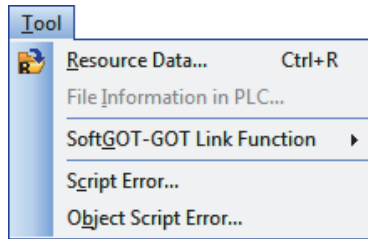
[Online]



The Online menu includes functions for setting monitor start/stop, starting in online mode enable/disable switching, communication error dialog display/non-display and communications.

➡ 2. MONITORING THE PROJECT DATA WITH GT SoftGOT2000

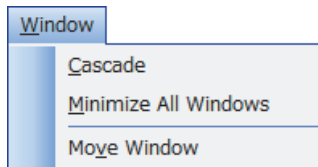
[Tool]



The Tool menu includes the function for displaying resource data, file information in the PLC, GOT project data acquisition, upload status of resource data, and error information.

➡ 4. FUNCTIONS OF GT SoftGOT2000

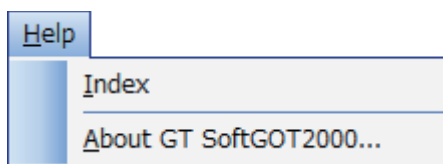
[Window]



The Window menu includes the function of window move.

➡ 4. FUNCTIONS OF GT SoftGOT2000

[Help]



















The Help menu includes functions of viewing the PDF manual related to the GT SoftGOT2000 and checking the software version.

➡ 2.7 Help

2.2.2 Tool bar

This section describes the tool bar.




Name		Description
	[Open a Project]	Opens a workspace format project created with GT Designer3.
	[Open a File]	Opens a single file format project (*.GTX) of GT Designer3.
	[Monitor Start]	Starts monitoring.
	[Monitor Stop]	Stops monitoring.
	[Resource Data]	Displays resource data.
	[Environment Setup]	Performs environment settings for GT SoftGOT2000.
	[Communication Setup]	Performs communication settings for GT SoftGOT2000.
	[Mail Setup]	Performs mail settings such as dial-up, send address.
	[Mail Condition]	Disables the mail send setting of the project data.
	[Mail History]	Displays the operation history of mail sendings.
	[Application Start-up Setting]	Allows settings for starting up applications from GT SoftGOT2000.
	[Application Start-up History]	Shows operation histories of application start-up.
	[PX Developer Function Call Setting]	Sets to call the monitor tool functions of PX Developer on GT SoftGOT2000.
	[PX Developer Function Call Sub-Setting]	Sets the PX Developer function call history.
	[PX Developer Function Call History]	Displays the monitor tool function call history of PX Developer.
	[Keyboard]	Switches keyboard input enable/disable.

2.3 Environment Setup

In Environment Setup, set the resolution, etc. of GT SoftGOT2000.

Step 1. Perform either of the following operations.

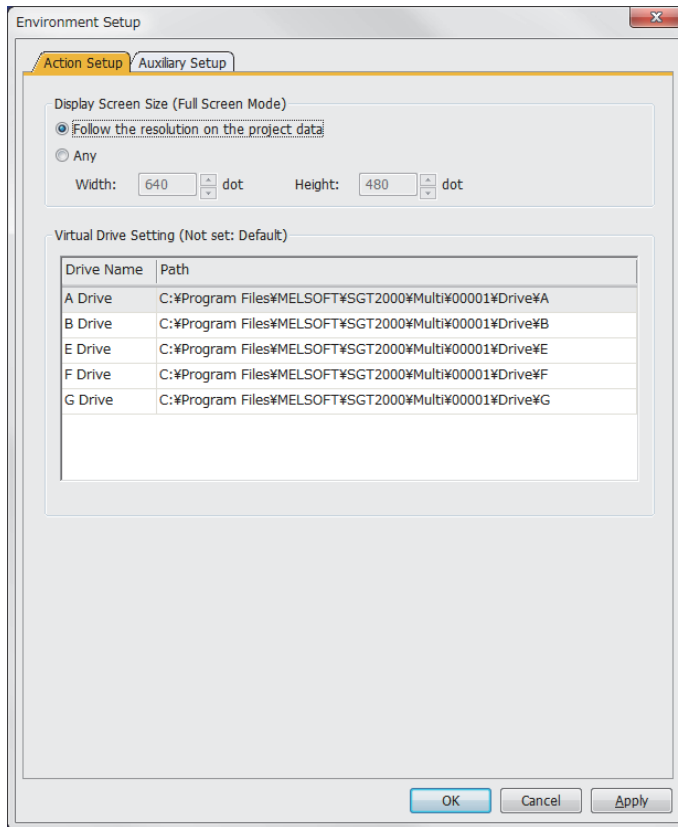
- Clicking  [Environment Setup]
- Selecting [Set] → [Environment Setup] from the menu
- Right-clicking the mouse to select [Environment Setup] from the menu

Step 2. The [Environment Setup] dialog is displayed.

Step 3. Set each item and click the button.

2.3.1 [Environment Setup] dialog

■1. [Action Setup] tab



Item	Description
[Display Screen Size (Full Screen Mode)]*1	<p>Set the size of the screen display of GT SoftGOT2000 applied when the full screen mode function is used.</p> <ul style="list-style-type: none"> • [Follow the resolution on the project data]: Select this item when displaying GT SoftGOT2000 on full-screen display in the size of the display screen that corresponds to the resolution set in the project data. • [Any]: Select this item to set the size of the display screen of GT SoftGOT2000 on full-screen display. After selecting, set the size of the display screen. (Width: [320] to [1920] dots, Height: [240] to [1200] dots)
[Virtual Drive Setting (Not set: Default)]	<p>Set the drive configuration of the GOT in a folder on a hard disk drive as a virtual drive. (Default: Standard virtual drive)</p> <p>➡ 1.2.2 Specifications of GT SoftGOT2000</p>

*1 When [Display Screen Size (Full Screen Mode)] is set to a smaller size than the size set for [Resolution] in the [Environment Setup] dialog, the user can simultaneously use the full-screen GT SoftGOT2000 and other applications.



When the sizes set for [Resolution] and [Display Screen Size (Full Screen Mode)] are the same

- [Resolution] : 1280 × 1024
- [Display Screen Size (Full Screen Mode)] : 1280 × 1024



When [Display Screen Size (Full Screen Mode)] is set to a smaller size than the size set for [Resolution]

- [Resolution] : 1280 × 1024
- [Display Screen Size (Full Screen Mode)] : 1280 × 512

Displaying the scroll bars enables GT SoftGOT2000 to display the hidden part of the monitor screen.

➡ 6.19 Scroll Function

POINT

Screen size in full screen mode

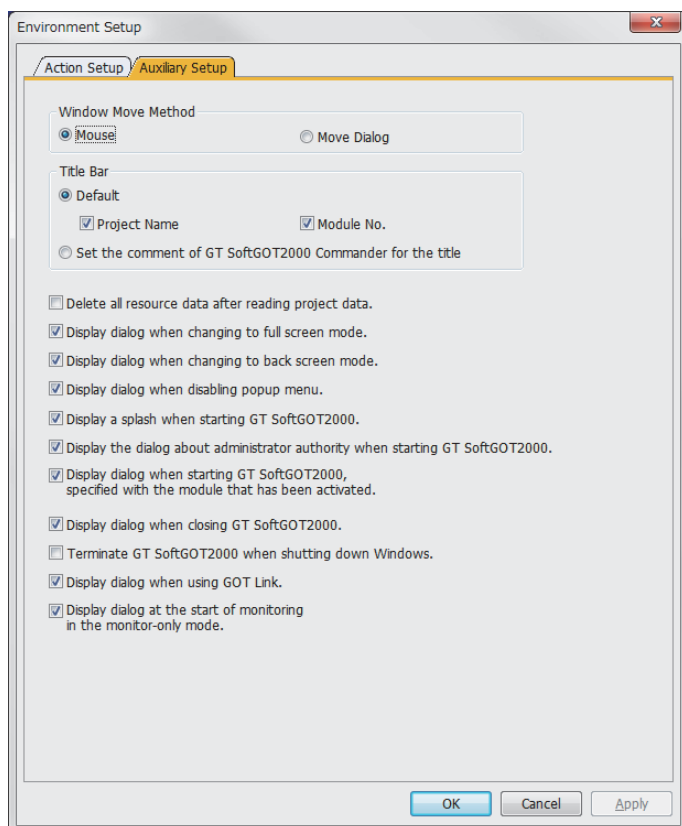
For selecting [User Setting] for [Display Screen Size (Full Screen Mode), [Width] and [Height] can be set with GOT internal devices (Width: GS503, Height: GS504).

Input values into the corresponding GOT internal devices, and the screen size changes.

For GOT internal devices, refer to the following manual.

➡ GT Designer3 (GOT2000) Help

■ 2. [Auxiliary Setup] tab




Item	Description
[Window Move Method]	<p>Select the window moving method used when the title bar is not displayed, for example, in the full screen display function. Refer to 6.9 for details of window movement.</p> <ul style="list-style-type: none"> • [Mouse] : Move the mouse to move GT SoftGOT2000 for window movement. Click the mouse to determine the position. • [Move Dialog] : The Move window dialog is displayed for window movement, and clicking the up, down, left or right button moves GT SoftGOT2000 on a 10-dot basis. A window can also be moved on a panel computer that cannot use a mouse.
[Title Bar]	<p>Select the data to be displayed on the title bar.</p> <ul style="list-style-type: none"> • [Default] : Select this item when displaying the project name and module number. Select the items to display. • [Set the comment of GT SoftGOT2000 Commander for the title] : Select this item to display the comment set with GT SoftGOT2000 Commander. For how to set the comment, refer to the following. <p>➡ 4.12.5 Managing GT SoftGOT2000 and GT SoftGOT1000 modules that use the SoftGOT-GOT link function (GT SoftGOT2000 Commander)</p>
[Delete all resource data after reading project data.]	Check this item to delete all resource data in the A/B drive when completing project data reading.
[Display dialog when changing to full screen mode.]	Check this item to display the confirmation dialog when full screen changes are carried out.
[Display dialog when changing to back screen mode.]	Check this item to display the confirmation dialog when the screen is displayed behind the other screens.
[Display dialog when disabling popup menu.]	Check this item to display the confirmation dialog when disabling popup menu.
[Display a splash when starting GT SoftGOT2000.]	Check the item to display the splash screen when GT SoftGOT2000 starts.
[Display the dialog about administrator authority when starting GT SoftGOT2000.]	Check this item to display the confirmation dialog when stating GT SoftGOT2000.


Item	Description
[Display dialog when starting GT SoftGOT2000, specified with the module that has been activated.]	Check this item to display the attention dialog when restarting GT SoftGOT2000 module that has been activated.
[Display dialog when closing GT SoftGOT2000.]	Check this item to display the confirmation dialog when ending GT SoftGOT2000.
[Terminate GT SoftGOT2000 when shutting down Windows.]	Check this item to end GT SoftGOT2000 as well as logging off or ending Windows.
[Display dialog when using GOT Link.]	Select this item to display the confirmation dialog when synchronizing project data by the GOT.
[Display dialog at the start of monitoring in the monitor-only mode.]	Select this item to display the confirmation dialog at the start of monitoring in the monitor-only mode.

2.4 Setting the Communication Method

In Communication Setup, set the type of the PLC CPU to be connected, the communication time-out period, etc.

Step 1. Perform either of the following operations.

- Clicking  [Communication Setup]
- Select [Online] → [Communication Setup] from the menu.
- Right-click the mouse to select [Communication Setup] from the menu.

Step 2. The [Communication Setup] dialog is displayed.
Set each item and click the  button.

POINT

Communication Setup

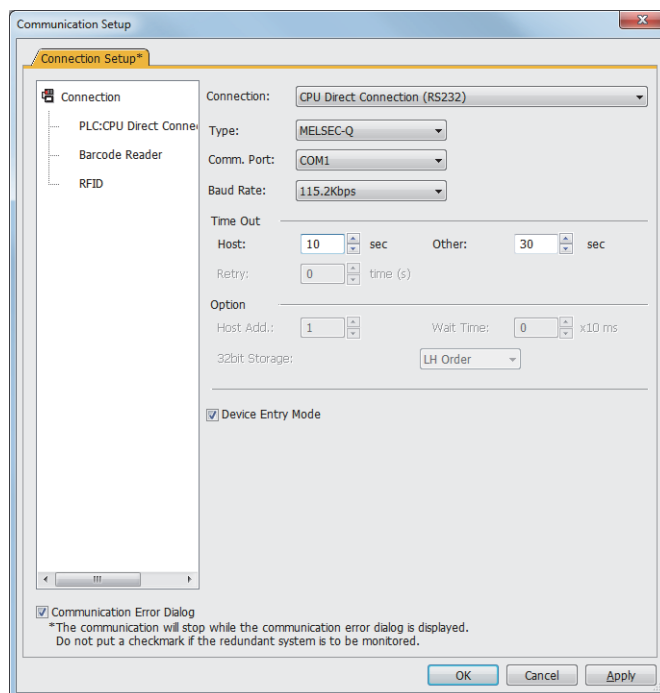
Make Communication Setup before starting monitoring.

After start of monitoring on GT SoftGOT2000, Communication Setup cannot be changed.
(The "Communication Error Dialog" setting can be changed during monitoring.)

2.4.1 [Communication Setup] dialog

1. PLC

(1) Direct CPU connection (RS-232)



Item	Description	
[Connection]	Select the [CPU Direct Communication (RS-232)].	
[Type]	Select the PLC to be connected.	
[Comm. Port]	Choose the communication port on the personal computer side. ([COM1] to [COM63])	
[Baud Rate]	Set the transmission speed to/from the CPU. Set the baud rate to be used. If the connection target is FXCPU, select a baud rate that FXCPU supports. When the set baud rate is not supported, communication is made at 9.6kbps. When selecting a transmission speed that is not supported by OMRON SYSMAC, a communication error occurs.	
[Timeout]	Set the timeout period and retry count. Depending on the settings on the [Connection] menu, some items cannot be set.	
	[Host]	Set the timeout period for host station monitor. ([1] to [90] sec)
	[Other]	Set the timeout period for other station monitor. ([1] to [90] sec)
	[Retry]	Fixed at [0] or [3] time(s).
[Option]	Set this item when selecting [YASKAWA] for [Connection].	
	[Host Add.]	Specify the host address (the station number of a programmable controller to which connects GT SoftGOT2000) within the connection network. ([1] to [31])
	[Wait Time]	Set the transmission wait time to reduce the load on the network and target PLC. [0] to [30] (x 10 ms)
	[32bit Storage]	Select the storage order of 32-bit data. • Low → High : The GOT writes data into controller devices in order of data from lower 16 bits to upper 16 bits. • High → Low : The GOT writes data into controller devices in order of data from upper 16 bits to lower 16 bits.
[Communication Error Dialog]	Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.	
[Device Entry Mode]	Select this item to enable high-speed monitoring on GT SoftGOT2000. When using the Device Entry Mode during FXCPU connection, the range of devices to be monitored may be restricted, and monitoring may not be performed properly. This setting is available only when selecting [CPU] and [MELSEC-Q]/[MELSEC-L]/[MELSEC-FX] for [Connection].	

*1 For using the CNC C70, select [MELSEC-Q].

POINT

Precautions for using device entry mode (When the MELSEC-FX connection)

The precautions for applying the device entry mode are described below.

Apply the device entry mode after the adequate debugging.

(1) Devices that can be set

An error (Communication time out) may occur if the following device (Bit device) is set.

For the device as objects, set other than the devices shown below when applying the device entry mode.

Type of connected CPU	Device name (Bit device)	Device range
FX _{0(S)} , FX _{0N}	Counter contact (C)	C224 to C239
		C240 to C255
	Special auxiliary relay (M)	M8240 to M8255
FX ₁	Timer contact (T)	T240 to T255
	Counter contact (C)	C128 to C143
		C224 to C239
		C240 to C255
FX _{1S}	Counter contact (C)	C224 to C239
FX _{1N}	Counter contact (C)	C192 to C207
FX _{2(C)}	Counter contact (C)	C192 to C207
FX _{2N(C)}	Counter contact (C)	C192 to C207
FX _{3U(C)}	Counter contact (C)	C192 to C207
FX _{3G(C)}	Counter contact (C)	C192 to C207
FX _{3S}	Counter contact (C)	C192 to C207

(2) When using the offset function

When offset function is applied, the device range above may be monitored during an unintended moment and an error (Communication time out) may occur.

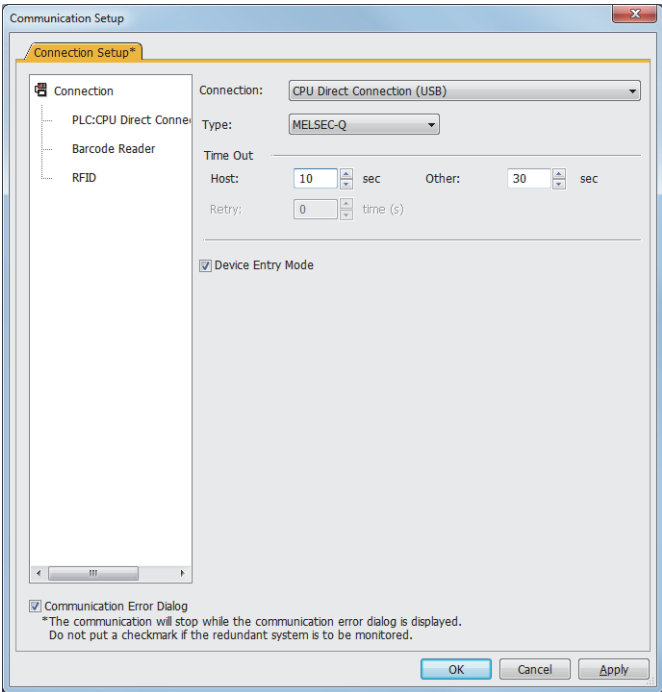
Create the project data so that any offset will not operate for the devices above.

(3) Measures for errors

The error mentioned by (1) and (2) is displayed in the system alarm.

When applying the device entry mode, it is recommended to set system alarm to the project data.

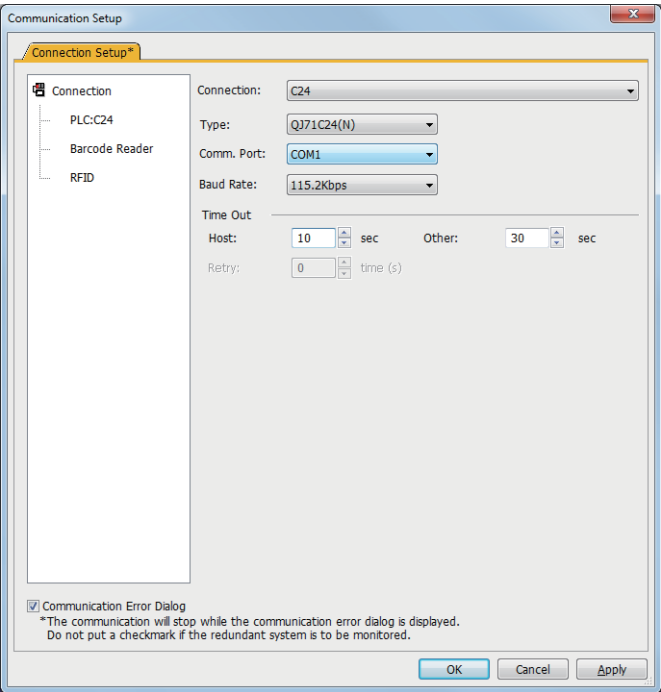
(2) Direct CPU connection (USB)



Item		Description
[Connection]	Select the [CPU Direct Connection (USB)].	
[Type]	Select the PLC to be connected.	
[Timeout]	Set the timeout period and retry count. Depending on the settings on the [Connection] menu, some items cannot be set.	
	[Host]	Set the timeout period for host station monitor. ([1] to [90] sec)
	[Other]	Set the timeout period for other station monitor. ([1] to [90] sec)
	[Retry]	Fixed at [0] time.
[Communication Error Dialog]	Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.	
[Device Entry Mode]	Select this item to enable high-speed monitoring on GT SoftGOT2000. When using the Device Entry Mode during FXCPU connection, the range of devices to be monitored may be restricted, and monitoring may not be performed properly. This setting is available only when selecting [CPU] and [MELSEC-Q]/[MELSEC-L]/[MELSEC-FX] for [Connection].	

*1 For using the CNC C70, select [MELSEC-Q].

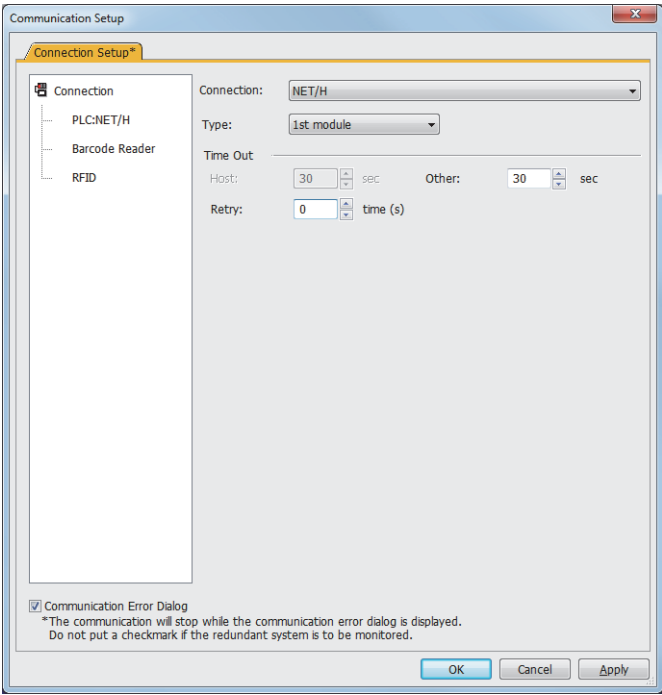
(3) Serial communication connection



Item		Description
[Connection]	Select [C24].	
[Type]	Select the PLC (computer link module or serial communication module) to be connected.	
[Comm. Port]	Choose the communication port on the personal computer side. ([COM1] to [COM63])	
[Baud Rate]	Set the transmission speed to/from the CPU. Set the baud rate to be used. When the set baud rate is not supported, communication is made at 9.6kbps.	
[Timeout]	Set the timeout period and retry count. Depending on the settings on the [Connection] menu, some items cannot be set.	
	[Host]	Set the timeout period for host station monitor. ([1] to [90] sec)
	[Other]	Set the timeout period for other station monitor. ([1] to [90] sec)
	[Retry]	Fixed at [0] time.
[Communication Error Dialog]	Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.	

*1 For using the CNC C70, select [MELSEC-Q].

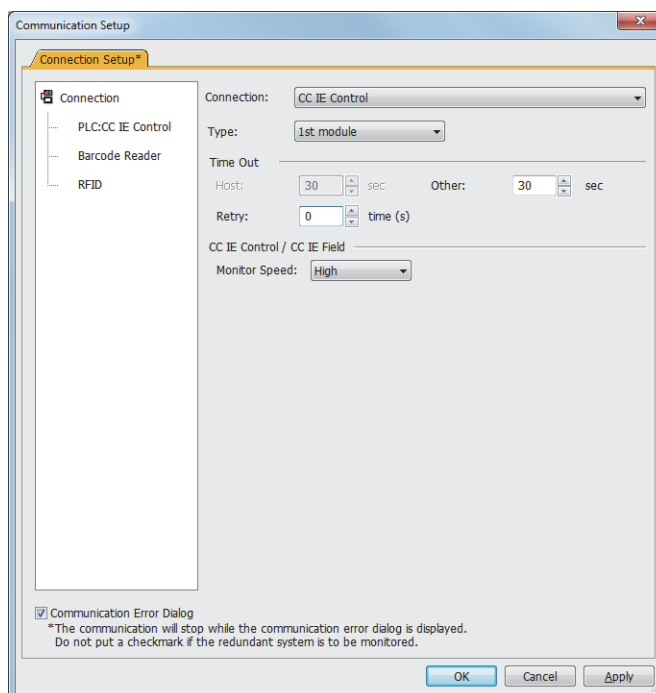
(4) MELSECNET/H connection



Item		Description
[Connection]		Select the [NET/H].
[Type]		Select the PLC (MELSECNET/H unit) to be connected.
[Timeout]	Set the timeout period and retry count. Depending on the settings on the [Connection] menu, some items cannot be set.	
	[Host]	Set the timeout period for host station monitor. ([1] to [90] sec)
	[Other]	Set the timeout period for other station monitor. ([1] to [90] sec)
	[Retry]	Fixed at [0] time.
[Communication Error Dialog]		Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.

*1 For using the CNC C70, select [MELSEC-Q].

(5) CC-Link IE Controller Network connection, CC-Link IE Field Network connection



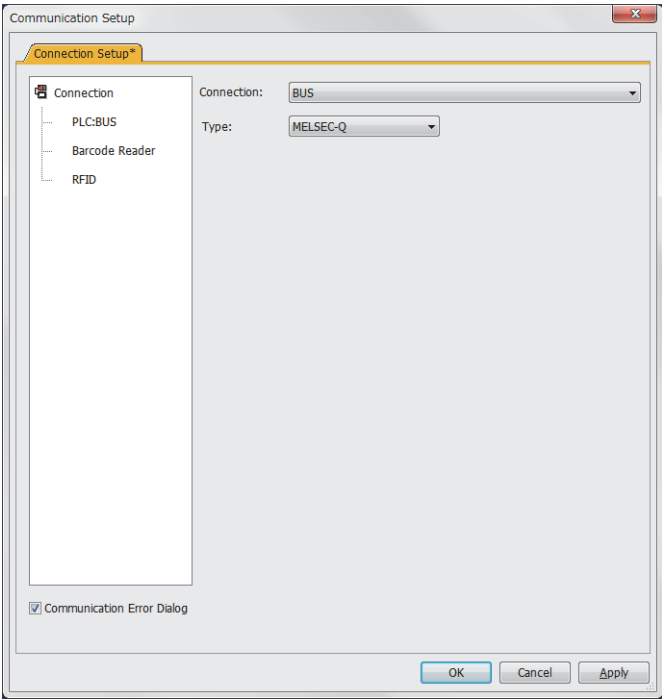
Item	Description	
[Connection]	Select [CC IE Control] or [CC IE Field].	
[Type]	Select the PLC (CC-Link IE Controller Network communication unit or CC-Link IE Field Network communication unit) to be connected.	
[Timeout]	Set the timeout period and retry count. Depending on the settings on the [Connection] menu, some items cannot be set.	
	[Host]	Set the timeout period for host station monitor. ([1] to [90] sec)
	[Other]	Set the timeout period for other station monitor. ([1] to [90] sec)
	[Retry]	Fixed at [0] time.
[CC IE Control/CC IE Field]	Select a monitor speed.	
	[Monitor Speed]	The following shows the items to be selected. <ul style="list-style-type: none"> • [High] • [Normal] • [Low]
[Communication Error Dialog]	Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.	

(6) Ethernet connection

Item	Description	
[Connection]	Select [Ethernet].	
[Type]	Select the PLC to be connected.	
[Timeout]	Set the timeout period and retry count. Depending on the settings on the [Connection] menu, some items cannot be set.	
	[Host]	Set the timeout period for host station monitor. ([1] to [90] sec)
	[Other]	Set the timeout period for other station monitor. ([1] to [90] sec)
	[Retry]	Fixed at [0] time.
[Option]	Set this item when selecting [MODBUS/TCP] for Type.	
	[32bit Storage]	Select the storage order of 32-bit data. • [LH Order] : The GOT writes data into controller devices in order of data from lower 16 bits to upper 16 bits. • [HL Order] : The GOT writes data into controller devices in order of data from upper 16 bits to lower 16 bits.
	[FunctionC ode[0F]]	Select whether to use the function code [0F] or not. • [Used] • [Unused]
	[FunctionC ode[10]]	Select whether to use the function code [10] or not. • [Used] • [Unused]
	[Coil read times]	Set the number of read points of coils. ([1] to [2000])
	[Input relay read times]	Set the number of read points of input relays ([1] to [2000])
	[Holding register read times]	Set the number of read points of holding registers. ([1] to [125])
	[Input register read times]	Set the number of read points of input registers. ([1] to [125])
	[Coil write times]	Set the number of write points of coils. ([1] to [800])
	[Holding register write times]	Set the number of write points of holding registers. ([1] to [100])

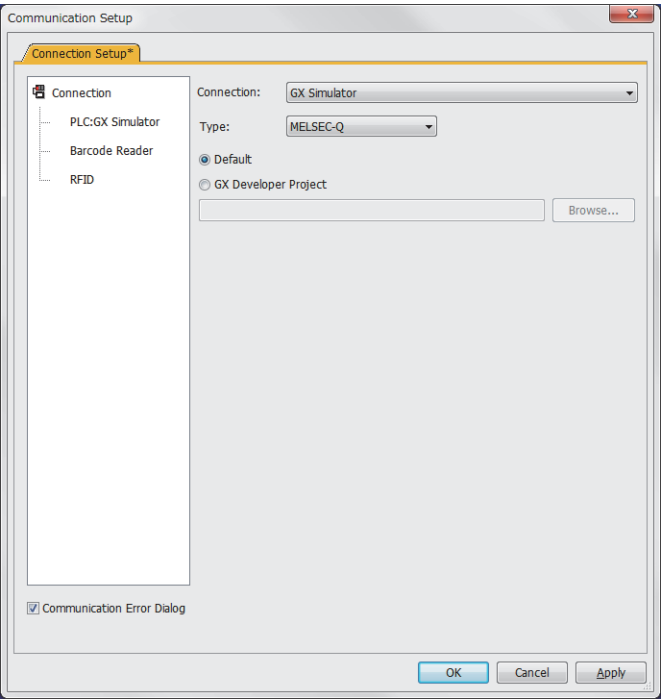
Item	Description	
[Ethernet]	[NET No.]	Set the network number of GT SoftGOT2000. OMRON SYSMAC: [1] to [127] GOT: Fixed at [0]. Other than the above: [1] to [239]
	[Port No.]	Set the port number of the personal computer. MELSEC: [1024] to [65534] GOT: Fixed at [5001]. Other than the above: [1024] to [65534] (Except for [5011], [5012], [5013], and [49153])
	[PC No.]	Set the PC station number of GT SoftGOT2000. MELSEC: [1] to [120] YASKAWA, YOKOGAWA: [1] to [64] OMRON SYSMAC, TOSHIBA nv, SIEMENS S7, SIEMENS OP, KEYENCE KV: [1] to [254] MODBUS/TCP: [1] to [247] GOT: Fixed at [1].
	[Wait Time]	Set the transmission wait time to reduce the load on the network and target PLC. [0] to [10000] (x 10 ms)
[Use GOT Link]	Select this item to use the SoftGOT-GOT link function. For the SoftGOT-GOT link function, refer to the following. 4.12 SoftGOT-GOT Link Function	
	[Destination GOT IP Address]	Set the IP address of the GOT. Click the [Communication Test] button to execute the communication test with the GOT.
	[Destination GOT Port No.]	Set the port No. of the GOT.
	[Data Transfer Password]	Set a password to authenticate reading project data from the GOT as necessary. Up to 32 characters can be set. Numeric characters, A to Z, a to z, a one-byte space, and the following symbols are available. !"#\$%&()*+,-./:;<=>?@[\\]^_`{ }~ By setting a password, an authentication is automatically executed when project data is read from the GOT.
[Communication Error Dialog]	Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.	

(7) Bus connection



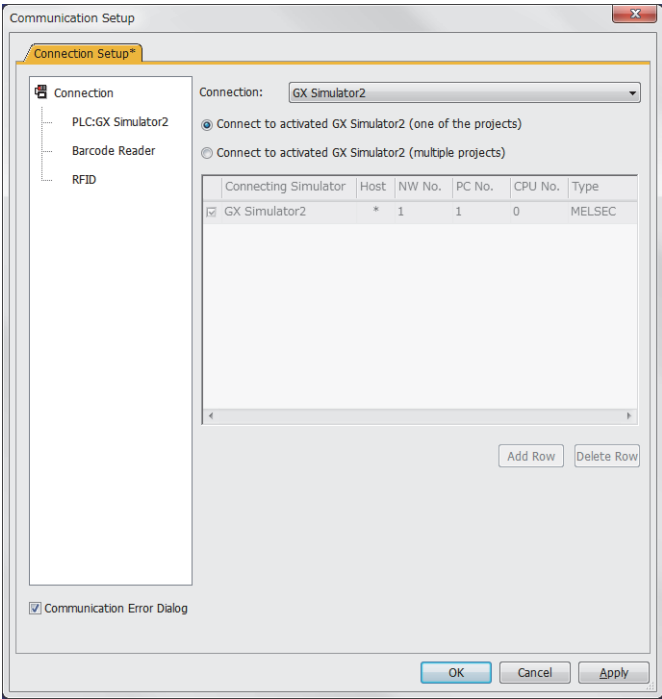
Item	Description
[Connection]	Select [BUS].
[Type]	Select the PLC to be connected.
[Communication Error Dialog]	Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.

(8) Connecting with GX Simulator



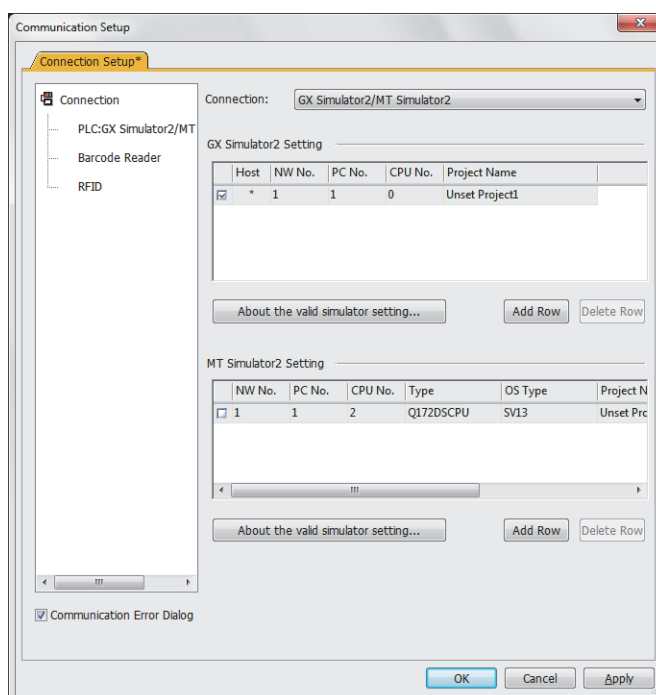
Item	Description	
[Connection]	Select [GX Simulator].	
[Type]	Select the PLC to be connected.	
	[Default]	Reads sequence programs for the END instruction only.
	[GX Developer Project]	Specifies the sequence programs to be read.
[Communication Error Dialog]	Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.	

(9) Connecting with GX Simulator2



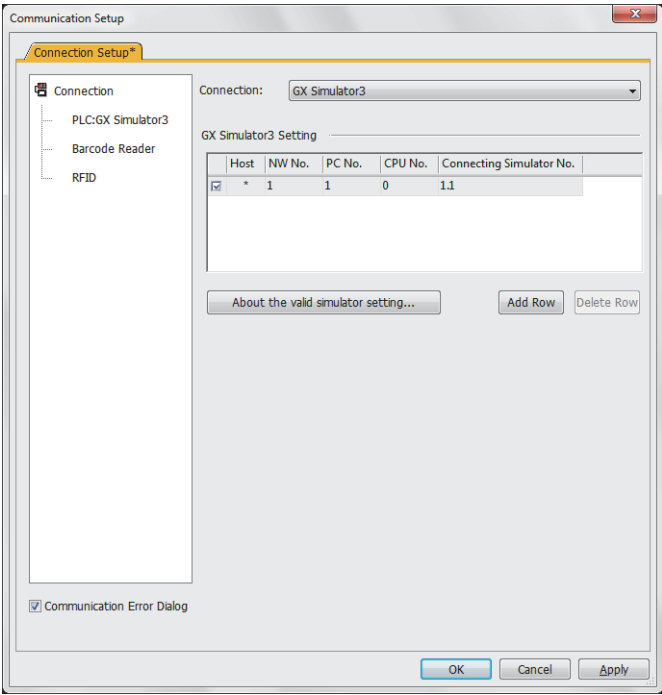
Item	Description	
[Connection]	Select [GX Simulator2].	
[Connect to activated GX Simulator2 (one of the projects)]	Select this item when connecting to a single module of GX Simulator2.	
	[Type]	Select the PLC to be connected.
[Connect GX Simulator2 (multiple projects)]	Select this item when connecting to multiple modules of GX Simulator2.	
	Select the simulator to be connected to enable the setting.	
	[Connection Simulator]	Select the simulators to be connected.
	[Host]	Select this item when setting to the host station.
	[NW No.]	Set the network No. ([0] to [239])
	[PC No.]	Set the station No. ([0] to [255])
	[CPU No.]	Set the CPU No. ([0] to [4])
	[Type]	Select the PLC to be connected.
	[Project Name]	Set the project used with the simulator to be connected.
	[Add Row]	Adds a new row. (a maximum of 7 rows)
	[Delete Row]	Deletes a selected row.
[Communication Error Dialog]	Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.	

(10) Connecting with GX Simulator2 or MT Simulator2



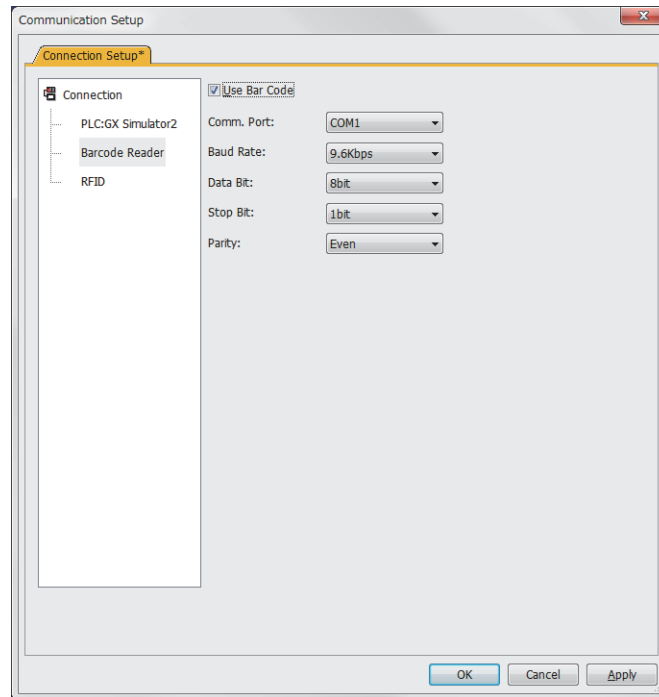
Item	Description	
[Connection]	Select GX Simulator2/MT Simulator2.	
[GX Simulator2 Setting]	Select the simulator to be connected to enable the setting.	
	[Host]	Select this item when setting to the host station.
	[NW No.]	Set the network No. ([0] to [239])
	[PC No.]	Set the station No. ([0] to [255])
	[CPU No.]	Set the CPU No. ([0] to [4])
	[Project Name]	Set the project used with the simulator to be connected.
	[Add Row]	Adds a new row. (a maximum of 4 rows)
	[Delete Row]	Deletes a selected row.
[MT Simulator2 Setting]	Select a connection method to enable the setting.	
	[Host]	Select this item when setting to the host station.
	[NW No.]	Set the network No. ([0] to [239])
	[PC No.]	Set the station No. ([0] to [255])
	[CPU No.]	Set the CPU No. ([2] to [4])
	[Type]	Select the PLC to be connected.
	[OS]	Select the OS used of PLC.
	[Project Name]	Set the project used with the simulator to be connected.
	[User name]	Set the user name used with the simulator to be connected.
	[Password]	Set the password used with the simulator to be connected.
	[Add Row]	Adds a new row. (a maximum of 3 rows)
	[Delete Row]	Deletes a selected row.
[Communication Error Dialog]	Select this item to display the error dialog on GT SoftGOT2000 when a communication error occurs.	

(11) Connecting with GX Simulator3



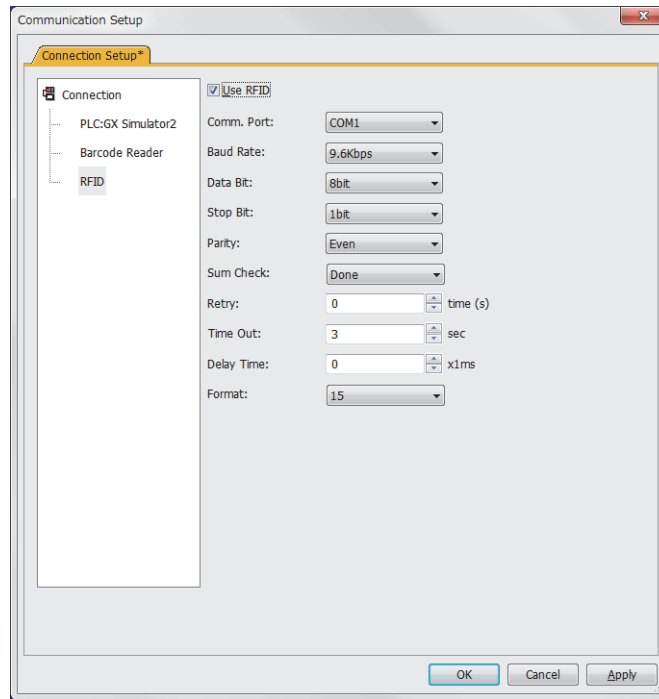
Item	Description	
[Connection]	Select GX Simulator3.	
[GX Simulator3 Setting]	Select the simulator to be connected to enable the setting.	
	[Host]	Select this item when setting to the host station.
	[NW No.]	Set the network No. ([0] to [239])
	[PC No.]	Set the station No. ([0] to [255])
	[CPU No.]	Set the CPU No. ([0] to [4])
	[Connecting Simulator No.]	Set the simulator No. displayed on the corresponding GX Simulator3. ([1.1] to [64.4])
	[Add Row]	Adds a new row. (a maximum of 32 rows)
	[Delete Row]	Deletes a selected row.

2. Barcode



Item	Description
[Use Bar Code]	Select this item to use barcodes.
[Comm. Port]	Choose the communication port on the personal computer side. ([COM1] to [COM16]) When starting multiple applications including GT SoftGOT2000, set a communication port different from those set for the other applications. If the same communication port is specified, monitoring may not be performed due to a communication timeout.
[Baud Rate]	Set this item when changing the baud rate in communication with controllers. ([4.8kbps], [9.6kbps], [19.2kbps], [38.4kbps], [57.6kbps], [115.2kbps])
[Data Bit]	Set this item when changing the data length in communication with controllers. ([7bit], [8bit])
[Stop Bit]	Specify the stop bit length in communication. ([1bit], [2bit])
[Parity]	Specify whether to carry out parity checks in communication and specify the type of parity check if carrying out. ([None], [Even], [Odd])

3. RFID



Item	Description
[Use RFID]	Select this item to use RFID.
[Comm. Port]	Choose the communication port on the personal computer side. ([COM1] to [COM16]) When starting multiple applications including GT SoftGOT2000, set a communication port different from those set for the other applications. If the same communication port is specified, monitoring may not be performed due to a communication timeout.
[Baud Rate]	Set this item when changing the baud rate in communication with controllers. ([4.8kbps], [9.6kbps], [19.2kbps], [38.4kbps], [57.6kbps], [115.2kbps])
[Data Bit]	Set this item when changing the data length in communication with controllers. ([7bit], [8bit])
[Stop Bit]	Specify the stop bit length in communication. ([1bit], [2bit])
[Parity]	Specify whether to carry out parity checks in communication and specify the type of parity check if carrying out. ([None], [Even], [Odd])
[Sum Check]	Select whether to carry out sum checks in communication. ([Done], [None])
[Retry]	Set the number of retries to be performed when a communication error occurs. ([0] to [5] time(s)) When receiving no response after retries, the communication times out.
[Time Out]	Set the time required for communication to time out. ([3] to [30] sec)
[Delay Time]	Set this item to adjust the timing with which a communication request is sent from the GOT. ([0] to [3000] ms)
[Format]	Select the communication format. ([10], [11], [12], [15]) Dedicated protocol Format10: Dedicated protocol (LSRF manufactured by LS Industrial Systems Co., Ltd.) Format11: Dedicated protocol (ICU-60S manufactured by MARS TECHNO SCIENCE Corp.) Format12: Dedicated protocol (ICU-215 (Mifare) manufactured by MARS TECHNO SCIENCE Corp.) Nonprocedural protocol Format15

2.5 Opening the Project


Set a project data for monitoring and start monitoring.

The project data that can be set is the GT Designer3 project, a single file format project, and the GT Designer2 file.

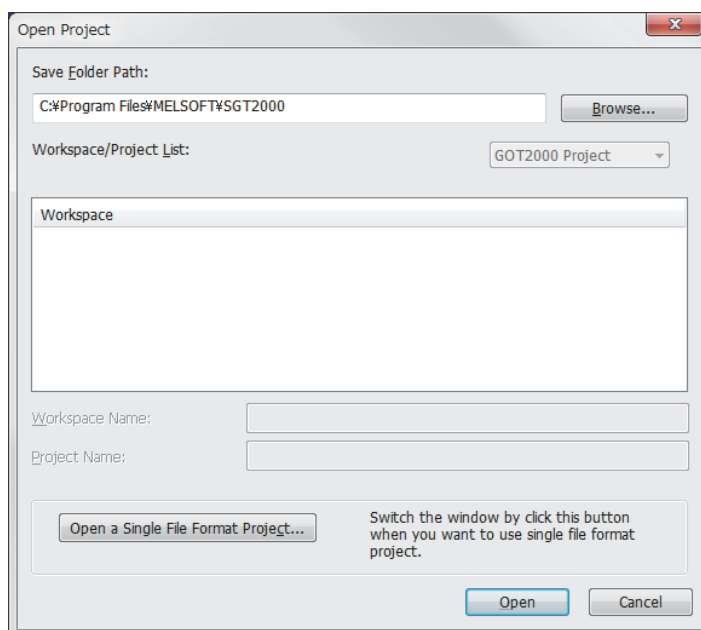
- GT Designer3 project Project data made with GT Designer3
- A single file format project(*.GTX) of GT Designer3 ... Compressed project data created with GT Designer3

2.5.1 Opening workspace files

Step 1. Perform either of the following operations.

- Click  [Open a Project].
- Select [Project] → [Open] → [Open a Project.] from the menu.
- Right-click the mouse and select [Open] → [Open a Project.] from the menu.

Step 2. [Open a project] dialog is displayed.
Set up the following items and click the **Open** button.

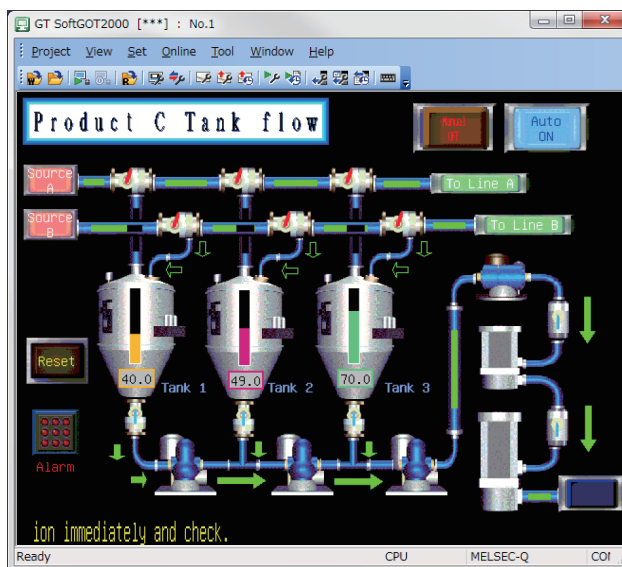


Item	Description
[Folder path to save]	Enter the path of the location where the workspace is stored.
[Workspace/Project List]	Displays the workspace or project existing in the same path entered for [Folder path to save]. Double-click the workspace to be opened to display projects stored in the workspace. Select the project to be opened.
[Workspace Name]	Displays the workspace name where the project selected in [Workspace/Project List] is stored.
[Project Name]	Displays the project name selected in [Workspace/Project List].

Step 3. The confirmation dialog is displayed. (The dialog is not displayed if GT SoftGOT2000 is already in online mode.)




Step 4. Selecting starts monitoring of the project monitored previously. (Displays the Utility when opening a project for the first time.)
Turn off the power supply to the PLC or disconnect the communication cable that connects the personal computer and PLC in advance if it is not desired to go into online mode with the previous project data or if it is desired to open a project in off-line mode.

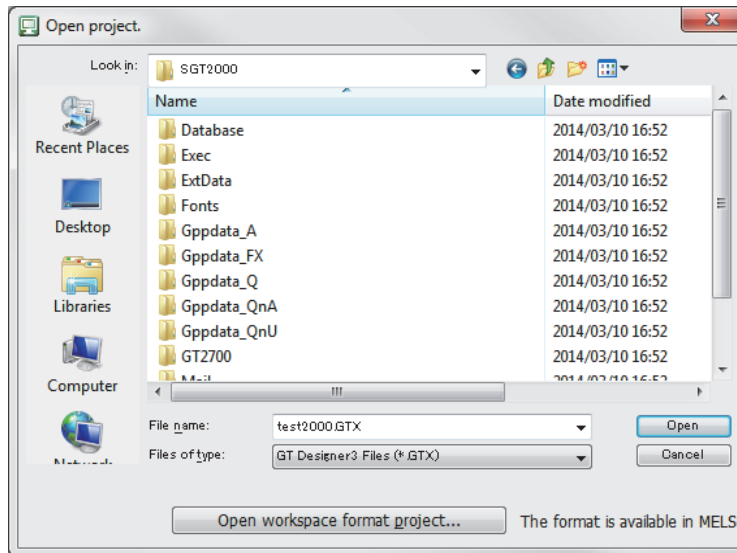


2.5.2 Opening a single file format project

Step 1. Perform either of the following operations.

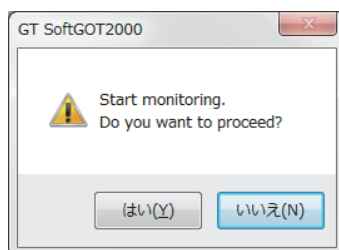
- Click  [Open a File].
- Select [Project] → [Open] → [Open a File] from the menu.
- Right-click the mouse and select [Open] → [Open a File] from the menu.

Step 2. The [Open Project.] dialog is displayed.
Set up the following items and click the **Open** button.



Item	Description
[Look in]	Enter the path of the location where the workspace is stored.
[File name]	Sets project data name for monitoring.
[Files of type]	Selects a file format of the project data. GOT2000 file (*.GTX): GTX format

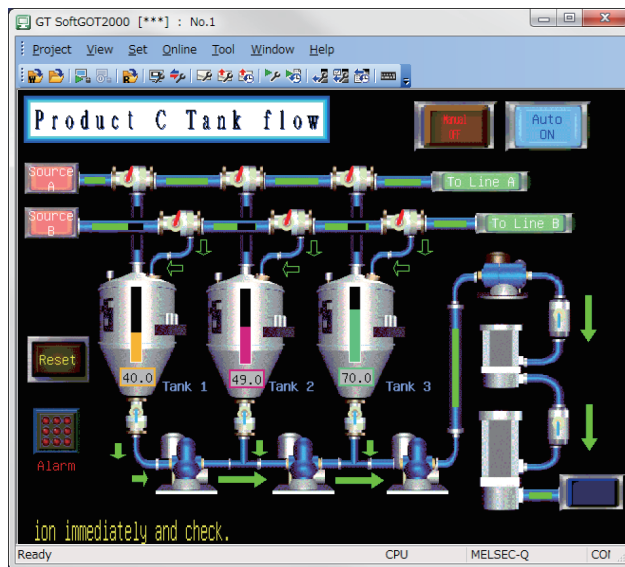
Step 3. The confirmation dialog is displayed. (The dialog is not displayed if GT SoftGOT2000 is already in online mode.)



Step 4. Selecting starts monitoring of the project monitored previously.

(Displays the Utility when opening a project for the first time.)

Turn off the power supply to the PLC or disconnect the communication cable that connects the personal computer and PLC in advance if it is not desired to go into online mode with the previous project data or if it is desired to open a project in off-line mode.




2.6 Monitoring

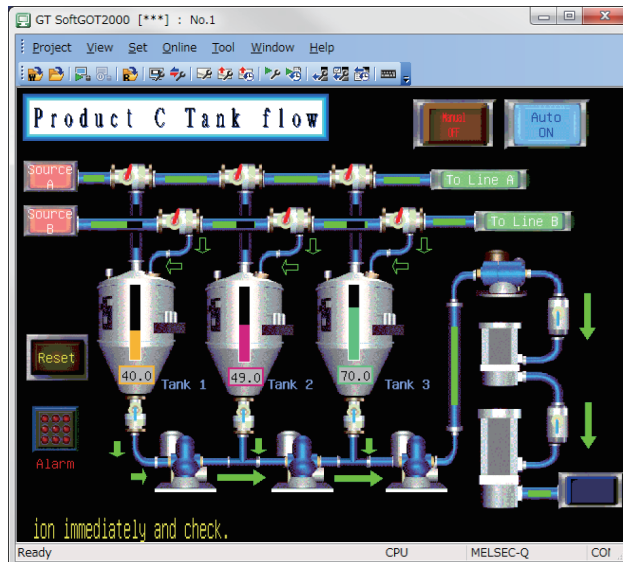
2.6.1 Starting Monitoring

This section describes how to perform monitoring with the project data monitored previously.

Step 1. Perform either of the following operations.

- Click  [Monitor Start]
- Select [Online] → [Monitor Start] from the menu.
- Right-click the mouse and select [Monitor Start] from the menu.

Step 2. Monitoring is started with the project data monitored previously.



POINT

Before monitoring

The following shows the procedure used when not starting monitoring with the project data monitored previously.

(1) When performing a monitoring for the first time

Select [Project] → [Open] and set a project data to be monitored.

➡ 2.5 Opening the Project

When performing a monitoring for the first time, performing the operation shown in this section causes GT SoftGOT2000 to display the Utility.

(2) When project data has been changed after previous monitoring

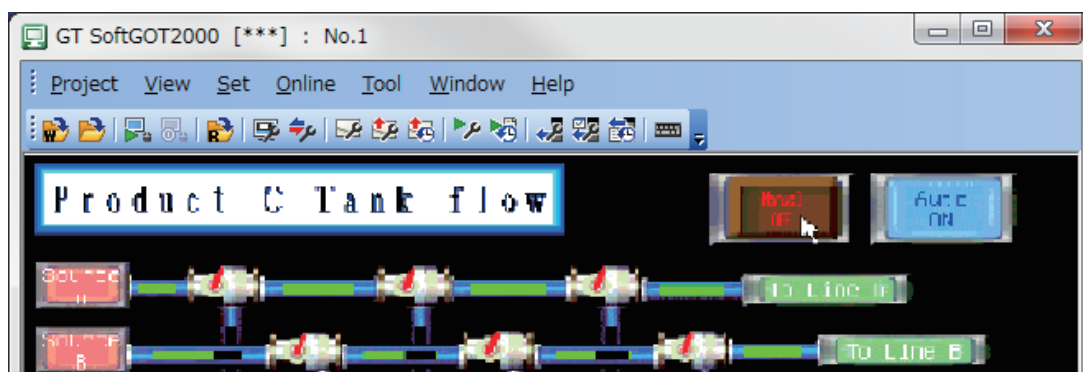
Select [Project] → [Open] and set the project data to be monitored before starting monitoring.

➡ 2.5 Opening the Project

2.6.2 Operation while monitoring

On GT SoftGOT2000, touching the touch keys is performed by pressing the mouse button.


As the input range of the touch key is narrower than that of the GOT, confirm the input with the buzzer sound after inputting.

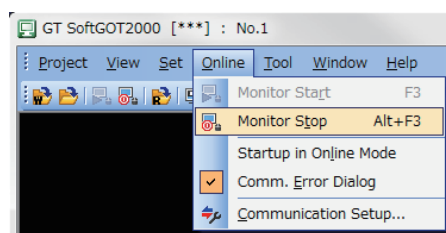


2.6.3 Monitor Stop

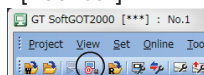
This section describes how to stop a monitoring.

Step 1. Perform either of the following operations.

- Click  [Monitor Stop].
- Select [Online] → [Monitor Stop] from the menu.
- Right-click the mouse and select [Monitor Stop] from the menu.



[Tool bar]



Select either method.

Step 2. The monitoring stops.

2.7 Help

Using Help allows viewing of the GT SoftGOT2000 related PDF manuals and the software version check.

POINT

Before viewing the PDF manual

To view the PDF manual, GT_Manual3 and Adobe Reader must be installed.

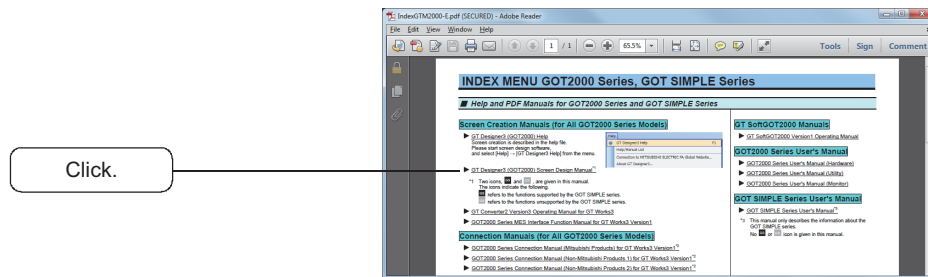
1. Operating method

Step 1. Click an item within [Help].

Item	Description
[Index]	Displays the PDF manual list.
[Connection to the Mitsubishi Electric Factory Automation Global Website.]	Connects to the Mitsubishi Electric Factory Automation Global Website.
[About GT SoftGOT2000...]	Used to check the GT SoftGOT2000 version.

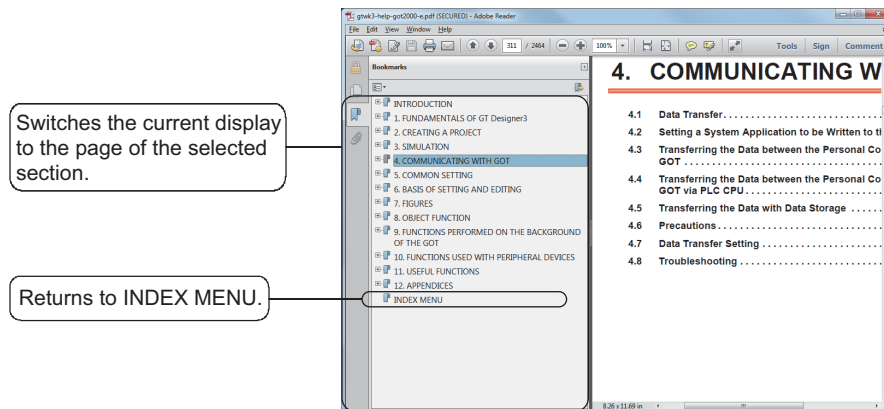
2. Viewing a PDF manual (When [Index] is selected)

Step 1. After operation in [Help]-[Index], the following screen appears. Click the manual to be viewed.



*1 Since the above page was created for explanation purpose, it differs from the actual page.

Step 2. The selected manual is displayed.
(For the operation of Adobe Reader, refer to the Adobe Reader Help.)



*1 Since the above page was created for explanation purpose, it differs from the actual page.

■3. Confirming GT SoftGOT2000 version (When [About GT SoftGOT2000...] is selected)

Step 1. After operation in [Help] → [About GT SoftGOT2000], the screen about GT SoftGOT2000 is displayed.



(Example: For Version 1.100E)

Item	Description
[GT SoftGOT2000]	Displays GT SoftGOT2000 version.
[Name]	Displays the name entered during GT SoftGOT2000 installation.
[Company]	Displays the company name entered during GT SoftGOT2000 installation.
[OK]	Closes the About GT SoftGOT2000 screen.

3. CONNECTION BETWEEN GT SoftGOT2000 AND DEVICES

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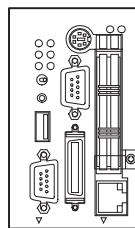
3.1 Required Devices

3.1.1 Type of personal computer to be used

The system configuration and connection conditions differ according to the type of the PC used with GT SoftGOT2000.



Personal computer that can run Windows®



PC CPU

■ 1. Personal computer that can run Windows

Connect a PC/AT compatible PC with the controller using a cable.
Use an interface board according to the communication type.

■ 2. PC CPU

Mount a PC CPU to the base unit of Q series PLC CPU.
Bus connection is available between PC CPUs on the same base unit.
In other connection types, connect a PC CPU with the controller using a cable.

3.1.2 Connectable Devices

■ 1. Applicable CPU

Refer to the following for PLC CPUs that can be monitored from GT SoftGOT2000.

➡ 3.2.1 Controller that allows monitoring

■ 2. Controllers that can be monitored in each connection type

Refer to the following for GT SoftGOT2000 connection types and PLC CPUs that can be monitored in each connection type.

➡ 3.2.2 Monitorable controllers

3.1.3 Converter/cable to be used

■ 1. Converter/Cable used in GT SoftGOT2000

The converter/cable used for the GX Developer can be applied to the GT SoftGOT2000.

3.2 Controller that can be Monitored and the Accessible Range

3.2.1 Controller that allows monitoring

The controllers that can be monitored by the GT SoftGOT2000 are indicated below.

■1. MELSEC PLC

Type		Model			
RCPU		R04CPU	R08CPU	R16CPU	R32CPU
		R120CPU			
		R08PCPU	R16PCPU	R32PCPU	R120PCPU
		R08SFCPU	R16SFCPU	R32SFCPU	R120SFCPU
		R04ENCPU	R08ENCPU	R16ENCPU	R32ENCPU
		R120ENCPU			
LCPU		L02CPU	L06CPU	L26CPU	L26CPU-BT
		L02CPU-P	L06CPU-P	L26CPU-P	L26CPU-PBT
		L02SCPU	L02SCPU-P		
QCPU		Q00JCPU	Q00CPU*1	Q01CPU*1	
		Q02CPU	Q02HCPU	Q06HCPU	Q12HCPU
		Q25HCPU			
		Q02PHCPU	Q06PHCPU	Q12PHCPU	Q25PHCPU
		Q12PRHCPU	Q25PRHCPU		
		Q00UJCPU	Q00UJCPU(-S8)	Q00UCPU	Q01UCPU
		Q02UCPU	Q03UDCPU	Q04UDHCPU	Q06UDHCPU
		Q10UDHCPU	Q13UDHCPU	Q20UDHCPU	Q26UDHCPU
		Q03UDECPU	Q04UDEHCPU	Q06UDEHCPU	Q10UDEHCPU
		Q13UDEHCPU	Q20UDEHCPU	Q26UDEHCPU	Q50UDEHCPU
		Q100UDEHCPU			
		Q03UDVCPU	Q04UDVCPU	Q06UDVCPU	Q13UDVCPU
		Q26UDVCPU			
		Q04UDPVCPU	Q06UDPVCPU	Q13UDPVCPU	Q26UDPVCPU
C Controller module	MELSEC iQ-R series	R12CCPU-V			
	Q series	Q12DCCPU-V	Q24DHCCPU-V	Q24DHCCPU-LS	
MELSECNET/H remote I/O station		QJ72LP25-25	QJ72LP25G	QJ72BR15	
QSCPU		QS001CPU			
QCPU(A mode)		Q02CPU-A	Q02HCPU-A	Q06HCPU-A	
QnACPU	QnACPU type	Q2ACPU	Q2ACPU-S1	Q3ACPU	Q4ACPU
		Q4ARCPU			
	QnASCPU type	Q2ASCPU	Q2ASCPU-S1	Q2ASHCPU	Q2ASHCPU-S1

Type			Model			
ACPU	AnCPU type	AnUCPU	A2UCPU	A2UCPU-S1	A3UCPU	A4UCPU
		AnACPU	A2ACPU	A2ACPUP21	A2ACPUR21	A2ACPU-S1
			A2ACPUP21-S1	A2ACPUR21-S1	A3ACPU	A3ACPUP21
			A3ACPUR21			
		AnNCPU	A1NCPU	A1NCPUP21	A1NCPUR21	A2NCPU
			A2NCPUP21	A2NCPUR21	A2NCPU-S1	A2NCPUP21-S1
			A2NCPUR21-S1	A3NCPU	A3NCPUP21	A3NCPUR21
	AnSCPU type	AnUS(H)CPU	A2USCPU	A2USCPU-S1	A2USHCPU-S1	
		AnS(H)CPU	A1SCPU	A1SCPU-S1	A1SCPUC24-R2	A1SHCPU
			A2SCPU	A2SCPU-S1	A2SHCPU	A2SHCPU-S1
		A1SJ(H)CPU	A1SJCPU	A1SJCPU-S3	A1SJHCPU	
ACPU	A0J2HCPU		A0J2HCPU	A0J2HCPUP21	A0J2HCPUR21	A0J2HCPU-DC24
	A2CCPU	A2CCPU	A2CCPU-P21	A2CCPU-R21	A2CCPUC24	
		A2CCPUC24-PRF	A2CJCPU	A2CJCPU-S3		
	A1FXCPU		A1FXCPU			
MELSEC iQ-F			FX5U	FX5UC		
FXCPU			FX0 series	FX0S series	FX0N series	FX1 series
			FX1S series	FX1N series	FX1NC series	FX2 series
			FX2C series	FX2N series	FX2NC series	FX3U series
			FX3UC series	FX3G series	FX3GA series	FX3GC series
			FX3GE series	FX3S series		
CC-Link IE Field Network head unit			LJ72GF15-T2			
CC-Link IE Field Network Ethernet adapter unit			NZ2GF-ETB			
Motion controller CPU		MELSEC iQ-R series	R16MTCPU	R32MTCPU	R64MTCPU	
		Q series	Q170MCPUCPU	Q172DSCPU	Q173DSCPU	
		A series	A273UHCPU	A273UHCPU-S3		
			A171SHCPU	A171SHCPUN	A172SHCPU	A172SHCPUN
			A173UHCPU	A173UHCPU-S1		

*1 As recommended for use in direct connection of the Q series basic model, the GOT does not support the serial communication function.

2. Other PLC

Item		Type			
OMRON PLC		CPM2A			
		C200HX	C200HG	C200HE	
		CQM1	CQM1H		
		CS1H	CS1G	CS1D	
		CJ1H	CJ1G	CJ1M	CJ2H(-EIP)
		CJ2M			
		CP1E			
		CV500	CV1000	CV2000	
		CVM1			
KEYENCE PLC		KV-700	KV-1000	KV-3000	KV-5000
		KV-5500			
TOSHIBA PLC	Unified Controller nv series	type1 Controller (PU811)			

Item		Type			
YASKAWA PLC		GL60S	GL60H	GL70H	GL120
		GL130	CP-9300MS	MP-920	MP-930
		MP-940	CP-9200(H)	PROGIC-8	MP2200
		MP2300	MP2300S	CP-317	MP3200
		MP3300			
YOKOGAWA PLC	FA-M3	F3SP05	F3SP08	F3FP36	F3SP21
		F3SP25	F3SP35	F3SP28	F3SP38
		F3SP53	F3SP58	F3SP59	F3SP66
		F3SP67			
	FA-M3V	F3SP71-4N	F3SP71-4S	F3SP76-7S	
SIEMENS PLC		SIMATIC S7-300	SIMATIC S7-400		

■3. CNC

Item	Type	
CNC C70	Q173NCCPU	
MELDAS C6/C64	FCA C6,	FCA C64

■4. Robot controller

Item	Type		
Robot controller	CRnQ-700	CR750-Q	CR751-Q
	CRnD-700	CR750-D	CR751-D

■5. MODBUS/TCP

Item	Type
MODBUS/TCP	<p>For connectable MODBUS/TCP and system equipment, refer to the following Technical News.</p> <p>⇒ List of valid devices applicable for GOT2000 series connectable MODBUS/TCP(GOT-A-0070)</p> <p>For Technical News, contact your local distributor.</p>

■6. Barcode reader

Item	Type
Barcode reader	<p>For connectable barcode readers and system equipment, refer to the following Technical News.</p> <p>⇒ List of valid devices applicable for GOT2000 series (GOT-A-0064)</p> <p>For Technical News, contact your local distributor.</p>

■7. RFID controller

Item	Type
RFID controller	<p>For connectable RFID controllers and system equipment, refer to the following Technical bulletin.</p> <p>⇒ List of valid devices applicable for GOT2000 series (GOT-A-0064)</p> <p>For Technical News, contact your local distributor.</p>

3.2.2 Monitable controllers

○ : Applicable, × : Inapplicable

Controller monitored		Bus connection	CPU direct connection		Serial communication connection	Ethernet connection	MODBUS connection		MELSECNET connection		CC-Link IE Controller	CC-Link IE Field
			RS-232	USB			RTU	TCP	MELSEC NET/H	MELSEC NET/10		
RCPU ^{*34}		×	×	○	○	○ ^{*18*31}	×	×	×	×	○ ^{*32}	○ ^{*33}
LCPU		×	○ ^{*22}	○	○	○ ^{*35}	×	×	×	×	×	○ ^{*36}
QCPU (Q mode)	Other than redundant system ^{*12}	○ ^{*16}	○ ^{*17}	○ ^{*15}	○	○ ^{*18}	×	×	○ ^{*3}	○ ^{*3}	○ ^{*37*38*39}	○ ^{*25*47}
	Redundant system (Main base unit)	×	○	○	×	○	×	×	○ ^{*2*3*14}	○ ^{*2*3}	○ ^{*39}	×
	Redundant system (Extension base unit)	×	×	×	○	○	×	×	×	×	×	×
QCPU (A mode)		×	○	×	○	○	×	×	×	○	×	×
C Controller module	MELSEC iQ-R series	×	×	○ ^{*30}	○ ^{*40}	○ ^{*41}	×	×	×	×	○	○
	Q series	×	○ ^{*17}	○	○ ^{*42}	○ ^{*43}	×	×	○	○	○ ^{*37}	○ ^{*48}
QSCPU		×	×	○ ^{*44}	×	○ ^{*45}	×	×	○ ^{*45}	○ ^{*45}	○ ^{*45*46}	○ ^{*45*49}
QnACPU		×	○	×	○ ^{*4}	○ ^{*4}	×	×	×	○	×	×
ACPU	Other than A1FXCPU	×	○ ^{*9}	×	○ ^{*5*13}	○ ^{*6}	×	×	×	○ ^{*6}	×	×
	A1FXCPU	×	○	×	×	×	×	×	×	×	×	×
MELSEC iQ-F		×	○	×	×	○	×	×	×	×	×	×
FXCPU		×	○	○ ^{*10}	×	○ ^{*20}	×	×	×	×	×	×
Motion controller CPU	MELSEC iQ-R series	×	×	○	○	○	×	×	×	×	○	○
	Q series ^{*19}	×	○ ^{*17}	○	○	○	×	×	○	○	○	○
	A series ^{*18}	×	○ ^{*7}	×	○ ^{*13}	○	×	×	×	○	×	×
MELSECNET/H remote I/O station		×	○ ^{*3}	×	×	×	×	×	×	×	×	×
CC-Link IE Field Network head module		×	×	○	○	×	×	×	×	×	×	×
CC-Link IE Field Network Ethernet adapter module ^{*23}		×	×	×	×	○	×	×	×	×	×	×
OMRON PLC		×	○ ^{*28*29}	×	×	○ ^{*21*27}	×	×	×	×	×	×
KEYENCE PLC		×	×	×	×	○	×	×	×	×	×	×
TOSHIBA PLC		×	×	×	×	○	×	×	×	×	×	×
YASKAWA PLC		×	○	×	○	○	×	×	×	×	×	×
YOKOGAWA PLC		×	×	×	×	○	×	○ ^{*24}	×	×	×	×
SIEMENS PLC		×	×	×	×	○	×	×	×	×	×	×
CNC	CNC C70	×	○	○	○	○	×	×	○	○	○	○
	MELDAS C6/C64	×	○ ^{*11}	×	×	○ ^{*11}	×	×	×	×	×	×

Controller monitored		Bus connection	CPU direct connection		Serial communication connection	Ethernet connection	MODBUS connection		MELSECNET connection		CC-Link IE Controller	CC-Link IE Field
			RS-232	USB			RTU	TCP	MELSEC NET/H	MELSEC NET/10		
Robot controller	CRnQ-700/ CR750-Q/ CR751-Q	×	○	○	○	○ ^{*26}	×	×	○	○	○	○
	CRnD-700/ CR750-D/ CR751-D	×	×	×	×	○	×	×	×	×	×	×
MODBUS/TCP equipment		×	×	×	×	×	×	○	×	×	×	×

- *1 The motion controller (A series) cannot be connected to the remote I/O station, regardless of the connection method.
- *2 Use a MELSECNET/H interface board driver (SW0DNC-MNETH-B) with the version K or later.
- *3 Use a MELSECNET/H network module with the function version B or later.
- *4 If an A series computer link module/Ethernet module is used for QnACPU, monitoring is not possible with the GT SoftGOT.
- *5 The A0J2-C214-S3, A2CCPU and A2CJCPU do not allow computer link connection.
- *6 The A2CCPUC24(-PRF), A2CCPU(P21)(R21), A2CJCPU-S3 and A1FXCPU do not allow Ethernet connection and MELSECNET/10 connection.
- *7 When connected to GT SoftGOT2000, simultaneous connection with other MELSOFT products (such as GX Developer) is not allowed.
- *8 Applicable only to the A171SHCPU(N), A172SHCPU(N), A173UHCPU, A173UHCPU-S1, A273UHCPU and A273UHCPU-S3
- *9 When monitoring AnNCPU(S1), A2SCPU, A0J2HCPU, A2CCPU, the following or later software version is used to write to the CPU. The earlier software version is unusable.
- AnNCPU(S1): Version L or later for the one with link, version H or later for the one without link
 - A2SCPU: Version H or later
 - A0J2HCPU: Version E or later
 - A0J2HCPU-DC24: Version B or later
 - A2CCPU: Version H or later
- *10 The FX3G series, FX3GC series, and FX3S series can be connected with a USB cable.
- *11 When connecting MELDAS C6/C64, use the system software version indicated below.
- NC system software version D0 or later
- *12 When configuring a multiple CPU system using Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, or Q25HCPU, use a CPU of function version B or later.
- *13 In the computer link connection using the A2SCPU, A2SHCPU, A1SHCPU, A1SJHCPU, A0J2HCPU, A171SHCPU, or A172SHCPU, use a computer link module of the software version U or later.
- *14 In the QCPU redundant system, the MELSECNET/H extend mode cannot be used.
- *15 The connection with a USB cable is available for only the following PLCs.
- Q02HCPU, Q06HCPU, Q12HCPU, Q25HCPU, Q02PHCPU, Q06PHCPU, Q12PHCPU, Q25PHCPU, Q12PRHCPU, Q25PRHCPU, Q00UJCPU, Q00UCPU, Q01UCPU, Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU, Q10UDHCPU, Q13UDHCPU, Q20UDHCPU, Q26UDHCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU, Q04UDPVCPU, Q06UDPVCPU, Q13UDPVCPU, Q26UDPVCPU
- *16 Applicable only with the PC CPU module
- *17 The following CPUs have no serial interface, and therefore monitor them via a QCPU in the multiple CPU system.
- Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU, Q04UDPVCPU, Q06UDPVCPU, Q13UDPVCPU, Q26UDPVCPU, Q12DCCPU-V, Q24DHCCPU-V, Q24DHCCPULS, Q24DHCCPU-VG, Q172DSCPU, Q173DSCPU
- *18 The following CPUs can be connected with an Ethernet port built in the CPU.
- R04CPU, R08CPU, R16CPU, R32CPU, R120CPU, R08SFCPU, R16SFCPU, R32SFCPU, R120SFCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU, Q04UDPVCPU, Q06UDPVCPU, Q13UDPVCPU, Q26UDPVCPU
- As with connecting the GOT to the Ethernet module, the Ethernet settings, including the IP address setting, are required.
- *19 Only the PLC CPU area (CPU No.1) in the Q170MCPU and Q170MS(-S1)CPU can be monitored. The PERIPHERAL I/F cannot be used.
- *20 Compatible with only the FX3U(C) series, FX3G(C) series and FX3S series.
- *21 Compatible with only CJ1H, CJ1G, CJ1M, CJ2H(-EIP), CJ2H, CJ2M, CS1H, CS1G and CS1D.
- *22 The adapter L6ADP-R2 is required for the RS-232 connection.
- *23 The GOT cannot monitor the host station.
- *24 Only STARDOM can be connected.
- *25 Compatible with only the universal model QCPU.
- *26 The Ethernet connection of robot controller can be established only via the Ethernet module (QJ71E71) or Built-in Ethernet port of QnUDE.
- *27 Not compatible with the redundant Ethernet.
- *28 CPM1A, CPM1, CPM2C, C200H, C200HS, CP1H, CP1L, C1000H, or C2000H cannot be connected.
- *29 Only CJ2M-CPU1□ supports the direct CPU connection.
- *30 This module has no USB port to connect to a personal computer. Monitor the module via an RCP in the multiple CPU system.
- *31 For R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, and R120ENCPU, the built-in Ethernet port CPUs (CPU P1, and P1) and RJ71EN71 can be used.
- *32 For R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, and R120ENCPU, use RJ71GP21-SX.
- *33 For R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, and R120ENCPU, the built-in Ethernet port CPUs (P1 and P2), RJ71EN71, and RJ71GF11-T2 can be used.

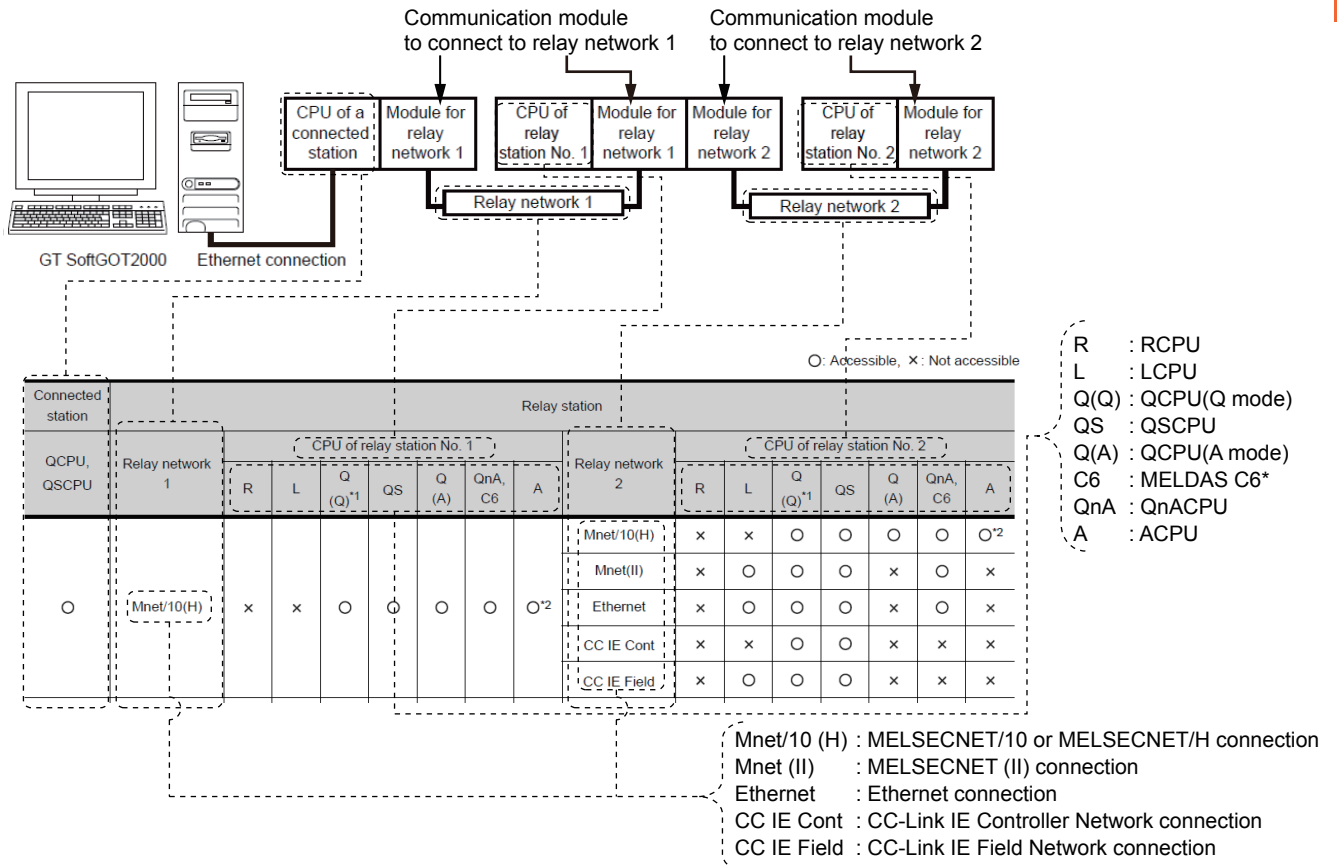
- *34 Note the following precautions for the R08SFCPU, R16SFCPU, R32SFCPU, and R120SFCPU.
Place the safety function module R6SFM next to a CPU module, and mount them on the base unit.
In addition, the pair version of the CPU module and the one of the safety function module R6SFM have to match.
If the pair versions do not match, the CPU module does not operate.
- *35 The LJ72GF15-T2 does not support Ethernet.
- *36 Use the CPU whose first five digits of the serial number is 13012 or later. Use GX Works2 of Version 1.50C or later.
- *37 For the following CPUs, use the CC-Link IE Controller Network and the CPU whose first five digits of the serial number is 09042 or later.
Q00UJCPU, Q00UJCPU(-S8), Q00UCPU, Q01UCPU, Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU, Q10UDHCPU, Q13UDHCPU, Q20UDHCPU, Q26UDHCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q12DCCPUV, Q24DHCCPU-V, Q24DHCCPU-LS, Q24DHCCPU-VG
- *38 For the following CPUs, use the CPU whose first five digits of the serial number is 09012 or later.
Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, Q25HCPU
When the number of stations for one network is 65 or more, use the CC-Link IE Controller Network module whose first five digits of the serial number is 09042 or later.
- *39 For the following CPUs, use the CC-Link IE Controller Network module whose first five digits of the serial number is 10042 or later and with the function version D or later.
Q00JCPU, Q00CPU, Q01CPU, Q02PHCPU, Q06PHCPU, Q12PHCPU, Q25PHCPU, Q12PRHCPU, Q25PRHCPU
- *40 Use a serial port of the serial communication module controlled by another module in the multiple CPU system.
- *41 The R12CCPU-V is not compatible with the RJ71EN71. Use an Ethernet port built in the CPU.
- *42 Use the C24 serial port controlled by another module in the multiple CPU system.
- *43 C Controller modules are not compatible with the QJ71E71. Use an Ethernet port built in the CPU.
- *44 Only the host station and host station setting (0-FF 3FF) can be accessed.
- *45 A safety CPU cannot be set as a relay station for another network connection.
- *46 Use the CPU whose first five digits of the serial number is 10032 or later and the CC-Link IE Controller Network module whose first five digits of the serial number is 10041 or later and with the function version D or later.
- *47 Use the CPU whose first five digits of the serial number is 12012 or later.
- *48 Use the CPU whose first five digits of the serial number is 12042 or later.
- *49 Use the CPU whose first five digits of the serial number is 13042 or later.

3.2.3 Access range

The section explains the access range by connection type.

- ➡ ■1. Ethernet connection
- 2. Direct CPU connection, serial communication connection
- 3. Bus connection
- 4. MELSECNET/H connection, MELSECNET/10 connection
- 5. CC-Link IE Controller Network connection
- 6. CC-Link IE Field Network connection

The following shows the correspondence of an illustration and a table in this section.



1. Ethernet connection

When GT SoftGOT2000 is connected to a station by Ethernet, the range accessible by GT SoftGOT2000 via the station is shown below.

POINT

(1) When monitoring other networks (Routing parameter setting)

To monitor other networks, configure the routing parameter setting.

For the routing parameter setting, refer to the following.

➡ 3.3 Ethernet Connection

(2) When monitoring the devices of other stations on the same network

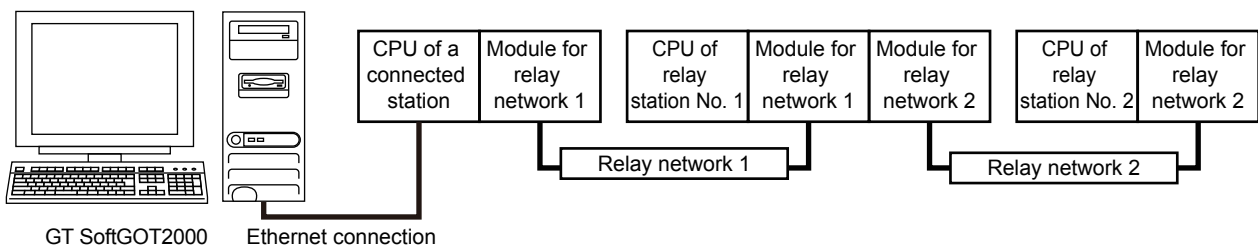
If the GOT monitors the devices, such as D and M, of other stations on the same network, the GOT takes a long time to display data.

In such a case, monitor the device assigned to the link register (B) or link register (W) of the network parameter.

(1) Connecting with RCPU

For the correspondence of the illustration and the table, refer to the following.

➡ 3.2.3 Access range



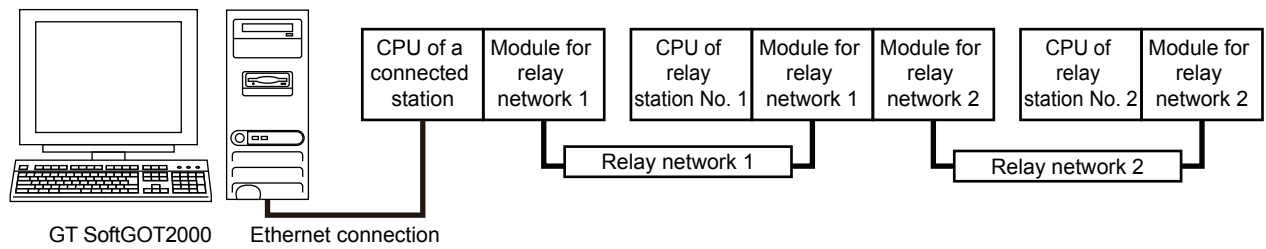
○: Accessible, ×: Not accessible

Connected station	Relay station																
RCPU	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2							
		R	L	Q (Q)	QS	Q (A)	QnA	A		R	L	Q (Q)	QS	Q (A)	QnA	A	
○	Ethernet	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×	
									CC IE Cont	○	×	×	×	×	×	×	×
									CC IE Field	○	×	×	×	×	×	×	×
○	CC IE Cont	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×	
									CC IE Cont	○	×	×	×	×	×	×	×
									CC IE Field	○	×	×	×	×	×	×	×
○	CC IE Field	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×	
									CC IE Cont	○	×	×	×	×	×	×	×
									CC IE Field	○	×	×	×	×	×	×	×

(2) Connecting with QCPU or Q series motion controller CPU

For how to refer to the illustration and table, refer to the following.

3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
QCPU*1, QSCPU		R	L	Q (Q)*2	QS	Q (A)	QnA	A		R	L	Q (Q)*2	QS	Q (A)	QnA	A
○	Mnet/10(H)	×	×	○	○	○	○	○*3	Mnet/10(H)	×	×	○	○	○	○	○*3
		×	×	○	○	○	○	○*3	Ethernet	×	○	○	○	×	○	×
		×	×	○	○	○	○	○*3	CC IE Cont	×	×	○	○	×	×	×
		×	×	○	○	○	○	○*3	CC IE Field	×	○	○	○	×	×	×
○	Ethernet	×	○	○	○	×	○	×	Mnet/10(H)	×	×	○	○	○	○	○*3
		×	○	○	○	×	○	×	Ethernet	×	○	○	○	×	○	×
		×	○	○	○	×	○	×	CC IE Cont	×	×	○	○	×	×	×
		×	○	○	○	×	○	×	CC IE Field	×	○	○	○	×	×	×
○	CC IE Cont	×	×	○	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
		×	×	○	○	×	×	×	Ethernet	×	○	○	○	×	×	×
		×	×	○	○	×	×	×	CC IE Cont	×	×	○	○	×	×	×
		×	×	○	○	×	×	×	CC IE Field	×	○	○	○	×	×	×
○	CC IE Field	×	○	○	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
		×	○	○	○	×	×	×	Ethernet	×	○	○	○	×	×	×
		×	○	○	○	×	×	×	CC IE Cont	×	×	○	○	×	×	×
		×	○	○	○	×	×	×	CC IE Field	×	○	○	○	×	×	×

*1 Only the PLC CPU area (CPU No.1) is applicable for Q170MCP and Q170MSCPU.

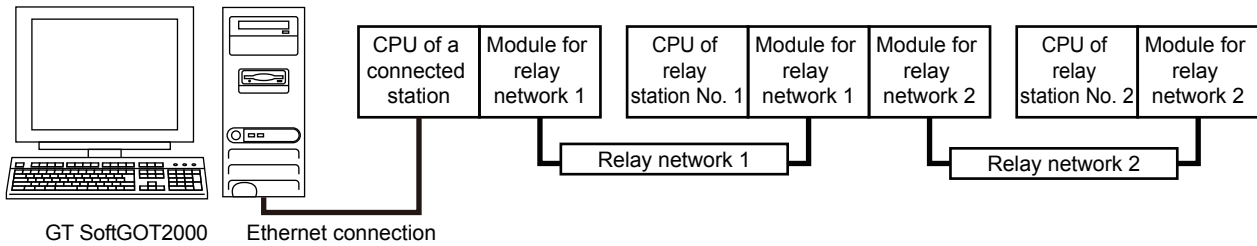
*2 CNC C70 on other networks cannot be monitored.

*3 AnNCPU cannot be monitored.

(3) Connecting with LCPU

This connection is available only when routing parameters can be set on the PLC side.
For how to refer to the illustration and table, refer to the following.

➡ 3.2.3 Access range



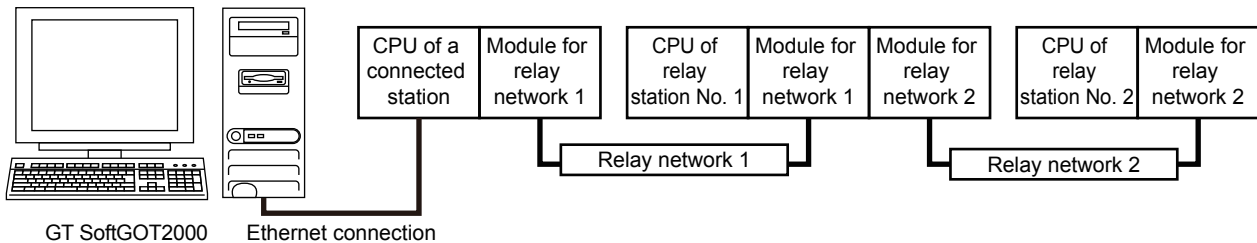
○: Accessible, ×: Not accessible

Connected station	Relay station															
LCPU	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
		R	L	Q (Q)	QS	Q (A)	QnA	A		R	L	Q (Q)	QS	Q (A)	QnA	A
○	Ethernet	×	○	○	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont	×	×	○	○	×	×	×
									CC IE Field	×	○	○	○	×	×	×
○	CC IE Field	×	○	○	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont	×	×	○	○	×	×	×
									CC IE Field	×	○	○	○	×	×	×

(4) Connecting with QnACPU or MELDAS C6/C64

For how to refer to the illustration and table, refer to the following.

➡ 3.2.3 Access range



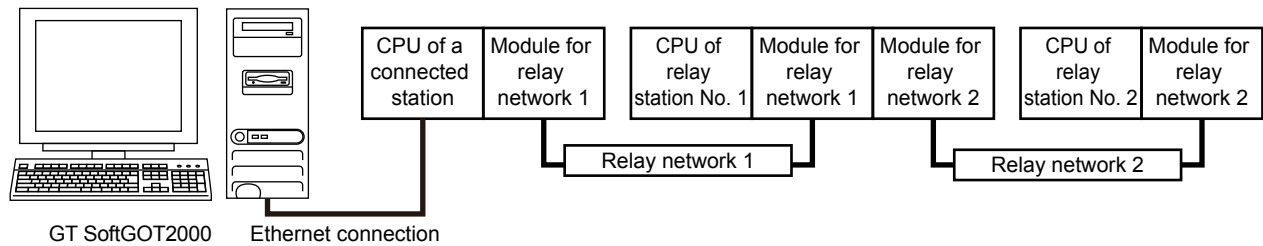
○: Accessible, ×: Not accessible

Connected station	Relay station															
QnACPU, MELDAS C6*	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
		R	L	Q (Q)	QS	Q (A)	QnA *1	A		R	L	Q (Q)	QS	Q (A)	QnA *1	A
○	Mnet/10(H)	×	×	×	×	×	○	×	Mnet/10(H)	×	×	×	×	×	○	×
									Ethernet	×	×	×	×	×	○	×
○	Ethernet	×	×	×	×	×	○	×	Mnet/10(H)	×	×	×	×	×	○	×
									Ethernet	×	×	×	×	×	○	×

*1 CNC C70 on other networks cannot be monitored.

- (5) **Connecting with ACPU**
Only the connected station can be accessed.
- (6) **Connecting with FXCPU**
The stations set with [Ethernet Setting] of GT Designer3 can be accessed.
- (7) **Connecting with the robot controller (CRnD-700)**
Only the connected station can be accessed.
- (8) **Connecting with the CC-Link IE Field Network Ethernet adapter module**
Only the other stations on the CC-Link IE Field network via a CC-Link IE Field Network Ethernet adapter module can be accessed.
For how to refer to the illustration and table, refer to the following.

➡ 3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
NZ2GF-ETB		R	L	Q (Q)	QS	Q (A)	QnA	A		R	L	Q (Q)	QS	Q (A)	QnA	A
○	CC IE Field	×	○	○	○	×	×	×	CC IE Field	×	○	○	○	×	×	×

POINT

- (1) **Host in the Ethernet connection**
While the GT SoftGOT2000 is handled as the host in MELSECNET/H, MELSECNET/10 or CC-Link connection, the station (Ethernet module) set as the host in the Ethernet setting of GT Designer3 is handled as the host in Ethernet connection.
- (2) **Precautions when using the QCPU redundant system**
When monitoring other networks, do not set the QCPU redundant system as a relay station.
If the QCPU redundant system is set as a relay station, the GT SoftGOT2000 cannot switch the monitoring target automatically when the system is switched.
(A timeout error occurs due to failed monitoring)
- (9) **Various settings**
For the Ethernet setting with GT Designer3, refer to the following.
➡ 3.3 Ethernet Connection

2. Direct CPU connection, serial communication connection

When GT SoftGOT2000 is connected to a station by the direct CPU connection or the serial communication connection, the range accessible by GT SoftGOT2000 via the station is shown below.

POINT

(1) When monitoring other networks (Routing parameter setting)

To monitor other networks, setting of routing parameters is required.

For the setting of the routing parameters, refer to the reference manual of the network connected.

(2) Monitoring the devices of other stations on the network

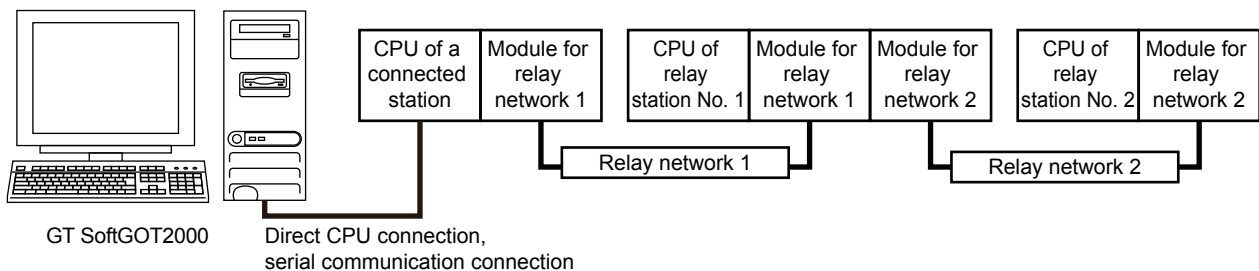
Monitoring devices, such as D and M, of a station on another network slows the display processing.

When monitoring devices of other stations, monitor the devices that are assigned to the link relay (B) or link register (W) with the network parameter.

(1) Connecting with RCPU

For how to refer to the illustration and table, refer to the following.

3.2.3 Access range



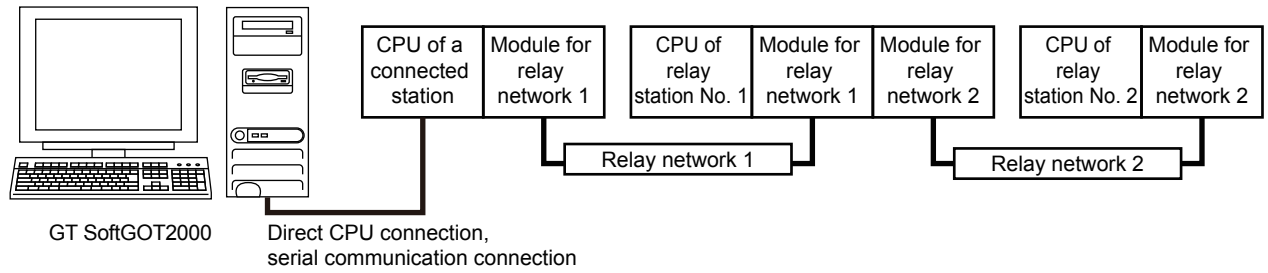
○: Accessible, ×: Not accessible

Connected station	Relay station																
RCPU	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2							
		R	L	Q (Q)	QS	Q (A)	QnA	A		R	L	Q (Q)	QS	Q (A)	QnA	A	
○	Ethernet	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×	
									CC IE Cont	○	×	×	×	×	×	×	×
									CC IE Field	○	×	×	×	×	×	×	×
○	CC IE Cont	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×	
									CC IE Cont	○	×	×	×	×	×	×	×
									CC IE Field	○	×	×	×	×	×	×	×
○	CC IE Field	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×	
									CC IE Cont	○	×	×	×	×	×	×	×
									CC IE Field	○	×	×	×	×	×	×	×

(2) Connecting with QCPU or Q series motion controller CPU

For how to refer to the illustration and table, refer to the following.

3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
QCPU, QSCPU		R	L	Q (Q)	QS	Q (A)	QnA	A ^{*3}		R	L	Q (Q)	QS	Q (A)	QnA	A ^{*3}
○ ^{*2}	Mnet/10(H)	×	×	○	○	○	○	○	Mnet/10(H)	×	×	○	○	○	○	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont	×	×	○	○	×	×	×
									CC IE Field	×	○	○ ^{*1}	×	×	×	×
○ ^{*2}	Ethernet	×	○	○	○	×	○	×	Mnet/10(H)	×	×	○	○	○	○	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont	×	×	○	○	×	×	×
									CC IE Field	×	○	○ ^{*1}	×	×	×	×
○ ^{*2}	CC IE Cont	×	×	○	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont	×	×	○	○	×	×	×
									CC IE Field	×	○	○ ^{*1}	×	×	×	×
○ ^{*2}	CC IE Field	×	○	○ ^{*1}	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont	×	×	○	○	×	×	×
									CC IE Field	×	○	○ ^{*1}	×	×	×	×

*1 Only Universal model QCPU is applicable.

*2 When QSCPU is connected by USB, access to other stations or other PLCs is unavailable.

*3 Depending on the CPU type, the access range is different.
Refer to the following table.

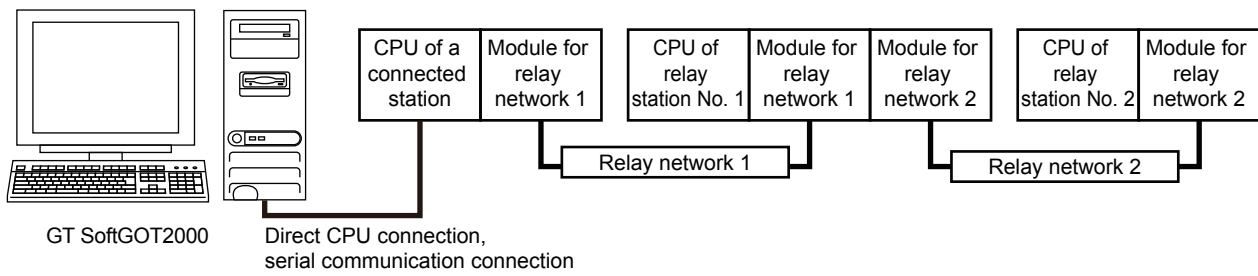
○: Accessible, ×: Not accessible, ▲: Accessible when the connected station is a control station

Connected station	Relay network 1		Relay network 2	
	AnA(AnN)CPU	AnUCPU	AnA(AnN)CPU	AnUCPU
QCPU	▲	○	×	○

(3) Connecting with LCPU

For how to refer to the illustration and table, refer to the following.

➡ 3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
LCPU		R	L	Q (Q)	QS	Q (A)	QnA	A		R	L	Q (Q)	QS	Q (A)	QnA	A
○	Ethernet	×	○	○	○	×	×	×	Mnet/10(H)*2	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont*2	×	×	○	○	×	×	×
									CC IE Field	×	○	○*1	×	×	×	×
○	CC IE Field	×	○	○*1	○	×	×	×	Mnet/10(H)*2	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont*2	×	×	○	○	×	×	×
									CC IE Field	×	○	○*1	×	×	×	×

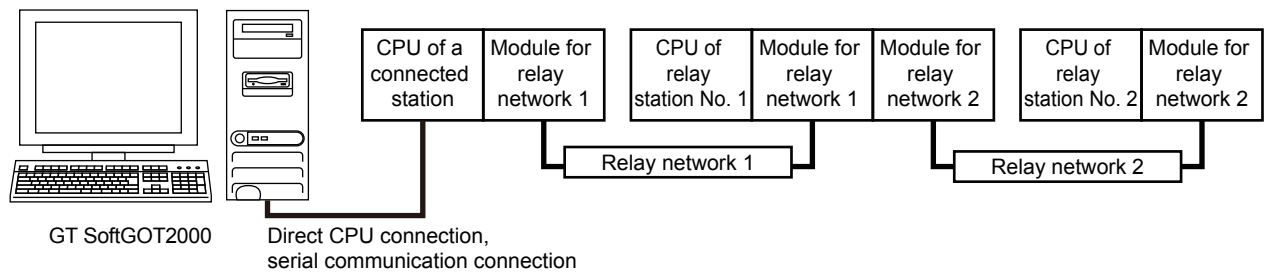
*1 Only Universal model QCPU is applicable.

*2 This network can be accessed only when the CPU of relay station No. 1 is a QCPU.

(4) Connecting with QnACPU or MELDAS C6/C64

For how to refer to the illustration and table, refer to the following.

3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
		R	L	Q (Q)	QS	Q (A)	QnA, C6	A		R	L	Q (Q)	QS	Q (A)	QnA, C6	A
○	Mnet/10	×	×	×	×	×	○	×	Mnet/10	×	×	×	×	×	○	×
		×	×	×	×	×	○	×	Mnet(II)	×	×	×	×	×	×	×
		×	×	×	×	×	○	×	Ethernet	×	×	×	×	×	○	×
○	Mnet(II) ^{*1}	×	×	×	×	×	○ ^{*2}	○	Mnet/10	×	×	×	×	×	×	×
		×	×	×	×	×	○ ^{*2}	○	Mnet(II)	×	×	×	×	×	×	×
		×	×	×	×	×	○ ^{*2}	○	Ethernet	×	×	×	×	×	×	×
○	Ethernet	×	×	×	×	×	○	×	Mnet/10	×	×	×	×	×	○	×
		×	×	×	×	×	○	×	Mnet(II)	×	×	×	×	×	×	×
		×	×	×	×	×	○	×	Ethernet	×	×	×	×	×	○	×

*1 Only the link relay device or link register device assigned to the network parameter can be monitored.

Depending on the type of the connected station, the access range is different.

- For a master station, its local stations can be monitored.
- For a local station, only its master station can be monitored.
- For the master station on the third hierarchy, the master station on the second hierarchy and the local stations on the third hierarchy can be monitored.

For the details of the data link system, refer to the following.

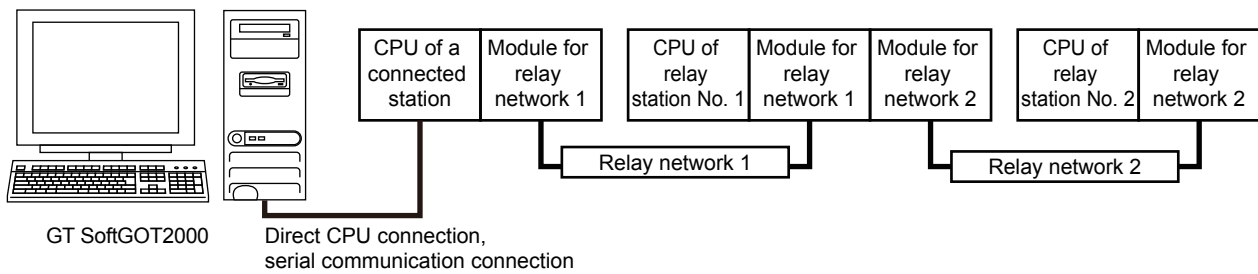
3.2.6 Access range in the data link system (MELSECNET/B, (II))

2 MELDAS C6 is inaccessible.

(5) Connecting with ACPU or QCPU (A mode)

For how to refer to the illustration and table, refer to the following.

➡ 3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
		R	L	Q (Q)	QS	Q (A)	QnA	A		R	L	Q (Q)	QS	Q (A)	QnA	A
○	Mnet/10 ^{*1}	×	×	×	×	○	×	○	Mnet/10(H)	×	×	×	×	○	×	○
		×	×	×	×	×	×	×	Mnet(II)	×	×	×	×	×	×	×
○	Mnet(II) ^{*2}	×	×	×	×	○	○	○	Mnet/10(H)	×	×	×	×	×	×	×
		×	×	×	×	×	×	×	Mnet(II)	×	×	×	×	×	×	×

*1 Depending on the CPU type, the access range is different.
Refer to the following table.

○: Accessible, ×: Not accessible,

▲: Accessible when the connected station is a control station, △: Accessible when the monitored CPU is in a control station

Connected station	Relay network 1		Relay network 2	
	AnA(AnN)CPU	AnUCPU	AnA(AnN)CPU	AnUCPU
AnA(AnN)CPU	×	△	×	×
AnUCPU	▲	○	×	○

*2 Only the link relay device or link register device assigned to the link parameter can be monitored.

Depending on the type of the connected station, the access range is different.

- For a master station, its local stations can be monitored.
- For a local station, only its master station can be monitored.
- For the master station on the third hierarchy, the master station on the second hierarchy and the local stations on the third hierarchy can be monitored.

For the details of the data link system, refer to the following.

➡ 3.2.6 Access range in the data link system (MELSECNET/B, (II))

(6) **Connecting with FXCPU**

Only the connected CPU can be accessed.

(7) **Connecting with CNC (CNC C70) or a robot controller (CRnQ-700)**

Monitor the motion controller CPU (Q series), CNC (CNC C70), or robot controller (CRnQ-700) via the following QCPUs in the multiple CPU system.

Controller		Relay CPU
CNC(CNC C70)	Q173NCCPU	QnUCPU
Robot controller (CRnQ-700)	Q172DRCPU	

(8) **Connecting with remote I/O stations in the MELSECNET/H network system**

When connected to the remote I/O station of the MELSECNET/H network system, the GT SoftGOT2000 can monitor the PLC CPU of the master station.

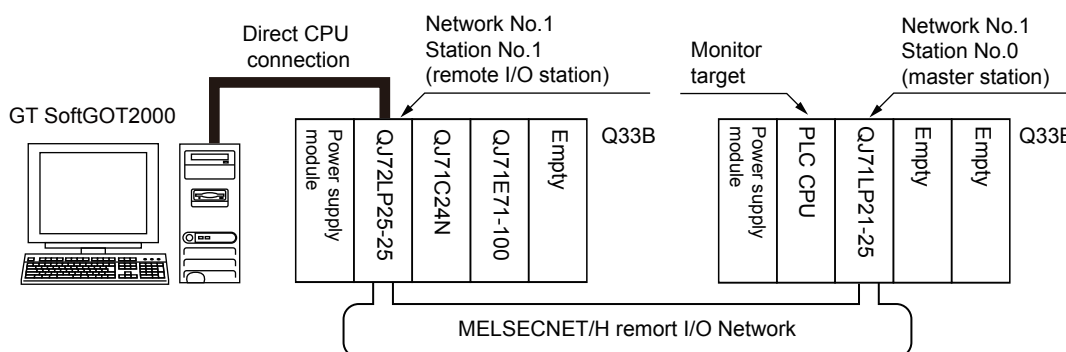
When connecting the GT SoftGOT2000 to the remote I/O station, use the following connection methods.

POINT

Connection to remote I/O station of MELSECNET/B, (II) or /10

The GT SoftGOT2000 cannot be connected to the remote I/O station on the MELSECNET/B, (II) data link system and MELSECNET/10 network system.

Connect the GT SoftGOT2000 to the remote I/O station on the MELSECNET/H network system.



(a) **Network modules in a remote I/O station**

The network units (QJ72LP25-25, QJ72LP25G, QP72BR15) of the remote I/O station are handled as PLC CPU.

Connect the GT SoftGOT2000 to the RS-232C interface of the network unit.

For the details of the cable and others required for connection with the network module, refer to the following.

➡ 3.4.2 Connection cable

(b) **Display of objects**

Specify a type including MELSEC-Q (including multiple), or MELSEC-QnU for the controller type on GT Designer3. Then, specify [[NW No.] (Network No. of the remote I/O network) to 1, and specify [Station No.] (Master station) to 0.] as the monitoring target in the network setting of the device setting dialog.

The GT SoftGOT2000 monitors stations on the MELSECNET/H network with the transient transmission. Therefore, a longer time-lag occurs for displaying objects compared with directly monitoring the PLC CPU. For displaying objects with a shorter time-lag, execute the cyclic transmission so that the GT SoftGOT2000 can monitor link devices B and W of the host station set in the MELSECNET/H network.

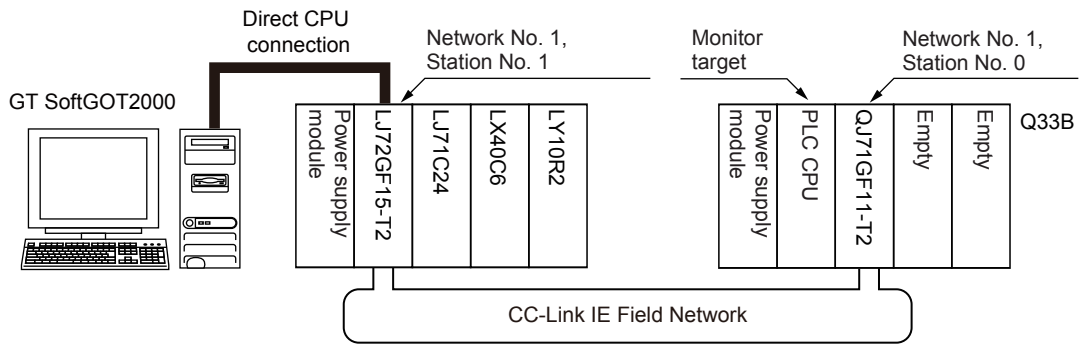
For the settings required for the PLC CPU, refer to the following.

➡ Q corresponding MELSECNET/H Network System Reference Manual (PLC to PLC network)

(9) Connecting with a head module in the CC-Link IE Field Network

When connected to the head module of the CC-Link IE Field Network, the GT SoftGOT2000 can monitor the PLC CPU of the master station and local stations.

When connecting the GT SoftGOT2000 to the head module, use the following connection methods.



(a) Head module

The head module (LJ72GF15-T2) is handled as PLC CPU.

For cables required for connection with the head module and other details, refer to the following.

➡ 3.4.2 Connection cable

(b) Display of objects

Specify a type including MELSEC-QnU for the controller type on GT Designer3. Then, specify [NW No.] (Network No. of the CC-Link IE Field Network) to 1, and specify [Station No.] (Master station) to 0.] as the monitoring target in the network setting of the device setting dialog.

The GT SoftGOT2000 monitors stations on the CC-Link IE Field Network with the transient transmission. Therefore, a longer time-lag occurs for displaying objects compared with directly monitoring the PLC CPU. For displaying objects with a shorter time-lag, execute the cyclic transmission so that the GT SoftGOT2000 can monitor link devices B and W of the host station set in the CC-Link IE Field Network.

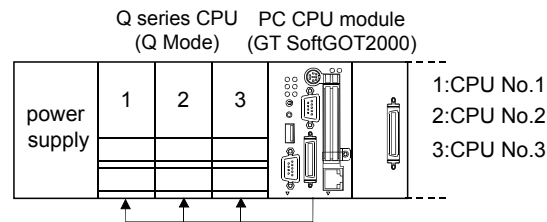
For the settings required for the PLC CPU, refer to the following.

➡ MELSEC-L CC-Link IE Field Network Head Module User's Manual

■3. Bus connection

When the multiple CPU system is created, the PC CPU module can access the other CPUs on the same main base unit.

The PC CPU module cannot access CPUs on the other main base units.



POINT

(1) When monitoring other networks (Routing parameter setting)

To monitor other networks, configure the routing parameter setting.

For the routing parameter setting, refer to the reference manual of the network connected.

(2) Monitoring the devices of other stations on the network

Monitoring devices, such as D and M, of a station on another network slows the display processing.

When monitoring devices of other stations, monitor the devices that are assigned to the link relay (B) or link register (W) with the network parameter.

■ 4. MELSECNET/H connection, MELSECNET/10 connection

When GT SoftGOT2000 is connected to a station in the MELSECNET/H or MELSECNET/10 network, the range accessible by GT SoftGOT2000 via the station is shown below.

The GT SoftGOT2000 is regarded as a normal station and monitors the control station and all normal stations on the network.

If the monitoring target is a PLC CPU within a multiple CPU system, CPU No. 1 to CPU No. 4 can be monitored. When monitoring devices of other stations, monitoring of all devices is possible in the PLC CPU to be accessed.

⇒ 3.2.4 ■ 3. When using MELSECNET/10 connection

POINT

(1) When monitoring other networks (Routing parameter setting)

To monitor other networks, configure the routing parameter setting.
For the routing parameter setting, refer to the following.

⇒ MELSECNET/H Interface Board User's Manual

Q Corresponding MELSECNET/H Network System Reference Manual (PLC to PLC network)

(2) Monitoring the devices of other stations on the network

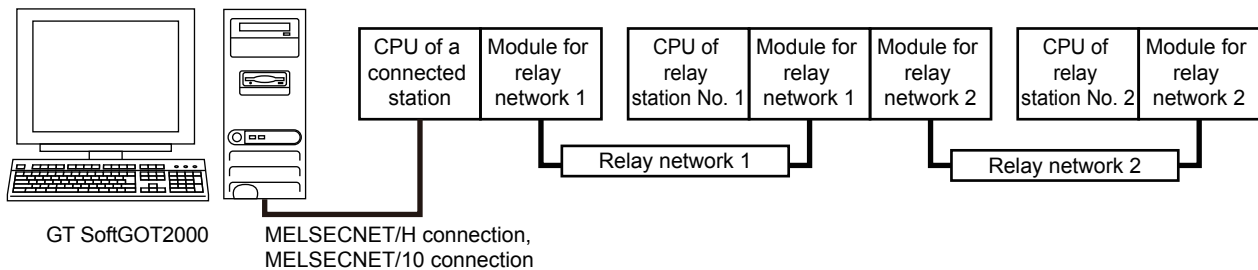
Monitoring devices, such as D and M, of a station on another network slows the display processing.

When monitoring devices of other stations, monitor the devices that are assigned to the link relay (B) or link register (W) with the network parameter.

(1) Connecting with QCPU or Q series motion controller CPU

For how to refer to the illustration and table, refer to the following.

⇒ 3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
QCPU*2, QSCPU*3	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
		R	L	Q (Q)*5	QS*3	Q (A)	QnA, C6	A		R	L	Q (Q)*5	QS*3	Q (A)	QnA, C6	A
○	Mnet/10(H)	×	×	○	○	○	○*4	○	Mnet/10(H)	×	×	○	○	○	○*4	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont*6	×	×	○	○	×	×	×
									CC IE Field*6	×	○	○*1	○	×	×	×
○	Ethernet	×	○	○	○	×	○	×	Mnet/10(H)	×	×	○	○	○	○*4	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont*6	×	×	○	○	×	×	×
									CC IE Field*6	×	○	○*1	○	×	×	×
○	CC IE Cont	×	×	○	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont*6	×	×	○	○	×	×	×
									CC IE Field*6	×	○	○*1	○	×	×	×

Connected station	Relay station															
QCPU ^{*2} , QSCPU ^{*3}	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
		R	L	Q (Q) ^{*5}	QS ^{*3}	Q (A)	QnA, C6	A		R	L	Q (Q) ^{*5}	QS ^{*3}	Q (A)	QnA, C6	A
○	CC IE Field	×	○	○ ^{*1}	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont ^{*6}	×	×	○	○	×	×	×
									CC IE Field ^{*6}	×	○	○ ^{*1}	○	×	×	×

*1 Only Universal model QCPU is applicable.

*2 Only the PLC CPU area (CPU No.1) is applicable for Q170MCP and Q170MSCPU.

*3 The routing parameter cannot be set for a QSCPU, and therefore the GOT cannot access the networks on which the CPU is not located.

4 MELDAS C6 is not applicable.

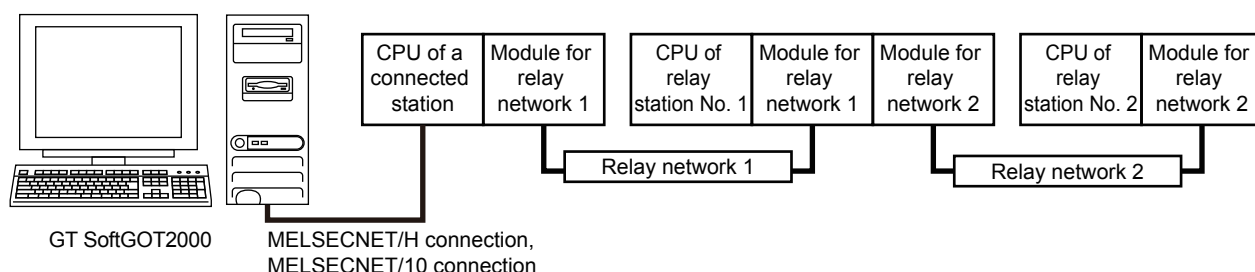
*5 CNC C70 on other networks cannot be monitored.

*6 This network can be accessed only when the CPU of relay station No. 1 is a QCPU.

(2) Connecting with QnACPU

For how to refer to the illustration and table, refer to the following.

3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
QnACPU ^{*1}	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
		R	L	Q (Q)	QS ^{*2}	Q (A)	QnA, C6 ^{*3}	A		R	L	Q (Q)	QS ^{*2}	Q (A)	QnA, C6 ^{*3}	A
○	Mnet/10	×	×	○	○	○	○ ^{*1}	○	Mnet/10(H)	×	×	○	○	○	○ ^{*1}	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont ^{*4}	×	×	○	○	×	×	×
									CC IE Field ^{*4}	×	○	○ ^{*5}	○	×	×	×
○	Ethernet	×	○	○	○	×	○	×	Mnet/10(H)	×	×	○	○	○	○ ^{*1}	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont ^{*4}	×	×	○	○	×	×	×
									CC IE Field	×	○	○ ^{*5}	○	×	×	×

1 MELDAS C6 is not applicable.

*2 The routing parameter cannot be set for a QSCPU, and therefore the GOT cannot access the networks on which the CPU is not located.

*3 CNC C70 on other networks cannot be monitored.

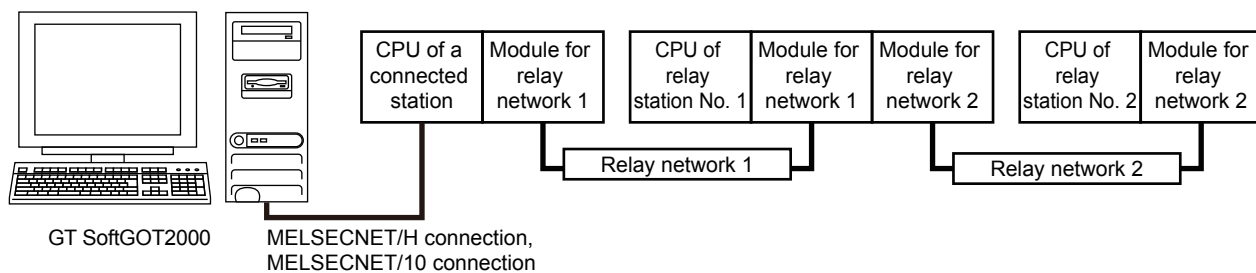
*4 This network can be accessed only when the CPU of relay station No. 1 is a QCPU.

*5 Only Universal model QCPU is applicable.

(3) Connecting with ACPU or QCPU (A mode)

For how to refer to the illustration and table, refer to the following.

➡ 3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
ACPU, QCPU (A mode)		R	L	Q (Q)	QS ^{*1}	Q (A)	QnA	A		R	L	Q (Q)	QS ^{*1}	Q (A)	QnA	A
○	Mnet/10	×	×	○	○	○	×	○	Mnet/10	×	×	○	○	○	×	○

*1 The routing parameter cannot be set for a QSCPU, and therefore the GOT cannot access the networks on which the CPU is not located.

5. CC-Link IE Controller Network connection

The following shows the access range via the connected station in a configuration in which GT SoftGOT2000 and a station are connected by CC-Link IE Controller Network.

The GT SoftGOT2000 is regarded as a normal station and monitors the control station and all normal stations on the network.

If the monitoring target is a PLC CPU within a multiple CPU system, CPU No. 1 to CPU No. 4 can be monitored. When monitoring devices of other stations, monitoring of all devices is possible in the PLC CPU to be accessed.

⇒ 3.2.4 ■ 3. When using MELSECNET/10 connection

POINT

(1) When monitoring other networks (Routing parameter setting)

To monitor other networks, setting of routing parameters is required.

For the routing parameter setting, refer to the following.

- ⇒ CC-Link IE Controller Network Interface Board User's Manual
- MELSEC-Q CC-Link IE Controller Network Reference Manual

(2) Monitoring the devices of other stations on the network

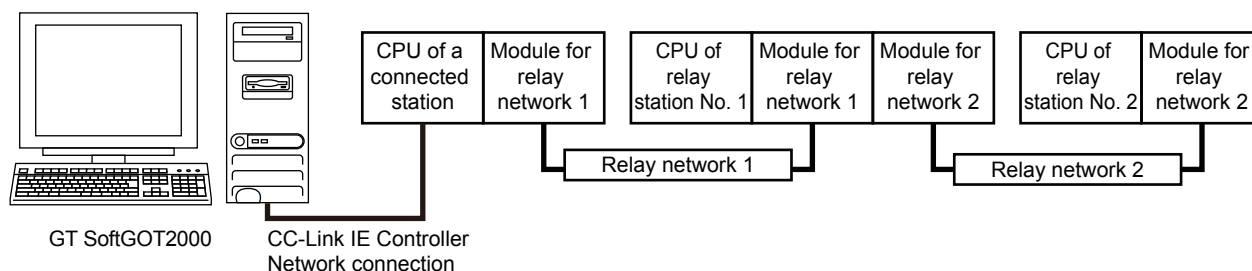
Monitoring devices, such as D and M, of a station on another network slows the display processing.

When monitoring devices of other stations, monitor the devices that are assigned to the link relay (B) or link register (W) with the network parameter.

(1) Connecting with RCPU

For how to refer to the illustration and table, refer to the following.

⇒ 3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station																
RCPU	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2							
		R	L	Q (Q)	QS*1	Q (A)	QnA, C6	A		R	L	Q (Q)	QS*1	Q (A)	QnA, C6	A	
○	Ethernet	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×	
									CC IE Cont	○	×	×	×	×	×	×	×
									CC IE Field	○	×	×	×	×	×	×	×
○	CC IE Cont	○	×	○	○	×	×	×	Mnet/10	×	×	○	○	○	○	○	
									Ethernet	○	○	○	○	×	○	×	
									CC IE Cont	○	×	○	○	×	×	×	×
									CC IE Field	○	○	○	○	×	×	×	×
○	CC IE Field	○	○	○	○	×	×	×	Mnet/10	×	×	○	○	○	○	○	
									Ethernet	○	○	○	○	×	○	×	
									CC IE Cont*3	○	×	○	○	×	×	×	×
									CC IE Field	○	○	○ ^{*2}	○	×	×	×	×

*1 Since the routing parameter cannot be set for a QSCPU, the GOT cannot access the networks on which the CPU is not located.

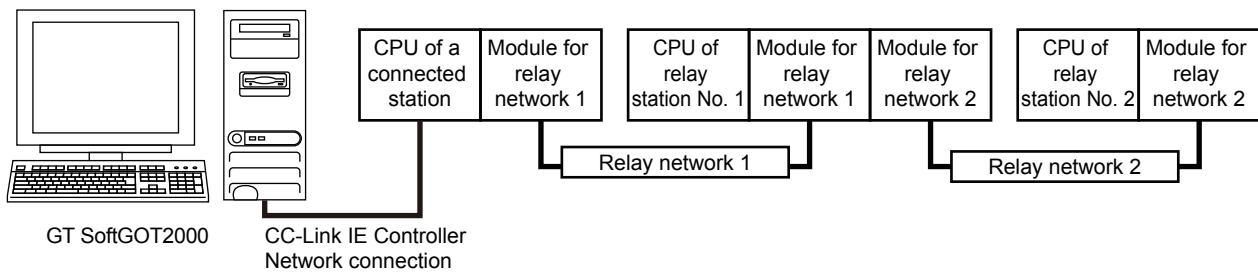
*2 Only Universal model QCPU is applicable.

*3 This network is inaccessible only when the CPU of relay station No. 1 is an LCPU.

(2) Connecting with QCPU or Q series motion controller CPU

For how to refer to the illustration and table, refer to the following.

3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
QCPU, QSCPU*2	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
		R	L	Q (Q)*4	QS*2	Q (A)	QnA, C6	A		R	L	Q (Q)*4	QS*2	Q (A)	QnA, C6	A
○	Mnet/10(H)	×	×	○	○	○	○	○	Mnet/10(H)	×	×	○	○	○	○	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont*5	×	×	○	○	×	×	×
									CC IE Field*5	×	○	○*1	○	×	×	×
○	Ethernet	×	○*3	○	○	×	○	×	Mnet/10(H)	×	×	○	○	○	○	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont*5	×	×	○	○	×	×	×
									CC IE Field	×	○	○*1	○	×	×	×
○	CC IE Cont	×	×	○	○	×	×	×	Mnet/10(H)	×	×	○	○	○	○	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont*5	×	×	○	○	×	×	×
									CC IE Field*5	×	○	○*1	○	×	×	×
○	CC IE Field	×	○	○*1	○	×	×	×	Mnet/10(H)	×	×	○	○	○	○	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont*5	×	×	○	○	×	×	×
									CC IE Field	×	○	○*1	○	×	×	×

*1 Only Universal model QCPU is applicable.

*2 Since the routing parameter cannot be set for a QSCPU, the GOT cannot access the networks on which the CPU is not located.

*3 LCP is accessible only when QJ71E71-100, QJ71E71-B2, or QJ71E71-B5 is used. (Built-in Ethernet port QCPU is inapplicable.)

*4 CNC C70 on other networks cannot be monitored.

*5 This network can be accessed only when the CPU of relay station No. 1 is a QCPU.

6. CC-Link IE Field Network connection

When GT SoftGOT2000 is connected to a station in the CC-Link IE Field Network, the range accessible by GT SoftGOT2000 via the station is shown below.

The GT SoftGOT2000 is regarded as a normal station and monitors the control station and all normal stations on the network.

If the monitoring target is a PLC CPU within a multiple CPU system, CPU No. 1 to CPU No. 4 can be monitored. When monitoring devices of other stations, monitoring of all devices is possible in the PLC CPU to be accessed.

⇒ 3.2.4 ■ 3. When using MELSECNET/10 connection

POINT

(1) When monitoring other networks (Routing parameter setting)

To monitor other networks, setting of routing parameters is required.

For the setting of the routing parameters, refer to the reference manual of the network connected.

⇒ MELSEC-L CC-Link IE Field Network Master/Local Module User's Manual

(2) Monitoring the devices of other stations on the network

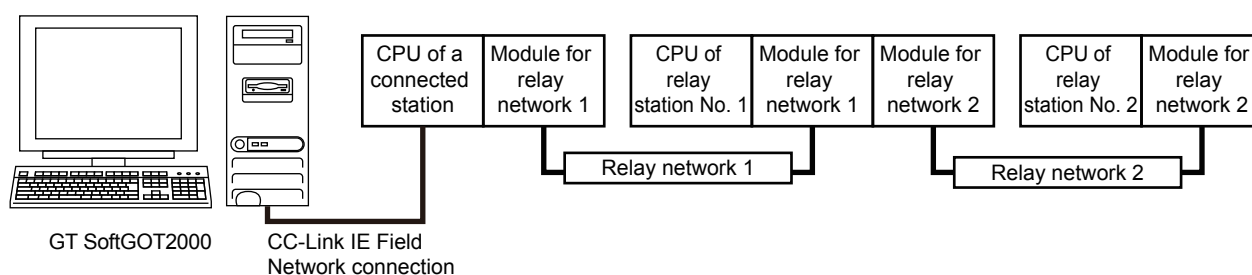
Monitoring devices, such as D and M, of a station on another network slows the display processing.

When monitoring devices of other stations, monitor the devices that are assigned to the link relay (B) or link register (W) with the network parameter.

(1) Connecting with RCP

For how to refer to the illustration and table, refer to the following.

⇒ 3.2.3 Access range



○: Accessible ×: Not accessible

Connected station	Relay station															
	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
RCP		R	L	Q (Q)	QS*1	Q (A)	QnA	A		R	L	Q (Q)	QS*1	Q (A)	QnA	A
○	Ethernet	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×
									CC IE Cont	○	×	×	×	×	×	×
									CC IE Field	○	×	×	×	×	×	×
○	CC IE Cont	○	×	○	○	×	×	×	Mnet/10	×	×	○	○	○	○	○
									Ethernet	○	○	○	○	×	○	×
									CC IE Cont	○	×	○	○	×	×	×
									CC IE Field	○	○	○	○	×	×	×
○	CC IE Field	○	○	○	○	×	×	×	Mnet/10	×	×	○	○	○	○	○
									Ethernet	○	○	○	○	×	○	×
									CC IE Cont*3	○	×	○	○	×	×	×
									CC IE Field	○	○	○*2	○	×	×	×

*1 Since the routing parameter cannot be set for a QSCPU, the GOT cannot access the networks on which the CPU is not located.

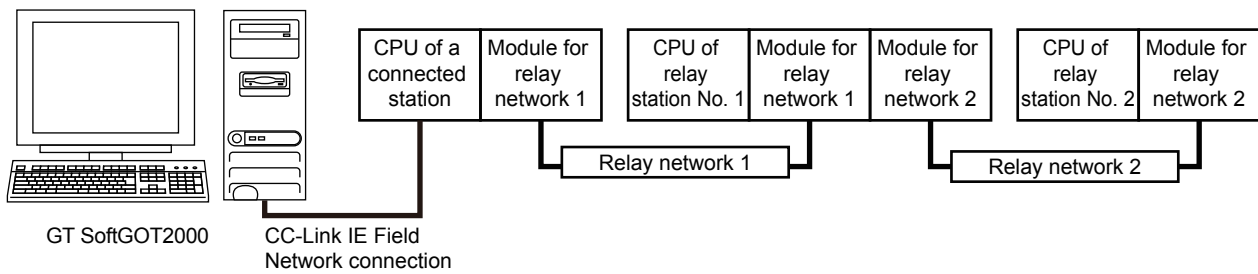
*2 Only Universal model QCPU is applicable.

*3 This network is inaccessible only when the CPU of relay station No. 1 is an LCPU.

(2) Connecting with QCPU or Q series motion controller CPU

For how to refer to the illustration and table, refer to the following.

3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
QCPU ^{*1*2} , QSCPU ^{*3}		R	L	Q (Q) ^{*4}	QS ^{*3}	Q (A)	QnA	A		R	L	Q (Q) ^{*4}	QS ^{*3}	Q (A)	QnA	A
○	Mnet/10(H)	×	×	○	○	○	○	○	Mnet/10(H)	×	×	○	○	○	○	○
		×	×	○	○	○	○	○	Ethernet	×	○	○	○	×	○	×
		×	×	○	○	○	○	○	CC IE Cont ^{*5}	×	×	○	○	×	×	×
		×	×	○	○	○	○	○	CC IE Field ^{*5}	×	○	○ ^{*1}	○	×	×	×
○	Ethernet	×	○	○	○	×	○	×	Mnet/10(H)	×	×	○	○	○	○	○
		×	○	○	○	×	○	×	Ethernet	×	○	○	○	×	○	×
		×	○	○	○	×	○	×	CC IE Cont ^{*5}	×	×	○	○	×	×	×
		×	○	○	○	×	○	×	CC IE Field	×	○	○ ^{*1}	○	×	×	×
○	CC IE Cont	×	×	○	○	×	×	×	Mnet/10(H)	×	×	○	○	○	○	○
		×	×	○	○	×	×	×	Ethernet	×	○	○	○	×	○	×
		×	×	○	○	×	×	×	CC IE Cont ^{*5}	×	×	○	○	×	×	×
		×	×	○	○	×	×	×	CC IE Field ^{*5}	×	○	○ ^{*1}	○	×	×	×
○	CC IE Field	×	○	○ ^{*1}	○	×	×	×	Mnet/10(H)	×	×	○	○	○	○	○
		×	○	○ ^{*1}	○	×	×	×	Ethernet	×	○	○	○	×	○	×
		×	○	○ ^{*1}	○	×	×	×	CC IE Cont ^{*5}	×	×	○	○	×	×	×
		×	○	○ ^{*1}	○	×	×	×	CC IE Field	×	○	○ ^{*1}	○	×	×	×

*1 Only Universal model QCPU is applicable.

*2 Only the PLC CPU area (CPU No.1) is applicable for Q170MCPU and Q170MSCPU.

*3 Since the routing parameter cannot be set for a QSCPU, the GOT cannot access the networks on which the CPU is not located.

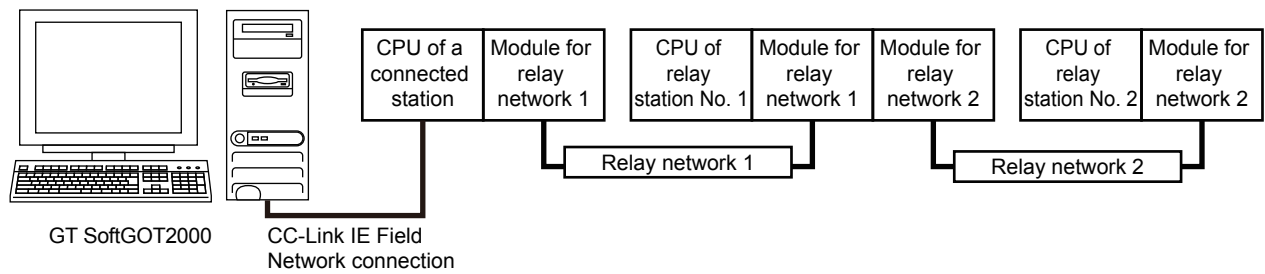
*4 CNC C70 on other networks cannot be monitored.

*5 This network can be accessed only when the CPU of relay station No. 1 is a QCPU.

(3) Connecting with LCPU

For how to refer to the illustration and table, refer to the following.

➡ 3.2.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station															
LCPU	Relay network 1	CPU of relay station No. 1							Relay network 2	CPU of relay station No. 2						
		R	L	Q (Q)	QS*2	Q (A)	QnA, C6	A		R	L	Q (Q)	QS*2	Q (A)	QnA, C6	A
○	Ethernet	×	○	○	○	×	×	×	Mnet/10(H)*3	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont*3	×	×	○	○	×	×	×
									CC IE Field	×	○	○*1	○	×	×	×
○	CC IE Field	×	○	○*1	○	×	×	×	Mnet/10(H)*3	×	×	○	○	×	×	×
									Ethernet	×	○	○	○	×	×	×
									CC IE Cont*3	×	×	○	○	×	×	×
									CC IE Field	×	○	○*1	○	×	×	×

*1 Only Universal model QCPU is applicable.

*2 Since the routing parameter cannot be set for a QSCPU, the GOT cannot access the networks on which the CPU is not located.

*3 This network can be accessed only when the CPU of relay station No. 1 is a QCPU.

POINT

(1) Precautions when using the QCPU redundant system

When monitoring other networks, do not set the QCPU redundant system as a relay station.

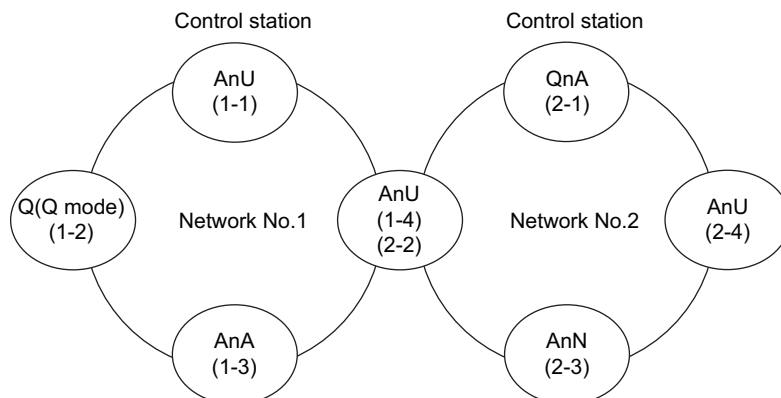
If the QCPU redundant system is set as a relay station, the GT SoftGOT2000 cannot switch the monitoring target automatically when the system is switched.

(A timeout error occurs due to failed monitoring)

3.2.4 System setting examples

The following shows an example of the monitor accessible range of other stations and setting method of monitor devices.

■ 1. When using the direct CPU connection or serial communication connection (without the data link system)



(1) Monitor accessible range of devices (other than B or W) of other stations or other networks

Specify the accessing network No. or station as shown in the following table.

- To monitor the connected station (host station), and devices B and W assigned to network parameters, specify the host station.
- To monitor another station (Devices other than B and W) or another network, specify the target station (Network No. and station No.).

Station connected to GT SoftGOT2000	Station to be accessed							
	Network No. 1				Network No. 2			
	AnU (1-1)	Q (Q mode) (1-2)	AnA (1-3)	AnU (1-4)	QnA (2-1)	AnU (2-2)	AnN (2-3)	AnU (2-4)
AnU (1-1)	○	×	○	○	×	○	×	×
	Host	—	Other (1-3)	Other (1-4)	—	Other (2-2)	—	—
Q (Q mode) (1-2)	○	○	×	○	○	○	×	○
	Other (1-1)	Host	—	Other (1-4)	Other (2-1)	Other (2-2)	—	Other (2-4)
AnA (1-3)	○	×	○	×	×	×	×	×
	Other (0-0)	—	Host	—	—	—	—	—
AnU (1-4) (2-2)	○	×	×	○	×	○	×	×
	Other (1-1)	—	—	Host	—	Host	—	—
QnA (2-1)	×	×	×	×	○	×	×	×
	—	—	—	—	Host	—	—	—
AnN (2-3)	×	×	×	×	×	×	○	×
	—	—	—	—	—	—	Host	—
AnU (2-4)	×	×	×	×	×	○	×	○
	—	—	—	—	—	Other (2-2)	—	Host

How to read the table

Upper line: Accessibility

○: Accessible

×: Not accessible

Lower line: Network settings

Host

Other (Network No. - Station number)

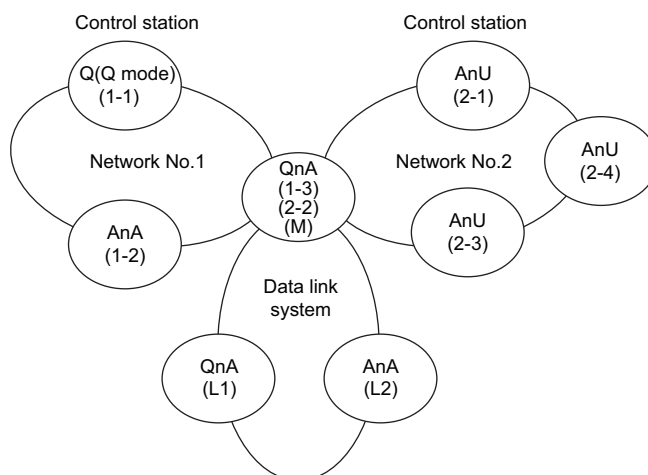
POINT

Monitoring link device B or W

To monitor devices B and W assigned to network parameters, specify the host station even though these devices have been assigned to other stations.

Otherwise, the display speed will be reduced.

2. When using the direct CPU connection or serial communication connection (with the data link system)



(1) Monitor accessible range of devices (other than B or W) of other stations or other networks
Specify the accessing network No. or station as shown in the following table.

- To monitor B or W of the connected station (Host station) assigned with a network parameter, specify the host station.
- To monitor another station (Devices other than B or W) or another network, specify the station (network No. and station No.).

Station connected to GT SoftGOT2000	Station to be accessed									
	Network No.1			Network No.2				Data link system		
	QnA (1-1)	AnA (1-2)	QnA (1-3)	AnU (2-1)	QnA (2-2)	AnU (2-3)	AnU (2-4)	QnA (M)	QnA (L1)	AnA (L2)
Q (Q mode) (1-1)	○	○	○	○	○	○	○	○	×	×
	Host	Other (1-2)	Other (1-3)	Other (2-1)	Other (2-2)	Other (2-3)	Other (2-4)	Other (1-3) or Other (2-2)	—	—
AnA (1-2)	×	○	×	×	×	×	×	×	×	×
	—	Host	—	—	—	—	—	—	—	—
QnA (1-3) (2-2) (M)	○	×	○	○	○	○	○	○	×	○
	Other (1-1)	—	Host	Other (2-1)	Host	Other (2-3)	Other (2-4)	Host	—	*1 Other (0-2)
AnU (2-1)	×	×	×	○	×	○	○	×	×	×
	—	—	—	Host	—	Other (2-3)	Other (2-4)	—	—	—
AnU (2-3)	×	×	×	○	×	○	○	×	×	×
	—	—	—	Other (2-1)	—	Host	Other (2-4)	—	—	—
AnU (2-4)	×	×	×	○	×	○	○	×	×	×
	—	—	—	Other (2-1)	—	Other (2-3)	Host	—	—	—
QnA (L1)	×	×	×	×	×	×	×	×	○	×
	—	—	—	—	—	—	—	—	Host	—
AnA (L2)	×	×	×	×	×	×	×	×	×	○
	—	—	—	—	—	—	—	—	—	Host

*1 When monitoring the data link system, set the network No. to 0.

How to read the table
Upper line: Accessibility
○: Accessible
×: Not accessible
Lower line: Network settings
Host
Other (Network No. - Station number)

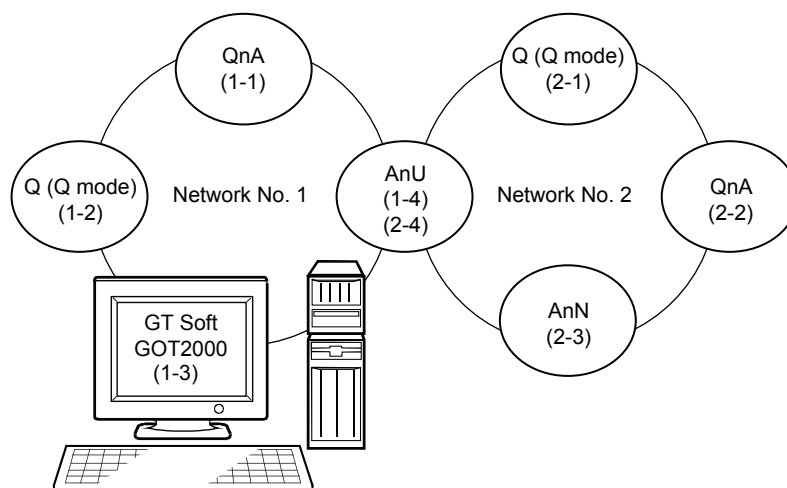
POINT

Monitoring link device B or W

To monitor devices B and W assigned to network parameters, specify the host station even though these devices have been assigned to other stations.

Otherwise, the GOT takes a long time to display data.

■3. When using MELSECNET/10 connection



(1) Monitor access range for other station devices (other than B and W)

○: Accessible x: Not accessible

Station connected to GT SoftGOT2000	Station to be accessed							
	Network No.1				Network No.2			
	QnA (1-1)	Q (Q mode) (1-2)	GT SoftGOT2000 (1-3)	AnU (1-4)	Q (Q mode) (2-1)	QnA (2-2)	AnN (2-3)	AnU (2-4)
GT SoftGOT2000 (1-3)	○	○	—	○	○	○	x	○

(2) Designating network No. and station number for setting monitor device

(a) Monitoring devices B and W that are allocated in the network parameter

NW No.: 1, Station number: Host

For monitoring devices B and W that are allocated by the link parameter, use the local device number if designating devices allocated to another station.

Otherwise, the display speed will be reduced.

(b) Monitoring other stations (Devices other than B and W)

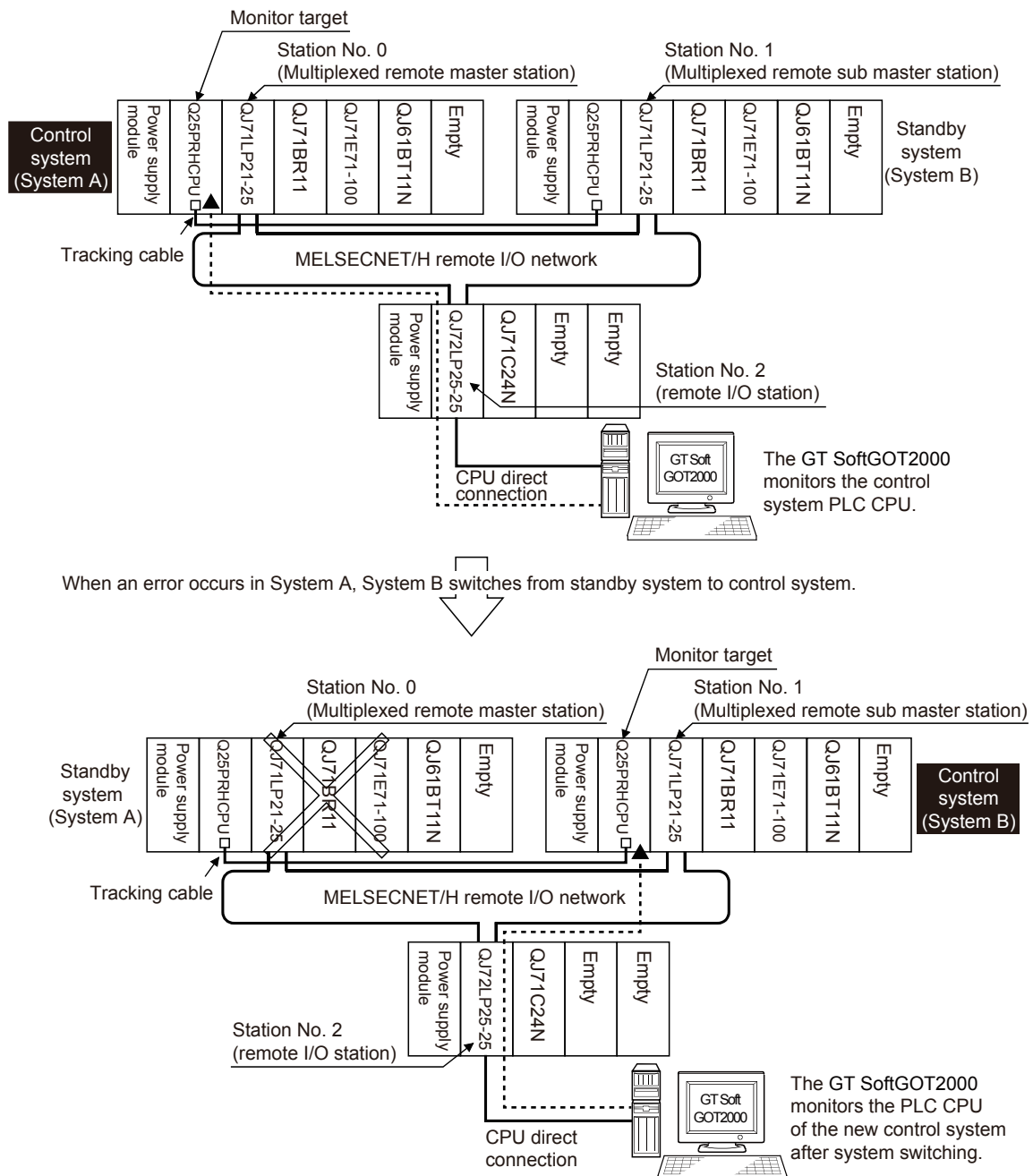
Station connected to GT SoftGOT2000	Station to be accessed			
	QnA (1-1)	Q (Q mode) (1-2)	GT SoftGOT2000 (1-3)	AnU (1-4)
SoftGOT2000 (1-3)	1, Other (1)	1, Other (2)	—	1, Other (4)

How to read the table 1, Other (2)

↑ ↑
NW No. Station number

3.2.5 How to monitor redundant system

This section explains the restrictions on the connection methods and other information applicable when the QCPU redundant system is monitored by the GT SoftGOT2000.



In a redundant system, the monitoring can be performed with the monitoring target specified as the control system or the standby system on the GT SoftGOT2000. By specifying the monitoring target PLC CPU as the control system of the redundant system, the monitoring target is automatically changed to the PLC CPU in the control system when system switching occurs.

To enable this automatic changing of the monitoring target at the GT SoftGOT2000, settings are required in the GT Designer3.

➡ ■ 9. Q redundant setting

The following connection methods are available for the QCPU redundant system.

- Connection to remote I/O station in MELSECNET/H network system
 - ➡ ■ 3. Connection to remote I/O station in MELSECNET/H network system
- Direct CPU connection
 - ➡ ■ 4. Direct CPU connection
- MELSECNET/H connection, MELSECNET/10 connection (Network system)
 - ➡ ■ 5. MELSECNET/H and MELSECNET/10 connections (network systems)
- CC-Link IE Controller Network connection (Network system)
 - ➡ ■ 6. CC-Link IE Controller Network connection (network system)
- Ethernet connection
 - ➡ ■ 7. Ethernet connection
- Connection to the redundant type extension base unit

■1. Serial communication connection (Serial communication module mounted on the redundant type extension base unit)

- ➡ (1) Serial communication connection (Connection to the serial communication module mounted on the redundant type extension base unit)

■2. Ethernet connection (Ethernet module mounted on the redundant type extension base unit)

- ➡ (2) Ethernet connection (Connection to the Ethernet module mounted on redundant type extension base unit)

For details of PLC CPUs that can be monitored in each connection method of GT SoftGOT2000, refer to the following.

- ➡ 3.2.2 Monitorable controllers

The following table shows the features of each connection method.

Connection type	Before system switching	After system switching
<ul style="list-style-type: none"> Direct CPU connection (Remote I/O station of MELSECNET/H network system) 		<p>The monitoring target is automatically changed to the control system PLC CPU.</p>
<ul style="list-style-type: none"> Direct CPU connection 		<p>By the Q redundant setting, the GT SoftGOT2000 automatically changes the monitoring target to the PLC CPU in the control system.*1</p>
	Monitor the PLC CPU of the control system by GT SoftGOT2000 1).	Monitor the PLC CPU of the control system by GT SoftGOT2000 2).

Connection type	Before system switching	After system switching
<ul style="list-style-type: none"> MELSECNET/H connection, MELSECNET/10 connection (Network system) 		<p>By the Q redundant setting, the GT SoftGOT2000 automatically changes the monitoring target to the PLC CPU in the control system.*2</p>
<ul style="list-style-type: none"> CC-Link IE Controller Network connection (Network system) 		<p>By the Q redundant setting, the GT SoftGOT2000 automatically changes the monitoring target to the PLC CPU in the control system.*2</p>
<ul style="list-style-type: none"> Ethernet connection 		<p>By the Q redundant setting, the GT SoftGOT2000 automatically changes the monitoring target to the PLC CPU in the control system.*2</p>
<ul style="list-style-type: none"> Serial communication connection (Serial communication module mounted on the redundant type extension base unit) Ethernet connection (Ethernet module mounted on the redundant type extension base unit) 		

*1 To monitor the control system after the system switching without the Q redundant setting, change the cable connection from the PLC CPU in the previous control system to the control system after system switching.

*2 To monitor the control system after the system switching without the Q redundancy setting, refer to the following.

➡ ■ 10. Switch the monitor target to the control system using the script function

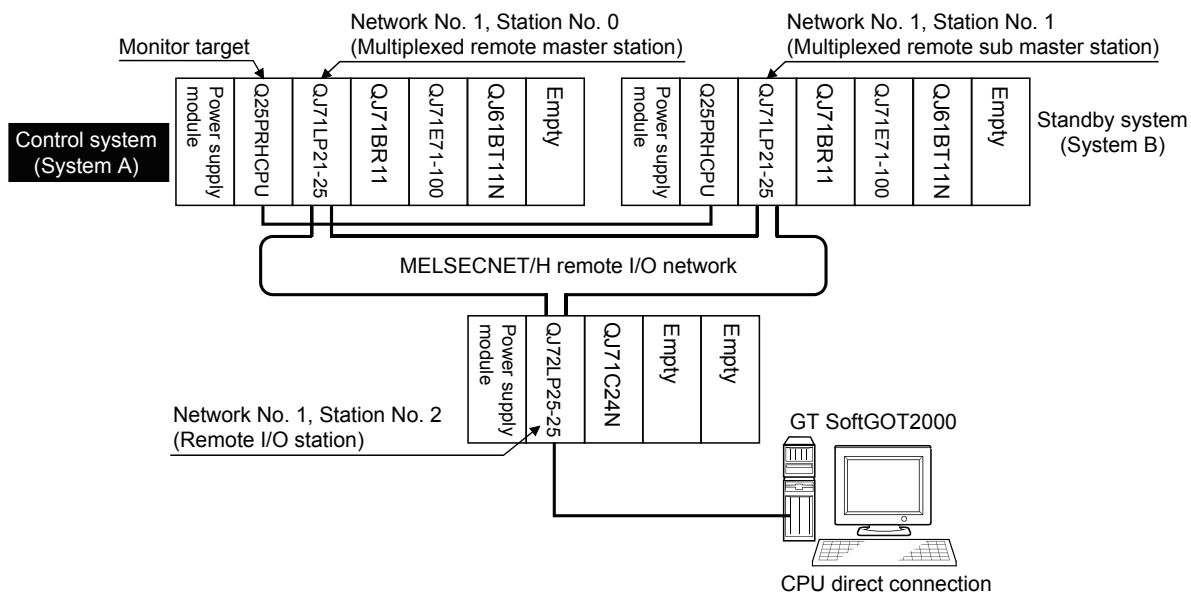
Precautions for monitoring the QCPU redundant system

- (1) A system alarm may be detected when the system is switched in a redundant system.
 When Q redundant setting is made: "450 Path has changed or timeout occurred in redundant system."
 When Q redundant setting is not made: "402 Communication timeout. Confirm communication pathway or modules."
 However, even if the error occurs, the GT SoftGOT2000 automatically resumes monitoring and there are no problems in the monitoring operation.
- (2) The system alarm is displayed when the system is switched due to cable disconnection etc. (when the path is changed).
 The system alarm is not displayed when the system is switched by the user.
- (3) When the Q redundant setting is not made, the GT SoftGOT2000 does not automatically change the monitoring target even if system switching occurs in the redundant system. When the GT SoftGOT2000 is connected to the standby system, data written to a device are overwritten by the data of the control system, failing to be reflected.
 In this case, when data are written to a device in the standby system normally, the system alarm "315 Device writing error. Correct device." is not detected.
- (4) Do not check-mark the [Comm. Error Dialog] in [Communication Setup] from [Online], for GT SoftGOT2000.
 If [Comm. Error Dialog] is checked, a communication error dialog appears and the monitor stops when some error occurs in the communication path.
 ➡ 2.4 Setting the Communication Method
- (5) For monitoring the QCPU redundant system when connecting to MELSECNET/H, use QCPU of function version D or later, with the upper five digits later than "07102".
 Also, use GX Developer of Version 8.29F or later.
- (6) If a system switching occurs while an extended function such as a sequence program monitor is being used, a message saying [Unable to communicate with CPU.] appears.
- (7) In the MELSECNET/H connection or MELSECNET/10 connection, when the control station of the MELSECNET/H network or MELSECNET/10 network fails and is taken over by a station outside the QCPU redundant system, the timeout is detected as the system alarm.
 If this occurs, the monitor display speed may slow down.
- (8) In the direct CPU connection, the GT SoftGOT2000 fails to automatically change the monitoring target in the following cases.
 - When the power supply to the CPU where the GT SoftGOT2000 is connected is OFF
 - When the cable connecting the GT SoftGOT2000 with the CPU is broken
 - When the tracking is disabled
- (9) If the Q redundant setting is made for a system that is not a QCPU redundant system, no error occurs at the start up of the GT SoftGOT2000 and the GT SoftGOT2000 operates normally.
 In this case, if an abnormality (such as powering OFF, or communication timeout error) occurs at the PLC CPU for which the Q redundant setting has been made, the PLC CPU may operate in a different way from the monitoring target change mode that was set in the Q redundant setting.

3. Connection to remote I/O station in MELSECNET/H network system

This section explains the direct CPU connection that connects the GT SoftGOT2000 to the remote I/O station of the MELSECNET/H network system.

The following shows an example of connecting the GT SoftGOT2000 to the remote I/O station of the MELSECNET/H network system.



(1) Connection method

Connect the GT SoftGOT2000 to the RS-232C interface of the network module (QJ72LP25-25, QJ72LP25G, QJ72BR15) on the remote I/O station of the MELSECNET/H network system.

(2) GT Designer3 setting

Set GT Designer3 as follows.

Setting item		Settings
Controller Type		MELSEC-QnA/Q/QS, MELDAS C6*
Device setting (Network setting)	Host	Host
	Remote master station	Other (NW No. 1 (network No. of remote I/O network), Station No. 0 (master station))
Q Redundant Setting		Do not set the item.

In this case, the GT SoftGOT2000 monitoring is performed by transient transmission of the MELSECNET/H network system. Therefore, a longer time-lag occurs for displaying objects compared with directly monitoring the PLC CPU.

For displaying objects with a shorter time-lag, execute the cyclic transmission so that the GT SoftGOT2000 can monitor link devices B and W of the host station set in the MELSECNET/H network.

(3) Changing the monitoring target when system switching occurs in a redundant system

When the system switching occurs, the multiplexed remote sub master station switched to the control system takes over the master operation of MELSECNET/H.

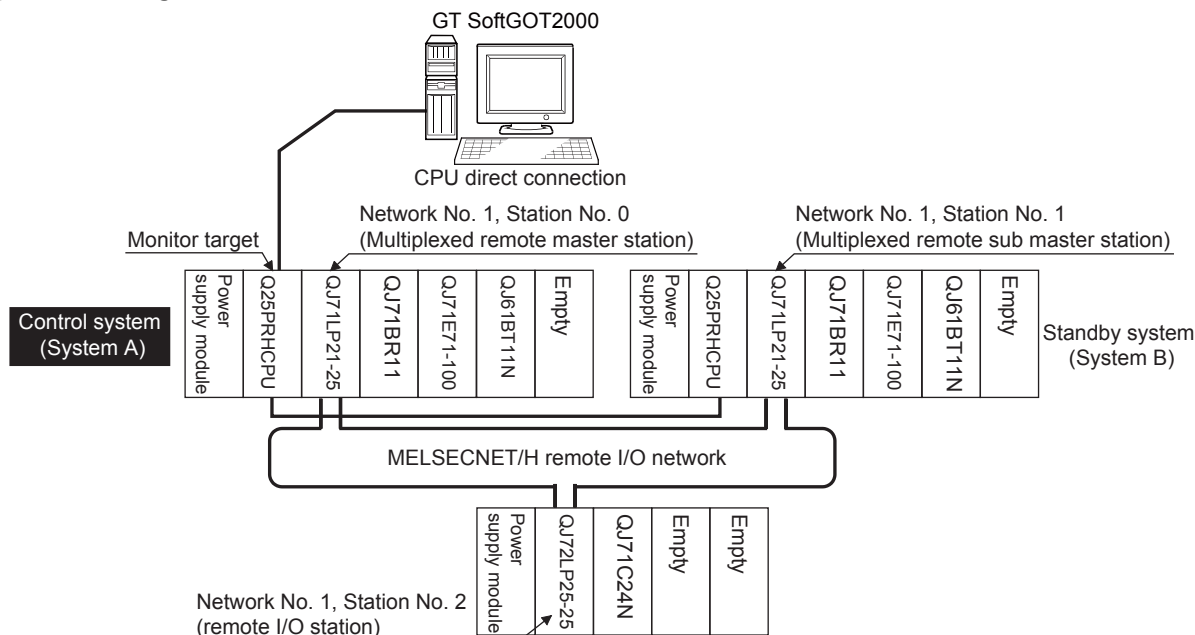
Since the GT SoftGOT2000 monitors the master station, the monitoring target is automatically changed to the PLC CPU that is operating as the master.

4. Direct CPU connection

This section describes the direct CPU connection by which a GT SoftGOT2000 is connected to a PLC CPU in the redundant system.

Two methods for the CPU direct connection, using one or two GT SoftGOT2000 are available.

(1) When using one GT SoftGOT2000



(a) Connection method

Connect the GT SoftGOT2000 to the RS-232C interface of the control system CPU module (Q12PRHCPU, Q25PRHCPU) of the redundant system.

(b) GT Designer3 setting

Set GT Designer3 as follows.

Setting item		Settings
Controller Type		MELSEC-QnA/Q/QS, MELDAS C6*
Device setting (Network setting)	Host	Host
Q Redundant Setting		➡ 9. Q redundant setting

(c) Monitoring target change when system switching occurs in a redundant system

When the system switching occurs, the PLC CPU (other station) of the control system after system switching takes over the host station operation.

Since the GT SoftGOT2000 monitors the control system, the monitoring target is automatically changed to other station.

POINT

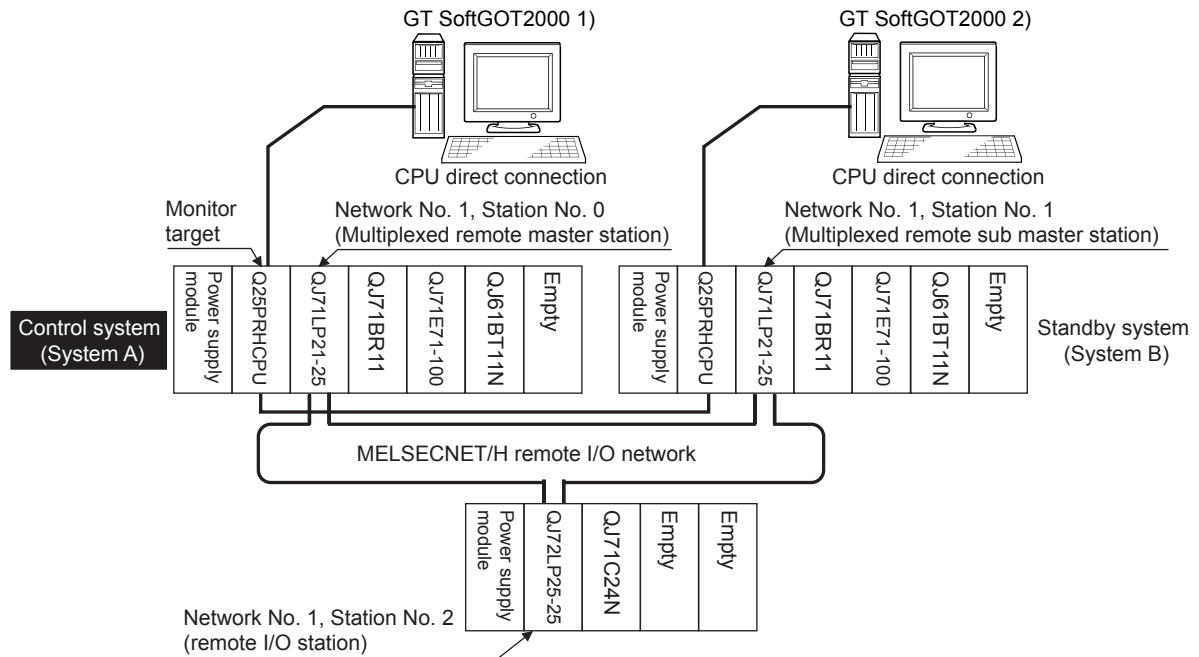
To monitor the control system without Q redundant setting

If the system switching occurs when the Q redundant setting is not made, the GT SoftGOT2000 cannot change the monitoring target at the occurrence of system switching since it monitors the connected PLC CPU (host station).

As a countermeasure, change the cable connection from the PLC CPU in the previous control system to the control system after system switching.

(2) When using two GT SoftGOT2000

Connect a GT SoftGOT2000 to each PLC CPU to respond to the system switching.



(a) Connection method

Connect GT SoftGOT2000 to the RS-232 interface of the control system and standby system CPU modules (Q12PRHCPU, Q25PRHCPU) of the redundant system.

(b) GT Designer3 setting

Set GT Designer3 as follows.

Setting item		Settings
Controller Type		MELSEC-QnA/Q/QS, MELDAS C6*
Device setting (Network setting)	Host	Host
Q Redundant Setting		Do not set the item.

(c) Monitoring target change when system switching occurs in a redundant system

When the system switching occurs, the GT SoftGOT2000 cannot change the monitor target automatically in response to the system switching.

The GT SoftGOT2000 that is connected to the control system CPU module after system switching continues the monitoring.

Different from the case using one GT SoftGOT2000, no cable reconnection is required.

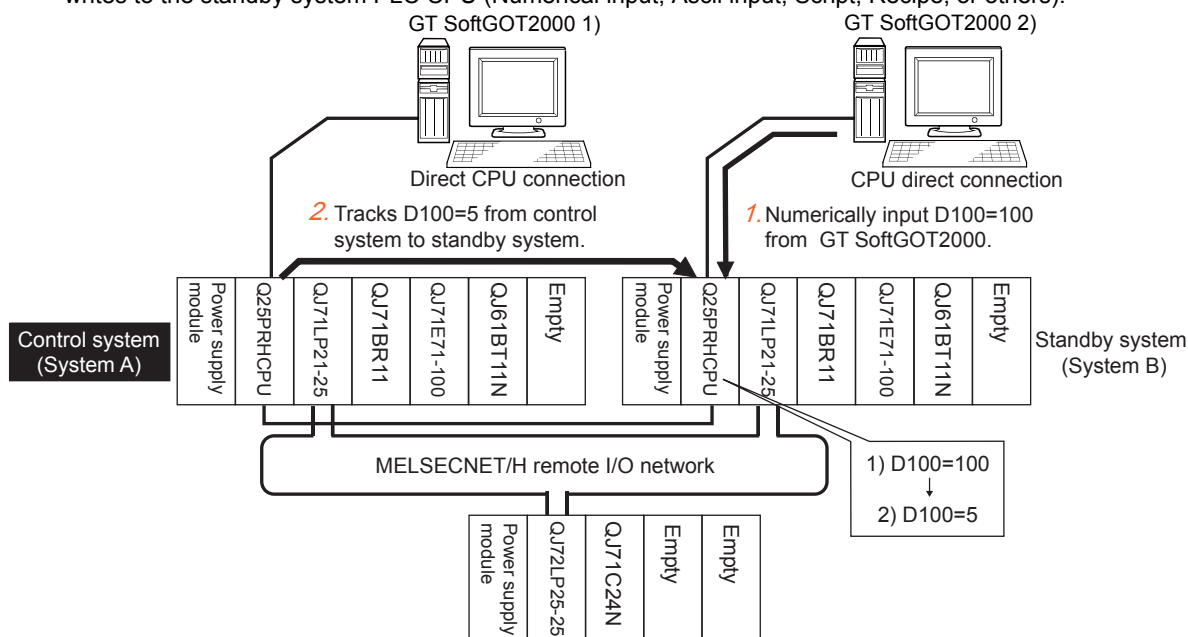
POINT

To automatically change the monitoring target after system switching using one GT SoftGOT2000, make the Q redundant settings.

➡ ■ 9. Q redundant setting

(3) Precautions when connecting a GT SoftGOT2000 directly to a PLC CPU in the redundant system without making Q redundant setting

- (a) As the GT SoftGOT2000 monitors exclusively the PLC CPU that is directly connected to, the monitor target cannot be changed in response to the system switching of the redundant system.
To change the target monitor in response to the system switching, change the target of the connection cable between the GT SoftGOT2000 and PLC CPU to the other PLC CPU, or configure the system using GT SoftGOT2000 connected to each PLC CPU.
- (b) In CPU direct connection, when monitoring a PLC CPU in the redundant system, only the PLC CPU that is directly connected to the GT SoftGOT2000 can be monitored.
- (c) When connected to the standby system PLC CPU, the writing of the GT SoftGOT2000 to a device in the connected PLC CPU is not reflected. Design a monitor screen that disables writing to the standby system. In the redundant system, the tracking function transfers device data from control system to standby system. When the tracking function is enabled, the device value of the standby system PLC CPU is overwritten by the device value transferred from the control system to the standby system even if the GT SoftGOT2000 writes to the standby system PLC CPU (Numerical input, Ascii input, Script, Recipe, or others).

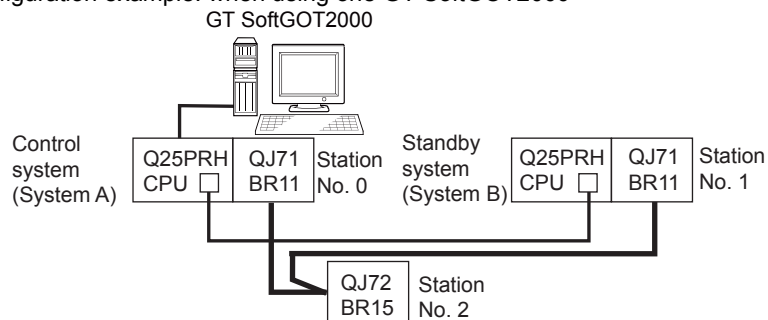


As countermeasures to the above, perform the following.

- Set a monitor screen indicating that the standby system PLC CPU is connected to GT SoftGOT2000.
- To display such a screen when connecting GT SoftGOT2000 to the standby system PLC CPU, use special relay SM1515 (Control status identification flag) of the PLC CPU.
(When SM1515 is off, the standby system PLC CPU is connected.)
- Control the operation of each object by SM1515, which is set for the operation condition.
- For the screen switching device, use a GT SoftGOT2000 internal device.

If a device of the PLC CPU is used, the trigger action may be disabled since the device data is transferred by the tracking function of the redundant system.

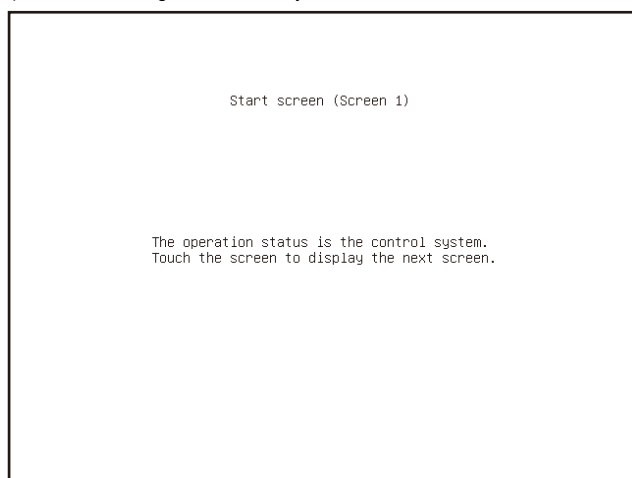
The following diagram shows an example of screen setting using SM1515.
 System configuration example: when using one GT SoftGOT2000



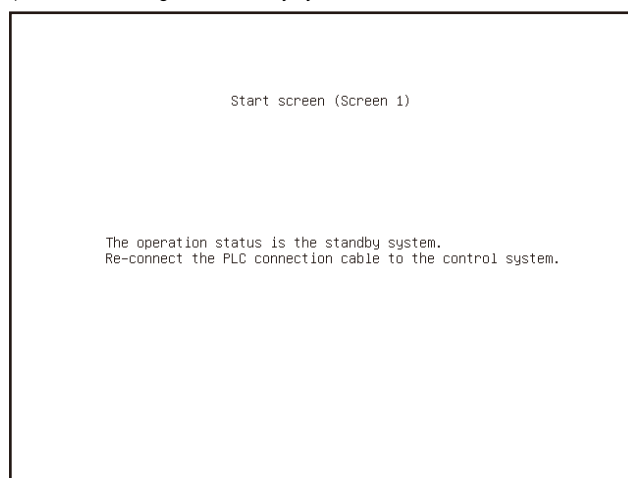
Create a monitor screen on the base screen 1 that performs the following operations for when connecting a GT SoftGOT2000 to control system and standby system.

- 1) When connecting to the control system, the monitor screen displays a message calling a touch switch operation, by which the screen switches to the next screen.
- 2) When connecting to the standby system, the monitor screen displays a message calling the reconnection of the connection cable.

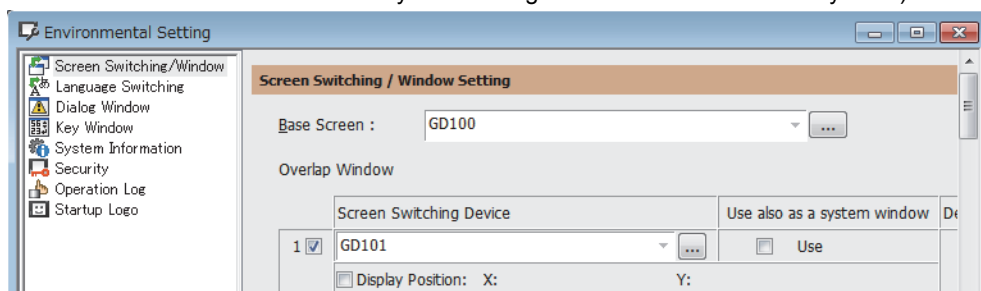
1) When connecting to the control system



2) When connecting to the standby system



- Step 1.** Set the screen switching device of the base screen.
 Choose [Common] → [GOT Environmental Setting] → [Screen Switching/Window], and set the internal device GD100 as the base screen switching device.
 (Do not use PLC CPU devices for the screen switching device. The trigger action may be disabled since the device data is transferred by the tracking function of the redundant system.)

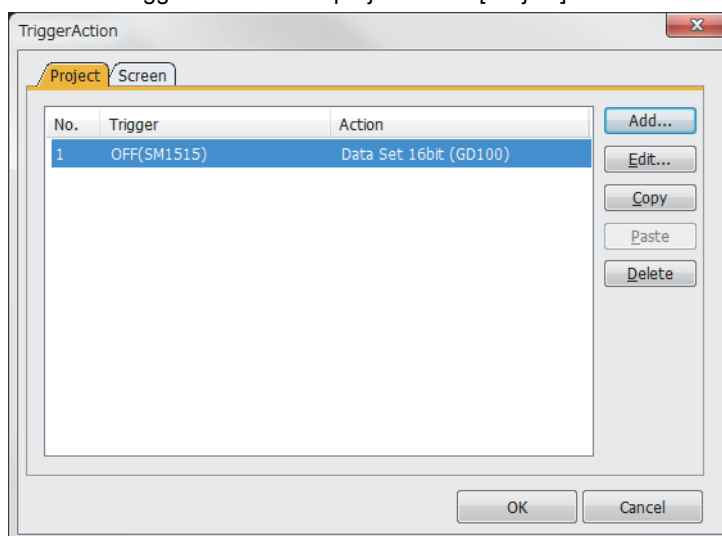


- Step 2.** Set the trigger action.
 Make the setting so that the base screen 1 is displayed when the connected PLC CPU is standby system (SM1515 = OFF) in the project specified by selecting [Common] → [Trigger Action].

Condition 1: SM1515 (while OFF) ← When the SM1515 is OFF, the connected PLC CPU is the standby system.

Operation: GD100=1 ← The screen switches to the base screen 1.

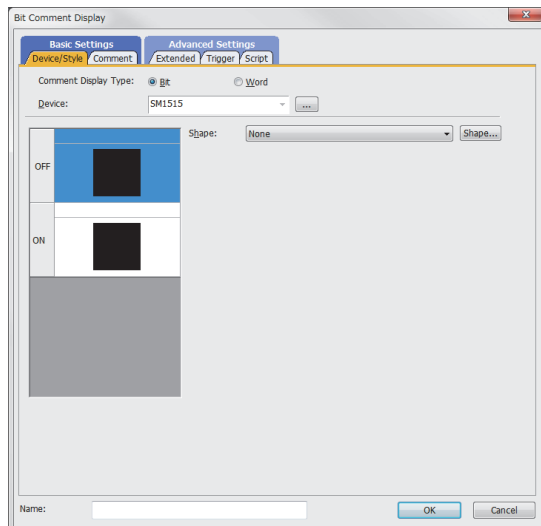
Create the trigger action in the project of the [Project] tab.



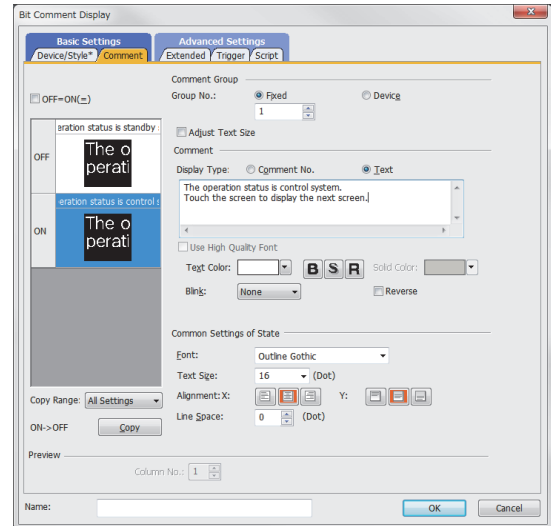
- Step 3.** Set the comment display on the base screen 1.
 Set a comment to be displayed on the base screen 1 depending on the system status (ON/OFF of the SM1515) of the connected PLC CPU using the Comment Display (Bit).
 Select [Object] → [Comment Display] → [Bit Comment] and set Comment Display (Bit).

Device/Style tab
 Device: SM1515
 Shape: None
 Comment tab: Basic Comment
 Comment Display Type Text (ON): The operation status is control system.
 Touch the screen to display the next screen.
 Comment Display Type Text (OFF): The operation status is standby system.
 Reconnect the PLC connection cable to the control system CPU.

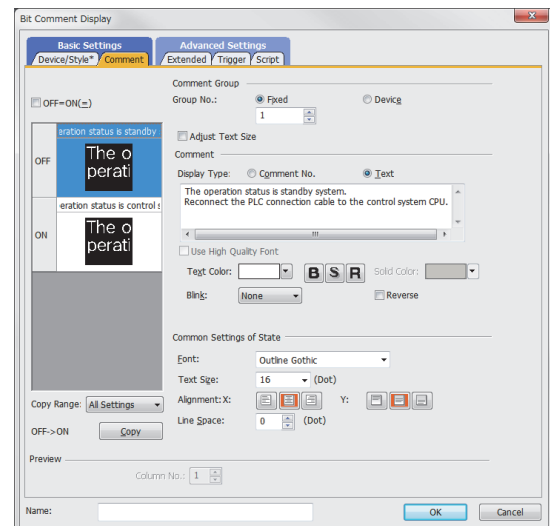
1) [Device/Style] tab screen



2) [Comment] tab screen (ON status)



3) [Comment] tab screen (OFF status)

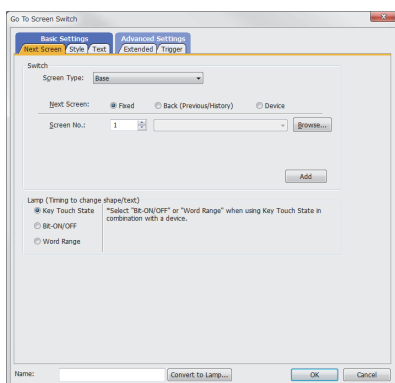


Step 4. Set the touch switches on the base screen 1.

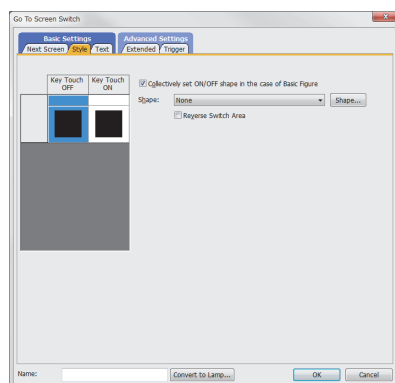
By using the go to screen switch function, set a touch switch for shifting the screen to the next screen with a screen touch, when the connected PLC CPU is the control system (SM1515 is ON).
 Select [Object] → [Switch] → [Go To Screen Switch] and set the screen switching function.
 Set the same size for the touch switch as the base screen size so that touching any place of the screen enables the switch operation.

Next Screen tab
 Screen Type: Base
 Go To Screen: Fixed 2
 Style tab
 Display Style: None (Shape)
 Trigger tab
 Trigger Type: ON
 Trigger Device: SM1515

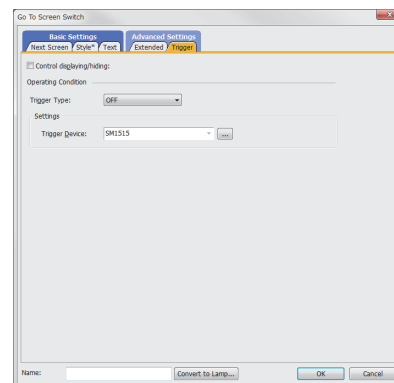
1) [Next Screen] tab screen



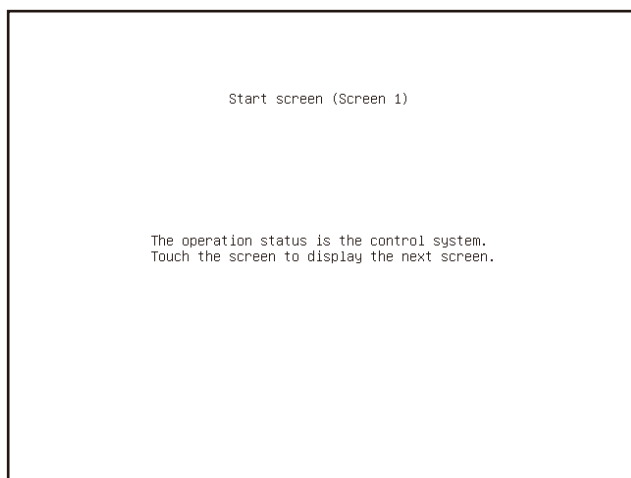
2) [Style] tab screen



3) [Trigger] tab screen



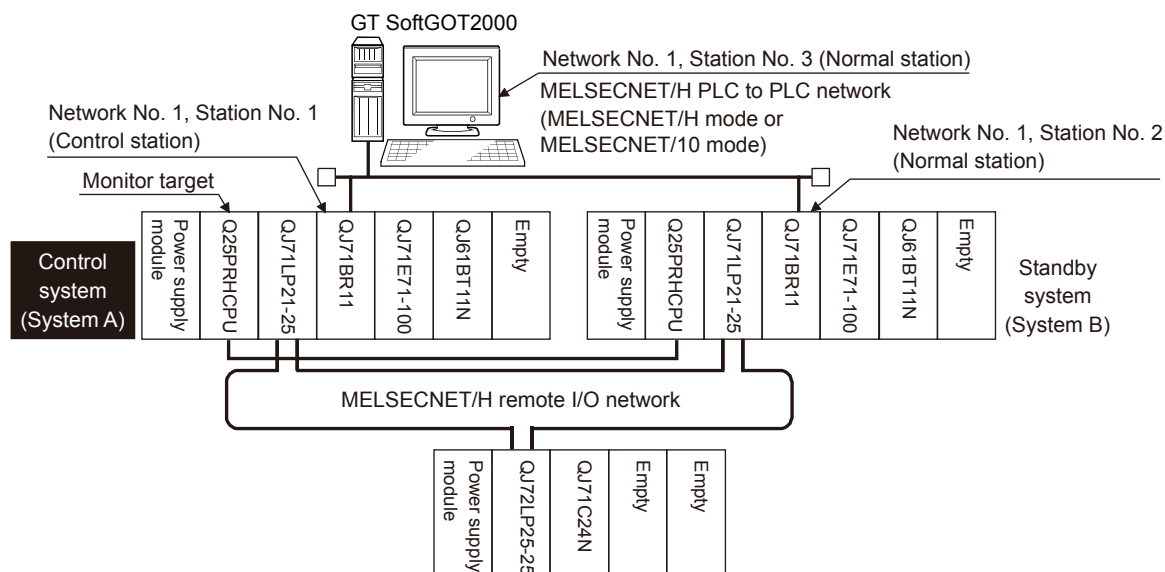
The following shows the created base screen 1.



5. MELSECNET/H and MELSECNET/10 connections (network systems)

This section explains the MELSECNET/H and MELSECNET/10 connections (network systems) that connect the GT SoftGOT2000 to the MELSECNET/H and MELSECNET/10 network system.

The following provides an example of connecting the GT SoftGOT2000 set as a normal station to the MELSECNET/H network system.



(1) Connection method

Connect the MELSECNET/H network system to the GT SoftGOT2000.

(2) GT Designer3 setting

Set GT Designer3 as follows.

Setting item		Settings
Controller Type		MELSEC-QnA/Q/QS, MELDAS C6*
Device setting (Network setting)	Other station	Other (NW No. 1 (network No. of PLC to PLC network), Station No. ** (** indicates the station number of the control system. Station No. 1, in the above example))
Q Redundant Setting		➡ ■ 9. Q redundant setting

(3) Monitoring target change when system switching occurs in a redundant system

When system switching occurs, the network module station No. 2 changes from the normal station to the sub control station and takes over the control of the MELSECNET/H network system.

Since the GT SoftGOT2000 monitors the control system, the monitoring target is automatically changed to the network module station No. 2.

POINT

To monitor the control system without Q redundant setting

When system switching occurs, the network module station No. 2 changes from the normal station to the sub control station and takes over the control of the MELSECNET/H network system.

Since the GT SoftGOT2000 monitors the station of the specified station number, the monitoring target cannot be changed to the station No. 2 in response to the system switching.

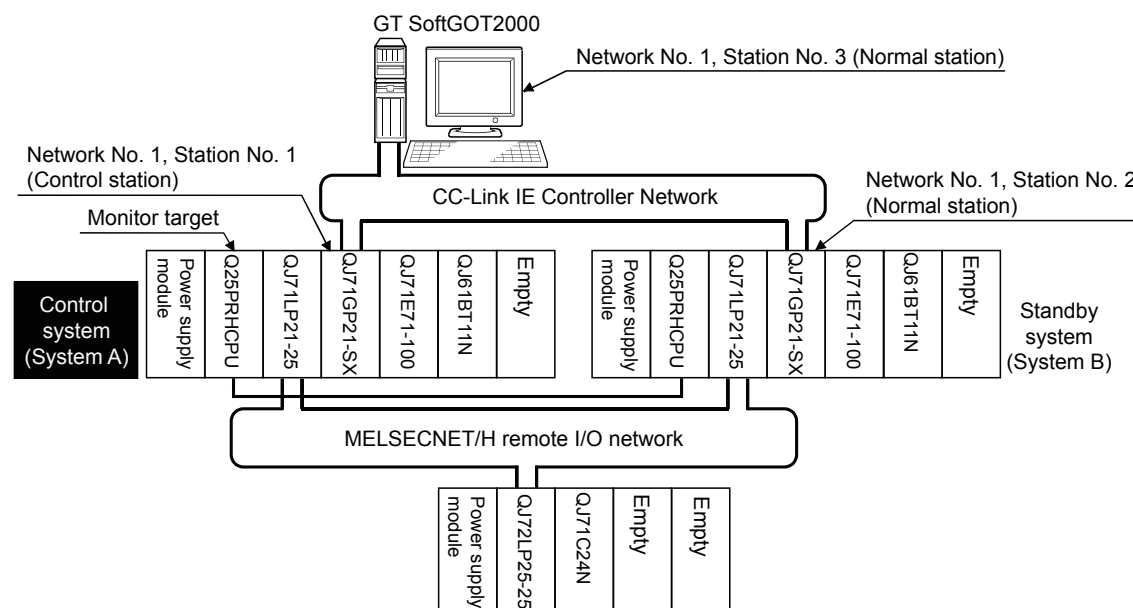
As a countermeasure, create a screen to monitor the PLC CPU of the control system by switching the station numbers between System A and System B using the script function.

➡ ■ 10. Switch the monitor target to the control system using the script function

6. CC-Link IE Controller Network connection (network system)

This section explains the CC-Link IE Controller Network connection (network system) that connects the GT SoftGOT2000 to the CC-Link IE Controller Network.

The following shows an example of connecting the GT SoftGOT2000 set as a normal station to the CC-Link IE Controller Network.



(1) Connection method

Connect the GT SoftGOT2000 to the CC-Link IE Controller Network.

(2) GT Designer3 setting

Set GT Designer3 as described below.

Setting item		Settings
Controller Type		MELSEC-QnA/Q/QS, MELDAS C6*
Device setting (Network)	Other station	Other (NW No.1 (Network No. of CC-Link IE Controller Network), Station No. ** (** indicates the station number of the control system. Station No. 1 in the above example))
Q Redundant Setting		9. Q redundant setting

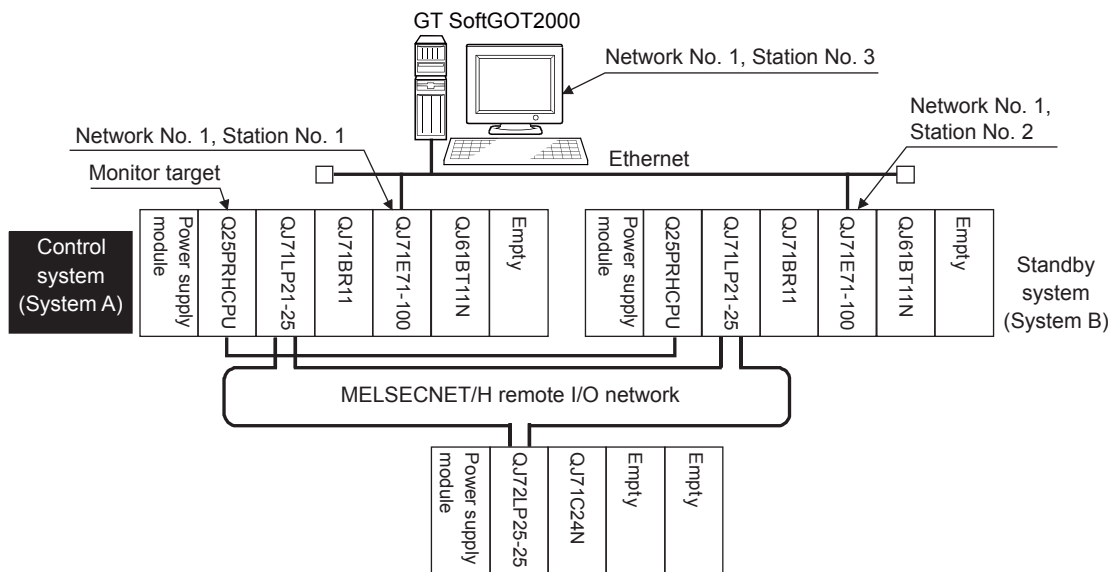
(3) Monitoring target change when system switching occurs in a redundant system

When system switching occurs, the network module station No.2 changes from a normal station to the sub control station, and the system with the module takes over the control of the CC-Link IE Controller Network as the control system.

Since the GT SoftGOT2000 monitors the control system, the monitoring target is automatically changed to the network module station No. 2.

7. Ethernet connection

This section explains the Ethernet connection that connects the GT SoftGOT2000 to the Ethernet network system. The following shows an example of connecting the GT SoftGOT2000 to the Ethernet network.



(1) Connection method

Connect the Ethernet network system to the GT SoftGOT2000.

(2) GT Designer3 setting

Set GT Designer3 as follows.

Setting item		Settings
Controller Type		MELSEC-QnA/Q/QS, MELDAS C6*
Device setting (Network setting)	Host	Host
	Other station	Other (NW No. 1 (network No. of Ethernet), Station No. ** (** indicates the station number of the control system. Station No. 1, in the above example))
Q Redundant Setting		➡ ■ 9. Q redundant setting

(3) Monitoring target change when system switching occurs in a redundant system

When system switching occurs, Ethernet module station No. 2 takes over the control of the Ethernet network system as the control system.

Since the GT SoftGOT2000 monitors the control system, the monitoring target is automatically changed to the Ethernet module station No. 2.

POINT

To monitor the control system without Q redundant setting

When system switching occurs, the network module station No. 2 changes from the normal station to the sub control station and takes over the control of the MELSECNET/H network system.

Since the GT SoftGOT2000 monitors the station of the specified station number, the monitoring target cannot be changed to the station No. 2 in response to the system switching.

As a countermeasure, create a screen to monitor the PLC CPU of the control system by switching the station numbers between System A and System B using the script function.

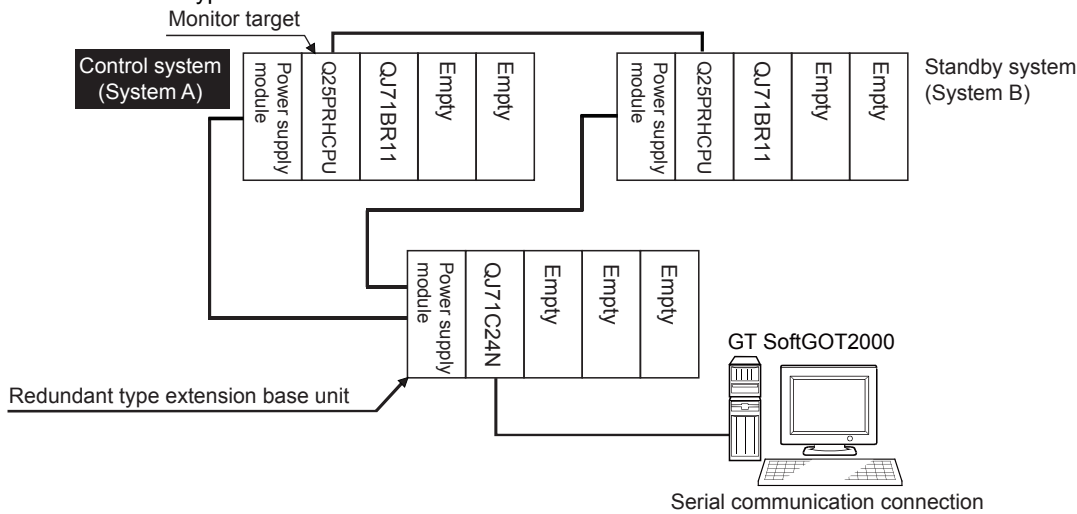
➡ ■ 10. Switch the monitor target to the control system using the script function

■8. Connection to the redundant type extension base unit

(1) Serial communication connection (Connection to the serial communication module mounted on the redundant type extension base unit)

This section explains the serial communication connection for connecting the GT SoftGOT2000 to the serial communication module mounted on the redundant type extension base unit.

The following shows an example of connecting GT SoftGOT2000 to the serial communication module mounted on the redundant type extension base unit.



- Connection method
Connect the GT SoftGOT2000 to the serial communication module (QJ71C24N) mounted on the redundant type extension base unit.
- GT Designer3 setting
Set GT Designer3 as follows.

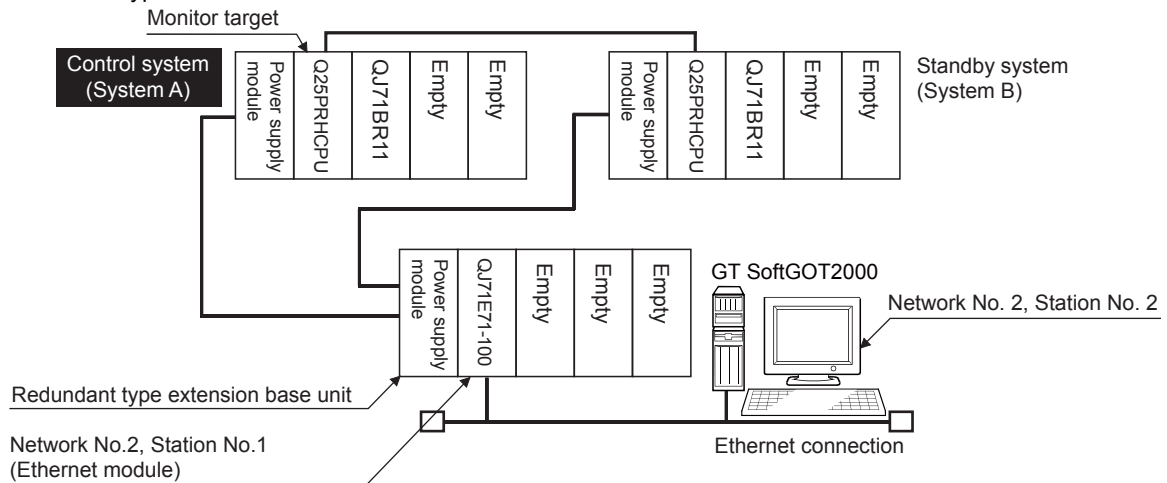
Setting item		Settings
Controller Type		MELSEC-QnA/Q/QS, MELDAS C6*
Device setting (Network setting)	Host	Host
Q Redundant Setting		Do not set the item.

- Monitoring target change when system switching occurs in a redundant system
When the system switching occurs, the GT SoftGOT2000 automatically changes the monitoring target to the PLC CPU switched to the control system.

(2) Ethernet connection (Connection to the Ethernet module mounted on redundant type extension base unit)

This section explains the Ethernet connection for connecting the GT SoftGOT2000 to the Ethernet module mounted on the redundant type extension base unit.

The following shows an example of connecting the GT SoftGOT2000 to the Ethernet module mounted on the redundant type extension base unit.



(a) Connection method

Connect the GT SoftGOT2000 to the Ethernet module (QJ71E71-100, QJ71E71-B5, QJ71E71-B2, LJ71E71-100) mounted on the redundant type extension base unit.

(b) GT Designer3 setting

Set GT Designer3 as follows.

Setting item		Settings
Controller Type		MELSEC-QnA/Q/QS, MELDAS C6*
Device setting (Network setting)	Other station	Other (NW No.2 (Network No. of Ethernet), Station No.** (** indicates the station No. of the Ethernet module. Station No.1 in the above example))
Q Redundant Setting		Do not set the item.

(c) Monitoring target change when system switching occurs in a redundant system

When the system switching occurs, the GT SoftGOT2000 automatically changes the monitoring target to the PLC CPU switched to the control system.

9. Q redundant setting

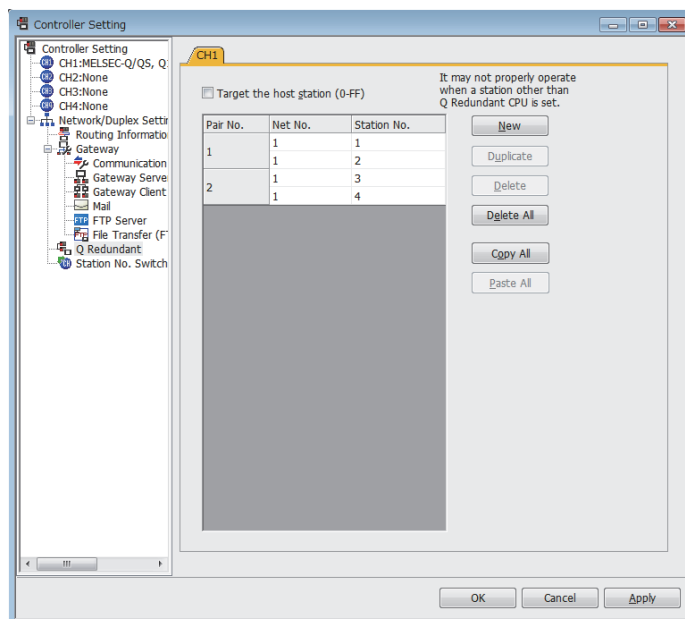
The following explains the setting for automatically change the monitoring target of the GT SoftGOT2000 when monitoring a QCPU redundant system.

POINT

Before making the Q redundant setting

In the Q redundant setting, do not set stations other than redundant CPUs.

- Step 1.** Select [Common] → [Controller Setting] → [Q Redundant] from the menu.
- Step 2.** The setting dialog appears. Make the settings with reference to the following explanation.
- Step 3.** Make the settings for the Q redundant setting.



(Example: Ethernet connection (Station No. 5), redundant CPU pair No. 1 and No. 2, redundant CPU station No. 1 to 4)

Item		Contents
[Target at its own Station (0-FF)]		Select this item to monitor the control system as a host station. (In Ethernet connection, not available even when selected)
[Pair No.] ^{*1}	[Net No.]	Set the network No. ([1] to [225]) for each of pair numbers ([1] to [64]). Upper row: Setting for the first redundant CPU. Lower row: Setting for the second redundant CPU. (The same value as the value set for the first redundant CPU is displayed)
	[Station No.]	Set the station No. ([1] to [63]) of the redundant CPU for each of pair numbers ([1] to [64]). Upper row: Setting for the first redundant CPU. Lower row: Setting for the second redundant CPU. (The value of "Setting for the first redundant CPU" + 1 is displayed)
[New]		Create a new pair No.
[Duplicate]		Copies one setting of the selected pair number to append it at the last line.
[Delete]		Deletes one setting of the selected pair. After deletion, the succeeding pair numbers are renumbered to fill the deleted pair number.
[Delete All]		Deletes the setting of all pair numbers.
[Copy All]		Copies the Q redundant setting on the selected CH No. tab.
[Paste All]		Pastes the copied Q redundant setting in the selected CH No. tab.

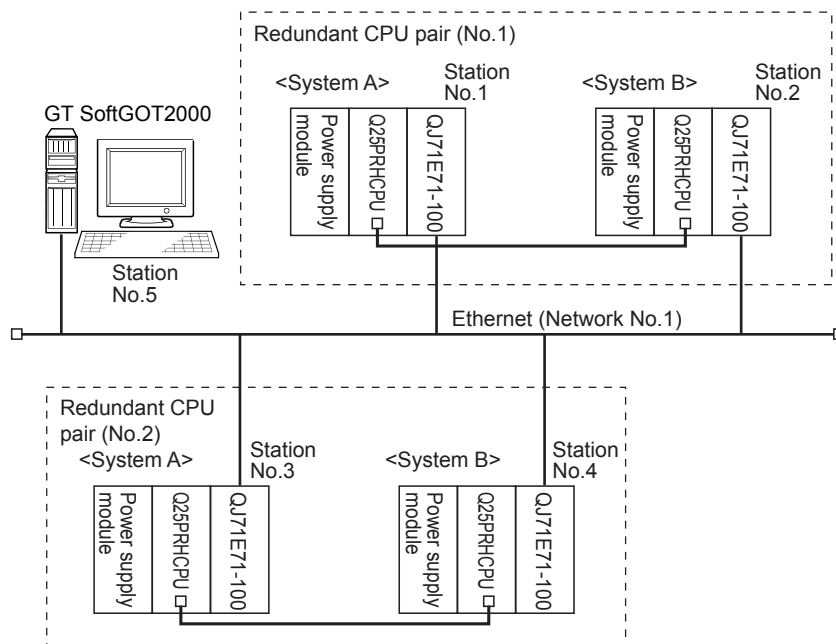
^{*1} For details of ^{*1}, refer to the explanation below.

*1 Pair number

Redundant CPU pair means the redundant CPUs (System A / System B) in the redundant system configuration.

Pair number is the number assigned to each redundant CPU pair.

Example: Ethernet connection (Pair No. 1 and Pair No. 2)



POINT

Precautions for making Q redundant setting

Pay attention to the following items when making the Q redundant setting.

- In the setting, station Nos. of the System A CPU and System B CPU must be adjacent numbers to be set as a pair.
As long as adjacent numbers are used, allocation of them to the System A CPU and System B CPU may be determined as desired.
- Pairing of the last station No. and station No. 1 (Example: Station No. 64 and station No. 1) is not allowed.
- Make sure that the QCPU in the station for which Q redundant setting is made is a redundant CPU.
If any of the QCPU to which the Q redundant setting is made is not a redundant CPU, the GT SoftGOT2000 fails to automatically change the monitoring target to the control system when the system is switched.
- When making the Q redundant setting for MELSECNET/H, MELSECNET/10, or Ethernet connections, check the station Nos. of network modules before the setting. If the settings of the Q redundant setting and the actual network module station Nos. are not matched, the GT SoftGOT2000 fails to automatically change the monitoring target to the control system when the system is switched.
- The redundant pair number setting is necessary in the Q redundant setting when the monitoring target changes automatically at the system switching with the host station specified in Ethernet connection. (The "Target at its own Station (0-FF)" function of the Q redundant setting is not valid in Ethernet connection.)

10. Switch the monitor target to the control system using the script function

The following explains how to create a script screen which is used for the MELSECNET/H connection and automatically changes the monitoring target (Station No.) at the occurrence of system switching even if the Q redundant setting is not made.

The script executes the station number switching function or screen switching function.

The following shows the advantages and disadvantages of the station number switching function and screen switching function.

Function	Advantage	Disadvantage
Station number switching function	The monitor screens for Station No. 1 (control system) and Station No. 2 (standby system) can be created on one screen.	Some objects do not allow the station number to be switched.
Screen switching function	All objects can be used since monitor screens are created for each station number.	Monitor screens must be created separately for Station No. 1 (control system) and Station No. 2 (standby system).

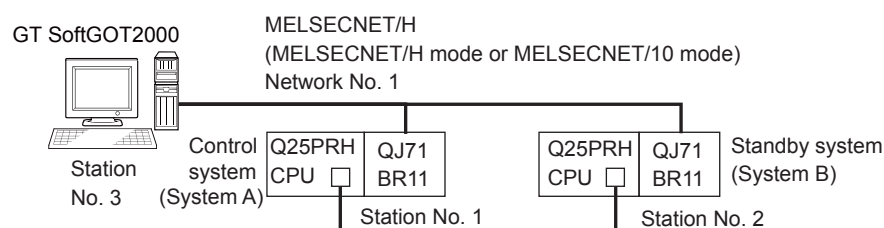
The following explains how to use each function.

(1) Method for using the station number switching function

- As a feature of this function, monitor screens for Station No. 1 (control system) and Station No. 2 (standby system) can be created on one screen.
- If the system switching occurs, the GT SoftGOT2000 can change the monitoring target to the control system PLC CPU on the same monitor screen.
- To achieve this, the script of the GT SoftGOT2000 monitors the special relay SM1515 (Control system identification flag) of the PLC CPU and stores the station number of the latest control system into the station number switching device.
- Restrictions: Some objects do not allow the station number to be switched.

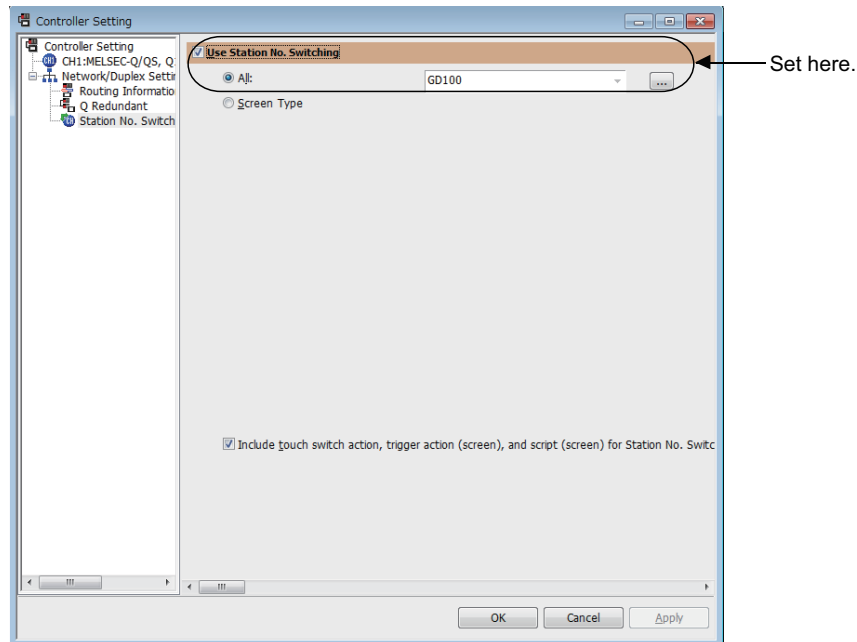
➡ GT Designer3 (GOT2000) Help

- Setting method
System configuration example



Connected module	Network No.	Station No.
MELSECNET/H network module of control system	1	1
MELSECNET/H network module of standby system		2
GT SoftGOT2000 connected to MELSECNET/H network		3

- Step 1.** Set the station number switching device.
 Select [Common] → [Controller Setting] → [Station No. Switching], and set the internal device GD100 as the station number switching device. (Do not use PLC CPU devices for the screen switching device. The trigger action may be disabled since the device data is transferred by the tracking function of the redundant system.)



- Step 2.** Set the trigger action.
 Make the settings so that the station number is switched when the faulty station information (SW70) of MELSECNET/H turns ON in the project specified by selecting [Common] → [Trigger Action].

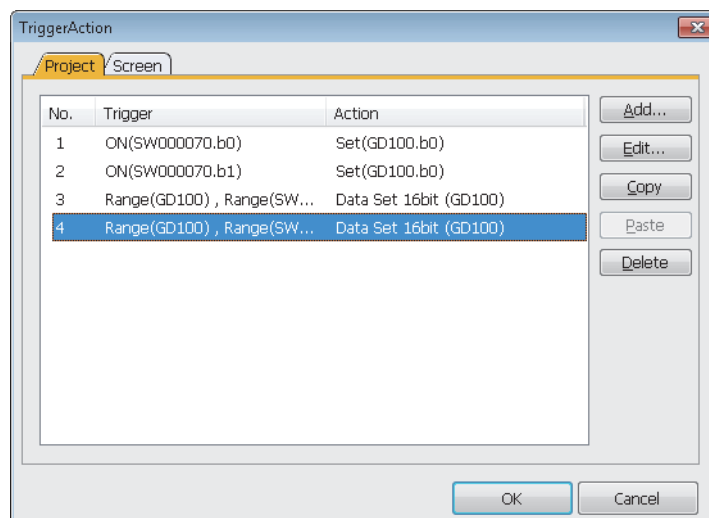
Condition 1: SW70.b0 (while ON) ← When b0 is ON, Station No. 1 is abnormal.
 Operation: GD100=2 ← Station No. is changed to 2.

Condition 1: SW70.b1 (while ON) ← When b1 is ON, Station No. 2 is abnormal.
 Operation: GD100=1 ← Station No. is changed to 1.

Condition 1: GD100==0 ← The value of the Station No. changing device is 0.
 Condition 2: SW56<=2 ← The current control station is a redundant CPU.
 Operation: GD100=SW56 ← Station No. is changed to a current control station.

Condition 1: GD100==0 ← The value of the Station No.changing device is 0.
 Condition 2: SW56>2 ← The current control station is not a redundant CPU.
 Operation: GD100=1 ← Station No. is changed to a current control station in normal condition.

Create the trigger action in the project of the [Project] tab.



POINT

Setting for the trigger action function

For the trigger action function, hexadecimal numbers cannot be used.

To use the trigger action function, set the N/W No. and the station No. of the PLC CPU in [Unsigned BIN].
(For the trigger action function, set [Unsigned BIN] for [Device Write].)

Example:

When Net No.: 1 and Station No.: 1 (0101H)

Set "257".

When Net No.: 10 and Station No.: 10 (0A0AH)

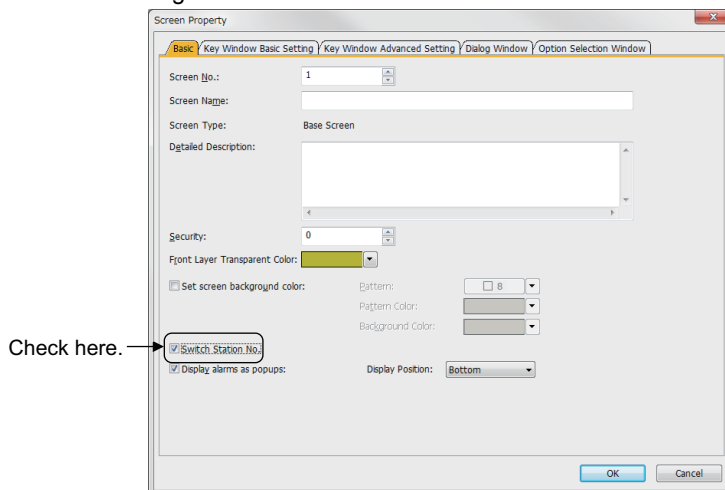
Set "2570".

Step 3. Create a monitor screen.

In the device setting (network setting) of each object, set Network No. 1 and Station No. 1 of the control system.

Step 4. Validate the station number switching function.

On the [Basic] tab screen specified by selecting [Screen] → [Screen Property], select the item [Switch Station No.] to validate the station No. switching function.
Make this setting for each monitor screen.



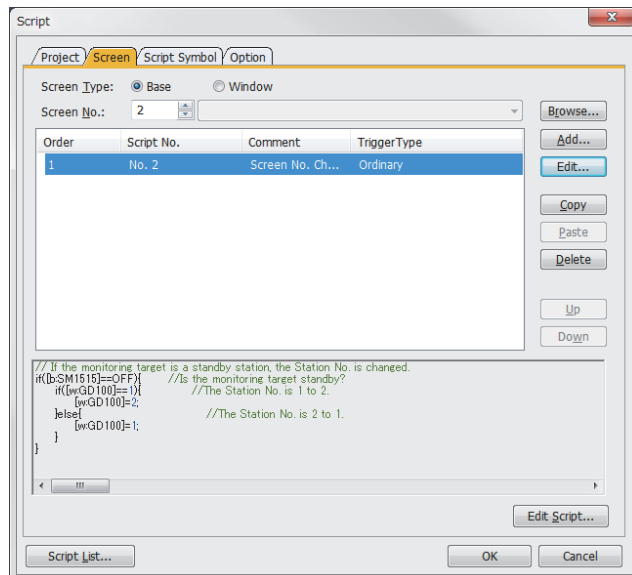
Step 5. Change the station number switching device value in the script.

By selecting [Common] → [Script] → [Script], create a script for each monitor screen that checks the SM1515 status of the current monitor station, and if it is OFF (standby system), changes the station number switching device value.

Set the trigger type of the script as [Ordinary] or [Sampling(about 3s)].

```
// If the monitoring target is a standby station, the Station No. is changed.
if([b:SM1515]==OFF){ //Is the monitoring target standby?
  if([w:GD100]==1){ //The Station No. is 1 to 2.
    [w:GD100]=2;
  }else{ //The Station No. is 2 to 1.
    [w:GD100]=1;
  }
}
```

Set the created script for each screen on the [Screen] tab.



POINT

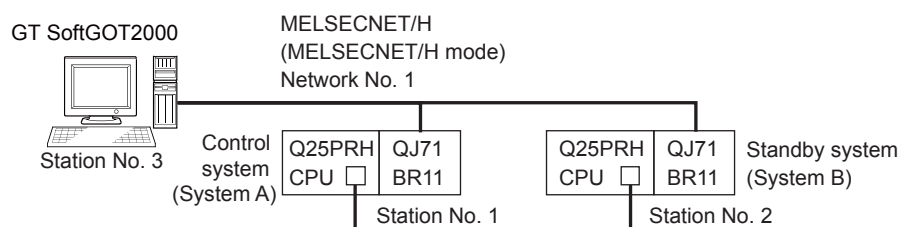
When a redundant system is only connected to the MELSECNET/H network, SW56 (Current control station) can be set as the station number switching device.

In this case, even if the system switching occurs, GT SoftGOT2000 always monitors the station number that is currently the control station.

(2) Method for using the screen changing function

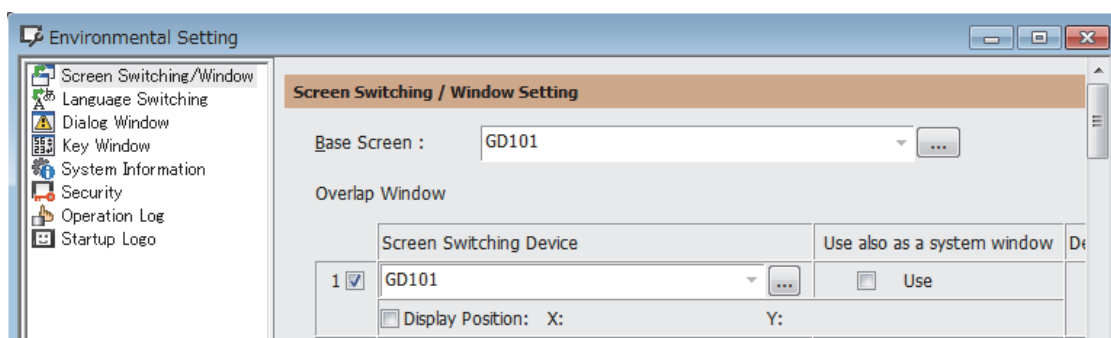
- (a) As a feature of this function, monitor screens are created for each station number.
When the system switching occurs, the GT SoftGOT2000 can change the monitoring target to the control system PLC CPU on the other monitor screen.
- (b) To achieve this, the script of the GT SoftGOT2000 monitors the special relay SM1515 (Control system identification flag) of the PLC CPU and stores the screen number corresponding to the latest station number of the control system into the screen switching devices.
- (c) Precautions:
There are the following 8 different screen switching devices. Set the screen switching devices for all screens to be used.
 - Base screen switching device
 - Overlap window 1 switching device
 - Overlap window 2 switching device
 - Overlap window 3 switching device
 - Overlap window 4 switching device
 - Overlap window 5 switching device
 - Superimpose window 1 switching device
 - Superimpose window 2 switching device

- (d) Setting method
System configuration example



Connected module	Network No.	Station No.
MELSECNET/H network module of control system	1	1
MELSECNET/H network module of standby system		2
GT SoftGOT2000 connected to MELSECNET/H network		3

- Step 1.** Set the screen switching device of the base screen.
Select [Common] → [GOT Environmental Setting] → [Screen Switching/Window], and set the internal device GD100 as the base screen switching device.



- Step 2.** Set the trigger action.
Set the trigger action so that the station number is switched when the faulty station information (SW70) of MELSECNET/H turns ON in the project specified by selecting [Common] → [Trigger Action].

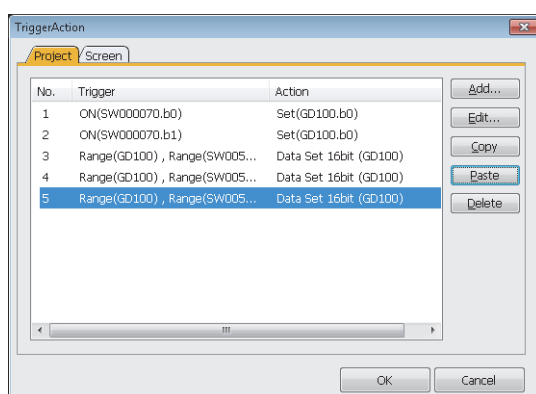
Condition 1: SW70.b0 (while ON) ← Station No. 1 is abnormal.
Condition 2: GD100<100
Operation: GD100= GD100+100 ← Station No. is changed to 2.

Condition 1: SW70.b1 (while ON) ← Station No. 2 is abnormal.
Condition 2: GD100>100
Operation: GD100= GD100-100 ← Station No. is changed to 1.

Condition 1: GD100==0 ← The value of the screen changing device is 0.
Condition 2: SW56==1 ← The current control station is Station No. 1.
Operation: GD100=2 ← Screen No. is changed to 2 (for Station No. 1).

Condition 1: GD100==0 ← The value of the screen changing device is 0.
Condition 2: SW56==2 ← The current control station is Station No. 2.
Operation: GD100=102 ← Screen No. is changed to 102 (for Station No. 2).

Condition 1: GD100==0 ← The value of the screen changing device is 0.
Condition 2: SW56>2 ← The current control station is not a redundant CPU.
Operation: GD100=2 ← Screen No. is changed to 2 (for Station No. 1).



Step 3. Set monitor screens.

- Create a monitor screen with each object whose network setting is Station No. 1 on Screen No. 2 to 3.
- Create a monitor screen with each object whose network setting is Station No. 2 on Screen No. 102 to 103.

Step 4. Change the screen switching device value in the script.

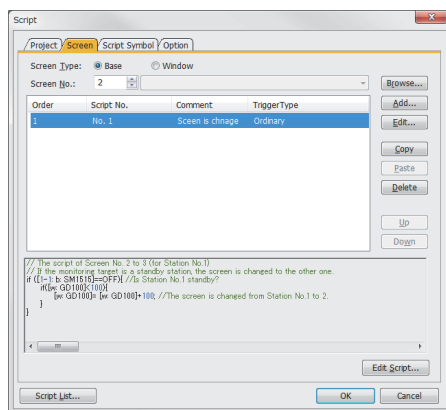
By selecting [Common] → [Script] → [Script], create a script for each monitor screen that checks the SM1515 status of the current monitor station, and if it is OFF (standby system), changes the station number switching device value.
Set the trigger type of the script as [Ordinary] or [Sampling(about 3s)].

Screen scripts

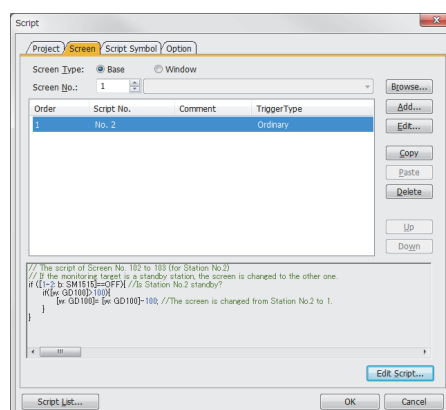
```
// The script of Screen No. 2 to 3 (for Station No.1)
// If the monitoring target is a standby station, the screen is changed to the other one.
if ([1-1: b: SM1515]==OFF){
//Is Station No.1 standby?
if([w: GD100]<100){
[w: GD100]= [w: GD100]+100;
//The screen is changed from Station No.1 to 2.
}
}
```

```
// The script of Screen No. 102 to 103 (for Station No.2)
// If the monitoring target is a standby station, the screen is changed to the other one.
if ([1-2: b: SM1515]==OFF){
//Is Station No.2 standby?
if([w: GD100]>100){
[w: GD100]= [w: GD100]-100;
//The screen is changed from Station No.2 to 1.
}
}
```

Script screen of Screen No. 2 (for Station 1)



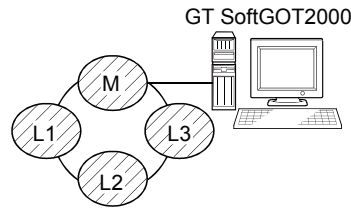
Script screen of Screen No. 102 (for Station 2)



3.2.6 Access range in the data link system (MELSECNET/B, (II))

■1. Direct CPU connection, serial communication connection

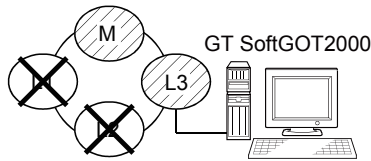
(1) When connecting to the master station



Local stations can be monitored.

However, when a QnACPU is used as the PLC CPU of the local station, the devices other than B and W assigned to the network parameters cannot be monitored.

(2) When connecting to a local station

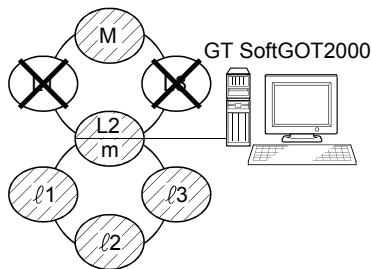


The master station can be monitored.

However, when a QnACPU is used as the PLC CPU of the master station, the devices other than B and W assigned to the link parameters cannot be monitored.

Other local stations cannot be monitored.

(3) When connecting to the master station on the third hierarchy



The master station on the second hierarchy and local stations on the third hierarchy can be monitored.

However, when a QnACPU is used as the PLC CPU of the master station, the devices other than B and W assigned to the network parameters cannot be monitored.

Local stations on the second hierarchy cannot be monitored.

(4) When connecting to ACPU or QnACPU

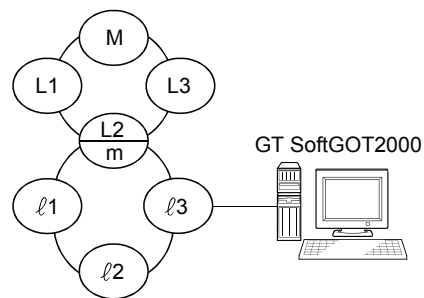
Only other stations with the same PLC CPU type of the connected station can be monitored.

■2. Monitoring devices of other stations

If the GOT monitors the devices of other stations on the data link system, the GOT takes a considerably long time to display data. Monitor link relay (B) and link register (W) assigned to the network parameters.

3. Setting method of monitor device

The following example describes the method of setting the network No. and the station numbers when setting monitor devices .



(1) Monitoring the connected station (Host station) and devices B and W assigned to the network parameters

Specify the host station.

To monitor devices B and W assigned to network parameters, specify the host station even though these devices have been assigned to other stations.

Otherwise, the display speed will be reduced.

(2) Monitoring devices of other stations

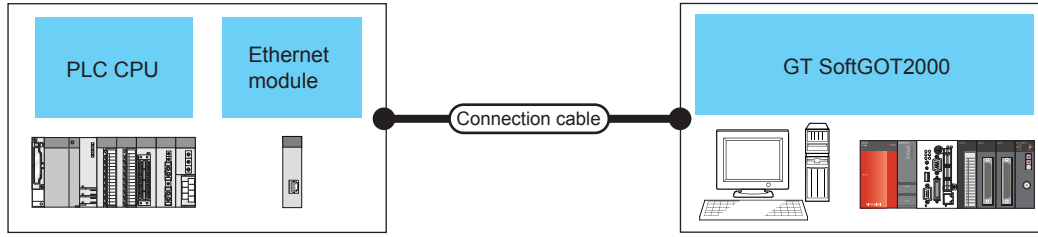
Network No.: 0, Station number: Refer to the following table.

Setting of the station No.

Station connected to GT SoftGOT2000	Station to be accessed						
	M	L1	L2 m	L3	l1	l2	l3
M	Host	Other 1	Other 2	Other 3	—	—	—
L1	Other 0	Host	—	—	—	—	—
L2 m	Other 0	—	Host	—	Other 1	Other 2	Other 3
L3	Other 0	—	—	Host	—	—	—
l1	—	—	Other 0	—	Host	—	—
l2	—	—	Other 0	—	—	Host	—
l3	—	—	Other 0	—	—	—	Host

3.3 Ethernet Connection

3.3.1 System configuration



PLC			Connection cable*4	Max. distance	GT SoftGOT2000	Number of connectable equipment*2	
Model name	Ethernet module	Communication type				Personal computer*6	PLC*7
RCPU	(Built-in Ethernet port)*8	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	128	128
	RJ71EN71						
QCPU (Q mode)	(Built-in Ethernet port)*8	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	128*5	128
	QJ71E71, QJ71E71-B2, QJ71E71-B5, QJ71E71-100						
QCPU (A mode)		Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	128	128
C Controller module	MELSEC iQ-R series	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	1	128
	Q series*1	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	16	128
QSCPU		Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	128	128
LCPU	(Built-in Ethernet port)*8	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	16	128
	LJ71E71-100						

PLC			Connection cable*4	Max. distance	GT SoftGOT2000	Number of connectable equipment*2	
Model name	Ethernet module	Communication type				Personal computer*6	PLC*7
QnACPU	AJ71QE71, AJ71QE71-B5, AJ71QE71N-T, AJ71QE71N-B2, AJ71QE71N-B5, AJ71QE71N-B5T, AJ71QE71N3-T, A1SJ71QE71-B2, A1SJ71QE71-B5, A1SJ71QE71N-T, A1SJ71QE71N-B2, A1SJ71QE71N-B5, A1SJ71QE71N-B5T, A1SJ71QE71N3-T	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	128	128
ACPU	AJ71E71-S3, A1SJ71E71-B2-S3, A1SJ71E71-B5-S3, AJ71E71N-T, AJ71E71N-B5, AJ71E71N-B2, AJ71E71N3-T, AJ71E71N-B5T, A1SJ71E71N-T, A1SJ71E71N-B2, A1SJ71E71N-B5, A1SJ71E71N-B5T, A1SJ71E71N3-T				A personal computer that can run Windows PC CPU		
MELSEC iQ-F	(Built-in Ethernet port)*8	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	8	128
FXCPU	FX3U-ENET-L, FX3U-ENET-ADP	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	2	128
Motion controller CPU	MELSEC iQ-R series	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	128	128
	Q series*1						
	A series						
	CC-Link IE Field Network Ethernet adapter module				A personal computer that can run Windows PC CPU		
CNC C70*3	(Built-in Ethernet port)*8				A personal computer that can run Windows PC CPU		

*1 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPUCPU/Q170MSCPU is available.

*2 When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

*3 Ethernet is connected to Display I/F.

*4 The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver, or other system equipment corresponding to the applicable Ethernet network system.

- Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.
- *5 Number of connectable equipment is 16 for Q03UDEHCPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, and Q100UDEHCPU.
 - *6 Indicates the number of personal computers connectable to one PLC.
 - *7 Indicates the number of PLCs connectable to one personal computer.
 - *8 For the applicable CPUs, refer to the following.

➡ 3.3.2 Built-in Ethernet port CPU, Ethernet module, Ethernet board/card

3.3.2 Built-in Ethernet port CPU, Ethernet module, Ethernet board/card

The following shows connectable Built-in Ethernet port CPUs, Ethernet modules, and Ethernet boards/cards.

1. Built-in Ethernet port CPU, Ethernet module

Item		Model name
RCPU	Built-in Ethernet port CPU	R04CPU, R08CPU, R16CPU, R32CPU, R120CPU, R08PCPU, R16PCPU, R32PCPU, R120PCPU, R08SFCPU, R16SFCPU, R32SFCPU, R120SFCPU, R04ENCPU* ⁵ , R08ENCPU* ⁵ , R16ENCPU* ⁵ , R32ENCPU* ⁵ , R120ENCPU* ⁵
	Ethernet module	RJ71EN71
QCPU (Q mode)	Built-in Ethernet port CPU	Q03UDEHCPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q03UDVCP, Q04UDVCP, Q06UDVCP, Q13UDVCP, Q26UDVCP, Q04UDPVCPU, Q06UDPVCPU, Q13UDPVCPU, Q26UDPVCPU
	Ethernet module	QJ71E71, QJ71E71-B2, QJ71E71-B5, QJ71E71-100
QCPU (A mode)		AJ71E71-S3, A1SJ71E71-B2-S3, A1SJ71E71-B5-S3, AJ71E71N-T, AJ71E71N-B5, AJ71E71N-B2, AJ71E71N3-T, AJ71E71N-B5T, A1SJ71E71N-T, A1SJ71E71N-B2, A1SJ71E71N-B5, A1SJ71E71N-B5T, A1SJ71E71N3-T
C Controller module (MELSEC iQ-R series)	Built-in Ethernet port CPU	R12CCPU-V
	Ethernet module	RJ71EN71
C Controller module (Q series)	Built-in Ethernet port CPU	Q12DCCPU-V, Q24DHCCPU-V, Q24DHCCPU-LS, Q24DHCCPU-VG
	Ethernet module	QJ71E71, QJ71E71-B2, QJ71E71-B5, QJ71E71-100
QnACPU		AJ71QE71, AJ71QE71-B5, AJ71QE71N-T, AJ71QE71N-B2, AJ71QE71N-B5, AJ71QE71N-B5T, AJ71QE71N3-T, A1SJ71QE71-B2, A1SJ71QE71-B5, A1SJ71QE71N-T, A1SJ71QE71N-B2, A1SJ71QE71N-B5, A1SJ71QE71N-B5T, A1SJ71QE71N3-T
ACPU		AJ71E71-S3, A1SJ71E71-B2-S3, A1SJ71E71-B5-S3, AJ71E71N-T, AJ71E71N-B5, AJ71E71N-B2, AJ71E71N-B2, AJ71E71N3-T, AJ71E71N-B5T, A1SJ71E71N-T, A1SJ71E71N-B2, A1SJ71E71N-B5, A1SJ71E71N-B5T, A1SJ71E71N3-T
LCP	Built-in Ethernet port CPU	L02CPU, L06CPU, L26CPU, L26CPU-BT, L02CPU-P, L06CPU-P, L26CPU-P, L26CPU-PBT
	Ethernet module	LJ71E71-100
Motion controller CPU (MELSEC iQ-R series)		RJ71EN71
Motion controller CPU (Q series)* ¹		QJ71E71, QJ71E71-B2, QJ71E71-B5, QJ71E71-100
Motion controller CPU (A series)		AJ71E71-S3, A1SJ71E71-B2-S3, A1SJ71E71-B5-S3, AJ71E71N-T, AJ71E71N-B5, AJ71E71N-B2, AJ71E71N-B2, AJ71E71N3-T, AJ71E71N-B5T, A1SJ71E71N-T, A1SJ71E71N-B2, A1SJ71E71N-B5, A1SJ71E71N-B5T, A1SJ71E71N3-T
MELSEC iQ-F		FX5U, FX5UC
FXCPU		FX3U-ENET-L* ² , FX3U-ENET-ADP* ³ * ⁴

*1 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCP/Q170MSCPU is available.

*2 To use the FX3U-ENET-L with the FX3UC, the FX2NC-CNV-IF or FX3UC-1PS-5V is required.

*3 To use FX3U-ENET-ADP, FX3U-CNV-BD, FX3U-422-BD, or FX3U-232-BD is required.

*4 Supported by the basic unit with Version 3.10. or later.

*5 The built-in Ethernet port CPUs (CPU P1, and P1) can be used.

2. Ethernet board/card

Applicable Ethernet boards/cards are shown in the following.

Manufacturer	Model name	Remarks
3COM	EthernetLink III LAN PC Card	Ethernet board/card
-	Ethernet board built in the personal computer as standard	Ethernet board

POINT

When using PC CPU module

A interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

3.3.3 Connection cable

Use a cable applicable to the Ethernet module or the Ethernet board/card to be used.

3.3.4 Controller setting

- ➡ ■1. When using Built-in Ethernet port RCPU (one-to-one connection, multiple connection)
- 2. When using Ethernet module for RCPU
- 3. When using Built-in Ethernet port MELSEC iQ-F (one-to-one connection, multiple connection)
- 4. When using Built-in Ethernet port QCPU (one-to-one connection, multiple connection)
- 5. When using Ethernet module for QCPU
- 6. When using Built-in Ethernet port LCPU (one-to-one connection, multiple connection)
- 7. When using C Controller module
- 8. When using Ethernet module (QnA series)
- 9. When using Ethernet module (A series)
- 10. When using Ethernet module (FX series)
- 11. When using CNC C70 (Q17nNCCPU)
- 12. When using CC-Link IE Field Network Ethernet adapter module

POINT

Ethernet connection

(1) Before Ethernet connection

Read the manual for the Ethernet module to be used thoroughly and understand it fully before setting up the Ethernet connection.

(2) Time-out error

If many devices (including GT SoftGOT2000) are connected, line traffic may become dense, causing a time-out error.

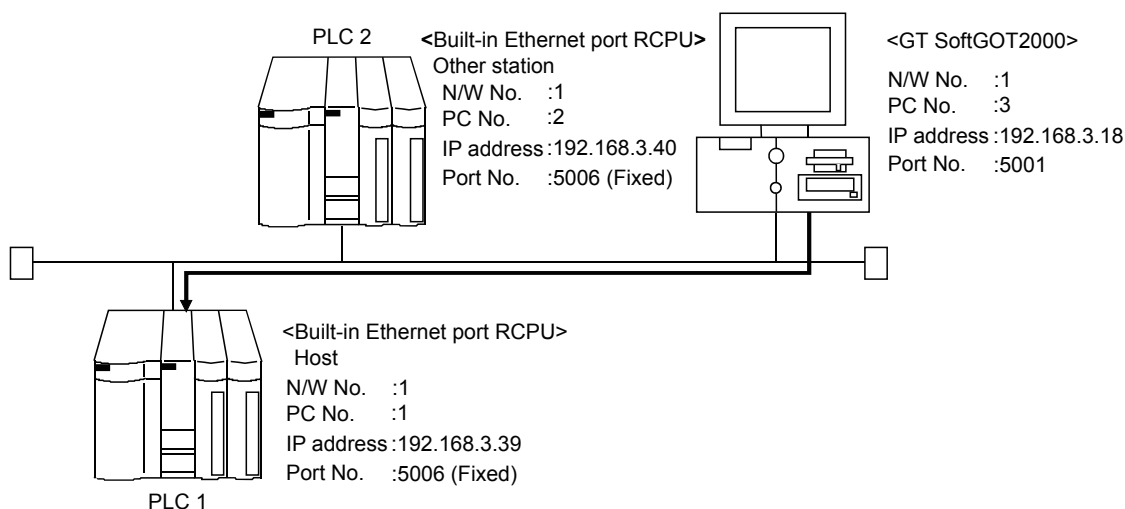
If a time-out error occurs, reduce the number of connected devices or increase the time-out value in the Communication Setup of GT SoftGOT2000.

■1. When using Built-in Ethernet port RCPU (one-to-one connection, multiple connection)

The setting items and precautions are shown below for communicating GT SoftGOT2000 to Built-in Ethernet port RCPU.

The explanations are given using the following system configuration to monitor the host station.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000.

- ➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(1) Before setting

(a) Precautions for communication

When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.

The following actions may improve the communication performance.

- Use a switching hub.
- Use the high-speed 100BASE-TX (100Mbps).
- Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models				
R04CPU,	R08CPU,	R16CPU,	R32CPU,	R120CPU,
R08PCPU,	R16PCPU,	R32PCPU,	R120PCPU,	
R08SFCPU,	R16SFCPU,	R32SFCPU,	R120SFCPU,	
R04ENCPU,	R08ENCPU,	R16ENCPU,	R32ENCPU,	R120ENCPU

(3) Setting on GX Works3 (Module parameter setting)

Configure the Built-in Ethernet port setting in a target module parameter (only when multiple modules are connected).

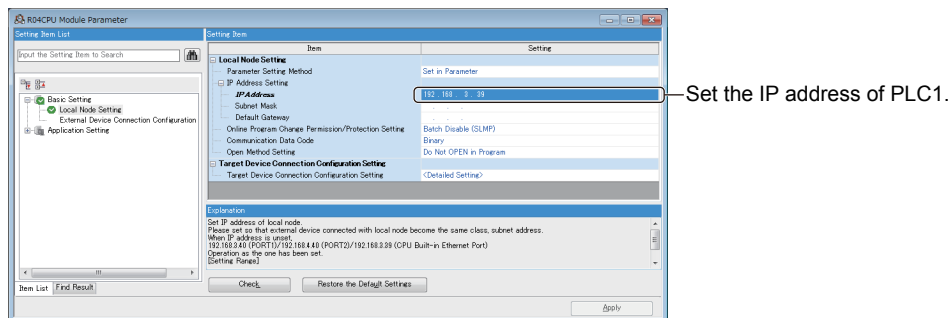
To make communications with GX Works3, ask the person in charge of the network about the IP address setting to confirm, and set the IP address.

Set the other items according to the system used.

For the details of the settings, refer to the following.

➡ GX Works3 Operating Manual

Set the IP address for PLC1 in [IP Address].

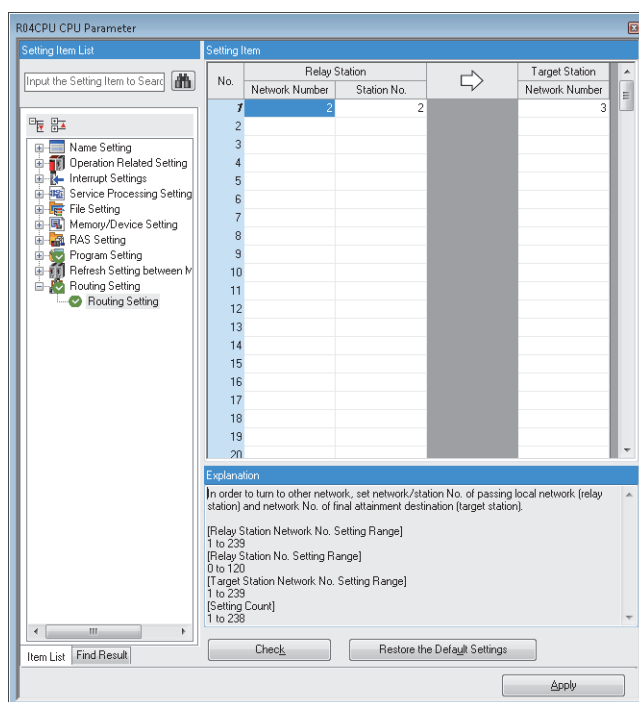


(4) Routing Parameter Setting

Up to 64 [Network Number] settings of [Target Station] can be set.

Multiple [Network Number] settings cannot be set for one [Target Station].

As a request source, the host (GOT) can access [Network Number] settings of 64 [Target Station] settings.



Item	Range
[Relay Station Network No.]	[1] to [239]
[Relay Station No.]	[1] to [64]
[Target Station Network No.]	[1] to [239]

POINT

Routing parameter setting for the request source

The GOT at the request source also requires the routing parameter setting.

For the setting, refer to the following.

➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(5) Setting on the personal computer

Set the IP address.

(6) Communications check

(a) Ping test

When ready to communicate, execute the Ping command at the command prompt on the Windows.

- When connections are OK
C:\>ping 192. 168. 3. 40
Reply from 192. 168. 3. 40:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 3. 40
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

- (b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

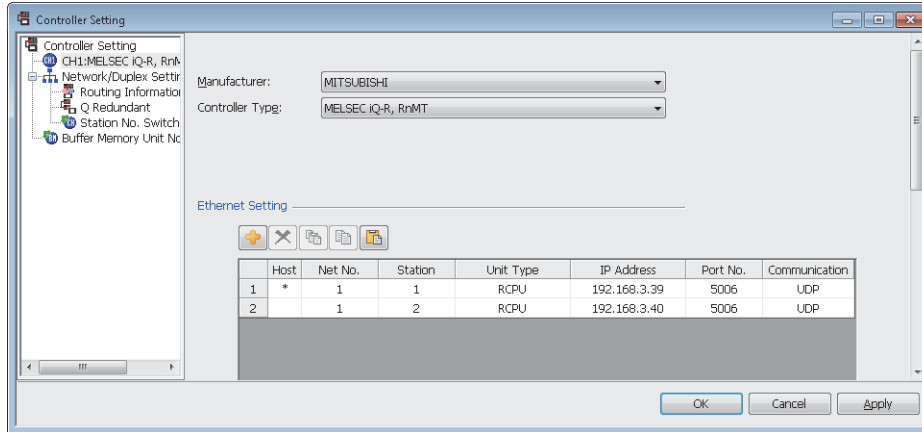
(7) Settings with GT Designer3 and GT SoftGOT2000

- (a) Setting on GT Designer3

- Ethernet setting

Set [Ethernet Setting] of GT Designer3 as shown below.

Up to 128 [Ethernet Setting] settings can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [120]
[Unit Type]	Select the type of the target Ethernet module.	[R/CPU]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5006]
[Communication]	Select a communication method.	[UDP]

- Routing Parameter Setting

Set the routing parameter in the Routing Information Setting dialog of GT Designer3.

Up to 64 [Transfer Net No.]s can be set.

The same [Transfer Net No.] cannot be set twice or more.

The host (GOT) can access up to 64 [Transfer Net No.]s as a request source.

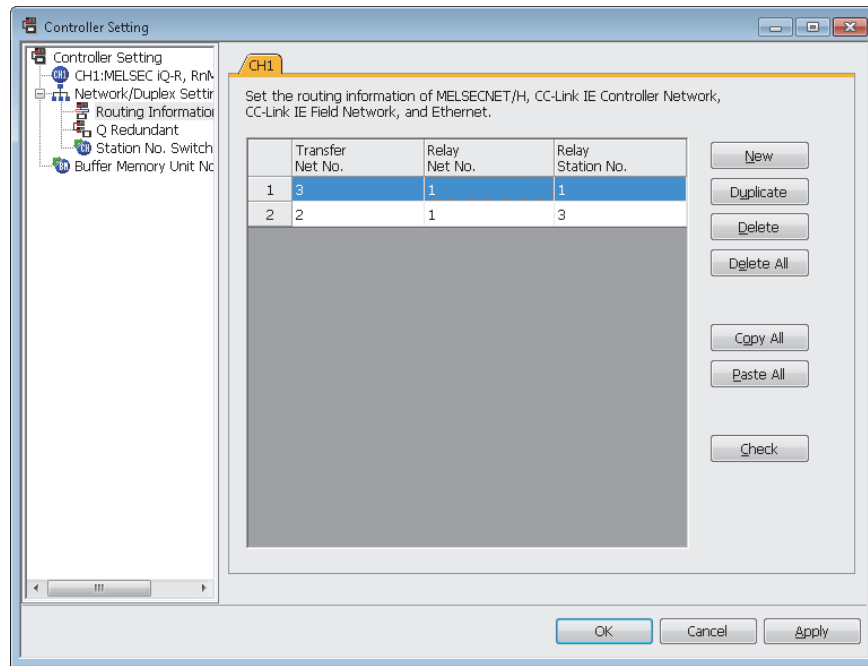
POINT

Routing parameter setting

Communication within the host network does not require routing parameter setting.

For the details of the routing parameter setting, refer to the following.

➡ MELSEC iQ-R Ethernet User's Manual (Application)



Item	Range
[Transfer Net No.]	[1] to [239]
[Relay Net No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT

Routing parameter setting for the relay station

The PLC at the relay station also requires the routing parameter setting.
For the setting, refer to the following.

➡ (4) Routing Parameter Setting

(b) Setting on GT SoftGOT2000

- Communication setup

Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

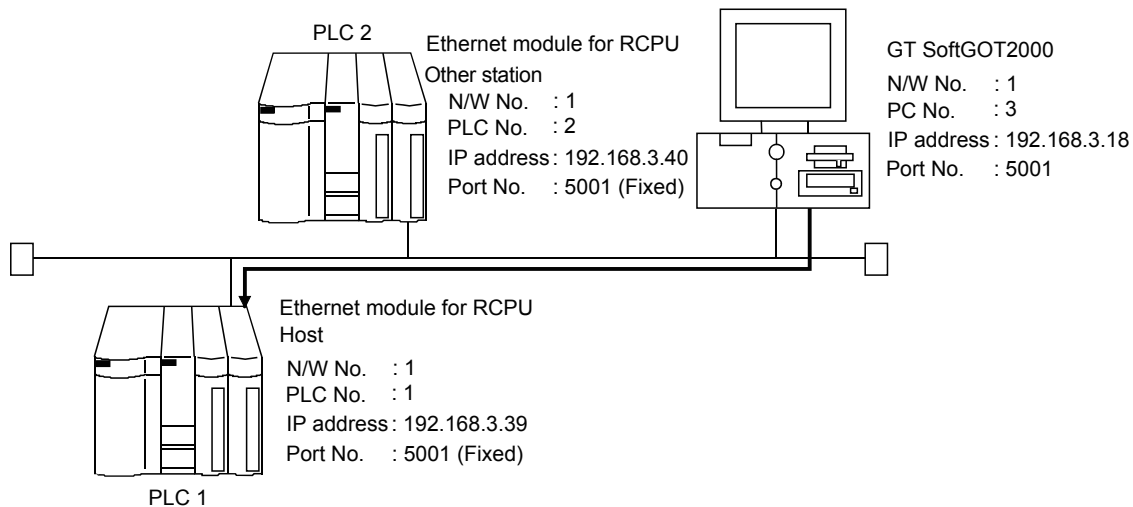
➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

■2. When using Ethernet module for RCPU

The setting items and precautions are shown below for communicating GT SoftGOT2000 to the PLC CPU via the Ethernet module.

This section explains the system configuration to monitor the host as shown below.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module for RCPU and GT SoftGOT2000.

➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(1) Before setting

(a) Precautions for communication

When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.

The following actions may improve the communication performance.

- Use a switching hub.
- Use the high-speed 100BASE-TX (100Mbps).
- Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models	
RJ71EN71(E-CCIE),	RJ71EN71(E-E)

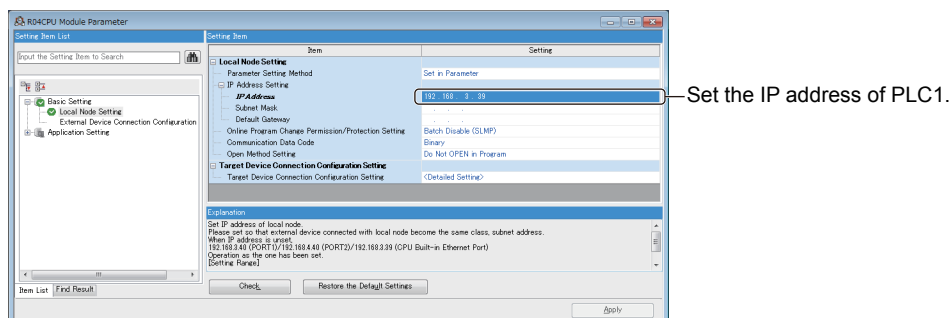
(3) Setting on GX Works (Module parameter setting)

Configure the Ethernet module (MELSEC iQ-R series) setting in a target module parameter (only when multiple modules are connected).

For the details of the settings, refer to the following.

➡ GX Works3 Operating Manual

Set the IP address for PLC1 in [IP Address].

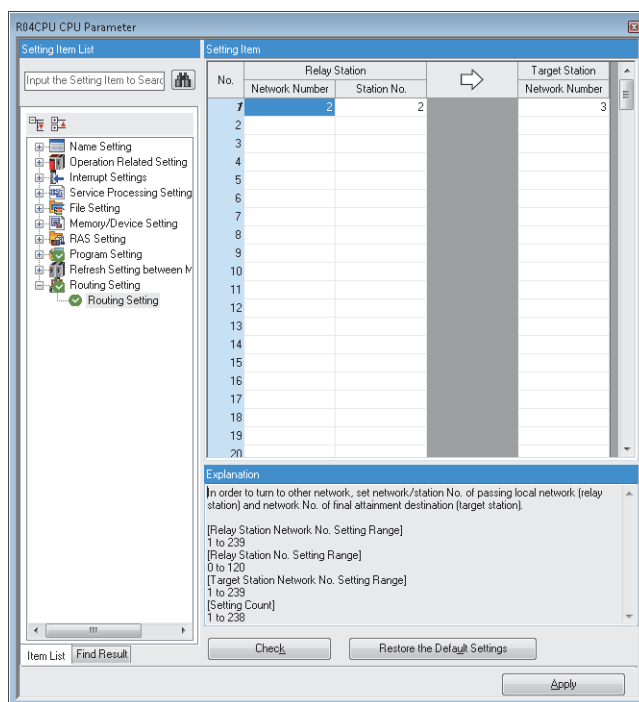


(4) Routing Parameter Setting

Up to 64 [Network Number] settings of [Target Station] can be set.

Multiple [Network Number] settings cannot be set for one [Target Station].

As a request source, the host (GOT) can access [Network Number] settings of 64 [Target Station] settings.



Item	Range
[Relay Station Network No.]	[1] to [239]
[Relay Station No.]	[1] to [64]
[Target Station Network No.]	[1] to [239]

POINT

Routing parameter setting for the request source

The GOT at the request source also requires the routing parameter setting.

For the setting, refer to the following.

➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(5) Setting on the personal computer

Set the IP address.

(6) Communications check

(a) Ping test

When ready to communicate, execute the Ping command at the command prompt on the Windows.

- When connections are OK

```
C:\>ping 192. 168. 3. 40
```

```
Reply from 192. 168. 3. 40:bytes=32 time<10ms TTL=32
```

- When connections are not good

```
C:\>ping 192. 168. 3. 40
```

```
Request timed out.
```

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3 Version1

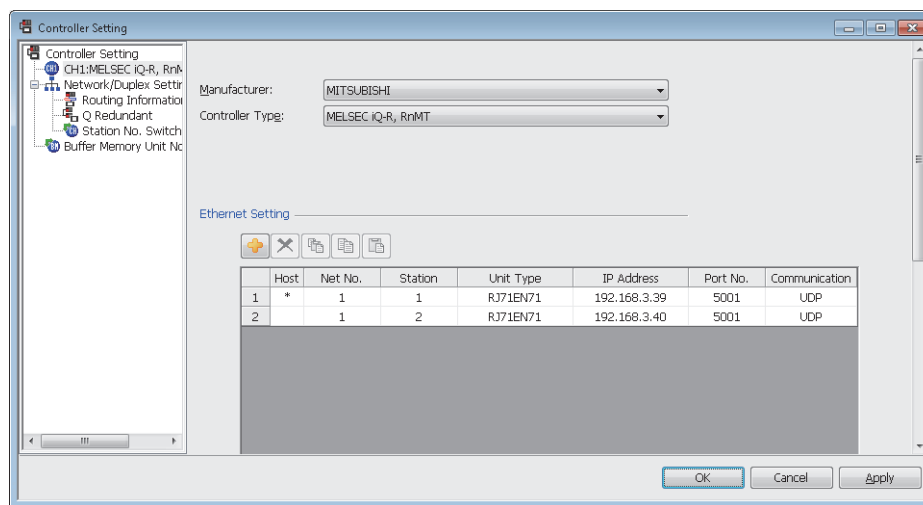
(7) Settings with GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

- Ethernet setting

Set [Ethernet Setting] of GT Designer3 as shown below.

Up to 128 [Ethernet Setting] settings can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[RJ71EN71]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5001]
[Communication]	Select a communication method.	[UDP]

- **Routing Parameter Setting**
Set the routing parameter in the Routing Information Setting dialog of GT Designer3.
Up to 64 [Transfer Net No.]s can be set.
The same [Transfer Net No.] cannot be set twice or more.
The host (GOT) can access up to 64 [Transfer Net No.]s as a request source.

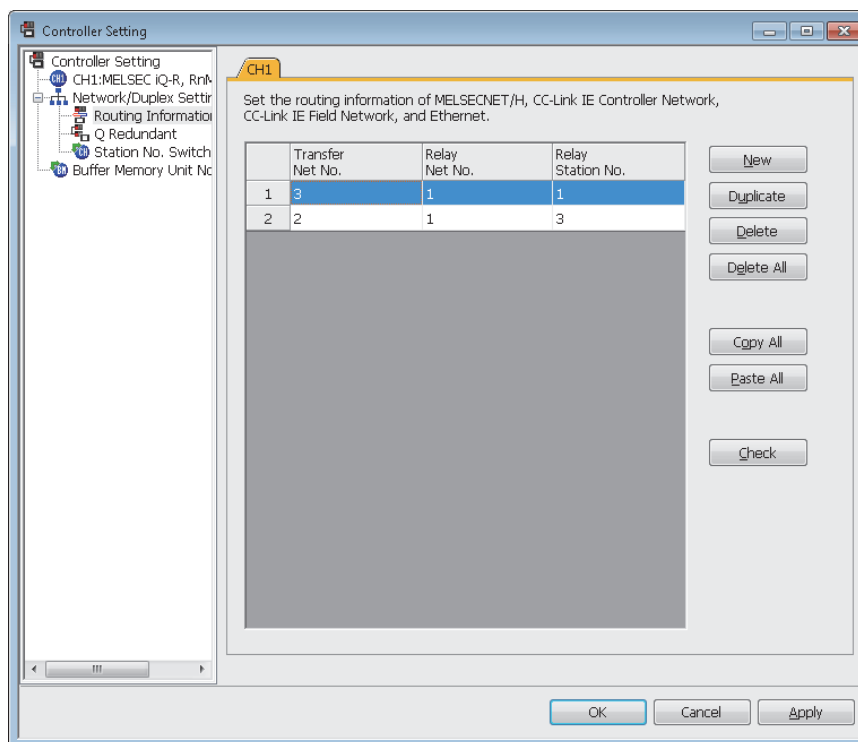
POINT

Routing parameter setting

Communication within the host network does not require routing parameter setting.

For the details of the routing parameter setting, refer to the following.

⇒ MELSEC iQ-R Ethernet User's Manual (Application)



Item	Range
[Transfer Net No.]	[1] to [239]
[Relay Net No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT

Routing parameter setting for the relay station

The PLC at the relay station also requires the routing parameter setting.

For the setting, refer to the following.

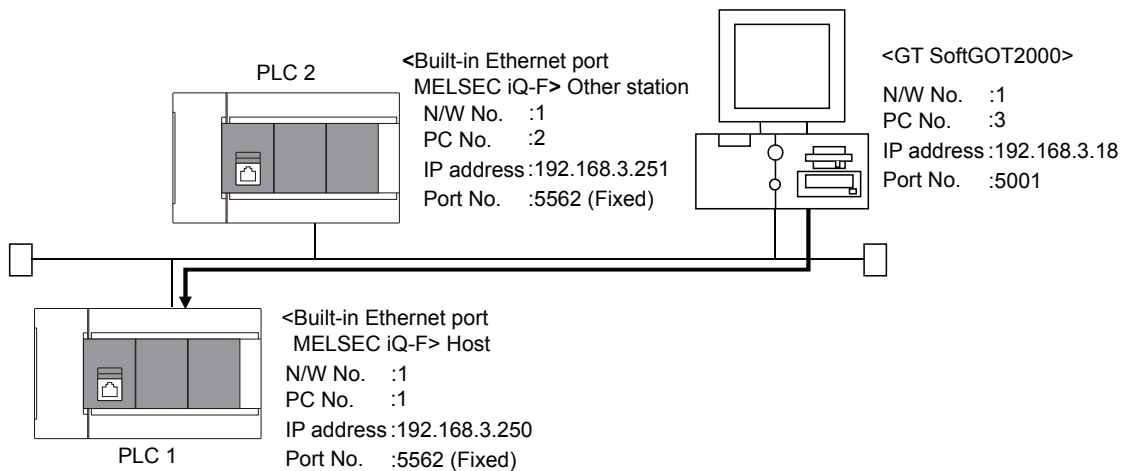
- ⇒ (4) Routing Parameter Setting
- (b) Setting on GT SoftGOT2000
 - Communication setup
Set the communication setup dialog of GT SoftGOT2000.
For details on the communication setting, refer to the following manual.
 - ⇒ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

■3. When using Built-in Ethernet port MELSEC iQ-F (one-to-one connection, multiple connection)

The following shows the setting items and precautions for communication from GT SoftGOT2000 via a Built-in Ethernet port MELSEC iQ-F.

This section explains the system configuration to monitor the host as shown below.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the CPU module and GT SoftGOT2000.

➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(1) Before setting

(a) Precautions for monitoring

The CPUs on other networks cannot be monitored.

(b) Precautions for communication

When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.

The following actions may improve the communication performance.

- Use a switching hub.
- Use the high-speed 100BASE-TX (100Mbps).
- Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models	
FX5U,	FX5UC

(3) Setting on GX Works3 (Module parameter setting)

Configure the Built-in Ethernet port setting in a target module parameter (only when multiple modules are connected).

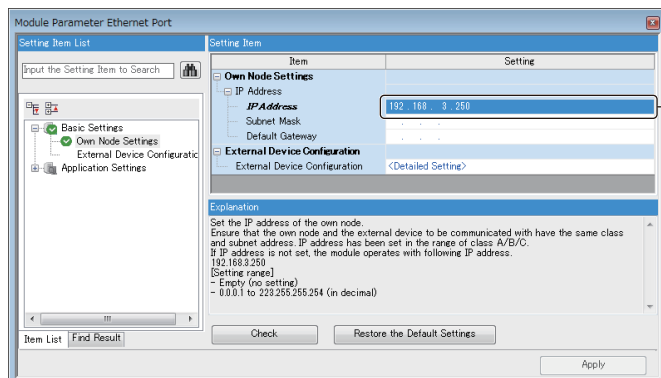
To make communications with GX Works3, ask the person in charge of the network about the IP address setting to confirm, and set the IP address.

Set the other items according to the system used.

For the details of the settings, refer to the following.

⇒ GX Works3 Operating Manual

Set the IP address for PLC1 in [IP Address].



(4) Setting on the personal computer

Set the IP address.

(5) Communications check

(a) Ping test

When ready to communicate, execute the Ping command at the command prompt on the Windows.

- When connections are OK

```
C:\>ping 192. 168. 3. 251
```

```
Reply from 192. 168. 3. 251:bytes=32 time<10ms TTL=32
```

- When connections are not good

```
C:\>ping 192. 168. 3. 251
```

```
Request timed out.
```

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

⇒ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3 Version1

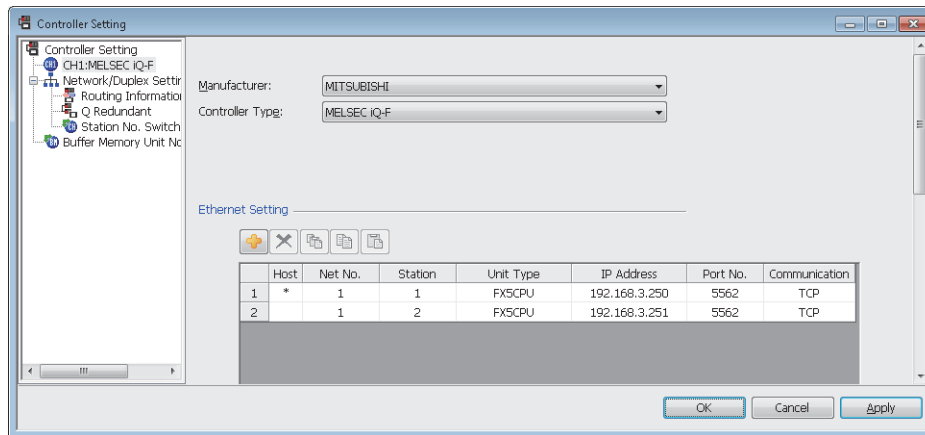
(6) Settings with GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

- Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [120]
[Unit Type]	Select the type of the target Ethernet module.	[FX5CPU]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5562]
[Communication]	Select a communication method.	[TCP]

(b) Setting on GT SoftGOT2000

- Communication setup

Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

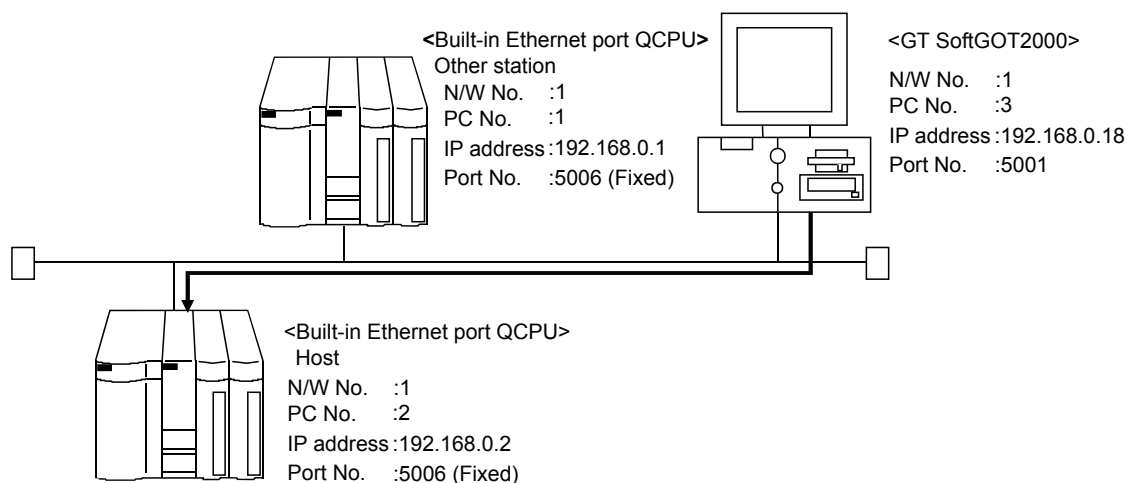
➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

■4. When using Built-in Ethernet port QCPU (one-to-one connection, multiple connection)

The setting items and precautions are shown below for communicating GT SoftGOT2000 to Built-in Ethernet port QCPU.

This section explains the system configuration to monitor the host as shown below.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000.

➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(1) Before setting

(a) Monitoring the CPUs on other networks

Monitoring the CPUs on other networks requires the routing parameter to be set. Refer to the following for how to set the routing parameters.

➡ (4) Routing Parameter Setting

➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(b) Precautions for communication

When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.

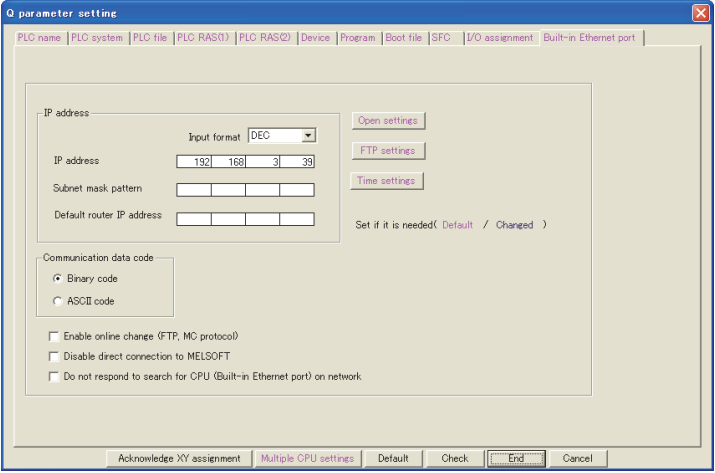
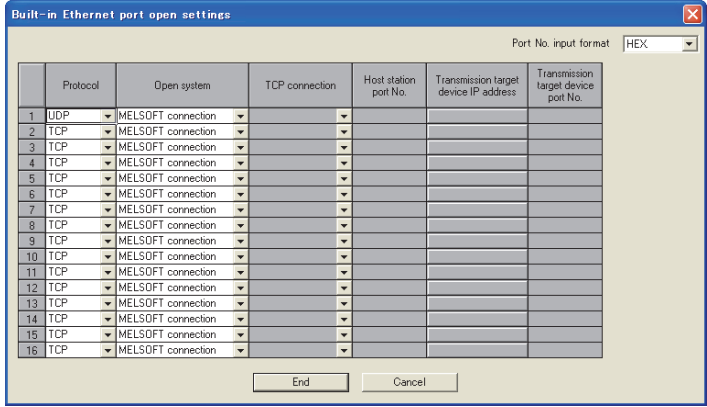
The following actions may improve the communication performance.

- Use a switching hub.
- Use the high-speed 100BASE-TX (100Mbps).
- Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models				
Q03UDEHCPU,	Q04UDEHCPU,	Q06UDEHCPU,	Q10UDEHCPU,	Q13UDEHCPU,
Q20UDEHCPU,	Q26UDEHCPU,	Q50UDEHCPU,	Q100UDEHCPU,	
Q03UDVCPU,	Q04UDVCPU,	Q06UDVCPU,	Q13UDVCPU,	Q26UDVCPU
Q04UDPVCPU,	Q06UDPVCPU,	Q13UDPVCPU,	Q26UDPVCPU	

(3) Setting on GX Works2/GX Developer (Q parameter setting)
Set the Built-in Ethernet port for the Q parameter setting. (multiple connection only)

Item	Setting Screen Examples
[Built-in Ethernet port setting]	
[Open settings]	 <p>To make communications with GX Works2/GX Developer, ask the person in charge of the network about the IP address setting to confirm, and set the IP address. Set the other items according to the specifications of the nodes or applications connected to an Ethernet module.</p>

(4) Routing Parameter Setting

Up to 64 [Transfer Network No.]s can be set.

The same [Transfer Network No.] cannot be set twice or more.

The host (GOT) can access up to 64 [Transfer Network No.]s as a request source.

	Transfer to network No.	Intermediate network No.	Intermediate station No.
1	3	2	2
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

Item	Range
[Transfer Network No.]	[1] to [239]
[Relay Network No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT**Routing parameter setting for the request source**

The GOT at the request source also requires the routing parameter setting.

For the setting, refer to the following.

- ➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(5) Setting on the personal computer

Set the IP address.

(6) Communications check**(a) Ping test**

When ready to communicate, execute the Ping command at the command prompt on the Windows.

- When connections are OK
C:\>ping 192. 168. 0. 2
Reply from 192. 168. 0. 2:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 0. 2
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

POINT

Ping test

The ping test can also be performed with GX Developer (SW6D5C-GPPW 6.01B or later).
For details of the ping test, refer to the following.

➡ GX Developer Version □ Operating Manual

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

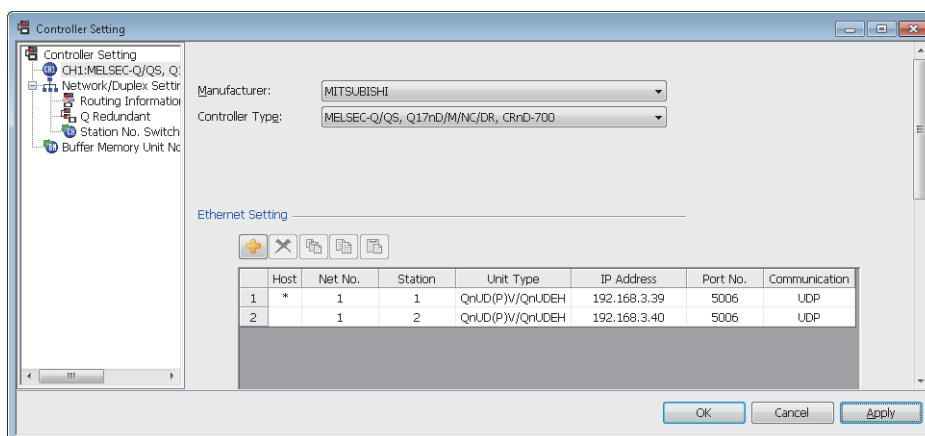
(7) Settings with GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

• Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[QnUD(P)/V/QnUDEH]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5006]
[Communication]	Select a communication method.	[UDP]

- Routing Parameter Setting
Set the routing parameter in the Routing Information Setting dialog of GT Designer3.
Up to 64 [Transfer Net No.]s can be set.
The same [Transfer Net No.] cannot be set twice or more.
The host (GOT) can access up to 64 [Transfer Net No.]s as a request source.

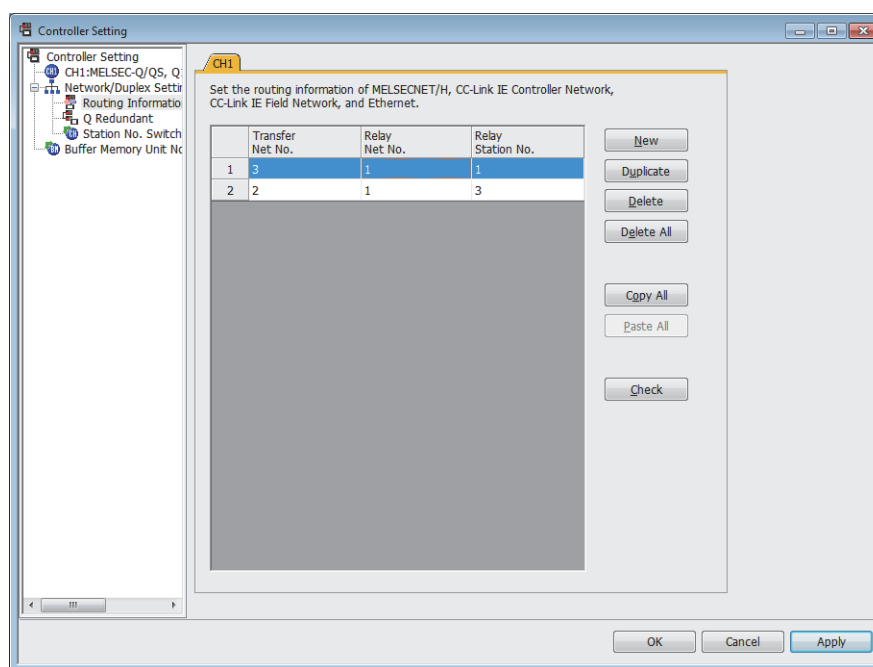
POINT

Routing parameter setting

Communication within the host network does not require routing parameter setting.

For the details of the routing parameter setting, refer to the following.

➡ Q Corresponding Ethernet Interface Module User's Manual (Application)



Item	Range
[Transfer Net No.]	[1] to [239]
[Relay Net No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT

Routing parameter setting for the relay station

The PLC at the relay station also requires the routing parameter setting.

For the setting, refer to the following.

➡ (4) Routing Parameter Setting

(b) Setting on GT SoftGOT2000

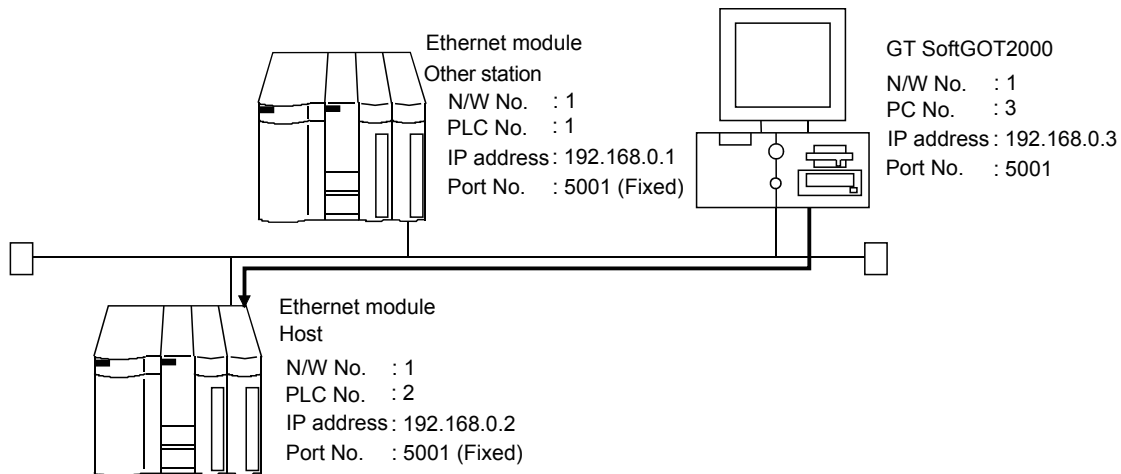
- Communication setup
Set the communication setup dialog of GT SoftGOT2000.
For details on the communication setting, refer to the following manual.
➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

5. When using Ethernet module for QCPU

The setting items and precautions are shown below for communicating GT SoftGOT2000 to the PLC CPU via the Ethernet module.

This section explains the system configuration to monitor the host as shown below.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000.

➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(1) Before setting

(a) Monitoring the CPUs on other networks

Monitoring the CPUs on other networks requires the routing parameter to be set. For the routing parameter setting, refer to the following.

➡ (4) Routing Parameter Setting

(7) Settings with GT Designer3 and GT SoftGOT2000

(b) Precautions for communication

When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.

The following actions may improve the communication performance.

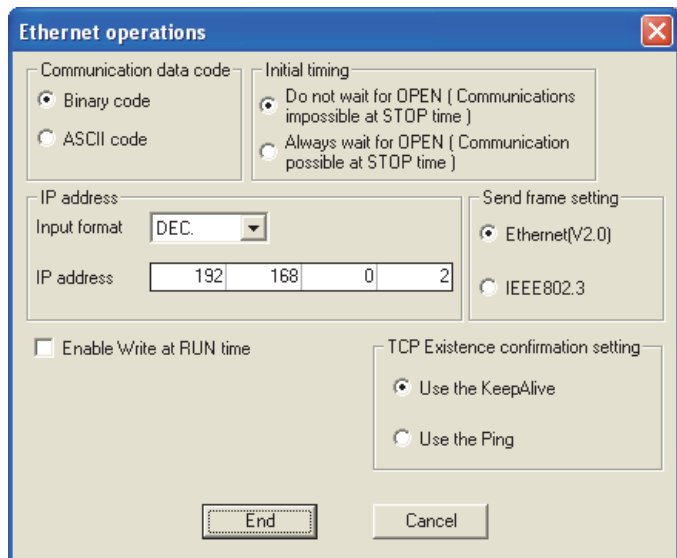
- Use a switching hub.
- Use the high-speed 100BASE-TX (100Mbps).
- Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models				
QJ71E71-100,	QJ71E71-B5,	QJ71E71-B2,	QJ71E71,	LJ71E71-100

(3) Setting on GX Works2/GX Developer (Network parameter setting)

Parameter setting can be made from the MELSECNET/ETHERNET network parameter setting screen. Set the network type, first I/O No., network No., group No., station number, mode and operation setting.

Item	Setting Screen Examples																																																
[Ethernet Parameters]	<table border="1"> <thead> <tr> <th></th><th>Module 1</th><th>Module 2</th></tr> </thead> <tbody> <tr> <td>Network type</td><td>Ethernet</td><td>None</td></tr> <tr> <td>Starting I/O No.</td><td>0000</td><td></td></tr> <tr> <td>Network No.</td><td>1</td><td></td></tr> <tr> <td>Total stations</td><td></td><td></td></tr> <tr> <td>Group No.</td><td>0</td><td></td></tr> <tr> <td>Station No.</td><td>2</td><td></td></tr> <tr> <td>Mode</td><td>On line</td><td></td></tr> <tr> <td></td><td>Operational settings</td><td></td></tr> <tr> <td></td><td>Initial settings</td><td></td></tr> <tr> <td></td><td>Open settings</td><td></td></tr> <tr> <td></td><td>Router relay parameter</td><td></td></tr> <tr> <td></td><td>Station No. <-> IP information</td><td></td></tr> <tr> <td></td><td>FTP Parameters</td><td></td></tr> <tr> <td></td><td>E-mail settings</td><td></td></tr> <tr> <td></td><td>Interrupt settings</td><td></td></tr> </tbody> </table>		Module 1	Module 2	Network type	Ethernet	None	Starting I/O No.	0000		Network No.	1		Total stations			Group No.	0		Station No.	2		Mode	On line			Operational settings			Initial settings			Open settings			Router relay parameter			Station No. <-> IP information			FTP Parameters			E-mail settings			Interrupt settings	
	Module 1	Module 2																																															
Network type	Ethernet	None																																															
Starting I/O No.	0000																																																
Network No.	1																																																
Total stations																																																	
Group No.	0																																																
Station No.	2																																																
Mode	On line																																																
	Operational settings																																																
	Initial settings																																																
	Open settings																																																
	Router relay parameter																																																
	Station No. <-> IP information																																																
	FTP Parameters																																																
	E-mail settings																																																
	Interrupt settings																																																
[Operation Setting]																																																	

To make communications with GX Works2/GX Developer, ask the person in charge of the network about the IP address setting to confirm, and set the IP address.

Set the other items according to the specifications of the nodes or applications connected to an Ethernet module compatible with QCPU or LCPUC.

The following are the operation setting items that can be set on GX Works2 or GX Developer.

[Communication data code]: The binary code or ASCII code is available.

[Initial timing]: Communications can be made from GX Works2 or GX Developer even when the PLC CPU is in the STOP status.

[Enable Write at RUN time]: The online change or device test can be performed with GX Works2 or GX Developer.

(4) Routing Parameter Setting

Up to 64 [Transfer Network No.]s can be set.

The same [Transfer Network No.] cannot be set twice or more.

The host (GOT) can access up to 64 [Transfer Network No.]s as a request source.

	Transfer to network No.	Intermediate network No.	Intermediate station No.	
1	3	2	2	
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				

Clear Check End Cancel

Item	Range
[Transfer Network No.]	[1] to [239]
[Relay Network No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT

Routing parameter setting for the request source

The GOT at the request source also requires the routing parameter setting.

For the setting, refer to the following.

- ➡ (7) Settings with GT Designer3 and GT SoftGOT2000

(5) Setting on the personal computer

Set the IP address.

(6) Communications check

(a) Ping test

When ready to communicate, execute the Ping command at the command prompt on the Windows.

- When connections are OK
C:\>ping 192. 168. 0. 2
Reply from 192. 168. 0. 2:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 0. 2
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

POINT

Ping test

The ping test can also be performed with GX Developer (SW6D5C-GPPW 6.01B or later).
For details of the ping test, refer to the following.

➡ GX Developer Version □ Operating Manual

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

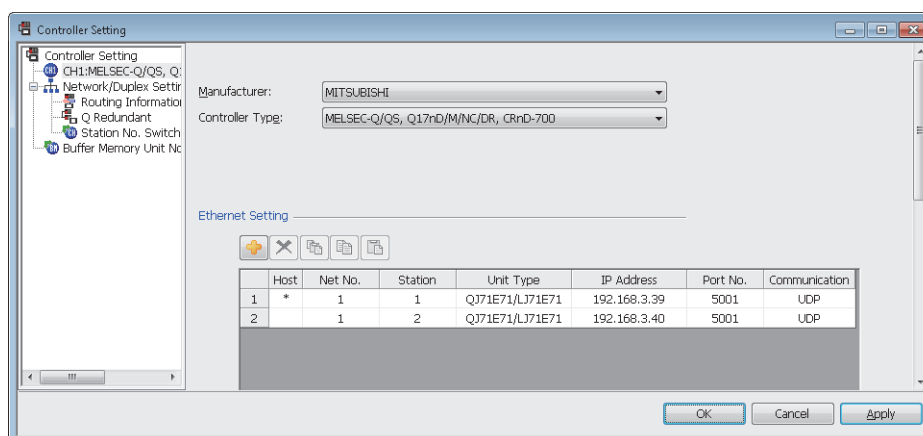
(7) Settings with GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

• Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[QJ71E71/LJ71E71]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5001]
[Communication]	Select a communication method.	[UDP]

- **Routing Parameter Setting**
Set the routing parameter in the Routing Information Setting dialog of GT Designer3.
Up to 64 [Transfer Net No.]s can be set.
The same [Transfer Net No.] cannot be set twice or more.
The host (GOT) can access up to 64 [Transfer Net No.]s as a request source.

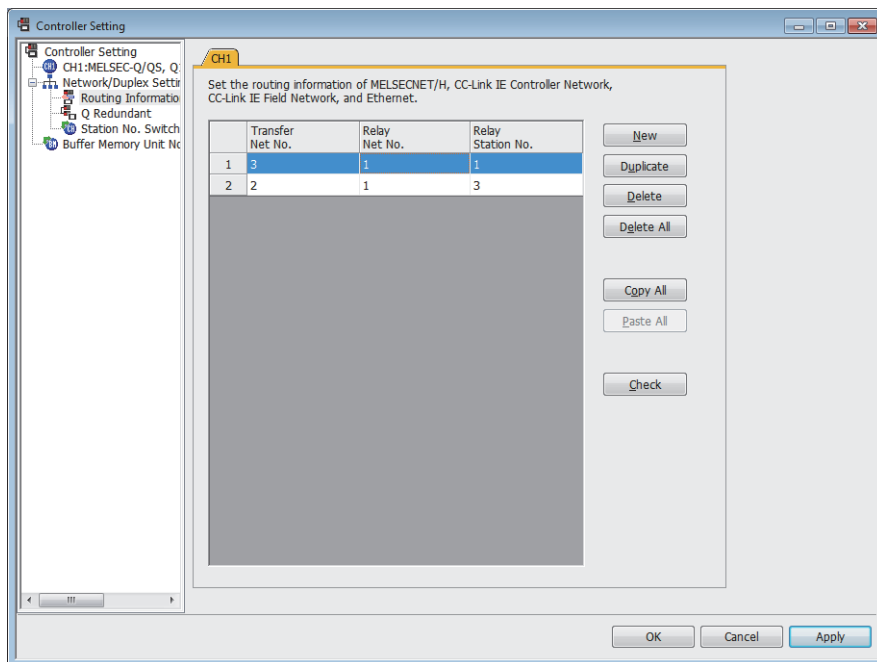
POINT

Routing parameter setting

Communication within the host network does not require routing parameter setting.

For the details of the routing parameter setting, refer to the following.

- ➡ Q Corresponding Ethernet Interface Module User's Manual (Application)



Item	Range
[Transfer Net No.]	[1] to [239]
[Relay Net No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT

Routing parameter setting for the relay station

The PLC at the relay station also requires the routing parameter setting.

For the setting, refer to the following.

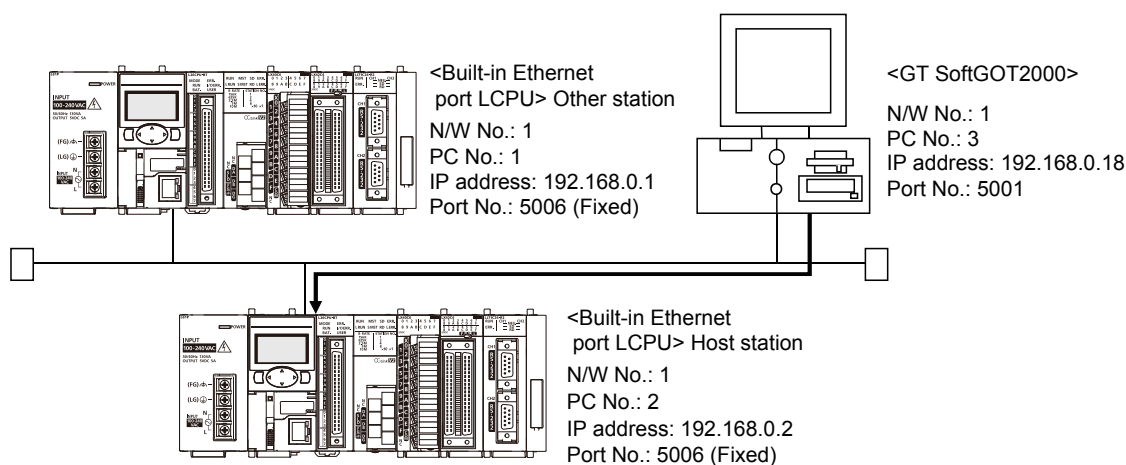
- ➡ (4) Routing Parameter Setting
- (b) Setting on GT SoftGOT2000
 - **Communication setup**
Set the communication setup dialog of GT SoftGOT2000.
For details on the communication setting, refer to the following manual.
 - ➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

■6. When using Built-in Ethernet port LCPU (one-to-one connection, multiple connection)

The setting items and precautions are shown below for communicating GT SoftGOT2000 to Built-in Ethernet port LCPU.

This section explains the system configuration to monitor the host as shown below.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the CPU module and GT SoftGOT2000.

➡ (6) Settings with GT Designer3 and GT SoftGOT2000

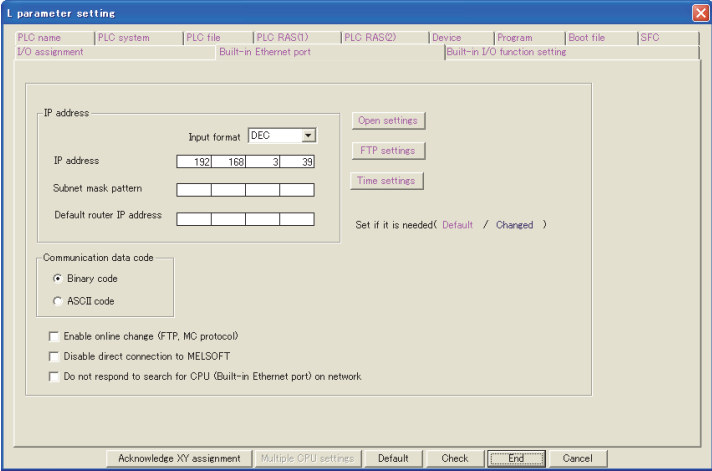
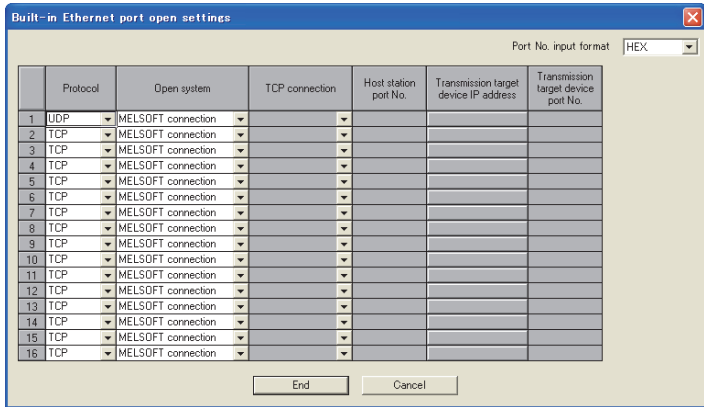
(1) Before setting

- (a) Precautions for monitoring
The CPUs on other networks cannot be monitored.
- (b) Precautions for communication
When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.
The following actions may improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models				
L02CPU,	L06CPU,	L26CPU,	L26CPU-BT,	L02CPU-P,
L06CPU-P,	L26CPU-P,	L26CPU-PBT		

(3) **Setting on GX Works2/GX Developer (L parameter setting)**
Set the Built-in Ethernet port for the L parameter setting. (multiple connection only)

Item	Setting Screen Examples
[Built-in Ethernet port setting]	<div></div> <p>To make communications with GX Works2/GX Developer, ask the person in charge of the network about the IP address setting to confirm, and set the IP address. Set the other items according to the specifications of the nodes or applications connected to an Ethernet module.</p>
[Open settings]	<div></div>

(4) **Setting on the personal computer**
Set the IP address.

(5) Communications check

(a) Ping test

When ready to communicate, execute the Ping command at the command prompt on the Windows.

- When connections are OK
C:\>ping 192. 168. 0. 2
Reply from 192. 168. 0. 2:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 0. 2
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

POINT

Ping test

The ping test can also be performed with GX Developer (SW6D5C-GPPW 6.01B or later).

For details of the ping test, refer to the following.

➡ GX Developer Version □ Operating Manual

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

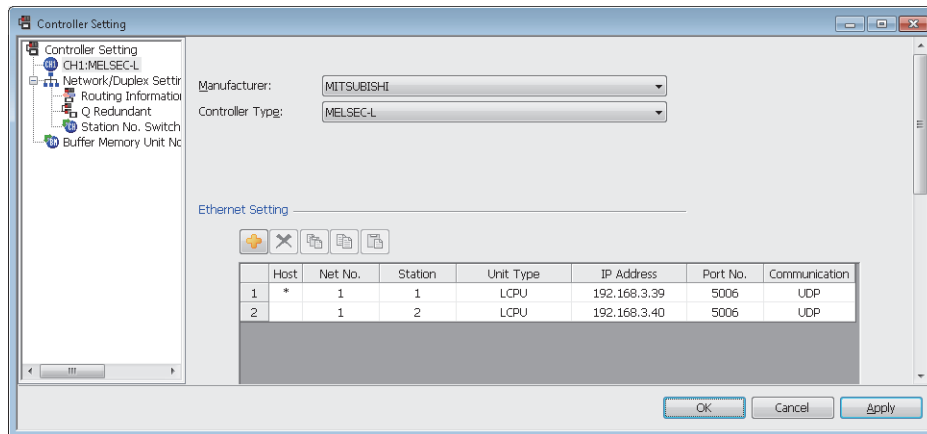
(6) Settings with GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

- Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[LCPU]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5006]
[Communication]	Select a communication method.	[UDP]

(b) Setting on GT SoftGOT2000

- Communication setup

Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

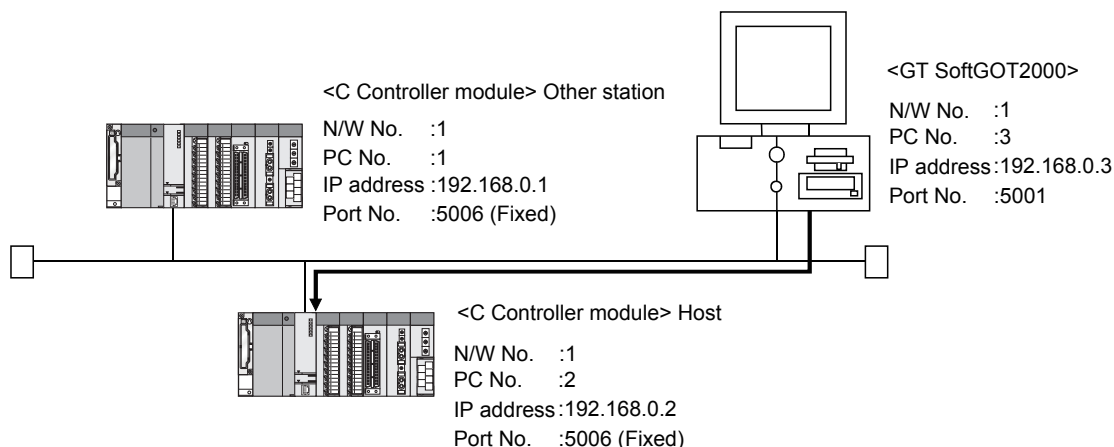
➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

7. When using C Controller module

For communications with GT SoftGOT2000 via C Controller module, setting items and precautions are described below.

This section explains the system configuration to monitor the host as shown below.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of C Controller module and GT SoftGOT2000.

➡ (6) Settings on GT Designer3 and GT SoftGOT2000

(1) Before setting

- Precautions for monitoring
GT SoftGOT2000 cannot monitor CPUs on the other networks.
- Precautions for communication
When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.
The following actions may improve the communication performance.
 - Use a switching hub.
 - Use the high speed 100BASE-TX (100Mbps).
 - Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models			
R12CCPU-V,	Q12DCCPU-V,	Q24DHCCPU-V,	Q24DHCCPU-LS

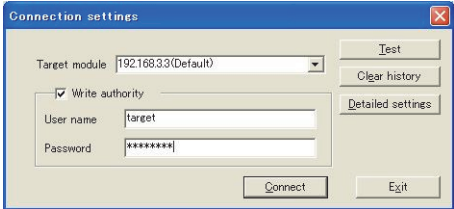
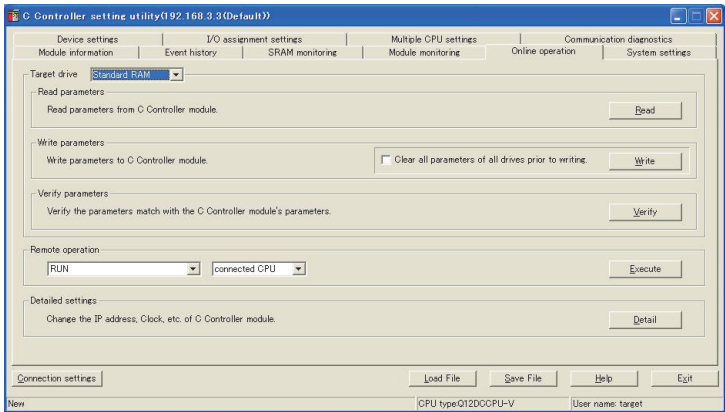
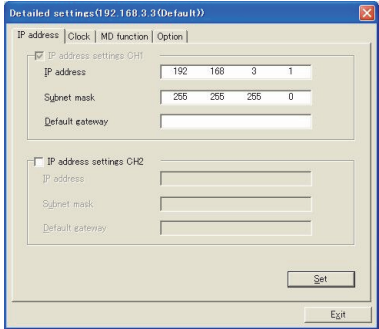
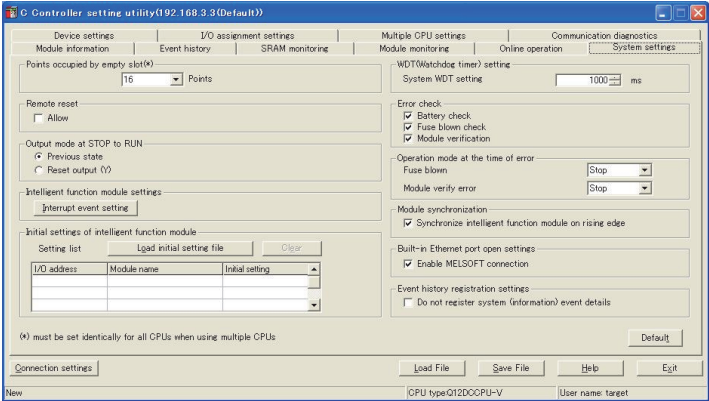
(3) Setting on C Controller module setting utility (Parameter setting)

Set the parameter on C Controller module setting utility.

Use SW3PVC-CCPU-J Ver.3.05F or later for the C Controller module setting utility.

For details of the C Controller module setting utility, refer to the following manual.

➡ C Controller Module User's Manual (Utility Operation, Programming)

Item	Setting Screen Examples
[Connection settings]	 <p>If the IP address of the C controller module has been changed, input the changed IP address or host name.</p> <p>If the account of the C controller module has been changed, input the changed user name and password.</p>
[Online operation]	
[Detailed settings]	
[System settings]	

(4) Setting on personal computer

Set the IP address.

(5) Communications check

(a) Ping test

When C Controller module is ready for communications, execute the Ping command with the command prompt of Windows.

- When the Ping test is verified
C:\>Ping 192. 168. 0. 2
Reply from 192.168.0.2:bytes=32 time<10ms TTL=32
- When the Ping test is not verified
C:\>Ping 192. 168. 0. 2
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3 Version1

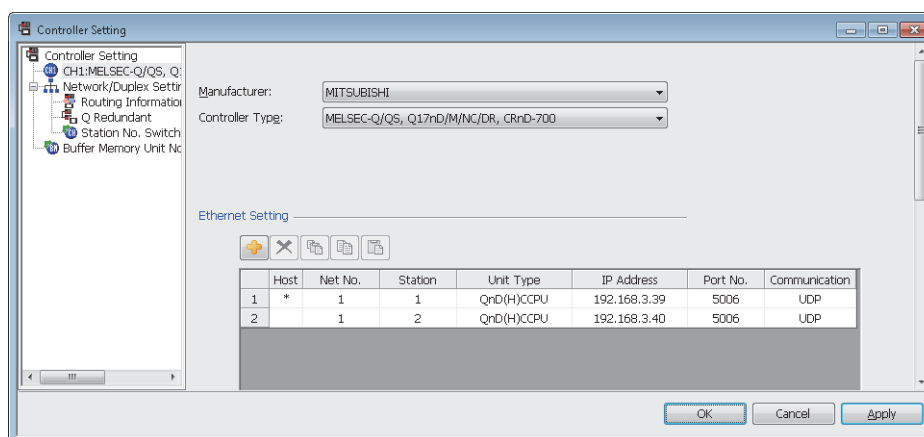
(6) Settings on GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

• Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target C Controller module.	[1] to [239] ^{*1}
[Station]	Set the station number of the target C Controller module.	[1] to [64] ^{*2}
[Unit Type]	Select the type of the target C Controller module.	[QnD(H)CCPU]
[IP address]	Set the IP address of the target C Controller module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target C Controller module.	[5006 (fixed)]
[Communication]	Select a communication method.	[UDP (fixed)]

*1 Set the same value as that of GOT Net No.

*2 Set a value different from that of the GOT PLC No. and the PLC No. of other PLCs on the same network.

(b) Setting on GT SoftGOT2000

• Communication Setup

Make the settings in the Communication Setup dialog of GT SoftGOT2000.

Refer to the following for details of Communication Setup.

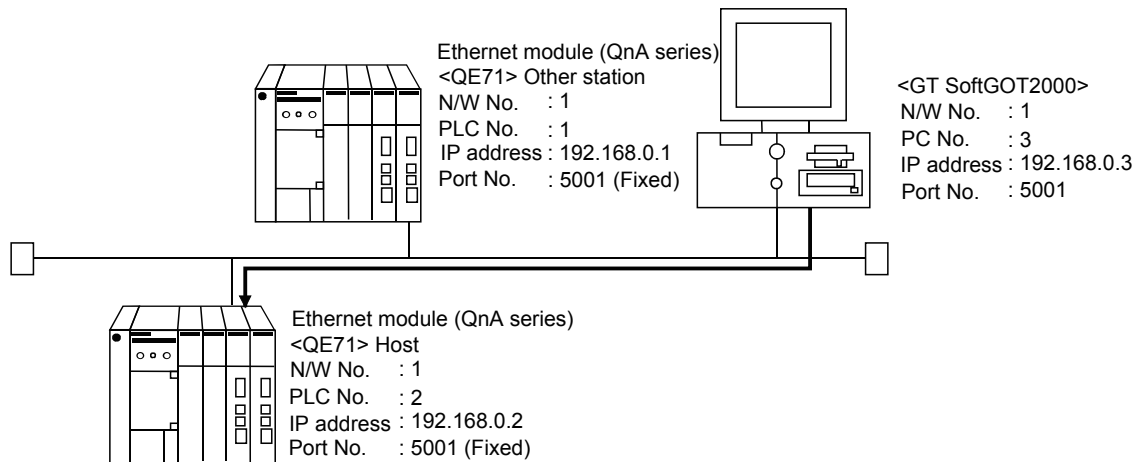
➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

8. When using Ethernet module (QnA series)

The setting items and precautions are shown below for communicating GT SoftGOT2000 to the PLC CPU via the Ethernet module (QnA series).

This section explains the system configuration to monitor the host as shown below.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000.

➡ (8) Settings with GT Designer3 and GT SoftGOT2000

(1) Before setting

(a) Monitoring the CPUs on other networks

Monitoring the CPUs on other networks requires the routing parameter to be set.

For the routing parameter setting, refer to the following.

➡ (5) Routing Parameter Setting

(8) Settings with GT Designer3 and GT SoftGOT2000

(b) Precautions for communication

- Only communications within the same segment are applicable.
No communications via a router or gateway can be monitored.
- When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.

The following actions may improve the communication performance.

- Use a switching hub.
- Use the high-speed 100BASE-TX (100Mbps).
- Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models^{*1}

Compatible models				
AJ71QE71N3-T,	AJ71QE71N-B5,	AJ71QE71N-B2,	AJ71QE71N-T,	AJ71QE71N-B5T,
AJ71QE71,	AJ71QE71-B5,	A1SJ71QE71N3-T,	A1SJ71QE71N-B5,	A1SJ71QE71N-B2,
A1SJ71QE71N-T,	A1SJ71QE71N-B5T,	A1SJ71QE71-B5,	A1SJ71QE71-B2	

^{*1} When using AJ71QE71, AJ71QE71-B5, A1SJ71QE71-B2 or A1SJ71QE71-B5, use a module or PLC CPU of function version B or later.

(3) Ethernet module (QnA series) switch settings

- Operation mode setting switch: 0 (online)
- Automatic start mode: SW3 ON

When SW3 is ON, initial processing is performed independently of Y19 (initial processing request). Communications are also enabled if the CPU module is stopped.

For the initial processing using Y19 (initial processing request), create the program for initial processing while referring to the "For QnA Ethernet Interface Module User's Manual".

(4) Setting on GX Works2/GX Developer (Network parameter setting)

On the MELSECNET/Ethernet setting screen of network parameter, set the network type, starting I/O No., network No., group No., station number and IP address.

Item	Setting screen example																																	
[Ethernet Parameters]	<table><tr><th></th><th>Module No.1</th><th>Module No.2</th></tr><tr><td>Network type</td><td>Ethernet</td><td>None</td></tr><tr><td>Start I/O No.</td><td>0000</td><td></td></tr><tr><td>Network No.</td><td>1</td><td></td></tr><tr><td>Total stations</td><td></td><td></td></tr><tr><td>Group No.</td><td>0</td><td></td></tr><tr><td>Station No.</td><td>2</td><td></td></tr><tr><td>IP addressDEC</td><td>192.168. 0. 2</td><td></td></tr><tr><td></td><td>Station No.<->IP information</td><td></td></tr><tr><td></td><td>FTP Parameters</td><td></td></tr><tr><td></td><td>Router relay parameter</td><td></td></tr></table>		Module No.1	Module No.2	Network type	Ethernet	None	Start I/O No.	0000		Network No.	1		Total stations			Group No.	0		Station No.	2		IP addressDEC	192.168. 0. 2			Station No.<->IP information			FTP Parameters			Router relay parameter	
	Module No.1	Module No.2																																
Network type	Ethernet	None																																
Start I/O No.	0000																																	
Network No.	1																																	
Total stations																																		
Group No.	0																																	
Station No.	2																																	
IP addressDEC	192.168. 0. 2																																	
	Station No.<->IP information																																	
	FTP Parameters																																	
	Router relay parameter																																	
[IP Address Setting]	<div><div>IP Address</div><div><div>Input format</div><div>DEC.</div></div><div><div>IP address</div><div>192</div><div>168</div><div>0</div><div>2</div></div><div><div>OK</div><div>Cancel</div></div></div>																																	

(5) Routing Parameter Setting

Up to 64 [Transfer Network No.]s can be set.

The same [Transfer Network No.] cannot be set twice or more.

The host (GOT) can access up to 64 [Transfer Network No.]s as a request source.

	Transfer to network No.	Intermediate network No.	Intermediate station No.
1	3	2	2
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

Clear Check End Cancel

Item	Range
[Transfer Network No.]	[1] to [239]
[Relay Network No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT

Routing parameter setting for the request source

The GOT at the request source also requires the routing parameter setting. For the setting, refer to the following.

- ➡ (8) Settings with GT Designer3 and GT SoftGOT2000

(6) Setting on the personal computer

Set the IP address.

(7) Communications check

(a) Ping test

When ready to communicate, execute the Ping command at the command prompt on the Windows.

- When connections are OK
C:\>ping 192. 168. 0. 2
Reply from 192. 168. 0. 2:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 0. 2
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

POINT

Ping test

The ping test can also be performed with GX Developer (SW6D5C-GPPW 6.01B or later).

For details of the ping test, refer to the following.

- ⇒ GX Developer Version □ Operating Manual

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

- ⇒ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

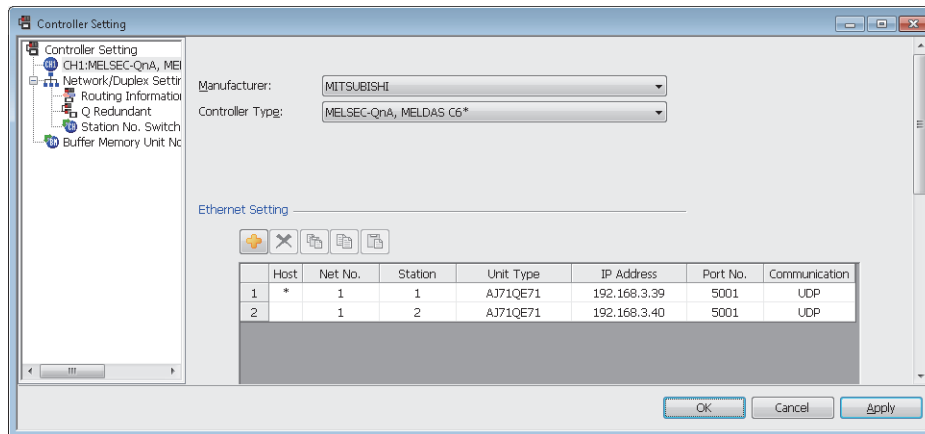
(8) Settings with GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

- Ethernet setting

Set the [Ethernet setting] dialog on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[AJ71QE71]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5001]
[Communication]	Select a communication method.	[UDP]

- Routing Parameter Setting

Set the routing parameter in the Routing Information Setting dialog of GT Designer3.

Up to 64 [Transfer Net No.]s can be set.

The same [Transfer Net No.] cannot be set twice or more.

The host (GOT) can access up to 64 [Transfer Net No.]s as a request source.

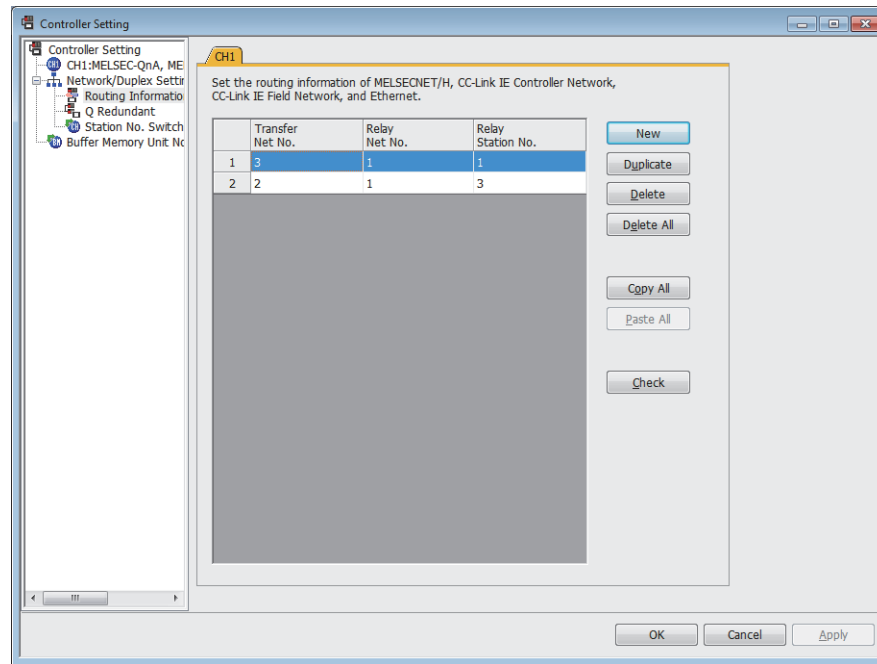
POINT

Routing parameter setting

Communication within the host network does not require routing parameter setting.

For the details of the routing parameter setting, refer to the following.

➡ For QnA Ethernet Interface Module User's Manual



Item	Range
[Transfer Net No.]	[1] to [239]
[Relay Net No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT

Routing parameter setting for the relay station

The PLC at the relay station also requires the routing parameter setting.
For the setting, refer to the following.

➡ (5) Routing Parameter Setting

(b) Setting on GT SoftGOT2000

• Communication setup

Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

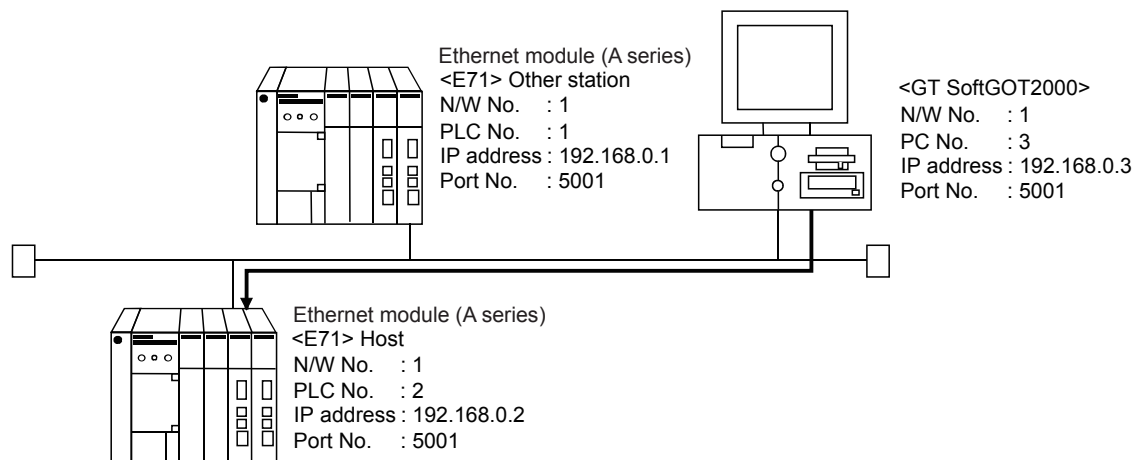
➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

9. When using Ethernet module (A series)

The setting items and precautions are shown below for communicating GT SoftGOT2000 to the PLC CPU via the Ethernet module (A series).

This section explains the system configuration to monitor the host as shown below.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

The N/W No. and PLC No. to be specified for Ethernet connection to the E71 should be those set as desired on GT Designer3.

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000.

- ➡ (7) Settings with GT Designer3 and GT SoftGOT2000

The following shows the procedure for performing communications via E71.

(1) Before setting

(a) Monitoring precautions

The connection target cannot be monitored via MELSECTNET/10 or MELSECNET/H.

(b) Communication precautions

- Only communications within the same segment can be monitored.
No communications via a router or gateway can be monitored.
- A connection of multiple pieces of network equipment (including GT SoftGOT2000) to a segment may increase the network load and slow down the communication between the GT SoftGOT2000 and the PLC.

Communication efficiency may be improved by using one or more of the following methods:

- Use a switching hub
- Use a high-speed 100BASE-TX (100Mbps)
- Reduce the number of monitoring points of the GT SoftGOT2000

(2) Compatible models

Compatible models				
AJ71E71N3-T,	AJ71E71N-B5,	AJ71E71N-B2,	AJ71E71N-T,	AJ71E71N-B5T,
AJ71E71-S3,	A1SJ71E71N3-T,	A1SJ71E71N-B5,	A1SJ71E71N-B2,	A1SJ71E71N-T,
A1SJ71E71N-B5T,	A1SJ71E71-B5-S3,	A1SJ71E71-B2-S		

(3) E71 switch settings

Switch		AJ71E71N3-T, AJ71E71N-B2, AJ71E71N-B5T, A1SJ71E71N3-T, A1SJ71E71N-B2, A1SJ71E71N-B5T	AJ71E71N-B5, AJ71E71N-T, AJ71E71-S3, A1SJ71E71N-B5, A1SJ71E71N-T,	A1SJ71E71-B2-S3, A1SJ71E71-B5-S3
Operation mode setting switch		0 (Online mode)		0 (Online mode)
Exchange condition setting switch	Data code setting	SW2 OFF (Binary code)		SW2 OFF (Binary code)
	CPU exchange timing setting	SW7 ON (Online change enabled)		SW3 ON (Online change enabled)

(4) Sequence programs

Initial processing and communication line open processing sequence programs are needed. Necessary communication parameters and sequence program examples are given below.

(a) Communication parameters

The following are the communication parameter setting examples for the host side.

Setting item	Set value
Application setting ^{*1}	100 _H
IP address of E71	192.168.0.2
E71 port number	5001
IP address of other node	FFFFFFF _H
Other node port number ^{*2}	FFFF _H

^{*1} Value specified for application setting

The user can change the settings of 1), 2) and 3).

4), 5) and 6) are fixed settings.

The following shows details of the application setting.

b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
6)		5)					4)	3)	2)						1)

1): Fixed buffer application

0: For send/no communication

1: For receive

2): Existence check

0: No

1: Yes

3): Paring open

0: No

1: Yes

4): Communication system (Set to 1: UDP/IP)

5): Fixed buffer communication (Set to 0: With procedure)

0: With procedure

1: Without procedure

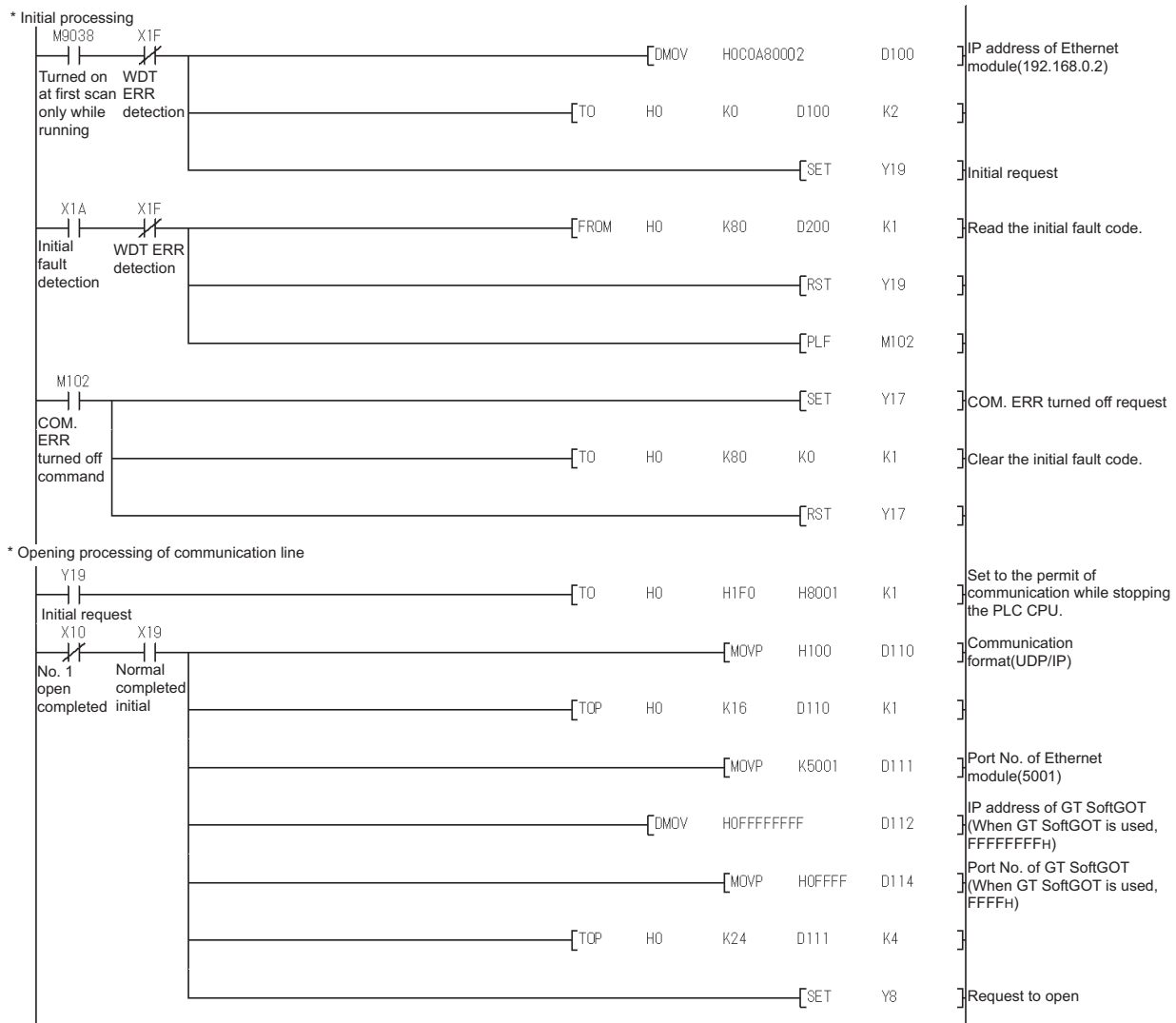
6): Open system (Set to 00: Active, UDP/IP)

^{*2} The other node port number is a fixed setting.

The user can change the other settings.

(b) Sequence program

In a communications-ready status, the E71's RUN LED comes on and RDY LED flickers.



(5) Setting on the personal computer

Set the IP address.

(6) Communications check

(a) Ping test

When ready to communicate, execute the Ping command at the command prompt on the Windows.

- When connections are OK
C:\>ping 192. 168. 0. 2
Reply from 192. 168. 0. 2:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 0. 2
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

POINT

Ping test

The ping test can also be performed with GX Developer (SW6D5C-GPPW 6.01B or later).
For details of the ping test, refer to the following.

⇒ GX Developer Version □ Operating Manual

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

⇒ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

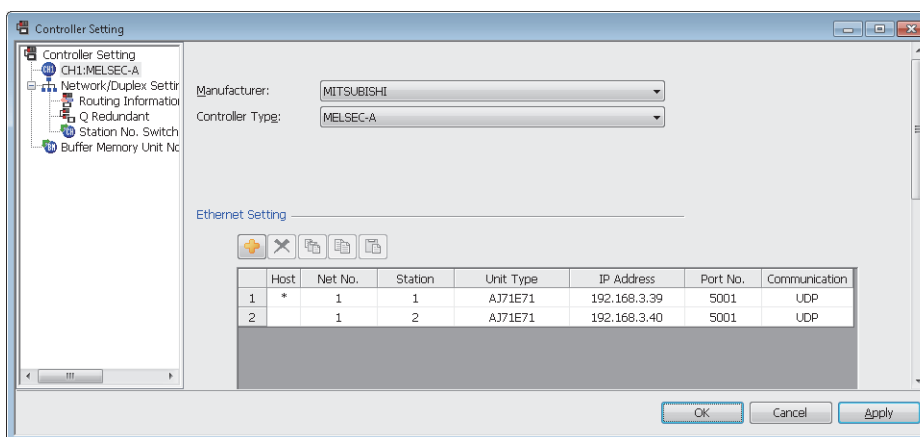
(7) Settings with GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

• Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[AJ71QE71]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[1024] to [65534]
[Communication]	Select a communication method.	[UDP]

(b) Setting on GT SoftGOT2000

• Communication setup

Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

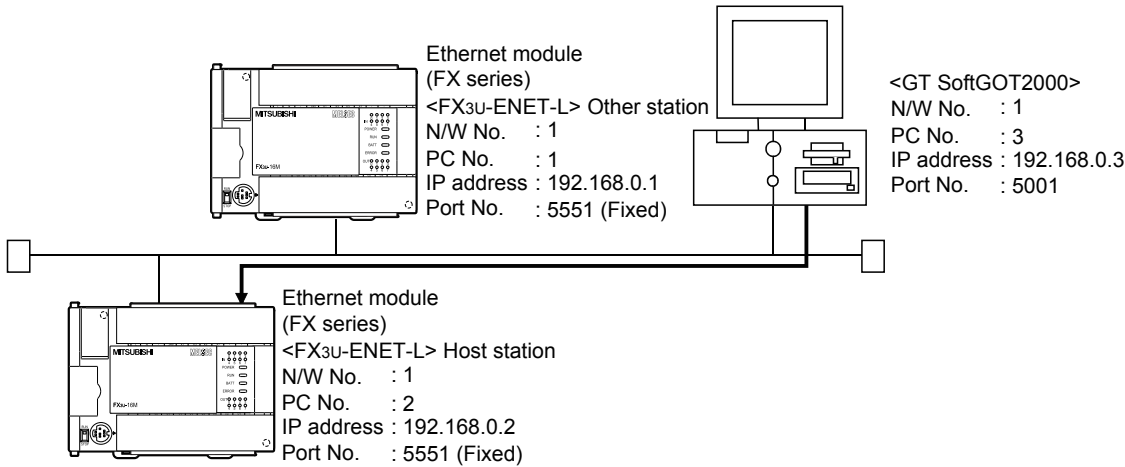
⇒ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

■ 10. When using Ethernet module (FX series)

The setting items and precautions are shown below for communicating GT SoftGOT2000 to the PLC CPU via the Ethernet module (FX series).

This section explains the system configuration to monitor the host as shown below.

When monitoring other stations, follow the same procedure as the host.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000.

➡ (8) Settings with GT Designer3 and GT SoftGOT2000

(1) Before setting

- (a) Precautions for monitoring
The CPUs on other networks cannot be monitored.
- (b) Precautions for communication
When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.
The following actions may improve the communication performance.
 - Use a switching hub
 - Use the high speed (100BASE-TX 100Mbps).
 - Reduce the monitoring points of GT SoftGOT2000

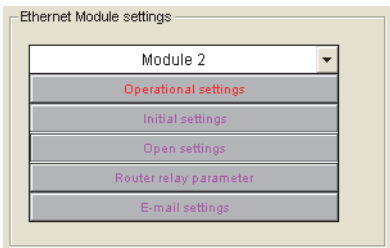
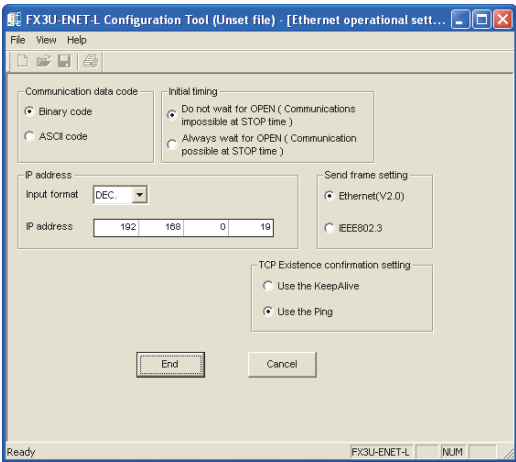
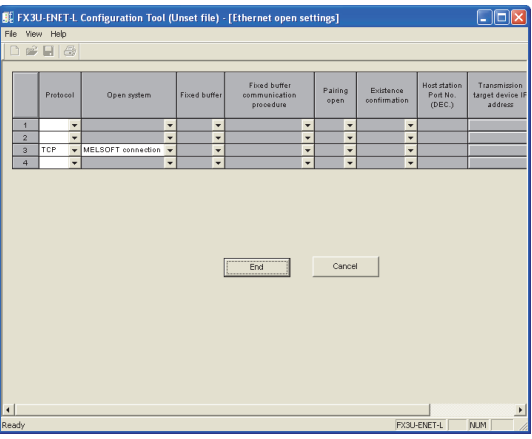
(2) Compatible models

Compatible models
FX3U-ENET-L

(3) Setting with the FX Configurator-EN-L (Network parameter setting)

Set the Ethernet parameter with the FX Configurator-EN-L.
 GX Developer Ver.8.88S or later is required to use the FX Configurator-EN-L.
 For the details of the FX Configurator-EN-L, refer to the following manual.

➡ FX Configurator-EN-L Operation Manual

Item	Setting Screen Examples
[Ethernet Module settings]	 <p>Set the Ethernet station No. in the Ethernet module setting. Set the station No. of the Ethernet module not to overlap with the station No. of GT SoftGOT2000.</p>
[Operation settings]	 <p>Since the port No. 5551 is used, the operation , regardless of the settings, is as follows.</p> <ul style="list-style-type: none"> • Communication data code setting: [Binary code] • Initial timing: [Always wait for OPEN] (Communication is applicable while stopping the PLC CPU.)
[Open settings]	

(4) Setting on the personal computer

Set the IP address.

(5) Communications check

(a) Ping test

When ready to communicate, execute the Ping command at the command prompt on Windows.

- When connections are OK
C:\>ping 192. 168. 0. 2
Reply from 192. 168. 0. 2:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 0. 2
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

POINT

Ping test

The ping test can also be performed with FX Configurator-EN-L.

For details of the ping test, refer to the following.

- ➡ FX Configurator-EN-L Operation Manual

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

- ➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

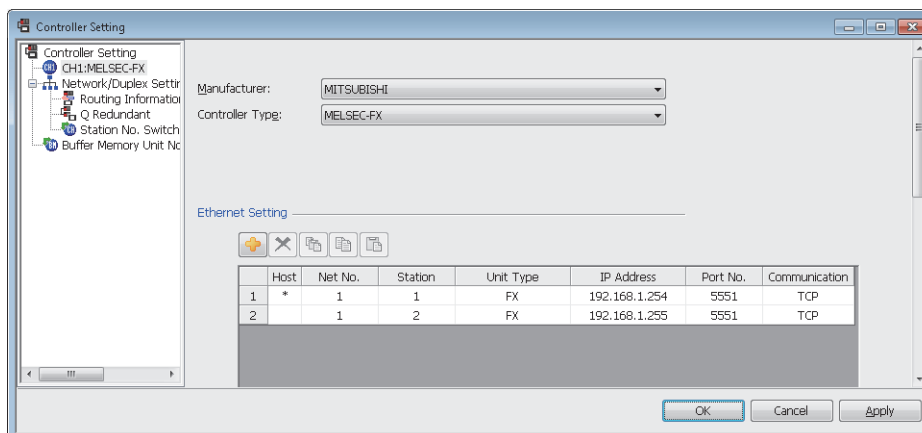
(6) Settings with GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

• Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[FX]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5551, 5556]
[Communication]	Select a communication method.	[TCP]

*1 Set the port number of the FX3U-ENET to 5551.

*2 Set the port number of the FX3U-ENET-ADP to 5556.

(b) Setting on GT SoftGOT2000

• Communication setup

Set the communication setup dialog of GT SoftGOT2000.

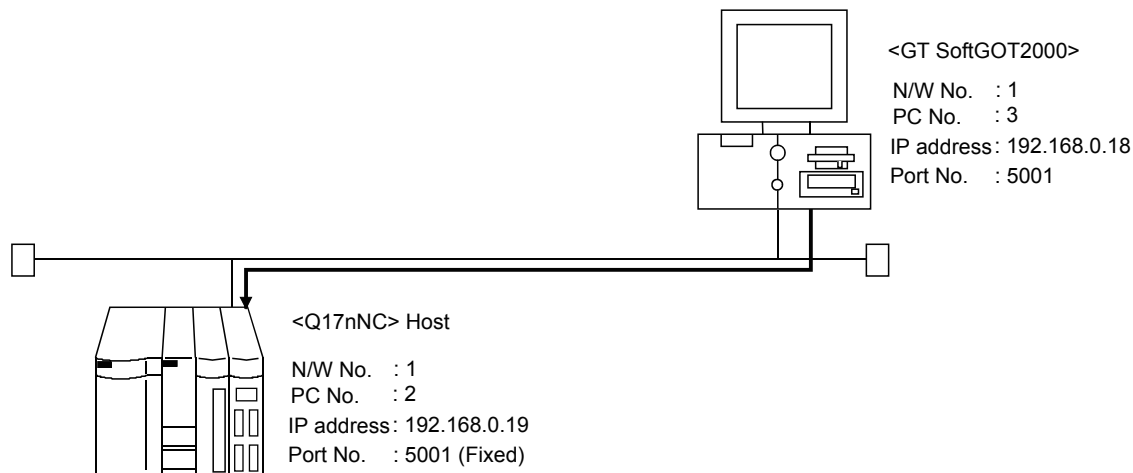
For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

■ 11. When using CNC C70 (Q17nNCCPU)

For communications with GT SoftGOT2000 via the Display I/F of the CNC C70, setting items and precautions are described below.

This section explains the system configuration to monitor the host as shown below.



POINT

Before creating Display I/F connection

(1) Display I/F connection

For the Display I/F connection, read the following manual carefully, and fully understand the details.

➡ C70 Setup Manual

(2) Setting items

Refer to the following for how to set the Net No., IP address, and port No. of the CNC C70 and GT SoftGOT2000.

➡ When using CNC C70 (Q17nNCCPU)

(1) Before setting

(a) Precautions for monitoring

GT SoftGOT2000 cannot monitor CPUs on the other networks.

(b) Precautions for communication

When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.

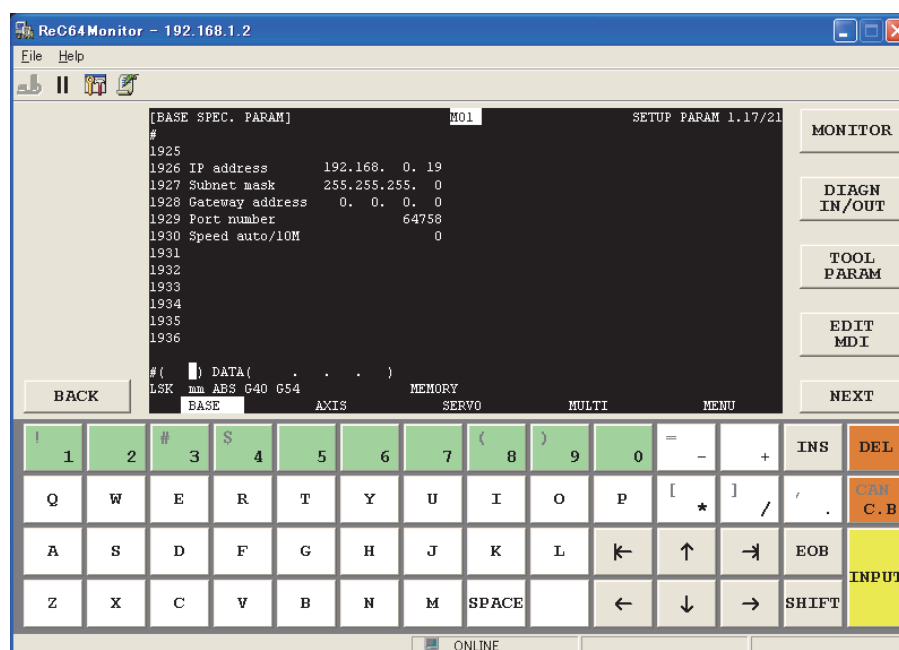
The following actions may improve the communication performance.

- Use a switching hub.
- Use the high-speed 100BASE-TX (100Mbps).
- Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models
Q173NCCPU

(3) Setting with remote monitor tool (IP address setting)



Item	Setting	Setting (with GOT connected)
[IP address]	[192.168.0.19]	○
[Subnet mask]	[255.255.255.0]	○
[Gateway address]	[0.0.0.0]	○
[Port number]	[64758 (Fixed)]	○
[Speed auto/10M]	[0 (Fixed)]	○

○: Required △: Set if necessary ×: Not required

(4) Setting on personal computer

Set the IP address.

(5) Communication check

(a) Ping test

The INIT.LED of the CNC C70 turns on when the CNC C70 is ready for communications.

When the CNC C70 is ready for communications, execute the Ping command with the command prompt of Windows.

- When the Ping test is verified
C:\>Ping 192. 168. 0. 19

Reply from 192.168.0.19:bytes=32 time<10ms TTL=32

- When the Ping test is not verified

C:\>Ping 192. 168. 0. 19

Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

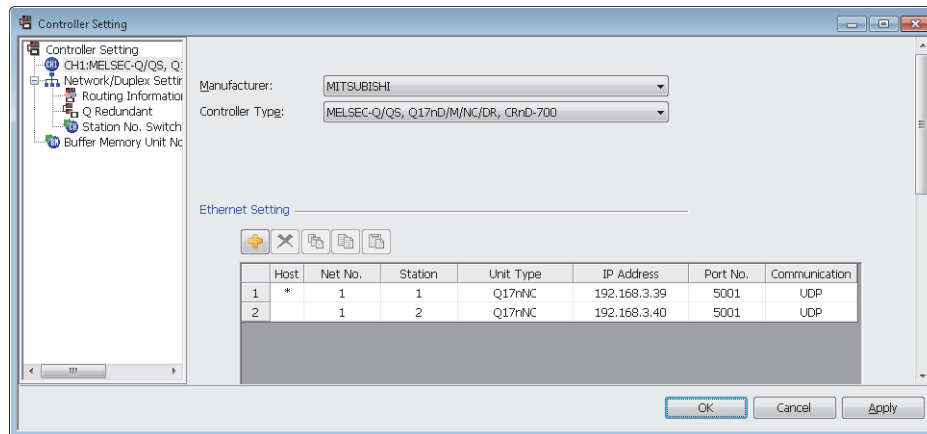
(6) Settings on GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

• Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[Q17nNC]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5001]
[Communication]	Select a communication method.	[UDP]

(b) Setting on GT SoftGOT2000

• Communication setup

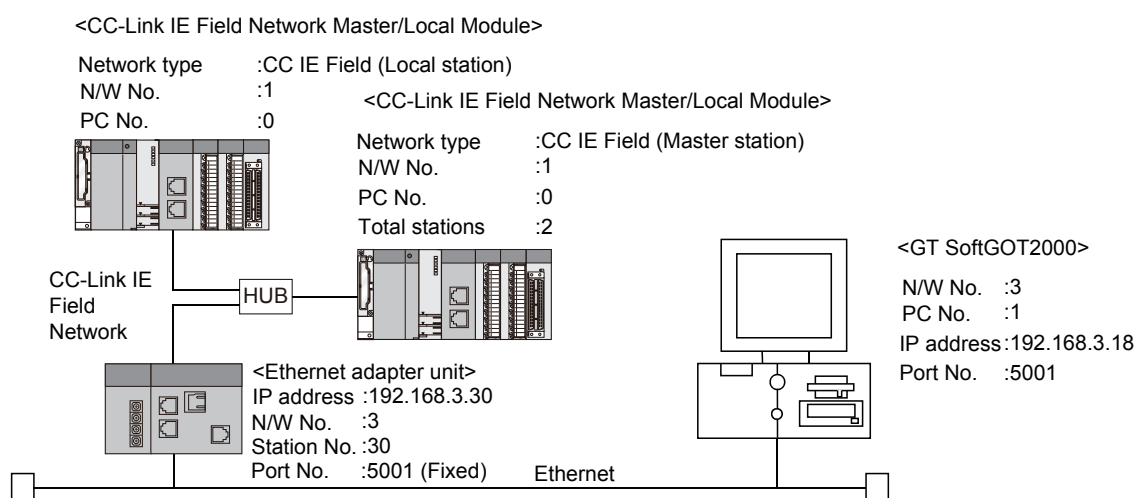
Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

12. When using CC-Link IE Field Network Ethernet adapter module

The setting items and precautions are shown below for communicating GT SoftGOT2000 to the PLC CPU via the CC-Link IE Field Network Ethernet adapter module.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the CC-Link IE Field Network Ethernet adapter module and GT SoftGOT2000.

- ➡ (8) Settings on GT Designer3 and GT SoftGOT2000

The following shows the procedure for communicating GT SoftGOT2000 to the PLC CPU via the CC-Link IE Field Network Ethernet adapter module.

(1) Before setting

- (a) Precautions for monitoring
The GOT cannot monitor the host station.
- (b) Monitoring the CPUs on other networks
Monitoring the CPUs on other networks requires the routing parameter to be set.
For the routing parameter setting, refer to the following.
➡ (4) Routing Parameter Setting
(8) Settings on GT Designer3 and GT SoftGOT2000
- (c) Precautions for communication
When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.
The following actions may improve the communication performance.
 - Use a switching hub.
 - Use the high speed (100BASE-TX 100Mbps).
 - Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models
NZ2GF-ETB

(3) Setting on GX Works2/GX Developer (Network parameter setting)

Parameter setting can be made from the Ethernet/CC IE/MELSECNET network parameter setting screen.
Set the network type, network No., total stations and station number.

Item	Setting Screen Examples		
[Ethernet parameter]		Module 1	Module 2
	Network Type	CC IE Field (Master Station)	None
	Start I/O No.	0000	
	Network No.	1	
	Total Stations	2	
	Group No.		
	Station No.	0	
	Mode	Online (Normal Mode)	
		Network Configuration Setting	
		Network Operation Setting	
		Refresh Parameters	
		Interrupt Setting	
		Specify Station No. by Parameter	

(4) Routing Parameter Setting

Up to 64 [Transfer Network No.]s can be set.

The same [Transfer Network No.] cannot be set twice or more.

The host (GOT) can access up to 64 [Transfer Network No.]s as a request source.

	Transfer to network No.	Intermediate network No.	Intermediate station No.
1	1	3	1
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

Clear Check End Cancel

Setting item	Range
[Transfer Network No.]	[1] to [239]
[Relay Network No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT

Routing parameter setting for the request source

The GOT at the request source also requires the routing parameter setting.

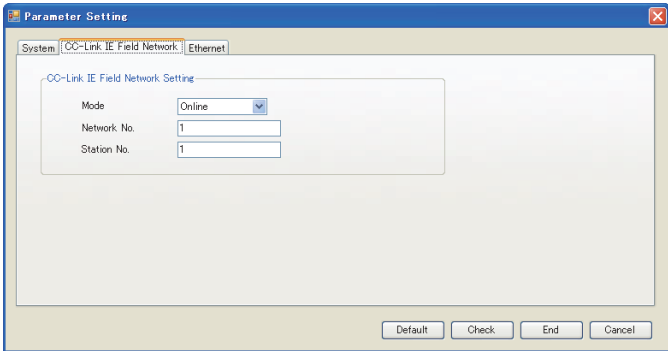
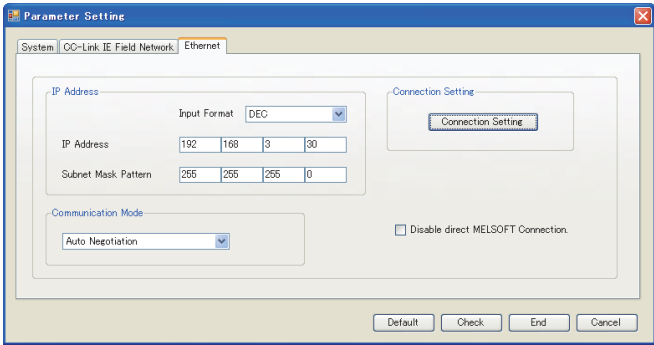
For the setting, refer to the following.

- ➡ (8) Settings on GT Designer3 and GT SoftGOT2000

(5) Parameter setting

Set the parameter with the Ethernet adapter unit setting tool.
For details of the Ethernet adapter unit setting tool, refer to the following manual.

➡ CC-Link IE Field Network Ethernet Adapter Module User's Manual

Item	Setting Screen Examples
[CC-Link IE Field Network Setting]	<div></div> <p>For the network No., set the same value as the setting on the PLC side. For the station No., set a value other than the setting on the PLC side.</p>
[Ethernet Setting]	<div></div> <p>Set the IP address within the following range.</p> <p>192.168.<u>3</u>.<u>30</u></p> <p>↑ Set the fourth octet within the range from 1 to 64. ↑ Set the third octet within the range from 1 to 239.</p>

(6) Setting on personal computer

Set the IP address.

(7) Communications check

(a) Ping test

When C Controller module is ready for communications, execute the Ping command with the command prompt of Windows.

- When the Ping test is verified
C:\>Ping 192. 168. 0. 2
Reply from 192.168.0.2:bytes=32 time<10ms TTL=32
- When the Ping test is not verified
C:\>Ping 192. 168. 0. 2
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

POINT

Ping test

The ping test can also be performed with GX Developer (SW6D5C-GPPW 6.01B or later).
For details of the ping test, refer to the following.

➡ GX Developer Version □ Operating Manual

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

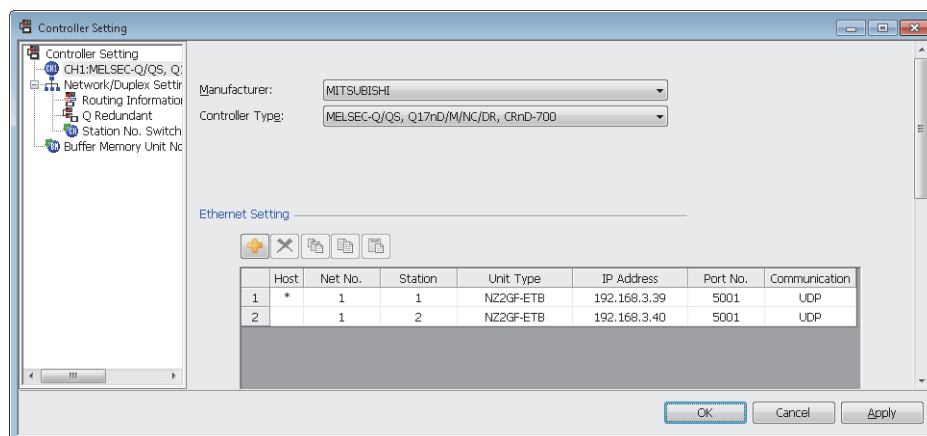
(8) Settings on GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

• Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]* ¹	Set the network number of the CC-Link IE Field Network Ethernet adapter module.	[1] to [239]
[Station]* ²	Set the station number of the CC-Link IE Field Network Ethernet adapter module.	[1] to [64]
[Unit Type]	Select the type of the CC-Link IE Field Network Ethernet adapter module.	[NZ2GF-ETB]
[IP address]* ³	Set the IP address of the CC-Link IE Field Network Ethernet adapter module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the CC-Link IE Field Network Ethernet adapter module.	[5001]
[Communication]	Select a communication method.	[UDP]

*1 Set according to the third octet (network No.) of the Ethernet adapter unit IP address.

*2 Set according to the fourth octet (PC No.) of the Ethernet adapter unit IP address.

*3 Set according to the Ethernet adapter unit IP address.

- **Routing Parameter Setting**
Set the routing parameter in the Routing Information Setting dialog of GT Designer3.
Up to 64 [Transfer Net No.]s can be set.
The same [Transfer Net No.] cannot be set twice or more.
The host (GOT) can access up to 64 [Transfer Net No.]s as a request source.

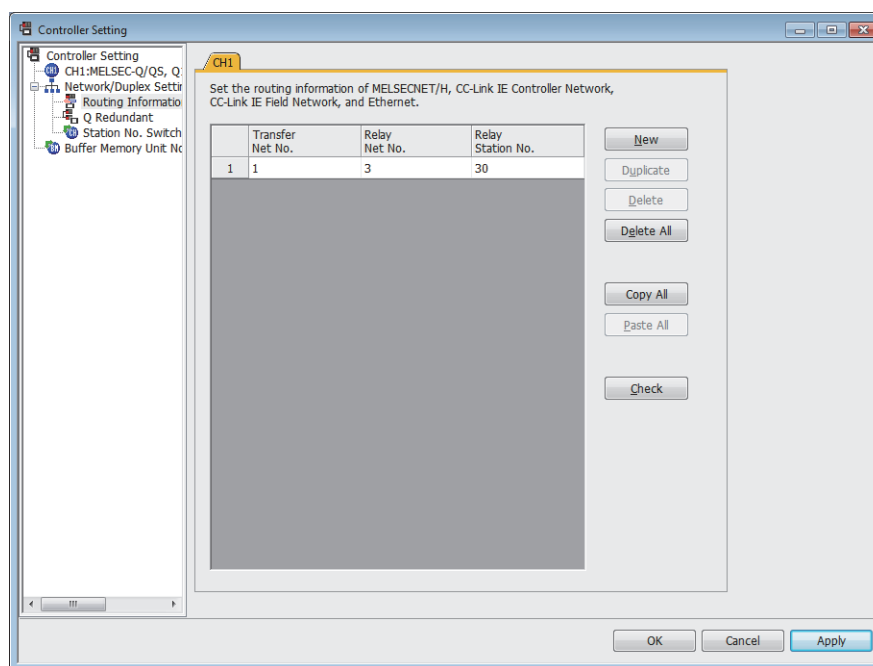
POINT

Routing parameter setting

Communication within the host network does not require routing parameter setting.

For the details of the routing parameter setting, refer to the following.

➡ Q Corresponding Ethernet Interface Module User's Manual (Application)



Setting item	Range
[Transfer Net No.]	[1] to [239]
[Relay Net No.]	[1] to [239]
[Relay Station No.]	[1] to [64]

POINT

Routing parameter setting for the relay station

The PLC at the relay station also requires the routing parameter setting.

For the setting, refer to the following.

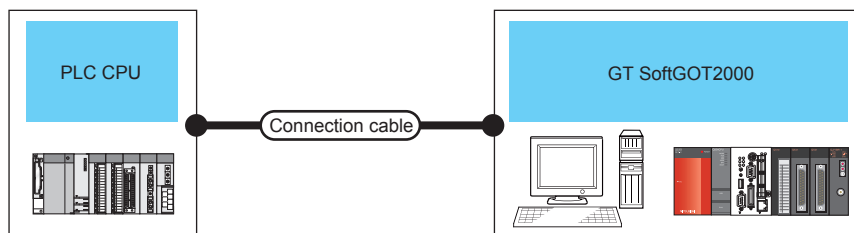
➡ (4) Routing Parameter Setting

(b) Setting on GT SoftGOT2000

- **Communication setup**
Set the communication setup dialog of GT SoftGOT2000.
For details on the communication setting, refer to the following manual.
➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

3.4 Direct CPU Connection

3.4.1 System configurations



PLC		Communication type	Connection cable	Max. distance	GT SoftGOT2000	Number of connectable equipment*2	
Model name							
RCPU		USB	USB 1) USB 4) USB 6)	3m	A personal computer that can run Windows PC CPU	1	
QCPU (Q mode)		RS-232 USB	RS-232 1) USB 1) USB 2) USB 3) USB 4) USB 5)	RS-232:3m USB:3m		1 (2 units are connectable when using both RS-232 and USB connections.)	
QCPU (A mode)		RS-232	RS-232 1)	3m		1	
C Controller module		Same as QCPU (Q mode)*3					
QSCPU		USB	USB 5)	3m	A personal computer that can run Windows PC CPU	1	
LCPU		RS-232 USB	RS-232 1) USB 1) USB 2)	RS-232:3m USB:3m		1 (2 units are connectable when using both RS-232 and USB connections.)	
QnACPU		RS-422	RS-422 1)	15m		1	
ACPU		RS-422	RS-422 1)	15m		1	
MELSEC iQ-F		RS-232	RS-232 2)	4.5m		1	
FXCPU		RS-232 RS-422 USB*4	RS-232 2) RS-422 1) RS-422 2) USB 1)	RS-232:4.5m RS-422:4.5m USB:3m		1	
Motion controller CPU	MELSEC iQ-R series	USB	USB 1) USB 4) USB 6)	5m		A personal computer that can run Windows PC CPU	1 (2 units are connectable when using both RS-232 and USB connections.)
	Q series *1	RS-232 USB	RS-232 1) USB 1) USB 2) USB 3) USB 4) USB 5)	RS-232:3m USB:3m			
	A series	RS-422	RS-422 1)	15m			
MELSECNET/H remote I/O station		RS-232	RS-232 1)	3m			1
CC-Link IE Field Network head unit		RS-232	USB 1) USB 2)	3m		1	
CNC C70		Same as QCPU (Q mode)*3					
CRnQ-700							

^{*1} For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPUs/Q170MSCPU is available.

^{*2} When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

^{*3} Access via the (RS-232) in the multiple CPU system.

^{*4} For the FX3G series and the FX3GC series, the connection with a USB cable is available.

3.4.2 Connection cable

■1. RS-232 1)

(1) MITSUBISHI SYSTEM & SERVICE product

RS-232 cable*1*2	
Controller: MINI-DIN 6-pin	Personal computer: D-sub 9-pin



GT01-C30R2-6P (3m)

- *1 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPUCPU/Q170MSCPU is available.
 *2 The adapter L6ADP-R2 is required for the connection with LCPUCPU.

■2. RS-232 2)

(1) MITSUBISHI SYSTEM & SERVICE product

RS-232 cable



GT01-C30R2-9S(3m)



GT01-C30R2-25P(3m)

Use the cables to connect to the function extension board or function adaptor of MELSEC iQ-F and FXCPU. The following table shows the available communication types.

(a) The following communication types are available in the GT01-C30R2-9S.


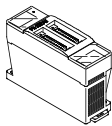






Model name	Function expansion board	Function adaptor	PC side connector
FX5U	FX5-232-BD	-	9-pin D-sub
FX5U, FX5UC	-	FX5-232ADP	9-pin D-sub
FX3U series, FX3UC series (FX3UC-□□-LT)	FX3U-232-BD	-	9-pin D-sub
	FX3U-232-BD, FX3U-485-BD, FX3U-422-BD, FX3U-USB-BD, FX3U-CNV-BD	FX3U-232ADP, FX3U-232ADP-MB	
FX3UC series (FX3UC-□□/D, FX3UC-□□/DSS)	-	FX3U-232ADP, FX3U-232ADP-MB	9-pin D-sub
FX3S series	FX3G-232BD	-	9-pin D-sub
	-	FX3S-CNV-ADP + FX3U-232ADP, FX3U-232ADP-MB	9-pin D-sub
FX3G series	FX3G-232BD	-	9-pin D-sub
	-	FX3S-CNV-ADP + FX3U-232ADP, FX3U-232ADP-MB	
FX3GC series	-	FX3U-232ADP, FX3U-232ADP-MB	9-pin D-sub
FX3GE series	FX3G-232BD	FX3U-232ADP	9-pin D-sub
FX2N series	FX2N-232-BD	-	9-pin D-sub
	FX2N-CNV-BD	FX2NC-232ADP	
FX1NC, FX2NC series	-	FX2NC-232ADP	9-pin D-sub
FX1S, FX1N series	FX1N-232-BD	-	9-pin D-sub
	FX1N-CNV-BD	FX2NC-232ADP	

(b) The following communication types are available in the GT01-C30R2-25P.

Model name	Function expansion board	Function adapter	PC side connector
FX3U series, FX3UC series (FX3UC-□□-LT)	FX3U-232-BD	-	25-pin D-sub
	FX3U-232-BD, FX3U-485-BD, FX3U-422-BD, FX3U-USB-BD, FX3U-CNV-BD	FX3U-232ADP, FX3U-232ADP-MB	
FX3UC series (FX3UC-□□/D, FX3UC-□□/DSS)	-	FX3U-232ADP, FX3U-232ADP-MB	25-pin D-sub
FX3S series	FX3G-232BD	-	25-pin D-sub
	-	FX3S-CNV-ADP + FX3U-232ADP, FX3U-232ADP-MB	
FX3G series	FX3G-232BD	-	25-pin D-sub
	-	FX3S-CNV-ADP + FX3U-232ADP, FX3U-232ADP-MB	
FX3GC series	-	FX3U-232ADP, FX3U-232ADP-MB	25-pin D-sub
FX3GE series	FX3G-232BD	FX3U-232ADP	25-pin D-sub
FX2N series	FX2N-CNV-BD	FX0N-232ADP	9-pin D-sub
	FX2N-232-BD	-	25-pin D-sub
	FX2N-CNV-BD	FX2NC-232ADP	
FX1NC, FX2NC series	-	FX0N-232ADP	9-pin D-sub
	-	FX2NC-232ADP	25-pin D-sub
FX1S, FX1N series	FX1N-CNV-BD	FX0N-232ADP	9-pin D-sub
	FX1N-232-BD	-	25-pin D-sub
	FX1N-CNV-BD	FX2NC-232ADP	

3. RS-422 1)

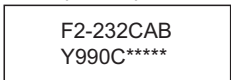
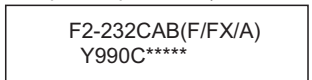
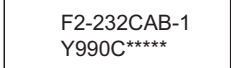
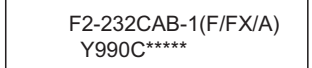
(1) MITSUBISHI product

PLC CPU Side(RS-422 cable)	RS-232C/RS-422 Converter ^{*3}	PC side (RS-232 cable)
 FX-422CAB (0.3m), FX-422CAB-150 (1.5m) (For connecting to QnACPU, ACPU, motion controller CPU (A series), FX1CPU, FX2CPU, or FX2cCPU)	 FX-232AW	 F2-232CAB(3m) ^{*1*2} (For the 25-pin D-sub connector of the PC side)
 FX-422CAB0 (1.5m) (For connecting to FX0/FX0S/FX0N/FX1S/FX1N/FX2N/FX1NC/FX2NC/FX3G/FX3GC/FX3GE/FX3U/FX3UC/FX3SCPU and AC30N2A)	 FX-232AWC	 F2-232CAB-1(3m) ^{*2} (For the 9-pin D-sub connector of the PC side)
	 FX-232AWC-H (FX series only)	 AC30N2A(3m) ^{*1} (For the 25-pin D-sub connector of the PC side)

*1 A straight cable for conversion between 9-pin D-sub and 25-pin D-sub is required separately.

*2 How to distinguish products compatible with QnACPU, ACPU.

Check the model name label of the cable. (Incompatible cables cannot be used.)

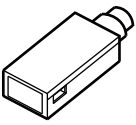
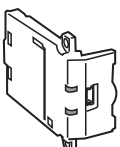
Incompatible products	Compatible products (with indication of F/FX/A)
	
	

*3 When connecting the FX-232AWC-H to the FX3UC/FX3UCPU, transmission speed of 9600/19200/38400/57600/115200 bps is available.

When connecting the FX-232AWC or FX-232AW, either of transmission speed of 9600/19200bps is available.

4. RS-422 2)

(1) MITSUBISHI product


RS-232C/RS-422 Converter	PC side (RS-232 cable)
 FX-USB-AW ^{*1}	(Use the cable included in the FX-USB-AW.)
 FX3U-USB-BD ^{*1} (FX3UC/FX3U only)	(Use the cable included in the FX3U-USB-BD.)

*1 Drivers respectively stored in the CD-ROMs included in the FX-USB-AW and FX3U-USB-BD must be installed on the personal computer for using the converters. (The converters can be used by assigning the USB-serial conversion driver to the COM number.)


■ 5. USB cable 1)

This cable is used to connect to an RCP, LCP, Universal model QCPU, FXCPU, or CC-Link IE Field Network head module.

(1) MITSUBISHI product

USB cable	
Controller: USB Mini-B	Personal computer: USB TYPE-A
	
MR-J3USBCBL3M (3m)	

(2) Product manufactured by Mitsubishi Electric System & Service Co., Ltd.

USB cable	
Controller: USB Mini-B	Personal computer: USB TYPE-A
	
GT09-C30USB-5P (3m)	


Refer to the following for FXCPU-applicable USB cables other than the above.

➡ FX3G USER'S MANUAL [Hardware Edition]


■ 6. USB cable 2)

This cable is used to connect to a Universal model QCPU, LCP, or CC-Link IE Field Network head module.

(1) Product manufactured by ELECOM CO., LTD. (Recommended Product)

USB cable	
Controller: USB Mini-B	Personal computer: USB TYPE-A
	
USB-M53 (3m)	


(2) Product manufactured by LOAS CO., LTD. (Recommended Product)

USB cable	
Controller: USB Mini-B	Personal computer: USB TYPE-A
	
ZUM-430 (3m)	

■ 7. USB cable 3)

This cable is used to connect to a Universal model QCPU.


(1) Product manufactured by ELECOM CO., LTD. (Recommended Product)

USB cable/USB conversion adapter	
Controller: USB Mini-B	Personal computer: USB TYPE-A
	
AD-USBBFTM5M	USB2-30 (3m)

■ 8. USB cable 4)

This cable is used to connect to an RCP or Universal model QCPU.

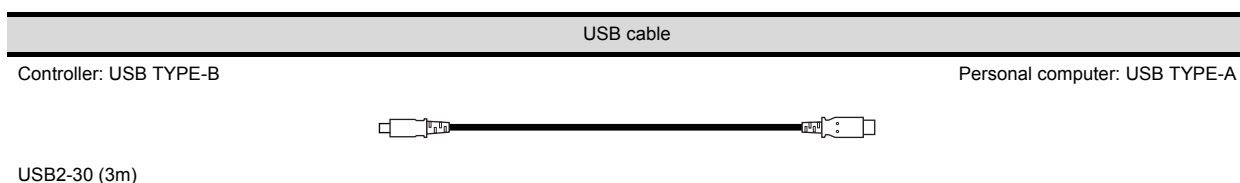
(1) Product manufactured by BUFFALO KOKUYO SUPPLY INC. (Recommended Product)

USB cable/USB conversion adapter	
Controller: USB Mini-B	Personal computer: USB TYPE-A
	
AUXUBM5	AU2-30(3m)

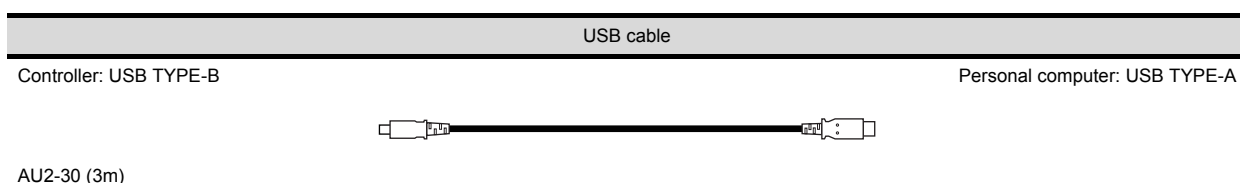
■9. USB cable 5)

This cable is used to connect to a Basic model QCPU, High Performance model QCPU, Process CPU, Redundant CPU, or QSCPU.

(1) Product manufactured by ELECOM CO., LTD. (Recommended Product)



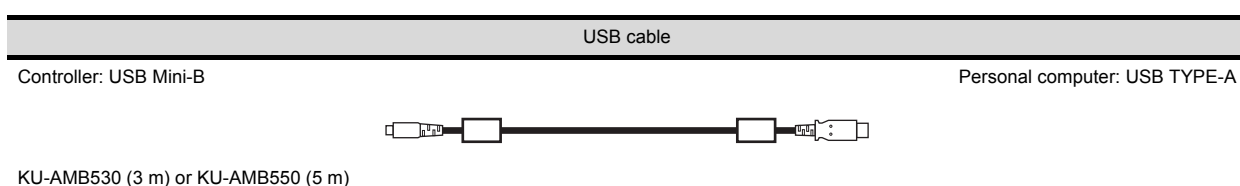
(2) Product manufactured by BUFFALO KOKUYO SUPPLY INC. (Recommended Product)



■10. USB cable 6)

This cable is used to connect to an RCP.

(1) Product manufactured by SANWA SUPPLY INC. (Recommended Product)



3.4.3 GT SoftGOT2000 setting

When communicating GT SoftGOT2000 to a PLC in CPU direct connection, communication setup is required. Refer to the following for performing GT SoftGOT2000 communication setup.

- ➡ 2.4.1 [Communication Setup] dialog ■1. PLC (1) Direct CPU connection (RS-232)
- ➡ 2.4.1 [Communication Setup] dialog ■1. PLC (2) Direct CPU connection (USB)

3.4.4 Precautions

■ 1. Converters/cables

(1) Specifications and precautions for converters/cables

Refer to the manuals for each product for the specifications and precautions for converters/cables.

(2) Inserting and removing a converter/cable that receives electricity from the 5VDC power

Turn the PLC CPU side power OFF before inserting and removing the converter/cable that receives electricity from the PLC CPU side 5VDC power.

(3) Inserting and removing a converter/cable that does not receive electricity from the 5VDC power

Refer to the following procedures (a) to (g) when inserting and removing the peripheral device or cable that does not receive electricity from the PLC side 5VDC power (receives from an external power supply).

- (a) Make sure to touch the static discharge wrist strap or grounded metal before operation and discharge electrostatic from cables, human body or others.
- (b) Turn off the PC.
- (c) Turn off the converter.
Ground the FG terminal if provided.
- (d) Insert and remove the converter/cable connected to the PC and PLC.
- (e) Turn on the converter.
- (f) Turn on the PC.
- (g) Start the software package.

■ 2. USB cable

(1) Before using USB cable

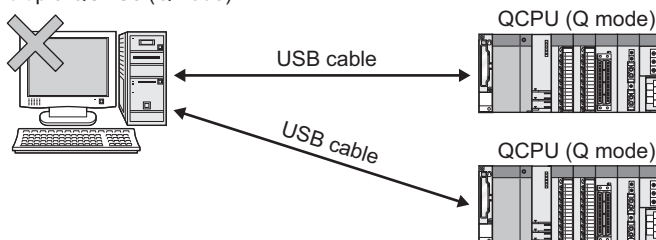
The USB cable can be used with the USB driver already installed.

(2) Number of connectable programmable controllers when using USB cable

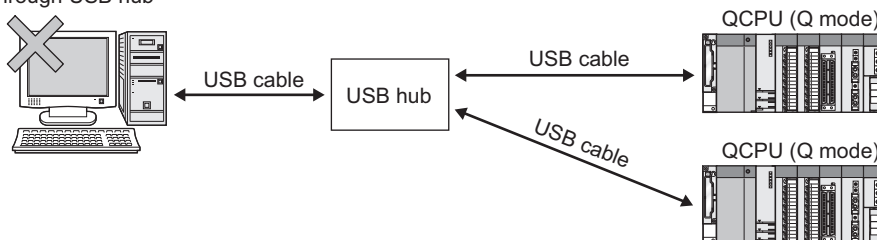
A single programmable controller can be connected when using the USB cable.

The following shows the system configurations, which do not meet the above conditions.

- Connecting from a personal computer with multiple USB ports to multiple QCPUs (Q mode)



- Connecting from a personal computer to multiple QCPUs (Q mode) through USB hub



(3) Precautions for connecting programmable controller

Connect or remove the USB cable, reset a programmable controller or turn the power on/off after stop the monitor.

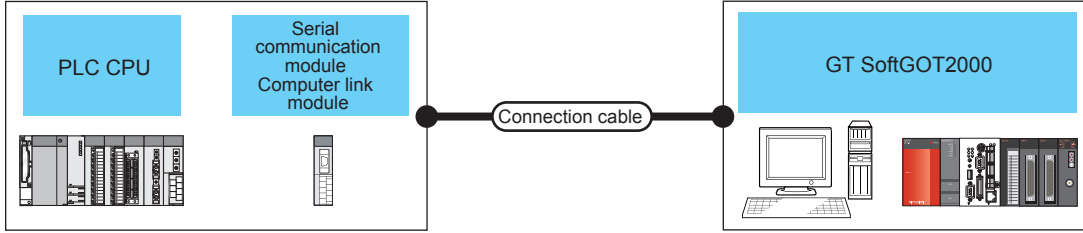
➡ 2.6.3 Monitor Stop

If operated without stop, a communication timeout occurs, which cannot be fixed.

If not fixed, remove the USB cable completely. After 5 seconds or more, reconnect the cable. (The error may occur at first communication after the above operation. From the next time, the programmable controller functions normally.)

3.5 Serial Communication Connection

3.5.1 System configurations



PLC			Connection cable	Max. distance	GT SoftGOT2000	Number of connectable equipment ^{*1}
Model name	Communication module	Communication type				
RCPU	RJ71C24, RJ71C24-R2	RS-232	RS-232 1)	15m	A personal computer that can run Windows PC CPU	1
QCPU (Q mode)	QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71CMO, QJ71CMON				A personal computer that can run Windows PC CPU	
QCPU (A mode)	A1SJ71UC24-R2, A1SJ71UC24-PRF, A1SJ71C24-R2, A1SJ71C24-PRF		RS-232 2)			
C Controller module ^{*4}	MELSEC iQ-R series	RS-232	RS-232 1)	15m	A personal computer that can run Windows PC CPU	1
	Q series					
LCPU	LJ71C24, LJ71C24-R2	RS-232	RS-232 1)	15m	A personal computer that can run Windows PC CPU	1
QnACPU	AJ71QC24, AJ71QC24-R2, AJ71QC24N, AJ71QC24N-R2, A1SJ71QC24, A1SJ71QC24-R2, A1SJ71QC24N, A1SJ71QC24N-R2		RS-232 2)			
ACPU	AJ71C24-S8, AJ71UC24, A1SJ71C24-R2, A1SJ71C24-PRF, A1SJ71UC24-R2, A1SJ71UC24-PRF		RS-232 2)			

PLC			Connection cable	Max. distance	GT SoftGOT2000	Number of connectable equipment*1
Model name	Communication module	Communication type				
Motion controller CPU	MELSEC iQ-R series	RJ71C24, RJ71C24-R2	RS-232 1)	15m	A personal computer that can run Windows PC CPU	1
	Q series*2	QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71CMO, QJ71CMON	RS-232 1)			
	A series	AJ71C24-S8, AJ71UC24, A1SJ71C24-R2, A1SJ71C24-PRF, A1SJ71UC24-R2, A1SJ71UC24-PRF	RS-232 2)			
CNC C70*3		Same as QCPU (Q mode)				
CRnQ-700*3						

*1 When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

*2 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPU/Q170MSCPU is available.

*3 The multiple CPU system with the QCPU (Q mode) is mounted on.

*4 Use the serial port of a serial communication module controlled by another CPU on the multiple CPU.

3.5.2 Serial communication module, computer link module

The following table shows connectable serial communication modules and computer link modules.
Connection via RS-422 communication cannot be used.

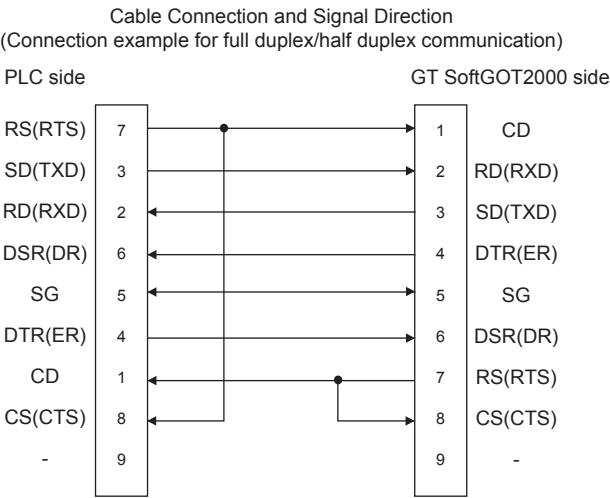
Item	Model name
RCPU	RJ71C24, RJ71C24-R2
QCPU (Q mode)	QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71CMO, QJ71CMON
QCPU (A mode)	A1SJ71UC24-R2, A1SJ71UC24-PRF, A1SJ71C24-R2, A1SJ71C24-PRF
LCPU	LJ71C24, LJ71C24-R2
QnACPU	AJ71QC24, AJ71QC24-R2, AJ71QC24N, AJ71QC24N-R2, A1SJ71QC24, A1SJ71QC24-R2, A1SJ71QC24N, A1SJ71QC24N-R2
ACPU	AJ71C24-S8, AJ71UC24, A1SJ71C24-R2, A1SJ71C24-PRF, A1SJ71UC24-R2, A1SJ71UC24-PRF
Motion controller CPU (MELSEC iQ-R series)	RJ71C24, RJ71C24-R2
Motion controller CPU (Q series)*1	QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71CMO, QJ71CMON
Motion controller CPU (A series)	AJ71C24-S8, AJ71UC24, A1SJ71C24-R2, A1SJ71C24-PRF, A1SJ71UC24-R2, A1SJ71UC24-PRF

*1 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPU/Q170MSCPU is available

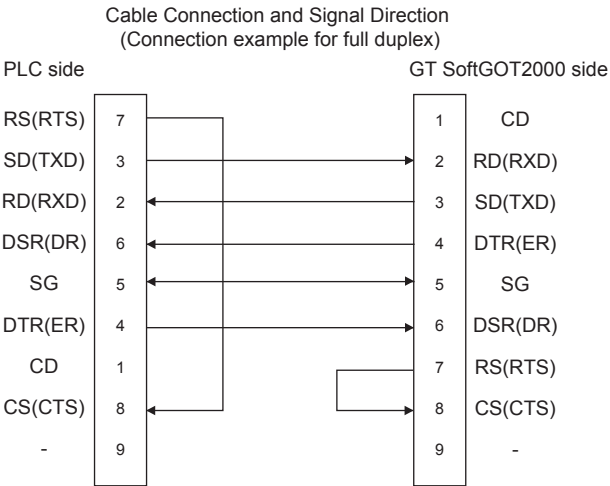
3.5.3 Connection cable

1. RS-232 1)

(1) Connection example which can turn ON/OFF CD signal (No. 1 pin)

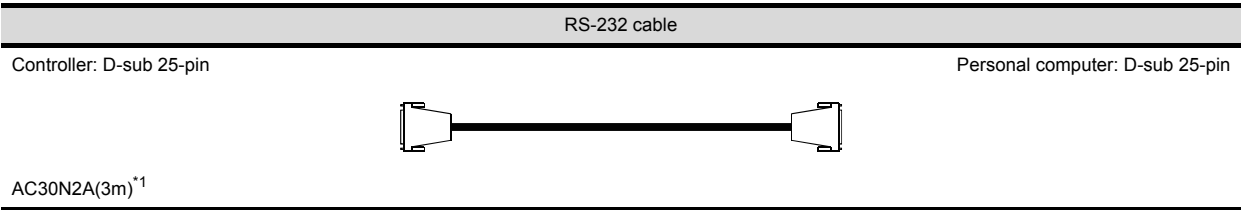


(2) Connection example which cannot turn ON/OFF CD signal (No. 1 pin)
Connection example for exercising CD code control or DTR/DSR control.



2. RS-232 2)

(1) MITSUBISHI product

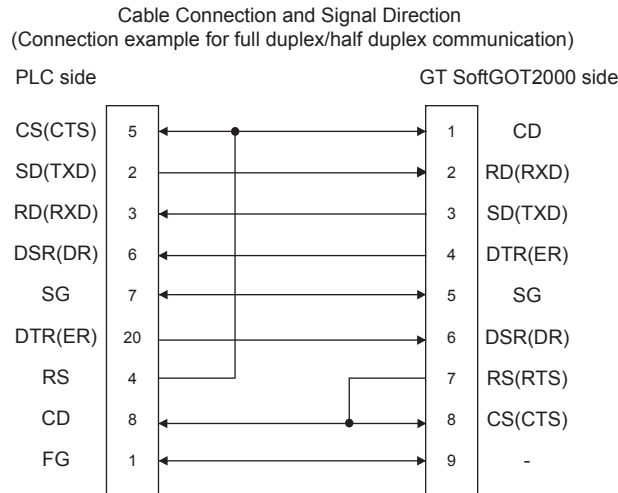


*1 When the port on the PC side is 9-pin D-sub, a 9-25 pin converter is required separately.

(2) User-created

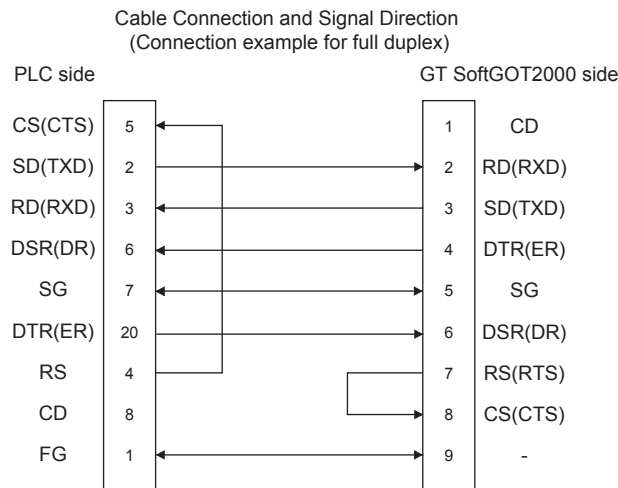
(a) QnA Series (large-scale QC24(N))

- Example of connection to an external device that allows the CD signal (No. 8 pin) to be turned ON/OFF



*1 DC code control or DTR/DSR control is enabled by connecting the QC24 (N) to an external device as shown above.

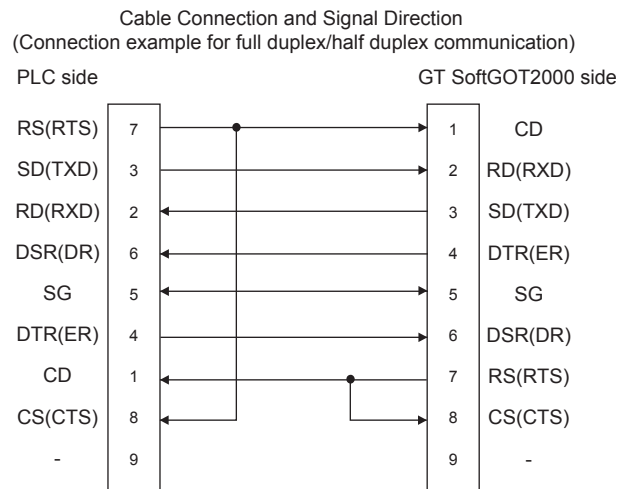
- Example of connection to an external device that does not allow the CD signal (No. 8 pin) to be turned ON/OFF



*2 DC code control or DTR/DSR control is enabled by connecting the QC24 (N) to an external device as shown above.

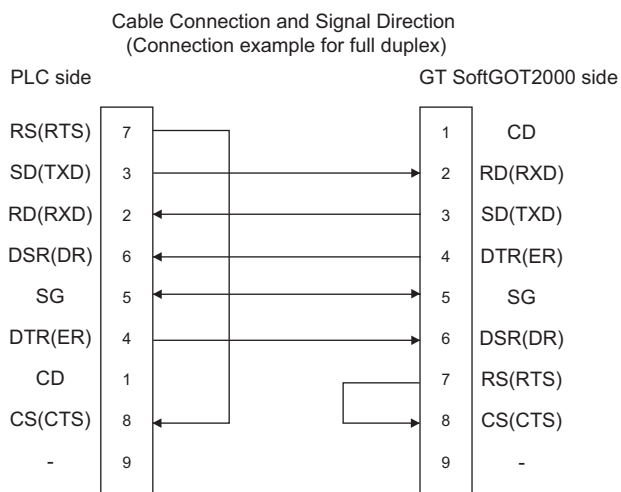
(a) QnA Series (compact-scale QC24(N))

- Example of connection to an external device that allows the CD signal (No.1 pin) to be turned ON/OFF



*1 DC code control or DTR/DSR control is enabled by connecting the QC24 (N) to an external device as shown above.

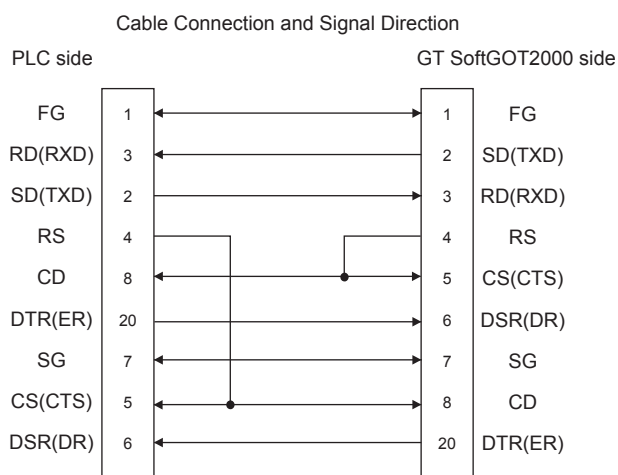
- Example of connection to an external device that does not allow the CD signal (No. 1 pin) to be turned ON/OFF



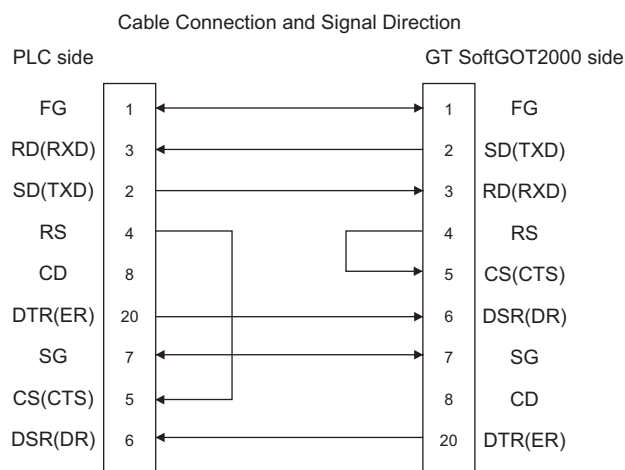
*2 DC code control or DTR/DSR control is enabled by connecting the QC24 (N) to an external device as shown above.

(a) A series

- Connection example 1 when the C24 (computer link module) has a 25-pin connector

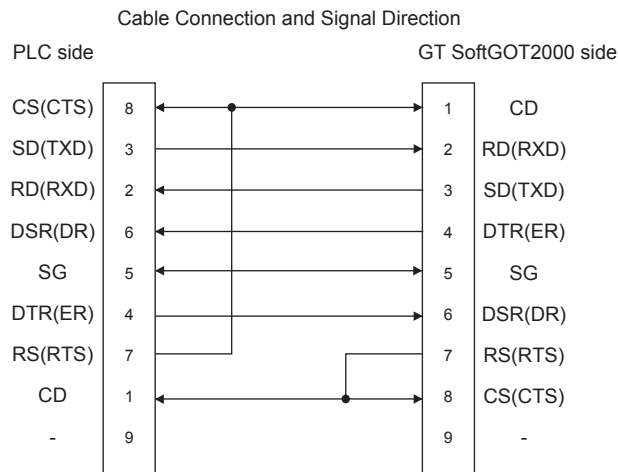


- Connection example 2 when the C24 (computer link module) has a 25-pin connector

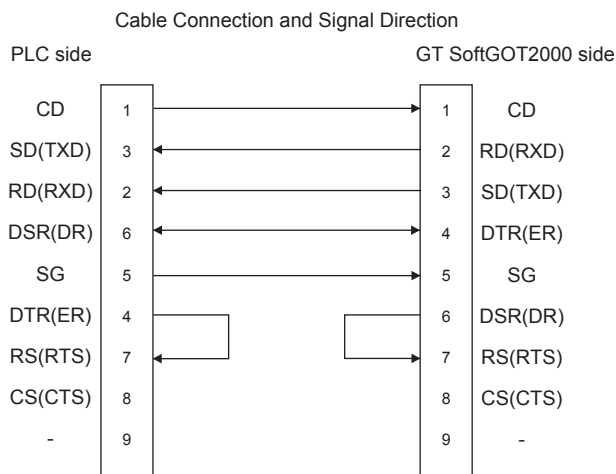


*1 When performing a communication in the connection shown above, the CD signal is not required to be connected. For the RS-232C CD terminal check setting (set by the buffer memory address "10BH"), specify "without CD terminal check (writing "1")"

- Connection example 1 when the C24 (computer link module) has a 9-pin connector



- Connection example 2 when the C24 (computer link module) has a 9-pin connector



- *2 DC code control or DTR/DSR control is enabled by connecting the DTR and DSR signals of the computer link module to an external device as shown above.
- *3 When performing a communication in the connection shown above, the CD signal is not required to be connected.
For the RS-232C CD terminal check setting (set by the buffer memory address "10BH"), specify "without CD terminal check (writing "1")".

3.5.4 GOT SoftGOT2000 side

For the communication between GT SoftGOT2000 and a PLC in serial communication connection, communication setup is required.

The following table shows the transmission specifications for a serial communication module or a computer link module.

Model name		Settings				
		Transmission speed	Data length	Stop bit	Parity bit	Sum check
Serial communication module (MELSEC iQ-R series)	RJ71C24, RJ71C24-R2	9600bps/ 19200bps/ 38400bps/ 57600bps/ 115200bps	8 bits	1 bit	Yes (odd)	Yes
Serial communication module (Q series)	QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71CMO, QJ71CMON					
Serial communication module (L series)	LJ71C24, LJ71C24-R2					
Serial communication module (QnA series)	AJ71QC24N, AJ71QC24N-R2, A1SJ71QC24N, A1SJ71QC24N-R2	9600bps/ 19200bps	8 bits	1 bit	Yes (odd)	Yes
	AJ71QC24, AJ71QC24-R2, A1SJ71QC24, A1SJ71QC24-R2					
Computer link module	AJ71C24-S8, AJ71UC24, A1SJ71C24-R2, A1SJ71C24-PRF, A1SJ71UC24-R2, A1SJ71UC24-PRF					

Refer to the following for performing GT SoftGOT2000 communication setup.

➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (3) Serial communication connection

3.5.5 Controller setting

■ 1. When connecting to serial communication module (MELSEC iQ-R series, Q series, L series)

No switch setting is required for the serial communication module (MELSEC iQ-R series, Q series, L series). (GOT monitors via it without making switch setting in the I/O assignment setting of GX Works3 or GX Works2 or GX Developer.)

The following settings are also available for monitoring, according to the CH (interface) of the module to be connected with GT SoftGOT2000.

However, if QJ71CMO or QJ71CMON is connected, only CH2 can be used.

For the GX Developer operating method, refer to the GX Works3 or GX Work2 or GX Developer Operating Manual.

Channel where GT SoftGOT2000 is connected	Settings				
	Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
CH1	0000	0000			0000
CH2			0000	0000	0000

■ 2. When connecting to serial communication module (QnA series)

Switch	Baud rate (Transmission speed)*1				
	9600bps	19200bps	38400bps	57600bps	115200bps
Station number switch	0				
Mode switch	5				
sw01	OFF				
sw02	ON				
sw03	ON				
sw04	OFF				
sw05	OFF				
sw06	ON				
sw07	ON				
sw08	OFF				
sw09	ON	OFF	ON	OFF	ON
sw10	OFF	ON	ON	ON	ON
sw11	ON	ON	ON	OFF	OFF
sw12	OFF	OFF	OFF	ON	ON

*1 38400 bps, 57600 bps and 115200 bps can be set only for the following modules.

- AJ71QC24N
- AJ71QC24N-R2
- A1SJ71QC24N
- A1SJ71QC24N-R2

■ 3. When connecting to computer link module

(1) AJ71C24-S8

Switch	RS-232 communication	
	Baud rate (Transmission speed)	
	9600bps	19200bps
Station number switch	0	
Mode switch	1	
sw11	OFF	
sw12	ON	
sw13	ON	OFF
sw14	OFF	ON
sw15	ON	ON
sw16	ON	
sw17	OFF	
sw18	OFF	
sw21	ON	
sw22	ON	
sw23	OFF	
sw24	OFF	

(2) AJ71UC24

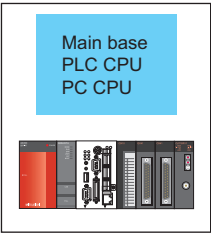
Switch	RS-232 communication	
	Baud rate (Transmission speed)	
	9600bps	19200bps
Station number switch	0	
Mode switch	1	
sw11	OFF	
sw12	ON	
sw13	ON	OFF
sw14	OFF	ON
sw15	ON	ON
sw16	ON	
sw17	OFF	
sw18	OFF	
sw21	ON	
sw22	ON	
sw23	ON	
sw24	OFF	

(3) A1SJ71UC24-R2, A1SJ71C24-R2, A1SJ71UC24-PRF and A1SJ71C24-PRF

Switch	RS-232 communication	
	Baud rate (Transmission speed)	
	9600bps	19200bps
Station number switch	No applicable switch	
Mode switch	1	
SW01	No applicable switch	
SW02	No applicable switch	
sw03	OFF	
sw04	ON	
sw05	ON	OFF
sw06	OFF	ON
sw07	ON	ON
sw08	ON	
sw09	ON	
sw10	OFF	
sw11	OFF	
sw12	ON	

3.6 Bus Connection

3.6.1 System configurations



PLC		Connection cable	Max. distance	GT SoftGOT2000	Number of connectable equipment
Model name	Communication type				
QCPU (Q mode)	Bus	*1	*1	PC CPU	1*2

- *1 Connect the PC CPU with a PLC CPU on the same base unit as the PC CPU.
- *2 When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

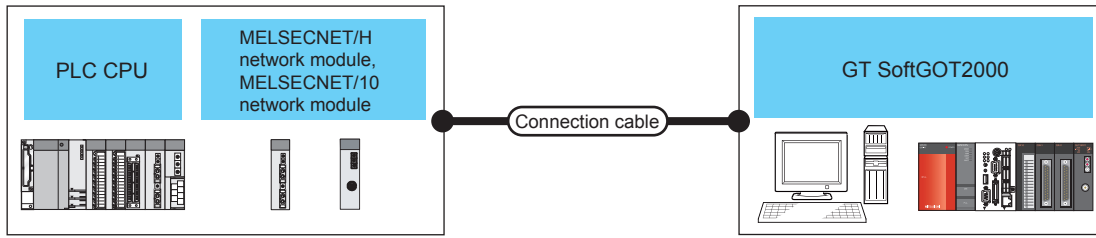
3.6.2 GT SoftGOT2000 setting

When communicating GT SoftGOT2000 to a PLC in bus connection, communication setup is required. Refer to the following for performing GT SoftGOT2000 communication setup.

- ➡ 2.4.1 [Communication Setup] dialog ■1. PLC (7) Bus connection

3.7 MELSECNET/H, MELSECNET10 Connection

3.7.1 System configurations



PLC			Max. distance	GT SoftGOT2000	Number of connectable equipment
Model name	Network module	Communication type			
QCPU	QJ71LP21, QJ71LP21-25, QJ71LP21S-25, QJ71BR11, AJ71LP21, A1SJ71LP21, AJ71BR11, A1SJ71BR11	MELSECNET/H MELSECNET/10	Optical fiber cable: 1km ^{*2} Coaxial cable: 500m ^{*2}	A personal computer that can run Windows PC CPU	Optical fiber cable: 64 ^{*3*4} Coaxial cable: 32 ^{*3*4}
C Controller module	QJ71LP21-25, QJ71LP21S-25, QJ71BR11				
QSCPU	QJ71LP21, QJ71LP21-25, QJ71LP21S-25, QJ71BR11				
QnACPU	AJ71QLP21, AJ71QLP21S, A1SJ71QLP21, A1SJ71QLP21S, AJ71QBR11, A1SJ71QBR11	MELSECNET/10			
ACPU	AJ71LP21, A1SJ71LP21, AJ71BR11, A1SJ71BR11				
Motion controller CPU	Q series ^{*1}	MELSECNET/H MELSECNET/10			
	A series	MELSECNET/10			
CNC C70 ^{*5}		Same as QCPU (Q mode)			
CRnQ-700 ^{*5}					

- ^{*1} For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPUCPU/Q170MSCPU is available.
- ^{*2} Distance between stations for using QSI optical cable and 5C-2V coaxial cable.
The overall distance and distance between stations differs according to the type and the number of total stations for the cable to be used.
For details on the cable, refer to the following manual.
➡ Q corresponding MELSECNET/H Network System Reference Manual (PLC to PLC network)
- ^{*3} When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.
- ^{*4} Applicable when using one MELSECNET/H board per personal computer.
Up to four MELSECNET/H boards can be mounted per personal computer.
- ^{*5} The multiple CPU system with the QCPU (Q mode) is mounted on.

3.7.2 Network module, interface board

The following shows connectable network modules and interface boards.

■ 1. Network module

(1) MELSECNET/H

Item	Model name	
	Optical loop	Coaxial bus
QCPU (Q mode)*1	QJ71LP21, QJ71LP21-25, QJ71LP21S-25	QJ71BR11*1
QSCPU		
Motion controller CPU (Q Series)		
C Controller module	QJ71LP21-25, QJ71LP21S-25	QJ71BR11*1

*1 Use function version B or later of the MELSECNET/H network module and CPU.

(2) MELSECNET/10

Item	Model name	
	Optical loop	Coaxial bus
QCPU(Q mode)*1	QJ71LP21, QJ71LP21-25, QJ71LP21S-25	QJ71BR11*1
C Controller module	QJ71LP21-25, QJ71LP21S-25	QJ71BR11*1
QCPU(A mode)	AJ71LP21, A1SJ71LP21	AJ71BR11, A1SJ71BR11
QSCPU	QJ71LP21, QJ71LP21-25, QJ71LP21S-25	QJ71BR11*1
QnACPU	AJ71QLP21, AJ71QLP21S, A1SJ71QLP21, A1SJ71QLP21S	AJ71QBR11, A1SJ71QBR11
ACPU	AJ71LP21, A1SJ71LP21	AJ71BR11, A1SJ71BR11
Motion controller CPU (Q mode)	QJ71LP21, QJ71LP21-25, QJ71LP21S-25	QJ71BR11*1
Motion controller CPU (A mode)	AJ71LP21, A1SJ71LP21	AJ71BR11, A1SJ71BR11

*1 Use function version B or later of the MELSECNET/H network module and CPU.

(3) Interface board

Type	Model name	Bus format	Driver
MELSECNET/H	Q80BD-J71LP21-25 (Optical loop), Q80BD-J71LP21G (Optical loop), Q80BD-J71LP21S-25 (Optical loop, with external power supply function), Q80BD-J71BR11 (Coaxial loop)	PCI	SWODNC-MNETH-B
	Q81BD-J71LP21-25 (Coaxial loop)	PCI Express	

Refer to the following manual for the settings of the interface board.

➡ MELSECNET/H Interface Board User's Manual (For SW0DNC-MNETH-B)

POINT

When using PC CPU module

A interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

3.7.3 Connection cable

The cables are the same as the fiber-optic cables and coaxial cables used in the MELSECNET/H or MELSECNET/10 network system.

Refer to the following for details of cables.

➡ Q corresponding MELSECNET/H Network System Reference Manual (PLC to PLC network)

3.7.4 GT SoftGOT2000 setting

When communicating GT SoftGOT2000 to a PLC in MELSECNET/H or MELSECNET/10 network system, communication setup is required.

Refer to the following for performing GT SoftGOT2000 communication setup.

- ➡ 2.4.1 [Communication Setup] dialog ■1. PLC (4) MELSECNET/H connection

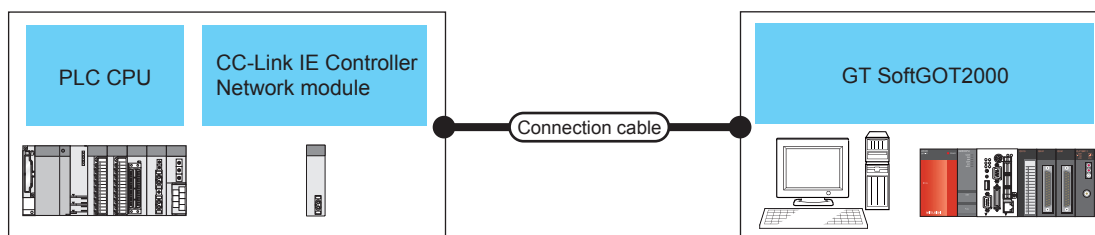
3.7.5 Controller setting

For the settings of the MELSECNET/H network module and MELSECNET/10 network module, refer to the following.

- ➡ Q corresponding MELSECNET/H Network System Reference Manual (PLC to PLC network)

3.8 CC-Link IE Controller Network Connection

3.8.1 System configurations



PLC			Max. distance	GT SoftGOT2000	Number of connectable equipment
Model name	Network module	Communication type			
RCPUCPU		RJ71GP21-SX	550m*2	A personal computer that can run Windows PC CPU	120*3
QCPU		QJ71GP21-SX, QJ71GP21S-SX			
C Controller module	MELSEC iQ-R series	RJ71GP21-SX			
	Q series	QJ71GP21-SX, QJ71GP21S-SX			
QSCPU		QJ71GP21-SX, QJ71GP21S-SX			
Motion controller CPU	Q Series*1	QJ71GP21-SX, QJ71GP21S-SX			
CNC C70*4		Same as QCPU (Q mode)			
CRnQ-700*4					

^{*1} For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPUCPU/Q170MSCPU is available.

^{*2} Distance between stations for using the fiber-optic cable (core/cladding = 50/125(μm)).
The overall distance and distance between stations differs according to the type and the number of total stations for the cable to be used.
For details on the cable, refer to the following manual.

▢ CC-Link IE Controller Network Reference Manual

^{*3} When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

^{*4} The multiple CPU system with the QCPU (Q mode) is mounted on.

3.8.2 Network module, interface board

The following shows connectable network modules and interface boards.

■1. Network module

Item		Model name
RCPU		RJ71GP21-SX
C Controller module	MELSEC iQ-R series	
QCPU (Q mode)		QJ71GP21-SX, QJ71GP21S-SX
C Controller module	Q series	
QSCPU		
Motion controller CPU	Q series	

■2. Interface board

Type	Model name	Bus format	Driver
CC-Link IE Controller	Q80BD-J71GP21-SX, Q80BD-J71GP21S-SX	PCI	SW1DNC-MNETG-B
	Q81BD-J71GP21-SX (Coaxial loop), Q81BD-J71GP21S-SX (Optical loop, with external power supply function)	PCI Express	

Refer to the following manual for the settings of the interface board.

- ⇒ CC-Link IE Controller Network Interface Board User's Manual (For SW1DNC-MNETG-B)

POINT

When using PC CPU module

An interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

3.8.3 Connection cable

The cables are the same as the fiber-optic cables used in the CC-Link IE Controller Network.
Refer to the following for details of cables.

- ⇒ CC-Link IE Controller Network Reference Manual

3.8.4 GT SoftGOT2000 setting

When communicating GT SoftGOT2000 to a PLC in CC-Link IE Controller Network, communication setup is required.
Refer to the following for performing GT SoftGOT2000 communication setup.

- ⇒ 2.4.1 [Communication Setup] dialog ■1. PLC (5) CC-Link IE Controller Network connection, CC-Link IE Field Network connection

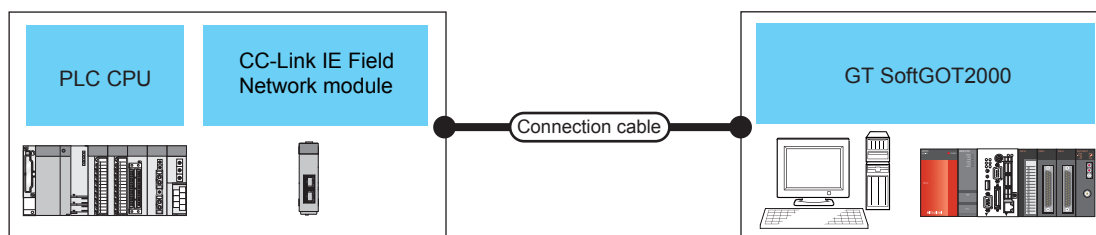
3.8.5 Controller setting

For the settings of the CC-Link IE Controller Network module, refer to the following.

- ⇒ CC-Link IE Controller Network Reference Manual

3.9 CC-Link IE Field Network Connection

3.9.1 System configurations



PLC			connection cable *5	Max. distance	GT SoftGOT2000	Number of connectable equipment	
Model name		Network module					Communication type
RCPUC		RJ71GF11-T2, RJ71EN71	CC-Link IE Field Network	Ethernet cable that meets the 1000BASE-T standard: Category 5e or higher, (double-shielded, STP) straight cable.	100m (Maximum segment length)	A personal computer that can run Windows PC CPU	120*4
QCPU(Q mode) *1		QJ71GF11-T2					
C Controller module	MELSEC iQ-R series	RJ71GF11-T2, RJ71EN71					
	Q series	QJ71GF11-T2					
QSCPU		QS0J71GF11-T2					
LCPUC		LJ71GF11-T2					
Motion controller CPU	Q Series*3	QJ71GF11-T2					
CNC C70*2		Same as QCPU (Q mode)					
CRnQ-700*2							

^{*1} Compatible with only the universal model QCPU.

^{*2} The multiple CPU system with the QCPU (Q mode) is mounted on.

^{*3} For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPUC/Q170MSCPU is available.

^{*4} When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

^{*5} The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver, or other system equipment corresponding to the applicable Ethernet network system.
Use cables, connectors, and hubs that meet the IEEE802.3 1000BASE-T, ANSI/TIA/EIA-568-B (category 5e) standard.

3.9.2 Network module, interface board

The following shows connectable network modules and interface boards.

■1. Network module

Item		Model name
RCPU		RJ71GF11-T2, RJ71EN71
C Controller module	MELSEC iQ-R series	
QCPU (Q mode)		QJ71GF11-T2
C Controller module	Q series	
Motion controller CPU	Q Series	
QSCPU		QS0J71GF11-T2
LCPU		LJ71GF11-T2

■2. Interface board

Type	Model name	Bus format	Driver
CC-Link IE Field	Q81BD-J71GF11-T2	PCI Express	SW1DNC-CCIEF-B

Refer to the following manual for the settings of the interface board.

⇒ CC-Link IE Field Network Interface Board User's Manual(For SW1DNC-CCIEF-B)

POINT

When using PC CPU module

An interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

3.9.3 GT SoftGOT2000 setting

When communicating GT SoftGOT2000 to a PLC in the CC-Link IE Field Network system, communication setup is required.

Refer to the following for performing GT SoftGOT2000 communication setup.

⇒ 2.4.1 [Communication Setup] dialog ■1. PLC (5) CC-Link IE Controller Network connection, CC-Link IE Field Network connection

3.9.4 Controller setting

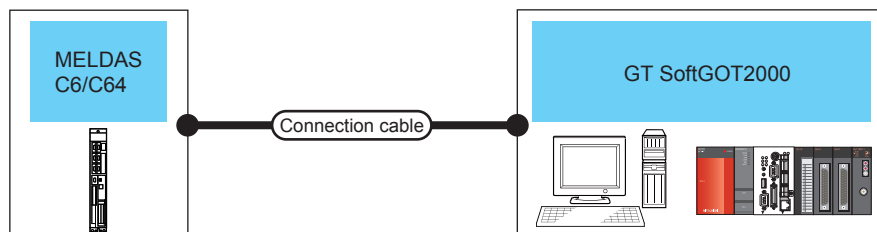
For the settings of the CC-Link IE Field Network module, refer to the following.

⇒ CC-Link IE Field Network Master/Local Module User's Manual

3.10 CNC Connection

3.10.1 Direct CPU connection

■1. System configurations



PLC		Connection cable	Max. distance	GT SoftGOT2000	Number of connectable equipment
Model name	Communication type				
MELDAS C6/C64	RS-232	RS-232 1)	15m	A personal computer that can run Windows PC CPU	1 ^{*1}

^{*1} When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

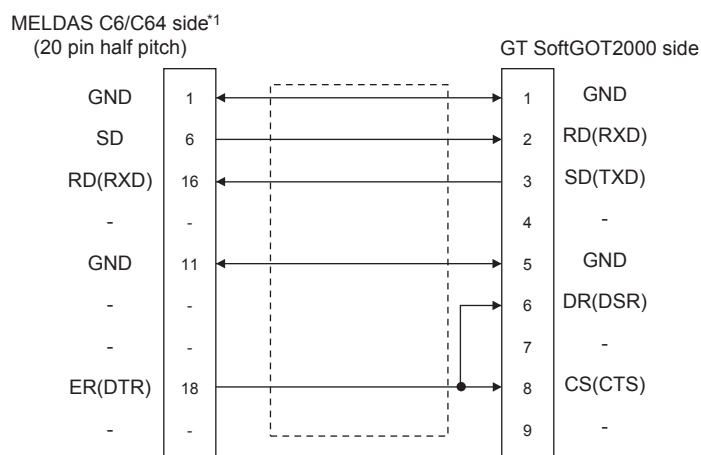
■2. Connection cable

The user is required to make a conversion cable for connecting to the MELDAS C6/C64.

The following describes the connection diagram for each cable and specifications of connectors.

(1) RS-232 1)

(a) Connection diagram



(b) Connector specifications

- PC side connector
Use the connector compatible with the PC side.
- MELDAS C6/C64 side connector
Use the connector compatible with MELDAS C6/C64 side.
For details, refer to the following manual.

➡ User's Manual for the MELDAS C6/C64

(c) Precautions for creating cables

The length of the conversion cable must be 15m or shorter.

■3. GT SoftGOT2000 setting

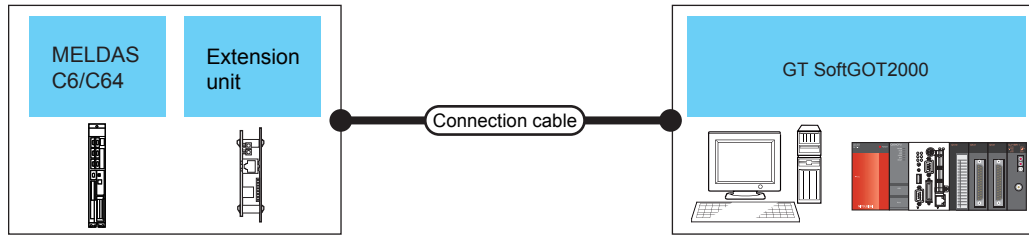
When communicating GT SoftGOT2000 to a MELDAS C6/C64 in CPU direct connection, communication setup is required.

Refer to the following for performing GT SoftGOT2000 communication setup.

➡ 2.4.1 [Communication Setup] dialog ■1. PLC (1) Direct CPU connection (RS-232)

3.10.2 Ethernet connection

■1. System configurations and connection conditions



PLC			Connection cable ^{*2}	Max. distance	GT SoftGOT2000	Number of connectable equipment
Model name	Extension unit	Communication type				
MELDAS C6/C64	FCU6-EX875	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	128 ^{*1}

*1 When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

*2 The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system.

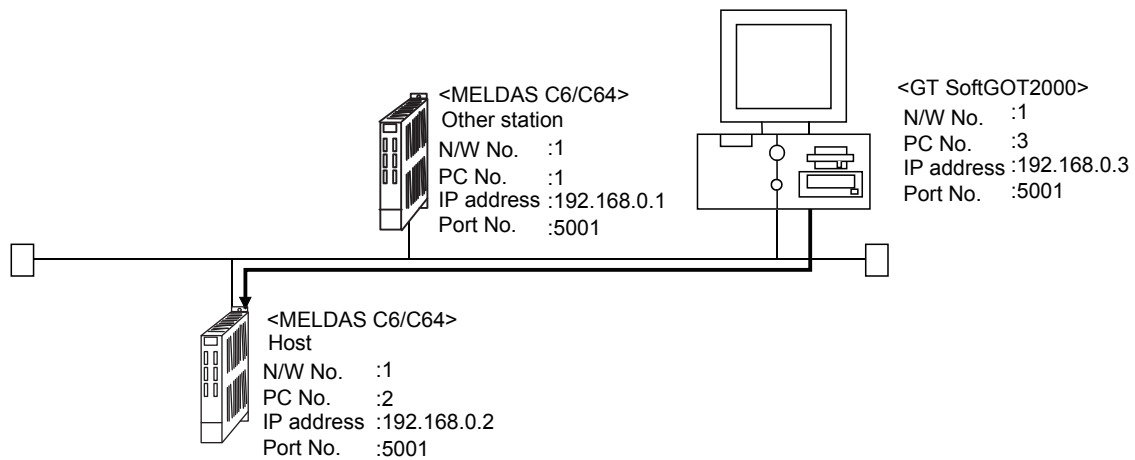
Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.

■2. Connection cable

Use a cable applicable to the Ethernet module to be used.

■3. Controller setting

The setting items and precautions are shown below for communicating GT SoftGOT2000 to the MELDAS C6/C64. This section describes the system configuration to monitor the host station as shown below.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the MELDAS C6/C64 and GT SoftGOT2000.

- ➡ (7) Settings with GT Designer3 and GT SoftGOT2000

The following shows the procedure for communicating GT SoftGOT2000 to the MELDAS C6/C64.

(1) Before setting

(a) Precautions for monitoring

GT SoftGOT2000 cannot monitor CPUs on the other networks.

(b) Precautions for communication

When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.

The following actions may improve the communication performance.

- Use a switching hub.
- Use the high-speed 100BASE-TX (100Mbps).
- Reduce the monitoring points of GT SoftGOT2000.

(2) Compatible models

Compatible models	
FCA C6,	FCA C64

(3) Network parameter setting

Set the network parameters by peripheral devices and write them to the MELDAS C6/C64.

The following shows an example of the parameter setting for GX Developer.

Set the start I/O No. that corresponds to the extension slot to be connected with the Ethernet unit.

When using two extension slots, unit numbers are assigned as shown in the following figures from 1) to 3).

(a) Start I/O No.

Extension slot	Start I/O No.	Mounting position of extension unit
EXT1	0200	(a)When mounted in EXT1 and EXT2 (b)When mounted in EXT1 and EXT3 (c)When mounted in EXT2 and EXT3
EXT2	0280	
EXT3	0300	
		(d)When mounted in EXT1 only (e)When mounted in EXT2 only (f)When mounted in EXT3 only

(b) Example of GX Developer setting

Read PLC data

	Module No.1	Module No.2	Module No.3	Module No.4
Network type	Ethernet	None	None	None
Start I/O No.	0280			
Network No.	1			
Total stations				
Group No.	1			
Station No.	1			
IP addressDEC	IP Address Settings			
	Station No.<->IP information			
	FTP Parameters			
	Router relay parameter			

Necessary setting(No setting / Already set) Set if it is needed(No setting / Already set)

Interlink transmission parameters Start I/O No.: Input the start I/O No. installed in the module in 16-point unit. Valid module during other station access 1

Acknowledge XY assignment Routing parameters Check End Cancel

For details of the parameter setting, refer to the following.

➡ MELDAS C6/C64 NETWORK MANUAL BNP-B2373

POINT

IP address setting

The IP address setting on GX Developer is invalid.

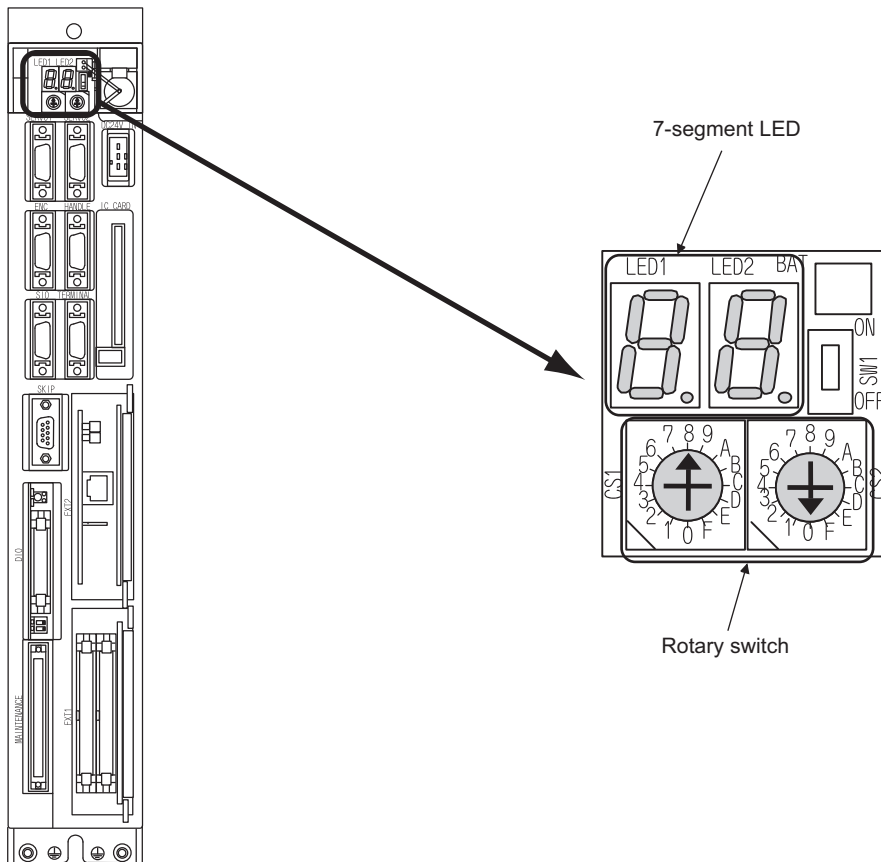
Set the IP address by the 7-segment LED and rotary switch of the MELDAS C6/C64 side, referring to the next page.

(4) MELDAS C6/C64 side parameter setting

Set the IP address, gateway address, subnet mask, and port No. for the 7-segment LED and rotary switch of the MELDAS C6/C64 side, and then check the settings.

For details of the parameter setting, refer to the following.

➡ MELDAS C6/C64 NETWORK MANUAL BNPB2373 IV Setting the Ethernet IP Address



(5) Setting on the personal computer

Set the IP address.

(6) Communications check

(a) Ping test

When ready to communicate, execute the Ping command at the command prompt on the Windows.

- When connections are OK
C:\>ping 192. 168. 0. 2
Reply from 192. 168. 0. 2:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 0. 2
Request timed out.

When the Ping test is not verified, check the connections of the cable and module, and settings, including the IP address, for Windows.

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

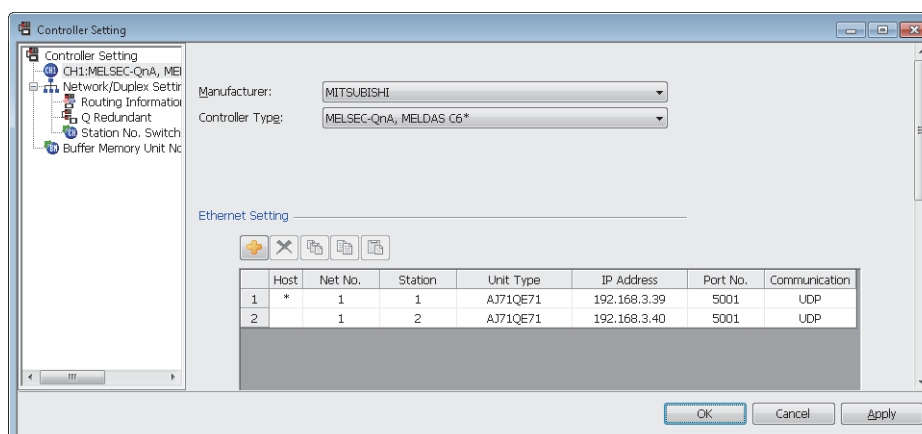
(7) Settings with GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

• Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[AJ71QE71]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5001]
[Communication]	Select a communication method.	[UDP]

(b) Setting on GT SoftGOT2000

• Communication setup

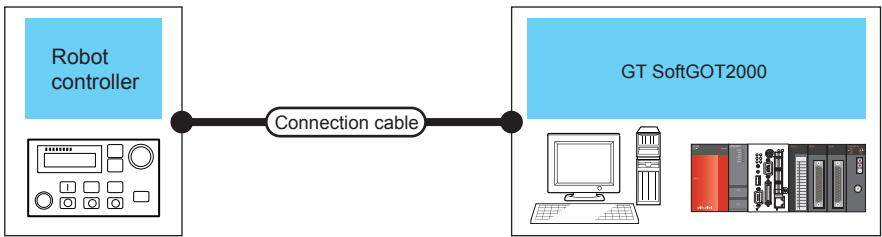
Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

⇒ 2.4.1 [Communication Setup] dialog ■1. PLC (6) Ethernet connection

3.11 Robot Controller Connection

3.11.1 System configurations



PLC		Connection cable*2	Max. distance	GT SoftGOT2000	Number of connectable equipment
Model name	Communication type				
CRnD-700	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	1*1

*1 When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

*2 The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system.
Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.

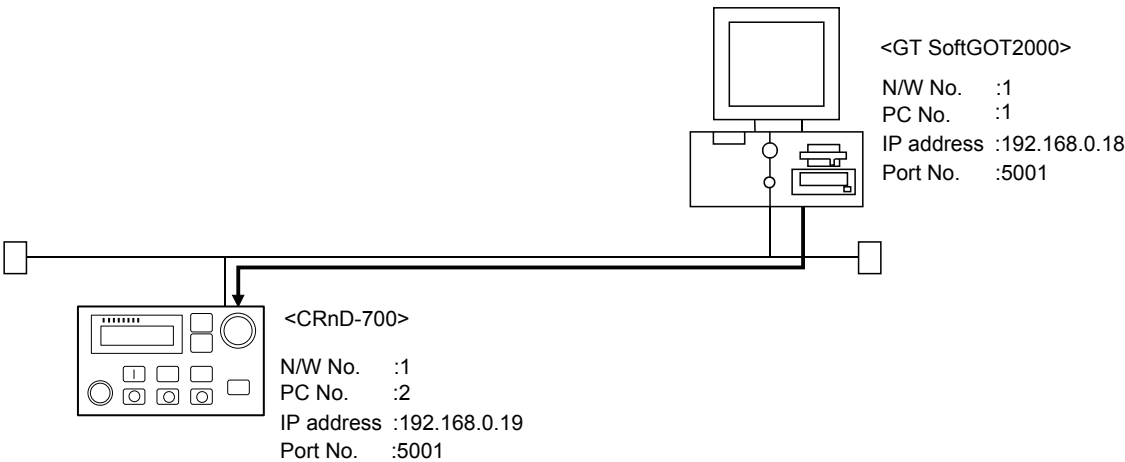
3.11.2 Connection cable

Use a cable applicable to the CRnD-700.

3.11.3 Controller setting

For communications between GT SoftGOT2000 and the CRnD-700, the following setting items and precautions are described below.

This section describes the system configuration to monitor the host as shown below.



POINT

Setting items

Refer to the following for how to set the Net No., PLC No./PC No., IP address, and port No. of the CRnD-700 and GT SoftGOT2000.

➡ ■6. Settings on GT Designer3 and GT SoftGOT2000

The following shows the procedures for communications with the CRnD-700.

1. Before setting

(1) Precautions for monitoring

- GT SoftGOT2000 cannot monitor other stations.
- GT SoftGOT2000 cannot monitor CPUs on the other networks.

(2) Precautions for communication

When multiple network devices (including GT SoftGOT2000) are connected to the same segment, the network load may increase, and the communication speed may slow down between GT SoftGOT2000 and the PLC.

The following actions may improve the communication performance.

- Use a switching hub.
- Use the high-speed 100BASE-TX (100Mbps).
- Reduce the monitoring points of GT SoftGOT2000.

2. Compatible models

Compatible models
CRnD-700

3. Parameter settings for CRnD-700

Set the CRnD-700 parameter settings with the R32TB, R56TB, or RT ToolBox2.

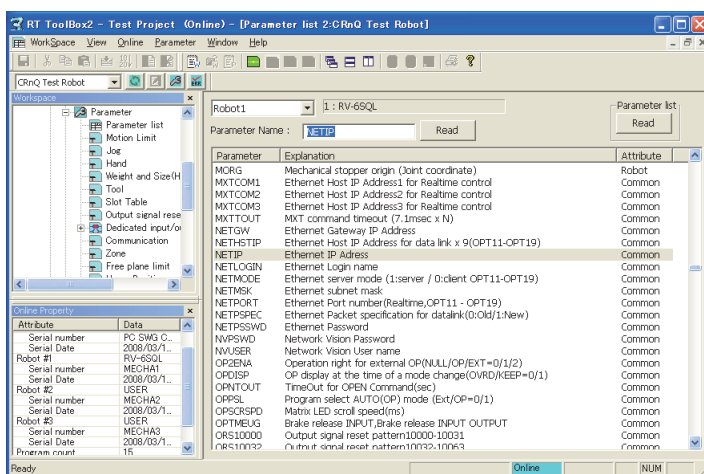
POINT

Robot controller (CRnD-700)

For details of the robot controller (CRnD-700), refer to the following manual.

➡ Manual for CRnD-700

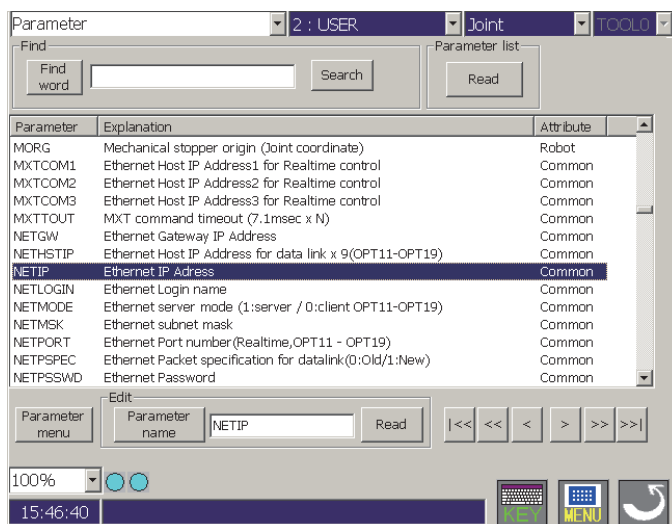
(1) For RT ToolBox2



Item	Setting	Setting (with GOT connected)
[NETIP]	[192.168.0.19]	○
[GOTPORT]	[5001]	○

○ : Required △ : Set if necessary × : Not required

(2) For R32TB or R56TB



(For R56TB)

Item	Setting	Setting (with GOT connected)
[NETIP]	[192.168.0.19]	○
[GOTPORT]	[5001]	○

○ : Required △ : Set if necessary × : Not required

■ 4. Setting on personal computer

Set the IP address.

■ 5. Communication check

(1) Ping test

When the CNC C70 is ready for communications, execute the Ping command with the command prompt of Windows.

- When the Ping test is verified
C: \>Ping 192. 168. 0. 19

Reply from 192.168.0.19:bytes=32 time<10ms TTL=32

- When the Ping test is not verified
C: \>Ping 192. 168. 0. 19

Request timed out.

When the Ping test is not verified, check the connections of the cable and unit, and settings, including the IP address, for Windows.

(2) Station monitoring function

For details on the station monitoring function, refer to the following manual.

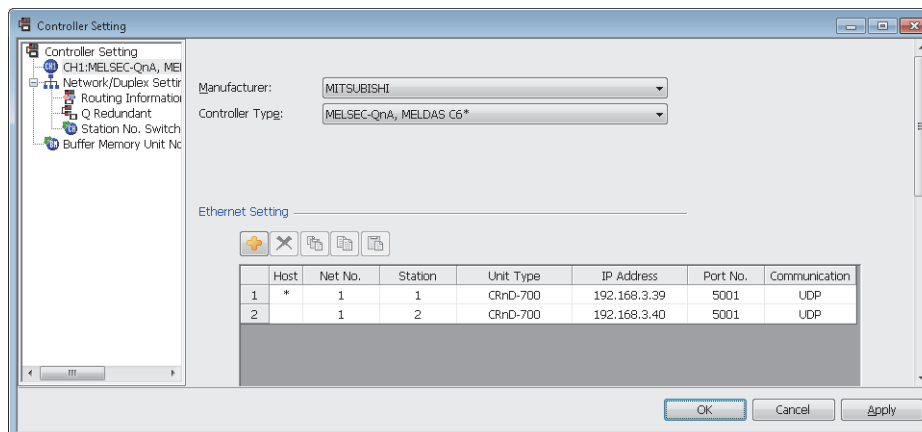
➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

■6. Settings on GT Designer3 and GT SoftGOT2000

(1) Setting on GT Designer3

- Ethernet setting

Set the [Ethernet setting] dialog on GT Designer3 as shown below.
Up to 128 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select the type of the target Ethernet module.	[CRnD-700]
[IP address]	Set the IP address of the target Ethernet module.	[0.0.0.0] to [255.255.255.255]
[Port No.]	Set the port number of the target Ethernet module.	[5001]
[Communication]	Select a communication method.	[UDP]

(2) Setting on GT SoftGOT2000

- Communication setup

Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■1. PLC (6) Ethernet connection

3.12 Connecting with GX Simulator

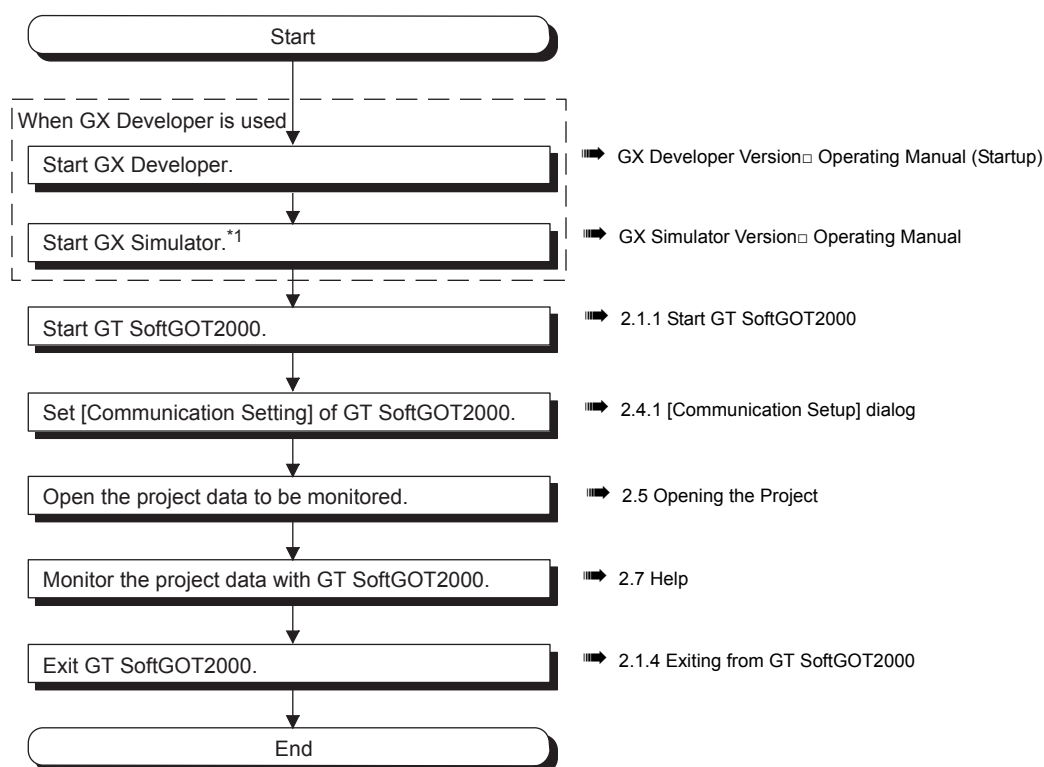
3.12.1 System configuration

Install GX Simulator in the personal computer beforehand.
For details, refer to the following.

➡ GX Simulator Version□ Operating Manual

3.12.2 Operating procedure

The following shows the procedure for connecting GT SoftGOT2000 with GX Simulator.



*1 If GX Developer is not used, GX Simulator is automatically started when the project data is monitored on GT SoftGOT2000.

3.12.3 Setting of GT SoftGOT2000

Configure the communication setting for the communication between GT SoftGOT2000 and GX Simulator.
For the communication setting of GT SoftGOT2000, refer to the following.

➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (8) Connecting with GX Simulator

3.13 Connecting with GX Simulator2, MT Simulator2

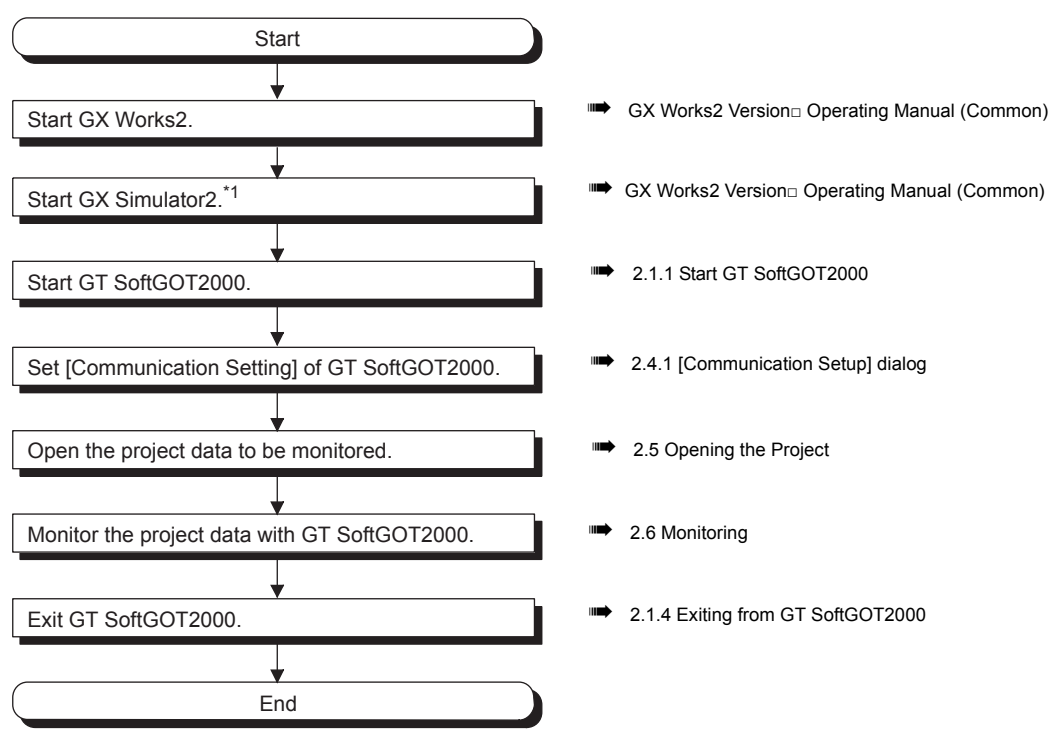
3.13.1 System configuration

Install GX Works2 or MT Simulator2 in the personal computer beforehand.
For details, refer to the following.

➡ GX Works2 Version□ Operating Manual

3.13.2 Operating procedure

The following shows the procedure for connecting GT SoftGOT2000 with GX Simulator2.



*1 GX Simulator2 is not automatically started when the project data is monitored on GT SoftGOT2000. Start GX Simulator2 from GX Works2 in advance.

3.13.3 Setting of GT SoftGOT2000

Configure the communication setting for the communication between GT SoftGOT2000 and GX Simulator2.
For the communication setting of GT SoftGOT2000, refer to the following.

➡ 2.4.1 [Communication Setup] dialog ■1. PLC (9) Connecting with GX Simulator2

3.14 Connecting with GX Simulator3

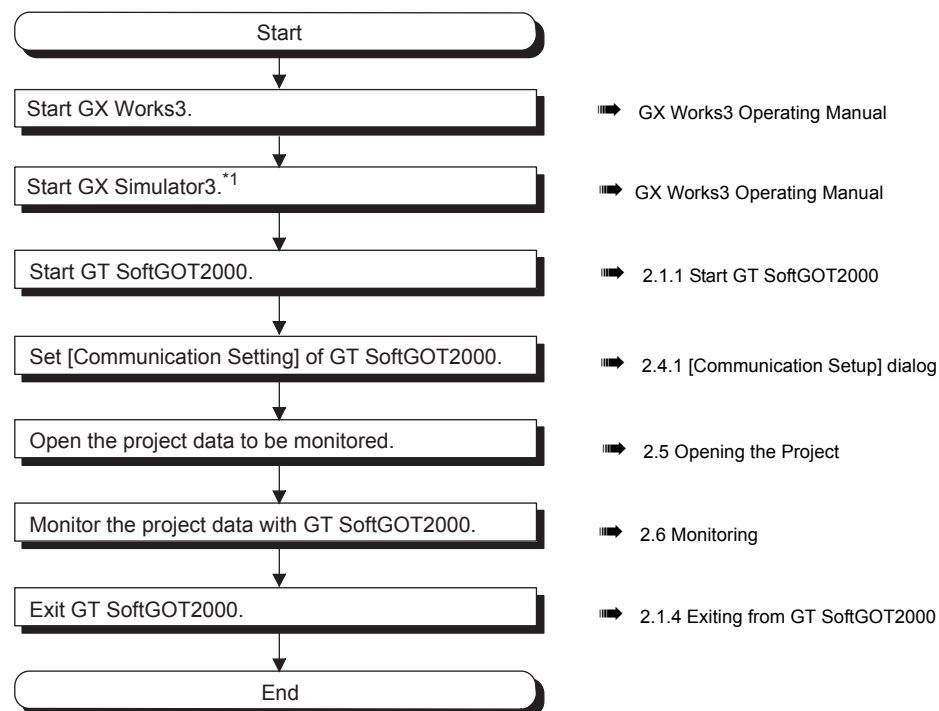
3.14.1 System configuration

Install GX Works3 in the personal computer beforehand.
For details, refer to the following.

➡ GX Works3 Operating Manual

3.14.2 Operating procedure

The following shows the procedure for connecting GT SoftGOT2000 with GX Simulator3.



*1 GX Simulator3 does not start automatically when the project data is monitored on GT SoftGOT2000. Start GX Simulator3 from GX Works3 in advance.

3.14.3 Setting of GT SoftGOT2000

To establish communication between GT SoftGOT2000 and GX Simulator3, configure the communication setup.
For the communication setting of GT SoftGOT2000, refer to the following.

➡ 2.4.1 [Communication Setup] dialog ■1. PLC (11) Connecting with GX Simulator3

POINT

When simulating objects that use global labels

To simulate objects that use global labels, connect GT SoftGOT2000 with the PLC CPU instead of GX Simulator3.

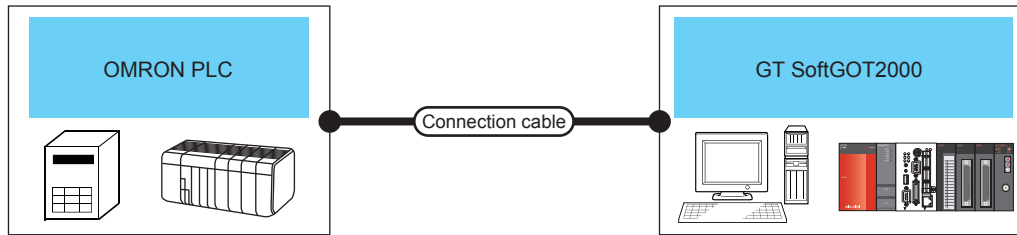
If objects that use global labels are attempted to be simulated when GT SoftGOT2000 is connected with GX Simulator3, an error occurs at the first execution of the label name resolution and the objects cannot be simulated.

3.15 Non-Mitsubishi PLC connection

3.15.1 OMRON PLC

■1. Serial connection

(1) System configurations and connection conditions



PLC			Connection cable	Max. distance	GT SoftGOT2000	Number of connectable equipment
Model name	Communication module	Communication type				
SYSMAC CQM1H	(Built-in serial port)*1	RS-232	RS-232 1) RS-232 2)	15m	A personal computer that can run Windows PC CPU	1
SYSMAC CJ1						
SYSMAC CJ2						
SYSMAC CP1						
SYSMAC α						
SYSMAC CS1						
SYSMAC CVM1/CV						
CQM1						
CPM2A						

*1 For the applicable CPUs, refer to the following.

➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

(2) Connection cable

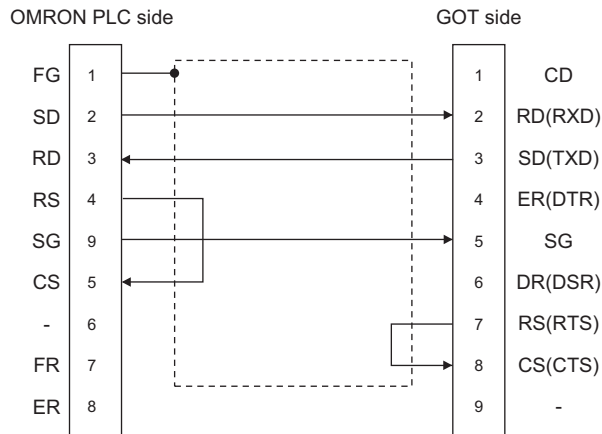
- (a) MITSUBISHI SYSTEM & SERVICE product
RS-232 1)

RS-232 cable



GT09-C30R20101-9P(3m) (For the 9-pin D-sub connector of the PC side)

- (b) Using an RS-232 cable prepared by user
The following describes the connection diagram, connector and others for each cable.
- Connection diagram
RS-232 2)



- Connector specifications
 - 1) PC side connector
Use the connector compatible with the PC side.
 - Omron PLC CPU side connector
Use the connector compatible with Omron PLC CPU side.
 - 2) For details, refer to the following manual.
⇒ User's Manual for Omron PLC CPU
- Precautions for creating cables
The length of the cable must be 15m or less.

(3) GT SoftGOT2000 setting

When communicating GT SoftGOT2000 to an OMRON PLC, communication setup is required.

Item ^{*2}	Setting
Transmission speed ^{*1}	9600/19200/38400/57600/115200bps
Data length	7bits
Stop bit	2bits
Parity	Even
Communication condition format	Individual
Host link station No.	00

*1 Transmission speed supported by the PLC must be set.

*2 The settings on the PLC and GT SoftGOT2000 must be the same.

For the communication setting of GT SoftGOT2000, refer to the following.

- ⇒ 2.4.1 [Communication Setup] dialog ■ 1. PLC (1) Direct CPU connection (RS-232)

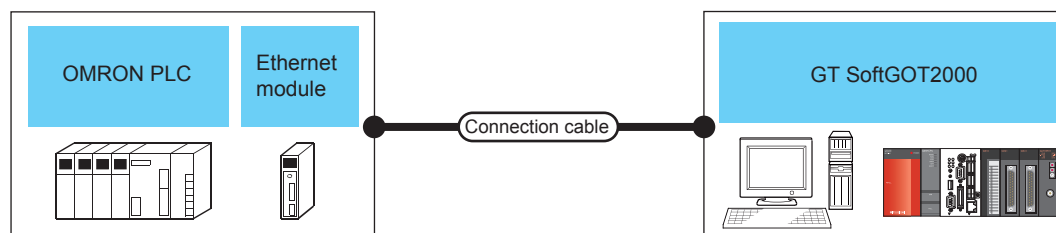
(4) Controller setting

For the OMRON PLC side setting, refer to the following manual.

- ⇒ GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

2. Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable*4	Max. distance	GT SoftGOT2000	Number of connectable equipment	
Model name	Ethernet module	Communication type				Personal computer*6	PLC*7
SYSMAC CJ1	CJ1W-ETN21	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	UDP: No limitation*1*2 TCP: 16*1*3	UDP: 128 TCP: 10
SYSMAC CJ2*5							
SYSMAC CS1	CS1W-ETN21, CS1D-ETN21D*8						

*1 To use GT SoftGOT2000 module together with another GT SoftGOT2000 module or a different application, set the different number for each port No.

*2 There is no restriction for the number of GOTs. However, if the number of GOTs increases, the communication becomes high-loaded, and it may affect the communication performance.

*3 The number of connectable personal computers includes the number of total GT SoftGOT2000 modules started in a personal computer.

*4 The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system.

Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.

*5 The CJ2H-CPU6□-EIP or CJ2M-CPU3□ can be connected by using its Ethernet port or an Ethernet module.

*6 Indicates the number of personal computers connectable to one PLC.

*7 Indicates the number of PLCs connectable to one personal computer.

*8 Available only when CS1D is used.

(2) Ethernet module and Ethernet board/card

The following shows connectable Ethernet modules and Ethernet boards/cards.

(a) Ethernet module

Item	Model name
CS1H, CS1G	CS1W-ETN21
CS1D	CS1W-ETN21, CS1D-ETN21D
CJ1H, CJ1M, CJ1G, CJ2H(-EIP), CJ2M	CJ1W-ETN21

(b) Ethernet board/card

Use the same Ethernet board and card as those for connecting to MITSUBISHI PLC.

➡ 3.3.2 Built-in Ethernet port CPU, Ethernet module, Ethernet board/card

POINT

When using PC CPU module

A interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

(3) Connection cable

Use a cable applicable to the Ethernet module or the Ethernet board/card to be used.

(4) Controller setting

POINT

Precautions for Ethernet connection

(1) OMRON PLC

For details of OMRON PLCs, refer to the following manual.

➡ User's manual for OMRON PLC CPU

(2) Precautions for Ethernet connection

Specify the Net No. and the PLC No. of the OMRON PLC connected to the GOT via the Ethernet connection. The specified Net No. and the PLC No. must be the same as those set on GT Designer3.

For the settings of Net No., PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000, refer to the following.

➡ (8) Settings on GT Designer3 and GT SoftGOT2000.

(a) Before setting

• Communication precautions

- 1) A connection of multiple pieces of network equipment (including GT SoftGOT2000) to a segment may increase the network load and slow down the communication between the GT SoftGOT2000 and the programmable controller.
- 2) Communication efficiency may be improved by using one or more of the following methods:
 - Use a switching hub
 - Use a high-speed 100BASE-TX (100Mbps)
 - Reduce the number of monitoring points of the GT SoftGOT2000
- 3) To connect multiple GT SoftGOT2000 modules within the Ethernet network, set a different [PLC No.] for each GT SoftGOT2000.
- 4) Do not use "192.168.0.18" for IP address when starting multiple GT SoftGOT modules. Otherwise, a communication error occurs in GOT.

(5) Setting of programmable controller side

For settings for each part of programmable controller, refer to the following manual.

➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

(6) Setting on the personal computer

Set the IP address.

(7) Communications check

(a) Ping test

Execute the Ping command with Command Prompt of Windows when the preparations for communication are complete.

- When the Ping test is verified
C:\>Ping 192. 168. 0. 2
Reply from 192.168.0.2:bytes=32 time<10ms TTL=32
- When the Ping test is not verified
C:\>Ping 192. 168. 0. 2
Request timed out.

If the Ping test is not verified, check connections of the cable and unit, Windows side IP address and other settings.

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

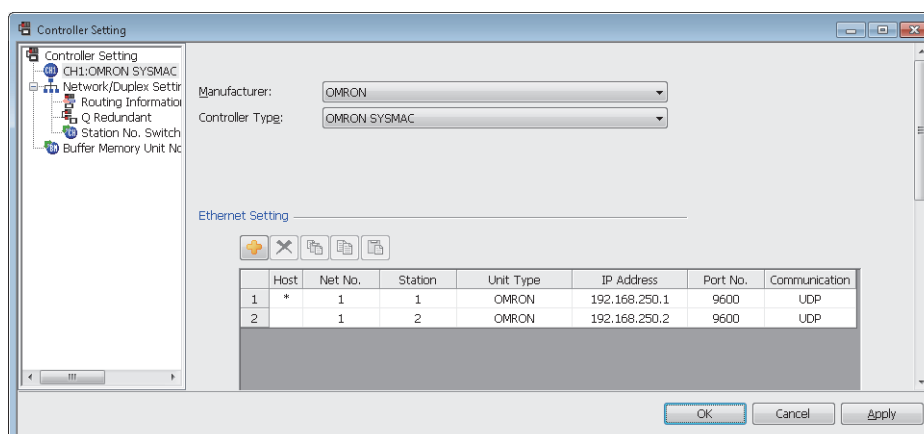
(8) Settings on GT Designer3 and GT SoftGOT2000.

(a) Setting on GT Designer3

• Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [127]
[Station]	Set the station number of the target Ethernet module.	[1] to [254]
[Unit Type]	Select [OMRON].	[OMRON]
[IP address]	Set the IP address of the target Ethernet module.	IP address of programmable controller side
[Port No.]	Set the port number of the target Ethernet module.	[256] to [65534]
[Communication]	Select a communication method.	[UDP], [TCP]

(b) Setting on GT SoftGOT2000

• Communication setup

Set the communication setup dialog of GT SoftGOT2000.

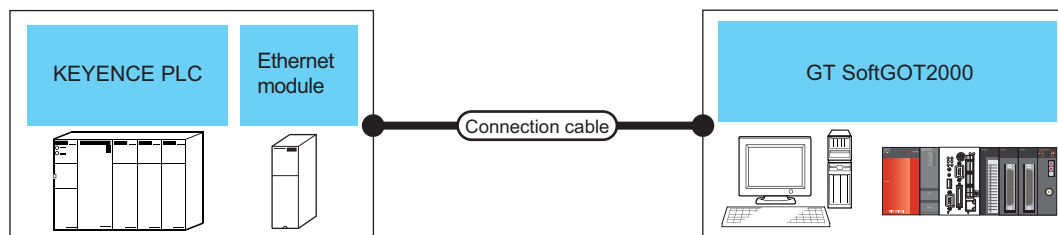
For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

3.15.2 KEYENCE PLC

1. Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable ^{*3}	Max. distance	GT SoftGOT2000	Number of connectable equipment	
Model name	Ethernet module	Communication type				Personal computer ^{*5}	PLC ^{*6}
KV-700, KV-1000, KV-3000, KV-5000, KV-5500	KV-LE20V, KV-LE21V	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	UDP: 1 ^{*1} TCP: 15 ^{*1*2*3}	UDP: 128 TCP: 128

- ^{*1} To use GT SoftGOT2000 module together with another GT SoftGOT2000 module or a different application, set the different number for each port No.
- ^{*2} The increased number of connected devices increases the load on the communication, possibly affecting the communication performance.
- ^{*3} The number of connectable personal computers includes the number of total GT SoftGOT2000 modules started in a personal computer.
- ^{*4} The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system. Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.
- ^{*5} Indicates the number of personal computers connectable to one PLC.
- ^{*6} Indicates the number of PLCs connectable to one personal computer.

(2) Ethernet module and Ethernet board/card

The following shows connectable Ethernet modules and Ethernet boards/cards.

(a) Ethernet module

Item	Model name
Ethernet module	KV-LE20V, KV-LE21V

(b) Ethernet board/card

Use the same Ethernet board and card as those for connecting to MITSUBISHI PLC.

➡ 3.3.2 Built-in Ethernet port CPU, Ethernet module, Ethernet board/card

POINT

When using PC CPU module

A interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

(3) Connection cable

Use a cable applicable to the Ethernet module or the Ethernet board/card to be used.

(4) Controller setting

POINT

Precautions for setting items

(1) KEYENCE PLC

For details on KEYENCE PLC, refer to the following manual.

- User's manual for KEYENCE PLC CPU

(2) Precautions for Ethernet connection

The Net No. and PLC No. are specified when connecting to the KEYENCE PLC via the Ethernet. In such cases, set the Net No. and PLC No. arbitrarily on GT Designer3.

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000

- (8) Settings on GT Designer3 and GT SoftGOT2000

(a) Before setting

- A connection of multiple pieces of network equipment (including GT SoftGOT2000) to a segment may increase the network load and slow down the communication between the GT SoftGOT2000 and the programmable controller.
Communication efficiency may be improved by using one or more of the following methods:
 - Use a switching hub
 - Use a high-speed 100BASE-TX (100Mbps)
 - Reduce the number of monitoring points of the GT SoftGOT2000
- To connect multiple GT SoftGOT2000 modules within the Ethernet network, set a different [PLC No.] for each GT SoftGOT2000.
- Do not use "192.168.0.18" for IP address when starting multiple GT SoftGOT.
Otherwise, a communication error occurs in GOT.

(5) Setting of programmable controller side

For settings for each part of the programmable controller, refer to the following manual.

- GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

(6) Setting on the personal computer

Set the IP address.

(7) Communications check

(a) Ping test

Execute the Ping command with Command Prompt of Windows when the preparations for communication are complete.

- When the Ping test is verified
C:\>Ping 192. 168. 0. 2
Reply from 192.168.0.2:bytes=32 time<10ms TTL=32
- When the Ping test is not verified
C:\>Ping 192. 168. 0. 2
Request timed out.

If the Ping test is not verified, check connections of the cable and unit, Windows side IP address and other settings.

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

- GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

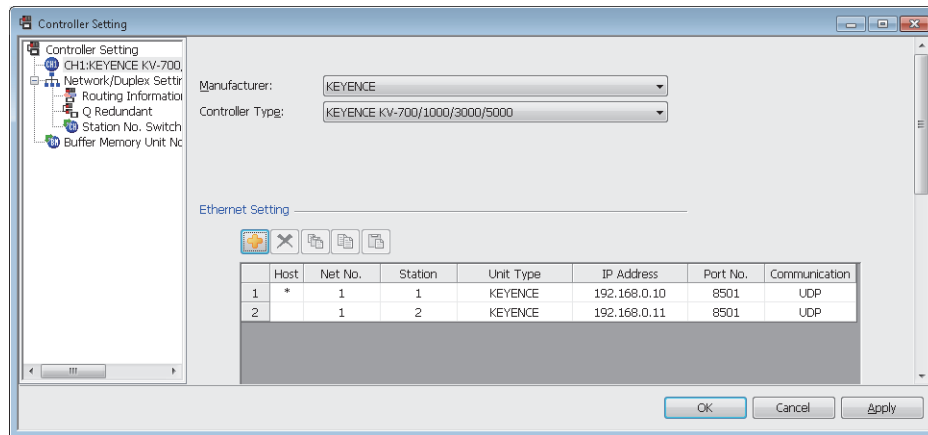
(8) Settings on GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

- Ethernet setting

Set the [Ethernet setting] dialog on GT Designer3 as shown below.

Up to 64 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module	[1] to [254]
[Unit Type]	Select [KEYENCE].	[KEYENCE]
[IP address]	Set the IP address of the target Ethernet module.	IP address of programmable controller side
[Port No.]	Set the port number of the target Ethernet module.	[1024] to [5010], [5014] to [49152], [49154] to [65534]
[Communication]	Select a communication method.	[UDP], [TCP]

(b) Setting on GT SoftGOT2000

- Communication setup

Set the communication setup dialog of GT SoftGOT2000.

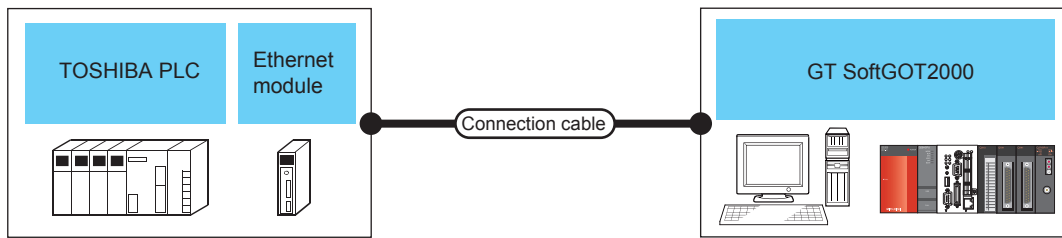
For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■1. PLC (6) Ethernet connection

3.15.3 TOSHIBA PLC

■1. Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable*4	Max. distance	GT SoftGOT2000	Number of connectable equipment	
Model name	Ethernet module	Communication type				Personal computer*5	PLC*6
Unified Controller nv series	EN811	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	No limitation *1*2*3	32

*1 To use GT SoftGOT2000 module together with another GT SoftGOT2000 module or a different application, set the different number for each port No.

*2 There is no restriction for the number of GOTs. However, if the number of GOTs increases, the communication becomes high-loaded, and it may affect the communication performance.

*3 The number of connectable personal computers includes the number of total GT SoftGOT 1000 modules started in a personal computer.

*4 The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system.

Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.

*5 This column shows the number of personal computers that can be connected to one PLC.

*6 This column shows the number of PLCs that can be connected to one personal computer.

(2) Ethernet module and Ethernet board/card

The following shows connectable Ethernet modules and Ethernet boards/cards.

(a) Ethernet module

Item	Model name
Unified Controller nv series	EN811

(b) Ethernet module Ethernet board/card

Use the same Ethernet board and card as those for connecting to MITSUBISHI PLC.

➡ 3.3.2 Built-in Ethernet port CPU, Ethernet module, Ethernet board/card

POINT

When using PC CPU module

A interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

(3) Connection cable

Use a cable applicable to the Ethernet module or the Ethernet board/card to be used.

(4) Controller setting

POINT

Precautions for Ethernet connection

(1) TOSHIBA PLC

For the details of TOSHIBA PLCs, refer to the following manual.

- ➡ User's manual for TOSHIBA PLC

(2) Precautions for Ethernet connection

Specify the N/W No. and the PLC No. of the TOSHIBA PLC connected to the GOT via the Ethernet connection. The specified N/W No. and the PLC No. must be the same as those set on GT Designer3. For the settings of N/W No., PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000, refer to the following.

- ➡ (8) Settings on GT Designer3 and GT SoftGOT2000

(a) Before setting

- A connection of multiple pieces of network equipment (including GT SoftGOT2000) to a segment may increase the network load and slow down the communication between the GT SoftGOT2000 and the programmable controller.
Communication efficiency may be improved by using one or more of the following methods:
 - Use a switching hub
 - Use a high-speed 100BASE-TX (100Mbps)
 - Reduce the number of monitoring points of the GT SoftGOT2000
- To connect multiple GT SoftGOT2000 modules within the Ethernet network, set a different [PLC No.] for each GT SoftGOT2000.
- Do not use "192.168.0.18" for IP address when starting multiple GT SoftGOT modules.
Otherwise, a communication error occurs in GOT.

(5) Setting of programmable controller side

For settings for each part of programmable controller, refer to the following manual.

- ➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

(6) Setting on the personal computer

Set the IP address.

(7) Communications check

(a) Ping test

Execute the Ping command with Command Prompt of Windows when the preparations for communication are complete.

- When the Ping test is verified
C:\>Ping 192. 168. 0. 2
Reply from 192.168.0.2:bytes=32 time<10ms TTL=32
- When the Ping test is not verified
C:\>Ping 192. 168. 0. 2
Request timed out.

If the Ping test is not verified, check connections of the cable and unit, Windows side IP address and other settings.

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

- ➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

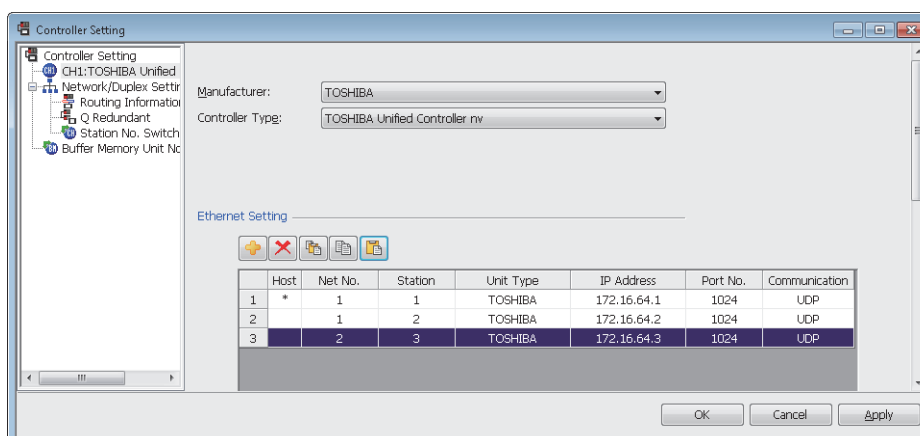
(8) Settings on GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

- Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[N/W No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [254]
[Unit Type]	Select [TOSHIBA].	[TOSHIBA]
[IP address]	Set the IP address of the target Ethernet module.	IP address of programmable controller side
[Port No.]	Set the port number of the target Ethernet module.	[1024] to [65534]
[Communication]	Select a communication method.	[UDP]

(b) Setting on GT SoftGOT2000

- Communication setup

Set the communication setup dialog of GT SoftGOT2000.

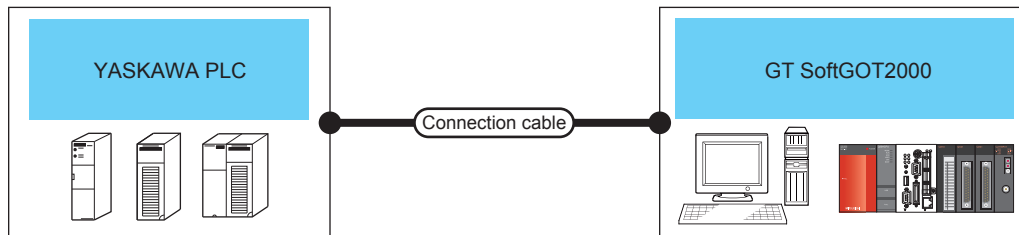
For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

3.15.4 YASKAWA PLC

1. Serial connection

(1) System configurations and connection conditions



PLC			Connection cable	Max. distance	GT SoftGOT2000	Number of connectable equipment
Model name	MODBUS module Communication module	Communication type				
GL60S, GL60H, GL70H	JAMSC-IF60, JAMSC-IF61	RS-232	RS-232 1) RS-232 3)	15m	A personal computer that can run Windows PC CPU	1
GL120, GL130	(Built-in serial port)*1		RS-232 1) RS-232 3)			
CP-9300MS (CP-9300M compatible/non-compatible)	(Built-in serial port)*1		RS-232 2) RS-232 5)			
CP-9200(H)	(Built-in serial port)*1		RS-232 1) RS-232 3)			
PROGIC-8	For connecting to port 1		RS-232 1) RS-232 3)			
	For connecting to port 2		RS-232 4)			
MP-920	(Built-in serial port)*1		RS-232 1) RS-232 3)			
	217IF		RS-232 1) RS-232 3)			
MP-930	(Built-in serial port)*1		RS-232 1) RS-232 3)			
MP-940	(Built-in serial port)*1		RS-232 6)			
CP-9200SH, CP-317	CP-217IF	RS-232	RS-232 1) RS-232 3)	15m	A personal computer that can run Windows PC CPU	1
			RS-232 7)			
MP2200, MP2300, MP2300S	217IF-01, 218IF-01, 218IF-02*2		RS-232 1) RS-232 3)			

*1 For the applicable CPUs, refer to the following.

➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

*2 The maximum transmission speed of 218IF-02 is 115200bps. However, the maximum transmission speed selectable from the GOT is 57600bps.

(2) MEMOBUS modules and communications modules

The following table shows connectable MEMOBUS Modules and Communications Modules.
Connection via RS-422 communication cannot be used.

Item		Model name
GL-60S, GL-60H, GL-70H		JAMSC-IF60 JAMSC-IF61
MP920/NSC40		217IF
CP-9200SH, CP-317		CP-217IF
MP2000	JEPMC-MP2200	217IF-01, 218IF-01, 218-IF02
	JEPMC-MP2300	217IF-01, 218IF-01, 218-IF02
	JEPMC-MP2300S	217IF-01, 218IF-01, 218-IF02

(3) Connection cable

(a) MITSUBISHI SYSTEM & SERVICE product
RS-232 1)

RS-232 cable



GT09-C30R20201-9P (3m) (For the 9-pin D-sub connector of the personal computer side)

RS-232 2)

RS-232 cable

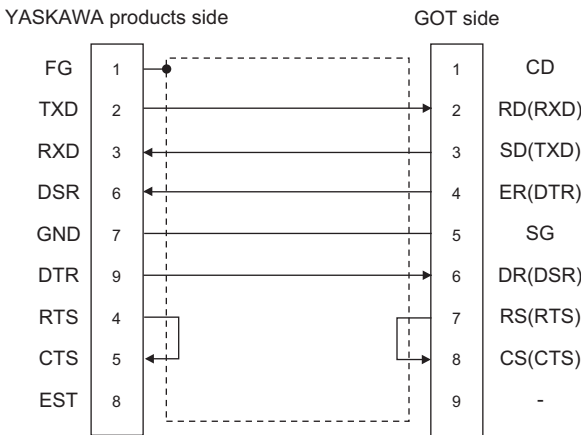


GT09-C30R20203-9P (3m) (For the 9-pin D-sub connector of the personal computer side)

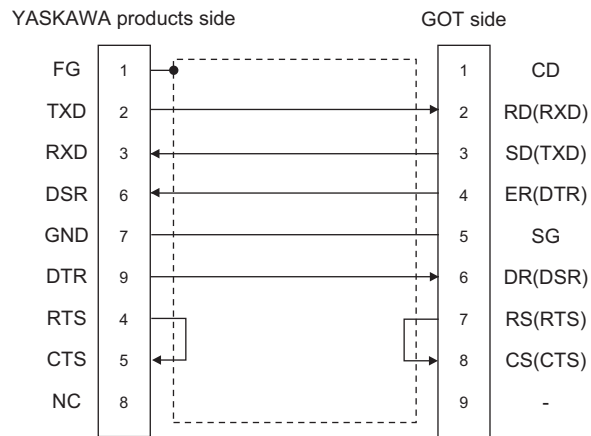
(b) Using an RS-232 cable prepared by user

The following describes the connection diagram, connector and others for each cable.

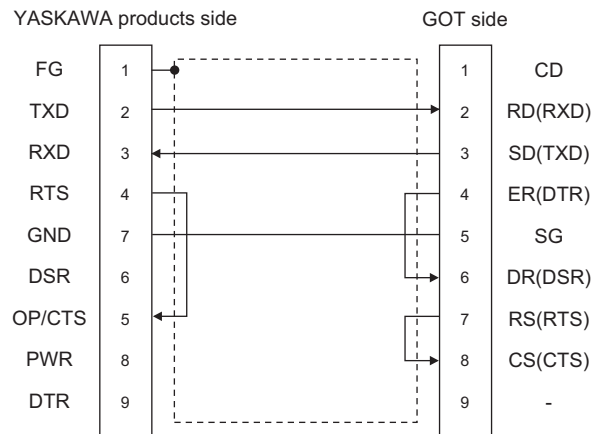
- Connection diagram
RS-232 3)



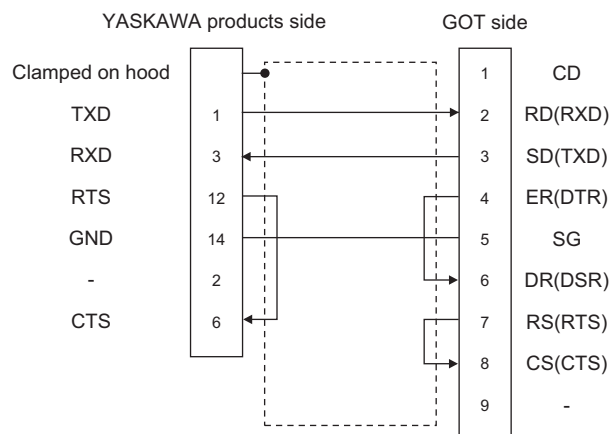
RS-232 4)

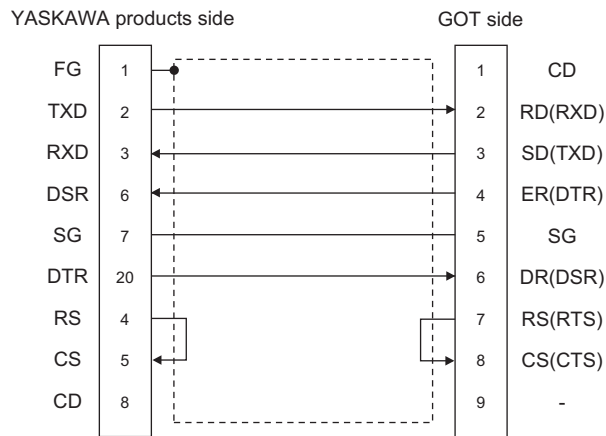


RS-232 5)



RS-232 6)





- Connector specification

- 1 Personal computer side connector
-) Use the connector compatible with the personal computer side.

- YASKAWA PLC CPU side connector

- 2 Use the connector compatible with YASKAWA PLC CPU side.
-) For details, refer to the following manual.

➡ User's manual for YASKAWA PLC CPU

- Precautions for creating cables

The length of the cable must be 15m or less.

(4) GT SoftGOT2000 setting

When communicating GT SoftGOT2000 to a YASKAWA PLC, communication setup is required.

Item ^{*2}	Setting
Comm. port	COM1 to COM6
Baud Rate ^{*1}	9600/19200/38400/57600bps
Host Add.	1 to 31
Wait Time	0 to 300ms

*1 The baud rate supported by the programmable controller must be set.

*2 The settings on the programmable controller and GT SoftGOT2000 must be the same.

Refer to the following for performing GT SoftGOT2000 communication setup.

➡ 2.4.1 [Communication Setup] dialog ■1. PLC (1) Direct CPU connection (RS-232)

(5) Controller setting

For the programmable controller side setting, refer to the following manual.

➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

POINT

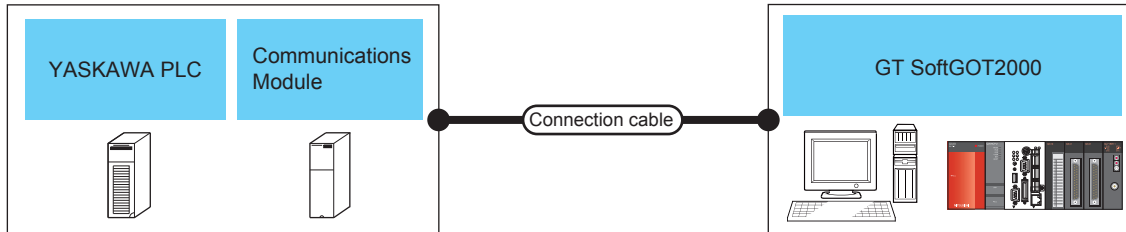
Send delay time

Set the transmission wait time as shown below when connecting to the programmable controller of CP-9200(H) or CP-9300MS.

Model name		Send delay time
CP-9200(H)		30ms or more
CP-9300MS	For connecting to port 0	10ms or more
	For connecting to port 1	30ms or more

2. Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable ^{*3}	Max. distance	GT SoftGOT2000	Number of connectable equipment	
Model name	Communications Module	Communication type				Personal computer ^{*4}	PLC ^{*5}
MP920	218IF	Ethernet (Connection type: YASKAWA MP2000/ MP900/CP9200SH series)	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	10 ^{*1,2}	UDP: 128 TCP: 10
MP2200, MP2300, MP2300S	218IF-01, 218IF-02						
CP-317	218TXB						
MP3200, MP3300	(Built-in Ethernet)	Ethernet (Connection type: YASKAWA MP3000 series)					

^{*1} To use GT SoftGOT2000 module together with another GT SoftGOT2000 module or a different application, set the different number for each port No.

^{*2} The number of connectable personal computers includes the number of total GT SoftGOT2000 modules started in a personal computer.

^{*3} The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system. Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.

^{*4} Indicates the number of personal computers connectable to one PLC.

^{*5} Indicates the number of PLCs connectable to one personal computer.

(2) Communications Module, Ethernet board/card

The following table shows connectable communication modules and Ethernet board/card.

(a) Communications Module

Item	Model name
For MP920	218IF
For MP2200, MP2300, MP2300S	218IF-01, 218IF-02
CP-317	218TXB

(b) Ethernet board/card

Use the same Ethernet board and card as those for connecting to MITSUBISHI PLC.

➡ 3.3.2 Built-in Ethernet port CPU, Ethernet module, Ethernet board/card

POINT

When using PC CPU module

A interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

(3) Connection cable

Use a cable applicable to the Ethernet module or the Ethernet board/card to be used.

(4) Controller setting

POINT

Precautions for Ethernet connection

(1) YASKAWA PLC

For details on YASKAWA PLC, refer to the following manual.

- ➡ User's manual for YASKAWA PLC CPU

(2) Precautions for Ethernet connection

The Net No. and PLC No. are specified when connecting to the YASKAWA PLC via the Ethernet connection. In such cases, set the Net No. and PLC No. arbitrarily on GT Designer3.

For how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000, refer to the following.

- ➡ (8) Settings on GT Designer3 and GT SoftGOT2000.

(a) Before setting

- A connection of multiple pieces of network equipment (including GT SoftGOT2000) to a segment may increase the network load and slow down the communication between the GT SoftGOT2000 and the programmable controller.
Communication efficiency may be improved by using one or more of the following methods:
 - Use a switching hub
 - Use a high-speed 100BASE-TX (100Mbps)
 - Reduce the number of monitoring points of the GT SoftGOT2000
- To connect multiple GT SoftGOT2000 modules within the Ethernet network, set a different [PLC No.] for each GT SoftGOT2000.
- Do not use "192.168.0.18" for IP address when starting multiple GT SoftGOT modules.
Otherwise, a communication error occurs in GOT.

(5) Setting of programmable controller side

For settings for each part of programmable controller, refer to the following manual.

- ➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

(6) Setting on the personal computer

Set the IP address.

(7) Communications check

(a) Ping test

Execute the Ping command with Command Prompt of Windows when the preparations for communication are complete.

- When the Ping test is verified
C:\>Ping 192. 168. 0. 2
Reply from 192.168.0.2:bytes=32 time<10ms TTL=32
- When the Ping test is not verified
C:\>Ping 192. 168. 0. 2
Request timed out.

If the Ping test is not verified, check connections of the cable and unit, Windows side IP address and other settings.

(b) Station monitoring function

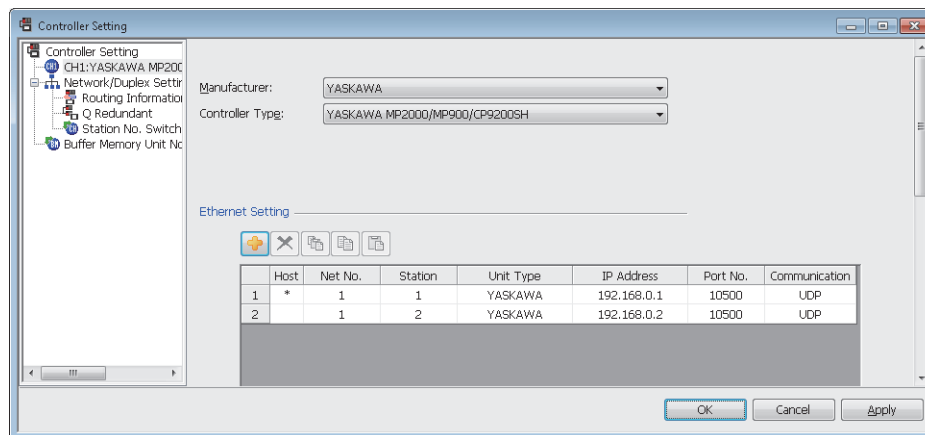
For details on the station monitoring function, refer to the following manual.

- ➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

(8) Settings on GT Designer3 and GT SoftGOT2000.

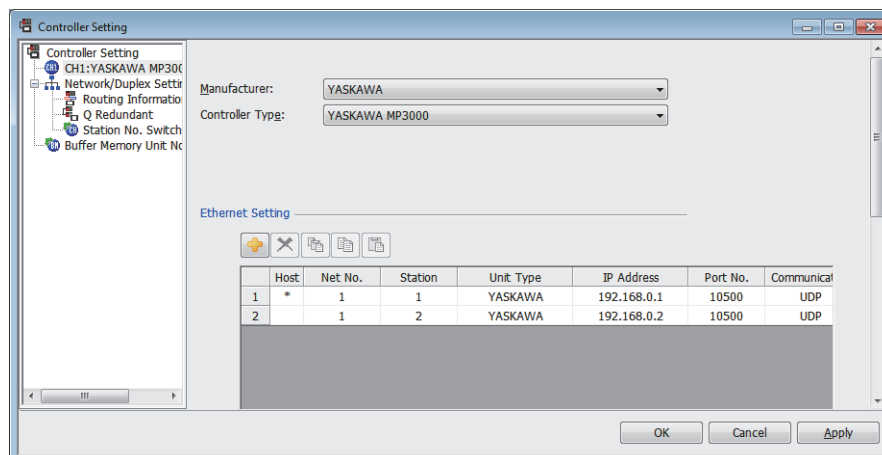
(a) Setting on GT Designer3

- Ethernet setting (Connection type: YASKAWA MP2000/MP900/CP9200SH series)
Set the [Ethernet setting] on GT Designer3 as shown below.
Up to 128 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select [YASKAWA].	[YASKAWA]
[IP address]	Set the IP address of the target Ethernet module.	IP address of programmable controller side
[Port No.]	Set the port number of the target Ethernet module.	[256] to [65534]
[Communication]	Select a communication method.	[UDP], [TCP]

- Ethernet setting (Connection type: YASKAWA MP3000 series)
Set the [Ethernet setting] on GT Designer3 as shown below.
Up to 128 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [64]
[Unit Type]	Select [YASKAWA].	[YASKAWA]
[IP address]	Set the IP address of the target Ethernet module.	IP address of programmable controller side
[Port No.]	Set the port number of the target Ethernet module.	[256] to [65534]
[Communication]	Select a communication method.	[UDP], [TCP]

(b) Setting on GT SoftGOT2000

- Communication setup

Set the communication setup dialog of GT SoftGOT2000.

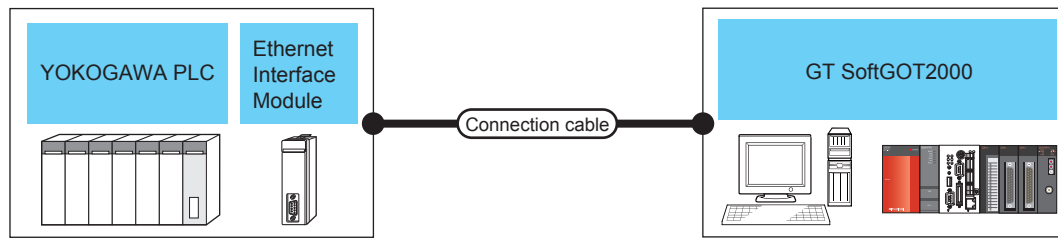
For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■1. PLC (6) Ethernet connection

3.15.5 YOKOGAWA PLC

■ 1. Ethernet connection

(1) System configurations and connection conditions



PLC ^{*4}			Connection cable ^{*3}	Max. distance	GT SoftGOT2000	Number of connectable equipment	
Model name	Ethernet Interface Module	Communication type				Personal computer ^{*5}	PLC ^{*6}
FA-M3	(Sequence CPU module with built-in network functions) ^{*7}	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	UDP: 128 ^{*1} TCP: 8 ^{*1*2}	UDP: 128 TCP: 10
	F3LE01-5T, F3LE11-0T, F3LE12-0T						

^{*1} To use GT SoftGOT2000 module together with another GT SoftGOT2000 module or a different application, set the different number for each port No.

^{*2} The number of connectable personal computers includes the number of total GT SoftGOT2000 modules started in a personal computer.

^{*3} The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system. Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.

^{*4} The multiple CPU system can be configured via an Ethernet Interface Module. For the details of the multiple CPU system, refer to the following manual.

➡ Manual of YOKOGAWA PLC

^{*5} Indicates the number of personal computers connectable to one PLC.

^{*6} Indicates the number of PLCs connectable to one personal computer.

^{*7} For the applicable CPUs, refer to the following.

➡ (2) Ethernet Interface Module and Ethernet board/card

(2) Ethernet Interface Module and Ethernet board/card

The following table shows connectable Ethernet Interface Modules and Ethernet boards/cards.

(a) Ethernet Interface Module

Item	Model name
For FA-M3	F3LE01-5T, F3LE11-0T, F3LE12-0T
Sequence CPU module with built-in network functions	F3SP66, F3SP67, F3SP71-4N, F3SP76-7S

(b) Ethernet board/card

Use the same Ethernet board and card as those for connecting to MITSUBISHI PLC.

➡ 3.3.2 Built-in Ethernet port CPU, Ethernet module, Ethernet board/card

POINT

When using PC CPU module

A interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

(3) Connection cable

Use a cable applicable to the Ethernet module or the Ethernet board/card to be used.

(4) Controller setting

POINT

Precautions for setting items

(1) YOKOGAWA PLC

For details on YOKOGAWA PLC, refer to the following manual.

- User's manual for YOKOGAWA PLC CPU

(2) Precautions for Ethernet connection

The Net No. and PLC No. are specified when connecting to the YOKOGAWA PLC via the Ethernet. In such cases, set the Net No. and PLC No. arbitrarily on GT Designer3.

Refer to the following for how to set the Net No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000

- (8) Settings on GT Designer3 and GT SoftGOT2000

(a) Before setting

- A connection of multiple pieces of network equipment (including GT SoftGOT2000) to a segment may increase the network load and slow down the communication between the GT SoftGOT2000 and the programmable controller.
Communication efficiency may be improved by using one or more of the following methods:
 - Use a switching hub
 - Use a high-speed 100BASE-TX (100Mbps)
 - Reduce the number of monitoring points of the GT SoftGOT2000
- To connect multiple GT SoftGOT2000 modules within the Ethernet network, set a different [PLC No.] for each GT SoftGOT2000.
- Do not use "192.168.0.18" for IP address when starting multiple GT SoftGOT.
Otherwise, a communication error occurs in GOT.

(5) Setting of programmable controller side

For settings for each part of the programmable controller, refer to the following manual.

- GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

(6) Setting on the personal computer

Set the IP address.

(7) Communications check

(a) Ping test

Execute the Ping command with Command Prompt of Windows when the preparations for communication are complete.

- When the Ping test is verified
C:\>Ping 192. 168. 0. 2
Reply from 192.168.0.2:bytes=32 time<10ms TTL=32
- When the Ping test is not verified
C:\>Ping 192. 168. 0. 2
Request timed out.

If the Ping test is not verified, check connections of the cable and unit, Windows side IP address and other settings.

(b) Station monitoring function

For details on the station monitoring function, refer to the following manual.

- GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

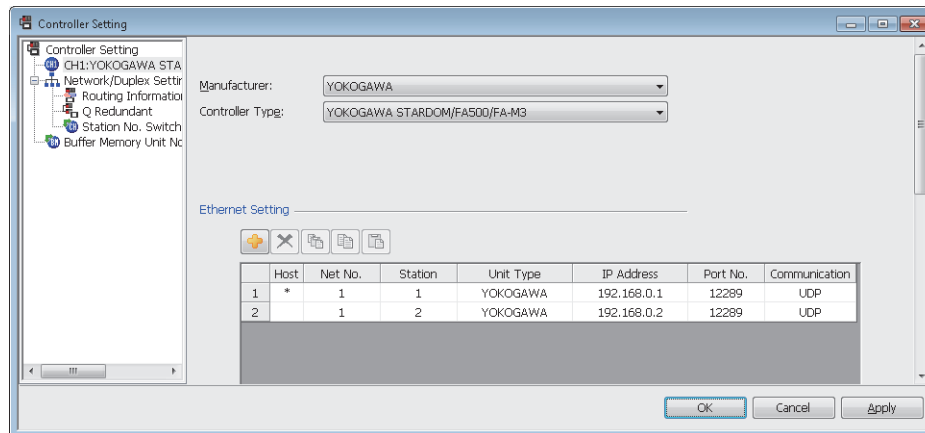
(8) Settings on GT Designer3 and GT SoftGOT2000

(a) Setting on GT Designer3

- Ethernet setting

Set the [Ethernet setting] on GT Designer3 as shown below.

Up to 128 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module	[1] to [64]
[Unit Type]	Select [YOKOGAWA].	[YOKOGAWA]
[IP address] ^{*1}	Set the IP address of the target Ethernet module.	IP address of programmable controller side
[Port No.] ^{*2}	Set the port number of the target Ethernet module.	[12289], [12291]
[Communication] ^{*1}	Select a communication method.	[UDP], [TCP]

*1 Set the IP address and the communication method set for the PLC.

*2 Set the port number of the higher-level link service used for the PLC.

(b) Setting on GT SoftGOT2000

- Communication setup

Set the communication setup dialog of GT SoftGOT2000.

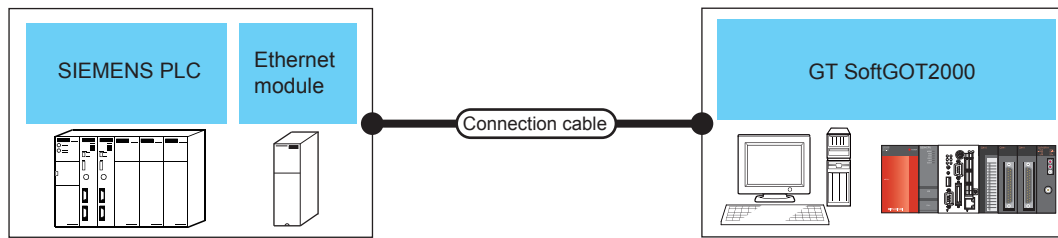
For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■1. PLC (6) Ethernet connection

3.15.6 SIEMENS PLC

■1. Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable*4	Max. distance	GT SoftGOT2000	Number of connectable equipment	
Model name	Ethernet module	Communication type				Personal computer*5	PLC*6
SIMATIC S7-300	CP343-1 IT, CP343-1, CP343-1 Lean, CP343-1 Advanced	Ethernet (Connection type: FETCH/WRITE)	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	32 or less (recommended to 16 units or less)*1*2*3	16 or less
SIMATIC S7-400	CP443-1 IT, CP443-1						
SIMATIC S7-200	CP 243-1, CP 243-1 IT	Ethernet (Connection type: OP communication)				32 or less (recommended to 16 units or less)*1*2*3	128 or less
SIMATIC S7-300	CP 343-1, CP 343-1 Lean, CP 343-1 Advanced-IT						
SIMATIC S7-400	CP 443-1, CP 443-1 Advanced-IT						
SIMATIC S7-1200	(Built-in Ethernet port)*7						

^{*1} To use GT SoftGOT2000 module together with another GT SoftGOT2000 module or a different application, set the different number for each port No.

^{*2} If the number of GOTs increases, the communication becomes high-loaded, and it may affect the communication performance.

^{*3} The number of connectable personal computers includes the number of total GT SoftGOT2000 modules started in a personal computer.

^{*4} The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system.

Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.

^{*5} Indicates the number of personal computers connectable to one PLC.

^{*6} Indicates the number of PLCs connectable to one personal computer.

^{*7} For the applicable CPUs, refer to the following.

➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

(2) Ethernet module and Ethernet board/card

The following shows connectable Ethernet modules and Ethernet boards/cards.

(a) Ethernet module

- Connection type: FETCH/WRITE

Item	Model name
SIMATIC S7-300	CP343-1 IT, CP343-1, CP343-1 Lean, CP343-1 Advanced
SIMATIC S7-400	CP443-1 IT, CP443-1

- Connection type: OP communication

Item	Model name
SIMATIC S7-200	CP 243-1, CP 243-1 IT
SIMATIC S7-300	CP 343-1, CP 343-1 Lean, CP 343-1 Advanced-IT
SIMATIC S7-400	CP 443-1, CP 443-1 Advanced-IT

(b) Ethernet board/card

Use the same Ethernet board and card as those for connecting to MITSUBISHI PLC.

- ➡ 3.3.2 Built-in Ethernet port CPU, Ethernet module, Ethernet board/card

POINT

When using PC CPU module

A interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

(3) Connection cable

Use a cable applicable to the Ethernet module or the Ethernet board/card to be used.

(4) Controller setting

POINT

Precautions for Ethernet connection

(1) SIEMENS PLC

For the details of SIEMENS PLCs, refer to the following manual.

- ➡ User's manual for SIEMENS PLC

(2) Precautions for Ethernet connection

Specify the Net No. and the PLC No. of the SIEMENS PLC connected to the GOT via the Ethernet connection. The specified Net No. and the PLC No. must be the same as those set on GT Designer3.

For the settings of Net No., PC No., IP address and port No. of the Ethernet module and GT SoftGOT2000, refer to the following.

- ➡ (8) Settings on GT Designer3 and GT SoftGOT2000

(a) Before setting

- A connection of multiple pieces of network equipment (including GT SoftGOT2000) to a segment may increase the network load and slow down the communication between the GT SoftGOT2000 and the programmable controller.
- Communication efficiency may be improved by using one or more of the following methods:
 - Use a switching hub
 - Use a high-speed 100BASE-TX (100Mbps)
 - Reduce the number of monitoring points of the GT SoftGOT2000
- To connect multiple GT SoftGOT2000 modules within the Ethernet network, set a different [PLC No.] for each GT SoftGOT2000.
- Do not use "192.168.0.18" for IP address when starting multiple GT SoftGOT modules. Otherwise, a communication error occurs in GOT.

(5) Setting of programmable controller side

For settings for each part of programmable controller, refer to the following manual.

- ➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

(6) Setting on the personal computer

Set the IP address.

(7) Communications check

(a) Ping test

Execute the Ping command with Command Prompt of Windows when the preparations for communication are complete.

- When the Ping test is verified
C:\>Ping 192. 168. 0. 2
Reply from 192.168.0.2:bytes=32 time<10ms TTL=32
- When the Ping test is not verified
C:\>Ping 192. 168. 0. 2
Request timed out.

If the Ping test is not verified, check connections of the cable and unit, Windows side IP address and other settings.

(b) Station monitoring function

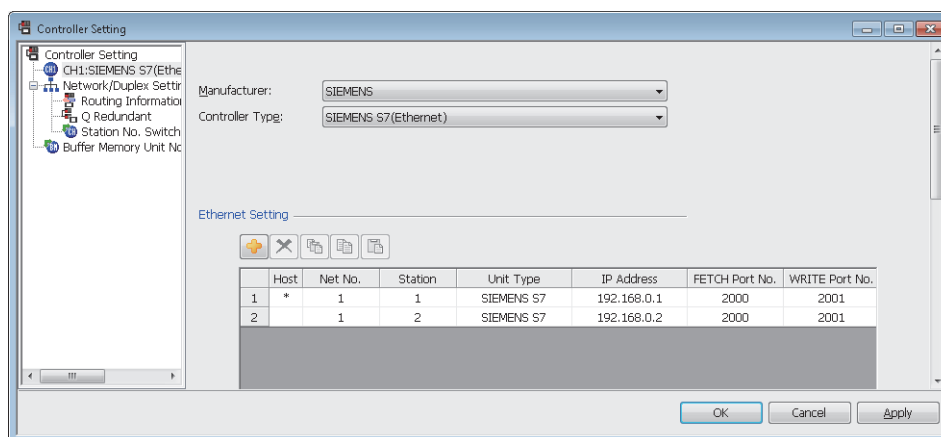
For details on the station monitoring function, refer to the following manual.

➡ GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

(8) Settings on GT Designer3 and GT SoftGOT2000.

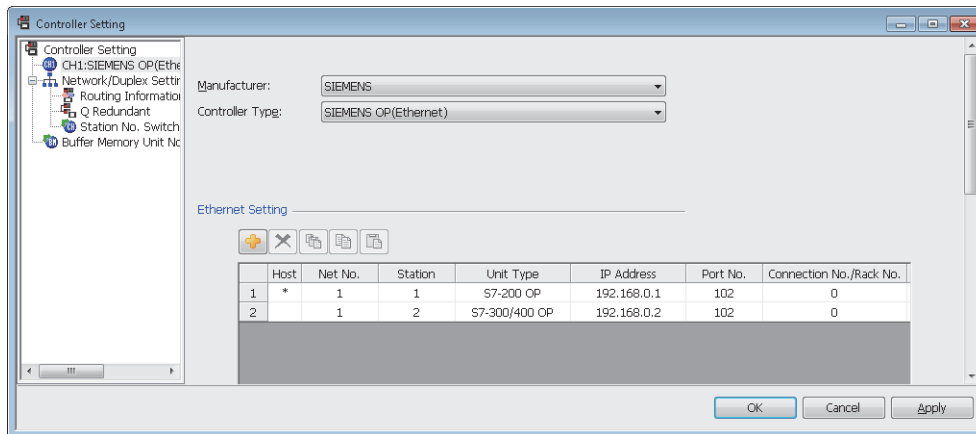
(a) Setting on GT Designer3

- Ethernet setting (Connection type: FETCH/WRITE)
Set the [Ethernet setting] on GT Designer3 as shown below.
Up to 64 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [254]
[Unit Type]	Select [SIEMENS S7].	[SIEMENS S7]
[IP address]	Set the IP address of the target Ethernet module.	IP address of programmable controller side
[FETCH Port No.]	Set the FETCH port No. of the connected Ethernet module.	[1024] to [65534]
[WRITE Port No.]	For the WRITE port No. of the connected Ethernet module, the value that the FETCH port No. is incremented by one is set automatically.	[1025] to [65535]
[Communication]	Displays the communication method.	[TCP]

- Ethernet setting (Connection type: OP communication)
Set the [Ethernet setting] on GT Designer3 as shown below.
Up to 128 [Ethernet setting] can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module.	[1] to [254]
[Unit Type]	Set a PLC type to be connected.	[S7-200 OP] [S7-300/400 OP] [S7-1200 OP]
[IP address]	Set the IP address of the target Ethernet module.	IP address of programmable controller side
[Port No.]	Displays the port number of the destination Ethernet module.	[102]
[Connection No./Rack No.]*1	Set the connection No./rack No. which is set in the PLC side.	[0] to [7]
[Module Position/Slot No.]*1	Set the module position/slot No. which is set in the PLC side.	S7-200 OP: [0] to [6] S7-300/400 OP: [0] to [31]
[Communication]	Displays the communication method.	[TCP]

*1 The model S7-1200 OP has no setting for the connection No./rack No. or module position/slot No.

(b) Setting on GT SoftGOT2000

• Communication setup

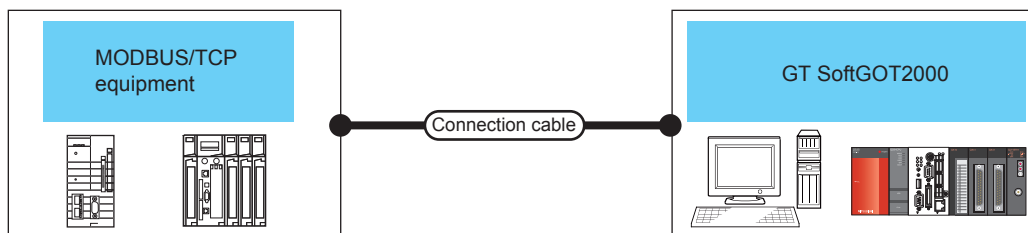
Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■1. PLC (6) Ethernet connection

3.16 MODBUS/TCP Connection

3.16.1 System configuration



Model name	Communication type	Connection cable ^{*2}	Max. distance	GT SoftGOT2000	Number of connectable equipment	
					Personal computer ^{*4}	PLC ^{*5}
MODBUS/TCP equipment ^{*3}	Ethernet	Twisted pair cable	100m (max. segment length)	A personal computer that can run Windows PC CPU	128 ^{*1}	Depending on the MODBUS/TCP equipment used ^{*6}

^{*1} When starting up multiple GT SoftGOT2000 modules, monitoring is enabled on the multiple screens.

^{*2} The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system.

Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.

^{*3} For the connectable MODBUS/TCP equipment, refer to the following Technical News.

➡ List of Valid Devices Applicable for GOT2000 Series with MODBUS Connection (GOT-A-0037)

For Technical News, contact your local distributor.

^{*4} Indicates the number of personal computers connectable to one PLC.

^{*5} Indicates the number of PLCs connectable to one personal computer.

^{*6} For details, refer to the MODBUS/TCP equipment manual.

3.16.2 Ethernet board/card

The Ethernet port built in the personal computer can be used.

Use an Ethernet board or an Ethernet card applicable to the MODBUS/TCP equipment to be connected.

POINT

When using PC CPU module

A interface board is not required.

For the system configuration of the PC CPU module, refer to the manual of the PC CPU module.

3.16.3 Connection cable

Use a cable applicable to the Ethernet module or the MODBUS/TCP equipment to be used.

3.16.4 Controller setting

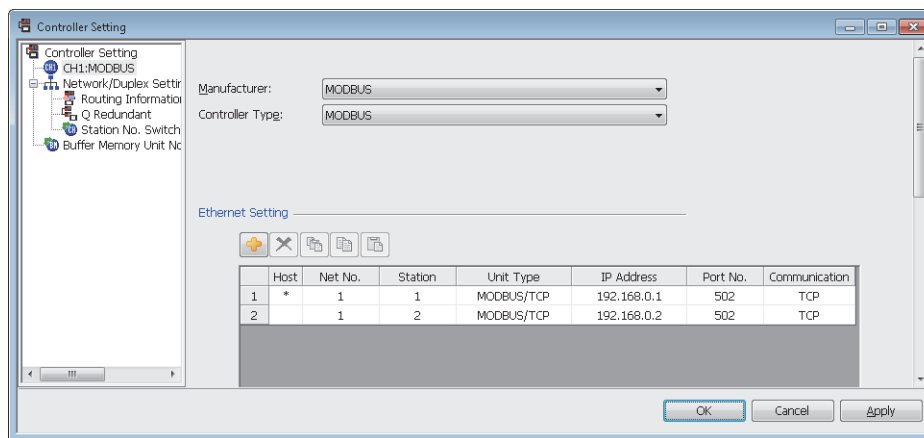
■ 1. Settings on GT Designer3 and GT SoftGOT2000

(1) Setting on GT Designer3

- Ethernet setting

Set the [Ethernet setting] dialog on GT Designer3 as shown below.

Up to 128 [Ethernet setting]s can be configured.



Item	Description	Range
[Host]	Indicate the host station. (The host station is indicated as *.)	-
[Net No.]	Set the network number of the target Ethernet module.	[1] to [239]
[Station]	Set the station number of the target Ethernet module	[1] to [247]
[Unit Type]	Select [MODBUS/TCP].	[MODBUS/TCP]
[IP address]	Set the IP address of the target MODBUS/TCP equipment.	IP address of the MODBUS/TCP equipment side
[Port No.]	Displays the port number of the MODBUS/TCP equipment.	[1] to [65535]
[Communication]	Displays the connection method.	[TCP]

(2) Setting on GT SoftGOT2000

- Communication setup

Set the communication setup dialog of GT SoftGOT2000.

For details on the communication setting, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

■ 2. MODBUS/TCP equipment settings

For the MODBUS/TCP equipment settings, refer to the manual of the MODBUS/TCP equipment used.

■3. MODBUS communication control function on the GOT special register (GS device)

This function is to prevent the communication response delay that occurs because the devices on the MODBUS network differ from each other in network specification.

This function is effective for the MODBUS network conditions as described below:

- When only a part of function codes is supported (Example: "0F" is not supported)
- When the maximum transfer size of function code is small (Example: The maximum number of coil read times is 1000)

(1) Communication setting

The device (GS579.b0) switches between two communication settings.

When GS579.b0 is off, the communication setting 1 (GS570 to GS576) is applied.

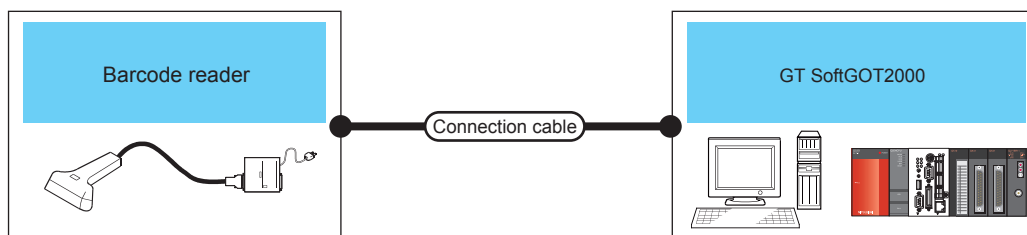
When GS579.b0 is on, the communication setting 2 (GS590 to GS596) is applied.

The following shows the communication setting.

GS device		Description	Set value
Communication setting 1	Communication setting 2		
GS570	GS590	Command selection	Bit0: 0 Using Function Code "0F" 1 Not using Function Code "0F" Bit1: 0 Using Function Code "10" 1 Not using Function Code "10"
GS571	GS591	Function Code "01" Specification for the max. number of coil read times	0:1000 1 to 2000: Specify the maximum number. Other than above: 2000
GS572	GS592	Function Code "02" Specification for the max. number of input relay read times	0:1000 1 to 2000: Specify the maximum number. Other than above: 2000
GS573	GS593	Function Code "03" Specification for the max. number of holding register read times	0:125 1 to 125: Specify the maximum number. Other than above: 125
GS574	GS594	Function Code "04" Specification for the max. number of input register read times	0:125 1 to 125: Specify the maximum number. Other than above: 125
GS575	GS595	Function Code "0F" Specification for the max. number of multiple-coil write times	0:800 1 to 800: Specify the maximum number. Other than above: 800 When Bit0 of GS570 is "1", the function code "0F" is not used, and therefore the setting of GS575 will be disabled.
GS576	GS596	Function Code "10" Specification for the max. number of multiple-holding register write times	0:100 1 to 100: Specify the maximum number. Other than above: 100 When Bit1 of GS570 is "1", the function code "10F" is not used, and therefore the setting of GS576 will be disabled.

3.17 Barcode Reader Connection

3.17.1 System configurations and connection conditions



Controller	Connection cable	GT SoftGOT2000	Number of connectable equipment
Barcode reader*1	Varies according to the specifications of the barcode reader used.*1	A personal computer that can run Windows PC CPU	1 barcode reader for 1 GT SoftGOT2000 module

*1 For connectable bar code readers, system equipment, available bar code types and connection cables, refer to the following Technical News.

➡ List of valid devices applicable for GOT2000 series (GOT-A-0064)
For Technical News, contact your local distributor.

3.17.2 Controller setting

■ 1. Barcode function setting on GT Designer3

Before connecting the barcode reader, make the barcode function and system data settings.
For details, refer to the following manual.

➡ GT Designer3 (GOT2000) Help

■ 2. Setting on GT SoftGOT2000

Set the [Communication Setup] dialog of GT SoftGOT2000.
For details on the [Communication Setup] dialog, refer to the following manual.

➡ 2.4.1 [Communication Setup] dialog ■ 2. Barcode

■ 3. Barcode reader setting

For details on the barcode reader setting, refer to the following manual.

➡ Manual of the barcode reader used

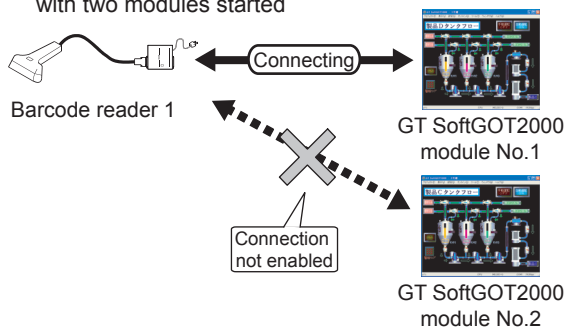
3.17.3 Precautions

■ 1. Using barcode reader connection on multiple started GT SoftGOT2000 modules

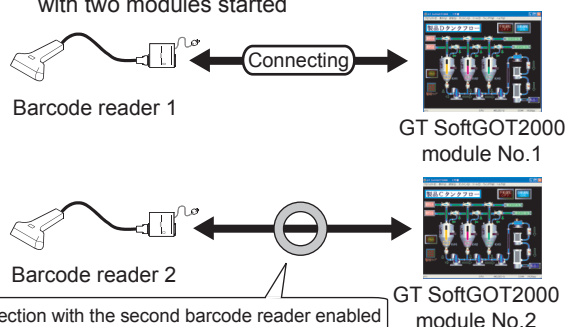
A barcode reader cannot be used by multiple started GT SoftGOT2000 modules or other applications simultaneously.

The barcode reader communicates with the GT SoftGOT2000 which first establishes the connection.

1) Example of connection failure with two modules started

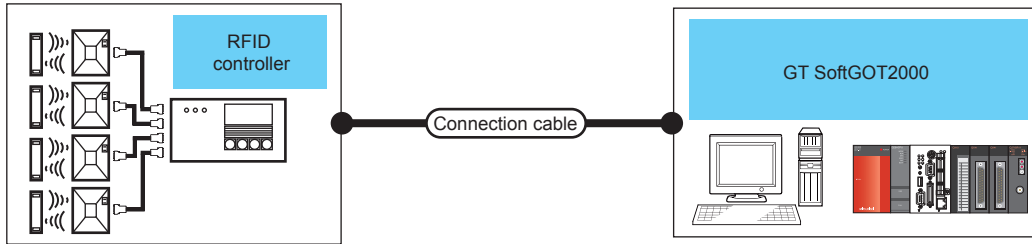


2) Example of succeeded connection with two modules started



3.18 RFID Connection

3.18.1 System configurations



Controller	Connection cable	GT SoftGOT2000	Number of connectable equipment
RFID controller*1	Varies according to the specifications of the RFID controller used.*1	A personal computer that can run Windows PC CPU	1 RFID controller for 1 GT SoftGOT2000 module

*1 For connectable RFID controllers, system equipment, and connection cables, refer to the following Technical News.

- ➡ List of valid devices applicable for GOT2000 series (GOT-A-0064)
- For Technical News, contact your local distributor.

3.18.2 Controller setting

■1. RFID function setting on GT Designer3

Before connecting the RFID controller, make the RFID function and system data settings.
For details, refer to the following manual.

- ➡ GT Designer3 (GOT2000) Help

■2. Setting on GT SoftGOT2000

Set the [Communication Setup] dialog of GT SoftGOT2000.
For details on the [Communication Setup] dialog, refer to the following manual.

- ➡ 2.4.1 [Communication Setup] dialog ■3. RFID

■3. RFID controller setting

For details on the RFID controller setting, refer to the following manual.

- ➡ Manual of the RFID controller used

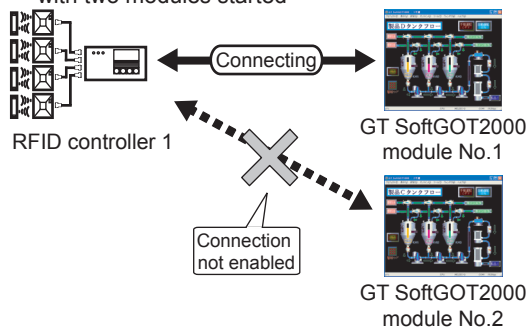
3.18.3 Precautions

■1. Using RFID connection on multiple started GT SoftGOT2000 modules

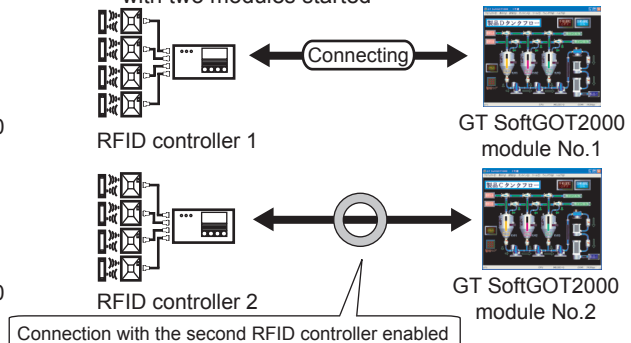
An RFID controller cannot be used by multiple started GT SoftGOT2000 modules or other applications simultaneously.

The RFID controller communicates with the GT SoftGOT2000 which first establishes the connection.

1) Example of connection failure with two modules started

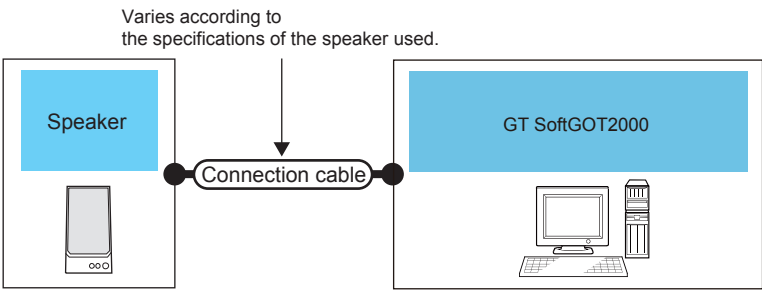


2) Example of succeeded connection with two modules started



3.19 Sound Output Device Connection

3.19.1 System configurations



Controller	Connection cable	GT SoftGOT2000
Speaker built in a personal computer and external speaker ^{*1}	Depends on the specifications of the external speaker to be used.	A personal computer that can run Windows

^{*1} When using a personal computer that has no sound function, use a sound card.

3.19.2 Controller setting

■ 1. Sound output function setting on GT Designer3

Before connecting the sound output, make the sound output function settings.
For details, refer to the following manual.

➡ GT Designer3 (GOT2000) Help

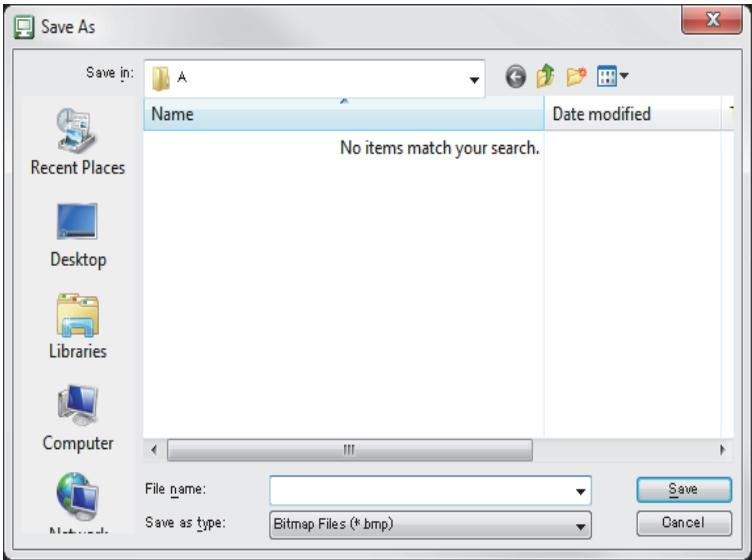
4. FUNCTIONS OF GT SoftGOT2000

4.1	Snap Shot	4 - 2
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4.1 Snap Shot

The screen image being monitored is saved into BMP or JPEG format file.

- Step 1.
- Perform the following operation.
 - Select [Project] → [Snap Shot...] from the menu.
- Step 2.
- The [save as] dialog is displayed.
Set the following items and click the Save button.



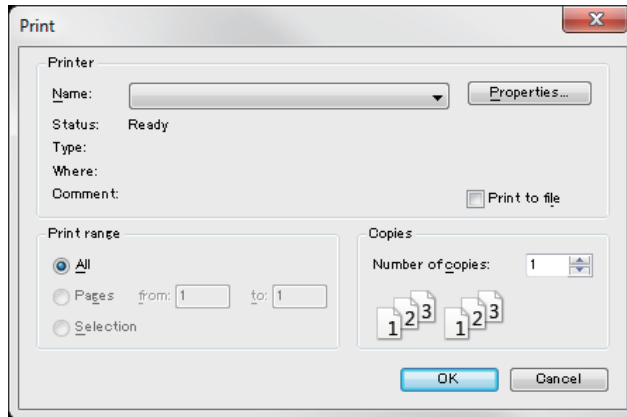
Item	Description
[Save in]	Selects the area where the file is saved.
[File name]	Selects the file name to be saved.
[Save as type]	Selects a format of the file. <ul style="list-style-type: none">• [Bitmap Files (*.bmp)]: BMP format• [JPEG Files (*.jpg)] : JPEG format

4.2 Print

The screen image being monitored is output to a printer.

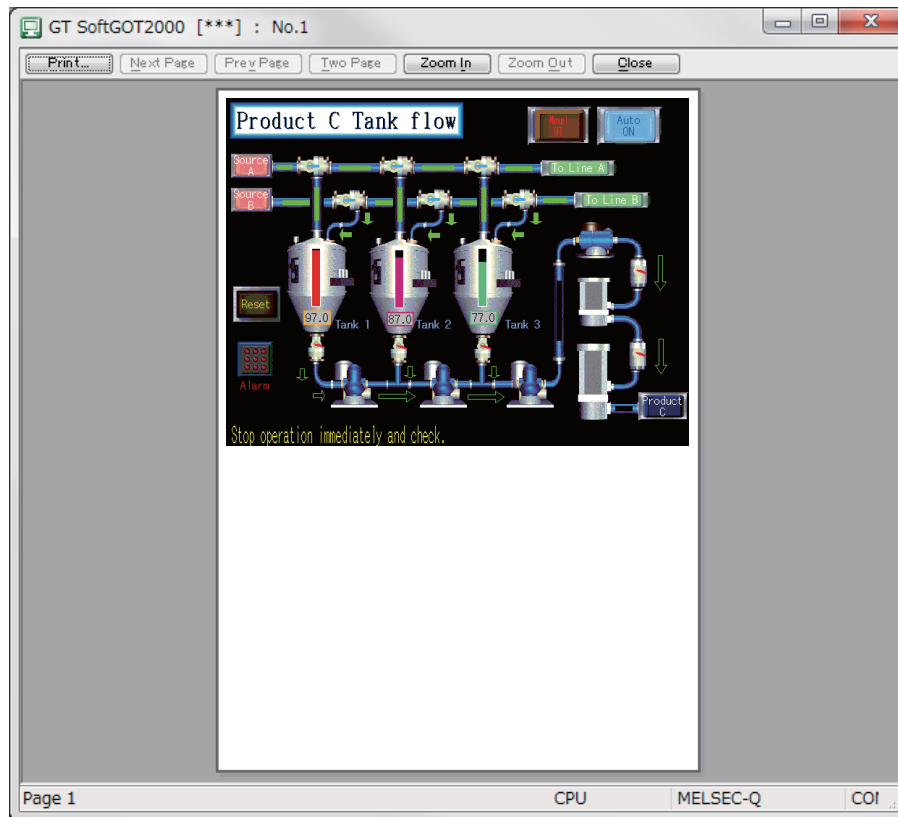
4.2.1 Printing

- Step 1.** Perform the following operation.
- Select [Project] → [Print...] from the menu.
- Step 2.** The [Print] dialog of Windows is displayed.
Click the **OK** button to start printing.



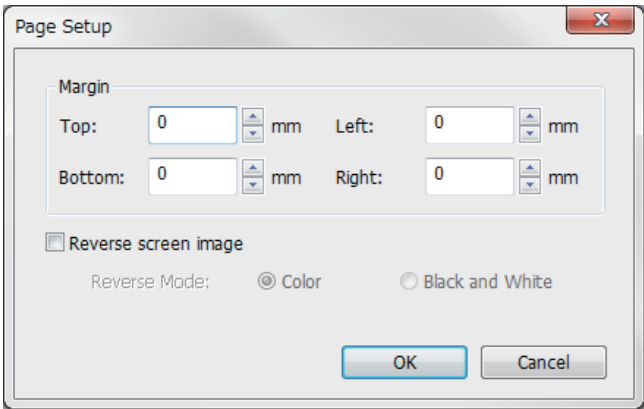
4.2.2 Performing print preview

- Step 1.** Perform the following operation.
- Select [Project] → [Print Preview] from the menu.
- Step 2.** Print Preview is displayed.



4.2.3 Performing page setup

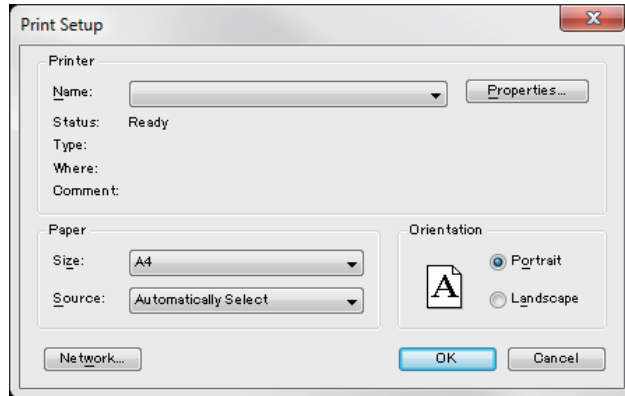
- Step 1.** Perform the following operation.
- Select [Project] → [Page Setup] from the menu.
- Step 2.** The [Page Setup] dialog is displayed.
Set the following items and click the **OK** button.



Item	Description
[Margin]	Set the margins on a page to be printed.
[Reverse screen image]	Select this item to reverse the colors of screen image when printing.
[Reverse Mode]	Set the reverse mode for screen image. <ul style="list-style-type: none">• [Color] : Reverse all the colors of screen image to be printed.• [Black and White] : Reverse the black and white colors of screen image to be printed.

4.2.4 Performing print setup

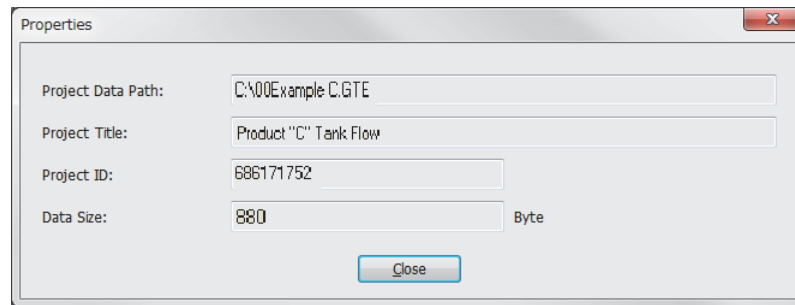
- Step 1.** Perform the following operation.
- Select [Project] → [Print Setup...] from the menu.
- Step 2.** The [Print Setup] dialog of Windows is displayed.
- Step 3.** Configure the settings for the printer (selecting a printer, paper size, direction of printing) and click the **OK** button.



4.3 Property

The project title, project ID and data size of project data being monitored are displayed.

- Step 1.** Perform the following operation.
- Select [Project] → [Properties...] from the menu.
- Step 2.** The [Properties] dialog is displayed.



Item	Description
[Project Data Path]	Displays the path of the read project data.
[Project Title]	Displays the project title.
[Project ID]	Displays the project ID.
[Data Size]	Displays the data size of project data.

POINT

When the [Properties] dialog is displayed before starting monitoring

When the [Properties] dialog is displayed before starting monitoring, the [Project Data Path], [Project Title], [Project ID] and [Data Size] of project data monitored previously are displayed. (If project data has not been loaded, the [Project Data Path], [Project Title], [Project ID] and [Data Size] are not displayed.)

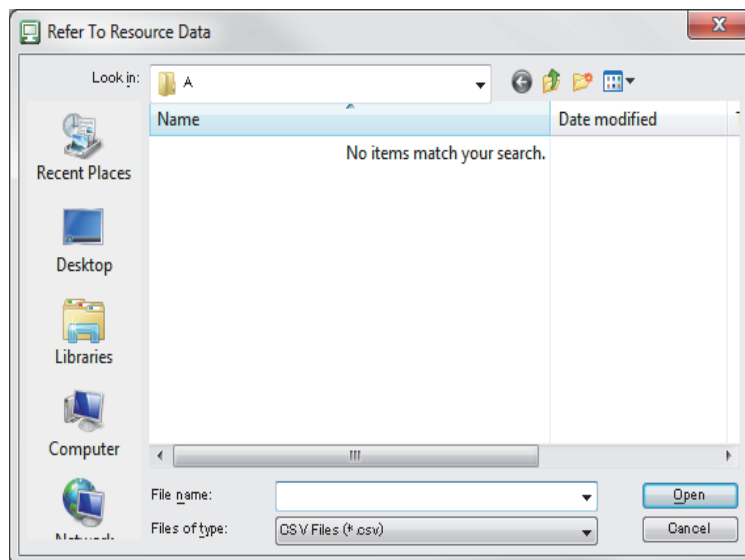
4.4 Resource Data

It is possible to reference data of the following object functions stored in the hard disk of the personal computer:

Alarm log,	Recipe,	Data log,	Operation log,
Image file (Hard copy and etc)			

- Step 1.** Perform the following operation.
- Select [Tool] → [Resource Data] from the menu.
 - Right-click the mouse to select [Tool] → [Resource Data].

- Step 2.** The [Refer To Resource Data] dialog is displayed.



Item	Description
[Look in]	Selects the location to which the resource data is stored.
[File name]	Specifies the file to be read.
[Files of type]	Selects the file format of the resource data. <ul style="list-style-type: none">• [CSV Files (*.csv)] : CSV format• [Unicode Text Files (*.txt)] : Unicode text file format• [Bitmap Files (*.bmp)] : BMP format• [JPEG Files (*.jpg)] : JPEG format

POINT

Resource data

- Data cannot be updated while being referenced. (The data is held.)
(The held data is reflected when the print data is updated after the data reference is over.)
- When creating a table in the report function, create the table as shown in example 1.
A table as shown in example 2 cannot be properly displayed in a CSV file.

(Example 1) Table created with
GT Designer3

	A	B
X	1	2
Y	3	4



CSV file table

	A	B
X	1	2
Y	3	4

(Example 2) Table created with
GT Designer3

	A	B
X	1	2
Y	3	4



CSV file table

A	B	
X	1	2
Y	3	4

- If the [Fail in the start of application.] message is displayed during data reference, check the application relating setting or hard disk/memory capacity.

4.5 Displaying File Information in PLC

GT SoftGOT2000 displays the file information in the connected PLC (QCPU or QSCPU).

POINT

(1) Requirements to display file information

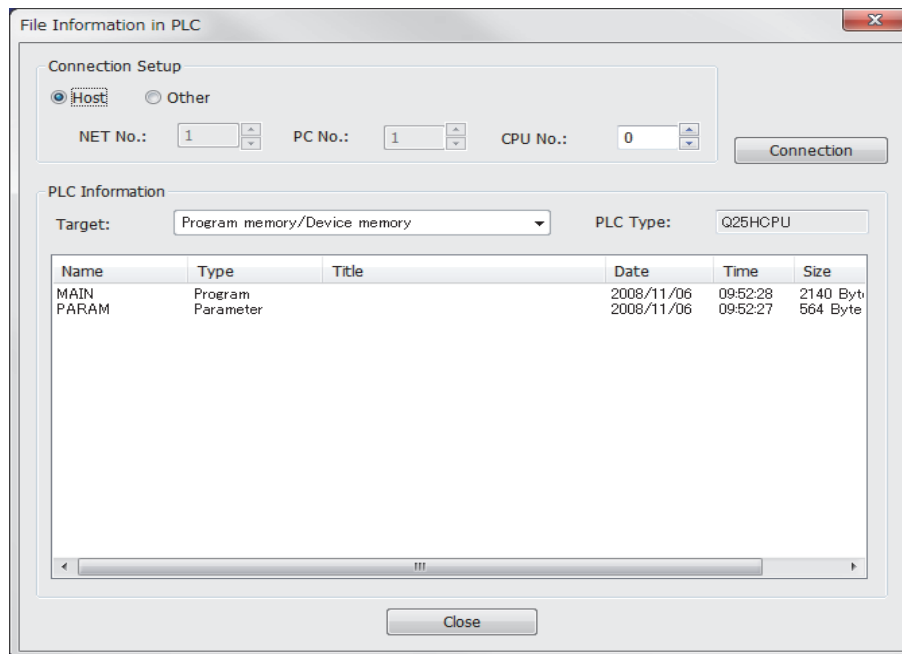
The file information is displayed when the host station is set to a MITSUBISHI PLC (QCPU or QSCPU) and GT SoftGOT2000 is in the online mode after monitoring is started.

(2) Displaying the dialog by using the GOT special register (GS device)

Turning on the PLC file display signal (GS500.b2) displays the [File Information in PLC] dialog.

4.5.1 Setting method

- Step 1.** Perform either of the following operations.
- Select [Tool] → [File Information in PLC] from the menu.
 - Right-click the mouse and select [Tool] → [File Information in PLC] from the menu.
- Step 2.** The [File Information in PLC] dialog is displayed.
Set the connection setup by referring to the table on the next page, and then click the **Connection** button.
- Step 3.** With successful communication, the PLC CPU model, the default target memory ([Program memory/Device memory]), and the file information in the memory are displayed.
- Step 4.** To display file information in a memory other than the program memory/device memory, change the target memory.



Item	Description
[Connection Setup]	Set the connected station to the host station or another station. (The default is [Host].)
[Host]	Check this item to set the connected station to the host station.
[Other]	Check this item to set the connected station to another station.
[NET No.]	When the connected station is set to another station, set the network No. of the PLC that has the file information to be displayed. [0] to [239] (The default is [1].)
[Station number]	When the connected station is set to another station, set the station No. of the PLC that has the file information to be displayed. [1] to [255] (The default is [1].)
[CPU No.]	Select the target CPU No. [0] to [4] (The default is [0].)
[PLC Information]	Displays the file information in the target PLC CPU.
[Target]	Select the PLC CPU memory that has files to be displayed on the GOT. [Program memory/Device memory], [Memory card(RAM)], [Memory card(ROM)], [Standard RAM], [Standard ROM] (The default is [Program memory/Device memory].)
[PLC Type]	Displays the target PLC CPU model.
[Name]	Displays the names of the files.
[Type]	Displays the types of the files. (The files are displayed in the order of type priorities starting from the left as shown below.) [Program], [Device comment], [Parameter], [Device init], [File register]
[Title]	Displays the titles of the files.
[Date]	Displays the last modified dates of the files.
[Time]	Displays the last modified time of the files.
[Size]	Displays the sizes of the files.

4.5.2 Precautions for use

■ 1. Communication processing of monitor screen while file information is displayed

Displaying file information in the PLC interrupts communication processing of the monitor screen. Therefore, communication processing of the monitor screen takes more time.

■ 2. When connecting to redundant system

Even if system switching occurs, the currently displayed file list is not updated. To display the file information in the new monitor target, set the connection setup and click the Connection button again.

■ 3. Updating read information

Even if the program and others are updated on the PLC side while the File Information in PLC dialog is displayed, the currently displayed file list is not updated.

To display the latest file information, click the Connection button again to update the displayed information.


4.6 Keyboard Input

The following can be operated using the keyboard input function.

- For the numerical input and the Text input, characters and values can be input with a keyboard.
- Operations, including displaying a ladder with the alarm display, can be operated with function keys of a keyboard.

4.6.1 Keyboard input enabling/disabling procedure














Step 1. When switching the keyboard input enable/disable, perform the following operation.

- Click  [Keyboard].
- Select [Set] → [Keyboard] from the menu.
- Right-click the mouse to select [Set] → [Keyboard] from the menu.

4.6.2 When operating the numerical input function or the ASCII input function from the keyboard of a PC

When using the numerical input function or the ASCII input function, numeric values/ASCII codes can be entered from the keyboard of a PC.

The following lists the operation when each key is pressed.

Type of key	Operation when entering a numeric value	Operation when entering ASCII code
	Erases the least significant digit and shifts the entire content one digit to the right.	
	Writes to a device, displays the cursor, moves the cursor, and closes the current dialog.	
	Cancels the operation.	
	Reverses the sign.	
	Inputs a decimal point.	
Numeric key	Inputs numeric values (0 to 9).	Inputs ASCII code, shift JIS code, and letters.
Alphabetic key	Input alphabetic letters (A to F).	
Arrow key	Moves the cursor.	
	–	Kanji conversion
	–	Former candidate
	–	Next candidate
	–	Select/No conversion
	Erases a character being input.	
 , 	Moves the cursor in the object.	
	Increment	–
	Decrement	–

4.6.3 How to use function keys

With assigning key codes to the following function keys, objects, including the alarm history, can be operated with a keyboard.

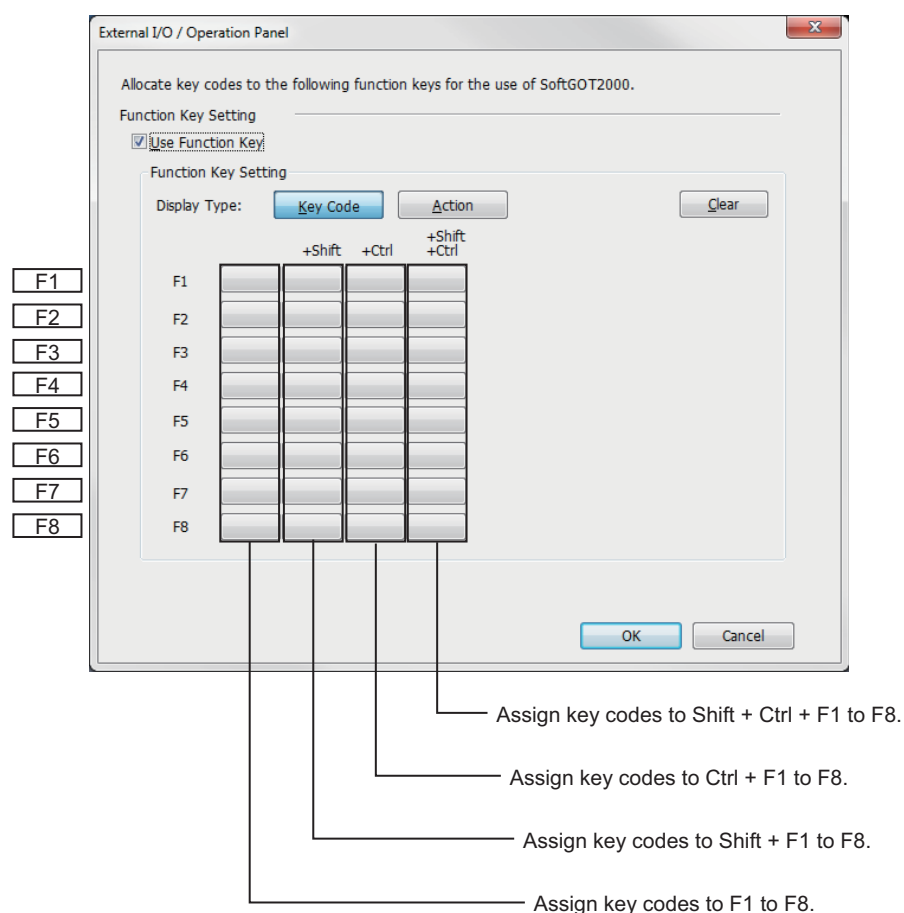
- F1 to F8
- Shift + F1 to F8
- Ctrl + F1 to F8
- Ctrl + Shift + F1 to F8

■ 1. How to assign key codes

Key codes are assigned in the OperationPanel screen on GT Designer3.

For settings in the OperationPanel dialog, refer to the following manual.

➡ GT Designer3 (GOT2000) Help



■1. When displaying a window screen on a base screen

When displaying a window screen on a base screen, and the alarm list display function or the alarm history display function has been set up on both the screens, key input is enabled for the alarm list display function or the alarm history display function on the base screen.

■2. When a touch switch to which the simultaneous press disable setting has been made is ON

The touch switch will not operate when pressing a key in the case the simultaneous press disable setting has been made to the touch switch and the touch switch is ON.

■3. Precautions on screen saving

- (1) When the screen save is set on GT SoftGOT2000, the monitor screen does not turn black as GOT even though the screen save operates. (The monitor screen keeps the same screen as before setting the screen save.)
When the monitor screen is clicked for canceling the screen save, clicking the screen is not recognized as input operations, including clicking touch switches. Be sure not to make incorrectly inputs.
- (2) When the screen saves for GT SoftGOT2000 and Windows operate, canceling the screen saves must be executed respectively.

■4. Keyboard inputs

- (1) The keyboard input function is not compatible with the utility screen.
Operate the utility screen with the mouse.
- (2) Do not use software keyboards (keyboard applications).

■5. Precautions for function keys

- (1) Function keys cannot be used during clicking the mouse.
- (2) For an input with a function key, the input is executed when the function key is released.
As a result, operations are not correctly executed even though the following are set on GT Designer3.
 - Setting [Operation Timing] of [Action of Go To Screen Switch] in [Screen Switching/Window] of [Environmental Setting].
 - Setting [Momentary] for the action of the bit in the [Action] tab of the Edit Action/Key Code screen for the operation panel setting
 - Setting [Auto Repeat] in the [Trigger] tab of the Edit Action/Key Code screen for the operation panel setting
- (3) When input methods, including IME of Windows®, are enabled, inputs with function keys cannot be executed.
For inputs with function keys, disable input methods, including IME of Windows®.

4.7 Popup Menu

The right-click of the mouse can be disabled (the menu can be hidden).

When the Popupmenu is set to be disabled, the menu is not displayed if you right-click the mouse.

This setting is also enabled when you exit and then restart GT SoftGOT2000.

4.7.1 Popup menu effective/ineffective

- Step 1.** Perform the following operation.
- Select [Set] → [Popup Menu] from the menu.
 - Right-click the mouse to select [Set] → [Popup Menu] from the menu.
- Step 2.** The right-click of the mouse is disabled.
- Step 3.** When you want to enable the right-click of the mouse again, choose [Set] - [Popup Menu].

4.7.2 Precautions

When the full screen mode and Popupmenu disable are set, the operations of the menu bar and mouse right-click menu cannot be performed. Therefore, the pop-up menu cannot be enabled until the full screen mode is canceled.

When you want to enable the pop-up menu, cancel the full screen mode in the following method.

■ **1. When the keyword of the full screen mode was added to the property of the GT SoftGOT2000 icon.**

After exiting GT SoftGOT2000 (pressing the [F12] key or turning ON the GOT internal device GS500.b0), delete the added keyword.

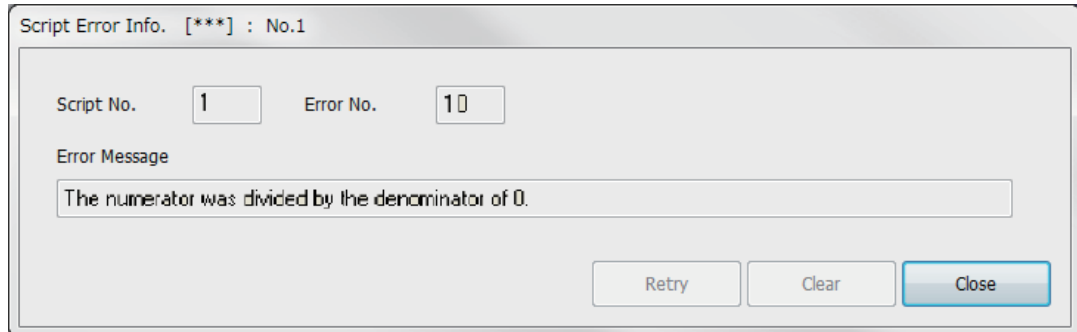
■ **2. When the full screen mode was executed from the menu.**

As the full screen mode is canceled by pressing the [Alt] + [F9] key, enable the Popupmenu from the menu.

4.8 Script Error Information

Monitor the execution status of a script (Error Information) to display the current status.

- Step 1.** Perform the following operation.
- Select [Tool] → [Script Error] menu.
 - Right-click the mouse to select [Tool] → [Script Error] from the menu.
- Step 2.** The [Script Error Info.] dialog is displayed.



Item	Description
[Script No.] *1	Script No. where error occurs is displayed.
[Error No.]	Error code of occurring error is displayed.
[Error Message]	Error contents are displayed.
[Retry]	Script is executed again.
[Clear]	Displayed error message is cleared. However, it is redisplayed when the error keeps occurring.
[Close]	The dialog is closed.

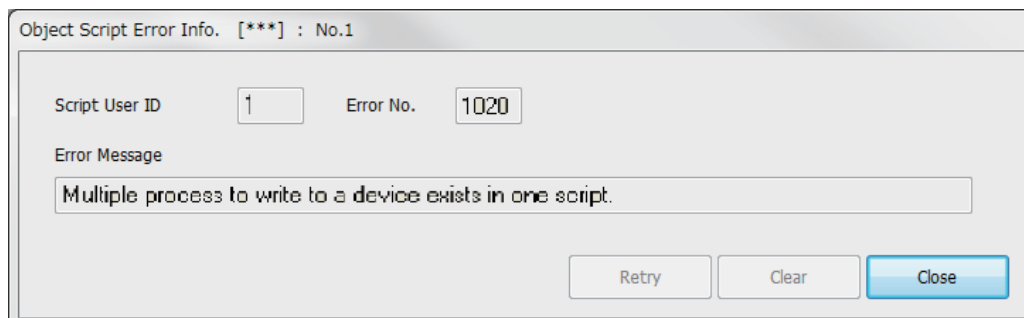
*1 Refer to the following manual for script function.

➡ GT Designer3 (got2000) Help

4.9 Object Script Error Information

Monitor the execution status of an object script (Error Information) to display the current status.

- Step 1.** Perform the following operation.
- Select [Tool] → [Object Script Error] from the menu.
 - Right-click the mouse to select [Tool] → [Object Script Error] from the menu.
- Step 2.** The [Object Script Error Info.] dialog is displayed.



Item	Description
[Script number] *1	User ID of the object script where error occurs is displayed.
[Error No.]	Error code of occurring error is displayed.
[Error Message]	Error contents are displayed.
[Retry]	Object script is executed again.
[Clear]	Displayed error message is cleared. However, it is redisplayed when the error keeps occurring.
[Close]	The dialog is closed.

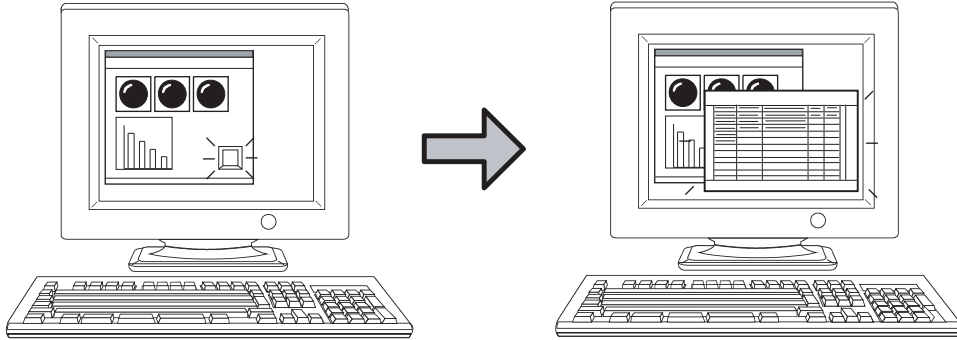
*1 Refer to the following manual for object script function and corrective actions for error messages.

➡ GT Designer3 (got2000) Help

4.10 Application Start-up

Various applications (such as Microsoft Excel) can be started from GT SoftGOT2000 while GT SoftGOT2000 monitor is running.

A file to be started up can be specified. This allows reference to the resource data of each function in CSV or BMP format.



An application can be started up by clicking a touch switch, for example.

POINT

Trigger and setting points of application start-up

For the application start-up, GOT internal devices are used as a trigger to start applications. Set the trigger in the [APP Setup 1]/[APP Setup 2]/[Advanced APP Setup] tabs of the [Application Start-up Setting] dialog.

The following shows the GOT internal devices to be used in each tab and the number of applications whose start-up setting can be set.

Tab	Description	Reference
[APP Setup 1]	Up to 16 applications can be allotted for the device GS501.	■ 1. [APP Setup 1], [APP Setup 2] tab
[APP Setup 2]	Up to 16 applications can be allotted for the device GS502.	
[Advanced APP Setup]	Up to 8160 applications can be allotted for the devices GS505 to GS507.	■ 2. [Advanced APP Setup] tab

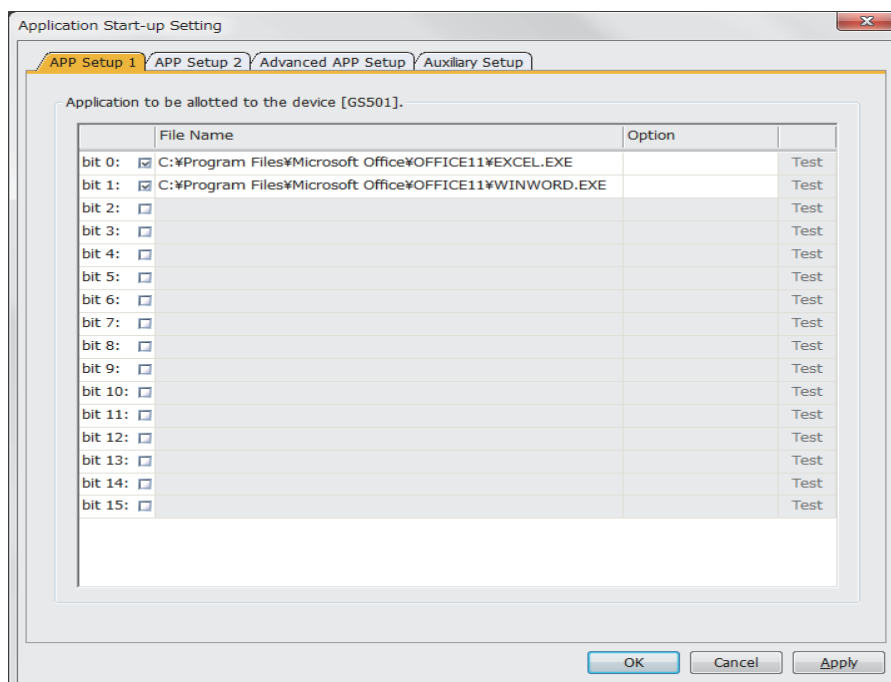
For details of GOT internal devices and the method of device settings, refer to the following manual.

➡ GT Designer3 (got2000) Help

4.10.1 Setting method

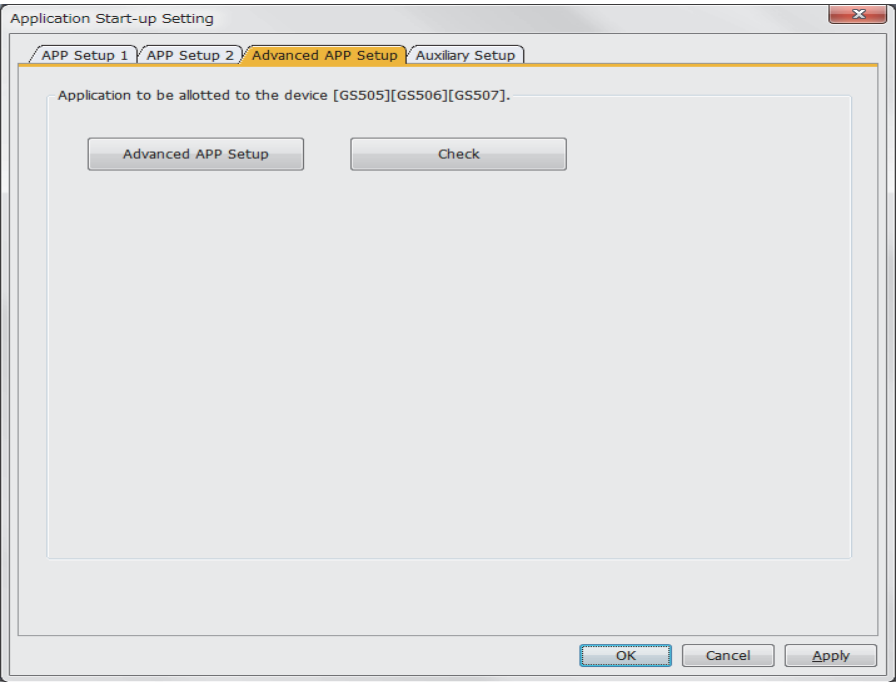
- Step 1.** Follow the procedure below.
- Select [Set] → [Application Start-up Setting] from the menu.
 - Right-click the mouse, and select [Set] → [Application Start-up Setting] from the menu.
- Step 2.** The [Application Start-up Setting] dialog is displayed.
Make the settings referring to the explanation below.

■ 1. [APP Setup 1], [APP Setup 2] tab



Item	Description
[Application to be allotted to the device [GS501]] [Application to be allotted to the device [GS502]]	Specify an application to be allotted to the bit of device GS501 or GS502. Up to 32 applications can be allotted. Applications allotted start up when these bits turn ON. The bits which were turned ON will automatically turn OFF after the application is started up.
[File Name]	Specify the path to the application to be started up by typing (Up to 1023 characters can be entered.) or clicking [...]. Available file extensions are as follows: * .exe, * .com, * .bat
[Option]	By specifying a file name, the specified file is opened simultaneously with start-up of the application. Also, the mode or processing of the application can be specified by specifying options for the application. (Availability of options differs depending on the application.) For options available for each application, refer to the manual or Help of the application to be used. Up to 1023 characters can be entered in [Option].
[Test]	Click this button to check if the set application operates normally. Before executing monitoring with the GT SoftGOT2000, click this button to confirm the normal operation of the set application.

■2. [Advanced APP Setup] tab



Item	Description
[Advanced APP Setup]	<p>Click this item to open the Advanced APP setup file (AppStartSet.csv). Use the program for opening CSV files, which is set in the personal computer, to open the Advanced APP setup file.</p> <p>Allot GOT internal devices and applications in the Advanced APP setup file.</p> <p>➡ (1) Advanced application settings (2) Setting method of Advanced APP setup file (3) Precautions for advanced application settings</p>
[Check]	<p>Click this item to check the setting contents of the Advanced APP setup file (AppStartSet.csv).</p>

POINT

(1) Creation and storage destination of Advanced APP setup file

When GT SoftGOT2000 is started, an Advanced APP setup file (AppStartSet.csv) is created for each module.

Example) Path of the Advanced APP setup file when starting the module No.1.

C:\Program Files\MELSOFT\SGT1000\Multi\00001\AppStartSet.csv

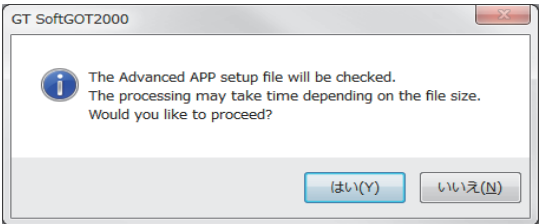
The advanced application setting can be changed by editing the Advanced APP setup file directly.

(2) Setting check

The setting check may take few minutes according to the file size of the Advanced APP setup file (AppStartSet.csv).

Click [No] in the confirmation dialog when not executing the setting check.

Returns to the [Advanced APP Setup] tab.

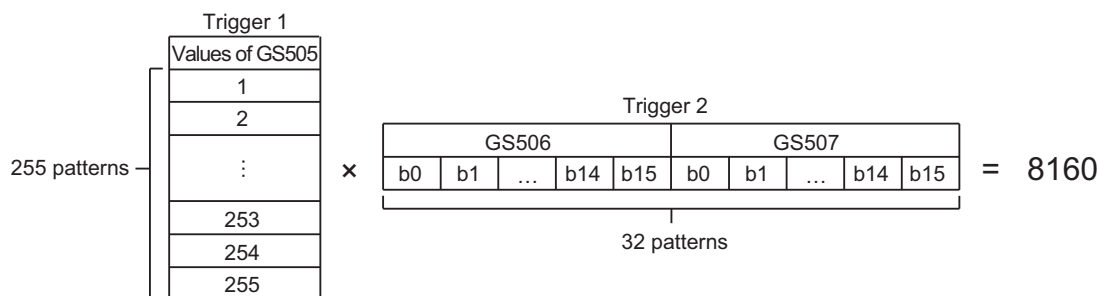


(1) Advanced application settings

In the advanced application settings, use the combination of the following two triggers for the application start-up.

- Trigger 1: Values of GS505 (1 to 255)
- Trigger 2: Bit ON of either GS506.b0 to b15 or GS507.b0 to b15

Up to 8160 application start-up settings can be set by the combination of Trigger 1 and Trigger 2.



The application starts when both Trigger 1 and Trigger 2 are approved.

After the application starts, 0 is stored to GS505.

Bits of Trigger 2 which were turned ON (GS506.b0 to b15 and GS507.b0 to b15) will automatically turn OFF.

(2) Setting method of Advanced APP setup file

In the Advanced APP setup file, rows and columns are referred to as Record and Field, respectively.

For Record, up to 8160 settings can be set by the combination of Trigger 1 and Trigger 2.

The following explains the method of setting the Advanced APP setup file in case of opening the file with Microsoft Excel.

	A	B	C	D	E
1	Advanced APP Setup				
2					
3	Enables or disables setting	Value of device [GS505]	Bit location of device [GS506][GS507]	File Name	Option
4	(Enable=1 / Disable=0)	([GS505]=1 ~255)	([GS506.b0~b15]=0~15 / [GS507.b0~b15]=16~31)		
5					
6	(Example) 1	1		C:\Program Files\MELSOFT\SGT1000\SGT1000.exe	-SGT1
7					
8	1	100		15 C:\Program Files\Microsoft Office\OFFICE11\EXCEL.EXE	
9					
10					
	Field 1	Field 2	Field 3	Field 4	Field 5

Item	Description
Record	One Record is configured with Field 1 to 5.
Field 1	Set whether to enable or disable the setting of record. <ul style="list-style-type: none"> • 0: enable • 1: disable
Field 2	Set Trigger 1 to start the application. Set the value of GS505 as Trigger 1. (1 to 255)
Field 3	Set Trigger 2 to start the application. Set the bit position of GS506/GS507 as Trigger 2. (0 to 31) <ul style="list-style-type: none"> • GS506.b0 to b15 :0 to 15 • GS507.b0 to b15 :16 to 31
Field 4	Set the path of the application to be started. The following applications can be started. *.exe, *.com, *.bat Up to 1023 characters can be input.
Field 5	By specifying a file name, the specified file is opened simultaneously with start-up of the application. Also, the mode or processing of the application can be specified by specifying options for the application. Up to 1023 characters can be entered in [Option]. Availability of options differs depending on the application. For options available for each application, refer to the manual or Help of the application to be used.

Example) When the following two records are set

	A	B	C	D	E
1	Advanced APP Setup				
2					
3	Enables or disables setting	Value of device [GS505]	Bit location of device [GS506][GS507]	File Name	Option
4	(Enable=1 / Disable=0)	([GS505]=1~255)	([GS506.b0-b15]=0-15 / [GS507.b0-b15]=16-31)		
5					
6	(Example) 1		1	0 C:\Program Files\MELSOFT\SGT1000\SGT1000.exe	-SGT1
7					
Setting 1		1	100	15 C:\Program Files\Microsoft Office\OFFICE11\EXCEL.EXE	
Setting 2		1	200	15 C:\Program Files\Microsoft Office\OFFICE11\WINWORD.EXE	
10					

Item	Description
Setting 1	<ul style="list-style-type: none"> • Trigger 1: 100 • Trigger 2: 15 (GS506.b15) • Application to be started: EXCEL.EXE
Setting 2	<ul style="list-style-type: none"> • Trigger 1: 200 • Trigger 2: 15 (GS506.b15) • Application to be started: WINWORD.EXE

In the status that 100 is stored in GS505, the application (EXCEL.EXE) set in Setting 1 starts when GS506.b15 is turned ON.

In the status that 200 is stored in GS505, the application (WINWORD.EXE) set in Setting 2 starts when GS506.b15 is turned ON.

(3) Precautions for advanced application settings

(a) Settings of Field 1 to 3 which disable record

The record including Field 1 to 3 in the following status is disabled.

- The value is not set.
- Invalid characters are included.
- A value outside of the range is set.

(b) Settings of Field 4 in which an error occurs at the application startup

The record including Field 4 in the following status causes an error at the application startup.

- The path is not set.
- Invalid characters are included.
- The specified file does not exist.
- The specified file cannot be executed.

(c) Settings of Field 5 in which an error occurs at the application startup

The record including Field 5 in the following status causes an error at the application startup.

- A line feed is included.

(d) When multiple records with the same setting exist

When multiple records have the same settings of Field 2 and 3, only the top record is valid.

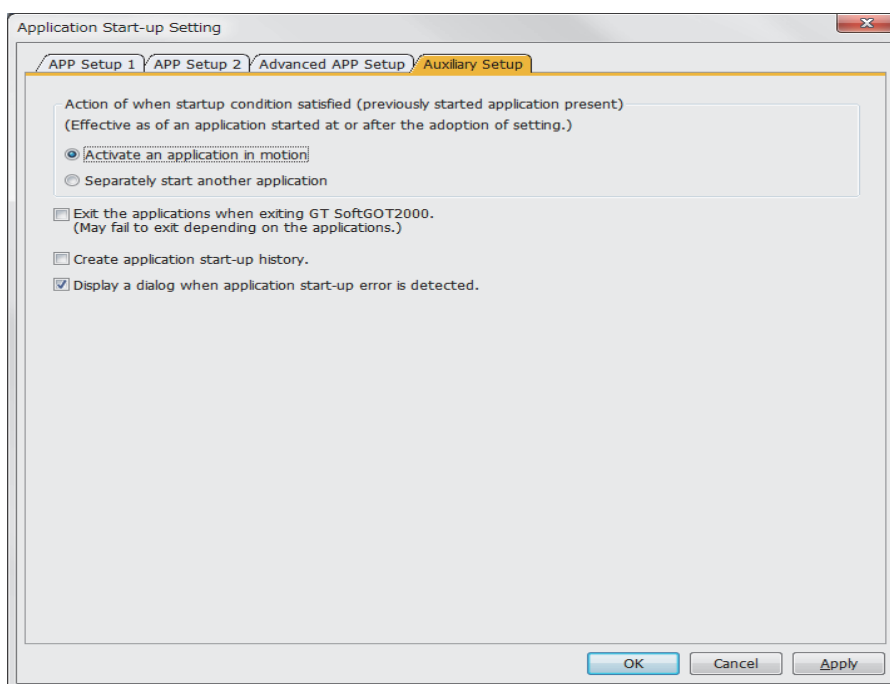
(e) When Field 5 does not exist

When the settings are configured correctly for Field 1 to Field 4 in the record, and when Field 5 does not exist, Field 5 is processed with no data. Although Field 5 does not exist, the record is processed.

(f) When the record begins with a semicolon

The record is invalid.

■3. [Auxiliary Setup] tab



Item	Description
[Action of when startup condition satisfied] *1	<p>Select how the application that was started up from GT SoftGOT2000 behaves when its start-up condition is satisfied again.</p> <p>Activate an application in motion: Select this item to make an application that is already in motion active.</p> <p>Separately start another application: Select this item to start up the same application in addition to the one currently running.</p>
[Exit the applications when exiting GT SoftGOT2000] *1	<p>Check this item to terminate GT SoftGOT2000 together with applications that were started up from GT SoftGOT2000.</p> <p>Note that applications that are started up after checking [Separately start another application] in [Action of when startup condition satisfied] are not terminated.</p>
[Create application start-up history] *1	<p>Check this item to store a startup status of an application in a history. Data that can be stored in a history differ by the selection made in [Action of when startup condition satisfied].</p> <p>For details of data storable in a history, refer to the following.</p> <p>➡ 4.10.2 Application start-up history</p>
[Display a dialog when application start-up error is detected.]	Check this item to display an error dialog when an error occurs at application start-up.

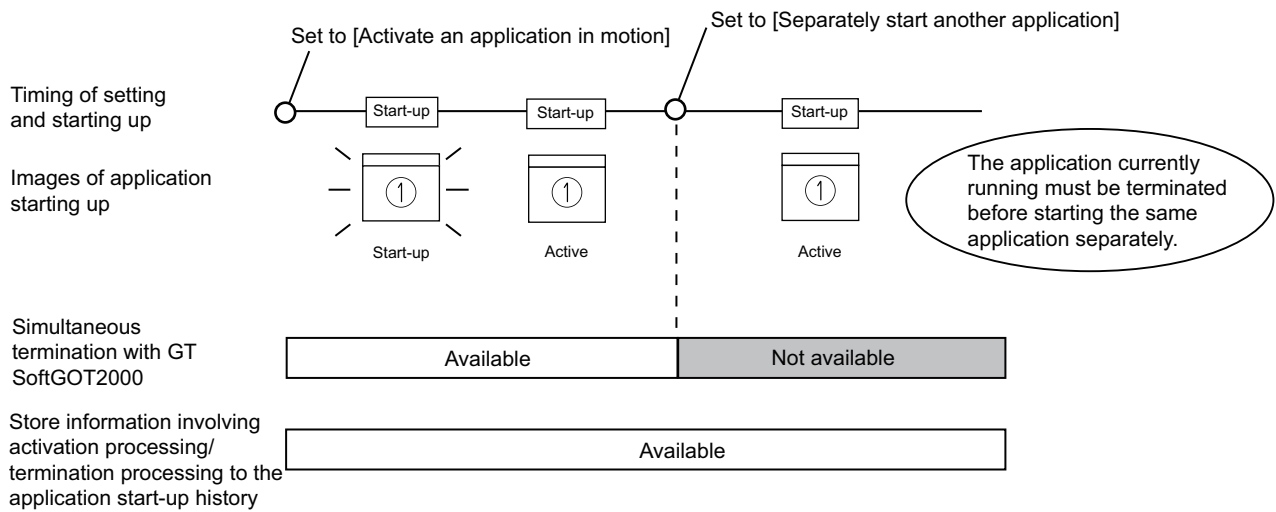
*1 For details of * 1, refer to the next page.

***1 Action of when startup condition satisfied**

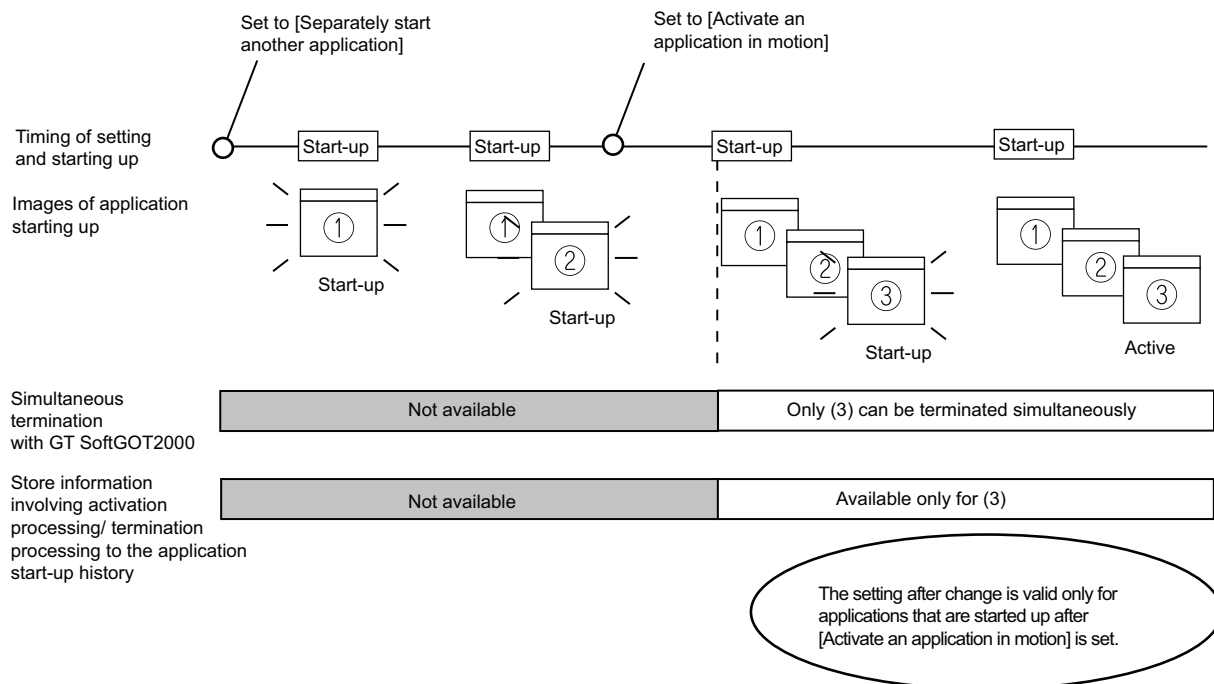
When a setting is changed while GT SoftGOT2000 is operating, the setting after change is valid only for applications started up after the change.

For this reason, even when [Exit the applications when exiting GT SoftGOT2000.] is enabled, some applications may not be terminated simultaneously with termination of GT SoftGOT2000.

Example) When changed from [Activate an application in motion] to [Separately start another application]



Example) When changed from [Separately start another application] to [Activate an application in motion]



4.10.2 Application start-up history

Information involving application start-ups can be stored in a history.

■1. Information storable in a history

The following lists information storable in a history.

- Successful application start-ups
- Erroneous application start-ups
- Activation processing of applications *1
- Termination processing of applications *1

*1 This applies only for applications that are started up after [Activate an application in motion] is selected in [Action of when startup condition satisfied].

■2. Referring to history data

The following explains how to refer to history data.

Step 1. Follow the procedure below.

- Select [Set] → [Application Start-up History] from the menu.
- Right-click the mouse, and select [Set] → [Application Start-up History] from the menu.

Step 2. History data are displayed.

2013/08/01	19:56:26	No.1	GS501.b0	: The application has been started.
2013/08/01	20:10:30	No.1	GS501.b0	: The application has been terminated.
2013/08/01	13:51:28	No.10000	GS501.b10	: The application has been started.
2013/08/01	14:00:30	No.10000	GS501.b10	: The application has been terminated.
2013/08/01	16:47:02	No.1	GS501.b0	: The application has been started.
2013/08/01	16:57:07	No.1	GS501.b0	: The application has been activated.

POINT

History data

Any application start-up history cannot be referred to when no history data are stored.

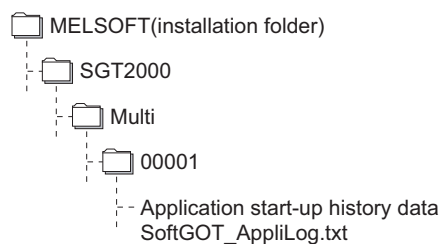
To create history data, check [Create application start-up history] in the application start-up setting.

For details of the application start-up setting, refer to the following section.

➡ 4.10.1 Setting method

Historical data are stored for each module as follows. They are not deleted even when GT SoftGOT2000 is closed.

Delete unnecessary history data.



4.10.3 Precautions

■ 1. Precautions for setting

With personal computers employing VGA (640 × 480) resolution, the Application Start-up Setting dialog cannot entirely be seen on the screen.

Move the dialog with the mouse to make settings, or employ resolutions of SVGA (800 × 600) or higher to the display.

■ 2. Precautions for creating application start-up history data

If an application fails to start up, the error dialog is displayed.

The application cannot be restarted in this state.

Close the error dialog before starting the application.

Choose not to display the error dialog in the application start-up setting, if necessary.

■ 3. Precautions for exiting applications when exiting GT SoftGOT2000

Applications started from other than GT SoftGOT2000 are not terminated.

Also, some applications may not be terminated with this function.

■ 4. Precautions for use

Applications may not be started up if device ON time is too short.

Keep the device ON until applications are started up.

POINT

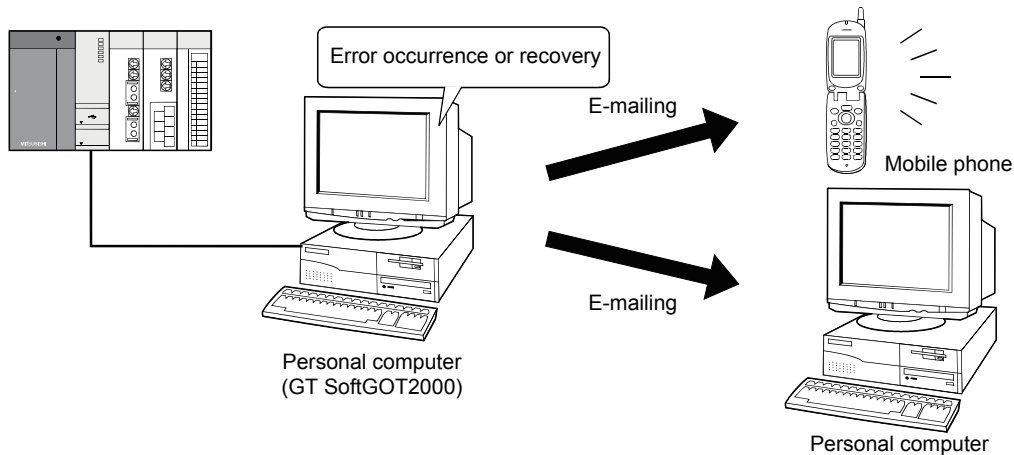
Before using the mail send function

GT SoftGOT2000 sends an e-mail using the mail send function, and therefore no additional e-mail software is required.

To use the mail send function, make a contract with a provider and establish an environment in which the mail send function is usable.

4.11.1 Mail send function overview

It is possible to send messages from GT SoftGOT2000 to personal computers and mobile phones. The mail send function is usable in the alarm history display function only.

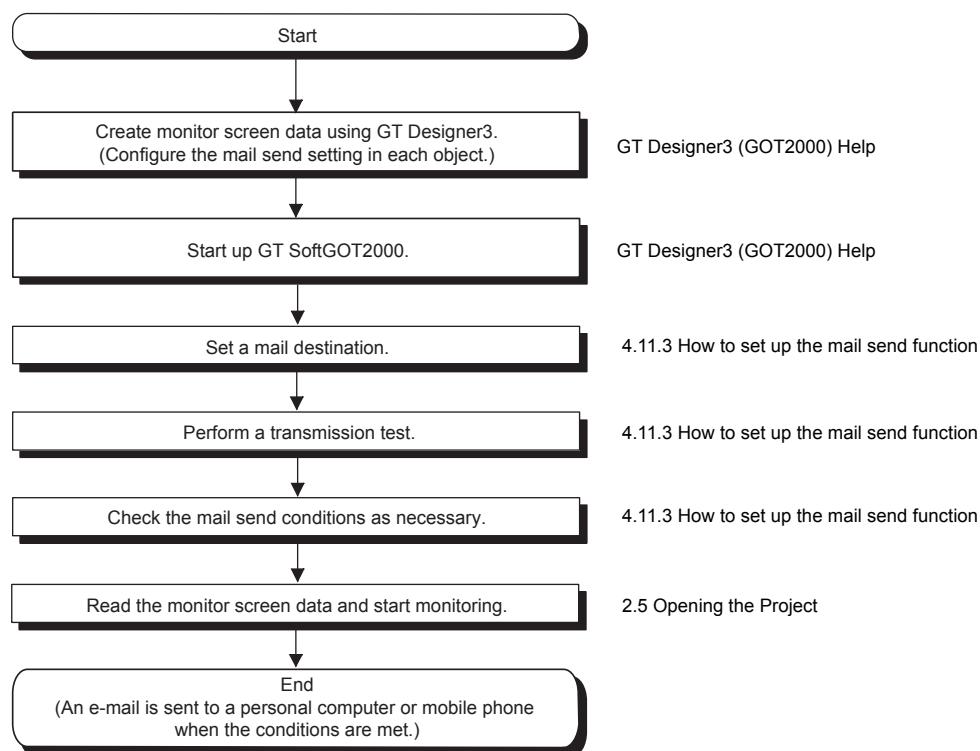


■ 1. Language used in the mail send function

A language set in the [Mail Send Language Setting] dialog of GT Designer3 is used. For the details of the [Mail Send Language Setting] dialog, refer to the following.

➡ GT Designer3(GOT2000) Help

4.11.2 Operation flow when using the mail function




4.11.3 How to set up the mail send function

The following explains how to set up the mail send function to send an e-mail on GT SoftGOT2000.

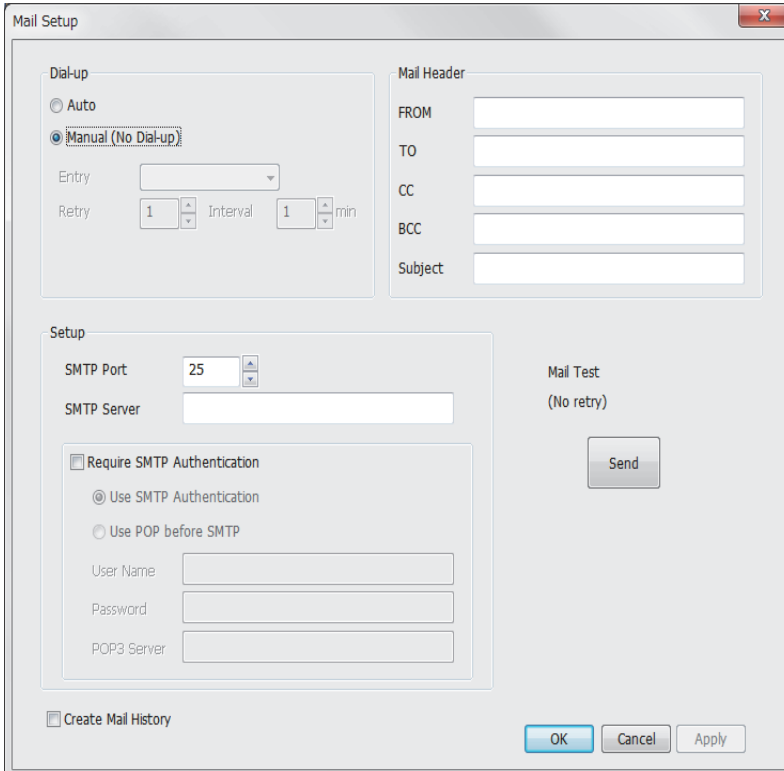
■1. Mail setup

Used to set the mail send destination and perform a mail transmission test.

Step 1. Perform the following operation.

- Click  [Mail Setup].
- Select [Set] → [Mail Setup] → [Mail Setup] from the menu.
- Right-click the mouse to select [Set] → [Mail Setup] from the menu.

Step 2. The [Mail Setup] dialog is displayed.



The Mail Setup dialog box is shown with the following fields and options:

- Dial-up:** Radio buttons for ☐ Auto and ☒ Manual (No Dial-up). Below Manual are fields for Entry (dropdown), Retry (1), and Interval (1 min).
- Mail Header:** Text boxes for FROM, TO, CC, BCC, and Subject.
- Setup:** SMTP Port (25), SMTP Server (text box), and a section for authentication: ☐ Require SMTP Authentication, with sub-options ☒ Use SMTP Authentication and ☐ Use POP before SMTP. Below are fields for User Name, Password, and POP3 Server.
- Mail Test:** (No retry) and a Send button.
- Bottom:** ☐ Create Mail History, and OK, Cancel, and Apply buttons.

Item	Description
[Dial-up]	Set whether or not to send e-mail via dialup. (The default is [Manual].)
[Auto]	Check this radio button to send e-mail via dialup. If [Auto] is checked, a connection to the mail server is made and e-mail is sent when the mail conditions are established. The connection to the server is canceled after e-mail is sent. It is necessary to set [Entry,] [Retry,] and [Interval.]
[Manual (No Dial-up)]	Check this radio button to send e-mail without using dialup. If [Manual] is set, the connection to the mail server is always active when e-mail is sent. The connection to the server is not canceled even after e-mail is sent.
[Entry]	Select the dialup connection entry name in Windows. Refer to the Help function in Windows for how to create a dial up entry.
[Retry]	Set the number of retries made if a dialup fails. "0" to "10" (The default is "1.")
[Interval]	Set the interval between retries. "1" to "10" (minutes) (The default is "1.")

Item	Description
[Mail Header]	Enter the origin, destination, server name, and title of mail.
[FROM]	Enter the address of the mail origin.
[TO]* ¹	Enter the address of the mail destination.
[CC]* ¹	Enter the address of the mail destination (copy). (E-mail can be sent even this field is blank.)
[BCC]* ¹	Enter the address of the mail destination (blind copy). (E-mail can be sent even this field is blank.)
[Subject]	Enter the title of the mail.
[Setup]	Enable the check box and enter the necessary information if POP3 authentication is required when sending e-mail. (The check box is disabled by default.)
[SMTP Port]	Enter the port No. for SMTP.
[SMTP Server]	Enter the SMTP server name.
[Require SMTP Authentication]	Enable the check box and enter the necessary information if SMTP Server authentication is required when sending e-mail. (The default is "Use SMTP Authentication")
[Use SMTP Authentication]	Check the SMTP Server circumstances automatically and send according to following precedence. [SMTP-AUTH CRAM-MD5] → [SMTP-AUTH LOGIN] → [SMTP-AUTH PLAIN]
[Use POP before SMTP]	Send by Use POP before SMTP to the POP3 server set.
[User Name]	Enter the user name.
[Password]	Enter the password corresponding to the user name.
[POP3 Server]	Enter the POP3 server name used for [Use POP before SMTP].
[Create Mail History]	Enable this check box to create a mail transmission history. (The check box is disabled by default.)
[Mail Test]	Test e-mail is sent to the destination by clicking the [Send] button.
[OK]	Used to update the settings and close the dialog.
[Cancel]	Used to cancel the settings and close the dialog.
[Apply]	Used to update the settings.

*1 If more than one address is entered, they should be separated with a space or a comma.
Up to 32 addresses are applicable to each setting.
Up to 64 characters can be used for one address.

POINT

Mail settings

(1) Precautions for mail settings

The setting contents made by selecting [Common] → [Gateway] → [Mail...] in GT Designer3 are not reflected on GT SoftGOT2000.

(2) Dialup settings

Refer to the manual of the service provider and the Help function in Windows for how to set the dialup network connection.

(3) Setup

GT SoftGOT2000 is not compatible with the SSL encrypted communication (SMTP over SSL) when sending e-mails.

For the items to be set, check the server specifications.

(1) Mail test

It is possible to check whether e-mail can be sent properly before starting monitoring by GT SoftGOT2000.

In the mail test, the following sample message of GT SoftGOT2000 is sent to the destination based on the definition set in the Mail Setup dialogue box.

- GT SoftGOT2000 sample message displayed at the destination.

GT SoftGOT2000 TEST MAIL

This is a test message.

POINT**Mail history**

If [Create mail history] is checked in the Mail Setup dialogue box, the status of the mail test is saved as one of the history data items.


Refer to the following for mail history.

- ➡ 4.11.3 How to set up the mail send function

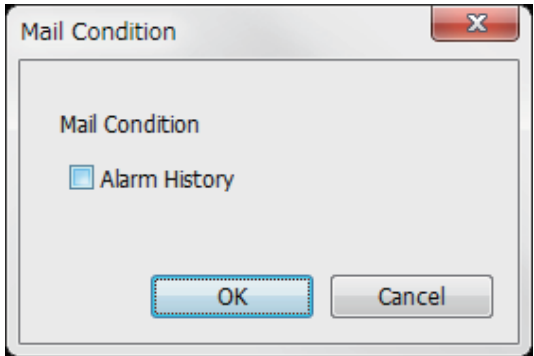
■2. Mail Condition

Set the mail send conditions.
If the mail transmission is set with GT SoftGOT2000, it is possible to set not to send e-mail for certain functions without modifying the monitor screen data.
Disable the functions for which e-mail is not to be sent.
(Check boxes are enabled by default.)

Step 1. Perform the following operation.

- Click  [Mail Condition].
- Select [Set] → [Mail Setup] → [Mail Condition] from the menu.
- Right-click the mouse to select [Set] → [Mail Condition].

Step 2. The [Mail Condition] dialog is displayed.



Item	Description
[Mail Condition]	Set whether the mail function will be used or not with each function.
[Alarm History]	Turn on this checkbox to use the alarm history display function with the mail function.
[System Alarm]	<p>Turn on this checkbox to use the system alarm with the mail function. After turning it on, set the transmission interval (10 to 120 minutes) for the case where the same error occurs two or more times in a row. Example: When the error transmission interval is set to 15 minutes</p> <div><div><div>System alarm 1)</div><div>↓</div><div>In 5 minutes</div><div>↓</div><div>System alarm 1)</div></div><div>GT Soft GOT2000</div><div>→</div><div>Personal computer</div><div>System alarm 1)</div><div>If the same system alarm occurs again within the time set as the transmission interval, e-mail will not be sent at and after the second time.</div></div> <div><div><div>System alarm 1)</div><div>↓</div><div>In 5 minutes</div><div>↓</div><div>System alarm 2)</div></div><div>GT Soft GOT2000</div><div>→</div><div>Personal computer</div><div>System alarm 1) System alarm 2)</div><div>If a different system alarm occurs within the time set as the transmission interval, e-mail will be sent.</div></div>

POINT

Precautions for setting mail conditions

If the mail function is not set by Alarm history display function, this setting is ignored for that function (e-mail is not sent even if the check boxes are checked).
For the object settings, refer to GT Designer3 (got2000) Help.

4.11.4 Sending e-mail

When e-mail is sent from GT SoftGOT2000 to the target device, the reception header part shown at the destination displays a message that shows that the e-mail is from GT SoftGOT2000.

Example of display in the reception header part at the destination

```
From:*****  
To:*****  
Cc:*****  
Subject:GT SoftGOT2000 Mail.  
:  
X-Mailer:GT SoftGOT2000(Vers1)
```

POINT

Precautions for mail sending

The format and contents of the display of e-mail sent vary depending on the mailer specifications used at the destination.

When e-mail is sent to a mobile phone, the display may vary depending on the specifications (screen size) of the mobile phone.

GT SoftGOT2000 can send up to 64 e-mails at once.

■1. Sending an e-mail using the alarm history display function

If an alarm occurs in GT SoftGOT2000, the time and information of the alarm are sent to the destination by e-mail. Moreover, if the alarm recovers, the time and information of the alarm recovery are sent to the destination by e-mail. For the setting method of the alarm history display function, refer to GT Designer3 (got2000) Help.

(1) Example of the header part display in the mail send destination when an alarm occurred

```
[Alarm history: Occurrence Notification]  
[Occurrence Data and Time]  
2013/08/01 14:23:13  
1) — [Alarm Information]  
An error occurred in the tank.  
2) — [Detailed Information]  
The hydraulic pressure of tank is low.
```

1) The comment entered in the alarm history display function is displayed.

2) The content of detailed display entered in the alarm history display function is displayed.

[Detailed Information] is not displayed if the detail display setting of the alarm history display function has not been made or if it has been made to the base screen or window screen.

[detail comment nothing] appears under [Detailed Information]

Set the details to be displayed in the comment window in order to display the [Detailed Information].

(2) Example of display at destination (when an alarm recovered)

```
[Alarm History: Restoration Notification]  
[Restored Time]  
2013/08/01 15:05:47  
[Restoration Information]  
Alarm of the tank has been restored.  
[Detailed Information]  
The hydraulic pressure of tank is low.
```


4.11.5 Mail history

It is possible to reference the operation history data of the e-mail sent from GT SoftGOT2000.
It is also possible to reference the errors generated at the time e-mail was sent.
The mail history data can be displayed using Notepad or a similar editor in Windows.

■ 1. How to reference mail history

The following explains how to reference the mail history data.

Step 1. Perform the following operation.

- Click  (Mail History).
- Select [Set] → [Mail Setup] → [Mail History] from the menu.
- Right-click the mouse to select [Set] → [Mail History] from the menu.

Step 2. The mail history information is displayed.

(1) Example of mail history data display

:				
	2013/8/1	15:10:52	No.1	POP:##### Searching...
	2010/8/1	15:10:52	No.1	POP:##### Connecting...
	2010/8/1	15:10:52	No.1	POP:##### Connection is completed.
	2010/8/1	15:10:52	No.1	SMTP:##### Searching...
	2010/8/1	15:10:52	No.1	SMTP:##### Connecting...
	2010/8/1	15:10:52	No.1	SMTP:##### Connection is completed.
	2010/8/1	15:10:52	No.1	Mail was sent successfully.
:				

POINT

Mail history

The mail history cannot be referenced if the data does not exist.

To create a mail history, enable [Create Mail History] in the Mail Setup dialogue box.

For the Mail Setup dialog, refer to the following.

➡ 4.11.3 How to set up the mail send function

The mail history data is not deleted even if GT SoftGOT2000 is exited.

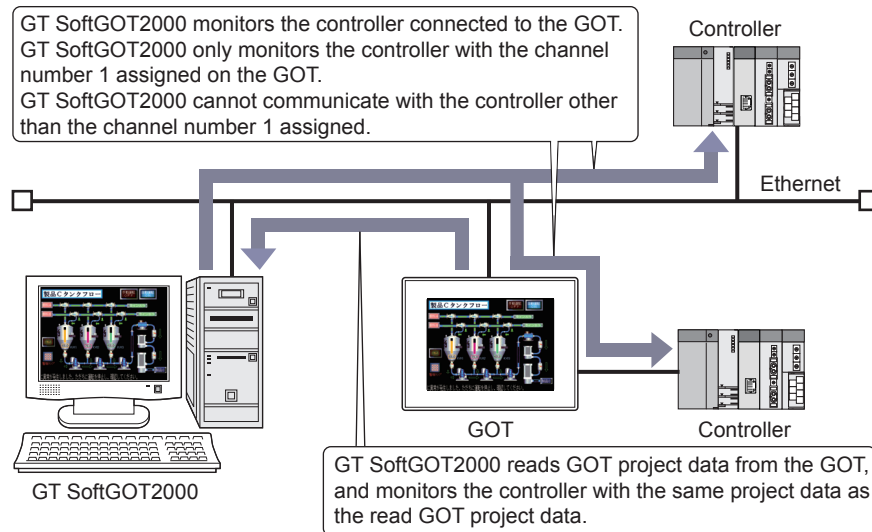
The unnecessary history data is required to delete by the user.

4.12 SoftGOT-GOT Link Function

The SoftGOT-GOT link function enables GT SoftGOT2000 to connect the GOT via Ethernet. And then, the function synchronizes GT SoftGOT2000 data with GOT project data and resource data.

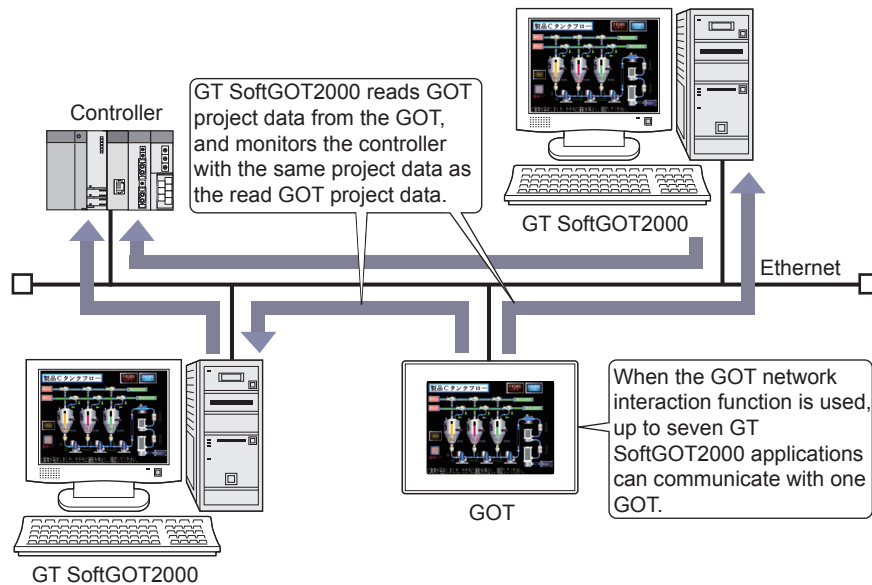
When input objects (touch switch, numerical input, and text input) are input or other operation is performed, the simultaneous operation between GT SoftGOT2000 and the GOT must be prevented. The operation must be allowed by either GT SoftGOT2000 or the GOT.

GT SoftGOT2000 can monitor a controller connected to the GOT.



With the GOT network interaction function, multiple GT SoftGOT2000 applications can communicate with one GOT. For the GOT network interaction function, refer to the following.

➡ GT Designer3 (GOT2000) Help



POINT

(1) GT SoftGOT2000 project data

GT SoftGOT2000 uses project data read from the GOT.
Creating new GT SoftGOT2000 project data is not required.

(2) Number of GOTs that can communicate with GT SoftGOT2000

The following shows the number of GT SoftGOT2000 applications that can communicate with one GOT.

- When using the GOT network interaction function
Up to seven GT SoftGOT2000 applications can communicate with one GOT.
In this case, each GT SoftGOT2000 module must be run on different personal computers.
If multiple modules of GT SoftGOT2000 are run on one personal computer, the modules cannot connect to the same GOT simultaneously.
- When not using the GOT network interaction function
Only one GT SoftGOT2000 can communicate with one GOT.
While GT SoftGOT2000 communicates with the GOT, another GT SoftGOT2000 cannot communicate with the GOT.

(3) Controller monitored by GT SoftGOT2000 while the GOT uses the multi-channel function

GT SoftGOT2000 monitors a controller connected to the GOT that assigns the channel number 1 to the controller.

A controller other than the channel number 1 assigned cannot be monitored. Therefore, objects with devices of a controller other than the channel number 1 assigned are not displayed on the screen.

With a touch switch or others, when devices are written to the controller other than the channel number 1 assigned, a system alarm occurs.

(4) Communication status between the GOT and a controller

To monitor a controller connected to the GOT by using GT SoftGOT2000, enable communications between the GOT and the controller.

If the GOT cannot communicate with the controller, the SoftGOT-GOT link function is not available.

For how to connect the controller to the GOT, refer to the following.

- ➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

1. Difference between the SoftGOT-GOT link function and the VNC server function

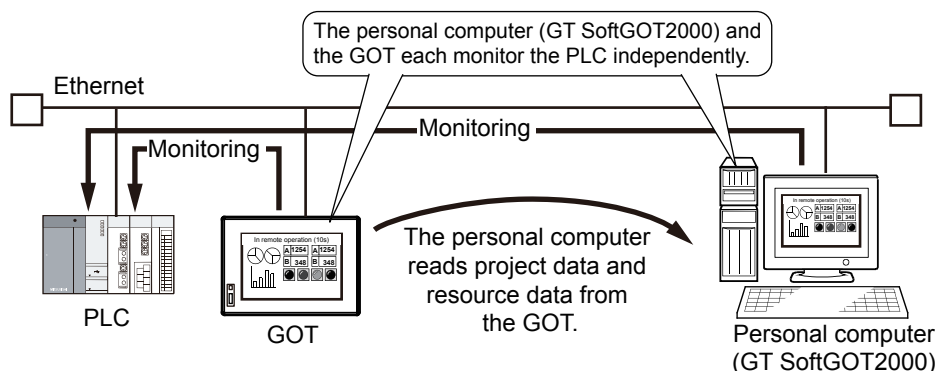
To operate the GOT on the personal computer connected via Ethernet, two functions are available: SoftGOT-GOT link function and VNC server function.

(1) SoftGOT-GOT link function

With the SoftGOT-GOT link function, GT SoftGOT2000 and the GOT each have a project data and monitor a controller.

Since GT SoftGOT2000 displays the GOT screen on the personal computer, the processing load on the GOT is reduced.

By using a GOT internal device for the screen switching device, GT SoftGOT2000 and the GOT can display different screens.



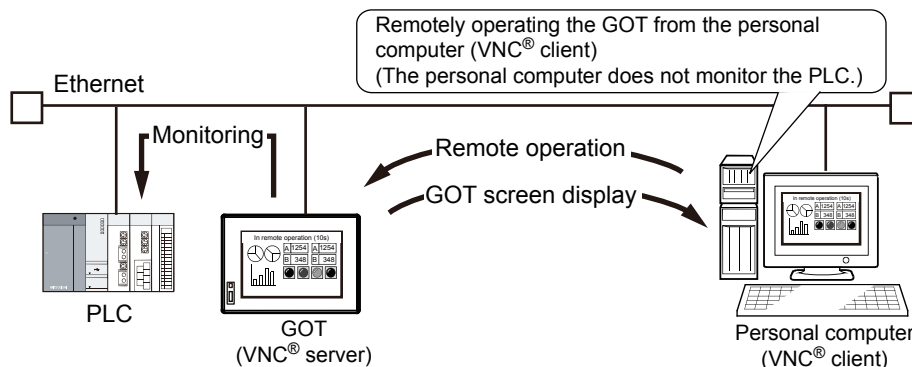
The GOT and GT SoftGOT2000 each operate independently. Therefore, collecting data, including alarm data and logging data, can make a difference in the collection result between the GOT and the personal computer. The extended functions which are unavailable for GT SoftGOT2000 cannot be used with the SoftGOT-GOT link function.

(2) VNC server function

With the VNC server function, the remote screen of the personal computer displays the GOT screen.

You can view the data collected by the GOT, including alarm data and logging data, on the personal computer in real time.

Even though an extended function is used, you can also remotely operate the GOT from the personal computer.



Since the VNC server function increases the processing load on the GOT, the GOT can delay displaying data and collecting data, including alarm data and logging data.

The GOT can also delay responding to an operation from the VNC client (personal computer).

4.12.1 Project data synchronization

When the SoftGOT-GOT link function is used, GT SoftGOT2000 reads project data or resource data from the GOT, and synchronizes GT SoftGOT2000 data with the GOT data.

When the project data is synchronized, GT SoftGOT2000 can display the same screen as that of the GOT.

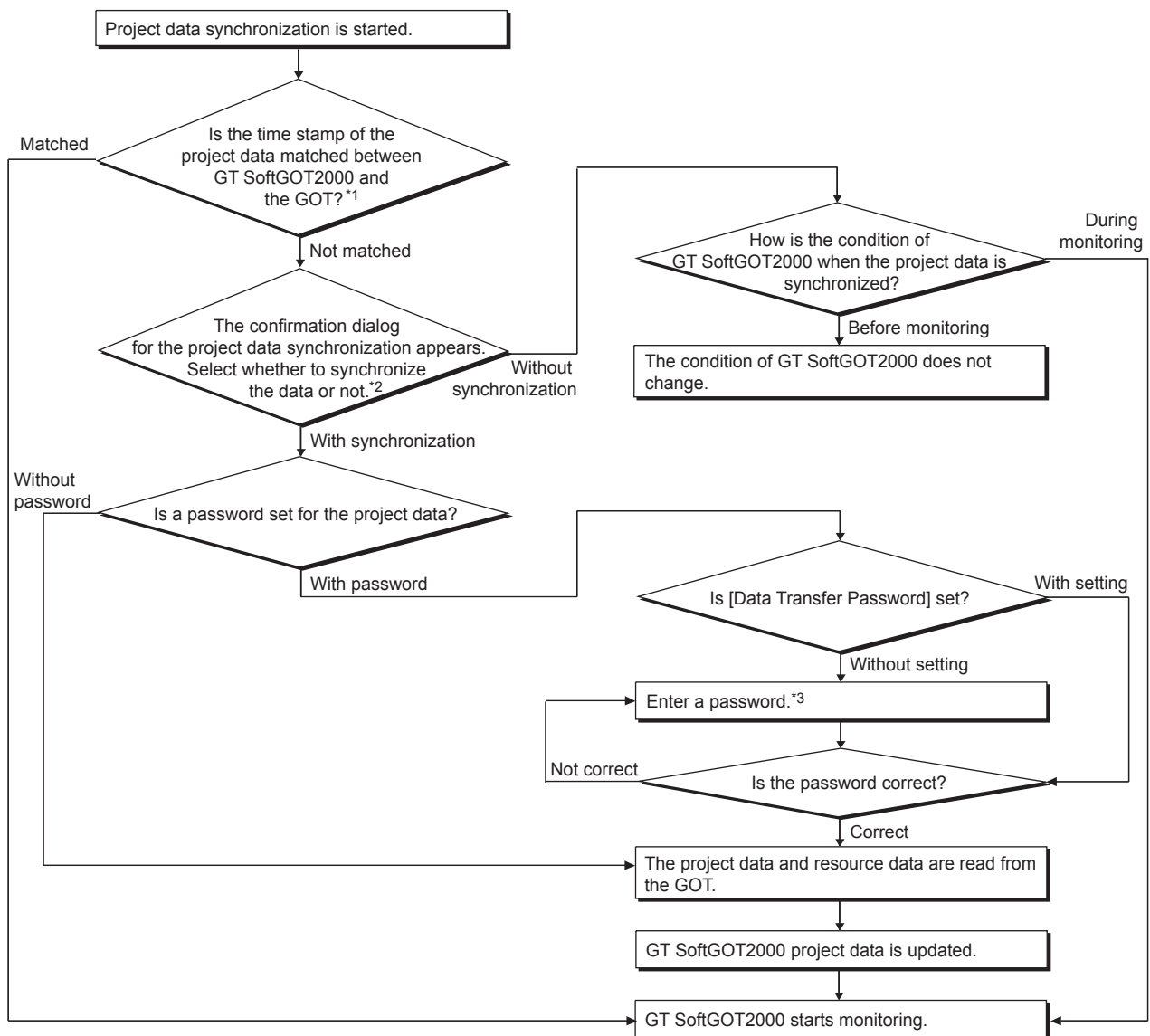
Because the project data used for GT SoftGOT2000 is read from the GOT, creating new GT SoftGOT2000 project data is not required.

■ 1. Project data synchronization

Project data is synchronized at the following timing.

Synchronization timing	Reference
Starting the monitor with GT SoftGOT2000	2.6.1 Starting Monitoring
Selecting [Tool] → [SoftGOT-GOT Link Function] → [GOT Project Data Acquisition] from the menu	2.2.1 Menu Bar
Changing project data of the GOT that is communicating with GT SoftGOT2000	GT Designer3 (got2000) Help

The following shows the processes of the project data synchronization.



*1 When [Tool] → [GOT Project Data Acquisition] is selected from the menu, GT SoftGOT2000 does not determine whether the time stamp of the project data is matched or not.

*2 When project data of the GOT that is communicating with GT SoftGOT2000 is changed, the confirmation dialog for the project data synchronization does not appear.

*3 When the password input is canceled, the synchronization of the project data stops.

POINT

(1) Precautions during project data synchronization

Do not perform the following operations during the project data synchronization.

- Turn off the GOT or a controller.
- Press the reset button of the GOT.
- Disconnect the communication cable.
- Turn off the personal computer.

If the operations listed above are performed during the project data synchronization, GT SoftGOT2000 project data and GOT project data may differ.

Select [Tool] → [GOT Project Data Acquisition], and synchronize GT SoftGOT2000 project data with GOT project data again.

(2) Automatic password entry for project data synchronization

To automatically enter a password when project data are synchronized, enter a password in the [GOT Link Setup] dialog beforehand.

⇒ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

(3) Synchronization of when the GOT network interaction function is used

When the GOT network interaction function has been used and multiple GT SoftGOT2000 applications communicate with one GOT through the SoftGOT-GOT link function, updating the project data of GOT starts the upload processing on multiple GT SoftGOT2000 applications simultaneously.

In this case, only one GT SoftGOT2000 application can perform the upload processing at a time. The other GT SoftGOT2000 applications wait for the upload processing.

(4) When the GOT network interaction function is enabled or disabled

When project data is synchronized or when the GOT network interaction function is enabled or disabled with online GOT, restart GT SoftGOT2000.

■ 2. Resource data synchronization

When resource data is stored in the GOT, the resource data is synchronized at the same time when project data is synchronized.

The resource data is copied from each drive of the GOT, and the copy is stored in each virtual drive of GT SoftGOT2000.

➡ 1.2.3 Precautions for using GT SoftGOT2000

Type of the resource data to be synchronized

Resource data
Alarm log file (G2A), logging file (G2L), image file (JPG, BMP, PNG)

Select the type of the resource data to be synchronized in the [SoftGOT-GOT Link Function Setting] dialog. For information on how to select the type of the resource data to be synchronized, refer to the following.

➡ GT Designer3 (GOT2000) Help

After the resource data is synchronized, GT SoftGOT2000 and the GOT collect each resource data.

Therefore, the synchronized resource data may differ between GT SoftGOT2000 and the GOT.

POINT

(1) Resource data when the multi-channel function is used for the GOT

Regardless of the number of channels for controllers connected to the GOT, GT SoftGOT2000 data is synchronized with all GOT resource data.

After the resource data is synchronized, GT SoftGOT2000 only monitors a controller with the channel number 1 assigned. Therefore, GT SoftGOT2000 only collects resource data for the controller with the channel number 1 assigned. (For controllers other than the channel number 1 assigned, resource data is not collected.)

(2) Synchronizing a logging file (G2L)

When synchronizing a logging file (G2L), upload only the management file before starting the monitoring.

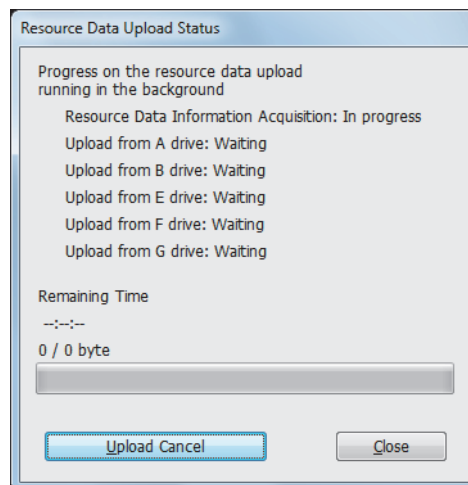
Collected logging files (G2L) are uploaded in the background after the start of monitoring.

(3) Upload status of logging files (G2L)

Select [Tool] → [SoftGOT-GOT Link Function] → [Resource Data Upload Status] to check the upload status of logging files (G2L).

To cancel the upload, click the [Upload Cancel] button.

When the upload of resource data is canceled, the resource data may not be uploaded even though the upload progress indicates that the upload has been completed.



When the upload of logging files (G2L) is stopped, upload the logging files (G2L) again when project data is synchronized next time.

4.12.2 Authorization control

When the SoftGOT-GOT link function is used, and when input objects (touch switch, numerical input, and text input) are input or other operation is performed, the right to input objects (authorization) is required.

By enabling the input or other operation only when the authorization is obtained, the simultaneous operation between GT SoftGOT2000 and the GOT is prevented.

No authorization is required for the following operation or function.

Operation/Function	Description
Screen operation	<ul style="list-style-type: none">• Moving windows• Switching the order of windows
Function	<ul style="list-style-type: none">• Functions controlled by triggers (system information, screen switching device, trigger action function, and others)• GOT internal devices (GS654, 655, and 656)

When the GOT network interaction function has been used, the authorization control function of the SoftGOT-GOT link function is disabled and the authorization control of the GOT network interaction function is enabled.

For the details of the GOT network interaction function, refer to the following.

➡ GT Designer3 (GOT2000) Help

POINT

(1) Operations not recognized by GT SoftGOT2000/GOT

In the following case, a touch operation is not recognized as an input operation.

- Screen save status
- While Key-in disable signal (system signal 1-1.b9) is ON.

(2) How to check the authorization status

(a) How to check the status with GT SoftGOT2000

When the SoftGOT-GOT link function is used, the status bar on GT SoftGOT2000 displays the status whether the authorization or the exclusive authorization is obtained or not.



Item	Description
[OPE]	Displays the status whether GT SoftGOT2000 obtains the authorization or not. Lights in green when GT SoftGOT2000 obtains the authorization.
[PRI]*1	Displays the status whether the GOT obtains the exclusive authorization or not. Lights in blue when the GOT obtains the exclusive authorization.

*1 When the GOT network interaction function has been used, only the authorization status of the GOT is displayed.

The status is checked by GOT internal devices.

➡ 4.12.3 Control or notification with GOT internal devices

(b) How to check the status with the GOT

Whether the GOT obtains the authorization or the exclusive authorization can be checked by the GOT internal devices.

➡ 4.12.3 Control or notification with GOT internal devices

(c) Operation status popup notification function

This function notifies whether the authorization is obtained or not and the operation status at the target side with a popup display.

The display position of the operation status popup display is common with the display position set for the advanced alarm popup display, and is displayed in bands either on the bottom, center or bottom of the display.

If the base screen is switched when displaying the operation status popup, the popup is displayed at the display position set for the advanced alarm popup display in the base screen after switching.

If authorization is obtained, the operation status popup display is cleared.

The display is set by using the GOT utility or GOT setup of GT Designer3.

For how to set the utility, refer to the following.

➡ User's Manual of GOT used

For how to set GT Designer3, refer to the following.

➡ GT Designer3 (got2000) Help

(d) Pop-up display of when the GOT network interaction function is used

The popup display on the screen is changed with the one for the GOT network interaction function.

For the details of the GOT network interaction function, refer to the following.

➡ GT Designer3 (GOT2000) Help

■ 1. Obtaining the authorization

(1) Obtaining the authorization by using the GOT

When GT SoftGOT2000 starts monitoring, the GOT automatically obtains the authorization.

When input objects are input without obtaining the authorization with the GOT, the dialog for obtaining the authorization appears.

In the following cases, the GOT automatically obtains the authorization.

- The GOT is restarted.
- The GOT obtains the exclusive authorization.
- While GT SoftGOT2000 obtains the authorization, the user does not operate GT SoftGOT2000 within the authorization obtained time set in the GOT utility or GOT setup of GT Designer3.
- GT SoftGOT2000 stops monitoring.
- GT SoftGOT2000 is terminated.
- The communication between GT SoftGOT2000 and the GOT is disconnected by a communication cable disconnection or others.

(2) Obtaining the authorization by using GT SoftGOT2000

When input objects are input without obtaining the authorization with the GT SoftGOT2000, the dialog for obtaining the authorization appears.

When the GOT has the exclusive authorization, GT SoftGOT2000 cannot obtain the authorization.

■ 2. Exclusive authorization for the GOT

(1) Exclusive authorization

This right allows only the GOT to obtain the authorization. (Exclusive authorization)

When the GOT obtains the exclusive authorization, the GOT automatically obtains the authorization.

(2) How to obtain the exclusive authorization

The exclusive authorization is obtained by using the GOT internal device (GS447) or the GOT utility.

For how to set the GOT internal device, refer to the following.

➡ 4.12.3 Control or notification with GOT internal devices

For how to set the utility, refer to the following.

➡ the User's Manual for the GOT used

POINT

(1) Operation that automatically obtains the exclusive authorization

When the utility screen or the dedicated screen for any extended function is displayed, the GOT obtains the exclusive authorization regardless of the value of the Exclusive Authorization Control signal (GS447.b0).

When such a screen is switched to a user-created screen, the exclusive authorization is controlled according to the value of the signal (GS447.b0).

➡ 4.12.3 Control or notification with GOT internal devices

(2) SoftGOT-GOT link function

The following settings are set by using the GOT utility or GOT setup of GT Designer3.

- Authorization obtained time
- Authorization guarantee time
- Operation status popup notification

For how to set the utility, refer to the following.

➡ GOT2000 Series User's Manual (Utility)

For how to set GT Designer3, refer to the following.

➡ GT Designer3 (got2000) Help

4.12.3 Control or notification with GOT internal devices

GOT internal devices enable to check the exclusive authorization control or the communication status between GT SoftGOT2000 and the GOT.

For details of the GOT internal devices, refer to the following.

➡ GT Designer3 (got2000) Help

■ 1. Exclusive authorization control (GS447)*1

Bit number	Signal name	Description
b0	Exclusive authorization control signal	By turning on this signal, the GOT obtains the exclusive authorization. Not available for GT SoftGOT2000
b1	Authorization guarantee time cancel signal	By turning on this signal, the GOT cancels the setting of authorization guarantee time.
b2 to b15	Use prohibited	-

*1 This control is disabled while the GOT network interaction function has been used.

■ 2. SoftGOT-GOT link status control/notification (GS244)

Bit number	Signal name	Description
b0	Communication status notification signal*1	Turns on while GT SoftGOT2000 communicates with the GOT.
b1	Obtaining authorization notification signal*1	Turns on when the GOT or GT SoftGOT2000 obtains the authorization.
b2	GT SoftGOT2000/GOT identification signal	Notifies that SoftGOT2000 or the GOT is in use. • 0: GOT • 1: GT SoftGOT2000 (Changes to 0 if GT SoftGOT2000 does not communicate with the GOT.)
b3	Obtaining exclusive authorization notification signal*1	Turns on when the GOT obtains the exclusive authorization. Always off for GT SoftGOT2000
b4	System screen displaying notification signal*1	Turns on when the utility screen or the dedicated screen for any extended function is displayed. Always off for GT SoftGOT2000
b5 to b15	Use prohibited	-

*1 This control is disabled while the GOT network interaction function has been used.

■ 3. Authorization guarantee status notification signal (GS984)*1

Signal name	Description
Authorization guarantee status notification signal	When the authorization guarantee time is set in GT SoftGOT2000 or GOT, the remaining authorization guarantee time (seconds) is stored.

*1 This control is disabled while the GOT network interaction function has been used.

POINT

How to utilize GOT internal devices

Objects or others displayed only on the GOT can be set by using the GT SoftGOT2000/GOT identification signal (GS244.b2).

Example) Bit switch displayed only on the GOT

Step 1. Register a shape to a part to display the shape when the bit switch turns on or off.
For how to register the part, refer to the following.

➡ GT Designer3 (GOT2000) Help

Step 2. Create the following objects.

Object	Setting item
Bit switch	<ul style="list-style-type: none">• Set [Device] on the [Device] tab.• Select [None] in [Shape] on the [Style] tab.• Set [OFF] in [Trigger Type], or set GS244.b2 in [Trigger Device] on the [Trigger] tab.
Parts display (Bit parts)	<ul style="list-style-type: none">• Set the same device as that of the bit switch in [Parts Switching Device] on the [Device/Style] tab.• Set the part registered in the step 1. to the part for [ON] or [OFF] on the [Device/Style] tab.• Set [OFF] in [Trigger Type], or set GS244.b2 in [Trigger Device] on the [Trigger] tab.

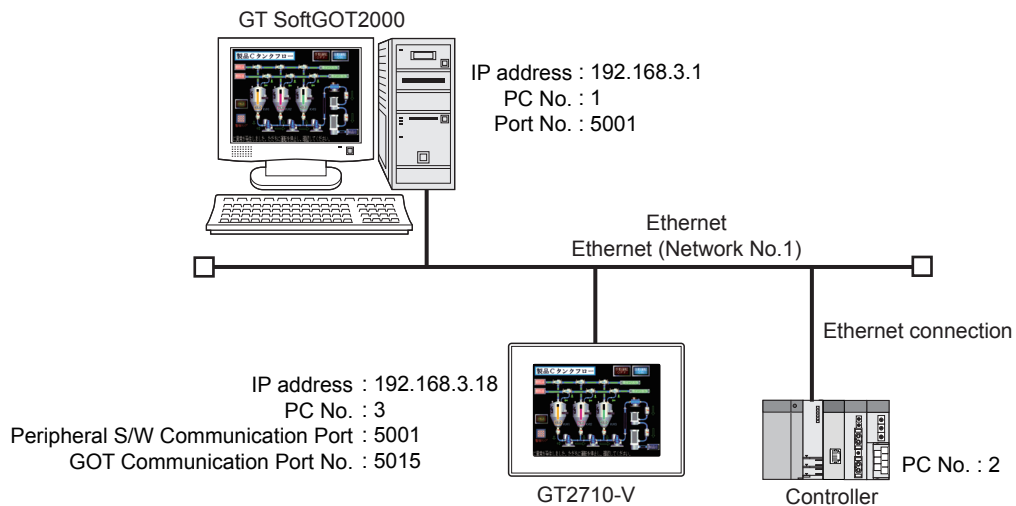
For how to set objects, refer to the following.

➡ GT Designer3 (GOT2000) Help

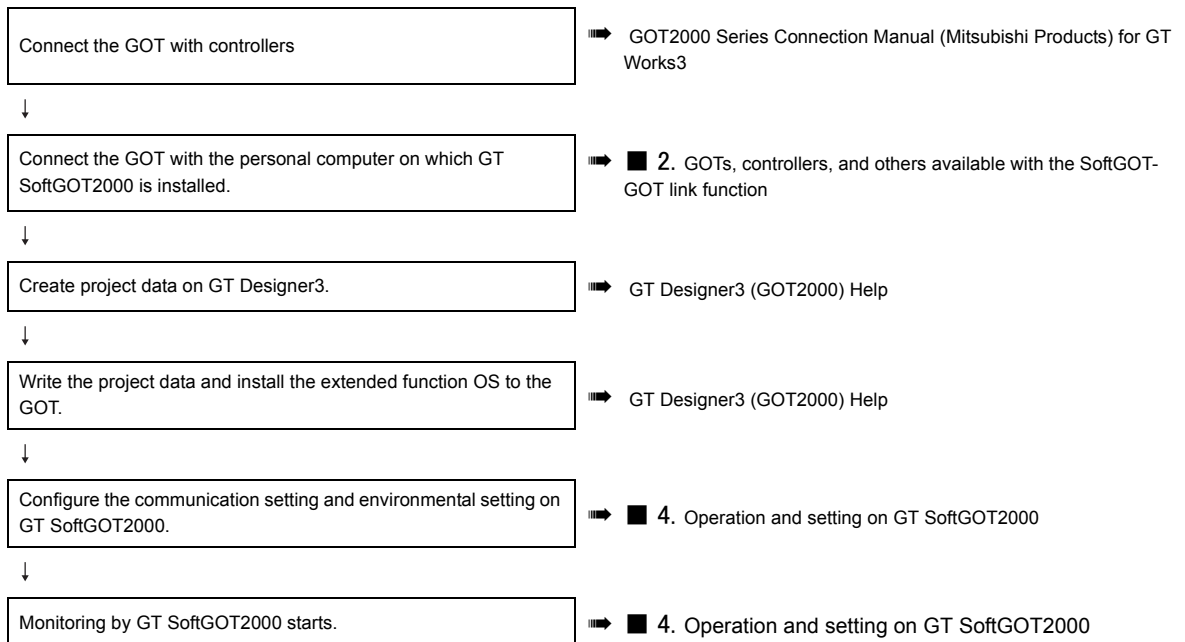
Step 3. Arrange the bit switch on the created parts display.

4.12.4 Setting method

This section explains the system configuration and setting method to use the SoftGOT-GOT link function. The SoftGOT-GOT link function in the following system configuration is used as an example to explain the procedures.



■1. Operation flow before using the SoftGOT-GOT link function



■ 2. GOTs, controllers, and others available with the SoftGOT-GOT link function

(1) GOTs available with the SoftGOT-GOT link function

Item	Type
GOT	GT27 GT25

(2) Controllers and connection types monitorable by GT SoftGOT2000 when using the SoftGOT-GOT link function

Controller monitored		Bus connection	CPU direct connection	Serial communication connection	Ethernet connection
RCPU		×	×	○	○
QCPU (Q mode)	Other than redundant system	○	○	○	○
	Redundant system (Main base unit)	×	×	×	×
	Redundant system (Extension base unit)	×	×	×	×
QCPU (A mode)		×	×	×	×
QSCPU		×	×	×	×
LCPUCPU		×	○	○	○
QnACPU		×	×	×	×
ACPU	Other than A1FXCPU	×	×	×	×
	A1FXCPU	×	×	×	×
FXCPU		×	×	×	×
Motion controller CPU (Q series)		×	×	×	×
Motion controller CPU (A series)		×	×	×	×
MELSECNET/H remote I/O station		×	×	×	×
CC-Link IE Field Network head module		×	×	×	×
OMRON PLC		×	×	×	○
KEYENCE PLC		×	×	×	×
TOSHIBA PLC		×	×	×	×
YASKAWA PLC		×	×	×	×
YOKOGAWA PLC		×	×	×	×
SIEMENS PLC		×	×	×	×
CNC	CNC C70	○	○	○	○
	MELDAS C6/C64	×	×	×	×
Robot controller	CRnQ-700	○	○	○	○
	CRnD-700	×	×	×	○

(3) Units connecting a personal computer (GT SoftGOT2000) with the GOT

Item	Type
GT27	- (Built-in interface)
GT25	- (Built-in interface)

(4) Cables connecting a personal computer (GT SoftGOT2000) with the GOT

Use the cables applicable to an interface of the GOT to be used.

(5) Connection conditions for GT SoftGOT2000 and the GOT

Connection type		Connection conditions	
		Distance between controller and PC	Number of connectable PCs
GOT	Ethernet connection	100m (max. segment length)	1

■3. Operation and setting on GT Designer3

(1) Communication setting between the GOT and the controller

Configure the communication setting between the GOT and the controller.

Item	Description
GOT NET No.	1
GOT PC No.	3
GOT IP Address	192.168.3.18
GOT Communication Port No.	5001

For details of the communication setting, refer to the following.

➡ GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3

(2) Ethernet download setting

Configure the Peripheral S/W Communication Port No. between the GOT and GT SoftGOT2000.

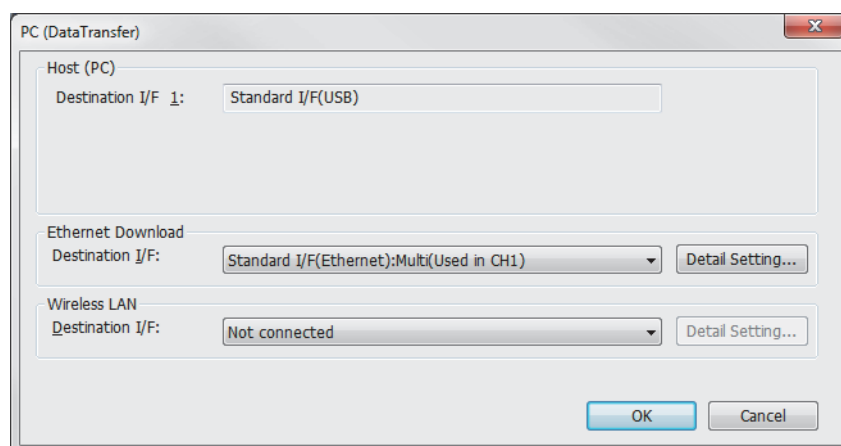
Set the Peripheral S/W Communication Port No.

Item	Description
[Peripheral S/W Communication Port No.]	Set on GT Designer3 (Default: [5015])

The following is the example of setting with the [PC (Data Transfer)] dialog.

Step 1. Select [Common] → [Peripheral Setting] → [PC (Data Transfer)] from the menu to display the [PC (Data Transfer)] dialog.

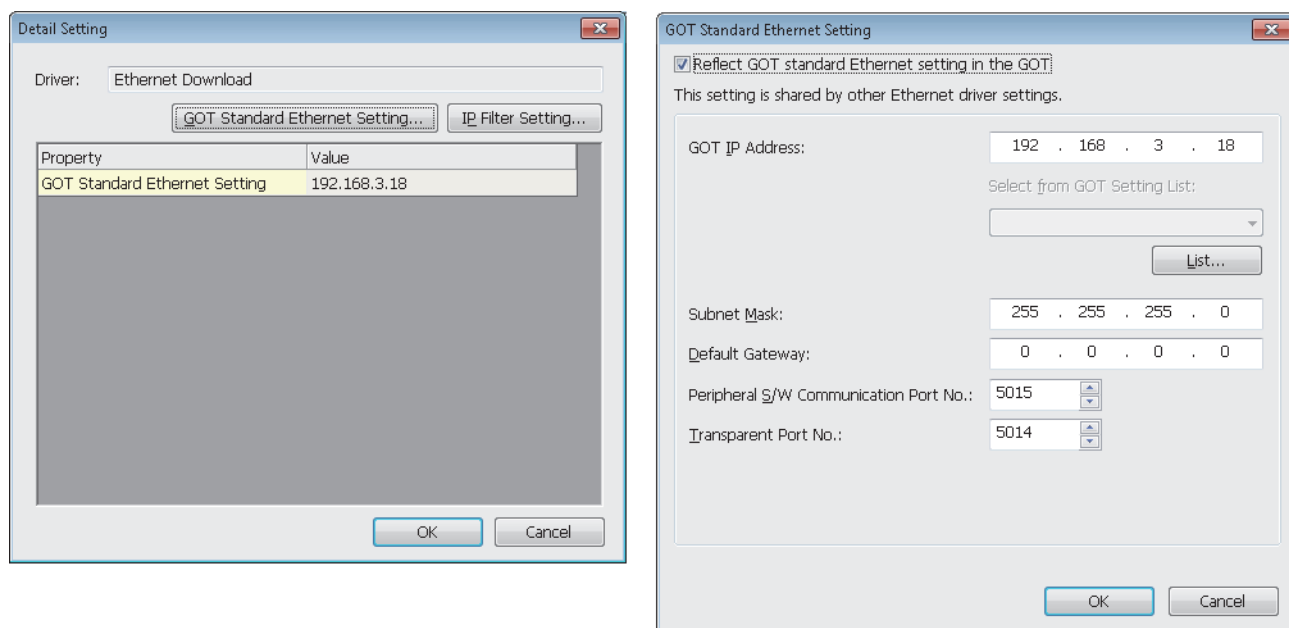
Step 2. Set an interface for [Destination I/F] in [Ethernet Download].



Step 3. Click the [Detail] button to display the [Detail Setting] dialog.

- Step 4.** Set the following items, and click the [OK] button.
For setting items of the [Detail Setting] dialog, refer to the following.

➡ GT Designer3 (got2000) Help



Item	Description
[GOT IP Address]	[192.168.3.18]
[Peripheral S/W Communication Port No.]	[5015]

- Step 5.** Click the [OK] button in the [PC (Data Transfer)] dialog.

POINT

(1) Setting the firewall

When the port for the Ethernet communication is blocked by the firewall, a communication error occurs.

Disable the firewall or configure the setting to open the port.

(2) Setting when the GOT and the controller are connected by a connection type other than the Ethernet connection

To use the SoftGOT-GOT link function, configure the setting for [GOT IP Address] and [Ethernet Download Port No.] by either of the following method.

- Set [Destination I/F] in [Ethernet Download] in the [PC (Data Transfer)] dialog.
- Set a driver for Ethernet in [Driver] in the [Controller Setting] dialog.
- Select [Communication Setting] of [Gateway] in the [Controller Setting] dialog, and then select [Use the function of Gateway].

(3) Unusable port No. (Port No.49154, 49158)

The GOT port No.49154 and 49158 are used for the command communication port. Do not use these port No. for the communication or others between the GOT and the controller.

(3) Writing project data and install the extended function OS to the GOT

Write the created project data and install the extended function OS (SoftGOT-GOT Link Function) to the GOT. For writing project data and OS to the GOT, refer to the following.

➡ GT Designer3 (got2000) Help


■4. Operation and setting on GT SoftGOT2000

(1) Environmental setting

For setting items of the [Environment Setup] dialog, refer to the following.

⇒ 2.3.1 [Environment Setup] dialog

Step 1. Perform either of the following operations to display the [Environment Setup] dialog.

-  Clicking [Environment Setup]
- Selecting [Set] → [Environment Setup] from the menu
- Right-clicking the mouse to select [Environment Setup] from the menu

POINT

When the resolutions of GT SoftGOT2000 and the GOT differ
The resolution of GT SoftGOT2000 is automatically changed according to the resolution of the GOT when GT SoftGOT2000 starts monitoring.

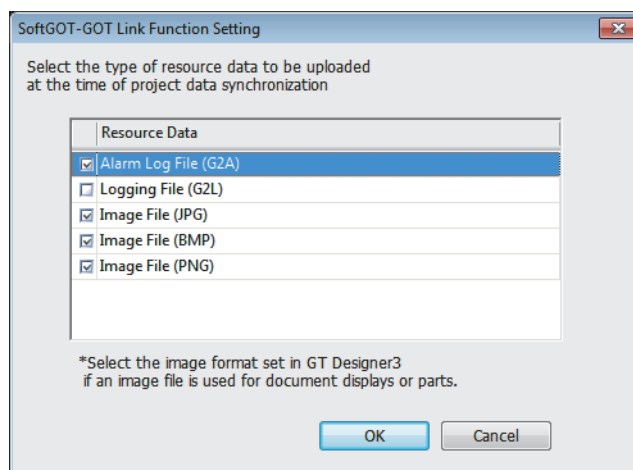
(2) SoftGOT-GOT link function setting

To synchronize project data, select the type of the resource data to be synchronized with the GOT.

Step 1. Perform one of the following operations to display the [SoftGOT-GOT Link Function Setting] dialog.

- Selecting [Set] → [SoftGOT-GOT Link Function Setting] from the menu
- Right-clicking the mouse to select [Set] → [SoftGOT-GOT Link Function Setting] from the menu

Step 2. Select the type of the resource data to be synchronized.



	Item	Description
[Resource Data]	[Alarm log file (G2A)]	Selects an alarm log file (G2A). (This item has been selected by default.)
	[Logging file (G2L)]	Selects a logging file (G2L). (This item has not been selected by default.)
	[Image file (JPG)]	Selects an image file (JPG). (This item has been selected by default.)
	[Image file (BMP)]	Selects an image file (BMP). (This item has been selected by default.)
	[Image file (PNG)]	Selects an image file (PNG). (This item has been selected by default.)

POINT

Precautions for the SoftGOT-GOT link function setting

- The SoftGOT-GOT link function cannot be set after the start of monitoring.
Set the function before starting the monitoring.
- When image files have been used in the document display or components, select an image file in the format set with GT Designer3.
- Store less than 500 files in one folder.
If 500 or more files are stored in one folder, the access performance of the files may be degraded.
- When the name of the logging file (G2L) collected by GT SoftGOT2000 and the name of the logging file (G2L) uploaded from the GOT are the same, the logging file (G2L) collected by GT SoftGOT2000 may be overwritten.
To prevent the logging file (G2L) collected by GT SoftGOT2000 from being overwritten, enable [Add date information to the file name] in the [Logging] dialog of GT Designer3.
For details of the [Logging] dialog, refer to the following.


➡ GT Designer3 (GOT2000) Help

(3) Communication setting

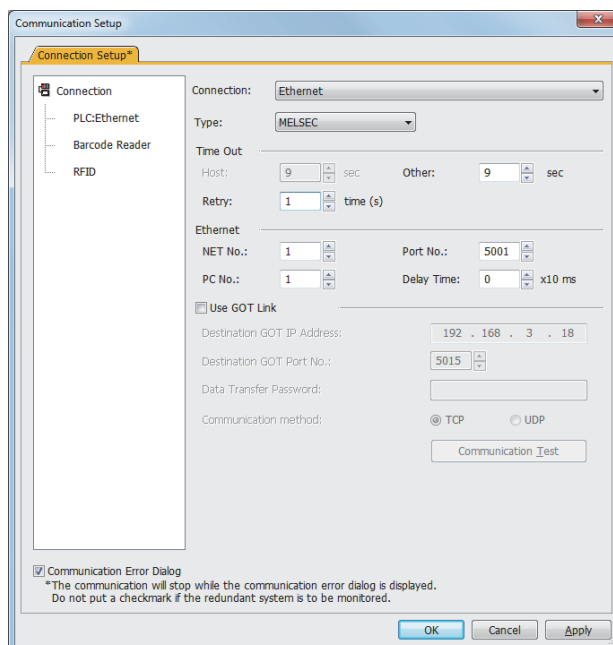
For setting items of the [Communication Setup] dialog, refer to the following.

2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

Step 1. Perform either of the following operations to display the [Communication Setup] dialog.

-  Clicking [Communication Setup]
- Selecting [Online] → [Communication Setup] from the menu
- Right-clicking the mouse to select [Communication Setup] from the menu

Step 2. Set the following items.



Item	Description	
[Connection]	[Ethernet]-[MELSEC]	
[Ethernet]	[NET No.]	[1]
	[PC No.]	[1]
	[Port No.]	[5001]
	[Wait Time]	Transmission wait time

POINT

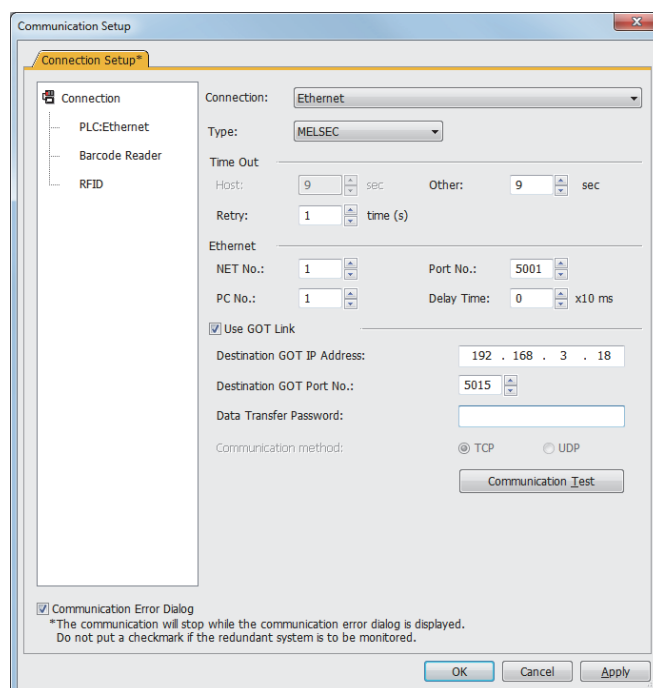
Connection type between the GOT and controller, and the communication setup on GT SoftGOT2000

According to the connection type between the GOT and controller, configure the communication setup on GT SoftGOT2000 as shown below.

Connection type between the GOT and controller	Communication setup on GT SoftGOT2000
Bus connection, direct CPU connection, serial communication connection	[Ethernet]-[GOT]
Ethernet connection	[Ethernet]-[MELSEC] [Ethernet]-[OMRON SYSMAC]

To use the GOT network interaction function, use the Ethernet connection.

Step 3. Select [Use GOT Link], and then set the following items.




Item	Description
[Destination GOT IP Address]	[192.168.0.18]
[Destination GOT Port No.]	[5015]
[Communication method]	[TCP]

Step 4. Click the [Communication Test] button to execute the communication test between GT SoftGOT2000 and the GOT.

(4) Starting the monitor

Step 1. GT SoftGOT2000 starts monitoring when either of the following operations is executed.

- Click  [Monitor Start]
- Select [Online] → [Monitor Start] from the menu.
- Right-click the mouse and select [Monitor Start] from the menu.

Step 2. The project data of GT SoftGOT2000 and the GOT are synchronized when monitoring starts. When a password is set for a GOT project data, enter the password.

POINT

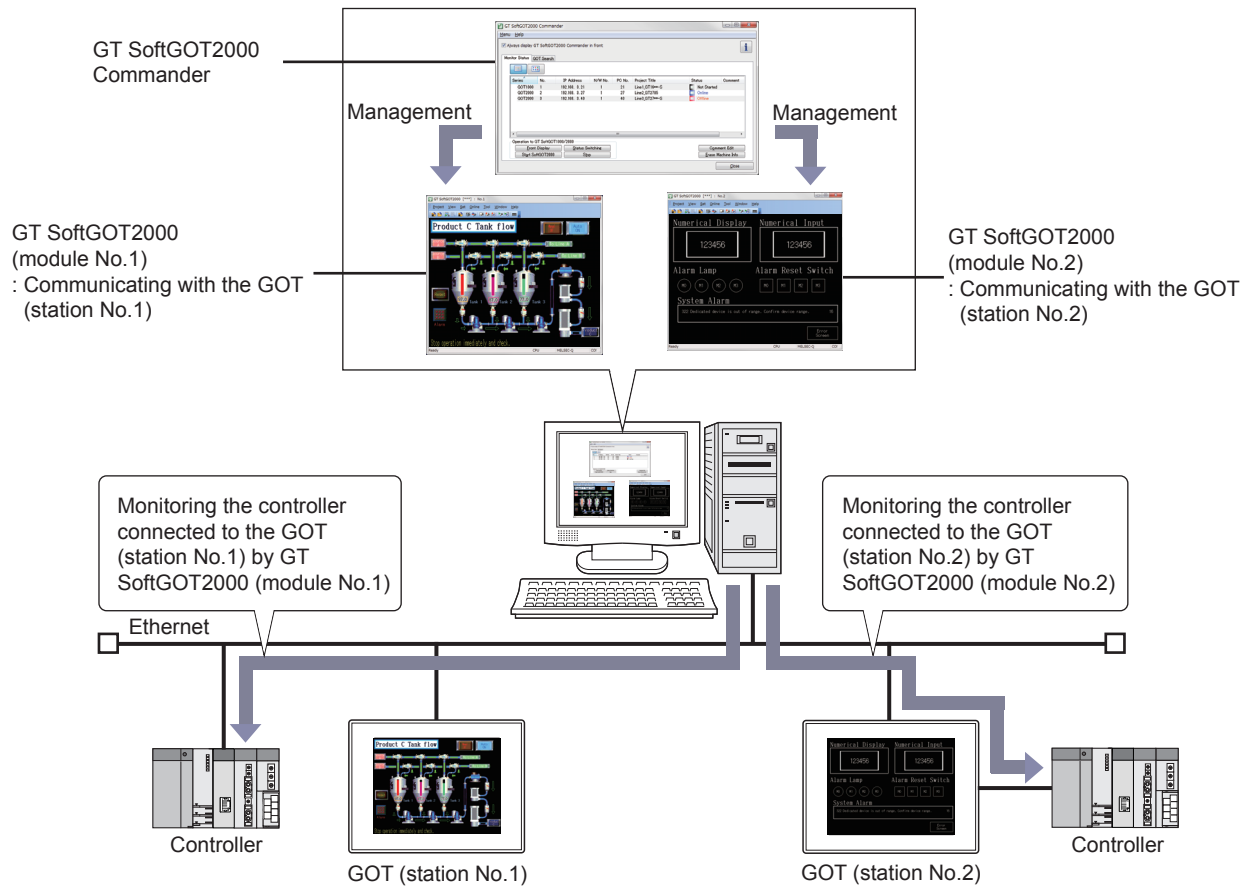
- (1) When using the SoftGOT-GOT link function, the project data saved in a personal computer cannot be opened on GT SoftGOT2000. To open project data on GT SoftGOT2000, clear [Use GOT Link] in the [GOT Link Setup] dialog.
- (2) To automatically enter a password when project data are synchronized, enter a password in the [GOT Link Setup] dialog beforehand.

➡ 2.4.1 [Communication Setup] dialog ■ 1. PLC (6) Ethernet connection

4.12.5 Managing GT SoftGOT2000 and GT SoftGOT1000 modules that use the SoftGOT-GOT link function (GT SoftGOT2000 Commander)

GT SoftGOT2000 Commander is used to manage multiple modules of GT SoftGOT2000 and GT SoftGOT1000 that use the SoftGOT-GOT link function.

On GT SoftGOT2000 Commander, you can check the monitoring status of GT SoftGOT2000 and GT SoftGOT1000 modules, and start or stop monitoring on the modules.



1. Operating environment

The operating environment is the same as that of GT SoftGOT2000.

For details of the operating environment of GT SoftGOT2000, refer to the following.

1.2.1 Operating environment

The following restrictions apply to GT SoftGOT1000 modules to be managed with GT SoftGOT2000 Commander.

- Use version 3.64S or later of GT SoftGOT1000.

For details of the operating environment of GT SoftGOT1000, refer to the following.

GT SoftGOT1000 Version3 Operating Manual for GT Works3

2. How to install or uninstall the tool

SoftGOT2000 Commander is installed or uninstalled automatically when GT SoftGOT2000 is installed or uninstalled. However, if comments are set by GT SoftGOT2000 Commander, the comments are not deleted even if GT SoftGOT2000 Commander is uninstalled.

3. How to start the tool

From the Windows start menu^{*1}, select [MELSOFT]^{*2} → [GT Works3] → [GT SoftGOT2000 Commander] to start GT SoftGOT2000 Commander.

^{*1} Select [All Programs] on the [Start] screen, or select [Start] → [All Programs].

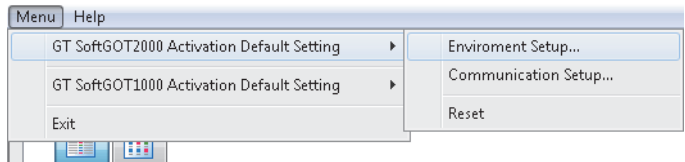
^{*2} [MELSOFT Application] appears for a version of GT Works3 earlier than 1.136S.

■4. Operating procedure

- Step 1. Start GT SoftGOT2000 Commander.
- Step 2. The monitor status list in the [Monitor Status] tab displays the status of GT SoftGOT2000 and GT SoftGOT1000 modules.
- ➡ ■6. Setting item (1) [Monitor Status] tab
- Step 3. Select a GT SoftGOT2000 or GT SoftGOT1000 module from the monitor status list to perform an operation.
- Step 4. To end GT SoftGOT2000 Commander, click the [×] button or the [Close] button.

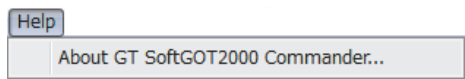
■5. Menu item

(1) [Menu]



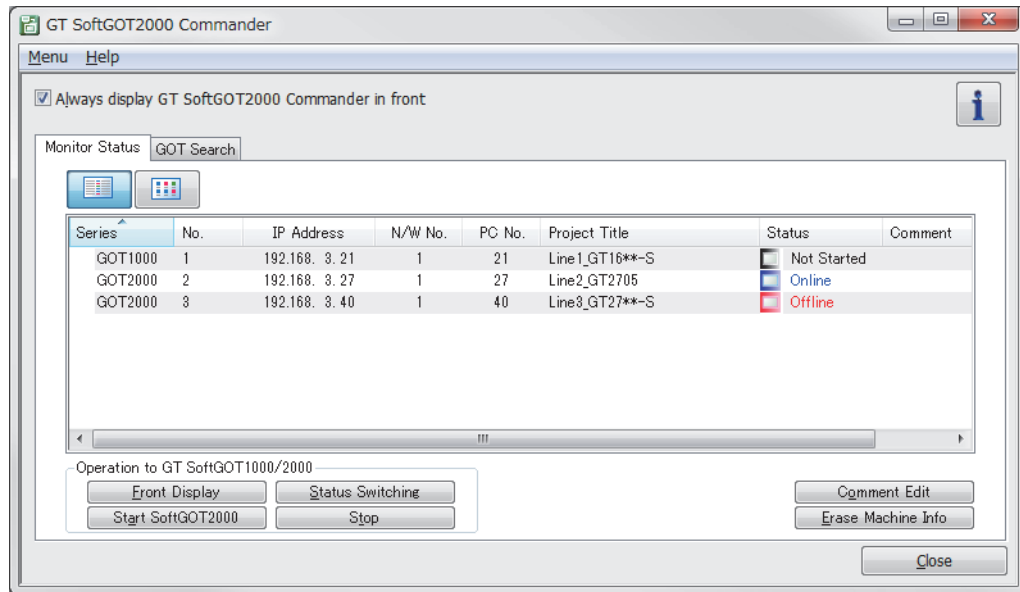
Item	Description
[GT SoftGOT2000 Activation Default Setting]	<ul style="list-style-type: none">• [Environment Setup] [Environment Setup] of GT SoftGOT2000 can be registered as default. The default value registered can be reflected as set value when starting GT SoftGOT2000 from GT SoftGOT2000 Commander.• [Communication Setup] [Communication Setup] of GT SoftGOT2000 can be registered as default. The default value registered can be reflected as set value when starting GT SoftGOT2000 from GT SoftGOT2000 Commander.• [Reset] Restores the setting of [Environment Setup] and [Communication Setup] to the initial value.
[GT SoftGOT1000 Activation Default Setting]	<ul style="list-style-type: none">• [Environment Setup] [Environment Setup] of GT SoftGOT1000 can be registered as default. The default value registered can be reflected as set value when starting GT SoftGOT1000 from GT SoftGOT2000 Commander.• [Communication Setup] [Communication Setup] of GT SoftGOT1000 can be registered as default. The default value registered can be reflected as set value when starting GT SoftGOT1000 from GT SoftGOT2000 Commander.• [Reset] Restores the setting of [Environment Setup] and [Communication Setup] to the initial value.
[Exit]	<ul style="list-style-type: none">• Exits GT SoftGOT2000 Commander.


(2) [Help]



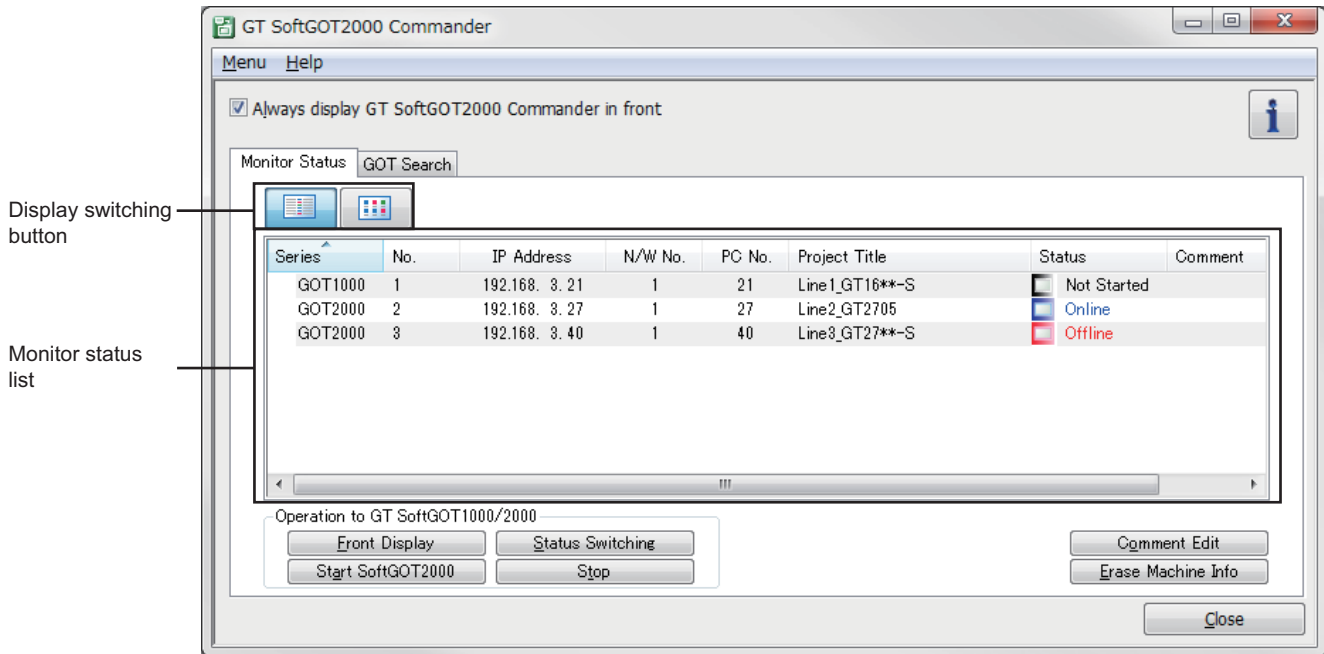
Item	Description
[About GT SoftGOT2000 Commander]	The version information of GT SoftGOT2000 Commander can be checked.



6. Setting item



Item	Description
[Always display GT SoftGOT2000 Commander in front]	Select this item to display the GT SoftGOT2000 Commander window on the top front.
	Checks the version information of GT SoftGOT2000 Commander.
[Monitor Status]	Displays the monitoring status of GT SoftGOT2000 and GT SoftGOT1000 modules that use the SoftGOT-GOT link function. ➡ (1) [Monitor Status] tab
[GOT Search]	Searches GOTs connected to the Network. ➡ (2) [GOT Search] tab
[Close]	Exits GT SoftGOT2000 Commander.

(1) [Monitor Status] tab



Item	Description	
Monitor status list	<p>Displays GT SoftGOT2000 and GT SoftGOT1000 modules that use the SoftGOT-GOT link function.</p> <p>When any of rows are clicked, the clicked row is highlighted and selected.</p> <p>The display contents of the monitor status list displayed in icon display by the display switching button differs from the same in detail display.</p> <p>➡ (1) Display switching button</p>	
	[Series]	<p>Displays the GOT series.</p> <ul style="list-style-type: none"> • [GOT2000] • [GOT1000]
	[No.]	Displays the module numbers of GT SoftGOT2000 and GT SoftGOT1000.
	[IP Address]	Displays the IP addresses of the GOTs that communicate with GT SoftGOT2000 and GT SoftGOT1000 modules.
	[N/W No.]	<p>Displays the network numbers of the GOTs that communicate with GT SoftGOT2000 and GT SoftGOT1000 modules.</p> <p>When the connection type between the GOT and the controller is the bus connection or the direct CPU connection, [-] is displayed.</p>
	[PC No.]	<p>Displays the station numbers of the GOTs that communicate with GT SoftGOT2000 and GT SoftGOT1000 modules.</p> <p>When the connection type between the GOT and the controller is the bus connection or the direct CPU connection, [-] is displayed.</p>
	[Project Title]	Displays the project title of the project data read by the GOT.
	[Status]	<p>Displays the status of GT SoftGOT2000 and GT SoftGOT1000 modules.</p> <ul style="list-style-type: none"> • [Online]: During monitoring • [Offline]: Stopped monitoring • [Uploading]: During reading project data from the GOT • [Not Started]: The target GT SoftGOT2000 or GT SoftGOT1000 module is not started.
	[Comment]	Displays the comment entered in the [No. n Property] dialog.
Display switching button	<p>Clicking the  button displays the monitor status list in detail.</p> <p>Clicking the  button displays the monitor status list with icons.</p> <p>➡ Point (1) Display switching button</p>	
[Front Display]	<p>Displays the GT SoftGOT2000 or GT SoftGOT1000 module selected in the monitor status list in the foreground.</p> <p>The target module is displayed in the foreground also by double-clicking a cell of the [Series], [No.], [IP Address], [N/W No.], [PC No.], or [Project Title] column in the target module row in the monitor status list.</p> <p>However, the target module in the back screen mode is not displayed in the foreground by clicking the [Front Display] button.</p> <p>If you overlap a GT SoftGOT2000 or GT SoftGOT1000 module in the foreground and GT SoftGOT2000 Commander, GT SoftGOT2000 Commander is displayed in front of the module.</p>	

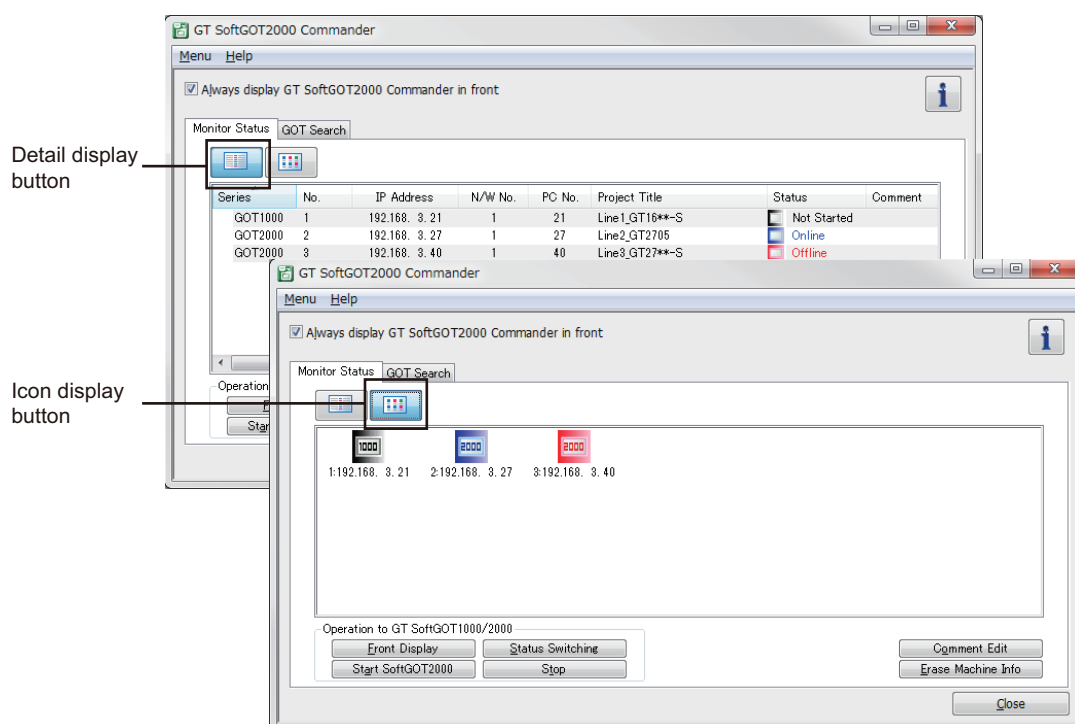
[Status Switching]	Switches the status of the GT SoftGOT2000 or GT SoftGOT1000 selected from the monitor status list (Online and Offline, or Not Started to Online/Offline). The monitor status can also be switched when [Status] in each row of the monitor status list is double-clicked. However, the monitor status cannot be switched while [Uploading] is displayed on [Status].
[Start SoftGOT2000]	Displays the [Start SoftGOT2000] dialog. ■ (a) [Start SoftGOT2000]
[Stop]	Ends the GT SoftGOT2000 or GT SoftGOT1000 selected from the monitor status list.
[Comment Edit]	Displays the [No. n - Property] dialog. The [No. n - Property] dialog is displayed also by double-clicking a cell in the [Comment] column in the monitor status list. ■ (b) n module number property
[Erase Machine Info]	Erases the module information of the GT SoftGOT2000 and GT SoftGOT1000 selected from the monitor status list. The information of the GT SoftGOT2000 and GT SoftGOT1000 being activated cannot be erased.

POINT

(1) Display switching button

The display switching button switches the monitor status list between detail display and icon display.

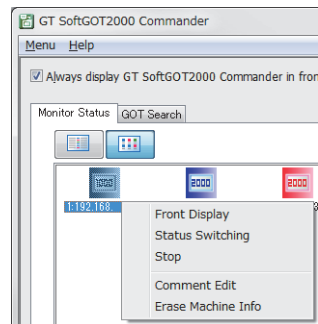
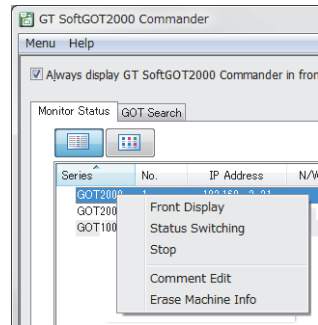
When in icon display, [No.] and [IP Address] are displayed in the monitor status list.



(2) Context menu

Right-click a row in the detail display or an icon in the icon display in the monitor status list to display the context menu.

In the context menu, [Front Display], [Status Switching], [Stop], [Comment Edit], and [Erase Machine Info] can be selected.



(a) [Start SoftGOT2000]

Item	Description
[Series]	The software applicable to the selected series is started. • [GOT2000]: GT SoftGOT2000 starts. • [GOT1000]: GT SoftGOT1000 starts.
[No.]	Set the module number of GT SoftGOT2000 or GT SoftGOT1000 to start.
[Environmental Setup]	Configure the environment settings of GT SoftGOT2000 or GT SoftGOT1000 to start. The settings are identical to [Environment Setup] of GT SoftGOT2000 or GT SoftGOT1000. ⇒ 2.3.1 [Environment Setup] dialog
[Communication Setup]	Configure the communication settings of GT SoftGOT2000 or GT SoftGOT1000 to start. The settings are identical to [Communication Setup] of GT SoftGOT2000 or GT SoftGOT1000. ⇒ 2.4.1 [Communication Setup] dialog
[Default Setting Reflection]	Collectively reflects the default settings to the environment setup and the communication setup of GT SoftGOT2000 or GT SoftGOT1000 to start. If the environmental setup or the communication setup has already been configured in the specified software, the setup contents are overwritten with the default settings.
[Activate GT SoftGOT2000 and start monitoring] ^{*1}	Starts monitoring automatically after GT SoftGOT2000 is started.
[Activate in the monitor-only mode]	Starts GT SoftGOT2000 or GT SoftGOT1000 in the monitor-only mode.

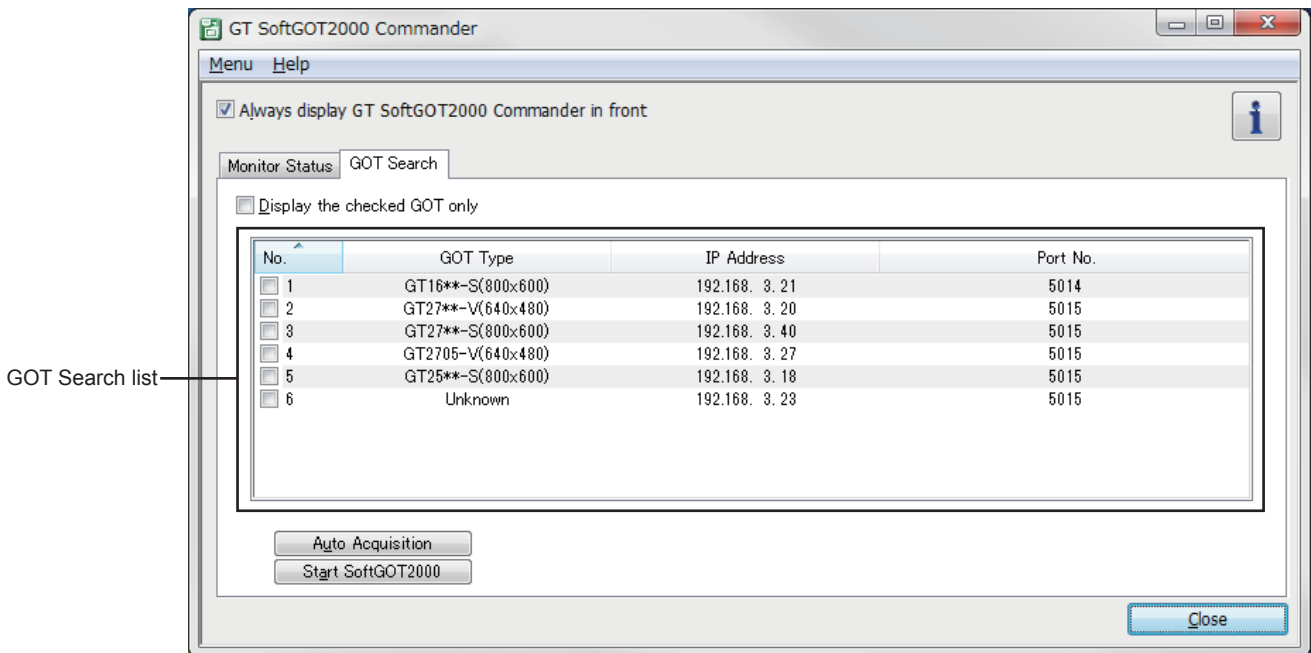
^{*1} If the setting of [Series] is switched to [GOT1000], the displayed item is changed to [Activate GT SoftGOT1000 and start monitoring].

(b) n module number property

The screenshot shows a standard Windows-style dialog box titled "No.1 - Property". It has a close button (X) in the top right corner. The dialog contains several labeled input fields: "IP Address:" with the value "192.168. 3. 21", "N/W No.:" with the value "1", "PC No.:" with the value "21", and "Project Title:" with the value "Line1_GT16**~S". Below these is a "Comment:" label followed by a large, empty text area with a vertical scrollbar. At the bottom right of the dialog are two buttons: "OK" and "Cancel".

Item	Description
[Comment]	<p>Up to 255 characters can be entered.</p> <p>One line feed is counted as two characters.</p> <p>The comments are saved with the IP address of the GOT linked.</p> <p>Comments are related to the IP addresses of GOTs. Therefore, even though the module numbers of the GT SoftGOT2000 and GT SoftGOT1000 to communicate with the GOTs have been changed, the comments set to the modules before the changes will be displayed.</p>

(2) [GOT Search] tab



Item	Description	
[Display the checked GOT only]	The GOT Search list displays only the GOTs corresponding to the [No.] checkboxes selected.*1 Once this item is selected, the displayed GOTs will remain the same even when GT SoftGOT2000 Commander is started again or the [Auto Acquisition] button is clicked.	
GOT Search list	Displays found GOTs. Click the row to select and highlight it.	
	[No.]	Displays the number of found GOTs.
	[GOT type]	Displays the type of found GOTs.
	[IP address]	Displays the IP address of found GOTs.
	[Port No.]	Displays the port No. used for uploading the project data of found GOTs.
[Auto Acquisition]	Clicking the [Auto Acquisition] button displays the [GOT Type], [IP Address] and [Port No.] of the searched GOT.	
[Start SoftGOT2000]	Displays the [Start SoftGOT2000] dialog. The [Start SoftGOT2000] dialog can be also displayed by double-clicking the GOT row selected in the GOT Search list. The settings are identical to the [Start SoftGOT2000] dialog in the [Monitor Status list] tab.	
	➡ (a) [Start SoftGOT2000]	

*1 When no [No.] checkbox is selected, selecting [Display the checked GOT only] will display nothing in the GOT Search list.

POINT

(1) Search target GOT

Auto acquisition searches only GOT2000 (GT27 and GT25) and GOT1000 (GT16) GOTs.

(2) IP Address duplication

If a duplicated IP address is found in the search result, the applicable GT SoftGOT2000 or GT SoftGOT1000 module cannot be started from the GOT Search list.

Also, the duplication of [IP Address] may not be found, even if existing. Therefore, make sure to check the whole system before searching again.

(3) Settings on Resolution, IP Address and Destination GOT Port No.

Clicking [Communication Setup], [Environment Setup] or [OK] on the [Start SoftGOT2000] dialog displays the following dialog.



(a) Select [Yes].

- [Resolution] in the environmental Setting is changed to [GOT Type] of the row selected in the GOT Search list.
- [Destination GOT IP Address] and [Destination GOT Port No.] in the GOT Link Setup dialog is changed to [IP Address] and [Port No.] of the row selected in the GOT Search list.

(b) Select [No].

GT SoftGOT2000 and GT SoftGOT1000 are started with the values set in the [Communication Setup] and [Environment Setup] dialogs.

■1. Settings and OS required for the GOT

(1) Ethernet setting

Set [GOT IP Address] and [Ethernet Download Port No.] for project data.

⇒ ■3. Operation and setting on GT Designer3

(2) Ethernet download setting

(2) Extended function OS

Install the extended function OS (SoftGOT-GOT Link Function) on the GOT.

⇒ GT Designer3 (got2000) Help

■2. Setting devices which affect the control of GOT/GT SoftGOT2000

It is recommended to set a GOT internal device for a control device of the function which affects the control of the GOT/GT SoftGOT2000 (including the system signal, screen switching device, or security level device).

When a controller device is set for the device which affects the control of the GOT/GT SoftGOT2000, due to an operation of either GT SoftGOT2000 or the GOT, an unexpected behavior may be caused to the other. The following shows the setting example of how to enable the function which affects the control of the GOT/GT SoftGOT2000 only when the authorization is obtained by using a GOT internal device and the script function.

Example: When the authorization is obtained, the screens of GT SoftGOT2000 and the GOT are switched according to the value (screen number) of a controller device (D1000)

Function	Setting
Screen switching device	Set a GOT internal device (GD1000).
Script function	<p>Set the following project script in which the trigger type is set to [Ordinary].</p> <pre> if([b:GS244.b1] == ON){ [w:GD1000] = [w:D1000]; } </pre>

For the screen switching device, refer to the following.

⇒ GT Designer3 (got2000) Help

For the script function, refer to the following.

⇒ GT Designer3 (got2000) Help

■3. Function not available with the SoftGOT-GOT link function

When using the SoftGOT-GOT link function, the PX developer function call is not available.

■4. Operation without the authorization

Clicking and touching an input object are not recognized as input operations if the authorization is not obtained.

The dialog for obtaining the authorization appears. (When the GOT has the exclusive authorization, GT SoftGOT2000 cannot obtain the authorization.)

■5. Timing of which the project data synchronization is not executed

During the following operations, project data are not synchronized. The project data synchronization is executed when the operation ends.

- While displaying the print preview
- While displaying the dialog which disables operation of other screens if the dialog is displayed

■6. Using the SoftGOT-GOT link function in the system that requires the quick communication response

When the SoftGOT-GOT link function is used in the system that requires the quick communication response, the Ethernet connection is recommended between the GOT and the monitor PLC.

If the GOT monitors the PLC connected by the direct CPU connection by using the SoftGOT-GOT link function, the communication response speed of GT SoftGOT2000 will decrease.

■7. When the started GOT has project data protected with a security key

GT SoftGOT2000 cannot read the project data.

To read the project data from the GOT, delete the security key from the project data, and then start the GOT.

For the details of the security key, refer to the following.

⇒ GT Designer3 (GOT2000) Help

■8. When using the SoftGOT-GOT link function of GT SoftGOT1000

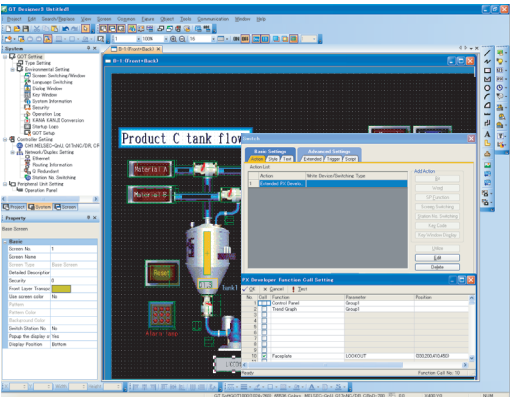
For the precautions and restrictions for using the SoftGOT-GOT link function of GT SoftGOT1000, refer to the following.

➡ GT SoftGOT1000 Version3 Operating Manual for GT Works3

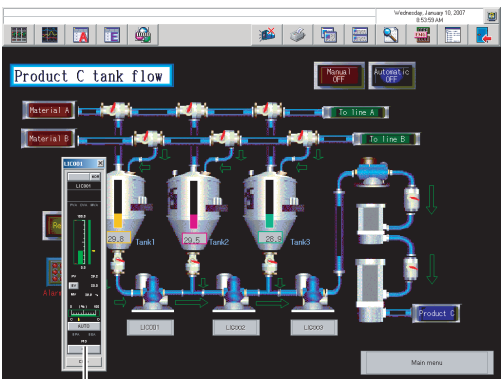
4.13 Interaction with PX Developer

The monitor tool function of PX Developer can be called on GT SoftGOT2000.
In PX Developer, when registering GT SoftGOT2000 as the user graphic screen, the registered GT SoftGOT2000 can be started up.
With interaction between GT SoftGOT2000 and PX Developer, their functions can be shared.
Thus, the interaction improves the operational performance for combining the functions.

<Setting on GT Designer3>



<Interaction between GT SoftGOT2000 and PX Developer>



Set the PX Developer function call for a special function switch on GT Designer3.

Touch the special function switch, and then the monitor tool function for PX Developer set on GT Designer2 is called.

For methods of interaction between GT SoftGOT2000 and PX Developer, refer to the following manual.

➡ PX Developer Version □ Operating Manual (Monitor Tool)

To call monitor tool functions for PX Developer on GT SoftGOT2000, the setting for the special function switch is required.
For details on the setting, refer to the following.

➡ GT Designer3 (GOT2000) Help

■1. Security level change

By changing the mode with the monitor tool of PX Developer, the security level of GT SoftGOT2000 can be changed to the level corresponding to the mode.
For how to change the security level when changing the mode, refer to the following.

➡ PX Developer Version □ Operating Manual (Monitor Tool)

When changing the security level, use PX Developer Version1.31H or later.

4.13.1 Setting method

■1. Before interaction with PX Developer

For interaction with PX Developer, the setting is required respectively for GT SoftGOT2000 and PX Developer. The following describes the settings required for interaction with PX Developer.

(1) Settings on GT SoftGOT2000

- Set to the online mode at start-up.
 - ⇒ 2.1.2 Starting up GT SoftGOT2000 automatically
- Do not check the [Display dialog when starting GT SoftGOT2000, specified with the module that has been activated.] of the [Auxiliary Setup] tab on the environment setup dialog.
 - ⇒ 2.3 Environment Setup
- Do not check [Display dialog when closing GT SoftGOT2000.].
 - ⇒ 2.3 Environment Setup
- Call project data on GT SoftGOT2000.
 - ⇒ 2.5 Opening the Project

POINT

Opening project data

Set the PX Developer function call for the current project data opened on the GT SoftGOT2000. For the following cases, open the project data on GT SoftGOT2000.

- When the project data has never been opened on GT SoftGOT2000
- When the target project data differs from the last monitored project data

When GT SoftGOT2000 is displayed in the full screen mode for the interaction with PX Developer, set the back screen mode for GT SoftGOT2000, and then monitor tool windows are not behind GT SoftGOT2000.

- ⇒ 4.16 Back screen mode

(2) Settings on PX Developer

For the settings on PX Developer, refer to the following manual.

- ⇒ PX Developer Version □ Operating Manual (Monitor Tool)

■2. PX Developer function call setting

Set to call monitor tool functions on GT SoftGOT2000.

To call monitor tool functions for PX Developer on GT SoftGOT2000, the special function switch to which the [PX Developer function call] is set is required.

Set the special function switch with GT Designer3.


For details on the setting, refer to the following manual.

- ⇒ GT Designer3 Version1 Screen Design Manual (Functions)

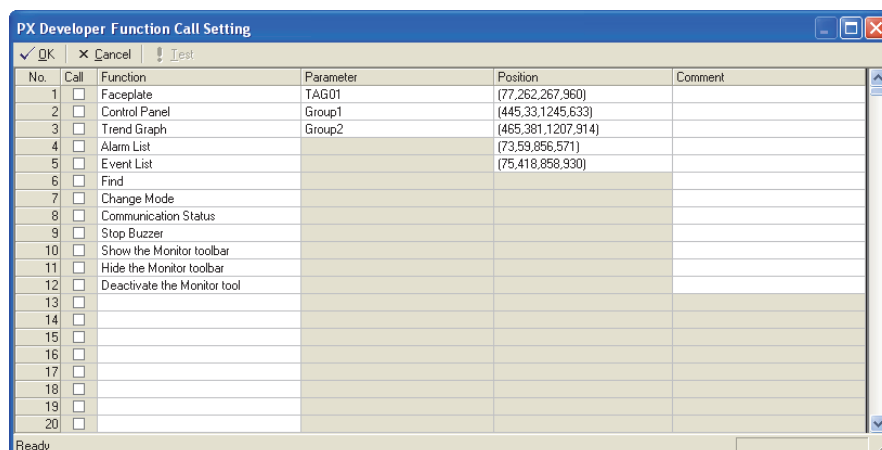
After setting the PX Developer function call in the special function switch with GT Designer3, the settings can be changed on GT SoftGOT2000. (To change the settings, starting GT Designer3 is not needed.)






The following describes the method for changing the settings on GT SoftGOT2000.

Step 1. Operate any of the followings.

- Click  [PX Developer Function Call Setting].
- Select [Set] → [PX Developer Function Setting] → [PX Developer Function Call Setting] from the menu.
- Right-click the mouse and select [Set] → [PX Developer Function Call Setting] from the menu.

Step 2. The dialog appears for the [PX Developer function call setting]. Set the dialog with reference to the following list.



Item	Description												
[Toolbar]	The functions of the toolbar are shown.												
[OK]	Press the button to accept the settings and close the dialog.												
[Cancel]	Press the button to cancel the setting and close the dialog.												
[Test]	Call the monitor tool function that is checked in the [Call] column. The name of the function is shown in the [Function] column. The function is used to check a monitor tool function to be called and the position to be displayed when setting with GT Designer3. The display position for the monitor tool is always at the upper left of screen. ([Set to the relative coordinates to GT SoftGOT2000] checked in [Display Position Setting] are disabled.) For restrictions for calling monitor tool functions, refer to the following manual.  PX Developer Version  Operating Manual (Monitor Tool)												
[Call]	Assign the functions that is checked in the [Call] column to the special function switch. The setting is available only with GT Designer3.												
[Function]	Select monitor tool functions to be called when touching the special function switch. The following indicates the applicable functions. <table><tr><td>• [Faceplate]</td><td>• [Control Panel]</td><td>• [Trend Graph]</td></tr><tr><td>• [Alarm List]</td><td>• [Event List]</td><td>• [Find]</td></tr><tr><td>• [Change Mode]</td><td>• [Communication Status]</td><td>• [Stop Buzzer]</td></tr><tr><td>• [Show the Monitor toolbar]</td><td>• [Hide the Monitor toolbar]</td><td>• [Deactivate the Monitor tool]</td></tr></table> For details for each function, refer to the following manual.  PX Developer Version  Operating Manual (Monitor Tool)	• [Faceplate]	• [Control Panel]	• [Trend Graph]	• [Alarm List]	• [Event List]	• [Find]	• [Change Mode]	• [Communication Status]	• [Stop Buzzer]	• [Show the Monitor toolbar]	• [Hide the Monitor toolbar]	• [Deactivate the Monitor tool]
• [Faceplate]	• [Control Panel]	• [Trend Graph]											
• [Alarm List]	• [Event List]	• [Find]											
• [Change Mode]	• [Communication Status]	• [Stop Buzzer]											
• [Show the Monitor toolbar]	• [Hide the Monitor toolbar]	• [Deactivate the Monitor tool]											
[Parameter]	Input an argument when calling a monitor tool function. The following indicates the applicable functions and their settings. <table><tr><td>• Faceplate</td><td>: Tag name</td></tr><tr><td>• Control Panel</td><td>: Group name</td></tr><tr><td>• Trend Graph</td><td>: Group name</td></tr></table>	• Faceplate	: Tag name	• Control Panel	: Group name	• Trend Graph	: Group name						
• Faceplate	: Tag name												
• Control Panel	: Group name												
• Trend Graph	: Group name												
[Position]	Set the display position of monitor tool windows to be called. Click the  button to show the setting dialog for the display position.												
[Comment]	Comments can be entered arbitrarily. (Up to 512 characters regardless of whether single-byte or double-byte)												
[Status bar]	The function call number, which is checked in the [Call] column, is indicated. Double-click the displayed function call number to show the column checked in [Call]. The setting is available with GT Designer3.												

*1 For details on *1, refer to the next page.

POINT

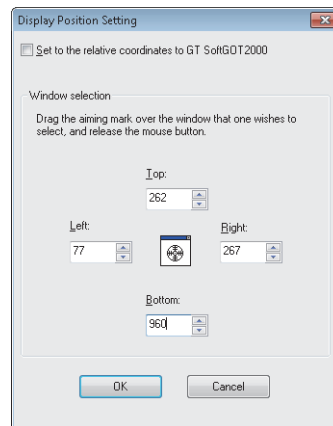
Precautions for changing PX Developer function call setting

During changing the PX Developer function call setting on GT SoftGOT2000, do not change the PX developer function call setting of the same project data on other GT SoftGOT2000 or GT Designer3.


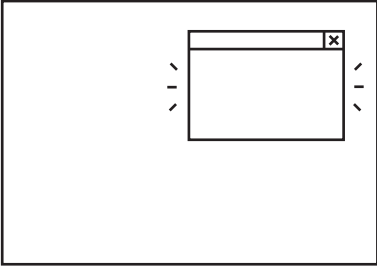
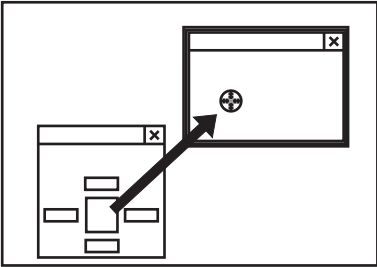
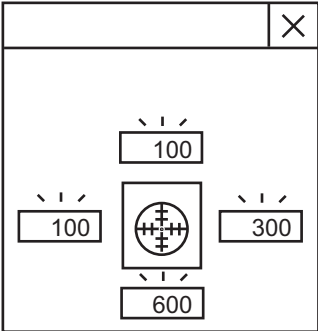

When the PX Developer function call setting of the same project data is changed on multiple software, the setting saved at the last is enabled. The settings saved before the last one are deleted.

*1 Setting for display position

In the setting dialog for the display position, the position can be set for displaying monitor tool windows to be called.




Item	Description
[Set to the relative coordinates to GT SoftGOT 2000.]	<p>To display monitor tool windows in the fixed position on the display regardless of whether display is GT SoftGOT2000, do not check the item.</p> <p>If not checked, the coordinates of the display position can be set with their origin at the upper left on the display of a personal computer.</p> <p>Check the item to always display monitor tool windows in the fixed position on GT SoftGOT2000.</p> <p>If checked, the coordinates of the display position can be set with their origin at the upper left on the display of a personal computer.</p>

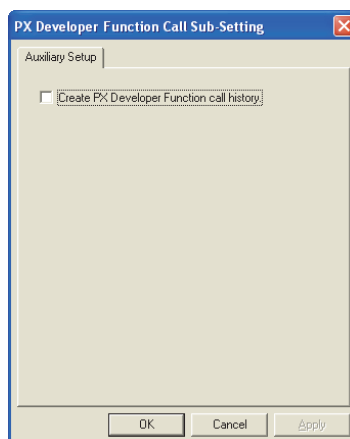
Item	Description
[Window selection]	<p>Set the display position when calling monitor tool functions. To display monitor tool windows, Set the coordinates in [Top], [Left], [Right] and [Bottom].</p> <p>The coordinates can be automatically set with the  (Aiming mark). The following describes how to use aiming mark.</p> <p>1) Set a window at the position of a monitor tool window to be displayed. (Any windows, including monitor tool windows, can be positioned.)</p>  <p>2) Drag the aiming mark to the set window. If dragged, the window is surrounded with a black frame. Release the mouse button on the window surrounded with a black frame.</p>  <p>3) The coordinates of the set window are input in the setting dialog for the display position.</p>  <p>Do not use  (Aiming mark) if [Set to the relative coordinates to GT SoftGOT2000.] is checked. Directly input the coordinates. (Applicable range: -32768 to 32767)</p>
	[Top] Set X-coordinate on the upper left of the window.
	[Left] Set Y-coordinate on the upper left of the window.
	[Right] Set X-coordinate on the upper right of the window.
	[Bottom] Set Y-coordinate on the upper right of the window.

■3. PX Developer function call sub-setting

Step 1. Operate any of the followings.

- Click  [PX Developer Function Call Sub-Setting].
- Select [Set] → [PX Developer Function Setting] → [PX Developer Function Call Sub-Setting] from the menu.
- Right-click the mouse and select [Set] → [PX Developer Function Call Sub-Setting] from the menu.

Step 2. The dialog appears for the [PX Developer function call sub-setting]. Set the dialog with reference to the following explanation.



Item	Description
[Create PX Developer Function call history.]	<p>Check the item to register the calling status of monitor tool functions as a history. For available information as history, refer to the following.</p> <p>➡ 4.13.2 PX Developer function call history</p>

4.13.2 PX Developer function call history

Histories for calling monitor tool functions can be registered.

■ 1. Available information as history


The following information can be registered as a history.

- Success of calling monitor tool functions
- Failure of calling monitor tool functions

■ 2. Referencing history data

The following describes the reference method of the history data.

Step 1. Operate any of the followings.

- Click  [PX Developer Function Call History].
- Select [Set] → [PX Developer Function Setting] → [PX Developer Function Call History] from the menu.
- Right-click the mouse and select [Set] → [PX Developer Function Call History] from the menu.

Step 2. The history data appears.

```
2007/01/1010:56:47No.1Function Call No.1 : Failed to call PX Developer Function.
2007/01/1010:57:39No.1Function Call No.1 : PX Developer Function has been called.
2007/01/1010:57:53No.1Function Call No.2 : Failed to call PX Developer Function.
2007/01/1011:07:56No.1Function Call No.2 : PX Developer Function has been called.
2007/01/1117:10:35No.1Function Call No.3 : PX Developer Function has been called.
2007/01/1213:25:11No.1Function Call No.4 : PX Developer Function has been called.
```

POINT

History data

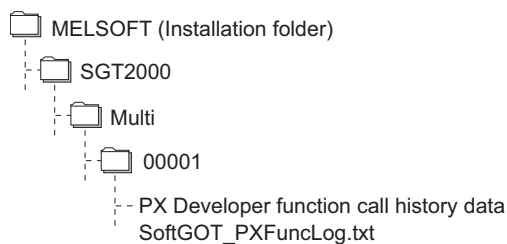
When history data is not registered, the PX Developer function call history cannot be referenced. To reference the history data, check [Create PX Developer Function call history.] in the PX Developer function call sub-setting.

For the PX Developer function call sub-setting, refer to the following.

➡ 4.13.1 Setting method

The history data is managed for each module as shown below. The data is not deleted even if GT SoftGOT2000 is exited.

The unnecessary data is required to delete by the user.



4.14 Full Screen Mode

The full monitor screen of GT SoftGOT2000 can be displayed on the personal computer screen.

When the full screen mode function is not use



When the full screen mode function is not used, the part of the frame is displayed.

When the full screen mode function is used



When the full screen mode function is used, the part of the frame is hidden and the full monitor screen can be displayed on the personal computer.

POINT

Precautions on the full screen mode

When using the full screen mode function, such operations as exiting from GT SoftGOT2000 cannot be performed, since the menu bar, toolbar and status bar of GT SoftGOT2000 are hidden. To perform operations of the menu bar and toolbar, use the mouse right-click menu.

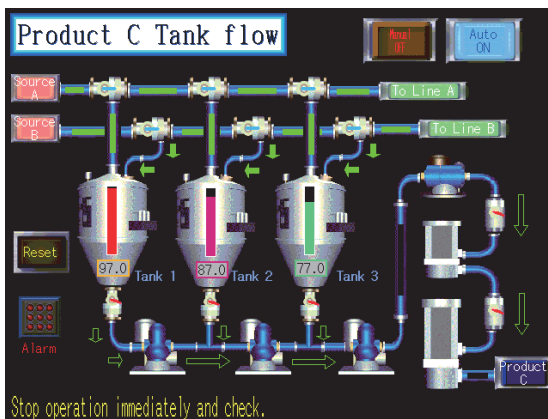
4.14.1 Full screen mode types

There are the following types of full screen mode function.

■ 1. Full screen 1

Only a monitor screen is displayed fully on the screen.

Use this function with the personal computer or panel computer where a mouse and keyboard are connected.



<Operation procedure>

The operations performed on the menu bar and toolbar can be performed by right-clicking a mouse.

Double-click on the monitor screen with holding down the [Shift] key to minimize the screen.

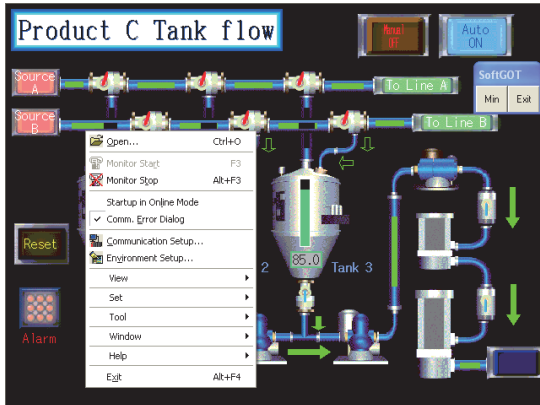
Press the [F12] key (function key) to exit from GT SoftGOT2000.

■ 2. Full screen 2

A monitor screen is displayed fully on the screen, and a small dialog is displayed.

GT SoftGOT2000 can be minimized/exited in the small dialog.

Since GT SoftGOT2000 can be exited on the monitor screen, it can be used for the panel computer where a mouse and keyboard are not connected.



<Procedure for operation>

The following operations can be performed in the small dialog.

- Min: Minimizes GT SoftGOT2000.
- Exit: Exits GT SoftGOT2000.

The operations performed on the menu bar and toolbar can be performed by right-clicking a mouse.

Double-click on the monitor screen holding down the **[Shift]** key to minimize the screen.

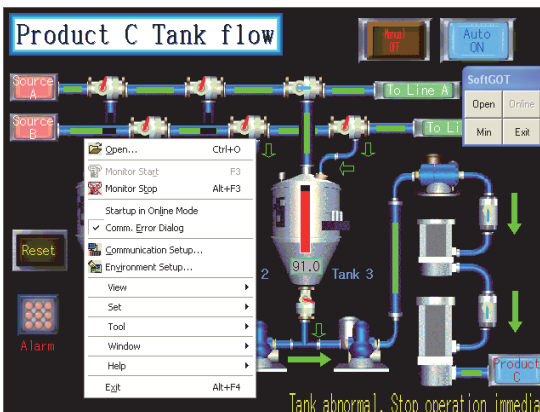
Press the **[F12]** key (function key) to exit from GT SoftGOT2000.

■ 3. Full screen 3

A monitor screen is displayed fully on the screen, and a small dialog is also displayed.

GT SoftGOT2000 can be opened/monitored/minimized/exited in the small dialog.

Since GT SoftGOT2000 can be exited on the monitor screen, it can be used for the panel computer where a mouse and keyboard are not connected.



<Procedure for operation>

The following operations can be performed in the small dialog.

- Open: Opens a project.
- Online: Starts monitoring. (Cannot be selected during monitoring.)
- Min: Minimizes GT SoftGOT2000.
- Exit: Exits GT SoftGOT2000.

The operations performed on the menu bar and toolbar can be performed by right-clicking the mouse.

Double-click on the monitor screen holding down the **[Shift]** key to minimize the screen.

Press the **[F12]** key (function key) to exit from GT SoftGOT2000.

POINT

Exiting the full screen mode

Turning ON the GOT internal device (system information area of GT SoftGOT2000: GS500.b0) exit GT SoftGOT2000.

By setting the above device as a touch switch, GT SoftGOT2000 can be exited without using a mouse and keyboard.

For details of the GOT internal device, refer to the following manual

➡ GT Designer3 (got2000) Help

4.14.2 Setting method

The full screen mode can be set either before or after starting GT SoftGOT2000.

■ 1. Setting before starting GT SoftGOT2000

Step 1. Select [Start]^{*1} → [MELSOFT]^{*2} → [GT Works3] from the menu of Windows, right-click [GT SoftGOT2000], and select [Properties].

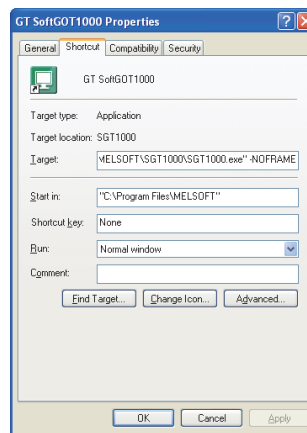
^{*1} Select [All Programs] on the [Start] screen, or select [Start] → [All Programs].

^{*2} [MELSOFT Application] appears for a version of GT Works3 earlier than 1.136S.

Step 2. As the GT SoftGOT2000 properties appear, choose the [Shortcut] tab and add the keyword of the mode to be used to [Target].

Keyword	Description
-NOFRAME ^{*1}	Displays the screen in full screen 1.
-NOFRAMEDLG ^{*1}	Displays the screen in full screen 2.
-NOFRAMEDLGMENU ^{*1}	Displays the screen in full screen 3.

^{*1} A one-byte blank is required to be prefixed to "-".



When displaying the screen in full screen 1

Step 3. After addition, click the button.

Step 4. When GT SoftGOT2000 is started next, GT SoftGOT2000 is started in the full screen mode.

Step 5. When you cancel the full screen mode, delete the keyword added to [Target].

POINT

When starting the GT SoftGOT2000 with the specified module number in the full-screen mode

The specified module of GT SoftGOT2000 can be started in the full-screen by entering the keyword for both full screen mode and module No. in the [Target] of [GT SoftGOT2000 Properties]. (There are no rules for the order of entering keywords.)

Ex) When starting module No. 3 in the full-screen 1

C:\Program Files\MELSOFT\SGT1000\SGT1000.exe -SGT3 -NOFRAME

↑ ↑
A one-byte space is necessary
in front of keyword

Refer to the following for module keyword.

➡ 4.9 Object Script Error Information

■2. Setting after starting GT SoftGOT2000

- Step 1.** Select either of the following.
- Select [View] → [Full Screen Mode] from the menu.
 - Right-click the mouse to select [View] → [Full Screen Mode] from the menu.
- Step 2.** The GT SoftGOT2000 is displayed in full screen 1 mode.
- Step 3.** To cancel the full screen mode, right-click the mouse to select [View] → [Full Screen Mode] from the menu.

POINT

Enabling and disabling full screen mode with GOT internal device

The full screen mode of GT SoftGOT2000 can be switched between enabled and disabled states by turning on and off the GOT internal device (GS500.b1).

- ON: GT SoftGOT2000 is displayed in the full screen mode.
- OFF: The full screen mode of GT SoftGOT2000 is canceled.

For GOT internal devices, refer to the following manual.

➡ GT Designer3 (got2000) Help

4.14.3 Precautions

■1. Small dialog

The small dialog is movable but cannot be closed.
It is always displayed on the front position.

■2. Switching to the standard screen display

When the GT SoftGOT2000 was started with a keyword, the screen cannot be switched to the standard screen display.
([Full Screen Mode] in the menu is displayed in gray.)

■3. Full screen mode setting

The full screen mode setting is valid even when exiting the GT SoftGOT2000 and restarting it.

■4. Display position in full screen mode

When switching to full screen mode under the environment where the resolution of the PC display and GT SoftGOT2000 are different, the GT SoftGOT2000 window is displayed so that the upper-left corner of the window is on the upper-left of the PC display.

■5. When displaying the screen in full screen mode after starting the GT SoftGOT2000

When displaying the screen in full screen mode after starting the GT SoftGOT2000, the screen is displayed in full screen 1.

To display the screen in full screen 2 or 3, set the full screen mode with the procedure shown in 5.15 Full Screen Mode.

4.15 Close Menu

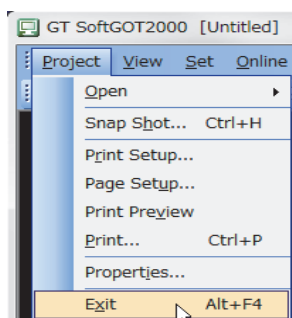
The Close menu at the upper right of the title bar can be disabled (enabled).

The Close menu at the upper right of the title bar is grayed out when it is disabled.

Clicking the Close menu in this status does not terminate GT SoftGOT2000.

The setting selected here remains valid even after GT SoftGOT2000 is terminated and then restarted.

After making this setting, [Exit] provided in the right-click menu and the Project menu is enabled.



Close menu on the title bar

4.16 Back screen mode

The monitor screen of GT SoftGOT2000 is always displayed behind all the other screens.

In this mode, other applications can be used while GT SoftGOT2000 is displayed in full-screen. Operate any of the followings.

Select [View] → [Back Screen Mode] from the menu.

Right-click the mouse and select [View] → [Back Screen Mode] from the menu.

GT SoftGOT2000 is displayed behind all other screens.

To cancel the settings, operate any of the followings.

Select [View] → [Back Screen Mode] from the menu.

(Note that the settings cannot be canceled in the menu bar if displayed in full screen.)

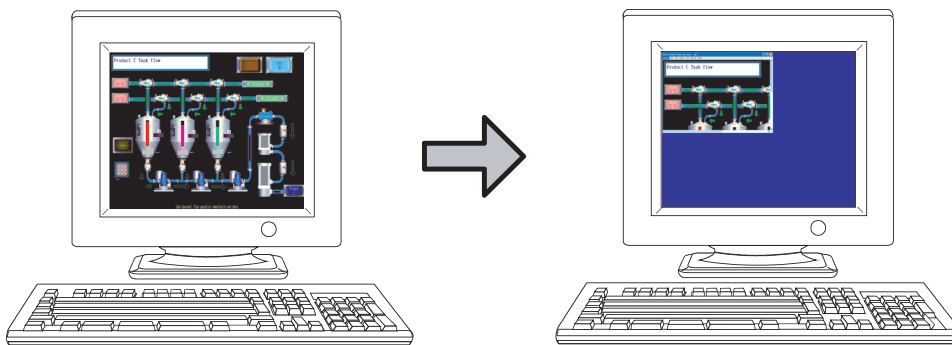
Right-click the mouse and select [View] → [Back Screen Mode] from the menu.

4.17 Disabling/enabling the close menu

- Step 1.* Follow the procedure below.
Select [Set] → [Close Menu] from the menu.
Right-click the mouse, and select [Set] → [Close Menu] from the menu.
- Step 2.* The Close menu at the upper right of the title bar is disabled.
- Step 3.* To enable back the Close menu at the upper right of the title bar, select [Set] → [Close Menu].

4.18 Scroll Function

The scroll bars are displayed when GT SoftGOT2000 pane is resized to a smaller size.



4.18.1 Setting method

- Step 1.** Operate the following.
- Select [View] → [Scroll Bar] from the menu.
- Step 2.** The scroll bars are displayed when GT SoftGOT2000 pane is resized to a smaller size. Scroll the monitor screen with the scroll bars, and then the hidden part of the monitor screen is displayed. The scroll bars cannot be operated with keyboards. The scroll bars are not displayed with the full screen mode.
- Step 3.** For hiding the scroll bars, select [View] → [Scroll Bar] from the menu.

4.19 Moving the Window

GT SoftGOT2000 can be moved by operating the mouse.

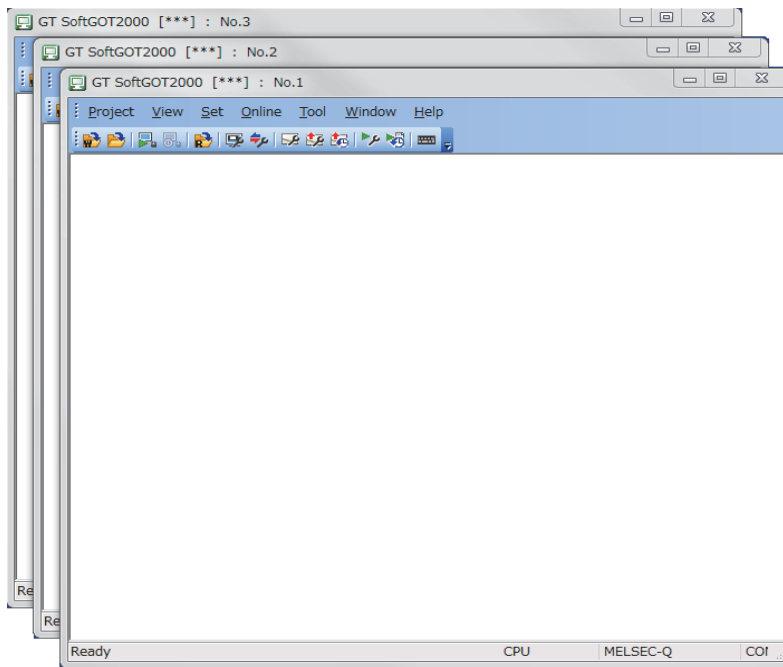
GT SoftGOT2000 can also be moved when the full screen display function, where the title bar is not displayed, is used.

4.19.1 Window movement types

There are the following window movement types.

■ 1. Cascade

Cascades the windows of the active GT SoftGOT2000. (These windows may not necessarily be in the order of module numbers, depending on the Windows® specifications.)



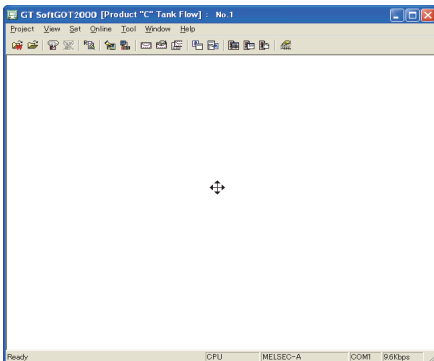
■ 2. Minimize all windows

Minimizes all the windows of the active GT SoftGOT2000 modules.

■ 3. Window movement

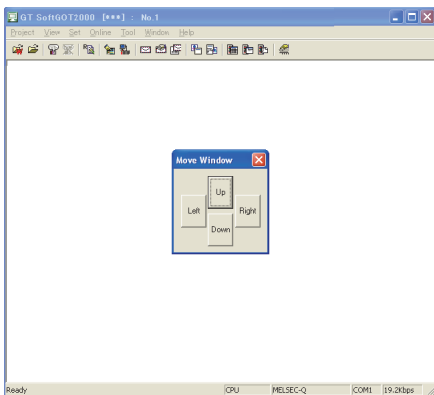
A window is moved in either of the following methods.
Set the moving method in Environment setup.
For details of Environment Setup, refer to the following.

➡ 2.3 Environment Setup



Movement with mouse

Setting the cursor of the mouse to the Move mode and moving the mouse also moves GT SoftGOT2000 with the motion of the mouse.
Clicking the mouse cancels the Move mode.



Movement with Move buttons

The UP, DOWN, LEFT or RIGHT button in the [Move window] dialog moves GT SoftGOT2000 on a 10-dot every clicking.
A window can also be moved on a panel computer that cannot use a mouse.

4.19.2 Setting method

Perform the following operation.

- Select [Window] → [Cascade] / [Mimimize All Windows] / [Move Window] from the menu.
- Right-click the mouse to select [Window] → [Cascade] / [Mimimize All Windows] / [Move Window] from the menu.

Move GT SoftGOT2000 in the selected moving method.

4.20 Monitor-only Mode

The monitor operation of GT SoftGOT2000 by a mouse and keyboard is disabled in this mode. It is useful when using GT SoftGOT2000 only for monitoring.

4.20.1 Setting method

■1. After starting GT SoftGOT2000

- Step 1.** Enable the monitor-only mode by either of the following operations.
- Select [Set] → [Monitor-only Mode] from the menu.
 - Right-click the mouse, and select [Set] → [Monitor-only Mode] from the menu.

- Step 2.** Start monitoring.

⇒ 2.6.1 Starting Monitoring

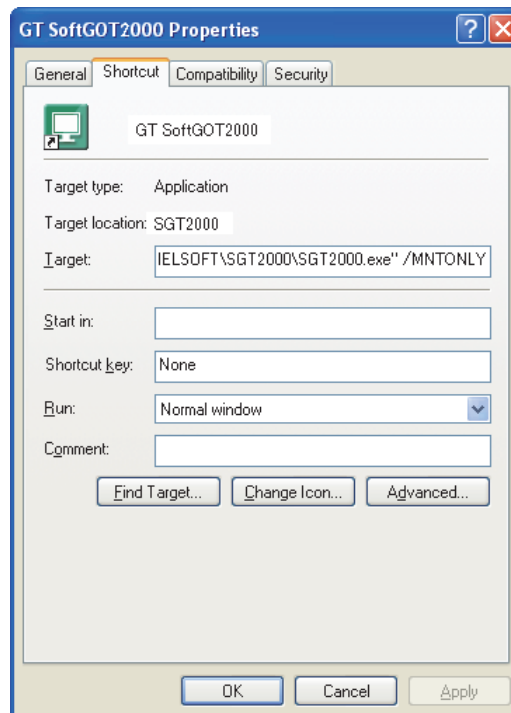
■2. Before starting GT SoftGOT2000

- Step 1.** Select [Start]^{*1} → [MELSOFT]^{*2} → [GT Works3] from the menu of Windows, right-click [GT SoftGOT2000], and select [Properties].

*1 Select [All Programs] on the [Start] screen, or select [Start] → [All Programs].

*2 [MELSOFT Application] appears for a version of GT Works3 earlier than 1.136S.

- Step 2.** The [GT SoftGOT2000 Properties] dialog appears. Select the [Shortcut] tab, and then add [/MNTONLY] to the end of the character strings in [Target]. (A one-byte space is required before "/".)



- Step 3.** After adding [/MNTONLY], click the [OK] button.

- Step 4.** At the next GT SoftGOT2000 startup, GT SoftGOT2000 starts with the monitor-only mode enabled.

POINT

(1) Precautions for the monitor-only mode

- (a) Once monitoring starts, the monitor-only mode cannot be switched between enabled and disabled.
- (b) When the monitor-only mode is enabled, the keyboard input function cannot be set.
- (c) When the monitor-only mode is enabled, and when the mouse cursor is moved on the monitor screen, the mouse cursor is disabled. (The mouse cursor appearance is the same as the appearance set on the personal computer.)
Even if the mouse cursor is disabled, the menu can be displayed by clicking the right mouse button.

(2) Confirmation dialog displayed at monitor startup in the monitor-only mode

The confirmation dialog appears when monitoring starts with the monitor-only mode enabled. Whether to display the confirmation dialog or not can be set by selecting the following item in the [Environment Setup] dialog.

- [Display dialog at the start of monitoring in the monitor-only mode.] in the [Auxiliary Setup] tab

➡ 2.3.1 [Environment Setup] dialog ■ 2. [Auxiliary Setup] tab

5. APPENDICES

5.1	Internal Device Interface Function	5 - 2
5.2	Troubleshooting	5 - 18
5.3	Applicable Project Data	5 - 25

5.1 Internal Device Interface Function

The internal device interface function can be used with Microsoft Visual C++, Microsoft Visual C#, Microsoft Visual Basic, Embarcadero C++ Builder, and Microsoft Excel.

By using the internal device interface function, the GT SoftGOT2000 internal device can be read/written from a user-created application.

5.1.1 Development environment

The following shows development environment for an application using the internal device interface function.

Development environment	
Language	Software
C++	Microsoft Visual C++ 6.0, Microsoft Visual C++ .NET(2002), Microsoft Visual C++ .NET 2003, Microsoft Visual C++ 2005, Microsoft Visual C++ 2008, Microsoft Visual C++ 2010, Embarcadero C++ Builder XE
C#	Microsoft Visual C# .NET(2002), Microsoft Visual C# .NET 2003, Microsoft Visual C# .NET 2005, Microsoft Visual C# .NET 2008, Microsoft Visual C# .NET 2010
BASIC	Microsoft Visual Basic 6.0, Microsoft Visual Basic .NET(2002), Microsoft Visual Basic .NET 2003, Microsoft Visual Basic .NET 2005, Microsoft Visual Basic .NET 2008, Microsoft Visual Basic .NET 2010
Microsoft Excel VBA	Microsoft Excel 2007, Microsoft Excel 2010 ^{*1} , Microsoft Excel 2013 ^{*1}

^{*1} Only available to the 32-bit version.

5.1.2 Accessible devices

For the GT SoftGOT2000 internal devices that can be read/written from a user-created application, refer to the following.

➡ GT Designer3 (GOT2000) Help

POINT

Access to internal devices

- Internal devices can be accessed only while GT SoftGOT2000 is running.
Internal devices hold their values while GT SoftGOT2000 is running.
- Internal devices can be accessed irrespective of the connection type of GT SoftGOT2000.

5.1.3 Internal device interface function

The internal device interface function is used to operate internal devices from a created program.
The following describes the internal device interface function.

Internal device interface function	Description	Reference
unsigned long GDev_OpenMapping()	Opens and maps the shared memory of the GOT internal device.	5.1.4
long GDev_Read()	Reads from the GOT internal device.	5.1.5
long GDev_Write()	Writes to the GOT internal device.	5.1.6
void GDev_CloseUnMapping()	Unmaps and closes the shared memory of the GOT internal device.	5.1.7

The following files are required when using the internal device interface function.

■ 1. 32-bit version

File name	Description
GDevlib_GT27.dll	DLL for the internal device interface
GDevlib_GT27.lib	LIB for the internal device interface
GDevlib_GT27.h	Header file for the internal device interface

■ 2. 64-bit version

The following lists the software applications compatible with the 64-bit OS.

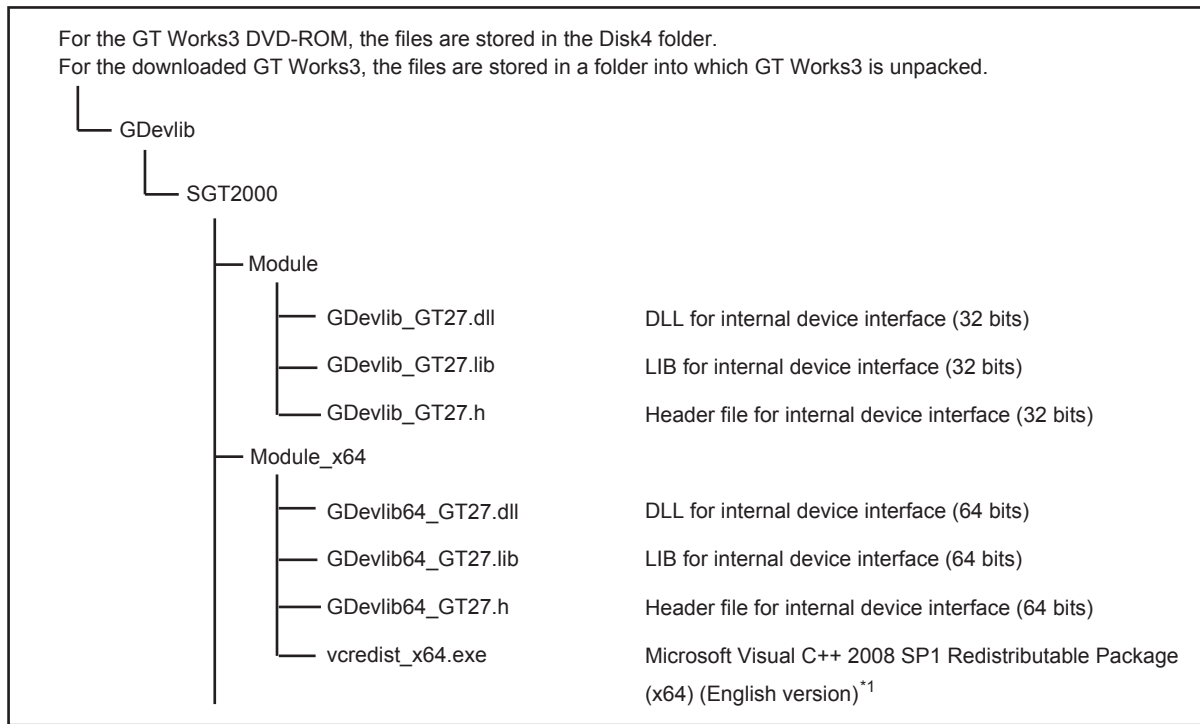
- Microsoft Visual C++ 2008
- Microsoft Visual C++ 2010
- Microsoft Visual C# .NET 2008
- Microsoft Visual C# .NET 2010
- Microsoft Visual Basic .NET 2008
- Microsoft Visual Basic .NET 2010

File name	Description
GDevlib64_GT27.dll	DLL for the internal device interface
GDevlib64_GT27.lib	LIB for the internal device interface
GDevlib64_GT27.h	Header file for the internal device interface

The above files are stored in the GT Works3 DVD-ROM (Disk4 folder). If GT Works3 is downloaded, the files are stored in a folder into which GT Works3 is unpacked.

To use an application that includes the internal device interface function, store GDevlib_GT27.dll or GDevlib64_GT27.dll in the folder where the application is stored or the folder specified in the application.

The folder storing the above files is shown below.



*1 To use GDevlib64_GT27.dll, run this EXE file to install relevant modules.

POINT

Before using the internal device interface function

Make sure to use the following files in the GT Works3 software package that contains GT SoftGOT2000 to be used.

(1) 32-bit version

- GDevlib_GT27.dll
- GDevlib_GT27.lib
- GDevlib_GT27.h

(2) 64-bit version

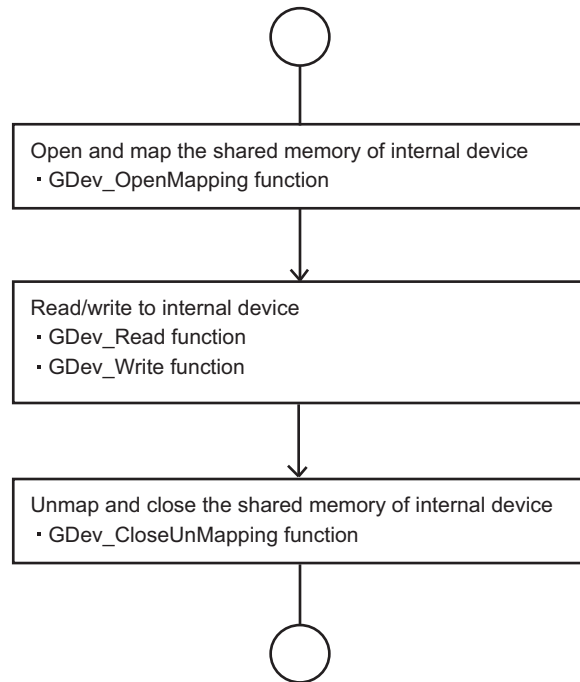
- GDevlib64_GT27.dll
- GDevlib64_GT27.lib
- GDevlib64_GT27.h

If you copy the target files from another GT Works3 software package, an application error may occur.

POINT

Processing flow when the internal device interface function is used

The following shows the processing flow when the internal device interface function is used in a program.



5.1.4 GDev_OpenMapping (Opening and mapping the internal device shared memory)

The following shows details of the GDev_OpenMapping function.

■ 1. Function

Opens and maps the shared memory of the GOT internal device.

■ 2. Format

(1) 32-bit version

(a) For Visual C++ and C++ Builder

ulMapPointer = GDev_OpenMapping(*lphMapFile, sGotNo)

Variable name	Variable type	Description	I/O
ulMapPointer	unsigned long	Return value (shared memory address)	Output
*lphMapFile	HANDLE	Shared memory handle	Output
sGotNo	short	Module No. of GT SoftGOT2000 (1 to 32767)	Input

(b) For Visual C#

ulMapPointer = GDev_OpenMapping(*lphMapFile, sGotNo)

Variable name	Variable type	Description	I/O
ulMapPointer	uint32	Return value (shared memory address)	Output
*lphMapFile	IntPtr	Shared memory handle	Output
sGotNo	int16	Module No. of GT SoftGOT2000 (1 to 32767)	Input

(c) For Visual Basic and Excel VBA

ulMapPointer = GDev_OpenMapping(hMapFile, sGotNo)

Variable name	Variable type	Description	I/O
ulMapPointer	unsigned long	Return value (shared memory address)	Output
hMapFile	HANDLE	Shared memory handle	Output
sGotNo	short	Module No. of GT SoftGOT2000 (1 to 32767)	Input

(2) 64-bit version

(a) For Visual C++

ulMapPointer = GDev_OpenMapping(*lphMapFile, sGotNo)

Variable name	Variable type	Description	I/O
ulMapPointer	ULONG_PTR	Return value (shared memory address)	Output
lphMapFile	HANDLE*	Shared memory handle	Output
sGotNo	short	Module No. of GT SoftGOT2000 (1 to 32767)	Input

(b) For Visual C#

ulMapPointer = GDev_OpenMapping(*lphMapFile, sGotNo)

Variable name	Variable type	Description	I/O
ulMapPointer	UInt64	Return value (shared memory address)	Output
lphMapFile	IntPtr*	Shared memory handle	Output
sGotNo	Int16	Module No. of GT SoftGOT2000 (1 to 32767)	Input

(c) For Visual Basic

ulMapPointer = GDev_OpenMapping(hMapFile, sGotNo)

Variable name	Variable type	Description	I/O
ulMapPointer	UInt64	Return value (shared memory address)	Output
lphMapFile	IntPtr*	Shared memory handle	Output
sGotNo	short	Module No. of GT SoftGOT2000 (1 to 32767)	Input

■3. Explanation

The shared memory handle for the internal device of GT SoftGOT2000 that is specified by sGotNo is obtained, and map processing is performed with the handle.

The obtained shared memory handle is stored to lphMapFile or hMapFile, and the obtained shared memory address is stored to ulMapPointer.

■4. Return value

Normal termination: A number other than "0" (shared memory address) is returned.

Abnormal termination: "0" is returned.

■5. Precautions for using the GDev_OpenMapping function

After the GDev_OpenMapping function is called and required processings are performed, the GDev_CloseUnMapping function must always be called.

If it is not called, a memory leak may result and an error such as application error may occur.

5.1.5 GDev_Read (Reading from the internal device)

The following shows details of the GDev_Read function.

1. Function

Reads from the GOT internal device.

2. Format

(1) 32-bit version

(a) For Visual C++ and C++ Builder

IReturn = GDev_Read(uiMapPointer, sDevNameID, IDevNum, *IpsDataTable, IDataSize)

Variable name	Variable type	Description	I/O
IReturn	long	Return value	Output
uiMapPointer	unsigned long	Shared memory address	Input
sDevNameID	short	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	long	Device number	Input
*IpsDataTable	short	Device value read	Output
IDataSize	long	Number of data points to be read	Input

(b) For Visual C#

IReturn = GDev_Read(uiMapPointer, sDevNameID, IDevNum, *IpsDataTable, IDataSize)

Variable name	Variable type	Description	I/O
IReturn	int32	Return value	Output
uiMapPointer	uint32	Shared memory address	Input
sDevNameID	int16	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	int32	Device number	Input
*IpsDataTable	int16	Device value read	Output
IDataSize	int32	Number of data points to be read	Input

(c) For Visual Basic and Excel VBA

IReturn = GDev_Read(uiMapPointer, sDevNameID, IDevNum, sDataTable(0), IDataSize)

Variable name	Variable type	Description	I/O
IReturn	long	Return value	Output
uiMapPointer	unsigned long	Shared memory address	Input
sDevNameID	short	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	long	Device number	Input
sDataTable(n)	short	Device value read	Output
IDataSize	long	Number of data points to be read	Input

(2) 64-bit version

(a) For Visual C++

IReturn = GDev_Read(uiMapPointer, sDevNameID, IDevNum, *IpsDataTable, IDataSize)

Variable name	Variable type	Description	I/O
IReturn	long	Return value	Output
uiMapPointer	ULONG_PTR	Shared memory address	Input
sDevNameID	short	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	long	Device number	Input
IpsDataTable	INT_PTR*	Device value read ^{*1}	Output
IDataSize	long	Number of data points to be read	Input

^{*1} Specify the short (Int16) type for the device to store a read value. The value is casted to the short (Int16) type when the function is called.

(b) For Visual C#

`IReturn = GDev_Read(ulMapPointer, sDevNameID, IDevNum, *IpsDataTable, IDataSize)`

Variable name	Variable type	Description	I/O
IReturn	Int32	Return value	Output
ulMapPointer	UInt64	Shared memory address	Input
sDevNameID	Int16	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	Int32	Device number	Input
IpsDataTable	IntPtr*	Device value read ^{*1}	Output
IDataSize	Int32	Number of data points to be read	Input

*1 Specify the short (Int16) type for the device to store a read value. The value is casted to the short (Int16) type when the function is called.

(c) For Visual Basic

`IReturn = GDev_Read(ulMapPointer, sDevNameID, IDevNum, sDataTable(0), IDataSize)`

Variable name	Variable type	Description	I/O
IReturn	Int32	Return value	Output
ulMapPointer	Short	Shared memory address	Input
sDevNameID	Int16	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	Int32	Device number	Input
IpsDataTable	IntPtr*	Device value read	Output
IDataSize	Int32	Number of data points to be read	Input

*1 Specify the short (Int16) type for the device to store a read value. The value is casted to the short (Int16) type when the function is called.

■3. Explanation

The device values in the area starting from the device specified by `sDevNameID` and `IDevNum` are batch read for the number specified by `IDataSize` to the shared memory address specified by `ulMapPointer`.

The read device values are stored to `IpsDataTable` or `sDataTable`.

Specify the shared memory address that has been obtained by the `GDev_OpenMapping` function.

■4. Return value

Normal termination: "0" is returned.

Abnormal termination: A number other than "0" is returned.

■5. Precautions for using the GDev_Read function

The maximum number of data points to be read, that is set for `IDataSize`, must be specified in the following range.

- For bit device (GB) specification

Device number + (Number of data points to be read × 16) - 1 ≤ Terminal device number

- For word device (GD/GS) specification

Device number + Number of data points to be read - 1 ≤ Terminal device number

In the case of bit device (GB) specification, specify a multiple of 16 for the device number.

Secure the area for `IpsDataTable` with the same size as `IDataSize` or more.

If the area is insufficient, an error such as application error may occur.

■ 6. Device specifying method

- For bit device (GB) specification

Example) Reading 1-point data from GB64 (sDevNameID=0, IDevNum=64, IDataSize=1)

Variable name	Storage device
IpsDataTable[0]	GB64 to GB79

Example) Reading 3-point data from GB80 (sDevNameID=0, IDevNum=80, IDataSize=3)

Variable name	Storage device
IpsDataTable[0]	GB80 to GB95
IpsDataTable[1]	GB96 to GB111
IpsDataTable[2]	GB112 to GB127

- For word device (GD/GS) specification

Example) Reading 3-point data from GD5 (sDevNameID=1, IDevNum=5, IDataSize=3)

Variable name	Storage device
IpsDataTable[0]	GD5
IpsDataTable[1]	GD6
IpsDataTable[2]	GD7

Example) Reading 1-point data from GS500 (sDevNameID=2, IDevNum=500, IDataSize=1)

Variable name	Storage device
IpsDataTable[0]	GS500

5.1.6 GDev_Write (Writing to the internal device)

The following shows details of the GDev_Write function.

1. Function

Writes to the GOT internal device.

2. Format

(1) 32-bit version

(a) For Visual C++ and C++ Builder

`IReturn = GDev_Write(ulMapPointer, sDevNameID, IDevNum, *IpsDataTable, IDataSize)`

Variable name	Variable type	Description	I/O
IReturn	long	Return value	Output
ulMapPointer	unsigned long	Shared memory address	Input
sDevNameID	short	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	long	Device number	Input
*IpsDataTable	short	Device value to be written	Input
IDataSize	long	Number of data points to be written	Input

(b) For Visual C#

`IReturn = GDev_Write(ulMapPointer, sDevNameID, IDevNum, *IpsDataTable, IDataSize)`

Variable name	Variable type	Description	I/O
IReturn	int32	Return value	Output
ulMapPointer	uint32	Shared memory address	Input
sDevNameID	int16	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	int32	Device number	Input
*IpsDataTable	int16	Device value to be written	Input
IDataSize	int32	Number of data points to be written	Input

(c) For Visual Basic and Excel VBA

`IReturn = GDev_Read(ulMapPointer, sDevNameID, IDevNum, sDataTable(0), IDataSize)`

Variable name	Variable type	Description	I/O
IReturn	long	Return value	Output
ulMapPointer	unsigned long	Shared memory address	Input
sDevNameID	short	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	long	Device number	Input
sDataTable(n)	short	Device value to be written	Input
IDataSize	long	Number of data points to be written	Input

(2) 64-bit version

(a) For Visual C++

`IReturn = GDev_Write(ulMapPointer, sDevNameID, IDevNum, *IpsDataTable, IDataSize)`

Variable name	Variable type	Description	I/O
IReturn	long	Return value	Output
ulMapPointer	ULONG_PTR	Shared memory address	Input
sDevNameID	short	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	long	Device number	Input
IpsDataTable	INT_PTR*	Device value to be written*1	Input
IDataSize	long	Number of data points to be written	Input

*1 Secure the areas in the short (Int16) type, and cast them before calling a function.

(b) For Visual C#

```
IReturn = GDev_Write(uiMapPointer, sDevNameID, IDevNum, *IpsDataTable, IDataSize)
```

Variable name	Variable type	Description	I/O
IReturn	Int32	Return value	Output
uiMapPointer	UInt64	Shared memory address	Input
sDevNameID	Int16	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	Int32	Device number	Input
IpsDataTable	IntPtr*	Device value to be written ^{*1}	Input
IDataSize	Int32	Number of data points to be written	Input

^{*1} Secure the areas in the short (Int16) type, and cast them before calling a function.

(c) For Visual Basic

```
IReturn = GDev_Read(uiMapPointer, sDevNameID, IDevNum, sDataTable(0), IDataSize)
```

Variable name	Variable type	Description	I/O
IReturn	Int32	Return value	Output
uiMapPointer	UInt64	Shared memory address	Input
sDevNameID	Short	Device name ID (GB:0/GD:1/GS:2)	Input
IDevNum	Int32	Device number	Input
IpsDataTable	IntPtr*	Device value to be written ^{*1}	Input
IDataSize	Int32	Number of data points to be written	Input

^{*1} Secure the areas in the short (Int16) type, and cast them before calling a function.

■ 3. Explanation

The device values are batch written to the devices specified by sDevNameID and IDevNum for the shared memory address specified by uiMapPointer for the number specified by IDataSize.

The device values to be written are stored to IpsDataTable or sDataTable.

Specify the shared memory address that has been obtained by the GDev_OpenMapping function.

■ 4. Return value

Normal termination: "0" is returned.

Abnormal termination: A number other than "0" is returned.

■ 5. Precautions for using the GDev_Write function

The maximum number of data points to be written, that is set for IDataSize, must be specified in the following range.

- For bit device (GB) specification

Device number + (Number of data points to be written × 16) - 1 ≤ Terminal device number

- For word device (GD/GS) specification

Device number + Number of data points to be written - 1 ≤ Terminal device number

In the case of bit device (GB) specification, specify a multiple of 16 for the device number.

Secure the area for IpsDataTable with the same size as IDataSize or more.

If the area is insufficient, an error such as application error may occur.

6. Device specifying method

- For bit device (GB) specification

Example) Writing 1-point data from GB64 (sDevNameID=0, IDevNum=64, IDataSize=1)

Variable name	Storage device
IpsDataTable[0]	GB64 to GB79

Example) Writing 3-point data from GB80 (sDevNameID=0, IDevNum=80, IDataSize=3)

Variable name	Storage device
IpsDataTable[0]	GB80 to GB95
IpsDataTable[1]	GB96 to GB111
IpsDataTable[2]	GB112 to GB127

- For word device (GD/GS) specification

Example) Writing 3-point data from GD5 (sDevNameID=1, IDevNum=5, IDataSize=3)

Variable name	Storage device
IpsDataTable[0]	GD5
IpsDataTable[1]	GD6
IpsDataTable[2]	GD7

Example) Writing 1-point data from GS500 (sDevNameID=2, IDevNum=500, IDataSize=1)

Variable name	Storage device
IpsDataTable[0]	GS500

5.1.7 GDev_CloseUnMapping (Unmapping and closing the internal device shared memory)

The following shows details of the GDev_CloseUnMapping function.

1. Function

Unmaps and closes the shared memory of the GOT internal device.

2. Format

(1) 32-bit version

(a) For Visual C++ and C++ Builder

GDev_CloseUnMapping(hMapFile, ulMapPointer)

Variable name	Variable type	Description	I/O
hMapFile	HANDLE	Shared memory handle	Input
ulMapPointer	unsigned long	Shared memory address	Input

(b) For Visual C#

GDev_CloseUnMapping(hMapFile, ulMapPointer)

Variable name	Variable type	Description	I/O
hMapFile	IntPtr	Shared memory handle	Input
ulMapPointer	uint32	Shared memory address	Input

(c) For Visual Basic and Excel VBA

GDev_CloseUnMapping(hMapFile, ulMapPointer)

Variable name	Variable type	Description	I/O
hMapFile	HANDLE	Shared memory handle	Input
ulMapPointer	unsigned long	Shared memory address	Input

(2) 64-bit version

(a) For Visual C++

GDev_CloseUnMapping(hMapFile, ulMapPointer)

Variable name	Variable type	Description	I/O
lphMapFile	HANDLE*	Shared memory handle	Input
ulMapPointer	ULONG_PTR	Shared memory address	Input

(b) For Visual C#

GDev_CloseUnMapping(hMapFile, ulMapPointer)

Variable name	Variable type	Description	I/O
lphMapFile	IntPtr*	Shared memory handle	Input
ulMapPointer	UInt64	Shared memory address	Input

(c) For Visual Basic

GDev_CloseUnMapping(hMapFile, ulMapPointer)

Variable name	Variable type	Description	I/O
lphMapFile	IntPtr*	Shared memory handle	Input
ulMapPointer	UInt64	Shared memory address	Input

3. Explanation

The unmap processing is performed for the shared memory address specified by ulMapPointer and the shared memory handle specified by hMapFile is released.

Specify the shared memory address and shared memory handle that have been obtained by the GDev_OpenMapping function.

4. Return value

None

■5. Precautions for using the GDev_CloseUnMapping function

After the GDev_OpenMapping function is called and required processings are performed, the GDev_CloseUnMapping function must always be called.

If it is not called, a memory leak may result and an error such as application error may occur.

5.1.8 Precautions for the internal device interface function

The following shows precautions for using an application that uses the internal device interface function.

■1. When the GDev_OpenMapping function is called

The GDev_OpenMapping function must be called after GT SoftGOT2000 is started.

■2. When the GDev_Read function or the GDev_Write function is called

The GDev_Read function and the GDev_Write function must be called while GT SoftGOT2000 is running.

■3. When exiting GT SoftGOT2000

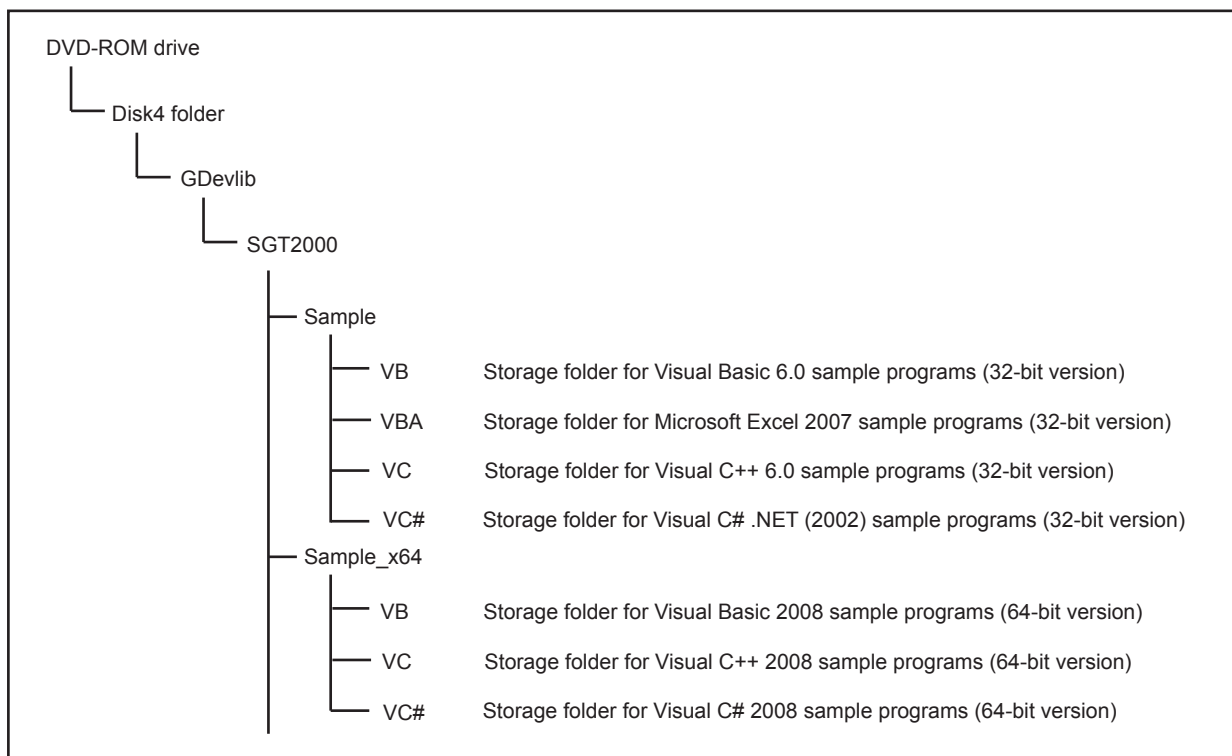
If GT SoftGOT2000 has been exited in a status the GDev_OpenMapping function is called, the GDev_CloseUnMapping function must be called immediately.

If GT SoftGOT2000 is started again without the GDev_CloseUnMapping function called, after GT SoftGOT2000 is exited, GT SoftGOT2000 may not operate normally.

If GT SoftGOT2000 does not operate normally, the GDev_CloseUnMapping function should be called before GT SoftGOT2000 is exited.

5.1.9 Sample program

A sample program using the internal device interface function is stored in the DVD-ROM (Disk4 folder) of GT Works3. Use the sample program as a reference when creating an application using the internal device interface function. The following shows folders storing the sample programs.



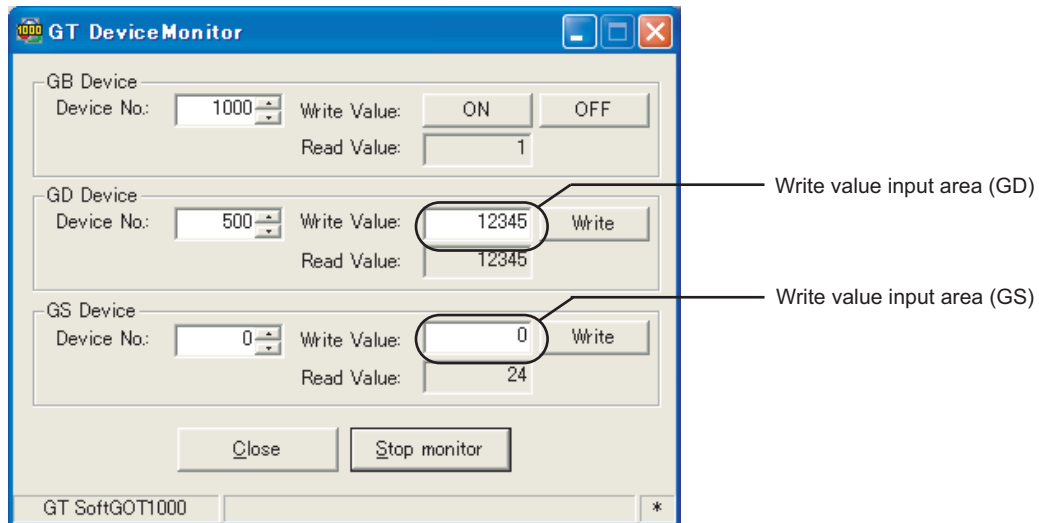
POINT

Sample program

When using a sample program, store GDevlib_GT27.dll or GDevlib64_GT27.dll in the folder where the application and xmls files are stored.

The following sample program reads/writes data from/to the GOT internal devices of the running GT SoftGOT2000 module No. 1.

Example) Sample program for Visual C++



Monitor execution status

Setting item		Description
[GB Device]		GB device monitor area
[Device No.]		Input a device range (GB0 to GB65535).
[Write Value]	[ON]	Turns ON the device specified for Device No.
	[OFF]	Turns OFF the device specified for Device No.
[Read Value]		Displays the reading result of the specified device. The value is updated only while monitoring is performed. Bit device status [1] : ON [0] : OFF
[GD Device]		GD device monitor area
[Device No.]		Input a device range (GD0 to GD65535).
[Write Value]	Write value input area (GD)	Set a value to be written to the device specified for Device No. Input format: Signed decimal number (-32768 to 32767)
	[Write]	Writes the value input for the write value input area to the specified device.
[Read Value]		Displays the reading result of the specified device. (Updates only while monitoring is performed.) Display format: Signed decimal number (-32768 to 32767) The value of the internal device specified for Device No. is read.
[GS Device]		GS device monitor area
[Device No.]		A device range (GS0 to GS2047) can be input.
[Write Value]	Write value input area (GS)	Set a value to be written to the device specified for Device No. Input format: Signed decimal number (-32768 to 32767)
	[Write]	Writes the value input for the write value input area to the specified device.
[Read Value]		Displays the reading result of the specified device. (Updates only while monitoring is performed.) Display format: Signed decimal number (-32768 to 32767) The value of the internal device specified for Device No. is read.
[Start monitor]		Starts monitoring. (Displayed only while monitoring is stopped.)
[Start monitor]		Stops monitoring.(Displayed only while monitoring is performed.)

5.2 Troubleshooting

5.2.1 Error message

The following table indicates the error messages occurred in [GT SoftGOT2000] themselves, the Descriptions and resolutions.

■ 1. Error messages displayed when GT SoftGOT2000 is used.

Error message	Definition and cause	Corrective action
Adobe Reader is not installed properly. Install Adobe Reader included with the product.	<ul style="list-style-type: none">• Adobe Reader is not installed.• Adobe Reader is not installed correctly.	After uninstalling Adobe Reader, reinstall it.
Easysocket is not installed.	Perhaps GT SoftGOT2000 is not installed correctly.	After uninstalling GT SoftGOT2000, reinstall it.
GS###.b##. The .exe file is invalid (not .exe or error in .exe image).	<ul style="list-style-type: none">• Access to the specified file (application) was not made.• The specified file (application) is corrupted.• The specified file (application) is not an executable file.	<ul style="list-style-type: none">• Check the settings of the application start-up setting.• Check the access right of the specified file (application).• Specify an operable file (application).• Specify an executable file (application).
GS###.b##. Failed to start the application. <ErrCode:##>	<ul style="list-style-type: none">• The specified file (application) is corrupted.• Relevant applications are not installed properly.• There is not sufficient space left in memory/ hard disk.• GT SoftGOT2000 was terminated illegally last time.	<ul style="list-style-type: none">• Check the settings of the application start-up setting.• Specify an operable file (application).• Install relevant applications again.• Terminate unnecessary applications.• Increase free space in the hard disk.• Restart GT SoftGOT2000.• Restart the personal computer.
GS###.b##. The operating system denied access to the specified file.	<ul style="list-style-type: none">• Access to the specified file (application) was not made.• The specified file (application) is corrupted.• Relevant applications are not installed properly.	<ul style="list-style-type: none">• Check the settings of the application start-up setting.• Check the access right of the specified file (application).• Specify an operable file (application).• Install relevant applications again.
GS###.b##. The specified file was not found.	The specified file (application) does not exist.	<ul style="list-style-type: none">• Check the settings of the application start-up setting.• Specify an existing file (application).• Install relevant applications again.
GS###.b##. The specified path was not found.		
GS###.b##. There was not enough memory to complete the operation.	<ul style="list-style-type: none">• There is not sufficient space left in memory/ hard disk.• GT SoftGOT2000 was terminated illegally last time.	<ul style="list-style-type: none">• Terminate unnecessary applications.• Increase free space in the hard disk.• Restart GT SoftGOT2000.• Restart the personal computer.
The GT SoftGOT2000 is not installed correctly.	Can not find the Windows sregistry for GT SoftGOT2000.	After uninstalling GT SoftGOT2000, reinstall it.
Please do logoff/the termination of Windows after ending 'GT SoftGOT2000'.	Close 'GT SoftGOT2000' before log out or shut down the Windows.	Close 'GT SoftGOT2000' before log out or shut down the Windows.
Advanced APP setup file was not found.	<ul style="list-style-type: none">• The Advanced APP setup file does not exist.	Create the Advanced APP setup file [<InstallPath>\SGT1000\Multi*****\AppStartSet.csv].
There is no application associated with the extension of Advanced APP setup file (.csv).	<ul style="list-style-type: none">• The application associated with the extension (.csv) of the Advanced APP setup file does not exist.• The application associated with the file extension is not installed correctly.	Set the application associated with the extension (.csv) of the Advanced APP setup file. Install the application associated with the file extension again.
Failed to start the application.	<ul style="list-style-type: none">• Access to the Advanced APP setup file is disabled.• The Advanced APP setup file is corrupted.• The application associated with the file extension is not installed correctly.• Not enough free memory or hard disk space.• GT SoftGOT2000 was exited illegally last time.• Illegal process is running.	<ul style="list-style-type: none">• Check the access right of the Advanced APP setup file.• Create the Advanced APP setup file again.• Install the application associated with the file extension again.• Exit unnecessary applications.• Increase the free space of the hard disk.• Restart GT SoftGOT2000.• After restarting the personal computer, restart GT SoftGOT2000.

Error message	Definition and cause	Corrective action
The check result cannot be displayed.	Access to the Advanced APP check file is disabled. The Advanced APP setup check file is corrupted. The application associated with the file extension is not installed correctly.	Check the access right of the Advanced APP setup check file. Install the application associated with the file extension again.
Access to the Advanced APP Setup file is denied.	Access to the Advanced APP setup file is disabled.	Check the access right of the Advanced APP setup file.
Failed to open the Advanced APP Setup check file.	Access to the Advanced APP setup check file is disabled. The Advanced APP setup check file is corrupted.	Check the access right of the Advanced APP setup check file.
Failed to check Advanced APP Setup.	The operating environment is not supported.	Install GT SoftGOT2000GOT2000 again.
History file was not found.	The application start-up history file cannot be started up.	Check the application start-up history file.
Easysocket has an invalid version.	GT SoftGOT2000 may be not installed correctly.	After uninstalling GT SoftGOT2000, reinstall it.
The specified project data was created by using a previous version of the GT Designer3. Some functions may not operate properly. Do you want to proceed?	The version of the GT Designer3 on which the project data is created is later than the GT SoftGOT2000.	Select a button on the displayed dialog. Yes: Execute reading and perform monitoring with operable functions. No: Install GT SoftGOT2000 of the same version as GT Designer3 and execute reading again.
The major versions of the specified project data and GT SoftGOT2000 Standard monitor OS do not match. Project data : Ver. ### GT SoftGOT2000 Standard monitor OS : Ver. ### Specify the project data of the same version.	The following OS major versions are not matched. • The major version of OS in GT Designer3 that stores the created project data to be read. • The standard monitor OS in GT SoftGOT2000	• Install GT SoftGOT2000 with the same version as GT Designer3 that stores the created project data, and read the data again. • Create the project data for GT Designer3 that version is same as the version of GT SoftGOT2000, and read the data again.
Failed to take a snap shot.	• GT SoftGOT2000 was closed illegally last time. • Illegal process is running.	• Restart GT SoftGOT2000. • After restarting the personal computer, restart GT SoftGOT2000.
Vertical project data is not supported.	The project data for vertical display type has been read.	Read project data for horizontal display.
A Communication error occurred. Retry : Executes communication again. Cancel : Cancels all communication. To retry communication, restart the GT SoftGOT2000. <ES:0x#####>	• Cable was disconnected. • Cable was broken.	After checking for the left causes, select the button in the displayed dialog. [Retry] Restarts communication. [Cancel] After Cancel is selected, all communications will not be made. When performing monitoring, restart GT SoftGOT2000.
	Transmission speed (Baud rate) is incorrect.	
	The PLC CPU type is different from that of the project setting.	
Cannot set up the operating environment. Insufficient disk space or memory may be the cause.	• Not enough free disk space. • GT SoftGOT2000 was exited illegally last time. • Illegal process is running.	• Exit unnecessary applications. • Increase the free space of hard disk to 250MB or more. • Restart GT SoftGOT2000. • After restarting the personal computer, restart GT SoftGOT2000.
Failed to set up an operating environment. Check the followings and retry the operation. • Free disk space. • Access privileges to the environment file. • Validity of environment files (invalid files or files not found).	Not enough free disk space.	Increase the free space of hard disk to more than 250M bytes.
	Can not access the necessary file for GT SoftGOT2000's operation.	Check whether GT SoftGOT2000 has been operated already.
	GT SoftGOT2000 may be not installed correctly.	After uninstalling GT SoftGOT2000, reinstall it.
Path name is too long.	Save the GT Designer3 under too many directory levels.	In Option setting, set the project of GT Designer3 again.
GOT type of the project is different from the one specified in the GT SoftGOT2000. [Project data setting] GOT type : #####(###x###) PLC type : ##### [GT SoftGOT2000 setting] Resolution : ###x### Connection : #####(#####)	The GOT type set in the project is different from the GOT type specified in GT SoftGOT2000.	Make correction so that the GOT type of the project created on GT Designer3 is the same as the GOT type of GT SoftGOT2000.

Error message	Definition and cause	Corrective action
<p>GOT type (Resolution) of the project is different from the one specified in the GT SoftGOT2000.</p> <p>[Project data setting] GOT type : #####(###x###) PLC type : #####</p> <p>[GT SoftGOT2000 setting] Resolution : ###x### Connection : #####(#####)</p>	<p>The GOT type (Resolution) set in the project is different from the GOT type (Resolution) specified in GT SoftGOT2000.</p>	<p>Make correction so that the GOT type (Resolution) of the project created on GT Designer3 is the same as the GOT type (Resolution) of GT SoftGOT2000.</p>
<p>PLC type of the project is different from the one specified in the GT SoftGOT2000.</p> <p>[Project data setting] GOT type : #####(###x###) PLC type : #####</p> <p>[GT SoftGOT2000 setting] Resolution : ###x### Connection : #####(#####)</p>	<p>The PLC type set in the project is different from that in GT SoftGOT2000.</p>	<p>Make correction so that the PLC type of the project created on GT Designer3 is the same as the CPU type of GT SoftGOT2000.</p>
<p>Manual file cannot be found. Please install manuals.</p>	<ul style="list-style-type: none"> GT Manual 1000 is not installed. GT Manual 1000 is not installed correctly. 	<p>After uninstalling GT Manual, reinstall it.</p>
<p>Cannot stop monitoring. Close the dialog on monitor screen and retry.</p>	<p>Since the message such as "This function cannot be used now" was displayed on the screen, GT SoftGOT2000 could not be exit correctly.</p>	<p>After selecting <input type="button" value="OK"/> in the dialog to erase the on-screen message, exit from GT SoftGOT2000 again.</p>
	<p>There was the other internal cause than the above that did not allow to exit from the software.</p>	<p>After selecting <input type="button" value="OK"/> in the dialog, wait for some time and exit from GT SoftGOT2000 again.</p>
<p>Fail in the delete of resource data.</p> <ul style="list-style-type: none"> Please close resource data if it is opened. Check the file access privilege. 	<p>Failed in erasing resource data after loading screen data.</p>	<ul style="list-style-type: none"> If there is resource data opened by another software, close that file. Check the file access privilege.
<p>Initialization for reading failed. Execute one of the following operations.</p> <ul style="list-style-type: none"> Close the dialog if it is displayed. Switching to offline mode may have been failed. <p>Wait for several seconds and retry the operation.</p>	<p>Since the message such as "This function cannot be used now" was displayed on the screen, this function can not be loaded.</p>	<p>After selecting <input type="button" value="OK"/> in the dialog to erase the on-screen message, re-load the function.</p>
	<p>Waiting for completion of internal process.</p>	<p>re-load the function after a few minutes.</p>
<p>Failed to read a project data. Check the following items and retry the operation.</p> <ul style="list-style-type: none"> Data size and number of the data. Free disk space. Access privileges to the environment file. Validity of project data (invalid file or file not found). 	<p>Screen data size was too large.</p>	<p>Decrease the screen data size to 57MB or less.</p>
	<p>Not enough free disk space.</p>	<p>Increase the free space of hard disk to more than 250M bytes.</p>
	<p>Can not access the project data.</p>	<p>Check the access privilege of the project data.</p>
	<p>Not compatible with the project setting.</p>	<p>Check whether setting is correct on GT Designer3.</p>
	<ul style="list-style-type: none"> This data is not for GT SoftGOT2000 project. The project data does not exist. 	<p>Use a correct project data or normal project data. Check that the project data exists.</p>

5.2.2 Troubleshooting for license key

The troubleshooting and error messages related to license key, the error definition and cause, and corrective actions are described below.

■ 1. Troubleshooting for license key

(1) Troubleshooting for USB license key

When attaching a USB license key to the personal computer and it is not recognized, check the following.

Problem	Definition and cause	Corrective action
The dialog for starting a wizard to search an added hardware is displayed.	The license key was attached to the PC before the installation of system driver.	Exit the GT SoftGOT2000 without any installation and then remove the license key. When attaching the GT27-SGTKEY-U after installing the system driver, it is recognized as license key.
The GT27-SGTKEY-U is not recognized as license key by the OS when attached to the PC.	The GT27-SGTKEY-U was attached to the PC before the installation of system driver, and an illegal driver was installed.	Install the system driver after removing the GT27-SGTKEY-U. When attaching the GT27-SGTKEY-U after installation, it is recognized as license key.
The GT SoftGOT2000 displays an error message involving license key despite System Driver is installed/license key is installed/the port is ready for use.	System Driver has an error.	Remove the GT27-SGTKEY-U and uninstall System Driver once (In Windows, select [Add or Remove Programs] and delete [Sentinel Protection Installer #.#.#].) Install System Driver again. Install the GT27-SGTKEY-U after installing System Driver. Then it is recognized as license key.
When the license key is attached, the dialog asking you to specify the storage location of the system file is displayed.	The automatic detection of the system file failed.	Specify the system file in the following location. C:\Program Files\Common Files\SafeNet Sentinel\Sentinel System Driver\sntnlusb.sys

POINT

If the system driver is not installed or uninstalled properly even if the above corrective actions are taken, use the installer of the following system driver.

(GT SoftGOT2000 installation folder)\SGT1000\SystemDriver\SPI_761.exe*

*When using a PC CPU module, use SPI_710.exe.

5.2.3 Troubleshooting related to mail transmission

■ 1. Troubleshooting

Problem	Definition and cause	Corrective action
Mail is not sent.	The mail send setting of GT SoftGOT2000 has not been made.	Make the mail send setting of GT SoftGOT2000.
	Mail send setting has been made on GT Designer3.	
	The mail send setting method is wrong.	Reexamine the mail send setting of GT SoftGOT2000.

■ 2. Error code

No dialogue boxes are displayed by GT SoftGOT2000 for errors related to mail transmission and dialup.

Refer to the mail history data for error codes and error messages.

Refer to 4.11.5 for how to reference the mail history data.

The following table lists the error codes related to mail transmission and dialup, their definitions and causes, and the corrective actions to take:

Error code	Definition and cause	Corrective action
600 to 750s	Setting errors of personal computers and peripheral devices (e.g., modem)	Refer to the Help function in Windows.

POINT

Error notifications from the mail server

When an error is notified from the mail server, the error message will be displayed in the mail history data.

The following shows an example.

(Example) Error message displayed when an error is notified from the SMTP server

Error message
SMTP Error Report : #####.

When an error as shown above occurs, consult the server administrator.

5.2.4 Troubleshooting for print

Problem	Definition and cause	Corrective action
GT SoftGOT2000 does not output data to a printer even when the hard copy is executed from a monitor screen with [Print to printer (Hard Copy Function)] enabled.	Printing is disabled due to a problem in the printer.	<ul style="list-style-type: none">• Select [Project] → [Print Setup] on GT SoftGOT2000 to check the settings of the printer.• Print a test page from Windows to check the settings of the printer.• Check if the printer is powered on and online.• Install the printer driver again.
	The output target in the hard copy setting of the project data is set to [File].	Open the project data with GT Designer3, and select [Printer] for [Target] in the hard copy setting.

5.2.5 Troubleshooting for file save problems

Problem	Definition and Cause	Corrective action
No files are output when the hard copy command is executed from the monitor screen of the GT SoftGOT2000.	The file cannot be saved due to problems with the output destination disk.	<ul style="list-style-type: none">• Confirm that the folder that is designated as a virtual drive does exist.• Check the access right for the folder that is designated as a virtual drive.• Confirm that there is enough free space in the folder that is designated as a virtual drive.
	The file cannot be saved, since file number external control device value is set to a value outside of the range 1 to 9999.	<ul style="list-style-type: none">• Confirm that the file number external control device value is set to a value in the range 1 to 9999.

5.2.6 GOT error code list

For the system alarm detected with GOT, refer to the following manual.

➡ GOT2000 Series User's Manual (Utility)

5.2.7 Error code list when using the internal device interface function

The following shows lists of error codes that occur when the internal device interface function is used.

■ 1. GDev_OpenMapping function

Error code	Definition and cause	Corrective action
0	Opening or mapping of the shared memory was failed. (Access to internal devices disabled)	<ul style="list-style-type: none">• Start GT SoftGOT2000.• Specify the module No. (1 to 32767) of the existing GT SoftGOT2000.• Exit unnecessary applications to secure memory space.• Restart the personal computer.

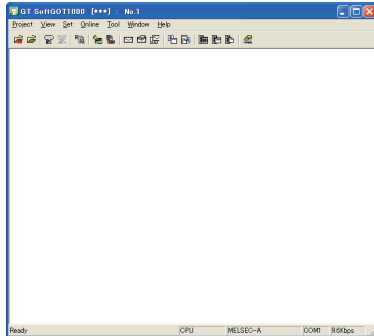
■ 2. GDev_Read function/GDev_Write function

Error code	Definition and cause	Corrective action
-1	The specified device is illegal.	<ul style="list-style-type: none">• Specify the ID of an existing device name.
-2	The specified head device is outside the range.	<ul style="list-style-type: none">• Specify an existing device number.
-3	The specified terminal device is outside the range.	<ul style="list-style-type: none">• Specify device points of the existing device range.
-9	The specified shared address is illegal.	<ul style="list-style-type: none">• Specify the shared memory address obtained by the GDev_OpenMapping function.

5.3 Applicable Project Data

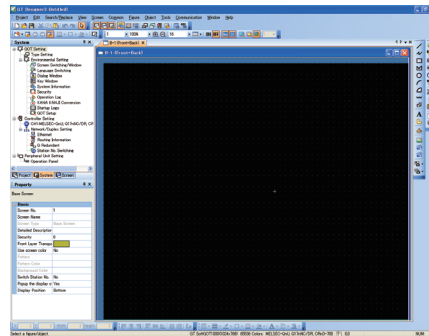
Use GT SoftGOT2000 of the same version as the GT Designer3.

When the versions of GT SoftGOT2000 and GT Designer3 are different, install the same version of GT SoftGOT2000/GT Designer3.



GT SoftGOT2000 version

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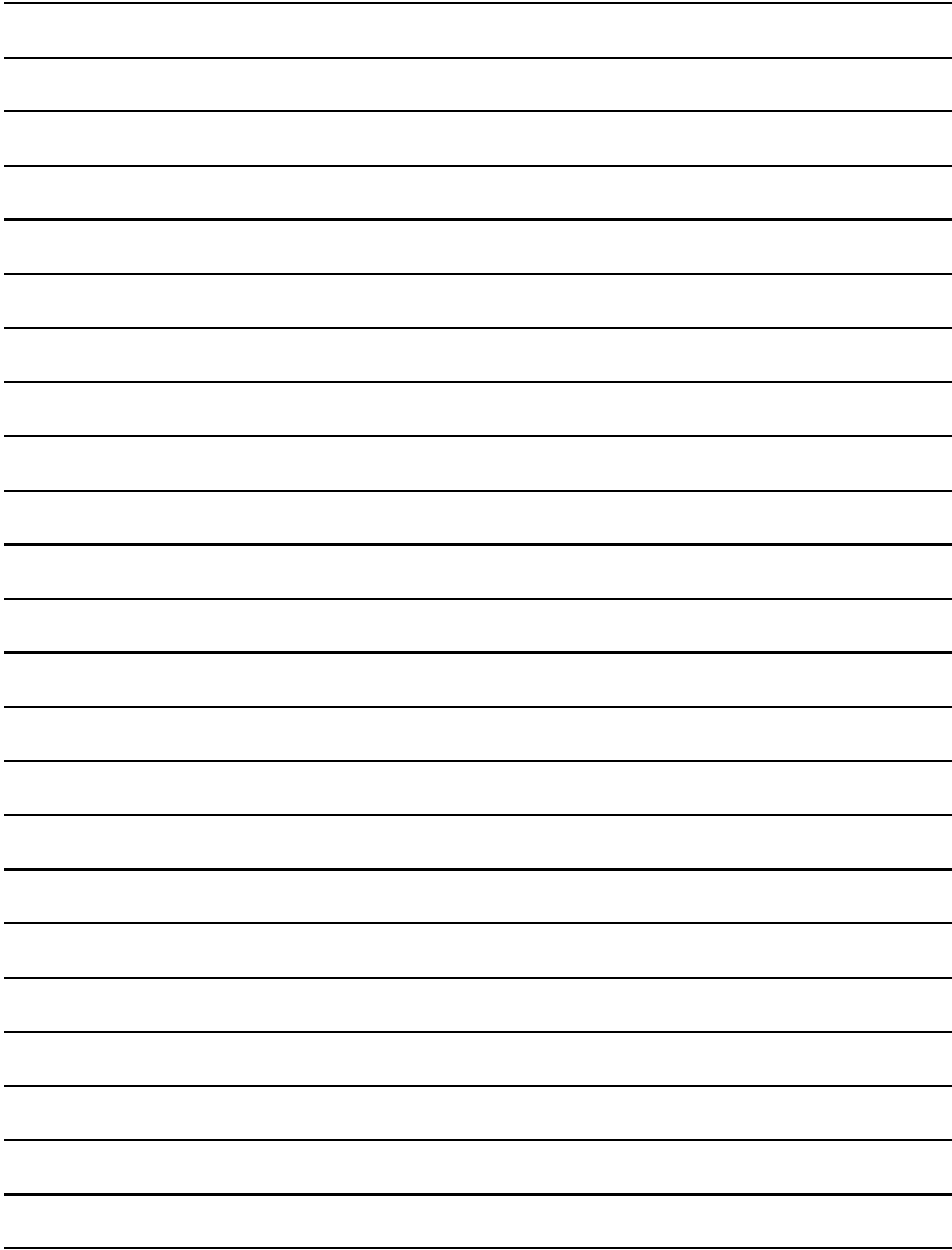


GT Designer3 version

POINT

When using the project data created on the GT Designer3 version older than the GT SoftGOT2000 version

Open the project data on the GT Designer3 of the same version as the GT SoftGOT2000, and save the project data.



REVISIONS

* The manual number is given on the bottom left of the back cover.

Print Date	* Manual Number	Revision
Sep., 2013	SH(NA)-081201ENG-A	Compatible with GT SoftGOT2000 Version1.100E
Nov., 2013	SH(NA)-081201ENG-B	Compatible with GT SoftGOT2000 Version1.104J • Compatible with PX Developer cooperation
Jan., 2014	SH(NA)-081201ENG-C	Compatible with GT SoftGOT2000 Version1.108N • Compatible with Keycode • Compatible with MT Simulator2
Apr., 2014	SH(NA)-081201ENG-D	Compatible with GT SoftGOT2000 Version1.111R • Writing errors have been corrected.
Jun., 2014	SH(NA)-081201ENG-E	Compatible with GT SoftGOT2000 Version1.117X • Compatible with MELSEC iQ-R • Compatible with Q24DHCCPU-VG
Jul., 2014	SH(NA)-081201ENG-F	Compatible with GT SoftGOT2000 Version1.118Y • Writing errors have been corrected.
Oct., 2014	SH(NA)-081201ENG-G	Compatible with GT SoftGOT2000 Version1.122C • The abbreviations, generic terms, and icon indications have been changed. • The display language switching function is supported. • TCP is supported as a communication format for connecting to RCP in the communication setup for the SoftGOT-GOT link function. • Support for GT SoftGOT2000 running on Windows XP Service Pack2 and Windows 2000 has ended.
Jan., 2015	SH(NA)-081201ENG-H	Compatible with GT SoftGOT2000 Version1.126G • The description of Abbreviations, Generic Terms, the meaning of the icon has been changed. • The motion controller CPU (MELSEC iQ-R series) is supported. • MELSEC iQ-F is supported. • GX Simulator3 is supported. • The internal device interface function is applicable to Microsoft Excel VBA.
Apr., 2015	SH(NA)-081201ENG-I	Compatible with GT SoftGOT2000 Version1.130L • The description of Abbreviations, Generic Terms, the meaning of the icon has been changed. • R08PCPU, R16PCPU, R32PCPU, and R120PCPU are supported. • R12CCPU-V is supported.
Jun., 2015	SH(NA)-081201ENG-J	Compatible with GT SoftGOT2000 Version1.134Q • The description of Abbreviations, Generic Terms, the meaning of the icon has been changed. • TOSHIBA PLC (Unified Controller nv) is supported. • GT SoftGOT2000 Commander supports the management of GT SoftGOT1000. • Visual Studio2010 is supported.
Jul., 2015	SH(NA)-081201ENG-K	Compatible with GT SoftGOT2000 Version1.136S • R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, and R120ENCPU are supported. • The folder name [MELSOFT Application] displayed in the Windows start menu has been changed to [MELSOFT].
Oct., 2015	SH(NA)-081201ENG-L	Compatible with GT SoftGOT2000 Version1.144A • The description of Abbreviations, Generic Terms, the meaning of the icon has been changed. • R08SFCPU, R16SFCPU, R32SFCPU, and R120SFCPU are supported. • R64MTCPU is supported. • YASKAWA PLC (MP3000 series) is supported. • The GOT network interaction function is supported.

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GT SoftGOT2000 Version1 Operating Manual

MODEL	SW1-SOFTGOT2000-O-E
MODEL CODE	_____
SH(NA)-081201ENG-L(1510)MEE	

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