



MELSOFT

GOT1000 COMPATIBLE HMI SOFTWARE

GT SoftGOT1000

Version3

Operating Manual

for GT Works3

GT SoftGOT1000



● 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

- Depending on some failures of the personal computer, interface board, or cable, GT SoftGOT1000 may keep the outputs on or off.
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 GT SoftGOT1000 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.
- When programs or parameters of the controller (such as a PLC) that is monitored by GT SoftGOT1000 are changed, be sure to restart GT SoftGOT1000 at the same time.
Not doing so can cause an accident due to false output or malfunction.
- Configure safety circuits external to the PLC to ensure that the entire system operates safely even when a fault occurs in a personal computer.
Failure to do so may result in an accident due to an incorrect output or malfunction.
(1)Emergency stop circuits, protection circuits, and protective interlock circuits for conflicting operations (such as forward/reverse rotations or upper/lower limit positioning) must be configured external to the PLC.
(2)The station to which the board is installed may be disconnected from the data link due to a data link error. If this occurs, the data output from the station and written to other stations before the error will be held until the station is reconnected to the network (until its data link is restarted).
Provide a mechanism for data link status monitoring and error handling for each station that is connected to the data link system.

[DESIGN PRECAUTIONS]

WARNING

- For the operating status of each station after a communication failure, refer to the manual of the interface board.
Incorrect output or malfunction due to a communication failure may result in an accident.
- When changing data during operation, configure an interlock circuit in the program to ensure that the entire system will always operate safely.
Configure an interlock circuit in the program, and determine corrective actions to be taken between the personal computer and CPU module in case of a communication failure.
- To maintain the security (confidentiality, integrity, and availability) of the GOT and the system against unauthorized access, DoS*¹ attacks, computer viruses, and other cyberattacks from unreliable networks and devices via network, take appropriate measures such as firewalls, virtual private networks (VPNs), and antivirus solutions.
Mitsubishi Electric shall have no responsibility or liability for any problems involving GOT trouble and system trouble by unauthorized access, DoS attacks, computer viruses, and other cyberattacks.
*1 DoS: A denial-of-service (DoS) attack disrupts services by overloading systems or exploiting vulnerabilities, resulting in a denial-of-service (DoS) state.

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 (3.94 in.) apart. Failure to do so can cause a malfunction due to noise.
- 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 (192.168.0.18) 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 (192.168.0.18) 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 (192.168.0.18).
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 GT SoftGOT1000.
Failure to do so can cause a communication error on GT SoftGOT1000.

[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

- Plug the communication cable into the connector of the connected unit and tighten the mounting and 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.

[TEST OPERATION PRECAUTIONS]

WARNING

- Before testing the operation of a user-created screen (such as turning on or off a bit device, changing the current value of a word device, changing the set value or current value of a timer or counter, and changing the current value of a buffer memory), thoroughly read the manual to fully understand the operating procedure.
When testing, never change the data of the devices that control the operation essential for the system.
Faulty output and malfunction may result in an accident.

[STARTUP/MAINTENANCE PRECAUTIONS]

WARNING

- When power is on, do not touch the terminals.
Doing so can cause an electric shock or malfunction.
- 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.

[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, and the VNC server 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.

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 GTSOFTGOT1000.

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

3. Display of GT SoftGOT1000 and GOT

Display of GT SoftGOT1000 may be different from display of GOT.

Confirm for actual display of GOT on the GOT.

INTRODUCTION

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

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GT SoftGOT1000

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REVISIONS

Intellectual Property Rights

MANUALS

The following table lists the manual relevant to this product.
Refer to each manual for any purpose.

■ Screen creation software manuals

Manual Name	Delivery method	Manual Number
GT Works3 Version1 Installation Procedure Manual	Enclosed in product	-
GT Designer3 Version1 Screen Design Manual (Fundamentals) 1/2, 2/2	*1	SH-080866ENG
GT Designer3 Version1 Screen Design Manual (Functions) 1/2, 2/2	*1	SH-080867ENG
GT Simulator3 Version1 Operating Manual for GT Works3	*1	SH-080861ENG
GT Converter2 Version3 Operating Manual for GT Works3	*1	SH-080862ENG

*1 Contact your local distributor.

■ Connection manuals

Manual Name	Delivery method	Manual Number
GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3	*1	SH-080868ENG
GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 1) for GT Works3	*1	SH-080869ENG
GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 2) for GT Works3	*1	SH-080870ENG
GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3	*1	SH-080871ENG
GOT1000 Series Connection Manual (α 2 Connection) for GT Works3	*1	JY997D39201

*1 Contact your local distributor.

■ Extended and option function manuals

Manual Name	Delivery method	Manual Number
GOT1000 Series Gateway Functions Manual for GT Works3	*1	SH-080858ENG
GOT1000 Series MES Interface Function Manual for GT Works3	*1	SH-080859ENG
GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3	*1	SH-080863ENG

*1 Contact your local distributor.

■ GT SoftGOT1000 manuals

Manual Name	Delivery method	Manual Number
GT SoftGOT1000 Version3 Operating Manual for GT Works3	*1	SH-080860ENG

*1 Contact your local distributor.

■ GT16 manuals

Manual Name	Delivery method	Manual Number
GT16 User's Manual (Hardware)	*1	SH-080928ENG
GT16 User's Manual (Basic Utility)	*1	SH-080929ENG
GT16 Handy GOT User's Manual	*1	JY997D41201 JY997D41202

*1 Contact your local distributor.

■ GT15 manuals

Manual Name	Delivery method	Manual Number
GT15 User's Manual	*1	SH-080528ENG

*1 Contact your local distributor.

■ GT14 manuals

Manual Name	Delivery method	Manual Number
GT14 User's Manual	*1	JY997D44801

*1 Contact your local distributor.

■ GT12 manuals

Manual Name	Delivery method	Manual Number
GT12 User's Manual	*1	SH-080977ENG

*1 Contact your local distributor.

■ GT11 manuals

Manual Name	Delivery method	Manual Number
GT11 User's Manual	*1	JY997D17501
GT11 Handy GOT User's Manual	*1	JY997D20101 JY997D20102

*1 Contact your local distributor.

■ GT10 manuals

Manual Name	Delivery method	Manual Number
GT10 User's Manual	*1	JY997D24701

*1 Contact your local distributor.

QUICK REFERENCE

■ Creating a project

Obtaining the specifications and operation methods of GT Designer3	GT Designer3 Version1 Screen Design Manual (Fundamentals) 1/2, 2/2
Setting available functions on GT Designer3	
Creating a screen displayed on the GOT	
Obtaining useful functions to increase efficiency of drawing	
Setting details for figures and objects	GT Designer3 Version1 Screen Design Manual (Functions) 1/2, 2/2
Setting functions for the data collection or trigger action	
Setting functions to use peripheral devices	
Simulating a created project on a personal computer	GT Simulator3 Version1 Operating Manual for GT Works3

■ Connecting a controller to the GOT

Obtaining information of Mitsubishi Electric products applicable to the GOT	GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3
Connecting Mitsubishi Electric products to the GOT	
Connecting multiple controllers to one GOT (Multi-channel function)	
Establishing communication between a personal computer and a controller via the GOT (FA transparent function)	
Obtaining information of Non-Mitsubishi Electric products applicable to the GOT	<ul style="list-style-type: none"> • GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 1) for GT Works3 • GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 2) for GT Works3
Connecting Non-Mitsubishi Electric products to the GOT	
Obtaining information of peripheral devices applicable to the GOT	GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3
Connecting peripheral devices including a barcode reader to the GOT	
Connecting α2 with GOT	GOT1000 Series Connection Manual (α2 Connection) for GT Works3

■ Transferring data to the GOT

Writing data to the GOT	GT Designer3 Version1 Screen Design Manual (Fundamentals) 1/2, 2/2
Reading data from the GOT	
Verifying a editing project to a GOT project	

■ Others

Obtaining specifications (including part names, external dimensions, and options) of each GOT	<ul style="list-style-type: none">• GT16 User's Manual (Hardware)• GT16 Handy GOT User's Manual• GT15 User's Manual• GT14 User's Manual• GT12 User's Manual• GT11 User's Manual• GT11 Handy GOT User's Manual• GT10 User's Manual
Installing the GOT	
Operating the utility	<ul style="list-style-type: none">• GT16 User's Manual (Basic Utility)• GT16 Handy GOT User's Manual• GT15 User's Manual• GT14 User's Manual• GT12 User's Manual• GT11 User's Manual• GT11 Handy GOT User's Manual• GT10 User's Manual
Configuring the gateway function	GOT1000 Series Gateway Functions Manual for GT Works3
Configuring the MES interface function	GOT1000 Series MES Interface Function Manual for GT Works3
Configuring the extended function and option function	GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3
Using a personal computer as the GOT	GT SoftGOT1000 Version3 Operating Manual for GT Works3

ABBREVIATIONS AND GENERIC TERMS

■ GOT

Abbreviations and generic terms		Description
GT1695	GT1695M-X	Abbreviation of GT1695M-XTBA, GT1695M-XTBD
GT1685	GT1685M-S	Abbreviation of GT1685M-STBA, GT1685M-STBD
GT1675	GT1675M-S	Abbreviation of GT1675M-STBA, GT1675M-STBD
	GT1675M-V	Abbreviation of GT1675M-VTBA, GT1675M-VTBD
	GT1675-VN	Abbreviation of GT1675-VNBA, GT1675-VNBD
GT1672	GT1672-VN	Abbreviation of GT1672-VNBA, GT1672-VNBD
GT1665	GT1665M-S	Abbreviation of GT1665M-STBA, GT1665M-STBD
	GT1665M-V	Abbreviation of GT1665M-VTBA, GT1665M-VTBD
GT1662	GT1662-VN	Abbreviation of GT1662-VNBA, GT1662-VNBD
GT1655	GT1655-V	Abbreviation of GT1655-VTBD
GT16		Abbreviation of GT1695, GT1685, GT1675, GT1672, GT1665, GT1662, GT1655, GT16 Handy GOT
GT1595	GT1595-X	Abbreviation of GT1595-XTBA, GT1595-XTBD
GT1585	GT1585V-S	Abbreviation of GT1585V-STBA, GT1585V-STBD
	GT1585-S	Abbreviation of GT1585-STBA, GT1585-STBD
GT157□	GT1575V-S	Abbreviation of GT1575V-STBA, GT1575V-STBD
	GT1575-S	Abbreviation of GT1575-STBA, GT1575-STBD
	GT1575-V	Abbreviation of GT1575-VTBA, GT1575-VTBD
	GT1575-VN	Abbreviation of GT1575-VNBA, GT1575-VNBD
	GT1572-VN	Abbreviation of GT1572-VNBA, GT1572-VNBD
GT156□	GT1565-V	Abbreviation of GT1565-VTBA, GT1565-VTBD
	GT1562-VN	Abbreviation of GT1562-VNBA, GT1562-VNBD
GT155□	GT1555-V	Abbreviation of GT1555-VTBD
	GT1555-Q	Abbreviation of GT1555-QTBD, GT1555-QSBD
	GT1550-Q	Abbreviation of GT1550-QLBD
GT15		Abbreviation of GT1595, GT1585, GT157□, GT156□, GT155□
GT145□	GT1455-Q	Abbreviation of GT1455-QTBD, GT1455-QTBD
	GT1450-Q	Abbreviation of GT1450-QMBDE, GT1450-QMBD, GT1450-QLBDE, GT1450-QLBD
GT14		Abbreviation of GT1455-Q, GT1450-Q
GT1275	GT1275-V	Abbreviation of GT1275-VNBA, GT1275-VNBD
GT1265	GT1265-V	Abbreviation of GT1265-VNBA, GT1265-VNBD
GT12		Abbreviation of GT1275, GT1265
GT115□	GT1155-Q	Abbreviation of GT1155-QTBDQ, GT1155-QSBDQ, GT1155-QTBDA, GT1155-QSBDA, GT1155-QTBD, GT1155-QSBD
	GT1150-Q	Abbreviation of GT1150-QLBDQ, GT1150-QLBDA, GT1150-QLBD
GT11		Abbreviation of GT115□, GT11 Handy GOT,
GT105□	GT1055-Q	Abbreviation of GT1055-QSBD
	GT1050-Q	Abbreviation of GT1050-QBBD
GT104□	GT1045-Q	Abbreviation of GT1045-QSBD
	GT1040-Q	Abbreviation of GT1040-QBBD
GT1030		Abbreviation of GT1030-LBD, GT1030-LBD2, GT1030-LBL, GT1030-LBDW, GT1030-LBDW2, GT1030-LBLW, GT1030-LWD, GT1030-LWD2, GT1030-LWL, GT1030-LWDW, GT1030-LWDW2, GT1030-LWLW, GT1030-HBD, GT1030-HBD2, GT1030-HBL, GT1030-HBDW, GT1030-HBDW2, GT1030-HBLW, GT1030-HWD, GT1030-HWD2, GT1030-HWL, GT1030-HWDW, GT1030-HWDW2, GT1030-HWLW
GT1020		Abbreviation of GT1020-LBD, GT1020-LBD2, GT1020-LBL, GT1020-LBDW, GT1020-LBDW2, GT1020-LBLW, GT1020-LWD, GT1020LWD2, GT1020-LWL, GT1020-LWDW, GT1020-LWDW2, GT1020-LWLW
GT10		Abbreviation of GT105□, GT104□, GT1030, GT1020

Abbreviations and generic terms			Description	
GOT1000 Series	Handy GOT	GT16 Handy GOT	GT1665HS-V	Abbreviation of GT1665HS-VTBD
		GT14 Handy GOT	GT1455HS-Q	Abbreviation of GT1455HS-QTBDE
			GT1450HS-Q	Abbreviation of GT1450HS-QMBDE
		GT11 Handy GOT	GT1155HS-Q	Abbreviation of GT1155HS-QSBD
	GT1150HS-Q		Abbreviation of GT1150HS-QLBD	
GT SoftGOT1000			Abbreviation of GT SoftGOT1000	
GOT900 Series			Abbreviation of GOT-A900 series, GOT-F900 series	
GOT800 Series			Abbreviation of GOT-800 series	

■ 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
RS-422 conversion unit	GT15-RS2T4-9P, GT15-RS2T4-25P
Ethernet communication unit	GT15-J71E71-100
MELSECNET/H communication unit	GT15-J71LP23-25, GT15-J71BR13
MELSECNET/10 communication unit	GT15-75J71LP23-Z ^{*1} , GT15-75J71BR13-Z ^{*2}
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, GT15-75J61BT13-Z ^{*3}
Interface converter unit	GT15-75IF900
Serial multi-drop connection unit	GT01-RS4-M
Connection Conversion Adapter	GT10-9PT5S
RS-232/485 signal conversion adapter	GT14-RS2T4-9P

*1 A9GT-QJ71LP23 + GT15-75IF900 set

*2 A9GT-QJ71BR13 + GT15-75IF900 set

*3 A8GT-J61BT13 + GT15-75IF900 set

■ Option unit

Abbreviations and generic terms	Description	
Printer unit	GT15-PRN	
Video/RGB unit	Video input unit	GT16M-V4, GT15V-75V4
	RGB input unit	GT16M-R2, GT15V-75R1
	Video/RGB input unit	GT16M-V4R1, GT15V-75V4R1
	RGB output unit	GT16M-ROUT, GT15V-75ROUT
Multimedia unit	GT16M-MMR	
CF card unit	GT15-CFCD	
CF card extension unit ^{*1}	GT15-CFEX-C08SET	
External I/O unit	GT15-DIO, GT15-DIOR	
Sound output unit	GT15-SOUT	

*1 GT15-CFEX + GT15-CFEXIF + GT15-C08CF set.

■ Option

Abbreviations and generic terms		Description
Memory card	CF card	GT05-MEM-16MC, GT05-MEM-32MC, GT05-MEM-64MC, GT05-MEM-128MC, GT05-MEM-256MC, GT05-MEM-512MC, GT05-MEM-1GC, GT05-MEM-2GC, GT05-MEM-4GC, GT05-MEM-8GC, GT05-MEM-16GC
	SD card	NZ1MEM-2GBSD, NZ1MEM-4GBSD, NZ1MEM-8GBSD, NZ1MEM-16GBSD, L1MEM-2GBSD, L1MEM-4GBSD
Memory card adaptor		GT05-MEM-ADPC
Option function board		GT16-MESB, GT15-FNB, GT15-QFNB, GT15-QFNB16M, GT15-QFNB32M, GT15-QFNB48M, GT11-50FNB, GT15-MESB48M
Battery		GT15-BAT, GT11-50BAT
Protective Sheet	For GT16	GT16-90PSCB, GT16-90PSGB, GT16-90PSCW, GT16-90PSGW, GT16-80PSCB, GT16-80PSGB, GT16-80PSCW, GT16-80PSGW, GT16-70PSCB, GT16-70PSGB, GT16-70PSCW, GT16-70PSGW, GT16-60PSCB, GT16-60PSGB, GT16-60PSCW, GT16-60PSGW, GT16-50PSCB, GT16-50PSGB, GT16-50PSCW, GT16-50PSGW, GT16-90PSCB-012, GT16-80PSCB-012, GT16-70PSCB-012, GT16-60PSCB-012, GT16-50PSCB-012, GT16H-60PSC
	For GT15	GT15-90PSCB, GT15-90PSGB, GT15-90PSCW, GT15-90PSGW, GT15-80PSCB, GT15-80PSGB, GT15-80PSCW, GT15-80PSGW, GT15-70PSCB, GT15-70PSGB, GT15-70PSCW, GT15-70PSGW, GT15-60PSCB, GT15-60PSGB, GT15-60PSCW, GT15-60PSGW, GT15-50PSCB, GT15-50PSGB, GT15-50PSCW, GT15-50PSGW
	For GT14	GT14-50PSCB, GT14-50PSGB, GT14-50PSCW, GT14-50PSGW
	For GT12	GT11-70PSCB, GT11-65PSCB
	For GT11	GT11-50PSCB, GT11-50PSGB, GT11-50PSCW, GT11-50PSGW, GT11H-50PSC
	For GT10	GT10-50PSCB, GT10-50PSGB, GT10-50PSCW, GT10-50PSGW, GT10-40PSCB, GT10-40PSGB, GT10-40PSCW, GT10-40PSGW, GT10-30PSCB, GT10-30PSGB, GT10-30PSCW, GT10-30PSGW, GT10-20PSCB, GT10-20PSGB, GT10-20PSCW, GT10-20PSGW
Protective cover for oil		GT05-90PCO, GT05-80PCO, GT05-70PCO, GT05-60PCO, GT05-50PCO, GT16-50PCO, GT10-40PCO, GT10-30PCO, GT10-20PCO
USB environmental protection cover		GT16-UCOV, GT16-50UCOV, GT15-UCOV, GT14-50UCOV, GT11-50UCOV
Stand		GT15-90STAND, GT15-80STAND, GT15-70STAND, A9GT-50STAND, GT05-50STAND
Attachment		GT15-70ATT-98, GT15-70ATT-87, GT15-60ATT-97, GT15-60ATT-96, GT15-60ATT-87, GT15-60ATT-77, GT15-50ATT-95W, GT15-50ATT-85
Backlight		GT16-90XLTT, GT16-80SLTT, GT16-70SLTT, GT16-70VLTT, GT16-70VLTTA, GT16-70VLTN, GT16-60SLTT, GT16-60VLTT, GT16-60VLTN, GT15-90XLTT, GT15-80SLTT, GT15-70SLTT, GT15-70VLTT, GT15-70VLTN, GT15-60VLTT, GT15-60VLTN
Multi-color display board		GT15-XHNB, GT15-VHNB
Connector conversion box		GT11H-CNB-37S, GT16H-CNB-42S
Emergency stop sw guard cover		GT11H-50ESCOV, GT16H-60ESCOV
Wall-hanging fitting		GT14H-50ATT
Memory loader		GT10-LDR
Memory board		GT10-50FMB
Panel-mounted USB port extension		GT14-C10EXUSB-4S, GT10-C10EXUSB-5S

■ Software

Abbreviations and generic terms		Description
GT Works3		Abbreviation of the SW□DND-GTWK3-E and SW□DND-GTWK3-EA
GT Designer3		Abbreviation of screen drawing software GT Designer3 for GOT1000 series
GT Simulator3		Abbreviation of screen simulator GT Simulator3 for GOT1000/GOT900 series
GT SoftGOT1000		Abbreviation of monitoring software GT SoftGOT1000
GT Converter2		Abbreviation of data conversion software GT Converter2 for GOT1000/GOT900 series
GT Designer2 Classic		Abbreviation of screen drawing software GT Designer2 Classic for GOT900 series
GT Designer2		Abbreviation of screen drawing software GT Designer2 for GOT1000/GOT900 series
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)
MELSOFT iQ AppPortal		SW□DND-IQAPL-M type integrated application management software
GX Works3		Abbreviation of SW□DND-GXW3-E and SW□DND-GXW3-EA type programmable controller engineering software
GX Works2		Abbreviation of SW□DNC-GXW2-E and SW□DNC-GXW2-EA type programmable controller engineering software
Controller simulator	GX Simulator3	Abbreviation of GX Works3 with the simulation function
	GX Simulator2	Abbreviation of GX Works2 with the simulation function
	GX Simulator	Abbreviation of SW□D5C-LLT-E(-EV) type ladder logic test tool function software packages (SW5D5C-LLT (-EV) or later versions)
GX Developer		Abbreviation of SW□D5C-GPPW-E(-EV)/SW D5F-GPPW-E type software package
GX LogViewer		Abbreviation of SW□DNN-VIEWER-E type software package
PX Developer		Abbreviation of SW□D5C-FBDQ-E type FBD software package for process control
MT Works2		Abbreviation of motion controller engineering environment MELSOFT MT Works2(SW□DND-MTW2-E)
MT Developer		Abbreviation of SW□RNC-GSV type integrated start-up support software for motion controller Q series
MR Configurator2		Abbreviation of SW□DNC-MRC2-E type Servo Configuration Software
MR Configurator		Abbreviation of MRZJW□-SETUP□E type Servo Configuration Software
FR Configurator		Abbreviation of Inverter Setup Software (FR-SW□-SETUP-WE)
NC Configurator		Abbreviation of CNC parameter setting support tool NC Configurator
FX Configurator-FP		Abbreviation of parameter setting, monitoring, and testing software packages for FX3U-20SSC-H (SW□D5C-FXSSC-E)
FX3U-ENET-L Configuration tool		Abbreviation of FX3U-ENET-L type Ethernet module setting software (SW1D5-FXENETL-E)
FX Configurator-EN		Abbreviation of FX3U-ENET type Ethernet module setting software (SW1D5C-FXENET-E)
RT ToolBox2		Abbreviation of robot program creation software (3D-11C-WINE)
MX Component		Abbreviation of MX Component Version□ (SW□D5C-ACT-E, SW□D5C-ACT-EA)
MX Sheet		Abbreviation of MX Sheet Version□ (SW□D5C-SHEET-E, SW□D5C-SHEET-EA)
CPU Module Logging Configuration Tool		Abbreviation of CPU Module Logging Configuration Tool (SW1DNN-LLUTL-E)

■ License key (for GT SoftGOT1000)

Abbreviations and generic terms	Description
License	GT15-SGTKEY-U, GT15-SGTKEY-P

■ Others

Abbreviations and generic terms	Description
IAI	Abbreviation of IAI Corporation
AZBIL	Abbreviation of Azbil Corporation (former Yamatake Corporation)
OMRON	Abbreviation of OMRON Corporation
KEYENCE	Abbreviation of KEYENCE CORPORATION
KOYO EI	Abbreviation of KOYO ELECTRONICS INDUSTRIES CO., LTD.
SHARP	Abbreviation of Sharp Corporation
JTEKT	Abbreviation of JTEKT Corporation
SHINKO	Abbreviation of Shinko Technos Co., Ltd.
CHINO	Abbreviation of CHINO CORPORATION
TOSHIBA	Abbreviation of TOSHIBA CORPORATION
TOSHIBA MACHINE	Abbreviation of TOSHIBA MACHINE CO., LTD.
HITACHI IES	Abbreviation of Hitachi Industrial Equipment Systems Co., Ltd.
HITACHI	Abbreviation of Hitachi, Ltd.
FUJI	Abbreviation of FUJI ELECTRIC CO., LTD.
PANASONIC	Abbreviation of Panasonic Corporation
PANASONIC INDUSTRIAL DEVICES SUNX	Abbreviation of Panasonic Industrial Devices SUNX Co., Ltd.
YASKAWA	Abbreviation of YASKAWA Electric Corporation
YOKOGAWA	Abbreviation of Yokogawa Electric Corporation
ALLEN-BRADLEY	Abbreviation of Allen-Bradley products manufactured by Rockwell Automation, Inc.
GE	Abbreviation of GE Intelligent Platforms
LS IS	Abbreviation of LS Industrial Systems Co., Ltd.
mitsubishi india	Mitsubishi Electric India Pvt. Ltd.
SCHNEIDER	Abbreviation of Schneider Electric SA
SICK	Abbreviation of SICK AG
SIEMENS	Abbreviation of Siemens AG
RKC	Abbreviation of RKC INSTRUMENT INC.
HIRATA	Abbreviation of Hirata Corporation
MURATEC	Abbreviation of Muratec products manufactured by Muratec Automation Co., Ltd.
PLC	Abbreviation of programmable controller
Temperature controller	Generic term for temperature controller manufactured by each corporation
Indicating controller	Generic term for indicating controller manufactured by each corporation
Control equipment	Generic term for control equipment manufactured by each corporation
CHINO controller	Abbreviation of indicating controller manufactured by CHINO CORPORATION
PC CPU module	Abbreviation of PC CPU Unit manufactured by CONTEC CO., LTD
GOT (server)	Abbreviation of GOTs that use the server function
GOT (client)	Abbreviation of GOTs that use the client function
Windows® font	Abbreviation of TrueType font and OpenType font available for Windows® (Differs from the True Type fonts settable with GT Designer3)
Intelligent function module	Indicates the modules other than the PLC CPU, power supply module and I/O module that are mounted to the base unit
MODBUS® /RTU	Generic term for the protocol designed to use MODBUS® protocol messages on a serial communication
MODBUS® /TCP	Generic term for the protocol designed to use MODBUS® protocol messages on a TCP/IP network

HOW TO USE THIS MANUAL

The following symbols are used in this manual.

4.1 GOT Type Setting

4.1.1 Settings

Select [Common] → [GOT Type Setting] from the menu to display the [GOT Type Setting] dialog box.

HINT

Settings relevant to functions

For the common settings in a project data, some settings are relevant to multiple GOT functions. For each setting relevant to the GOT functions, refer to the following.

Appendix8 Relevant Settings

Shows whether the GT16, GT15, GT14, GT12, GT11, GT10, and GT SoftGOT1000 are applicable.

- ○ : Applicable
- × : Not applicable

[] : Shows the setting item displayed on the software screen or the GOT screen.

POINT : Refers to information required for operation.

HINT : Refers to information useful for operation.

Setting for each screen

1. Select a screen editor to set a key window, and select [Screen] → [Screen Property] from the menu to display the [Screen Property] dialog box.
2. Select the [Key Window Basic Setting] tab or the [Key Window Advanced Setting] tab, and set the required items.

HINT

Settings relevant to functions

For the key window settings, some settings are relevant to multiple GOT functions. For each setting relevant to the GOT functions, refer to the following.

Appendix8 Relevant Settings

(1) Key Window Basic Setting tab

Shows a chapter, section, relevant manual, or others of relevant information.

- (Fundamentals): GT Designer3 Version1 Screen Design Manual (Fundamentals)
- (Functions): GT Designer3 Version1 Screen Design Manual (Functions)

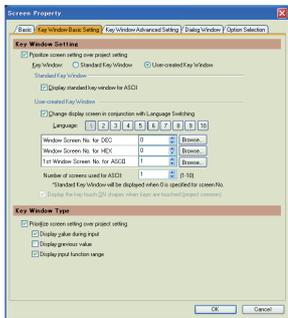
HINT

Settings relevant to functions

For the key window settings, some settings are relevant to multiple GOT functions. For each setting relevant to the GOT functions, refer to the following.

Appendix8 Relevant Settings

(1) Key Window Basic Setting tab



Shows the operation steps. Operate the steps from the step 1.

Item	Description	Model
Prioritize screen setting over project setting	Select this item to give the setting for each screen priority over the setting for each project.	
Key Window	This item is available when [Prioritize screen setting over project setting] is selected for [Key Window Setting]. (Standard Key Window/User-created Key Window)	
Display standard key window for ASCII	Select this item to display the standard key window at ASCII input.	
Key Window Setting	This item is available when [User-created Key Window] is	

Shows whether the GT16, GT15, GT14, GT12, GT11, GT10, and GT SoftGOT1000 are applicable.

- Black: Applicable
- Gray: Not applicable

The above is different from the actual page, as it is provided for explanation only.

GT SoftGOT1000

1. OVERVIEW	1-1
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1. OVERVIEW

This manual explains the system configuration, specifications, screen structure, and operating method of monitoring software GT SoftGOT1000 (hereinafter abbreviated as GT SoftGOT1000).
GT SoftGOT1000 is the software that has the same functions as the GOT1000 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 SoftGOT1000.

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

(1) Installation method of GT SoftGOT1000

For the installation method of GT SoftGOT1000, refer to the following manuals.

 GT Works3 Version1 Installation Procedure 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 Version1 Screen Design Manual (Fundamentals)

GT Designer3 Version1 Screen Design Manual (Functions)

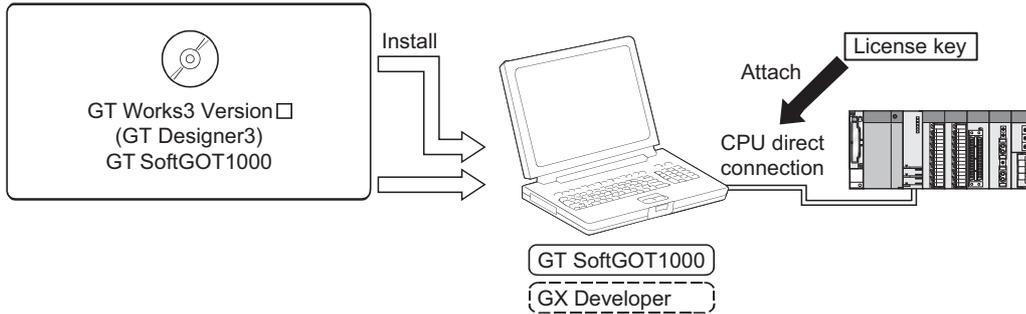
1.1 Features

■ 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 SoftGOT1000 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 GT SoftGOT1000. Therefore, design efficiency is improved greatly.



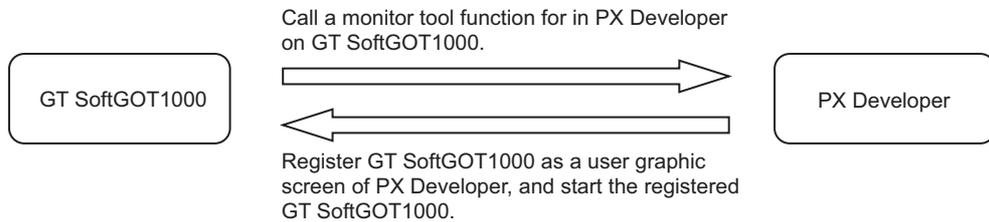
(b) Interaction with PX Developer

With interaction between GT SoftGOT1000 and PX Developer, monitor tool functions for PX Developer can be called on GT SoftGOT1000.

GT SoftGOT1000 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)

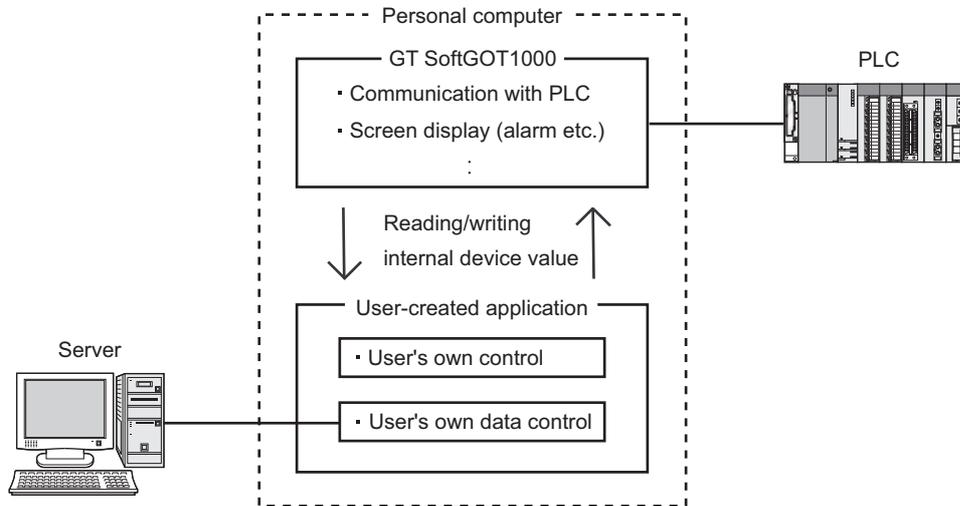


(c) Interactive use with Windows applications

A Windows application can be started up from GT SoftGOT1000.

Also, the data of GT SoftGOT1000 internal devices can be read/written from a user-created application.

With interaction between GT SoftGOT1000 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 SoftGOT1000 supports the following resolutions.

(a) Selectable resolutions

- UXGA (1600 × 1200 dots)
- SXGA (1280 × 1024 dots)
- XGA (1024 × 768 dots)
- SVGA (800 × 600 dots)
- VGA (640 × 480 dots)

(b) User setting

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

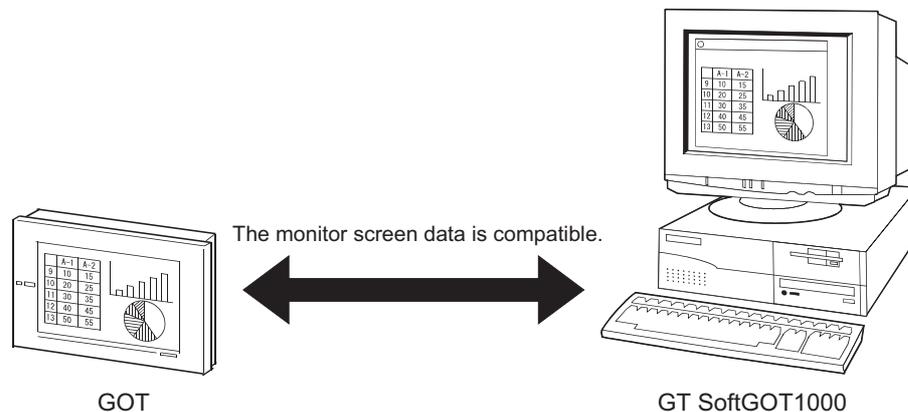
■ The monitor screen data created for the GOT1000 series is applicable to GT SoftGOT1000.

The GT SoftGOT1000 uses monitor screen data created with GT Designer3.

By converting the GOT type for GT SoftGOT1000, the monitor screen data used for the GOT1000 series can be used without modification.

GT SoftGOT1000 uses the same screens and operations as GOT.

Therefore, there will be no discomfort or confusion for the operators and maintenance personnel.



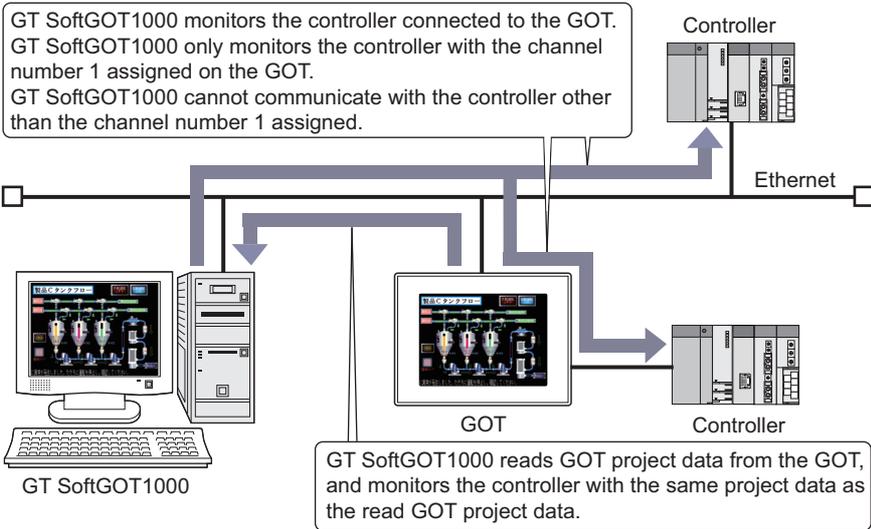
■ Synchronizing GT SoftGOT1000 data with GOT data

The SoftGOT-GOT link function enables GT SoftGOT1000 to connect the GOT via Ethernet. And then, the function synchronizes GT SoftGOT1000 data with GOT project data and resource data.

When input objects (touch switch, numerical input, and ASCII input) are input or other operation is performed, the simultaneous operation between GT SoftGOT1000 and the GOT must be prevented. The operation must be allowed by either GT SoftGOT1000 or the GOT.

GT SoftGOT1000 can monitor a controller connected to the GOT.

☞ 5.21 SoftGOT-GOT Link Function



SPECIFICATIONS AND OPERATION OF GT SoftGOT1000

2. SPECIFICATIONS OF GT SoftGOT1000.....	2 - 1
3. OPERATION OF GT SoftGOT1000	3 - 1

2. SPECIFICATIONS OF GT SoftGOT1000

2.1 Operating Environment

The following shows the GT SoftGOT1000 operating environment.

Item	Description
Personal computer	<ul style="list-style-type: none"> • PC/AT compatible personal computer that the following OSs run on. • PC CPU module manufactured by CONTEC CO., LTD (PPC-852-21G, PPC-852-22F)^{*6}
OS (English, Simplified Chinese, Traditional Chinese, or Korean version) ^{*7*9}	<ul style="list-style-type: none"> • Microsoft® Windows® 11 Education (64 bit)^{*2*3*8} • Microsoft® Windows® 11 Enterprise (64 bit)^{*2*3*8} • Microsoft® Windows® 11 Pro (64 bit)^{*2*3*8} • Microsoft® Windows® 11 Home (64 bit)^{*2*3*8} • Microsoft® Windows® 10 Enterprise (64 bit, 32 bit)^{*2*3*8} • Microsoft® Windows® 10 Pro (64 bit, 32 bit)^{*2*3*8} • Microsoft® Windows® 10 Home (64 bit, 32 bit)^{*2*3*8} • Microsoft® Windows® 10 IoT Enterprise 2016 LTSB (64 bit) (English OPK, or English OPK and a language pack for localization)^{*2*3*8*10*11}
CPU	<ul style="list-style-type: none"> • Windows® 11: 64 bit-compatible processor with dual-core or more or System on a Chip (SoC)^{*12} • Windows® 10: Intel Core 2 Duo Processor 2.0 GHz or more recommended^{*12}
Memory	<ul style="list-style-type: none"> • For Windows® 11: 4 GB or more recommended • For 64-bit Windows® 10: 2 GB or more recommended • For 32-bit Windows® 10: 1 GB or more recommended
Display	Resolution XGA (1024 × 768 dots) or higher
Hard disk space ^{*1}	For installation: 5GB or more recommended For execution: 512MB or more recommended
Display color	High color (16 bits) or more
Hardware ^{*5}	When using personal computer GT15-SGTKEY-U (License key (for USB port)) GT15-SGTKEY-P (License key (for parallel port)) When using PC CPU module GT15-SGTKEY-U (License key (for USB port))
Software	When creating or editing project data: GT Designer3 ^{*4} When using with PX Developer : PX Developer Version 1.14Q or later (PX Developer Version1.31H or later when using the security level change) GT Designer3 Version 1.01B or later
Others	Mouse, key board, printer, DVD drive, sound function (sound card), speaker

- *1 When using GT Designer3 or PX Developer, free space is required separately.
For the free space required when using GT Designer3, refer to the following manual.
 GT Designer3 Version1 Screen Design Manual (Fundamentals)
 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 SoftGOT1000.
To use GT SoftGOT1000 with another application that runs with administrator authority, GT SoftGOT1000 must also run with administrator authority.
- *3 The following functions are not supported.
 - Activating the application with Windows® compatibility mode
 - Fast user switching
 - Change your desktop themes (fonts)
 - Remote desktop
 - Setting the size of text and illustrations on the screen to any size other than [Small-100%]
- *4 Use GT Designer3 included in GT Works3 that contains GT SoftGOT1000.
- *5 When using GT15-SGTKEY-U, a USB port is required in the personal computer.
When using GT15-SGTKEY-P, a parallel port (Centronics/printer connector) is required in the personal computer.
- *6 Refer to the manual of the PC CPU module.
- *7 Operation is not supported in an environment with the text cursor indicator turned on.
- *8 The touch feature is not supported.
- *9 A virtual environment such as Hyper-V is not supported.
- *10 The following OSs are not supported.
 - Microsoft® Windows® 10 IoT Enterprise for Retail or Thin Client
 - Microsoft® Windows® 10 IoT Enterprise for Tablets
 - Microsoft® Windows® 10 IoT Enterprise for Small Tablets
- *11 The following lockdown features are not supported.
 - Unified Write Filter
 - Assigned Access
 - USB Filter
 - Layout Control
 - AppLocker
 - Shell Launcher
- *12 ARM64 and ARM32 are not supported.

POINT

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

A user-created application is used with GT SoftGOT1000.

When using a user-created application, therefore, prepare an operating environment where both the user-created application and GT SoftGOT1000 can operate.

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

The following phenomena may occur when the resume function setting, suspend setting, power saving function setting, standby mode setting, and sleep function setting are configured in 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.

2.2 Specifications

2.2.1 Specifications of the GT SoftGOT1000

The specifications of the GT SoftGOT1000 is shown below.

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.

 3.5.1 Environment setup dialog box

POINT

Project data display

(1) Full screen mode

If the resolution of the personal computer used is the same as that of GT SoftGOT1000, 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.

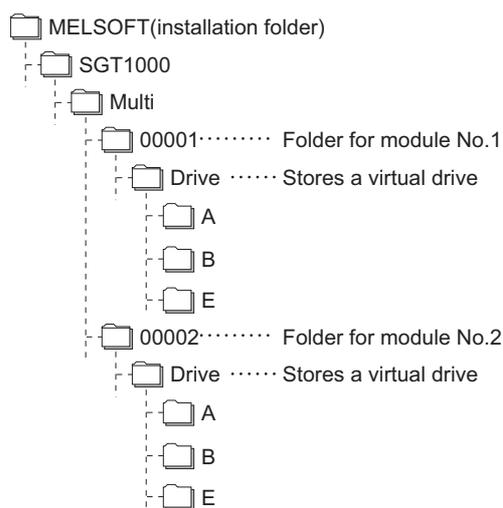
(2) GOT type and resolution

For the GT SoftGOT1000, set the same resolution as the GOT type of the project data created with GT Designer3.

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

Virtual drive

The GT SoftGOT1000 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, the virtual B drive, and the virtual E drive. For changing folders for the virtual drives, refer to the following.

 3.5 Environment Setup

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	Advanced alarm, Recipe, Hard copy (File save)* ¹ ,	Alarm history, Advanced recipe, Hard copy (Print),	Logging, Report (Print), Operation log
	G1SgtReport	Report (Print)		
	G1SgtHardcopy	Hard copy (File save)* ¹		
		Hard copy (Print)		

*1 File save destination for each file can be specified in the [File Output (Hard Copy Function)] menu in the Environment Setup dialog box.

Refer to the following for Environment Setup dialog box.

 3.5.1 Environment setup dialog box

The file formats of resource data are described below.

Function	Folder name	File format and file name
Advanced alarm	Folder name set in project data	File name set in project data ****.G1A
		File name set in project data ****.CSV
		File name set in project data ****.TXT
Alarm function	Folder name set in project data	File name set in project data ****.G1H
		File name set in project data ****.CSV
Logging	Folder name set in project data	File name set in project data ****.G1L
		File name set in project data ****.CSV
		File name set in project data ****.TXT
Recipe	Folder name set in project data	File name set in project data ****.CSV
Advanced recipe	Folder name set in project data	File name set in project data ****.G1P
		File name set in project data ****.CSV
		File name set in project data ****.TXT
Report (Print)* ¹	G1SgtReport (Fixed)	REP00001.CSV - REP00008.CSV
Hard copy (File save)* ²	G1SgtHardcopy (Fixed)	SNAP0001.BMP - SNAP9999.BMP
		SNAP0001.JPG - SNAP9999.JPG
	File name set in project data	File name set in project data ****.BMP
		File name set in project data ****.JPG
Hard copy (Print)	G1SgtHardcopy (Fixed)	HARDCOPY.BMP (Fixed)

(Continued to next page)

Function	Folder name	File format and file name
Operation log function	Folder name set in project data	File name set in project data ****.G10
		File name set in project data ****.CSV
		File name set in project data ****.TXT

*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.

*2 File save destination for each file can be specified in the [File Output (Hard Copy Function)] menu in the Environment Setup dialog box.

Refer to the following for Environment Setup.

 3.5.1 Environment setup dialog box

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).

Two-byte and one-byte Japanese kana are considered as 2 characters.

2.2.2 License key specifications

To use GT SoftGOT1000, license key is required.
License key has the following two types.

Model name	Attachment type
GT15-SGTKEY-U	Attached to USB port
GT15-SGTKEY-P	Attached to parallel port

Be sure to attach the license key before starting monitoring on GT SoftGOT1000.

When starting monitoring without a license key, GT SoftGOT1000 automatically ends in about two hours.

Also, from starting monitoring to exiting it, use GT SoftGOT1000 with the license key attached.

If the license key is disconnected during monitoring, the GT SoftGOT1000 will exit automatically.

POINT

License key

(1) Before using license key

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

Thus, the System Driver (device driver) needs to be installed as other connected devices.

As the license key can be accessed via the System Driver, the access to the license key is not allowed when the System Driver is not installed.

(2) License key use target

The GT15-SGTKEY-U and GT15-SGTKEY-P are dedicated for GT SoftGOT1000.

They cannot be used for GT SoftGOT2.

2.3 Functions that Cannot Be Used

In GT SoftGOT1000, some functions available in GT16 cannot be used.
The following table shows unusable functions.

Function category		Function name		
Utility functions	GOT setup	GOT main unit setup	Time setting, Clean, Multimedia setting,	Transparent mode, Video/RGB setting , Behavior of duplicate IPs
		Display	Screen save time, Battery alarm display,	Screen save backlight, Brightness,contrast
		Operation	Key sensitivity, Touch panel calibration, USB mouse/keyboard function,	Key reaction speed, Touch detection mode, SoftGOT-GOT link function
		GOT maintenance function	Maintenance timing setting, GOT start time,	Addition times reset, GOT information
	Communication setting		Communication setting	
	Communication setting		Ethernet setting	
	Communication setting		Communication setting	
	Debug		Debug	
	Self check		Self check	
	Data control	Data control	Data control	
		OS/project information	OS/project information	
Extension function		System monitor function, RGB display function, External I/O function, Backup/restore function, CNC manufacturing program editor function, Remote personal computer operation, Log viewer function, Motion program (SV43) edit, VNC [®] server function	Video display function, Multimedia function, Operation panel function ^{*1} , CNC data I/O function, Operator authentication (Fingerprint authentication), MELSEC-L troubleshooting function, File transfer function (FTP client), Motion program (SV43) I/O,	
Option functions		Ladder monitor function, List editor for MELSEC-FX, Network monitor function, Servo amplifier monitor function, Gateway function, SFC monitor function, Motion SFC monitor function	List editor for MELSEC-A, Intelligent module monitor function, Q motion monitor function, CNC monitor function, MES interface function, Ladder editor function	
Others		FA transparent functions, RGB output function	Human sensor function,	

*1 With the keyboard input function, operations equivalent to the operation panel function can be available.

POINT

Utility operability

In GT SoftGOT1000, some functions do not operate even though they can be set.
The operability on GT SoftGOT1000 is shown below.

Item		Operability on GT SoftGOT1000	
GOT setup	GOT main unit setup	Time setting	x
		Transparent mode	-
		Clean	x
		Video/RGB setting	x
		Multimedia setting	x
		License management	x
		Behavior of duplicate IPs	x
	Display	Language	○
		Opening screen time	○
		Screen save time	-
		Screen save backlight	-
		Battery alarm display	-
		Brightness, contrast	-
	Operation	Buzzer volume	○
		Window move buzzer	○
		Security setting	○
		Utility call key	○
		Key sensitivity	-
		Key reaction speed	-
		Touch panel calibration	-
		Touch Detection Mode	-
		USB mouse/keyboard function	-
		SoftGOT-GOT link function	-
		VNC server func. setting	-
	GOT maintenance function	Maintenance timing setting	x
		Addition times reset	x
		GOT start time	x
		GOT information	x
	Communication setting		x
	Debug		x
	Self check		x
	Data control	Data control	Alarm information
Advanced Recipe information			○
Logging information			○
Operation log information			○
Hard copy information			○
Special data information			x
Operator information			○
Fingerprint information		x	
OS/project information		x	

- : Operable
- x : Inoperable
- : Setting is not required on GT SoftGOT1000 (Some items can be set but do not operate.)

2.4 Precautions

2.4.1 Precautions for using the GT Soft GOT1000

■ 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 Soft GOT1000. (GOT displays [non].)

■ Time display

The clock data of the personal computer is used for clock display when monitoring GT SoftGOT1000. (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 SoftGOT1000 does not support the daylight saving function. Do not check [Automatically adjust clock for daylight saving changes] on the personal computer.

■ GT Soft GOT1000 Versions

Be sure to use the GT Soft GOT1000 of the same version as the GT Designer3 that the project data is created. When using different versions of GT SoftGOT1000 and GT Designer3, the file may not be opened, functions/settings may be invalid, or the GT Soft GOT1000 may not work correctly. Refer to the following for the project data compatibility.

 Appendix3 Applicable Project Data

■ Printer to output function

(1) Hard copy output destination

Hard copy output destination can be specified on GT Designer3 or GT SoftGOT1000. 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.

Hard copy output		Setting at GT SoftGOT1000	
File save destination (Hard copy (File Save))	Printing	[Print to printer (Hard Copy Function)] on the Page Setup screen	[File Output (Hard Copy Function)] on the Environment Setup screen
Virtual A Drive (GT1sgHardcopy)	Yes	Check	-
Virtual A Drive (GT1sgHardcopy)	No	Uncheck	-

-: Setting ineffective

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

Hard copy output		Setting at GT SoftGOT1000	
File save destination (Hard copy (File Save))	Printing	[Print to printer (Hard Copy Function)] on the Page Setup screen	[File Output (Hard Copy Function)] on the Environment Setup screen
Virtual A Drive (GT1sgHardcopy)	No	-	Select [Default].
The save file destination that was specified on the Hard copy setting screen of GT Designer3	No	-	Select [Project Data Setting].

-: Setting ineffective

Refer to the following for hard copy functions.

☞ GT Designer3 Version1 Screen Design Manual (Functions)

Refer to the following for Page Setup.

☞ 5.2.3 Performing page setup

Refer to the following for Environment Setup.

☞ 3.5 Environment Setup

(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.

☞ Appendix.2.4 Troubleshooting for print

☞ Appendix.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.

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

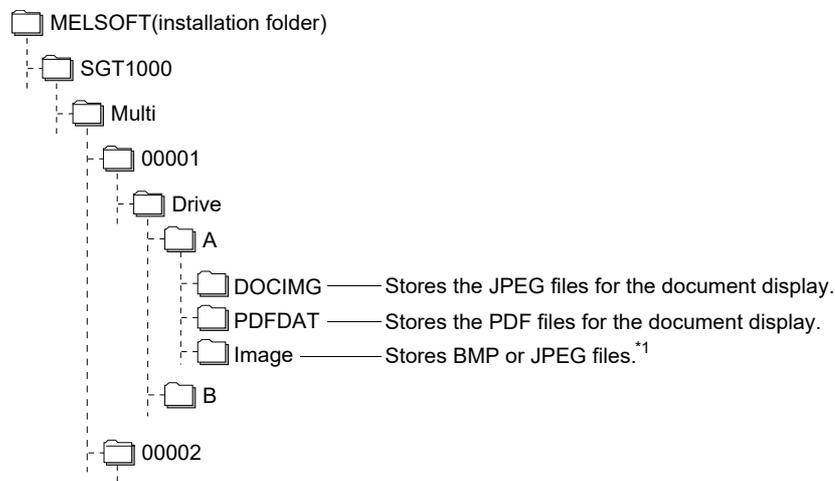
When registering parts of BMP/JPEG files and document display data, store the data to the virtual A drive, the virtual B drive, or the virtual E drive.

(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 Version1 Screen Design Manual (Functions)

Except for the virtual drive, GT SoftGOT1000 does not recognize BPM/JPEG files and other files.



*1 The folder name can be changed to another name.

2.4.2 Precautions on license key

■ When attaching GT15-SGTKEY-U

(1) Installation/uninstallation of the System Driver

Before installing or uninstalling the System Driver, disconnect the GT15-SGTKEY-U.

When installing the System Driver with the GT15-SGTKEY-U attached, the installation of USB may be failed.

When the installation is failed, uninstall the System Driver after disconnecting the GT15-SGTKEY-U, and install it again.

(2) Use of a USB hub

Do not use GT15-SGTKEY-U through a USB hub.

When using GT15-SGTKEY-U, connect GT15-SGTKEY-U to a personal computer directly.

■ When attaching GT15-SGTKEY-P

(1) Using GT15-SGTKEY-P

The GT15-SGTKEY-P can be used only with the parallel port built in a personal computer as standard.

It cannot be used with the parallel port added by extension or a converter.

(2) Using GT15-SGTKEY-P with other devices simultaneously

The following devices cannot be used at the same port as the GT15-SGTKEY-P.

- SCSI interface for parallel port
- Floppy disc drive, hard disc drive, CD, or ZIP drive connected to parallel port
- Devices that use a data communication method other than the standard network specification, including parallel port communication type Interlink and Centronics printer interface

(3) Attaching GT15-SGTKEY-P

Connect the GT15-SGTKEY-P between the printer switching device and personal computer.

3. OPERATION OF GT SoftGOT1000

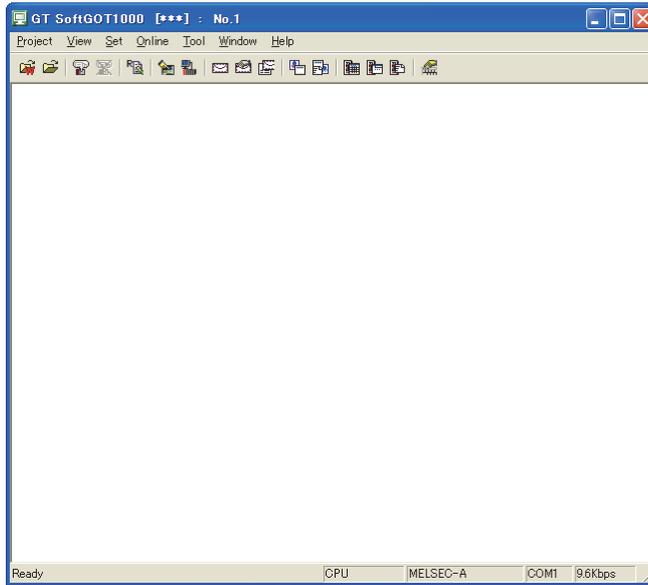
3.1 Start GT SoftGOT1000

Start GT SoftGOT1000.

1. Select [Start]^{*1} → [MELSOFT]^{*2} → [GT Works3] → [GT SoftGOT1000] from the menu of Windows® to start GT SoftGOT1000.

*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.



POINT

(1) Display position when starting up the GT SoftGOT1000

When GT SoftGOT1000 is started, its window is displayed where the last time it was terminated. However, if GT SoftGOT1000 was illegally terminated, the window is displayed where the last time GT SoftGOT1000 was normally closed.

Display position is stored for each CPU number of GT SoftGOT1000.

(2) Automatic startup

GT SoftGOT1000 can be started automatically when Windows® is started up by using [Online after starting]. For the setting, refer to the following.

 3.12 Automatic Startup

■ Precautions for executing other MELSOFT applications while GT SoftGOT1000 is being operated

How to run other MELSOFT applications depends on the Windows® User Account Control (UAC) setting. Run other MELSOFT applications using the following procedure.

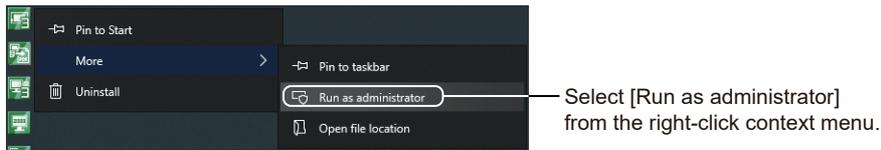
(1) When User Account Control (UAC) is invalid

Specifying [Run as administrator] is not required for running a MELSOFT application.

(2) When User Account Control (UAC) is enabled

Select [Run as administrator] to execute the program.

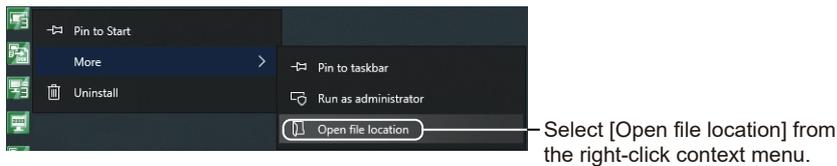
1. Select and right-click the application to execute from the start menu of Windows®.
2. Select [More] → [Run as administrator] to run the software.



(3) When always running an application as an administrator

To always run programs as an administrator, set the following setting.

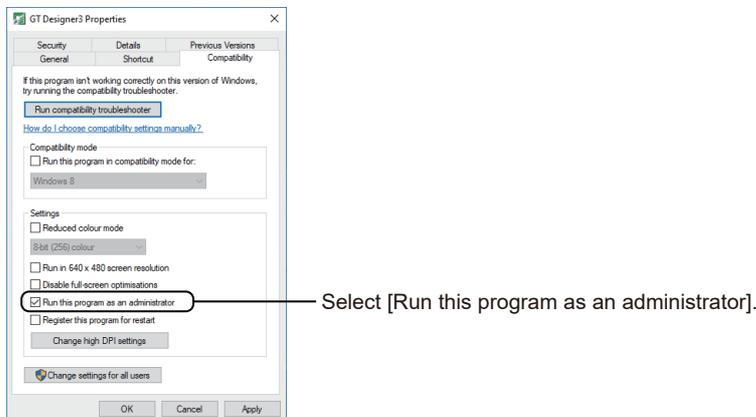
1. Select and right-click the application to execute from the start menu of Windows®.
2. Select [More] → [Open file location] to open the folder of the application to be run.



3. Right-click the application to be run, and select [Properties].



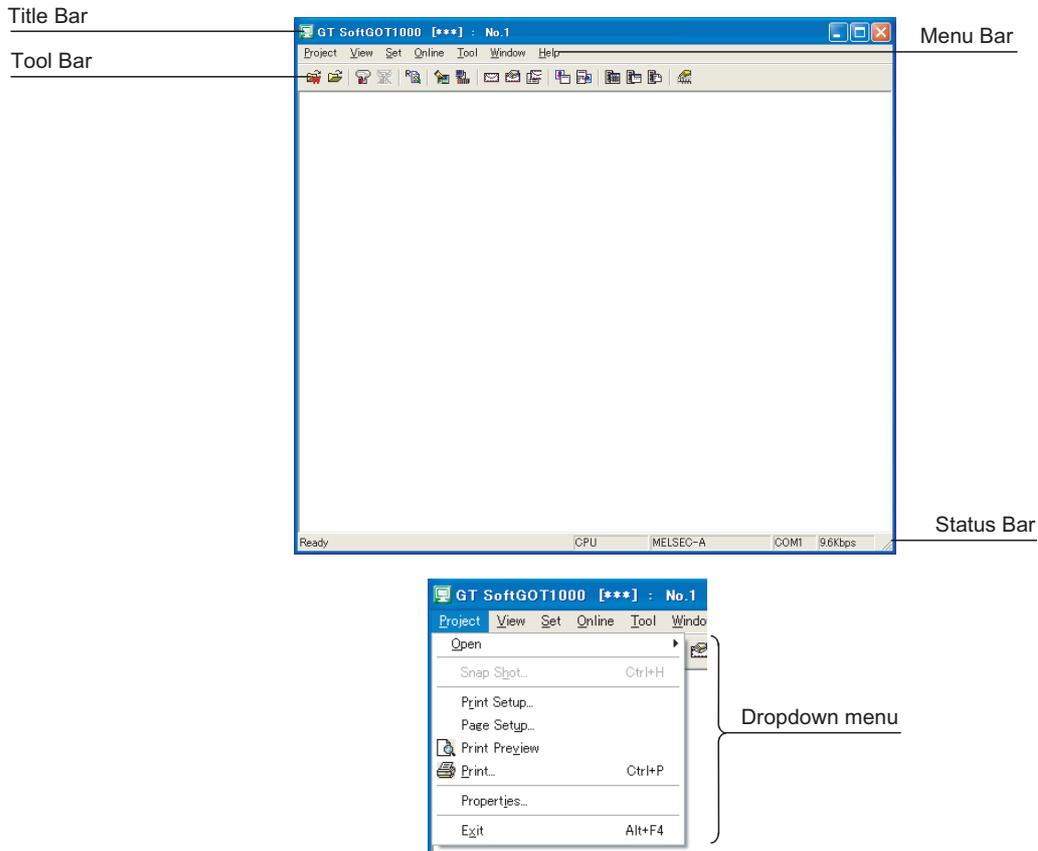
4. The properties dialog appears. Select the [Compatibility] tab. Select [Run this program as an administrator] in [Settings].



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

3.2 Screen Configuration of GT SoftGOT1000

This section describes screen configuration.

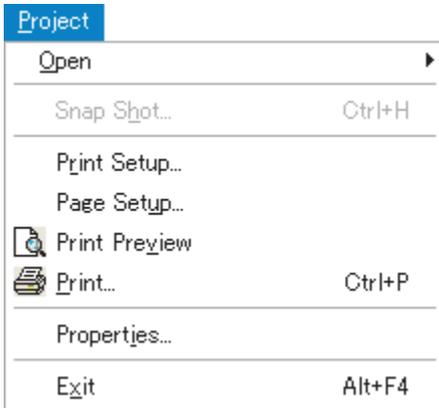


Item	Description
Title Bar	<p>Displays the project name and/or the module number, or the comment set with GT SoftGOT1000 Commander.</p> <ul style="list-style-type: none"> • Project name and module number If GT SoftGOT1000 displays the project data for the first time, the title bar displays [***] as the project name. If the project title is not set for the project data monitored by GT SoftGOT1000, the title bar displays [No title] as the project name. • Comment set with GT SoftGOT1000 Commander The title bar displays the comment set with GT SoftGOT1000 Commander. (The line feeds are disabled, and the comment is displayed in one line.) If GT SoftGOT1000 monitors the linked GOT for the first time, the title bar displays [***]. If the comment is not set with GT SoftGOT1000 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 SoftGOT1000 Commander, make a selection in the title bar setting in the [Environment Setup] dialog box. For the details of the title bar setting, refer to the following. ☞ 3.5 Environment Setup</p>
Menu Bar	<p>Operate GT SoftGOT1000 by using a drop-down menu. For the details of the menu bar, refer to the following. ☞ 3.3 Menu Bar</p>
Tool Bar	<p>Operate GT SoftGOT1000 by selecting an icon. For the details of the tool bar, refer to the following. ☞ 3.4 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>

3.3 Menu Bar

This section describes commands assigned to the menu bar.

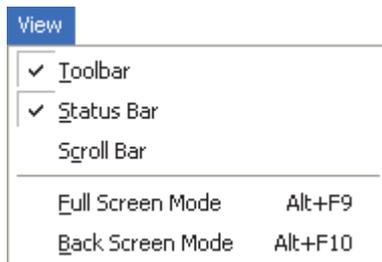
Project



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

 5. FUNCTIONS

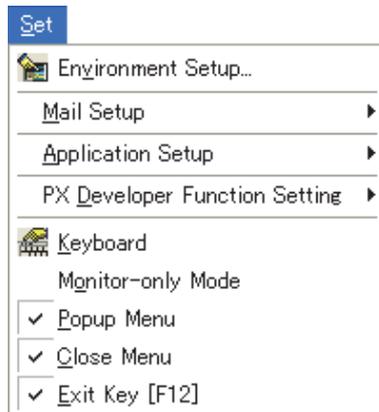
View



The View menu includes the functions for switching the toolbar, menu bar, and scroll bar between display and nondisplay states. The menu includes the functions for switching the full screen mode and back screen mode between enabled and disabled states.

 5. FUNCTIONS

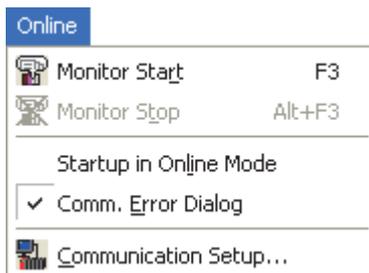
Set



The Set menu includes the functions for setting the environment, mail, application start-up, and PX Developer. The menu includes the functions for switching the keyboard input, monitor-only mode, popup menu, close menu, and exit key between enabled and disabled states.

 5. FUNCTIONS

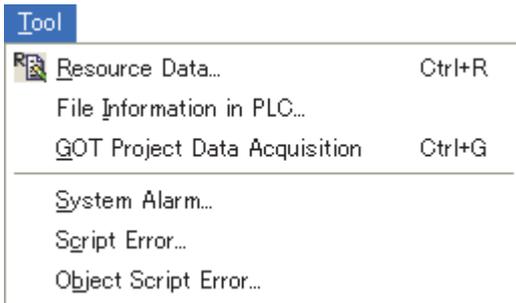
Online



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.

 3. OPERATION OF GT SoftGOT1000

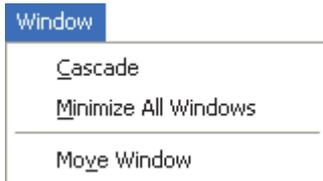
Tool



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

 5. FUNCTIONS

Window



The Window menu includes the functions for cascading, minimizing, or moving windows.

 5. FUNCTIONS

Help



The Help menu includes functions of viewing the PDF manual related to the GT SoftGOT1000 and checking the software version.

 3.13 Help

3.4 Tool Bar

This section describes the tool bar.



Name	Description
 Open a Project	Opens the project data created with GT Designer3.
 Open a File	Opens a single file format project (*.GTW) of GT Designer3 or the GT Designer2 file (*.GTE).
 Monitor Start	Starts monitoring.
 Monitor Stop	Stops monitoring.
 Resource Data	Displays resource data.
 Environment Setup	Performs environment settings for GT SoftGOT1000.
 Communication Setup	Performs communication settings for GT SoftGOT1000.
 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 SoftGOT1000.
 Application Start-up History	Shows operation histories of application start-up.
 PX Developer Function Call Setting	Performs the PX Developer call settings.
 PX Developer Function Call Sub-Setting	Performs the PX Developer call sub-settings.
 PX Developer Function Call History	Shows operation histories at calling monitor tool functions for in PX Developer.
 Keyboard	Switches keyboard input enable/disable.

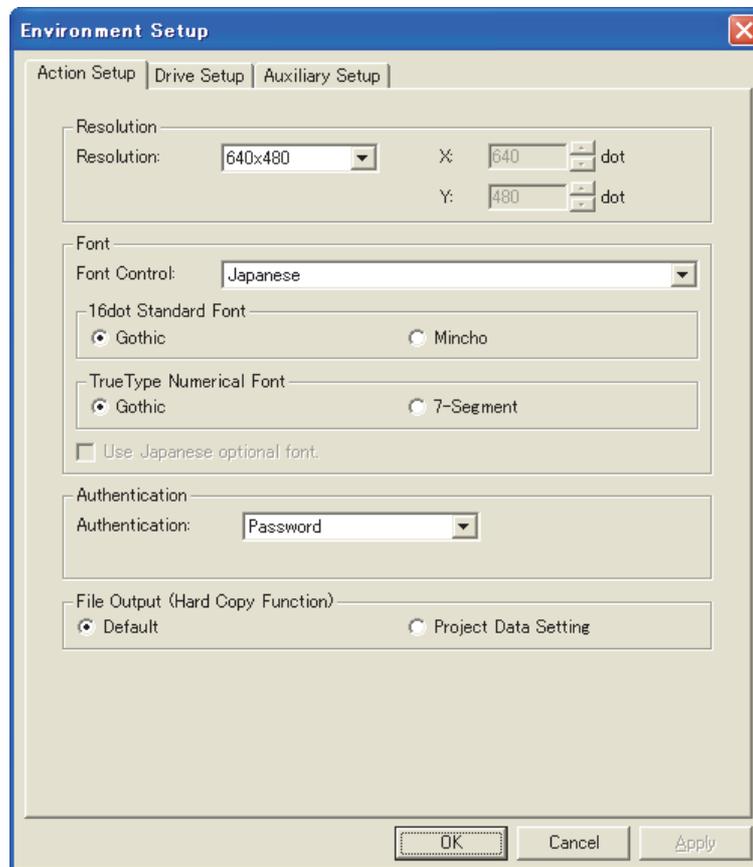
3.5 Environment Setup

In Environment Setup, set the resolution, etc. of GT SoftGOT1000.

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
2. The Environment Setup dialog box is displayed.
Set each item and click the **OK** button.

3.5.1 Environment setup dialog box

■ Action Setup tab

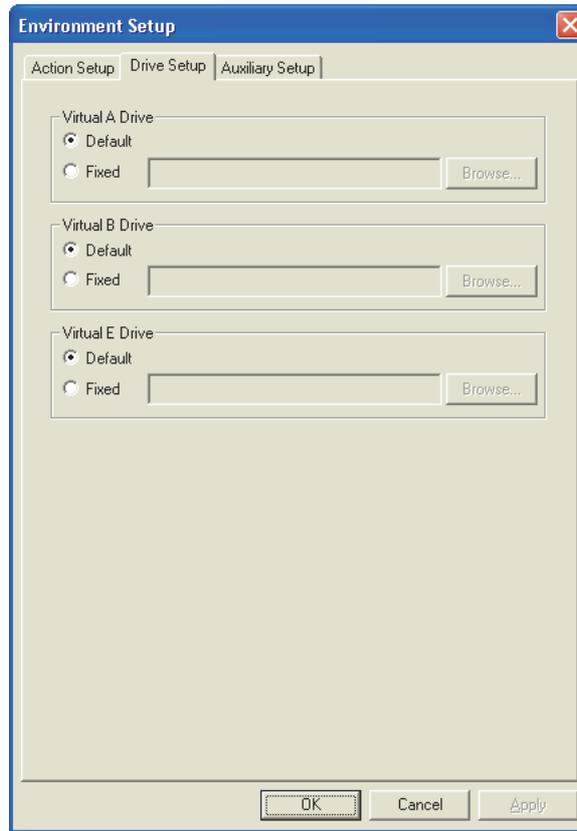


Item	Description
Resolution	Select the screen size (resolution: dots) to be monitored. "640 × 480", "800 × 600", "1024 × 768", "1280 × 1024", "1600 × 1200", "X × Y" Set the resolution dot by dot when selecting [X × Y]. X: Set the horizontal size (X axis). (1920 dots to 640 dots) Y: Set the vertical size (Y axis). (1200 dots to 480 dots)

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Item	Description
Font	<p>Font Control</p> <p>Select a font language used for monitoring. When selecting Japanese (supporting Europe) or Chinese (Simplified) (supporting Europe), Latin characters are displayed in one-byte characters. Japanese: Japanese characters are displayed. Japanese (supporting Europe): Japanese characters supporting European characters are displayed. Chinese (Simplified): Simplified Chinese characters are displayed. Chinese (Simplified) (supporting Europe): Simplified Chinese characters supporting European characters are displayed. Chinese(Traditional) (supporting Europe): Traditional Chinese characters supporting European characters are displayed.</p> <hr/> <p>16dot Standard Font</p> <p>Select the font type of 16dot standard font. [Gothic], [Mincho]</p> <hr/> <p>TrueType Numerical Font</p> <p>Select a font type of the TrueType numerical font. [Gothic], [7-Segment]</p> <hr/> <p>Use Japanese optional font</p> <p>This item is available only when selecting Chinese (Simplified) or Chinese (Simplified) (supporting Europe) for Font Control. Do not check this item normally (when displaying in Chinese (Simplified) characters). When checking this item, objects without Kanji region setting will be displayed in Japanese.</p>
Authentication	<p>Select password authentication or operator authentication. [Password], [Operator] Select the same authentication method set in [System Environment] of GT Designer3.</p>
File Output (Hard Copy Function)	<p>Select the output destination for the hard copy file.</p> <ul style="list-style-type: none"> • Default : Stores files in the virtual A drive (G1SgtHardcopy). Refer to the following for G1SgtHardcopy.  2.2.1 ■Resource data storage destination • [Project Data Setting] : Stores files in the file output destination specified on the [Project Data Setting] screen.

■ Drive Setup tab



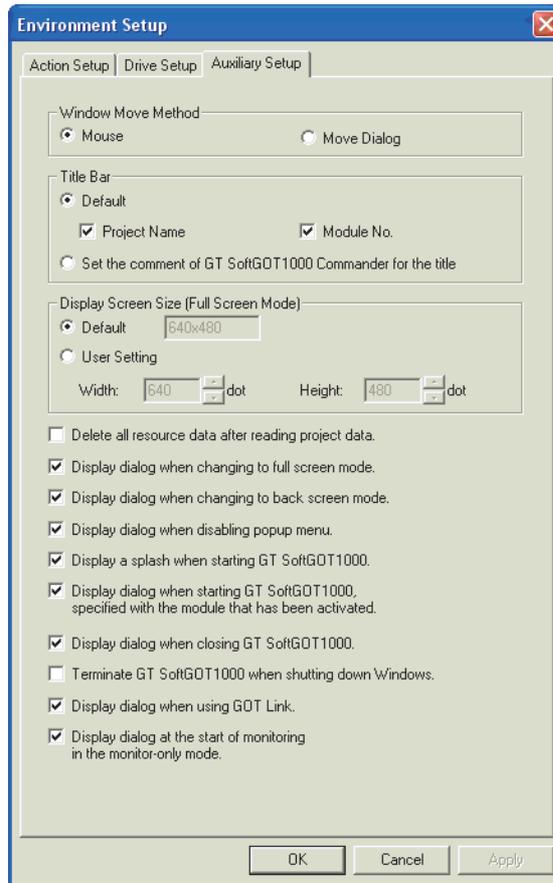
Item	Description
Virtual A Drive* ¹	<p>Set a folder in the hard disc drive as the virtual A drive, which is used as the A drive environment of the GOT main unit.</p> <ul style="list-style-type: none"> • Default : Stores resource data in the virtual A drive. Refer to the following for virtual A drive.  2.2.1 ■ Virtual drive • Fixed : Stores resource data in the folder specified by the user. Select this item when storing resource data to a desired folder. Clicking the Browse button displays the Browse For Folder dialog. Select a folder to which resource data is stored.
Virtual B Drive* ¹	<p>Set a folder in the hard disc drive as the virtual B drive, which is used as the B drive environment of the GOT main unit.</p> <ul style="list-style-type: none"> • Default : Stores resource data in the virtual B drive. Refer to the following for virtual B drive.  2.2.1 ■ Virtual drive • Fixed : Stores resource data in the folder specified by the user. Select this item when storing resource data to a desired folder. Clicking the Browse button displays the Browse For Folder dialog. Select a folder to which resource data is stored.

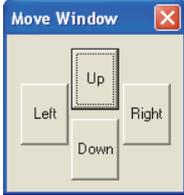
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Item	Description
Virtual E Drive*1	<p>Set a folder in the hard disc drive as the virtual E drive, which is used as the E drive environment of the GOT main unit.</p> <ul style="list-style-type: none"> • Default : Stores resource data in the virtual E drive. Refer to the following for virtual E drive.  2.2.1 ■Virtual drive • Fixed: : Stores resource data in the folder specified by the user. Select this item when storing resource data to a desired folder. Clicking the <input type="button" value="Browse"/> button displays the Browse For Folder dialog. Select a folder to which resource data is stored.

*1 For specifying a virtual drive, do not specify the same folder set as the other virtual drive or virtual drives for other GT SoftGOT1000.
Doing so may cause malfunctions.

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.</p> <p>Refer to 5.9 for details of window movement.</p> <p>[Mouse] :Move the mouse to move GT SoftGOT1000 for window movement. Click the mouse to determine the position.</p> <p>[Move Dialog] :The Move window dialog box is displayed for window movement, and clicking the up, down, left or right button moves GT SoftGOT1000 on a 10-dot basis. A window can also be moved on a panel computer that cannot use a mouse.</p> 
Title Bar	<p>Select the data to be displayed on the title bar.</p> <ul style="list-style-type: none"> [Default] :Select this item to display the project name and the module number. After the selection, select items to be displayed. [Set the comment of GT SoftGOT1000 Commander for the title] :Select this item to display the comment set with GT SoftGOT1000 Commander. For how to set the comment, refer to the following. <p> 5.21.5 Management of GT SoftGOT1000 modules with the SoftGOT-GOT link function (GT SoftGOT1000 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.

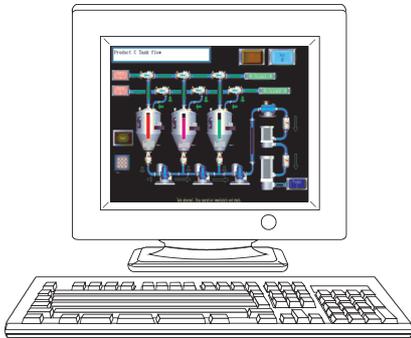
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Item	Description
Display dialog when changing to full screen mode.	Check this item to display the confirmation dialog box when full screen changes are carried out.
Display dialog when changing to back screen mode.	Check this item to display the confirmation dialog box when the screen is displayed behind the other screens.
Display dialog when disabling popup menu.	Check this item to display the confirmation dialog box when disabling popup menu.
Display a splash when starting GT SoftGOT1000.	Check the item to display the splash screen when GT SoftGOT1000 starts.
Display dialog when starting GT SoftGOT1000, specified with the module that has been activated.	Check this item to display the attention dialog box when restarting GT SoftGOT1000 module that has been activated.
Display dialog when closing GT SoftGOT1000.	Check this item to display the confirmation dialog box when ending GT SoftGOT1000.
Terminate GT SoftGOT1000 when shutting down Windows.	Check this item to end GT SoftGOT1000 as well as logging off or ending Windows.
Display dialog when using GOT Link.	Select this item to display the confirmation dialog box 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 box at the start of monitoring in the monitor-only mode.

For details of *1, refer to the following.

*1 Display Screen Size (Full Screen Mode)

When [Display Screen Size (Full Screen Mode)] is set to a smaller size than the size set for [Resolution] in the Environment Setup dialog box, the user can simultaneously use the full-screen GT SoftGOT1000 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 SoftGOT1000 to display the hidden part of the monitor screen.

(☞ 5.19 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 Version1 Screen Design Manual (Fundamentals)

3.6 Communication Setup

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

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.
2. The Communication Setup dialog box is displayed.
Set each item and click the button.

POINT

Communication Setup

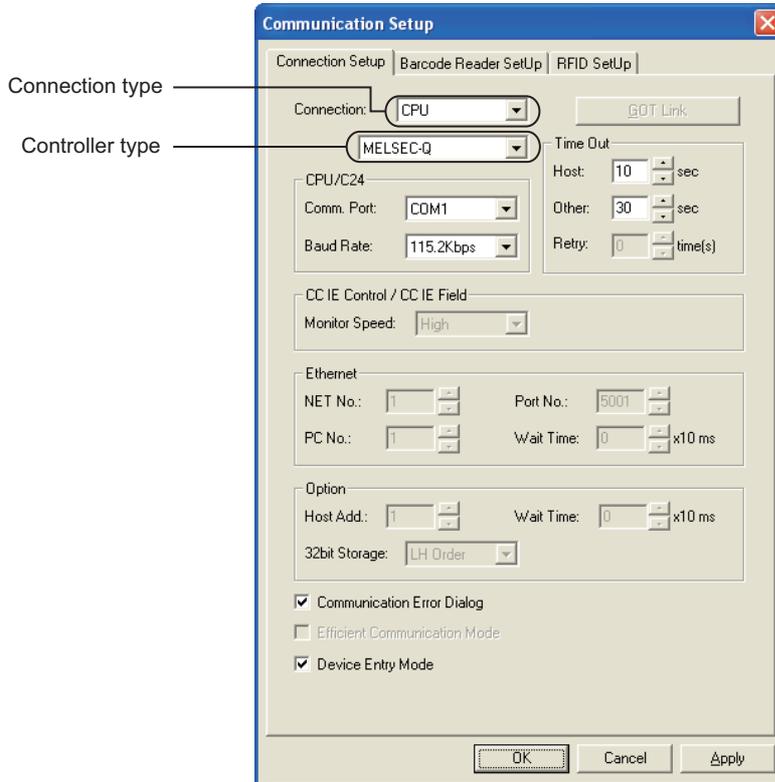
Make Communication Setup before starting monitoring.

After start of monitoring on GT SoftGOT1000, Communication Setup cannot be changed.

(The "Communication Error Dialog" setting can be changed during monitoring.)

3.6.1 Communication setup dialog box

■ Connection Setup tab



Item	Description
Connection	Set the connection method between GT SoftGOT1000 and a controller.
	<p>Connection type</p> <p>Select the connection type of GT SoftGOT1000.</p> <p>CPU : Select this option for direct connection to CPU via the RS-232 cable.</p> <p>USB : Select this option for direct connection to CPU via the USB cable.</p> <p>C24 : Select this option when computer link connection is used.</p> <p>NET/H : Select this option when using the MELSECNET/H interface board.</p> <p>Select [NET/H] when using the GT SoftGOT1000 in MELSECNET/10 mode.</p> <p>CC IE Control : Select this option when using the CC-Link IE Controller Network interface board.</p> <p>CC IE Field : Select this option when using the CC-Link IE Field Network interface board.</p> <p>Ethernet : Select this option when Ethernet connection is used.</p> <p>BUS : Select [BUS] when the bus connection is used.</p>
	<p>Controller type*1</p> <p>If [CPU]/[USB]/[C24]/[NET/H]/[CC IE Control]/[CC IE Field]/[Ethernet] is selected as the [connection method], specify the connection destination.</p> <p>When [CPU]/[USB] is selected : Selects the type of CPU to be connected.</p> <p>When [C24] is selected : Selects the type of computer link module or serial communication module to be connected.</p> <p>When [NET/H]/[CC IE Control]/[CC IE Field] is selected : Select the interface board mounted on the personal computer to be used.</p> <p>When [Ethernet] is selected : Select the model of a programmable controller to be connected.</p>
<p>GOT Link</p> <p>Click this button to display the [GOT Link Setup] dialog box.</p> <p>Clicking this button is available only when selecting [Ethernet] and [MELSEC]/[OMRON SYSMAC]/[GOT] for [Connection].</p> <p> ■GOT Link Setup dialog box</p>	

(Continued to next page)

Item	Description	
CPU/C24		Set this item when selecting [CPU] or [C24] for [Connection].
	Comm. port	Choose the communication port on the personal computer side. COM1 to COM6
	Baud rate	Set the transmission speed to/from the CPU. Set the baud rate to be used. When connecting a QnA/A series computer link, set the same baud rate as the one set in the computer link or serial communication module to be used. For connection with the FXCPU, select the baud rate supported by the connected FXCPU. 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 monitor. "3" to "90" (seconds)
	Other	Set the timeout period for other station monitor. According to the item selected in [Connection], the setting range varies. When [Ethernet] and [MELSEC] are selected: 1 to 90 (seconds) Other than the above: 3 to 90 (seconds)
	Retry	Set the number of retries. "0" to "10" (times)
CC IE Control/CC IE Field		Set this item when selecting [CC IE Control] or [CC IE Field] for [Connection].
	Monitor Speed	Set the monitor speed for CC-Link IE Controller Network or CC-Link IE Field Network. [High], [Normal], [Low]
Ethernet		Set this item when selecting [Ethernet] for [Connection].
	NET No.	Set the network number of GT SoftGOT1000. When [MELSEC]/[YASKAWA]/[YOKOGAWA]/[TOSHIBA nv]/[SIEMENS S7]/[SIEMENS OP]/[KEYENCE KV]/[MODBUS/TCP] is selected: 1 to 239 When [OMRON SYSMAC] is selected: 1 to 127 When [GOT] is selected: Not necessary
	PC No.	Set the station number of GT SoftGOT1000. The station number must be different from the PLC No. of the Ethernet module to be monitored. When [MELSEC] is selected: 1 to 120 When [YASKAWA]/[YOKOGAWA] is selected: 1 to 64 When [OMRON SYSMAC]/[TOSHIBA nv]/[SIEMENS S7]/[SIEMENS OP]/[KEYENCE KV] is selected: 1 to 254 When [MODBUS/TCP] is selected: 1 to 247 When [GOT] is selected: Not necessary
	Port No. ^{*2}	Set the port number of GT SoftGOT1000. When [MELSEC] is selected: 1024 to 65535 When [OMRON SYSMAC]/[YASKAWA]/[YOKOGAWA]/[TOSHIBA nv]/[SIEMENS S7]/[SIEMENS OP]/[KEYENCE KV]/[MODBUS/TCP] is selected: 1024 to 65534 (excluding 5011, 5012, 5013, 49153) When [GOT] is selected: Not necessary (Automatically detected)
	Wait Time	Set the transmission wait time to reduce the load on the network and target PLC. "0" to "10000" (x 10 ms)
Option		Set this item when selecting [CPU] and [YASKAWA] for [Connection].
	Host Add.	Specify the host address (the station number of a programmable controller to which connects GT SoftGOT1000) within the connection network. [1] to [31]
	Wait Time	Set the transmission time to reduce the loads of a network and a target programmable controller. [0] to [30] (x 10ms)
	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 box on GT SoftGOT1000 when a communication error occurs.

(Continued to next page)

Item	Description
Communication Effective Mode	Select this item to perform efficient readout of PLC devices data with GT SoftGOT1000. The communication performance may not improve depending on the usage environment and the setting of the project data. If the communication performance may not improve in the communication effective mode, it is already optimized in the condition where the communication effective mode is not used, and therefore do not use this function. This setting is available only when [Ethernet]-[MELSEC]/[GOT] is selected.
Device Entry Mode	Select this item to enable high-speed monitoring on GT SoftGOT1000. 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], or [USB] and [MELSEC-Q]/[MELSEC-L]/[MELSEC-FX] for [Connection].

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

For using the LJ72GF15-T2, select [MELSEC-L].

*2 For communication via the Ethernet port of the QnUD(V/EH)CPU, the port No. is automatically specified, regardless of the setting.

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)} series FX _{0N} series	Counter contact (C)	C224 to C239
		C240 to C255
	Special auxiliary relay (M)	M8240 to M8255
FX ₁ series	Timer contact (T)	T240 to T255
	Counter contact (C)	C128 to C143
		C224 to C239 C240 to C255
FX _{1S} series	Counter contact (C)	C224 to C239
FX _{1N} series	Counter contact (C)	C192 to C207
FX _{2(C)} series	Counter contact (C)	C192 to C207
FX _{2N(C)} series	Counter contact (C)	C192 to C207
FX _{3U(C)} series	Counter contact (C)	C192 to C207
FX _{3G(C)} series	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.

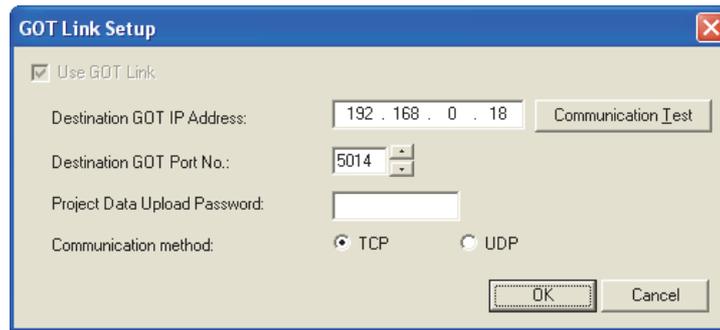
Create the project data so that any offset will not operate for the devices above.

(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.

(1) GOT Link Setup dialog box

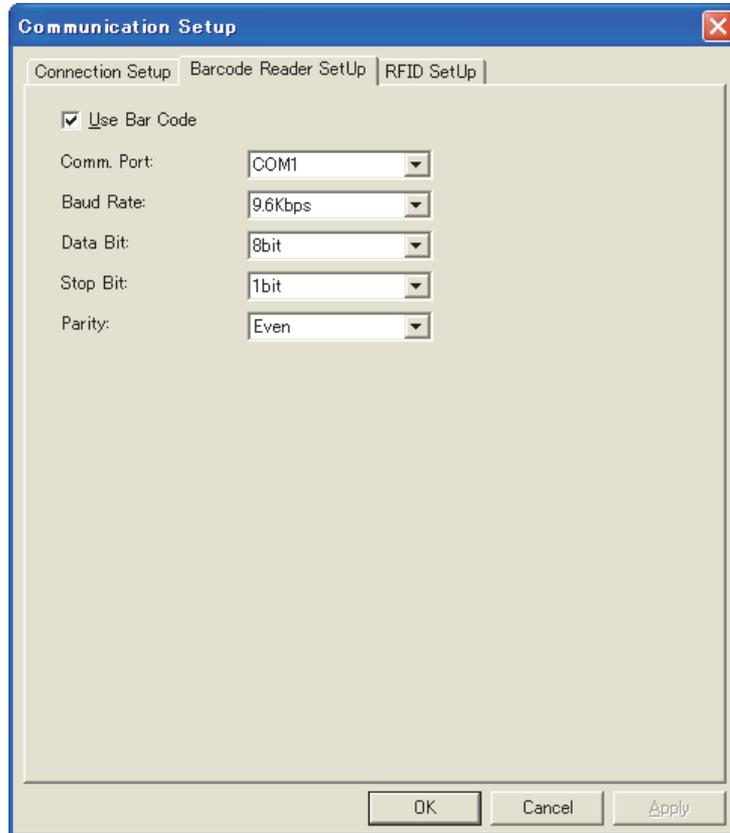


Item	Description
Use GOT Link	Select this item to use the SoftGOT-GOT link function. For the SoftGOT-GOT link function, refer to the following.  5.21 SoftGOT-GOT Link Function
Destination GOT IP Address	Set the IP address of the GOT. Click the [Communication Test] button to execute the communication test with the GOT.
Destination GOT Port No.	Set the port No. of the GOT.
Project Data Upload Password	The password setting when reading project data from the GOT is available. (Up to 8 one-byte alphanumeric characters can be set for a password.) With the password setting, an authentication is automatically executed when reading project data from the GOT.
Communication method	Set the communication method. This setting is available only when [Ethernet]-[GOT] is selected.

Barcode Reader SetUp tab

Set those items when executing the barcode reader connection.
For details of the barcode reader connection, refer to the following.

 4.16 Barcode Reader Connection



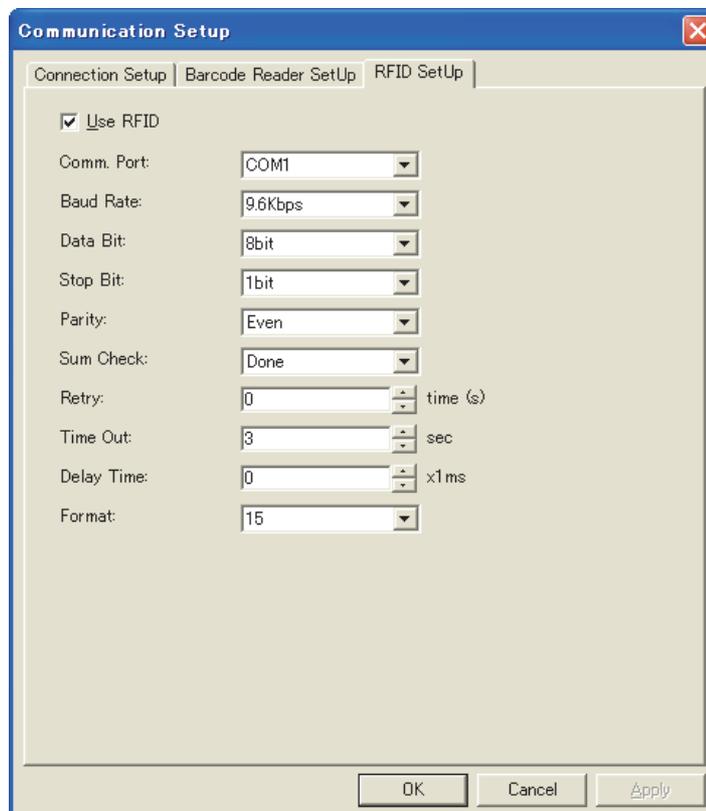
Item	Description
Use Bar Code	Select this item to use the barcode reader connection.
Comm. Port	Choose the communication port on the personal computer side. (COM1 to COM16) When multiple GT SoftGOT1000 modules using barcode reader connection are started, specify a different communication port for each GT SoftGOT1000 module.
Baud Rate	Select the transmission speed. (4.8Kbps/9.6Kbps/19.2Kbps/38.4Kbps/57.6Kbps/115.2Kbps)
Data Bit	Select the data length. (7bit/8bit)
Stop Bit	Select the stop bit length. (1bit/2bit)
Parity	Select the type to check parity. (None/Even/Odd)

RFID SetUp tab

Set those items when executing the RFID connection.

For details of the RFID connection, refer to the following.

 4.17 RFID Connection



Item	Description
Use RFID	Select this item to use the RFID connection.
Comm. Port	Choose the communication port on the personal computer side. (COM1 to COM16) When multiple GT SoftGOT1000 modules using RFID connection are started, specify a different communication port for each GT SoftGOT1000 module.
Baud Rate	Select the transmission speed. (4.8Kbps/9.6Kbps/19.2Kbps/38.4Kbps/57.6Kbps/115.2Kbps)
Data Bit	Select the data length. (7bit/8bit)
Stop Bit	Select the stop bit length. (1bit/2bit)
Parity	Select the type to check parity. (None/Even/Odd)
Sum Check	Select whether to perform sum check. (Done/None)
Retry	Set the number of retries to be performed when a communication error occurs. When receiving no response after retries, the communication times out. (0 to 5 times)
Time Out	Set the time required for communication to time out. (3 to 30sec)
Delay Time	Set the delay time to lower the load of the network/connected PLC. (0 to 3000ms)
Format	Select the communication format. (10/11/12/15) 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.) Format15: Nonprocedural protocol

3.7 Opening the Project

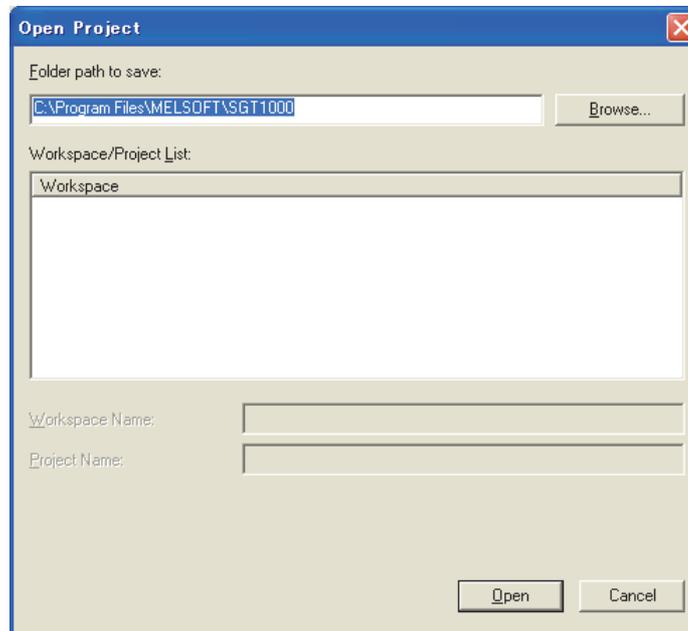
Set a project and start monitoring the project.

A GT Designer3 project, a single file format project, or a GT Designer2 file can be set.

- GT Designer3 project Project data created with GT Designer3
- A single file format project (*.GTW) of GT Designer3 ... Compressed project data created with GT Designer3
- GT Designer2 file (*.GTE) Project data created with GT Designer2

3.7.1 Open the GT Designer3 Project

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

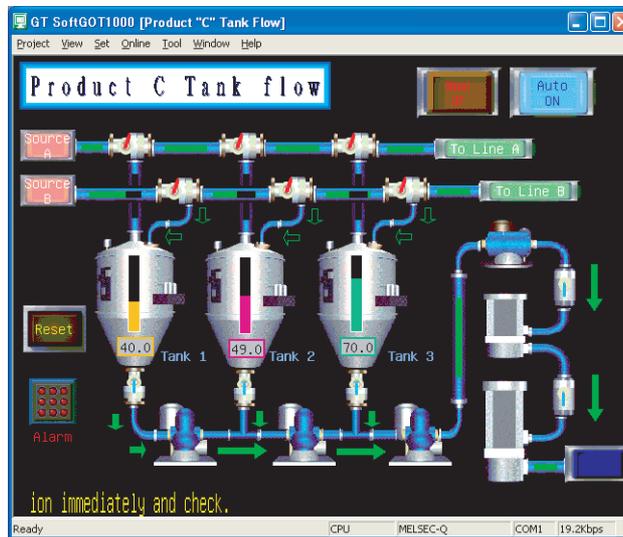


Item	Description
Folder path to save	Enter the path of the location where the workspace is stored. The save destination path can be set by the [Browse] button also. Up to 200 characters can be entered.
Workspace/Project List	Displays the workspace or project existing in the same path entered for [Folder 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].

- Confirmation dialog box is displayed. (The dialogue box is not displayed if GT SoftGOT1000 is already in online mode.)

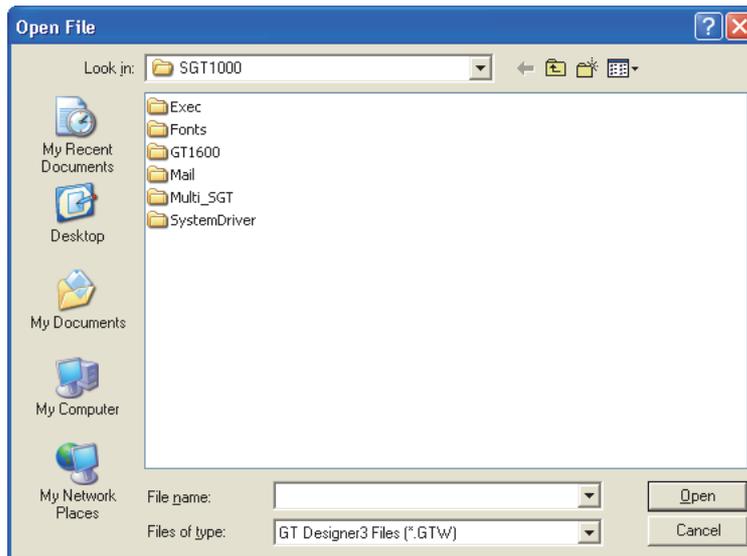


- Selecting Yes starts monitoring of the project monitored previously. (Displays the Utility when opening a project for the first time.)
Turn off the power supply to the PLC or disconnect the communication cable that connects the personal computer and PLC in advance if it is not desired to go into online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



3.7.2 Open a single file format project of GT Designer3/GT Designer2 file

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.
2. The Open a file. dialog box is displayed.
Set up the following items and click the **Open** button.

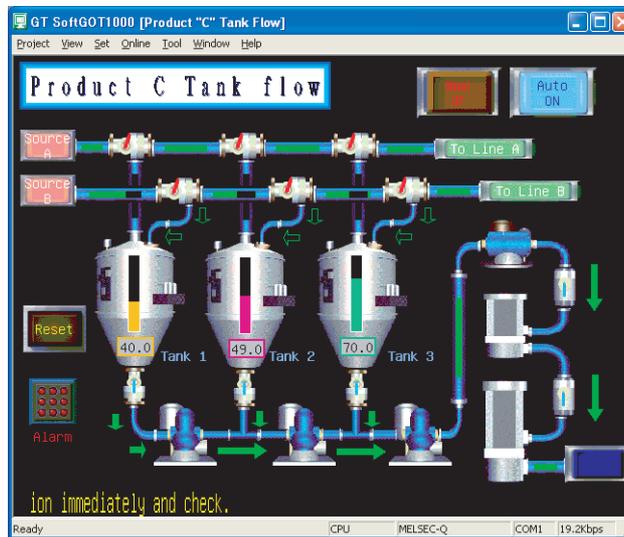


Item	Description
Look in	Selects the area where the project data is saved.
File name	Sets project data name for monitoring.
Files of type	Selects a file format of the project data. GT Designer3 file(*.GTW): GTW format GT Designer2 file(*.GTE): GTE format

- Confirmation dialog box is displayed. (The dialogue box is not displayed if GT SoftGOT1000 is already in online mode.)



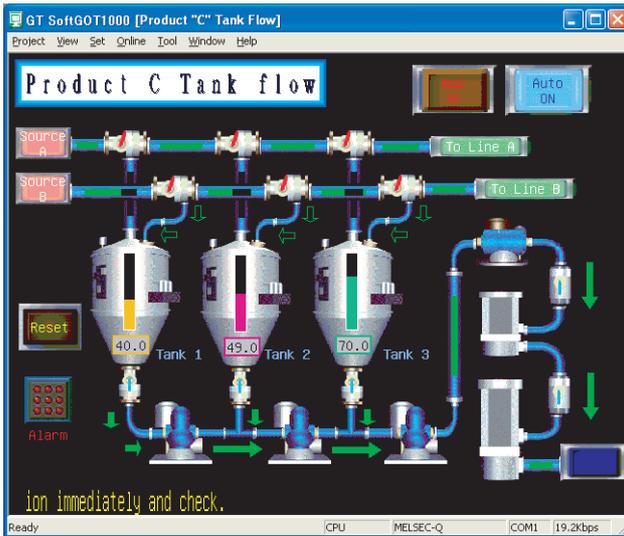
- Selecting Yes starts monitoring of the project monitored previously. (Displays the Utility when opening a project for the first time.)
Turn off the power supply to the PLC or disconnect the communication cable that connects the personal computer and PLC in advance if it is not desired to go into online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



3.8 Starting Monitoring

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

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.
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.

 3.7 Opening the Project

When performing a monitoring for the first time, performing the operation shown in this section causes GT SoftGOT1000 to display the Utility.

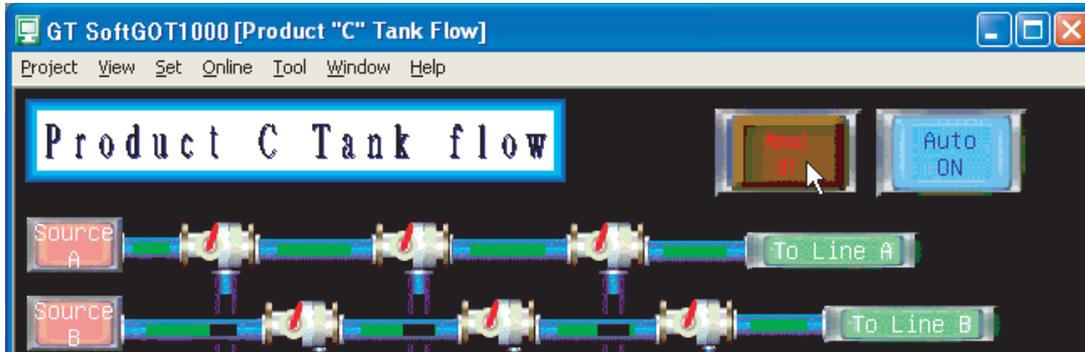
(2) When project data has been changed after previous monitoring

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

 3.7 Opening the Project

3.9 Monitoring Operation

On GT SoftGOT1000, 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.



3.10 Monitor Stop

This section describes how to stop a monitoring.

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]



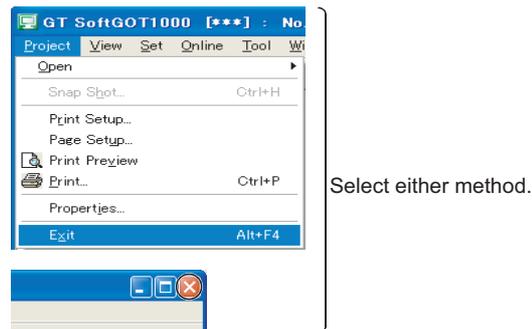
Select either method.

2. The monitoring stops.

3.11 Exiting from GT SoftGOT1000

This section describes how to exit from GT SoftGOT1000.

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.
2. GT SoftGOT1000 is exited.



POINT

Exiting with GOT internal device

Turn ON the GOT internal device (system data area of GT SoftGOT1000: GS500.b0) to exit from GT SoftGOT1000.

Presetting the above device as a touch key enables to exit from GT SoftGOT1000 without selecting the menu. (GT SoftGOT1000 may not be terminated if device ON time is too short. Keep the device ON until GT SoftGOT1000 is terminated.)

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

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

3.12 Automatic Startup

The following explains how to start up GT SoftGOT1000 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.

3.12.1 Automatic startup settings

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

1. After starting up GT SoftGOT1000, the project data for which the monitoring should be automatically started up is read out and monitored by GT SoftGOT1000.
2. Choose any of the following.
 - [Online] -> [Startup in Online Mode]
 - [Startup in Online Mode] by right-clicking the mouse
3. Close GT SoftGOT1000.
4. Start Task Scheduler.
For how to start Task Scheduler, refer to Windows Help.
5. Select [Create Task] from [Actions] in [Task Scheduler].
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].
7. On the [Triggers] tab, click the [New] button and configure the following settings.
 - Select [At log on] for [Begin the task].
 - Select [Delay task for], and set [30 seconds]. (According to the personal computer environment, set the optimum time.)
 - Select [Enabled].
8. On the [Actions] tab, click [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.

 5.10.1 Startup procedure

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)
10. Click the [OK] button to complete the settings.

3.13 Help

Using Help allows viewing of the GT SoftGOT1000 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.

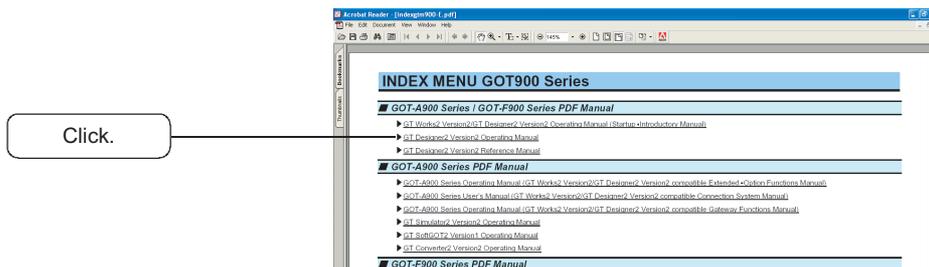
Operating method

1. Click an item within [Help].

Item	Description
Index	Displays the PDF manual list.
Connection to MITSUBISHI ELECTRIC FA Global Website...	Connects to the MITSUBISHI ELECTRIC FA Global Website.
About GT SoftGOT1000...	Used to check the GT SoftGOT1000 version.

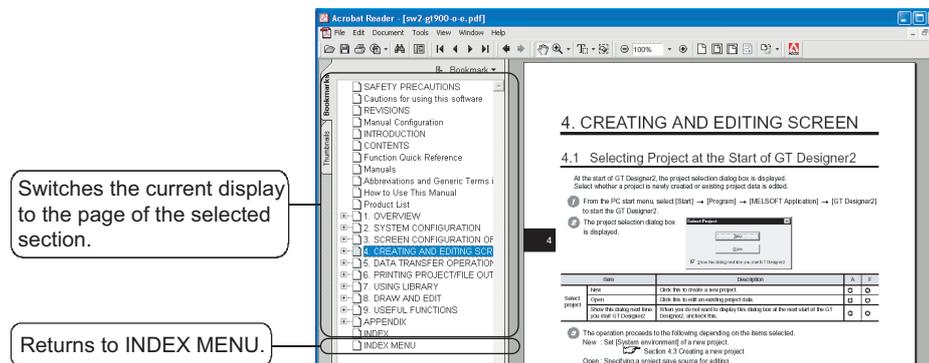
Viewing a PDF manual (When [Index] is selected)

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



* The illustration above is given as an example and different from the actual page.

2. The selected manual is displayed. (For details of the Adobe® Reader® operating method, refer to Help of Adobe® Reader®.)



* The illustration above is given as an example and different from the actual page.

■ **Confirming GT SoftGOT1000 version (When [About GT SoftGOT1000...] is selected)**

1. After operation in [Help]->[About GT SoftGOT1000...], the screen about GT SoftGOT1000 is displayed.



(Example: For Version 3.40S)

Item	Description
GT SoftGOT1000	Displays GT SoftGOT1000 version.
Name	Displays the name entered during GT SoftGOT1000 installation.
Company	Displays the company name entered during GT SoftGOT1000 installation.
OK	Closes the About GT SoftGOT1000 screen.

CONNECTION BETWEEN GT SoftGOT1000 AND DEVICES

4. CONNECTION	4 - 1
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4. CONNECTION

4.1 Controller that can be Monitored and the Accessible Range

4.1.1 Controller that allows monitoring

The controllers that can be monitored by the GT SoftGOT1000 are indicated below.

(1) MELSEC PLC

Item		Type					
RCPU		R04CPU, R08PCPU, R08SFCPU, R04ENCPU,	R08CPU, R16PCPU, R16SFCPU, R08ENCPU,	R16CPU, R32PCPU, R32SFCPU, R16ENCPU,	R32CPU, R120PCPU, R120SFCPU, R32ENCPU,	R120CPU, R120ENCPU	
	QCPU(Q mode)	Q00JCPU, Q06HCPU, Q12PHCPU, Q00UCPU* ¹ , Q06UDHCPU* ¹ , Q03UDECPU, Q20UDEHCPU, Q04UDVCPU,	Q00CPU* ¹ , Q12HCPU, Q25PHCPU, Q01UCPU* ¹ , Q10UDHCPU* ¹ , Q04UDEHCPU, Q26UDEHCPU, Q06UDVCPU,	Q01CPU* ¹ , Q25HCPU, Q12PRHCPU, Q02UCPU* ¹ , Q13UDHCPU* ¹ , Q06UDEHCPU, Q50UDEHCPU, Q13UDVCPU,	Q02CPU, Q02PHCPU, Q25PRHCPU, Q03UDCPU* ¹ , Q20UDHCPU* ¹ , Q10UDEHCPU, Q100UDEHCPU, Q26UDVCPU	Q02HCPU, Q06PHCPU, Q00UJCPU* ¹ , Q04UDHCPU* ¹ , Q26UDHCPU* ¹ , Q13UDEHCPU, Q03UDVCPU	
	QCPU(A mode)	Q02CPU-A, Q02HCPU-A,	Q06HCPU-A				
C controller	MELSEC IQ-R series	R12CCPU-V					
	Q series	Q12DCCPU-V, Q24DHCCPU-V,	Q24DHCCPU-VG,	Q24DHCCPU-LS,	Q26DHCCPU-LS		
QSCPU		QS001CPU					
LCPU		L02CPU, L06CPU-P,	L06CPU, L26CPU-P,	L26CPU, L26CPU-PBT,	L26CPU-BT, L02SCPU,	L02CPU-P, L02SCPU-P	
QnACPU	QnACPU Type	Q2ACPU, Q2ASCPU,	Q2ACPU-S1, Q2ASCPU-S1,	Q3ACPU, Q2ASHCPU,	Q4ACPU, Q2ASHCPU-S1	Q4ARCPU	
	QnASCPU Type						
ACPU	AnCPU Type	AnUCPU	A2UCPU, A2UCPU-S1,	A3UCPU, A3ACPU,	A4UCPU, A3ACPU-P21,	A4UCPU, A3ACPU-P21	
		AnACPU	A2ACPU, A2ACPU-P21-S1,	A2ACPU-P21, A3ACPU,	A2ACPU-S1, A3ACPU-P21,	A2ACPU-S1, A2ACPU-P21-S1,	
		AnNCPUP	A1NCPUP, A2NCPUP21, A3NCPUP21,	A1NCPUP21, A2NCPUP-S1, A3NCPUP21,	A1NCPUP21, A2NCPUP21-S1,	A2NCPUP, A2NCPUP21-S1,	A2NCPUP21, A3NCPUP,
	AnSCPU Type	AnUS(H)CPU	A2USCPU, A1SCPU, A2SHCPU-S1,	A2USCPU-S1, A1SHCPU, A1SCPU-S1,	A2USHCPU-S1, A2SCPU, A1SCPU-S1,	A2SCPU-S1, A2SHCPU,	
		AnS(H)CPU	A1SJ(H)CPU	A1SJCPU-S3,	A1SJHCPU		
		A1FXCPU	A1FXCPU				
			A0J2HCPU, A2CCPUC24, A2CJCPU-S3	A0J2HCPU-DC24, A2CCPUC24-PRF,	A0J2HCPUP21, A2CCPUP21,	A0J2HCPUR21, A2CCPUR21,	A2CCPU, A2CJCPU,
MELSEC IQ-F		FX _{5U} , FX ₀ Series, FX ₁ Series, FX ₂ Series, FX _{3G} Series,	FX _{5C} , FX _{0S} Series, FX _{1S} Series, FX _{2C} Series, FX _{3GC} Series,	FX _{0N} Series, FX _{1N} Series, FX _{2N} Series, FX _{3U} Series,	FX _{1NC} Series, FX _{2NC} Series, FX _{3UC} Series,	FX _{3S} Series	
MELSECNET/H remote I/O station		QJ72LP25-25, QJ72LP25G,	QJ72BR15				

(Continued to next page)

Item	Type	
CC-Link IE Field Network head module	LJ72GF15-T2	
CC-Link IE Field Network Ethernet adapter module	NZ2GF-ETB	
Motion controller CPU	MELSEC iQ-R Series	R16MTCPU, R32MTCPU
	Q Series	Q170MTCPU, Q170MSCPU, Q170MSCPU-S1
	A Series	A273UHCPU, A273UHCPU-S3, A171SHCPU, A172SHCPU, A173UHCPU, A173UHCPU-S1

*1 The serial communication function is not supported.

(2) Other PLC

Item	Type	
OMRON PLC	SYSMAC CQM1H	CQM1H
	SYSMAC CJ1	CJ1H, CJ1G, CJ1M
	SYSMAC CJ2	CJ2H(-EIP), CJ2M
	SYSMAC CPM	CPM2A
	SYSMAC CP1	CP1E
	SYSMAC α	C200HX, C200HG, C200HE
	SYSMAC CS1	CS1H, CS1G, CS1D
	SYSMAC CVM1/CV	CV500, CV1000, CV2000 CVM1-CPU01, CVM1-CPU11, CVM1-CPU21, CQM1
KEYENCE PLC	KV-700, KV-1000, KV-3000, KV-5000, KV-5500	
TOSHIBA PLC	Unified Controller nv series type1 Controller (PU811)	
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	
YOKOGAWA PLC	FA-M3	F3SP05, F3SP08, F3FP36, F3SP21, F3SP25, F3SP35, F3SP28, F3SP38, F3SP53, F3SP58, F3SP59, F3SP66, F3SP67, F3SP71-4N
	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) Barcode reader

Item	Type
Barcode reader	For connectable barcode readers and system equipment, refer to the following Technical News.  List of valid devices applicable for GOT1000 series (GOT-A-0010) For Technical News, contact your local distributor.

(6) RFID controller

Item	Type
RFID controller	For connectable RFID controllers and system equipment, refer to the following Technical bulletin.  List of valid devices applicable for GOT1000 series (GOT-A-0010) For Technical News, contact your local distributor.

4.1.2 Monitorable controllers

○ : Applicable × : Inapplicable

Controller monitored		Bus connection	CPU direct connection		Computer link 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		×	×	○	○	○ ^{*18*30}	×	×	×	×	○ ^{*31}	○ ^{*32}
LCPU		×	○ ^{*22}	○	○	○	×	×	×	×	×	○
QCPU (Q mode)	Other than redundant system ^{*12}	○ ^{*16}	○ ^{*17}	○ ^{*15}	○	○ ^{*18}	×	×	○ ^{*3}	○ ^{*3}	○	○ ^{*25}
	Redundant system (Main base unit)	×	○	○	×	○	×	×	○ ^{*2*3*14}	○ ^{*2*3}	○	×
	Redundant system (Extension base unit)	×	×	×	○	○	×	×	×	×	×	×
QCPU (A mode)		×	○	×	○	○	×	×	×	○	×	×
C controller	MELSEC iQ-R series	×	×	○ ^{*29}	○	○	×	×	×	×	○	○
	Q series	×	○	○	○	○	×	×	○	○	○	○
QSCPU		×	○	○	×	○	×	×	○	○	○	○
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}	×	○	○	○	○	×	×	○	○	○	○
	A series ^{*1}	×	○ ^{*7*8}	×	○ ^{*8*13}	○ ^{*8}	×	×	×	○ ^{*8}	×	×
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}	×	×	○ ^{*21*27}	×	×	×	×	×	×
KEYENCE PLC		×	×	×	×	○	×	×	×	×	×	×
TOSHIBA PLC		×	×	×	×	○	×	×	×	×	×	×

(Continued to next page)

Controller monitored		Bus connection	CPU direct connection		Computer link 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		
YASKAWA PLC		×	○	×	○	○	×	×	×	×	×	×
YOKOGAWA PLC		×	×	×	×	○	×	○*24	×	×	×	×
SIEMENS PLC		×	×	×	×	○	×	×	×	×	×	×
CNC	CNC C70	×	○	○	○	○	×	×	○	○	○	○
	MELDAS C6/C64	×	○*11	×	×	○*11	×	×	×	×	×	×
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 PLC CPU or MELSECNET/H network module of 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 SoftGT1000, 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 Only the FX3G series and FX3GC 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 A2SCPU, A2SHCPU, A1SHCPU, A1SJHCPU, A0J2HCPU, or A171SHCPU, use the software version U or later of the computer link module.
- *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, 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 and Q26UDVCPU
- *16 Applicable only with the PC CPU module
- *17 Because the Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU, Q04UDPVCPU, Q06UDPVCPU, Q13UDPVCPU and Q26UDPVCPU, have no serial interface, the direct CPU connection using the serial connection is not available.
- *18 For connection to any of the following CPUs, connect the GOT to the Ethernet interface of a target 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 Q170MCP, Q170MSCPU, and Q170MSCPU-S1 can be monitored. 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.

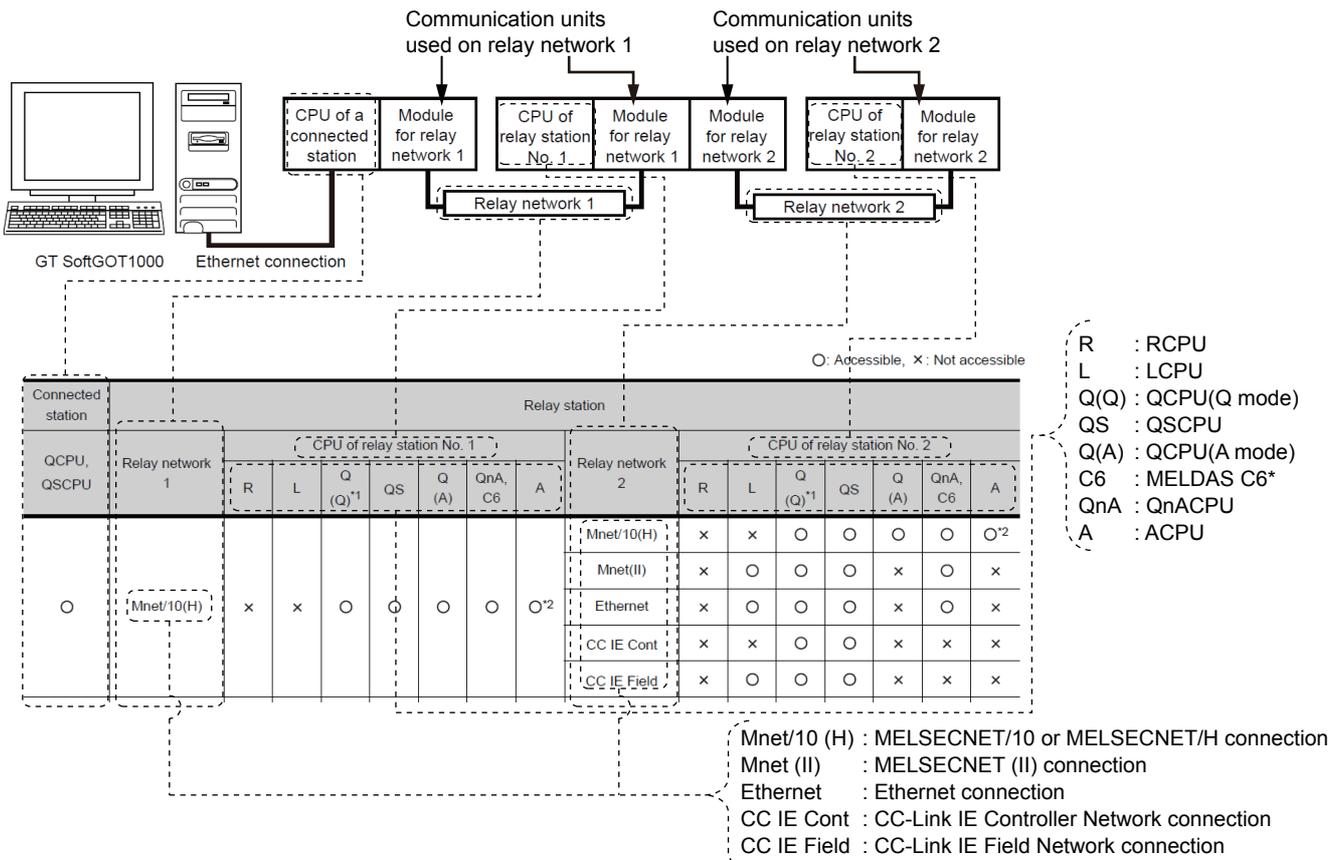
- *22 The adapter L6ADP-R2 is required for the RS-232 connection of the following PLCs.
L02CPU, L06CPU, L26CPU, L02CPU-P, L06CPU-P, L26CPU-P, L26CPU-PBT
- *23 The GOT cannot monitor the host station.
- *24 Only STARDOM can be connected.
- *25 Compatible with only the universal model QCPU.
- *26 The Ethernet connection of robot controller can be established only via the Ethernet module (QJ71E71) or Built-in Ethernet port of QnUDE, QnUDV and QnUDPV.
- *27 Not compatible with the redundant Ethernet.
- *28 Only CJ2M-CPU1□ supports the direct CPU connection.
- *29 This controller has no USB port for connecting a personal computer. Monitor the controller via an RCPV in the multiple CPU system.
- *30 For R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, and R120ENCPU, the built-in Ethernet port CPUs (CPU P1, and P1) and RJ71EN71 can be used.
- *31 For R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, and R120ENCPU, use RJ71GP21-SX.
- *32 For R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, and R120ENCPU, the built-in Ethernet port CPUs (P1 and P2), RJ71EN71, RJ71GF11-T2, RD77GF4, RD77GF8, and RD77GF16 can be used.

4.1.3 Access range

This section explains the access range by connection type.

- ☞ ■ Ethernet connection
- Direct CPU connection/computer link connection
- Bus connection
- MELSECNET/H connection, MELSECNET/10 connection
- CC-Link IE Controller Network connection
- CC-Link IE Field Network connection

The following explains how to refer to the illustrations and tables described in this section.



Ethernet connection

The following shows the access range via the connected station in a configuration in which GT SoftGOT1000 and a station are connected by Ethernet.

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 following.

4.8 Ethernet Connection

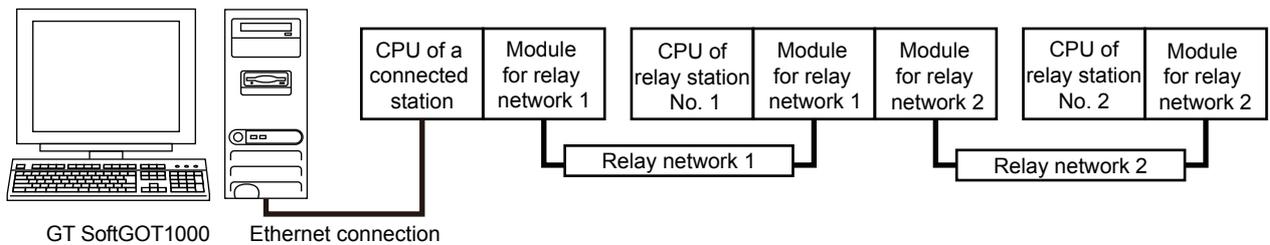
(2) Monitoring the devices of other stations on the network

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.

4.1.3 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* ²	Q (A)	QnA		A	R	L	Q (Q)	QS* ²	Q (A)	QnA	A
○	Ethernet	Mnet/10(H) ^{*4}	×	×	○	○	×	×	×	Mnet/10(H) ^{*4}	×	×	○	○	×	×	×
		Ethernet	○	○	○	○	×	×	×	Ethernet	○	○	○	○	×	×	×
		CC IE Cont ^{*3}	○	×	○	○	×	×	×	CC IE Cont ^{*3}	○	×	○	○	×	×	×
		CC IE Field	○	○	○ ^{*1}	○	×	×	×	CC IE Field	○	○	○ ^{*1}	○	×	×	×
○	CC IE Cont	Mnet/10(H) ^{*4}	×	×	○	○	×	×	×	Mnet/10(H) ^{*4}	×	×	○	○	×	×	×
		Ethernet	○	○	○	○	×	×	×	Ethernet	○	○	○	○	×	×	×
		CC IE Cont ^{*3}	○	×	○	○	×	×	×	CC IE Cont ^{*3}	○	×	○	○	×	×	×
		CC IE Field	○	○	○ ^{*1}	○	×	×	×	CC IE Field	○	○	○ ^{*1}	○	×	×	×
○	CC IE Field	Mnet/10(H) ^{*4}	×	×	○	○	×	×	×	Mnet/10(H) ^{*4}	×	×	○	○	×	×	×
		Ethernet	○	○	○	○	×	×	×	Ethernet	○	○	○	○	×	×	×
		CC IE Cont ^{*3}	○	×	○	○	×	×	×	CC IE Cont ^{*3}	○	×	○	○	×	×	×
		CC IE Field	○	○	○ ^{*1}	○	×	×	×	CC IE Field	○	○	○ ^{*1}	○	×	×	×

*1 Only Universal model QCPU is 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.

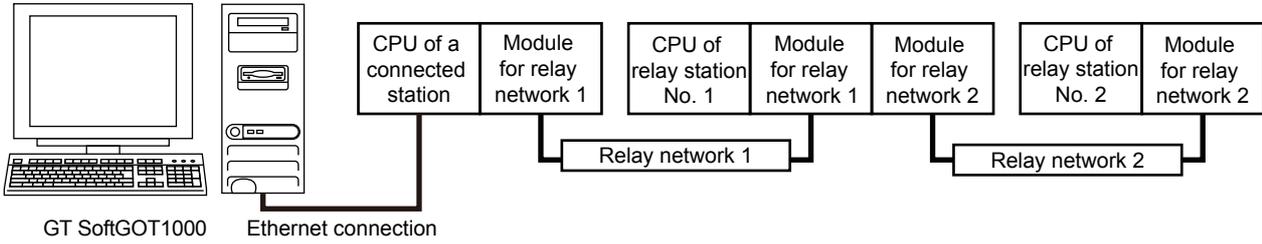
*3 This network is inaccessible only when the CPU of relay station No. 1 is an LCPU.

*4 This network is inaccessible when the CPU of relay station No. 1 is an RCPU or LCPU.

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

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

4.1.3 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) ^{*2}	QS	Q (A)	QnA	A	R		L	Q (Q) ^{*2}	QS	Q (A)	QnA	A	
○	Mnet/10(H)	×	×	○	○	○	○	○ ^{*3}	Mnet/10(H)	×	×	○	○	○	○	○ ^{*3}
		×	×	○	○	×	○	×	Ethernet	×	○	○	○	×	○	×
		×	×	○	○	×	×	×	CC IE Cont	×	×	○	○	×	×	×
		×	○	○	○	×	×	×	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 Q170MCPU and Q170MSCPU.

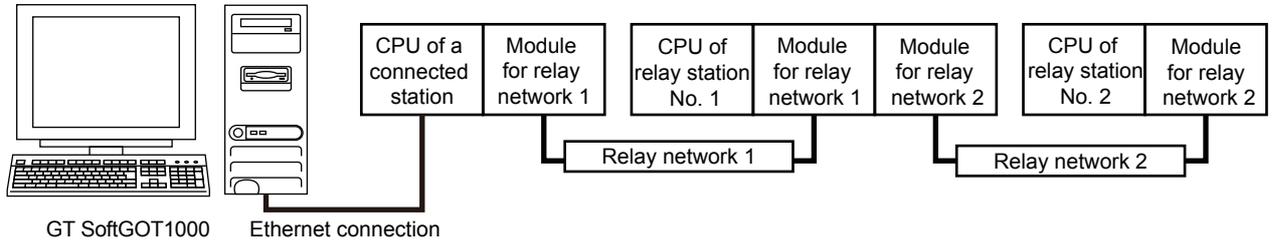
*2 CNC C70 on other networks cannot be monitored.

*3 AnNCPUs 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.

4.1.3 Access range



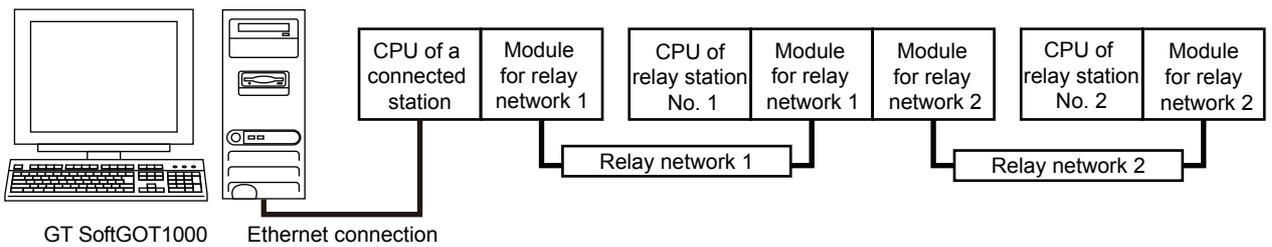
○: Accessible, ×: Not accessible

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
○	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.

4.1.3 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 ^{*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)

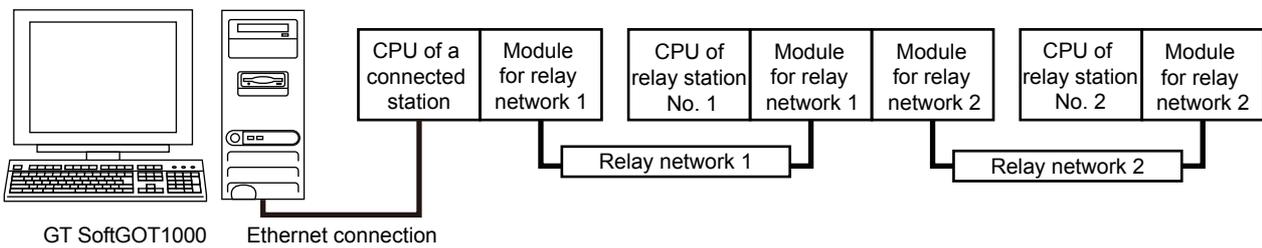
Only the connected station can be accessed.

(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.

4.1.3 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	
×	CC IE Field	×	○	○	○	×	×	×	CC IE Field	×	○	○	○	×	×	×

POINT

(1) Host in the Ethernet connection

While the GT SoftGOT1000 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 SoftGOT1000 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 by GT Designer3, refer to the following.

4.8 Ethernet Connection

Direct CPU connection/computer link connection

The following shows the access range via the connected station in a configuration in which GT SoftGOT1000 and a station are connected by direct CPU connection or serial communication.

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

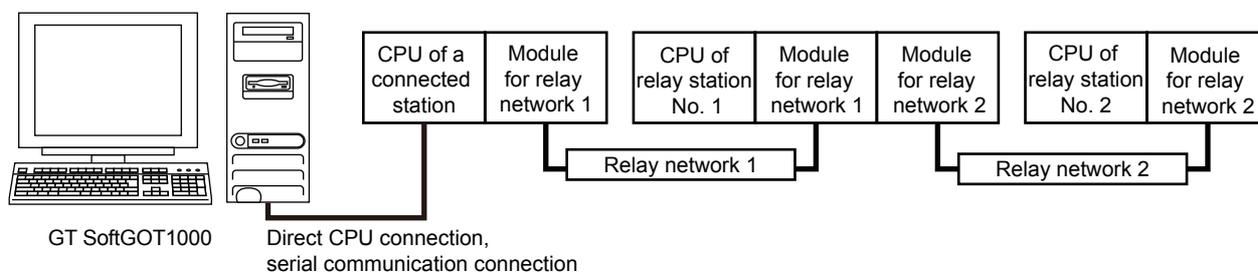
Monitoring devices, such as D and M, of a station on another network slows the display processing.

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.

4.1.3 Access range



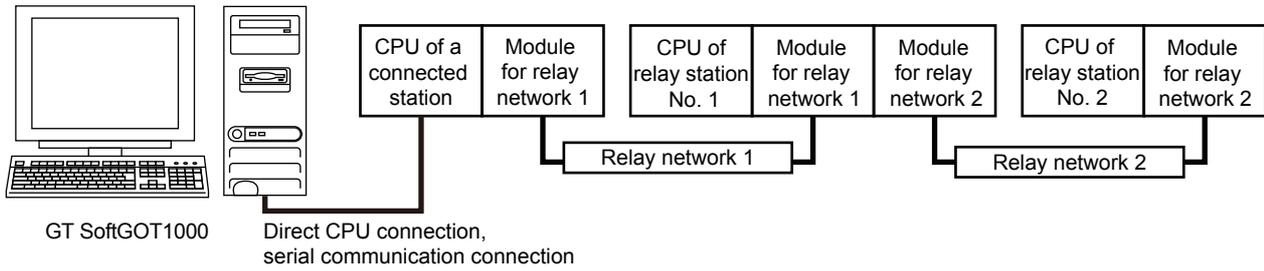
○: Accessible, ×: Not accessible

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.

4.1.3 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 ^{*3}		R	L	Q (Q)	QS	Q (A)	QnA	A ^{*3}	
○ ^{*2}	Mnet/10(H)	Mnet/10(H)	×	×	○	○	○	○	○	Mnet/10(H)	×	×	○	○	○	○	○
		Ethernet	×	○	○	○	×	○	×	Ethernet	×	○	○	○	×	○	×
		CC IE Cont	×	×	○	○	×	×	×	CC IE Cont	×	×	○	○	×	×	×
		CC IE Field	×	○	○ ^{*1}	×	×	×	×	CC IE Field	×	○	○ ^{*1}	×	×	×	×
○ ^{*2}	Ethernet	Mnet/10(H)	×	×	○	○	×	○	×	Mnet/10(H)	×	×	○	○	○	○	○
		Ethernet	×	○	○	○	×	○	×	Ethernet	×	○	○	○	×	○	×
		CC IE Cont	×	×	○	○	×	×	×	CC IE Cont	×	×	○	○	×	×	×
		CC IE Field	×	○	○ ^{*1}	×	×	×	×	CC IE Field	×	○	○ ^{*1}	×	×	×	×
○ ^{*2}	CC IE Cont	Mnet/10(H)	×	×	○	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
		Ethernet	×	○	○	○	×	○	×	Ethernet	×	○	○	○	×	×	×
		CC IE Cont	×	×	○	○	×	×	×	CC IE Cont	×	×	○	○	×	×	×
		CC IE Field	×	○	○ ^{*1}	×	×	×	×	CC IE Field	×	○	○ ^{*1}	×	×	×	×
○ ^{*2}	CC IE Field	Mnet/10(H)	×	×	○	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
		Ethernet	×	○	○ ^{*1}	○	×	×	×	Ethernet	×	○	○	○	×	×	×
		CC IE Cont	×	×	○	○	×	×	×	CC IE Cont	×	×	○	○	×	×	×
		CC IE Field	×	○	○ ^{*1}	×	×	×	×	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.

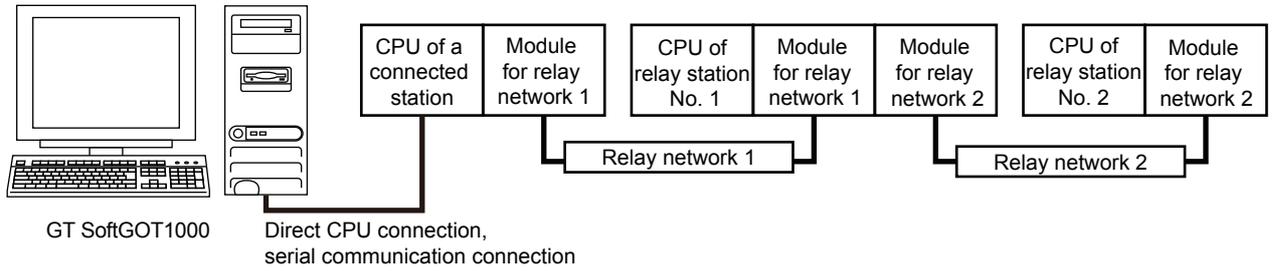
○: Accessible, ×: Not accessible, ▲: Accessible when the connected station is a control station

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

(3) Connecting with LCP

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

4.1.3 Access range



○: Accessible, ×: Not accessible

Connected station	Relay station																
	LCP	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) ^{*2}	×	×	○	○	×	×	×	Mnet/10(H) ^{*2}	×	×	○	○	×	×	×
		Ethernet	×	○	○	○	×	×	×	Ethernet	×	○	○	○	×	×	×
		CC IE Cont ^{*2}	×	×	○	○	×	×	×	CC IE Cont ^{*2}	×	×	○	○	×	×	×
		CC IE Field	×	○	○ ^{*1}	×	×	×	×	CC IE Field	×	○	○ ^{*1}	×	×	×	×
○	CC IE Field	Mnet/10(H) ^{*2}	×	×	○	○	×	×	×	Mnet/10(H) ^{*2}	×	×	○	○	×	×	×
		Ethernet	×	○	○	○	×	×	×	Ethernet	×	○	○	○	×	×	×
		CC IE Cont ^{*2}	×	×	○	○	×	×	×	CC IE Cont ^{*2}	×	×	○	○	×	×	×
		CC IE Field	×	○	○ ^{*1}	×	×	×	×	CC IE Field	×	○	○ ^{*1}	×	×	×	×

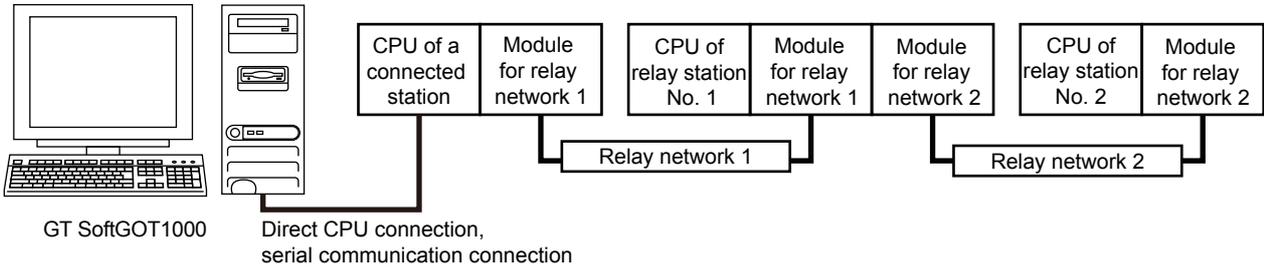
*1 Only Universal model QCPU is applicable.

*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.

4.1.3 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 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.

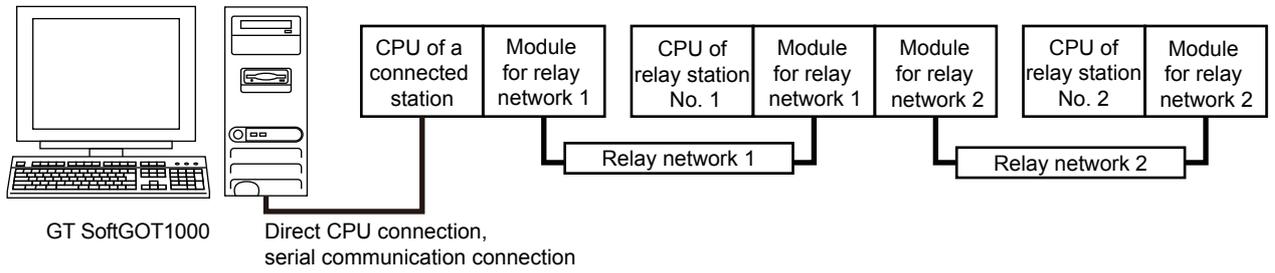
4.1.6 Access range of the data link system (MELSECNET/B, (II))

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.

4.1.3 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.

4.1.6 Access range of 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 SoftGOT1000 can monitor the PLC CPU of the master station.

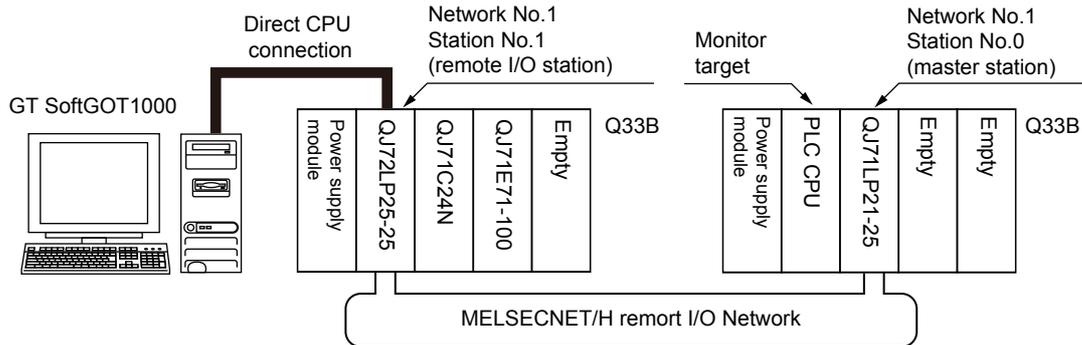
When connecting the GT SoftGOT1000 to the remote I/O station, use the following connection methods.

POINT

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

The GT SoftGOT1000 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 SoftGOT1000 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 SoftGOT1000 to the RS-232C interface of the network unit.

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

☞ 4.6.2 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 box.

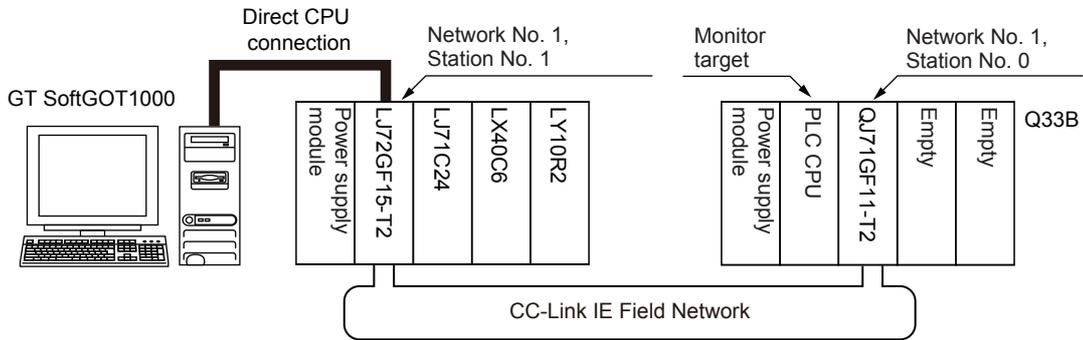
The GT SoftGOT1000 monitors stations on the MELSECNET/H network with the transient transmission. Therefore, a longer time-lag occurs for displaying objects compared with directly monitoring the PLC CPU. For displaying objects with a shorter time-lag, execute the cyclic transmission so that the GT SoftGOT1000 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 system

When connected to the head module of the CC-Link IE Field Network system, the GT SoftGOT1000 can monitor the PLC CPU of the master station and local stations.

When connecting the GT SoftGOT1000 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.

 4.6.2 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 box.

The GT SoftGOT1000 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 SoftGOT1000 can monitor link devices B and W of the host station set in the CC-Link IE Field Network.

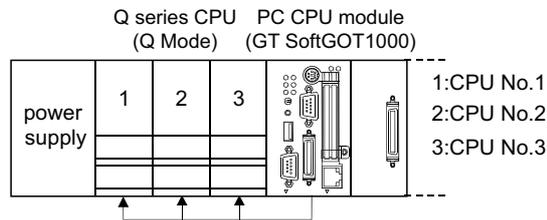
For the settings required for the PLC CPU, refer to the following.

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

■ 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, 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.

■ MELSECNET/H connection, MELSECNET/10 connection

The following shows the access range via the connected station in a configuration in which GT SoftGOT1000 and a station are connected by MELSECNET/H or MELSECNET/10.

The GT SoftGOT1000 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.

 4.1.4 ■ 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 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

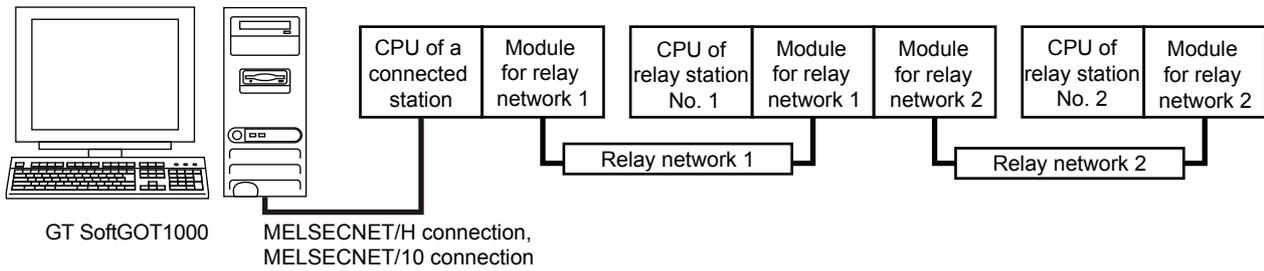
Monitoring devices, such as D and M, of a station on another network slows the display processing.

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.

4.1.3 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) ^{*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}	×	×	○	○	×	×	×
		×	○	○ ^{*1}	○	×	×	×	CC IE Field ^{*6}	×	○	○ ^{*1}	○	×	×	×
○	Ethernet	×	○	○	○	×	○	×	Mnet/10(H)	×	×	○	○	○	○ ^{*4}	○
		×	○	○	○	×	○	×	Ethernet	×	○	○	○	×	○	×
		×	×	○	○	×	×	×	CC IE Cont ^{*6}	×	×	○	○	×	×	×
		×	○	○ ^{*1}	○	×	×	×	CC IE Field ^{*6}	×	○	○ ^{*1}	○	×	×	×
○	CC IE Cont	×	×	○	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
		×	○	○	○	×	×	×	Ethernet	×	○	○	○	×	×	×
		×	×	○	○	×	×	×	CC IE Cont ^{*6}	×	×	○	○	×	×	×
		×	○	○ ^{*1}	○	×	×	×	CC IE Field ^{*6}	×	○	○ ^{*1}	○	×	×	×
○	CC IE Field	×	○	○ ^{*1}	○	×	×	×	Mnet/10(H)	×	×	○	○	×	×	×
		×	○	○ ^{*1}	○	×	×	×	Ethernet	×	○	○	○	×	×	×
		×	×	○	○	×	×	×	CC IE Cont ^{*6}	×	×	○	○	×	×	×
		×	○	○ ^{*1}	○	×	×	×	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.

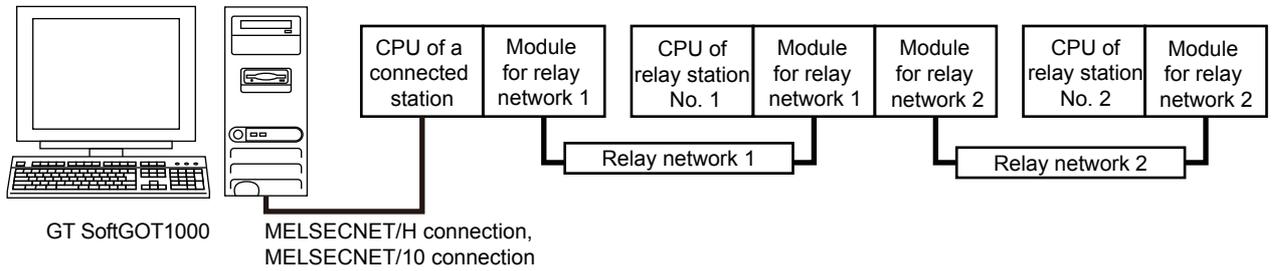
*5 CNC C70 on other networks cannot be monitored.

*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.

4.1.3 Access range



O: Accessible, X: Not accessible

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

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.

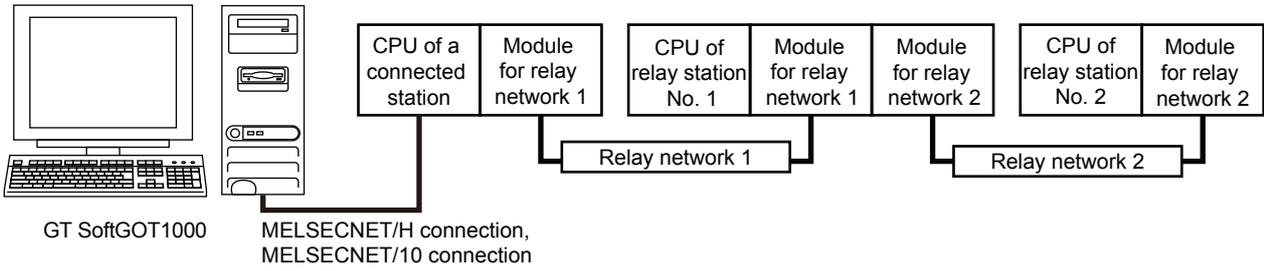
*4 Only Universal model QCPU is applicable.

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

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

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

4.1.3 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*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.

■ CC-Link IE Controller Network connection

The following shows the access range via the connected station in a configuration in which GT SoftGOT1000 and a station are connected by CC-Link IE Controller Network.

The GT SoftGOT1000 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.

 4.1.4 ■ 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 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

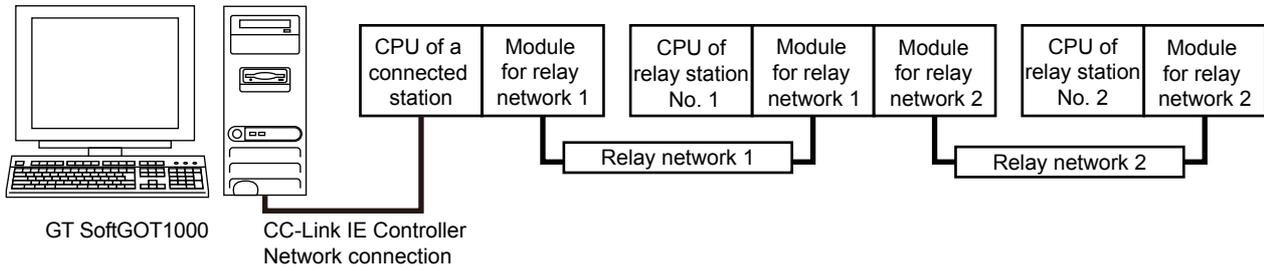
Monitoring devices, such as D and M, of a station on another network slows the display processing.

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.

4.1.3 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	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×
		CC IE Cont* ³	○	×	×	×	×	×	×	CC IE Cont* ³	○	×	×	×	×	×	×
		CC IE Field	○	×	×	×	×	×	×	CC IE Field	○	×	×	×	×	×	×
○	CC IE Cont	Mnet/10* ⁴	×	×	○	○	×	×	×	Mnet/10* ⁴	×	×	○	○	×	×	×
		Ethernet	○	○	○	○	×	×	×	Ethernet	○	○	○	○	×	×	×
		CC IE Cont* ³	○	×	○	○	×	×	×	CC IE Cont* ³	○	×	○	○	×	×	×
		CC IE Field	○	○	○* ²	○	×	×	×	CC IE Field	○	○	○* ²	○	×	×	×
○	CC IE Field	Mnet/10* ⁴	×	×	○	○	×	×	×	Mnet/10* ⁴	×	×	○	○	×	×	×
		Ethernet	○	○	○	○	×	×	×	Ethernet	○	○	○	○	×	×	×
		CC IE Cont* ³	○	×	○	○	×	×	×	CC IE Cont* ³	○	×	○	○	×	×	×
		CC IE Field	○	○	○* ²	○	×	×	×	CC IE Field	○	○	○* ²	○	×	×	×

*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.

*2 Only Universal model QCPU is applicable.

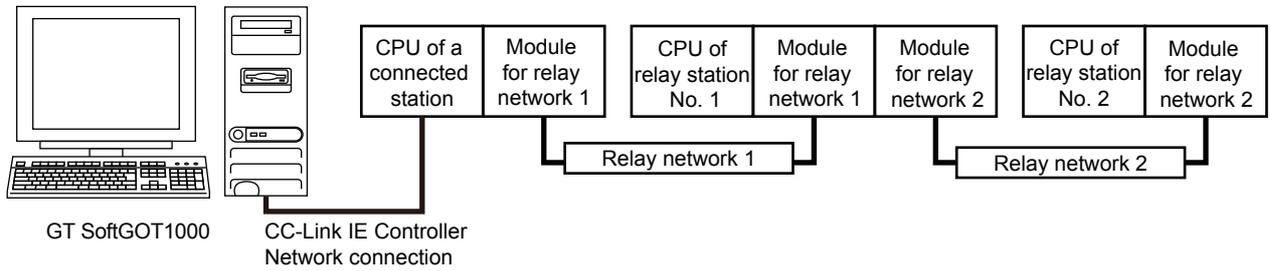
*3 This network is inaccessible only when the CPU of relay station No. 1 is an LCPU.

*4 This network is inaccessible when the CPU of relay station No. 1 is an RCPU or LCPU.

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

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

4.1.3 Access range



O: Accessible, X: 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) ^{*4}	QS ^{*2}	Q (A)	QnA, C6	A	R		L	Q (Q) ^{*4}	QS ^{*2}	Q (A)	QnA, C6	A		
O	Mnet/10(H)	Mnet/10(H)	x	x	O	O	O	O	O	Mnet/10(H)	x	x	O	O	O	O	O
		Ethernet	x	O	O	O	x	O	x	Ethernet	x	O	O	O	x	O	x
		CC IE Cont ^{*5}	x	x	O	O	x	x	x	CC IE Cont ^{*5}	x	x	O	O	x	x	x
		CC IE Field ^{*5}	x	O	O ^{*1}	O	x	x	x	CC IE Field ^{*5}	x	O	O ^{*1}	O	x	x	x
O	Ethernet	Mnet/10(H)	x	O ^{*3}	O	O	x	O	x	Mnet/10(H)	x	x	O	O	O	O	O
		Ethernet	x	O ^{*3}	O	O	x	O	x	Ethernet	x	O	O	O	x	O	x
		CC IE Cont ^{*5}	x	x	O	O	x	x	x	CC IE Cont ^{*5}	x	x	O	O	x	x	x
		CC IE Field	x	O	O ^{*1}	O	x	x	x	CC IE Field	x	O	O ^{*1}	O	x	x	x
O	CC IE Cont	Mnet/10(H)	x	x	O	O	x	x	x	Mnet/10(H)	x	x	O	O	O	O	O
		Ethernet	x	x	O	O	x	x	x	Ethernet	x	O	O	O	x	O	x
		CC IE Cont ^{*5}	x	x	O	O	x	x	x	CC IE Cont ^{*5}	x	x	O	O	x	x	x
		CC IE Field ^{*5}	x	O	O ^{*1}	O	x	x	x	CC IE Field ^{*5}	x	O	O ^{*1}	O	x	x	x
O	CC IE Field	Mnet/10(H)	x	O	O ^{*1}	O	x	x	x	Mnet/10(H)	x	x	O	O	O	O	O
		Ethernet	x	O	O ^{*1}	O	x	x	x	Ethernet	x	O	O	O	x	O	x
		CC IE Cont ^{*5}	x	x	O	O	x	x	x	CC IE Cont ^{*5}	x	x	O	O	x	x	x
		CC IE Field	x	O	O ^{*1}	O	x	x	x	CC IE Field	x	O	O ^{*1}	O	x	x	x

*1 Only Universal model QCPU is 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 LCPU 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.

■ CC-Link IE Field Network connection

The following shows the access range via the connected station in a configuration in which GT SoftGOT1000 and a station are connected by CC-Link IE Field Network.

The GT SoftGOT1000 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.

 4.1.4 ■ 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

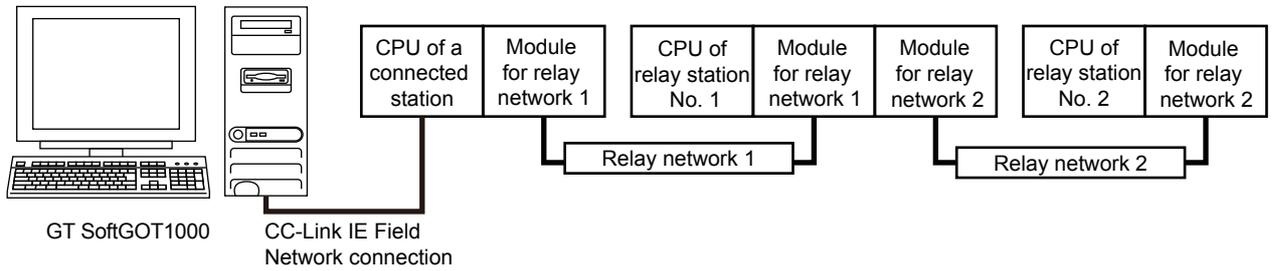
Monitoring devices, such as D and M, of a station on another network slows the display processing.

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 RCPU

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

4.1.3 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	○	×	×	×	×	×	×	Ethernet	○	×	×	×	×	×	×
		CC IE Cont ^{*3}	○	×	×	×	×	×	×	CC IE Cont ^{*3}	○	×	×	×	×	×	×
		CC IE Field	○	×	×	×	×	×	×	CC IE Field	○	×	×	×	×	×	×
○	CC IE Cont	Mnet/10 ^{*4}	×	×	○	○	×	×	×	Mnet/10 ^{*4}	×	×	○	○	×	×	×
		Ethernet	○	○	○	○	×	×	×	Ethernet	○	○	○	○	×	×	×
		CC IE Cont ^{*3}	○	×	○	○	×	×	×	CC IE Cont ^{*3}	○	×	○	○	×	×	×
		CC IE Field	○	○	○ ^{*2}	○	×	×	×	CC IE Field	○	○	○ ^{*2}	○	×	×	×
○	CC IE Field	Mnet/10 ^{*4}	×	×	○	○	×	×	×	Mnet/10 ^{*4}	×	×	○	○	×	×	×
		Ethernet	○	○	○	○	×	×	×	Ethernet	○	○	○	○	×	×	×
		CC IE Cont ^{*3}	○	×	○	○	×	×	×	CC IE Cont ^{*3}	○	×	○	○	×	×	×
		CC IE Field	○	○	○ ^{*2}	○	×	×	×	CC IE Field	○	○	○ ^{*2}	○	×	×	×

*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.

*2 Only Universal model QCPU is applicable.

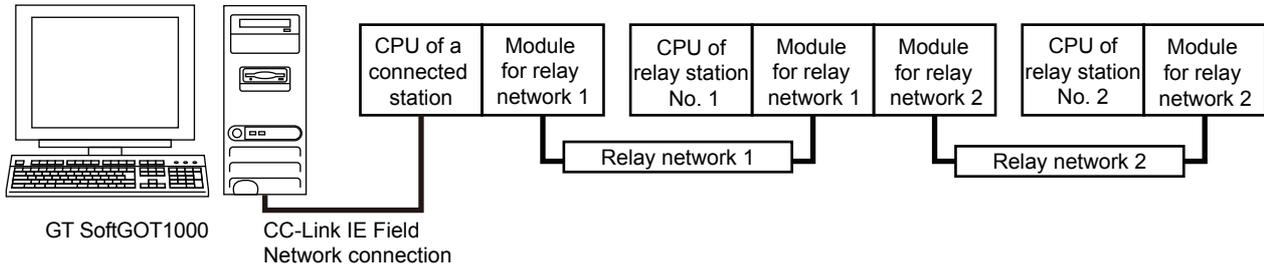
*3 This network is inaccessible only when the CPU of relay station No. 1 is an LCPU.

*4 This network is inaccessible when the CPU of relay station No. 1 is an RCPU or LCPU.

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

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

4.1.3 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) ^{*4}	QS ^{*3}	Q (A)	QnA, C6	A		R	L	Q (Q) ^{*4}	QS ^{*3}	Q (A)	QnA, C6	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								Mnet/10(H)	×	×	○	○	○	○	○
									Ethernet	×	○	○	○	×	○	×
									CC IE Cont ^{*5}	×	×	○	○	×	×	×
									CC IE Field	×	○	○ ^{*2}	○	×	×	×

*1 Only Universal model QCPU is applicable.

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

*3 QSCPU cannot access other networks because routing parameters cannot be set on QSCPU.

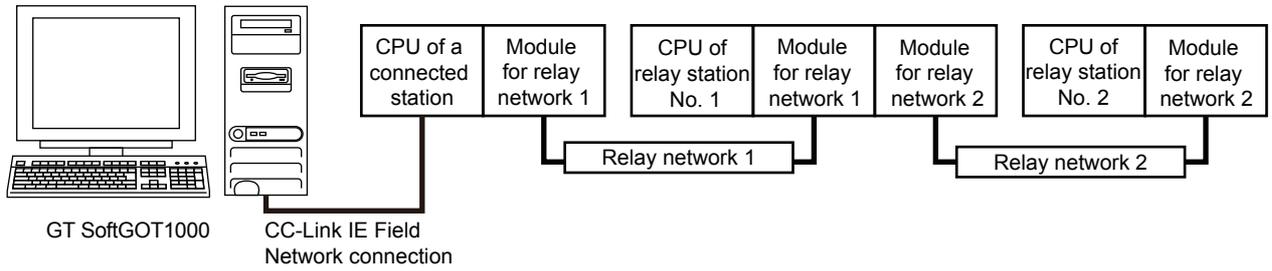
*4 CNC C70 on other networks cannot be monitored.

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

(3) Connecting with LCP

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

4.1.3 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}	×	×	○	○	×	×	×	Mnet/10(H) ^{*3}	×	×	○	○	×	×	×
		Ethernet	×	○	○	○	×	×	×	Ethernet	×	○	○	○	×	×	×
		CC IE Cont ^{*3}	×	×	○	○	×	×	×	CC IE Cont ^{*3}	×	×	○	○	×	×	×
		CC IE Field	×	○	○* ¹	○	×	×	×	CC IE Field	×	○	○* ¹	○	×	×	×
○	CC IE Field	Mnet/10(H) ^{*3}	×	×	○	○	×	×	×	Mnet/10(H) ^{*3}	×	×	○	○	×	×	×
		Ethernet	×	○	○	○	×	×	×	Ethernet	×	○	○	○	×	×	×
		CC IE Cont ^{*3}	×	×	○	○	×	×	×	CC IE Cont ^{*3}	×	×	○	○	×	×	×
		CC IE Field	×	○	○* ¹	○	×	×	×	CC IE Field	×	○	○* ¹	○	×	×	×

*1 Only Universal model QCPU is 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 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.

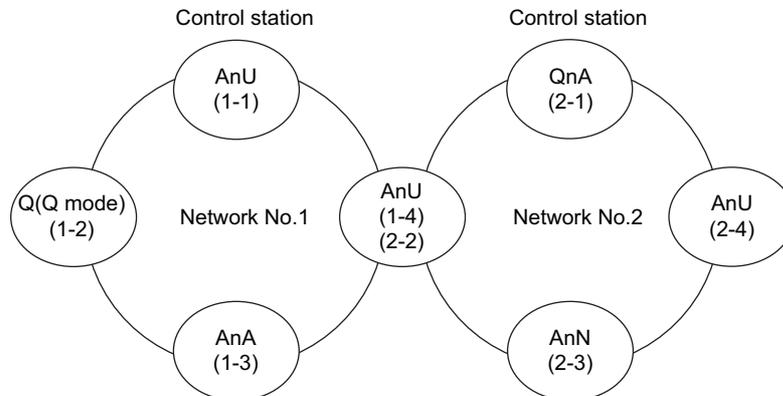
If the QCPU redundant system is set as a relay station, the GT SoftGOT1000 cannot switch the monitoring target automatically when the system is switched.

(A timeout error occurs due to failed monitoring)

4.1.4 System setting examples

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

■ When using the direct CPU connection or computer link 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 B or W of the connected station (host station) assigned with a network parameter, specify the host station.
- To monitor another station (other than B or W) or another network, specify the station (network No. and station No.)

Station to be accessed Station connected to GT SoftGOT1000	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

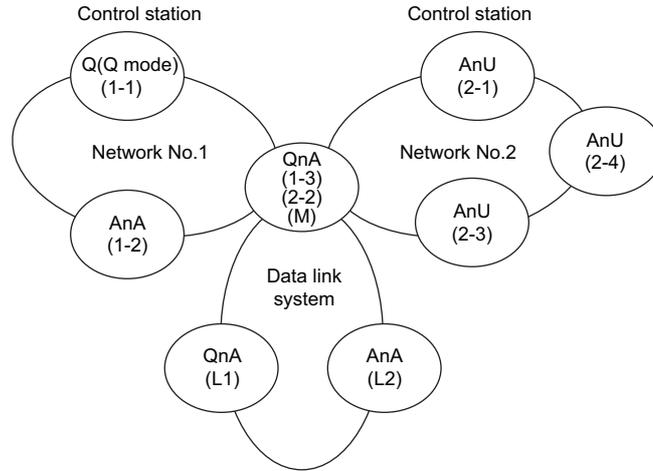
Other (Network No. - Station number)

POINT

Monitoring link device B or W

For monitoring devices B and W that are allocated by the link parameter, use the host device number even when designating devices allocated to another station. Otherwise, the display speed will be reduced.

■ When using the direct CPU connection or computer link 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 (other than B or W) or another network, specify the station (network No. and station No.).

Station to be accessed Station connected to GT SoftGOT1000	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) QnA (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, designate the network No. as 0.

How to read the table

Upper line: Accessibility

○: Accessible

×: Not accessible

Lower line: Network settings

Host

Other (Network No. - Station number)

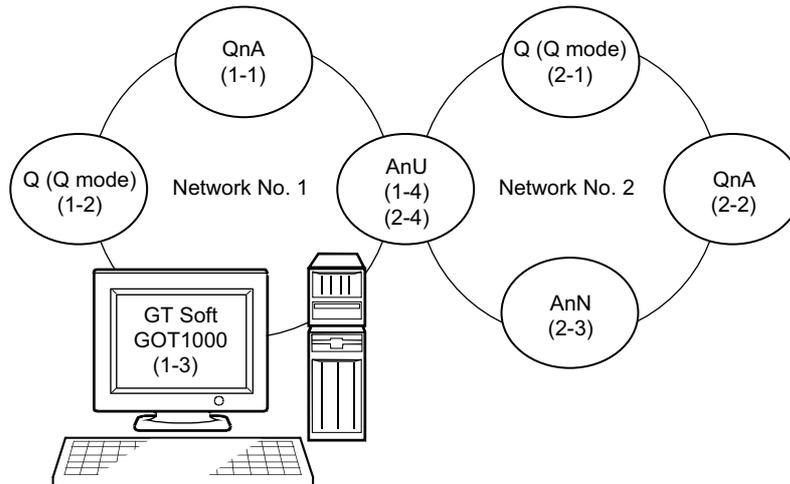
POINT

Monitoring link device B or W

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

Otherwise, the display speed will be reduced.

■ When using MELSECNET/10 connection



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

○: Accessible x: Not accessible

Station to be accessed Station connected to GT SoftGOT1000	Network No.1				Network No.2			
	QnA (1-1)	Q (Q mode) (1-2)	GT SoftGOT1000 (1-3)	AnU (1-4)	Q (Q mode) (2-1)	QnA (2-2)	AnN (2-3)	AnU (2-4)
GT SoftGOT1000 (1-3)	○	○	—	○	○	○	x	○

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

- (a) Monitoring devices B and W that are allocated by 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.

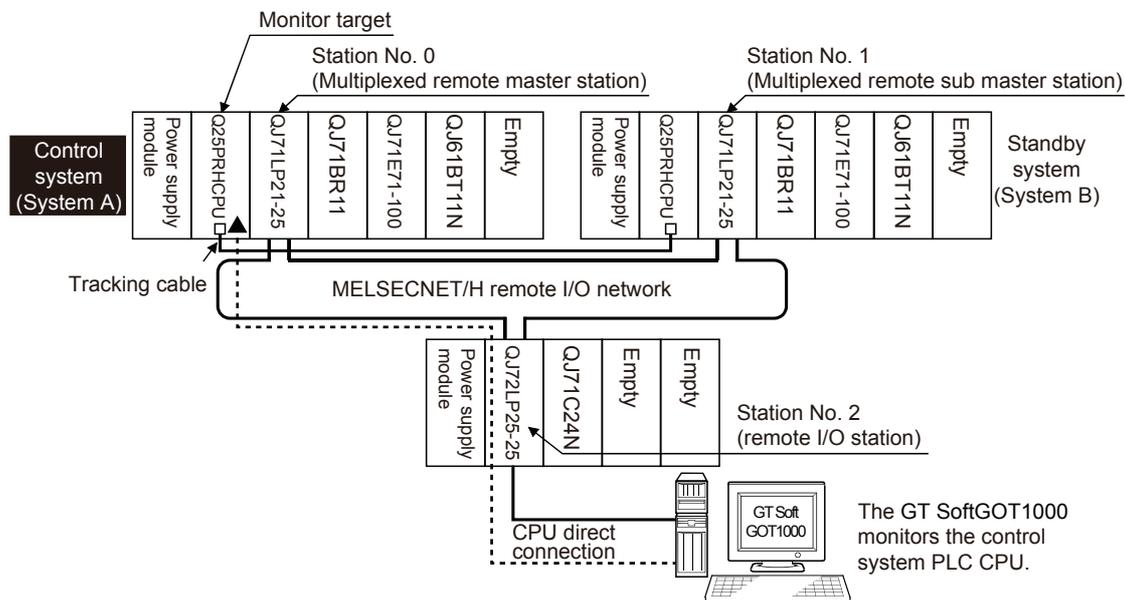
- (b) Monitoring other stations (other than B and W)

Station to be accessed Station connected to GT SoftGOT1000	QnA (1-1)	Q (Q mode) (1-2)	GT SoftGOT1000 (1-3)	AnU (1-4)
SoftGOT1000 (1-3)	1, Other (1)	1, Other (2)	—	1, Other (4)

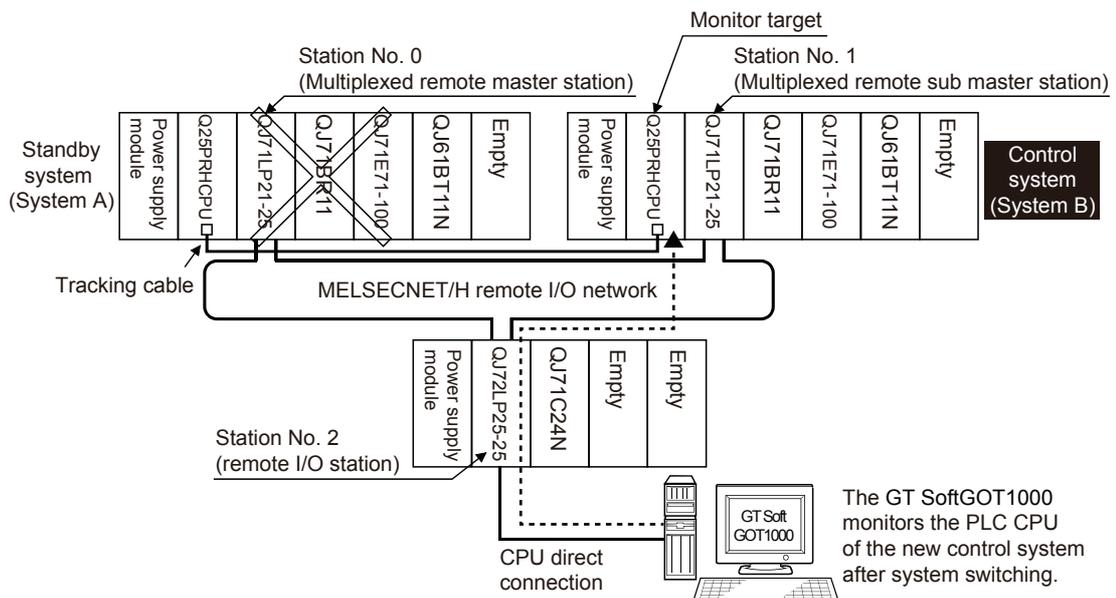
How to read the table 1, Other (2)
 ↑ ↑
 NW No. Station number

4.1.5 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 SoftGOT1000.



When an error occurs in System A, System B switches from standby system to control system.



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 SoftGOT1000. 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 SoftGOT1000, settings are required in the GT Designer3.

 ■ 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

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

- Direct CPU connection

 ■Direct CPU connection

- MELSECNET/H connection, MELSECNET/10 connection (Network system)

 ■MELSECNET/H and MELSECNET/10 connections (network systems)

- CC-Link IE Controller Network connection (Network system)

 ■CC-Link IE Controller Network connection (network system)

- Ethernet connection

 ■Ethernet connection

- Connection to the redundant type extension base unit

- (1) Computer link connection (Serial communication module mounted on the redundant type extension base unit)

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

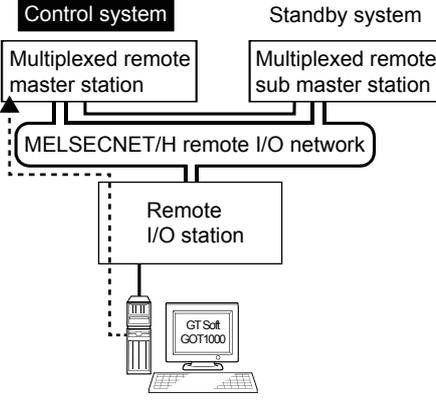
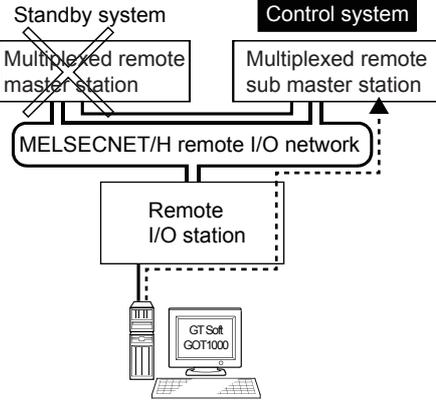
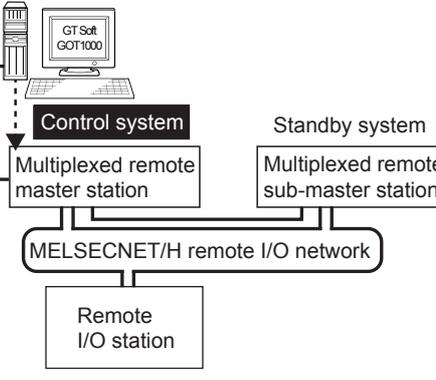
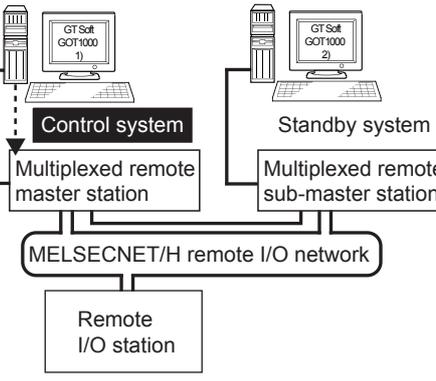
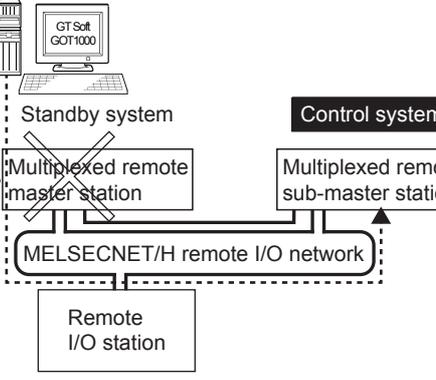
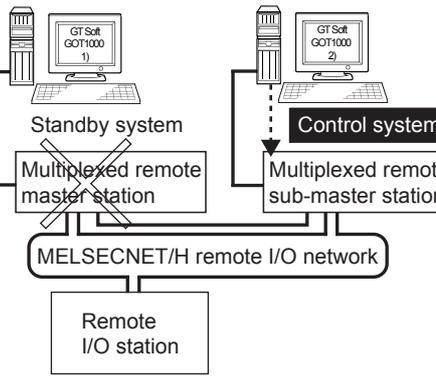
- (2) Ethernet connection (Ethernet module mounted on the redundant type extension base unit)

 (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 SoftGOT1000, refer to the following.

 4.1.2 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>Monitor the PLC CPU of the control system by GT SoftGOT1000 1).</p>	 <p>By the Q redundant setting, the GT SoftGOT1000 automatically changes the monitoring target to the PLC CPU in the control system.*1</p>  <p>Monitor the PLC CPU of the control system by GT SoftGOT1000 2).</p>

1 OVERVIEW

2 SPECIFICATIONS OF GT SoftGOT1000

3 OPERATION OF GT SoftGOT1000

4 CONNECTION

5 FUNCTIONS

APPENDICES

INDEX

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 SoftGOT1000 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 SoftGOT1000 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 SoftGOT1000 automatically changes the monitoring target to the PLC CPU in the control system.*2</p>
<ul style="list-style-type: none"> Computer link 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.

■ Switch the monitor target to the control system using the script function

POINT

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."

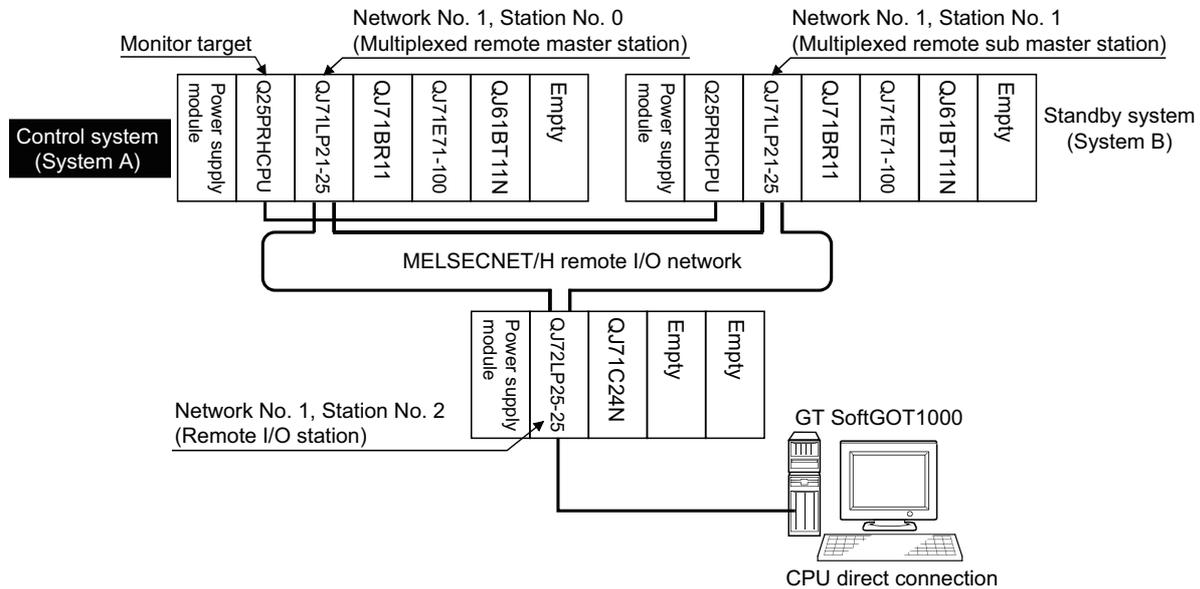
However, even if the error occurs, the GT SoftGOT1000 automatically resumes monitoring and there are no problems in the monitoring operation.
- (2) The system alarm is displayed when the system is switched due to cable disconnection etc. (when the path is changed).
The system alarm is not displayed when the system is switched by the user.
- (3) When the Q redundant setting is not made, the GT SoftGOT1000 does not automatically change the monitoring target even if system switching occurs in the redundant system. When the GT SoftGOT1000 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 SoftGOT1000. If [Comm. Error Dialog] is checked, a communication error dialog box appears and the monitor stops when some error occurs in the communication path.

 3.6 Communication Setup
- (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) A message "Unable to communicate with CPU." is displayed when the system switching occurs while an option function such as the ladder monitor is used.
- (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 SoftGOT1000 fails to automatically change the monitoring target in the following cases.
 - When the power supply to the CPU where the GT SoftGOT1000 is connected is OFF
 - When the cable connecting the GT SoftGOT1000 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 SoftGOT1000 and the GT SoftGOT1000 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.

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

This section explains the direct CPU connection that connects the GT SoftGOT1000 to the remote I/O station of the MELSECNET/H network system.

The following shows an example of connecting the GT SoftGOT1000 to the remote I/O station of the MELSECNET/H network system.



(1) Connection method

Connect the GT SoftGOT1000 to the RS-232 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 SoftGOT1000 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 SoftGOT1000 can monitor link devices B and W of the host station set in the MELSECNET/H network.

(3) Monitoring target change 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.

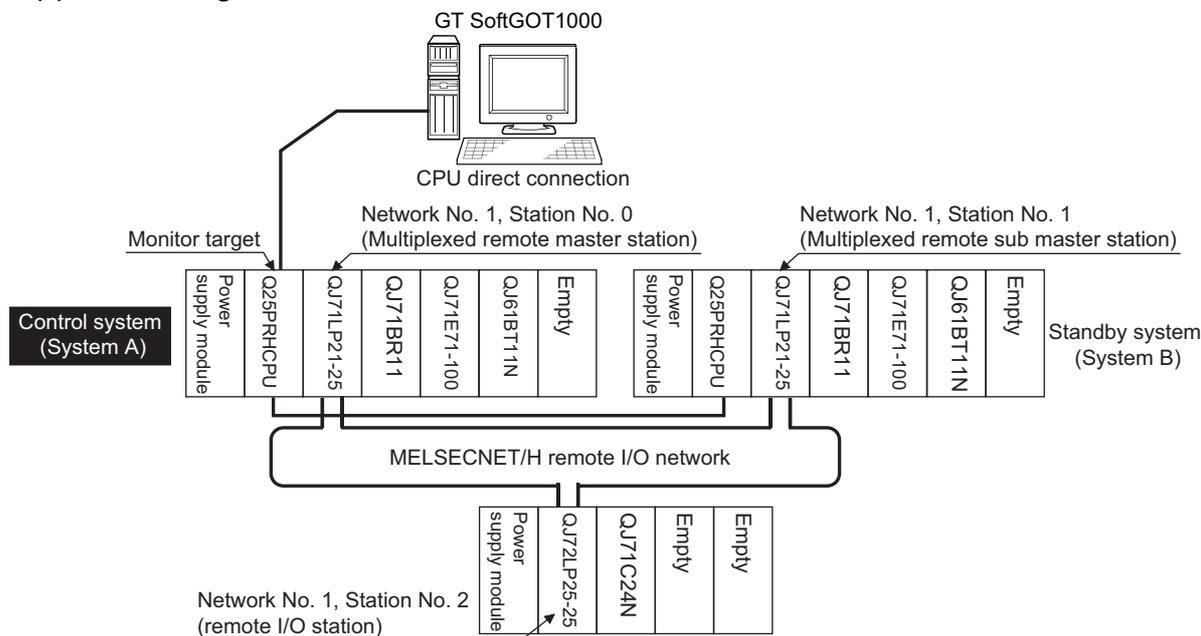
Since the GT SoftGOT1000 monitors the master station, the monitoring target is automatically changed to the PLC CPU that is operating as the master.

Direct CPU connection

This section describes the direct CPU connection by which a GT SoftGOT1000 is connected to a PLC CPU in the redundant system.

Two methods for the CPU direct connection, using one or two GT SoftGOT1000 are available.

(1) When using one GT SoftGOT1000



(a) Connection method

Connect the GT SoftGOT1000 and the control system PLC CPU (Q12PRHCPU, Q25PRHCPU) of the redundant system with an RS-232 cable or USB cable.

(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		■ 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 SoftGOT1000 monitors the control system, the monitoring target is automatically changed to other station.

POINT

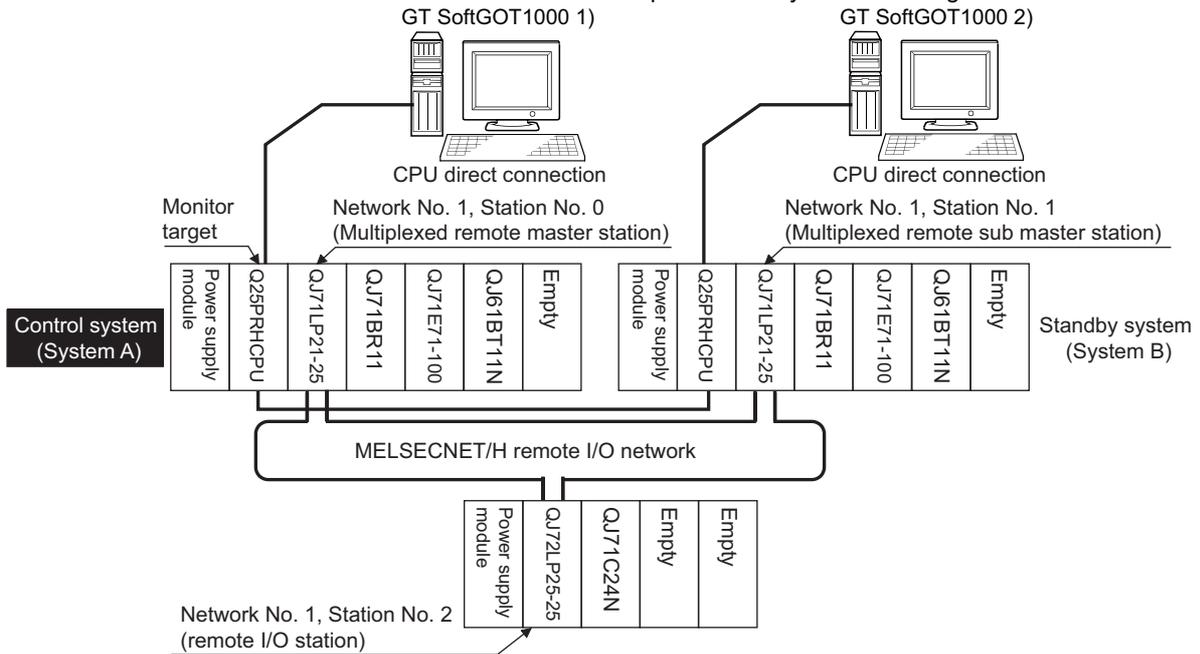
To monitor the control system without Q redundant setting

If the system switching occurs when the Q redundant setting is not made, the GT SoftGOT1000 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 SoftGOT1000

Connect a GT SoftGOT1000 to each PLC CPU to respond to the system switching.



(a) Connection method

Connect GT SoftGOT1000 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 SoftGOT1000 cannot change the monitor target automatically in response to the system switching.

The GT SoftGOT1000 that is connected to the control system CPU module after system switching continues the monitoring.

Different from the case using one GT SoftGOT1000, no cable reconnection is required.

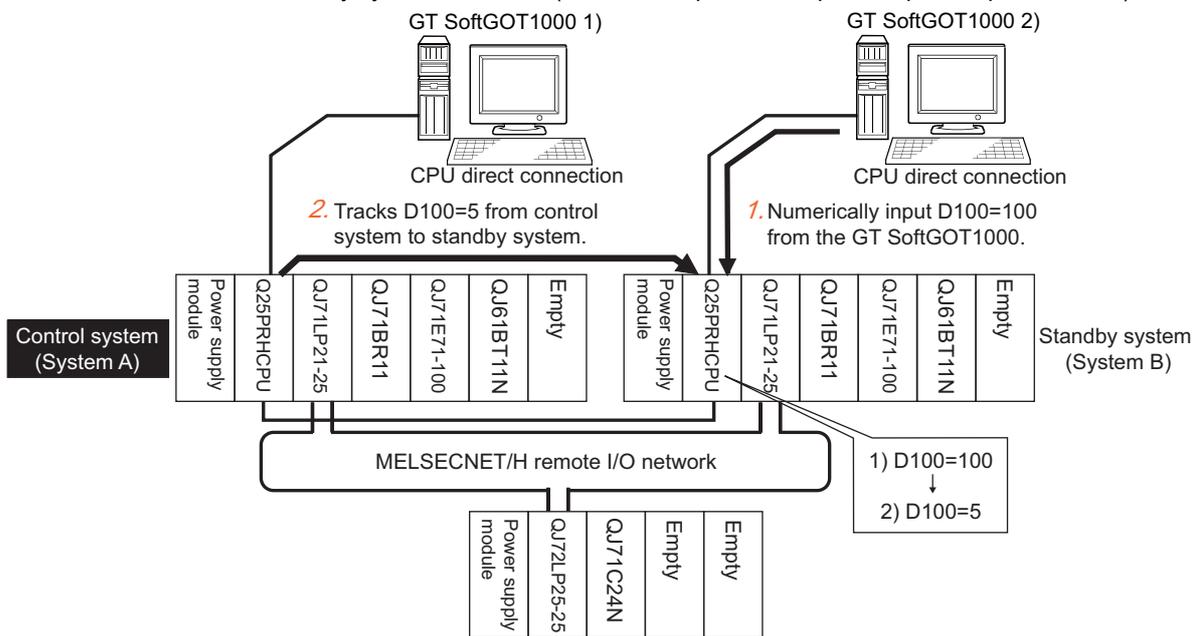
POINT

To automatically change the monitoring target after system switching using one GT SoftGOT1000, make the Q redundant settings.

☞ ■Q redundant setting

(3) Precautions when connecting a GT SoftGOT1000 directly to a PLC CPU in the redundant system without making Q redundant setting

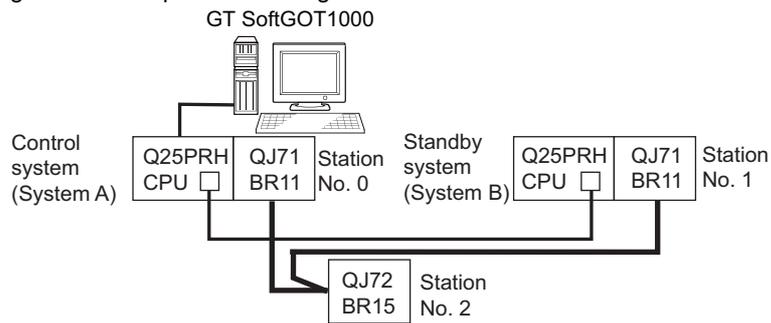
- (a) As the GT SoftGOT1000 monitors exclusively the PLC CPU that is directly connected to, the monitor target cannot be changed in response to the system switching of the redundant system.
To change the target monitor in response to the system switching, change the target of the connection cable between the GT SoftGOT1000 and PLC CPU to the other PLC CPU, or configure the system using GT SoftGOT1000 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 SoftGOT1000 can be monitored.
- (c) When connected to the standby system PLC CPU, the writing of the GT SoftGOT1000 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 SoftGOT1000 writes to the standby system PLC CPU (Numerical input, Ascii input, Script, Recipe, or others).



As countermeasures to the above, perform the following.

- Display a monitor screen which indicates that "the connected PLC CPU is the standby system" on a GT SoftGOT1000 when connecting the GT SoftGOT1000 to the standby system PLC CPU.
 - To display the specified monitor screen when connecting the GT SoftGOT1000 to the standby system PLC CPU, use the special relay SM1515 (Control status identification flag) of the PLC CPU. (When the SM1515 is OFF, the connected PLC CPU is the standby system)
 - Control the operation of each object by the SM1515, which is set for the operation condition.
 - For the screen switching device, use a GT SoftGOT1000 internal device.
- If a device of the PLC CPU is used, the Status Observation operation of the GT SoftGOT1000 may be disabled since the device data of the PLC CPU will be overwritten by the device value transferred with the redundant system tracking function.

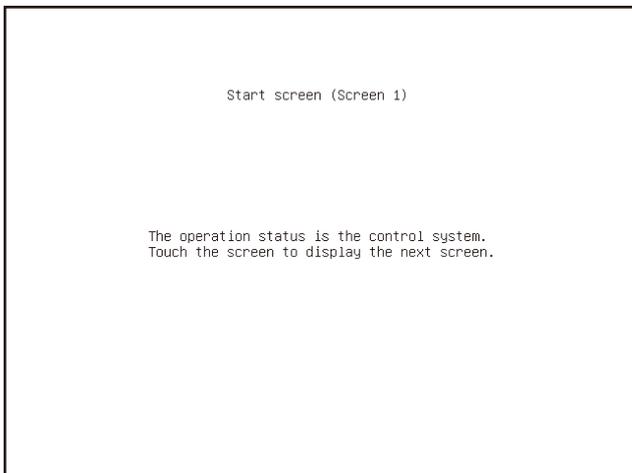
The following diagram shows an example of screen setting using SM1515.
 System configuration example: when using one GT SoftGOT1000



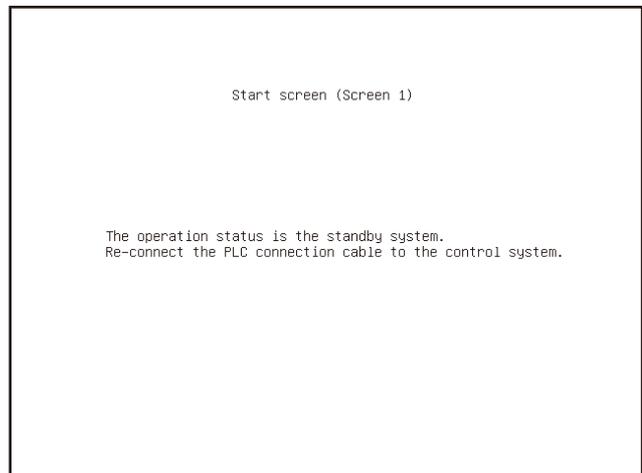
Create a monitor screen on the base screen 1 that performs the following operations for when connecting a GT SoftGOT1000 to control system and standby system.

- 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.

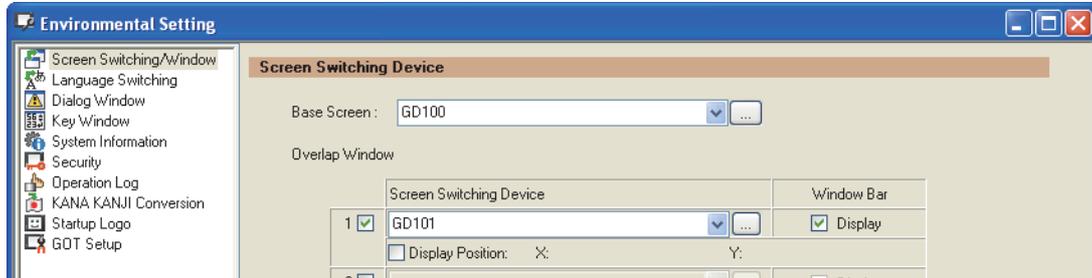
1) When connecting to the control system



2) When connecting to the standby system



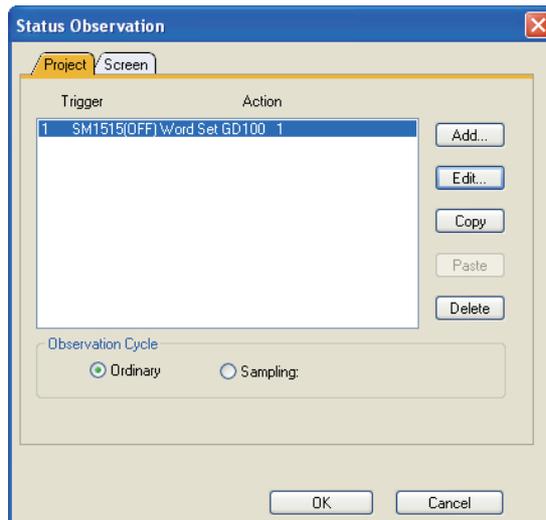
1. Set the screen switching device of the base screen.
 Choose [Common] → [GOT Environmental Setting] → [Screen Switching/Window], and set the internal device GD100 as the base screen switching device.
 (Do not use PLC CPU devices for the screen switching device. If used, the Status Observation operation of the GT SoftGOT1000 may be disabled since the device data of the PLC CPU is overwritten by the device value transferred with the redundant system tracking function)



2. Set the Status Observation.
 Make the setting so that the base screen 1 is displayed when the connected PLC CPU is the standby system (SM1515 is OFF) in the project specified by selecting [Common] → [Status Observation].

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 status observation in the project on the Project tab.



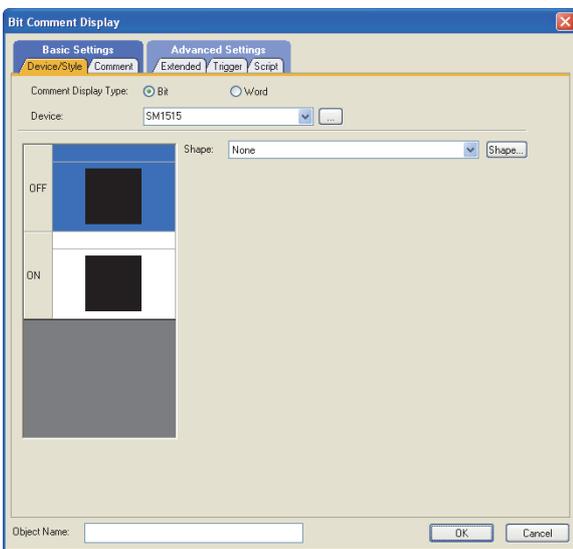
3. Set the comment display on the base screen 1.

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).

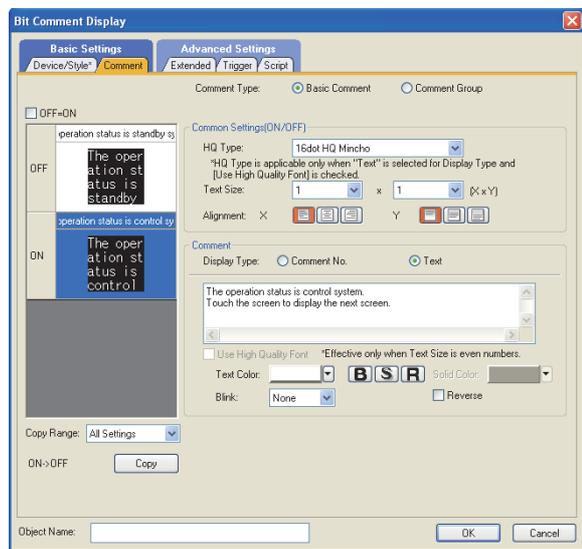
Select [Object] → [Comment Display] → [Bit Comment] and set Comment Display (Bit).

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.

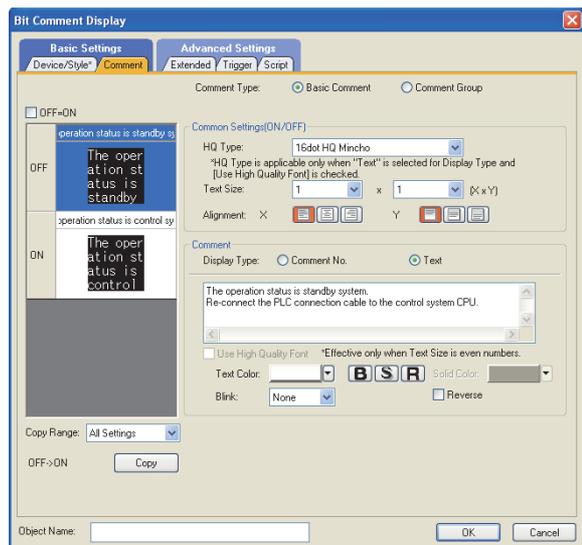
1) Dvice/Style tab screen



2) Comment tab screen (ON status)



3) Comment tab screen (OFF status)



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

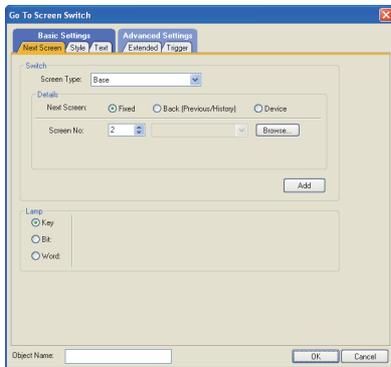
By using the go to screen switch function, set a touch switch for shifting the screen to the next screen with a screen touch, when the connected PLC CPU is the control system (SM1515 is ON).

Select [Object] → [Switch] → [Go To Screen Switch] and set the screen switching function.

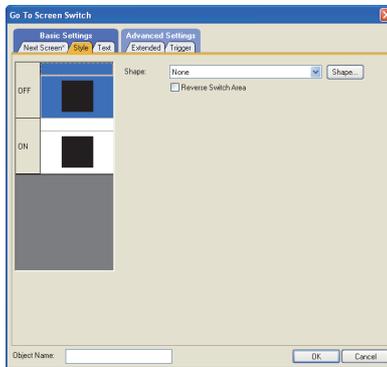
Set the same size for the touch switch as the base screen size so that touching any place of the screen enables the switch operation.

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

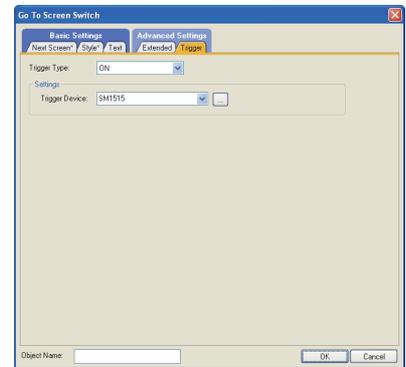
1) Next Screen tab



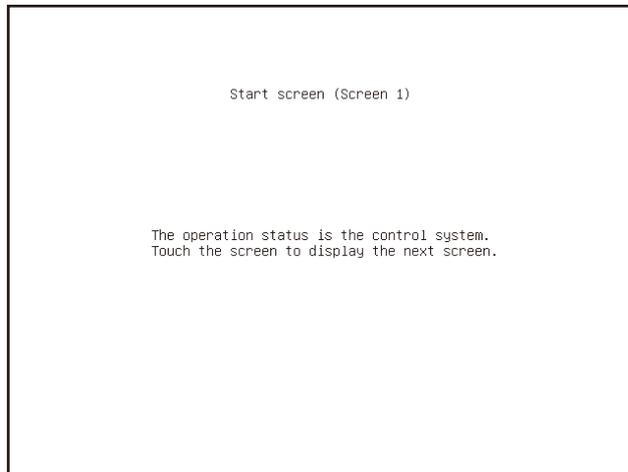
2) Style tab screen



3) Trigger tab screen



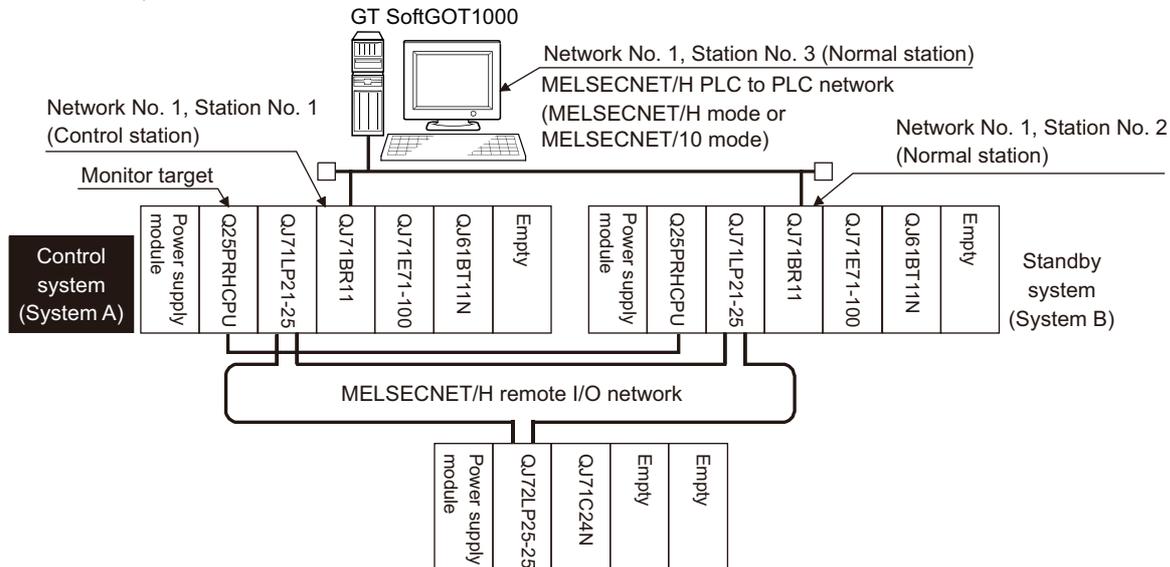
The following shows the created base screen 1.



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

This section explains the MELSECNET/H and MELSECNET/10 connections (network systems) that connect the GT SoftGOT1000 to the MELSECNET/H and MELSECNET/10 network system.

The following provides an example of connecting the GT SoftGOT1000 set as a normal station to the MELSECNET/H network system.



(1) Connection method

Connect the MELSECNET/H network system to the GT SoftGOT1000.

(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		■ 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 SoftGOT1000 monitors the station of the specified station number, 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 SoftGOT1000 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.

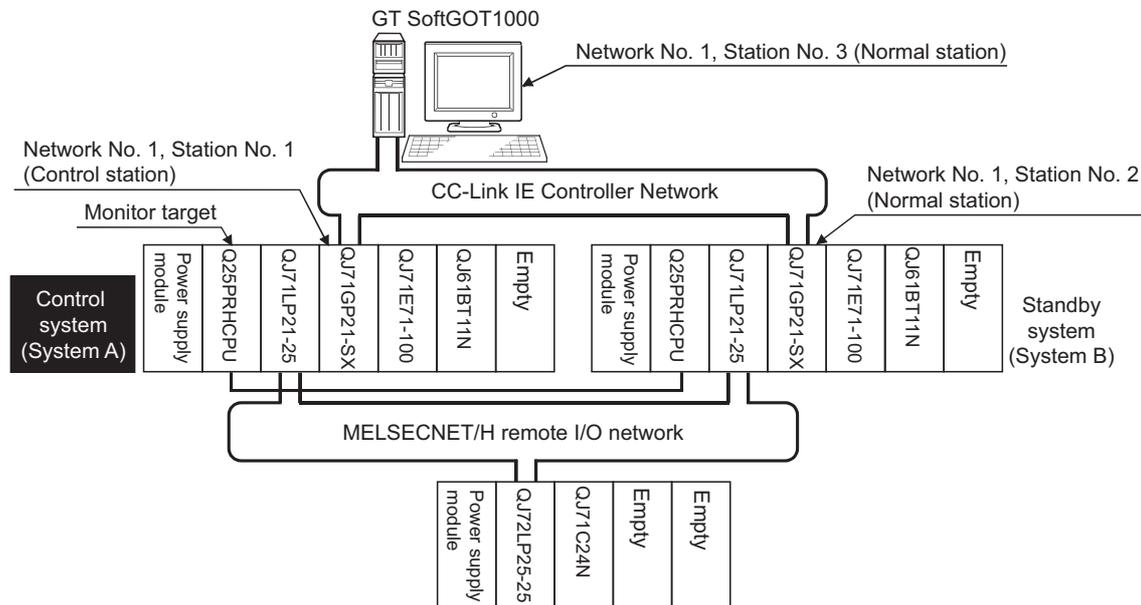
As a countermeasure, create a screen to monitor the PLC CPU of the control system by switching the station numbers between System A and System B using the script function.

■ Switch the monitor target to the control system using the script function

■ CC-Link IE Controller Network connection (network system)

This section explains the CC-Link IE Controller Network connection (network system) that connects the GT SoftGOT1000 to the CC-Link IE Controller Network.

The following shows an example of connecting the GT SoftGOT1000 set as a normal station to the CC-Link IE Controller Network.



(1) Connection method

Connect the GT SoftGOT1000 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		 Q redundant setting

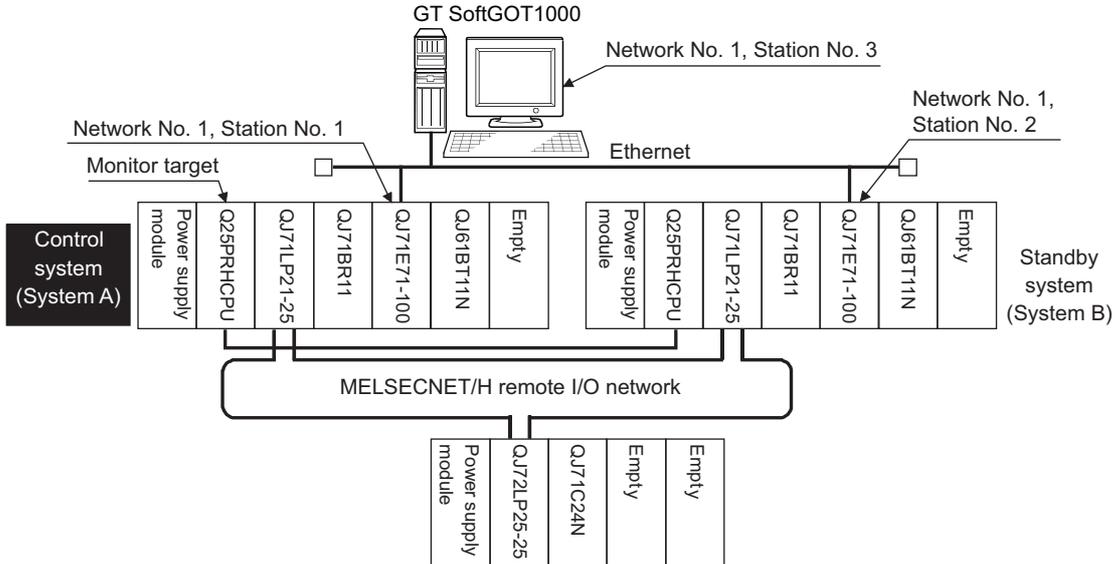
(3) Monitoring target change when system switching occurs in a redundant system

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 SoftGOT1000 monitors the control system, the monitoring target is automatically changed to the network module station No. 2.

Ethernet connection

This section explains the Ethernet connection that connects the GT SoftGOT1000 to the Ethernet network system. The following shows an example of connecting the GT SoftGOT1000 to the Ethernet network.



(1) Connection method

Connect the Ethernet network system to the GT SoftGOT1000.

(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		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 SoftGOT1000 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 SoftGOT1000 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.

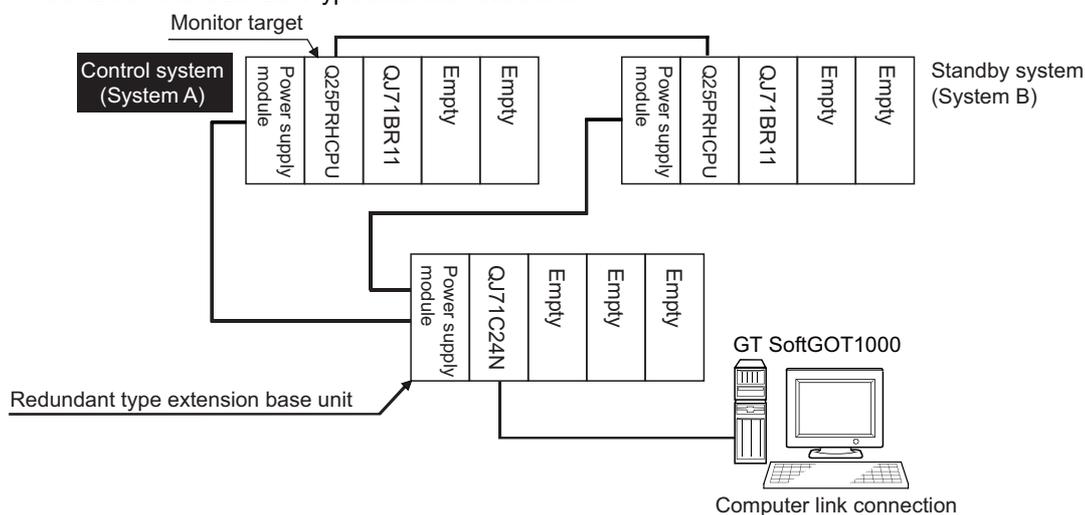
Switch the monitor target to the control system using the script function

■ Connection to the redundant type extension base unit

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

This section explains the computer link connection for connecting the GT SoftGOT1000 to the serial communication module mounted on the redundant type extension base unit.

The following shows an example of connecting the GT SoftGOT1000 to the serial communication module mounted on the redundant type extension base unit.



- (a) Connection method
Connect the GT SoftGOT1000 to the serial communication module (QJ71C24N) mounted on the redundant type extension base unit.
- (b) GT Designer3 setting
Set GT Designer3 as follows.

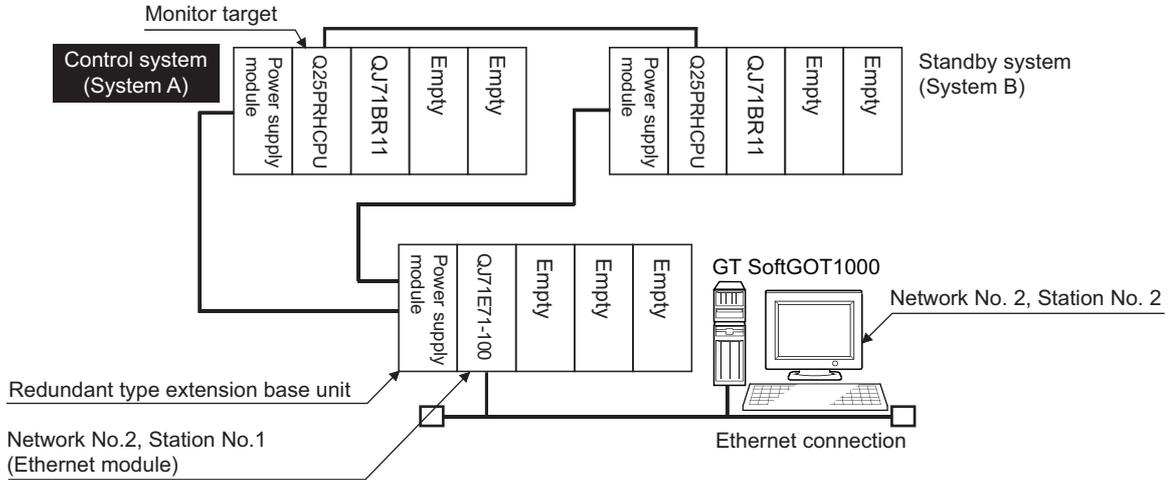
Setting item		Settings
Controller Type		MELSEC-QnA/Q/QS, MELDAS C6*
Device setting (Network setting)	Host	Host
Q Redundant Setting		Do not set the item.

- (c) Monitoring target change when system switching occurs in a redundant system
When the system switching occurs, the GT SoftGOT1000 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 SoftGOT1000 to the Ethernet module mounted on the redundant type extension base unit.

The following shows an example of connecting the GT SoftGOT1000 to the Ethernet module mounted on the redundant type extension base unit.



(a) Connection method

Connect the GT SoftGOT1000 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 SoftGOT1000 automatically changes the monitoring target to the PLC CPU switched to the control system.

■ Q redundant setting

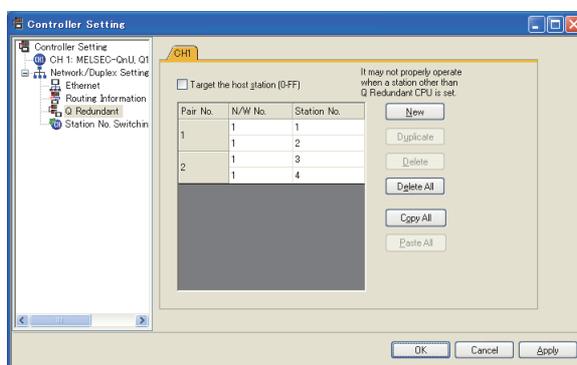
The following explains the setting for automatically change the monitoring target of the GT SoftGOT1000 when monitoring a QCPU redundant system.

POINT

Before making the Q redundant setting

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

1. Select [Common] → [Controller Setting] → [Q Redundant] from the menu.
2. The setting dialog box appears. Make the settings with reference to the following explanation.
3. Make the settings for the Q redundant setting.
In the Q Redundant Setting dialog box, settings can be made for each channel of the controller.



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

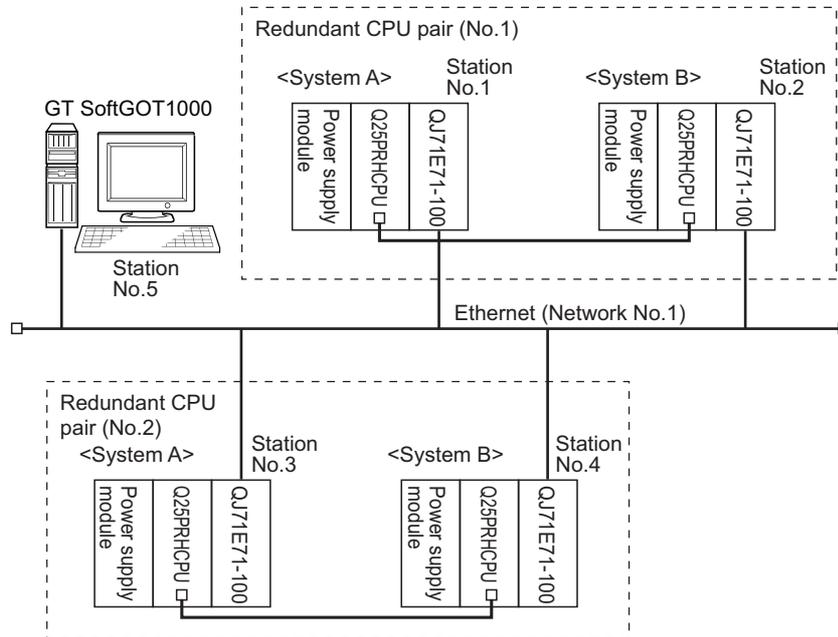
Item	Contents	
Target at its own Station (0-FF)	Select this item to monitor the control system as a host station. (In Ethernet connection, not available even when selected)	
Pair No. *1	NW No.	Set the network No. (1 to 225) for each of pair numbers (1 to 64). Upper row: Setting for the first redundant 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.	

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 QCPUs to which the Q redundant setting is made is not a redundant CPU, the GT SoftGOT1000 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 SoftGOT1000 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.)

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.

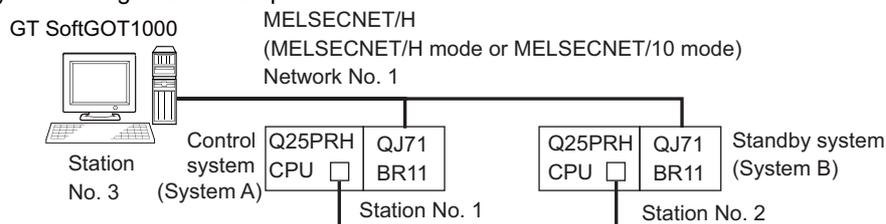
(1) Method for using the station number switching function

- 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 SoftGOT1000 can change the monitoring target to the control system PLC CPU on the same monitor screen.
- To achieve this, the script of the GT SoftGOT1000 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 Version 1 Screen Design Manual

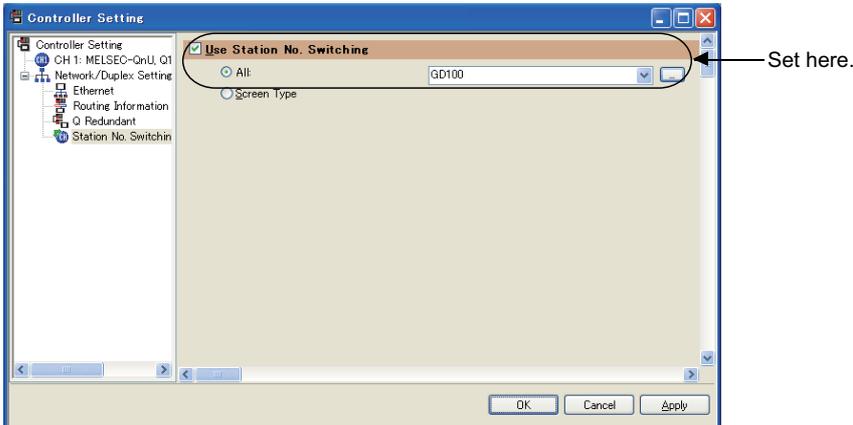
(e) Setting method

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 SoftGOT1000 connected to MELSECNET/H network		3

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.



2. Set the status observation.
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] → [Status Observation].

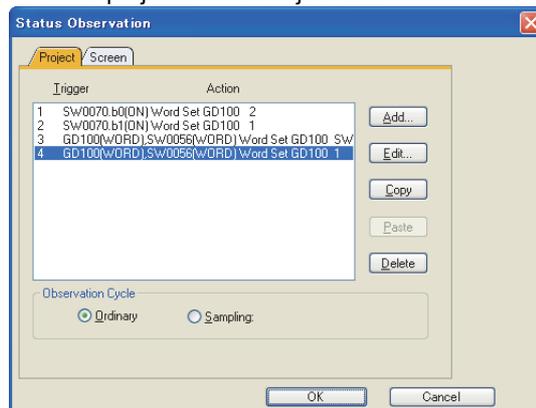
Condition 1	: SW70.b0 (while ON)	← When b0 is ON, Station No. 1 is abnormal.
Operation	: GD100=2	← Station No. is changed to 2.

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 status observation in the project on the Project tab.



POINT

Setting for the status observation function

For the status observation function, hexadecimal cannot be used.

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

Example:

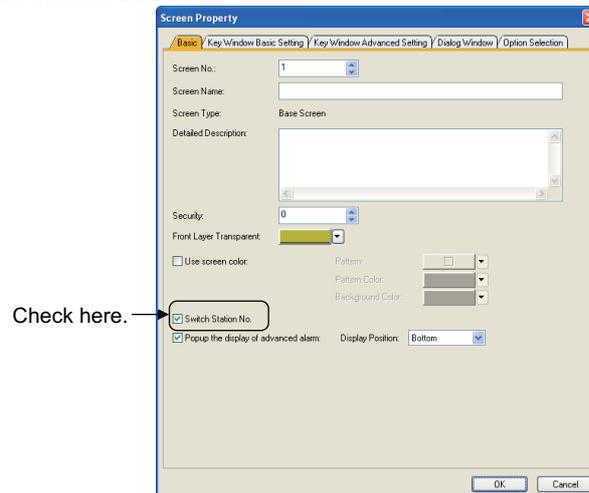
When N/W No.: 1 and Station No.: 1 (0101H)

Set "257".

When N/W No.: 10 and Station No.: 10 (0A0AH)

Set "2570".

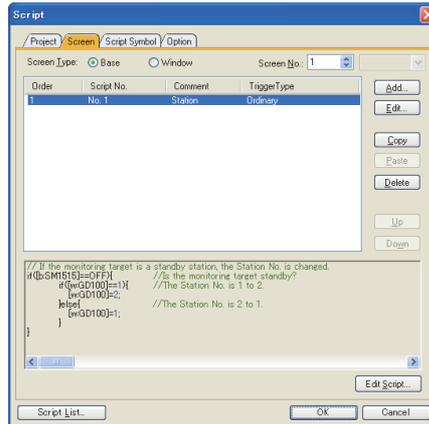
3. Create a monitor screen.
In the device setting (network setting) of each object, set Network No. 1 and Station No. 1 of the control system.
4. Validate the station number switching function.
On the Basic tab screen specified by selecting [Screen] → [Screen Property], select the item [Switch Station No.] to validate the station number changing function.
Make this setting for each monitor screen.



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.



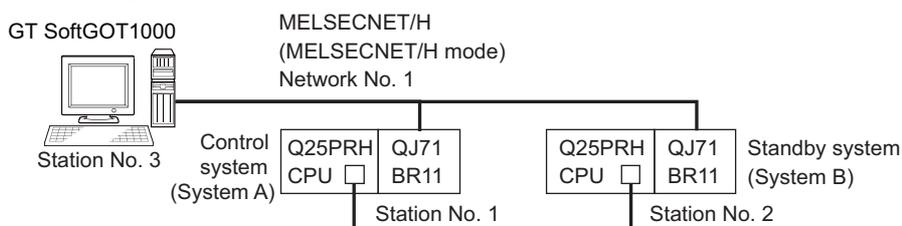
When the MELSECNET/H network is connected to the redundant system only, SW56 (current control station) can be set as the station number switching device.

In this case, even if the system switching occurs, the GT SoftGOT1000 always monitors the station number that is currently the control station.

(2) Method for using the screen changing function

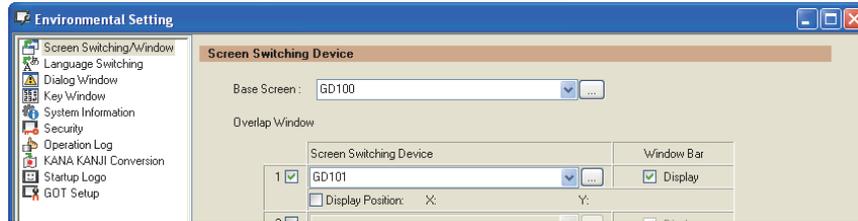
- (a) As a feature of this function, monitor screens are created for each station number. When the system switching occurs, the GT SoftGOT1000 can change the monitoring target to the control system PLC CPU on the other monitor screen.
- (b) To achieve this, the script of the GT SoftGOT1000 monitors the 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 SoftGOT1000 connected to MELSECNET/H network		3

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.



2. Set the status observation.
Set the status observation so that the station number is switched when the faulty station information (SW70) of MELSECNET/H turns ON in the project specified by choosing [Common] → [Status Observation].

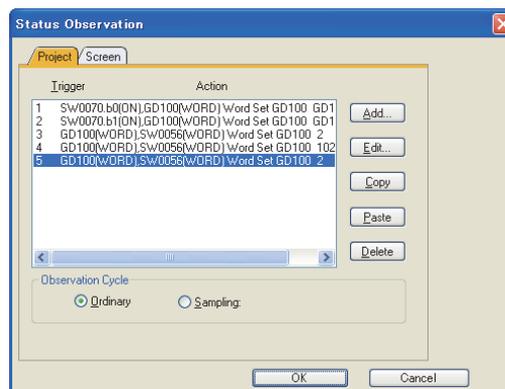
Condition 1	: SW70.b0 (while ON)	← Station No. 1 is abnormal.
Condition 2	: GD100<100	
Operation	: GD100= GD100+100	← Station No. is changed to 2.

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).



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.

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.

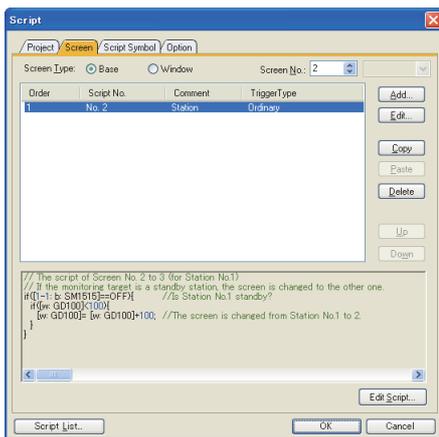
Set the trigger type of the script as [Ordinary] or [Sampling(about 3s)].

Screen scripts

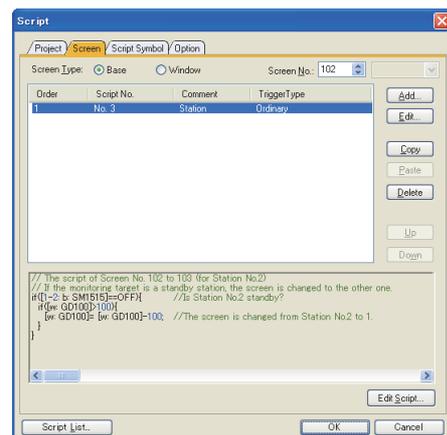
```
// The script of Screen No. 2 to 3 (for Station No.1)
// If the monitoring target is a standby station, the screen is changed to the other one.
if ([1-1: b: SM1515]==OFF){
//Is Station No.1 standby?
if([w: GD100]<100){
[w: GD100]= [w: GD100]+100;
//The screen is changed from Station No.1 to 2.
}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

```
// 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)

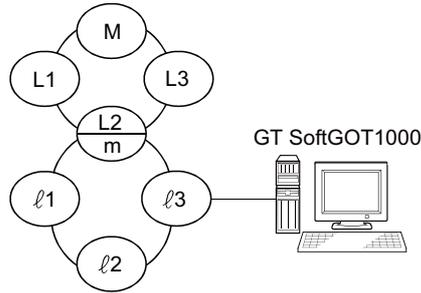


Script screen of Screen No. 102 (for Station 2)



(3) Setting method of monitor device

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



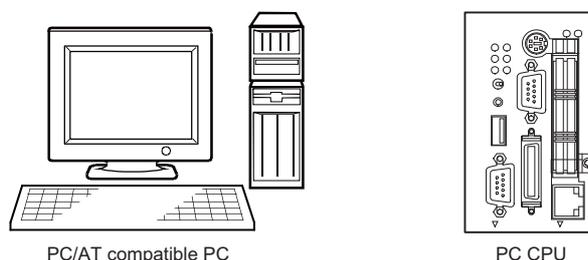
- (a) Monitoring the connected station (host station) and B and W allocated by the link parameter
Specify the host station.
For monitoring devices B and W that are allocated by the link parameter, use the host device number even when designating devices allocated to another station.
Otherwise, the display speed will be reduced.
- (b) Monitoring devices of other stations
Network No.: 0, Station number: Refer to the following table.

Setting of the station No.

Station to be accessed / Station connected to GT SoftGOT1000	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

4.2 Type of PC to Be Used

The system configuration and connection conditions differ according to the type of the PC used with GT SoftGOT1000.



■ PC/AT compatible PC

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

■ 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.

4.3 Connectable Devices

■ Applicable CPU

Refer to the following for PLC CPUs that can be monitored from GT SoftGOT1000.

☞ 4.1.1 Controller that allows monitoring

■ Controllers that can be monitored in each connection type

Refer to the following for GT SoftGOT1000 connection types and PLC CPUs that can be monitored in each connection type.

☞ 4.1.2 Monitorable controllers

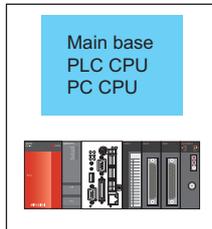
4.4 Converter/Cable to Be Used

■ Converter/Cable used in GT SoftGOT1000

The converter/cable used for the GX Developer can be applied to the GT SoftGOT1000.

4.5 Bus Connection

4.5.1 System configurations and connection conditions



PLC		Connection cable	Max. distance	GT SoftGOT1000	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 SoftGOT1000 modules, monitoring is enabled on the multiple screens.

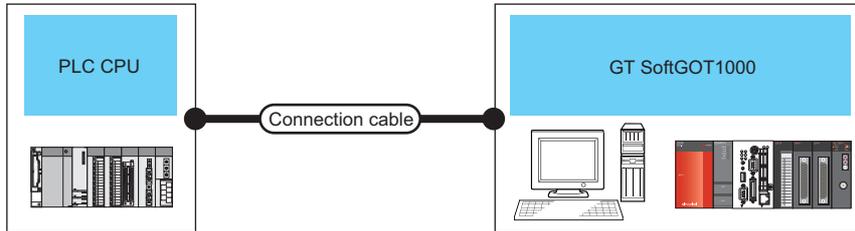
4.5.2 GT SoftGOT1000 setting

When communicating GT SoftGOT1000 to a PLC in bus connection, communication setup is required. Refer to the following for performing GT SoftGOT1000 communication setup.

 3.6.1 Communication setup dialog box

4.6 Direct CPU Connection

4.6.1 System configurations and connection conditions



PLC		Communication type	Connection cable	Max. distance	GT SoftGOT1000	Number of connectable equipment ^{*2}
Model name	Communication type					
RCPU	USB	USB 1) USB 4) USB 6)	5m	PC/AT compatible PC 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	Same as QCPU (Q mode) ^{*3}					
QSCPU	USB	USB 5)	3m		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 ^{*5}	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	1	
	Q series ^{*1}	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.)	
	A series	RS-422	RS-422 1)	15m	1	
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) ^{*4}					
CRnQ-700, CR750-Q, CR751-Q	Same as QCPU (Q mode) ^{*4}					

*1 For the motion controller CPU (Q series), only the PLC CPU area (CPU No.1) in the Q170MCP and Q170MSCPU can be monitored.

*2 When starting up multiple GT SoftGOT1000 modules, monitoring is enabled on the multiple screens.

*3 RS-232 (via a QCPU in the multiple CPU system)
USB (same as QCPU (Q mode))

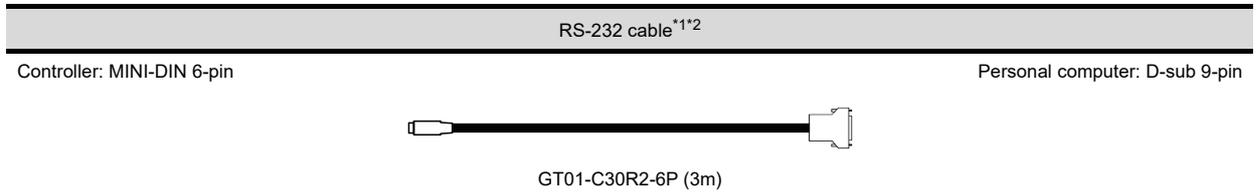
*4 Access the CPU via a QCPU in the multiple CPU system.

*5 For the FX3G series and the FX3GC series, the connection with a USB cable is available.

4.6.2 Connection cable

■ RS-232 1)

(1) MITSUBISHI SYSTEM & SERVICE product

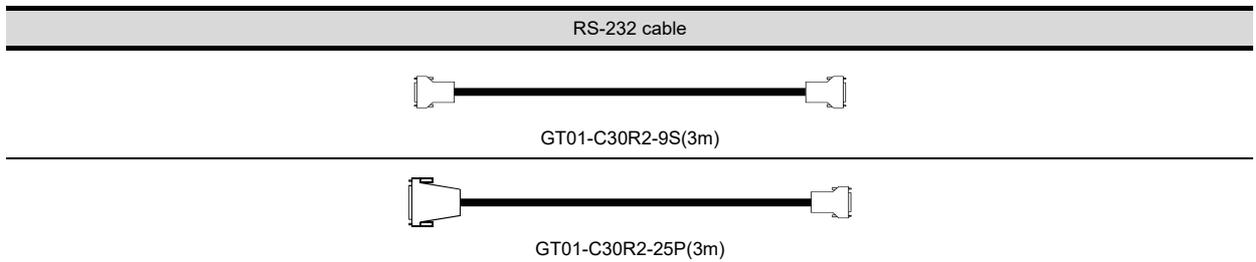


*1 For the motion controller CPU (Q series), only the PLC CPU area (CPU No.1) in the Q170MCPUCPU and Q170MSCPU can be monitored.

*2 The adapter L6ADP-R2 is required for the connection with LCPUCPU.

■ RS-232 2)

(1) MITSUBISHI SYSTEM & SERVICE product



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	
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
FX2N series	FX2N-232-BD	-	9-pin D-sub
	FX2N-CNV-BD	FX2NC-232ADP	
FX1NC, FX2NC series	-	FX2NC-232ADP	9-pin D-sub

Model name	Function expansion board	Function adapter	PC side connector
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
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	

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■ RS-422 1)

(1) MITSUBISHI ELECTRIC product

PLC CPU Side(RS-422 cable)	RS-232/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/FX3UC/FX3U/FX3G/FX3GCPU)	 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 products

F2-232CAB
Y990C*****

Compatible products (with indication of F/FX/A)

F2-232CAB(F/FX/A)
Y990C*****

F2-232CAB-1
Y990C*****

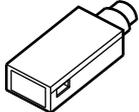
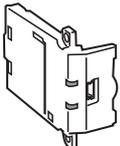
F2-232CAB-1(F/FX/A)
Y990C*****

*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.

■ RS-422 2)

(1) MITSUBISHI ELECTRIC product

RS-232/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 CDs 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.)

■ USB cable 1)

With RCP, LCP, Universal model QCPU, FXCPU, or CC-Link IE Field Network head module

(1) MITSUBISHI ELECTRIC 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)	

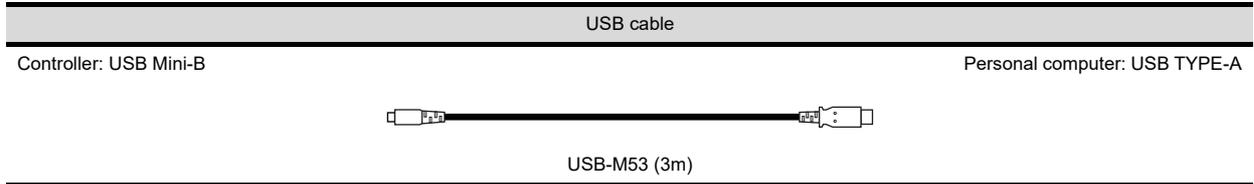
Refer to the following for FXCPU-applicable USB cables other than the above.

 [FX3G USER'S MANUAL \[Hardware Edition\]](#)

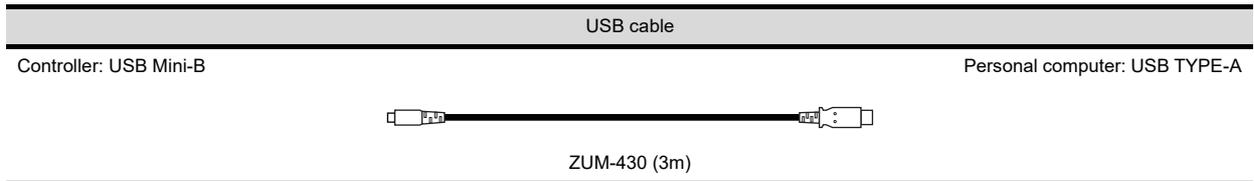
■ USB cable 2)

With LCPU, Universal model QCPU or CC-Link IE Field Network head module

(1) Product manufactured by ELECOM CO., LTD. (Recommended Product)



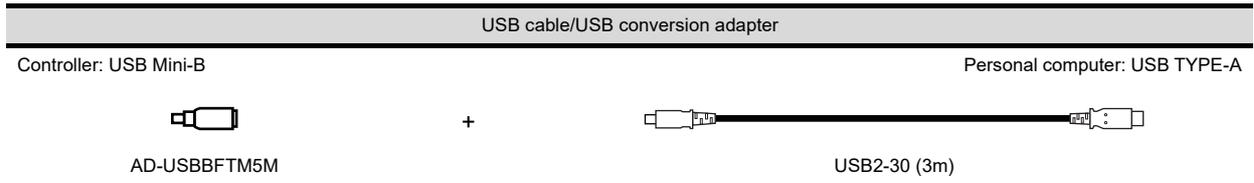
(2) Product manufactured by LOAS CO., LTD. (Recommended Product)



■ USB cable 3)

With Universal model QCPU

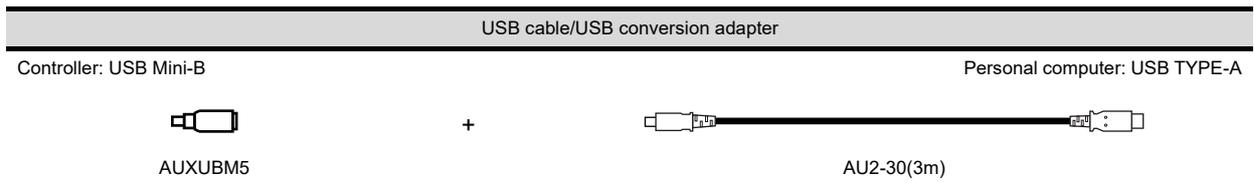
(1) Product manufactured by ELECOM CO., LTD. (Recommended Product)



■ USB cable 4)

With RCPUCPU or Universal model QCPU

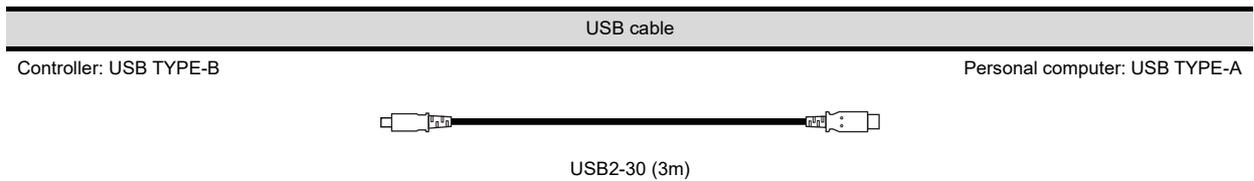
(1) Product manufactured by BUFFALO KOKUYO SUPPLY INC. (Recommended Product)



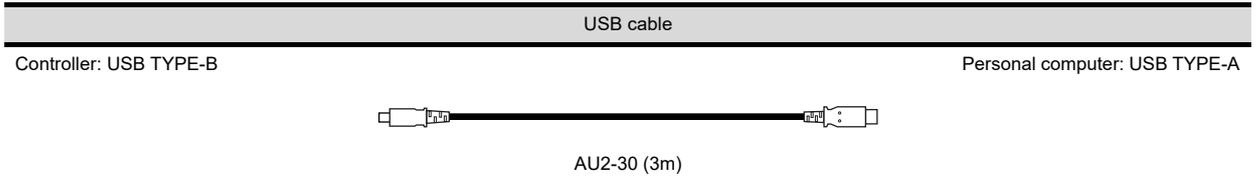
■ USB cable 5)

With Basic model QCPU, High Performance model QCPU, Process CPU, Redundant CPU, QSCPU

(1) Product manufactured by ELECOM CO., LTD. (Recommended Product)



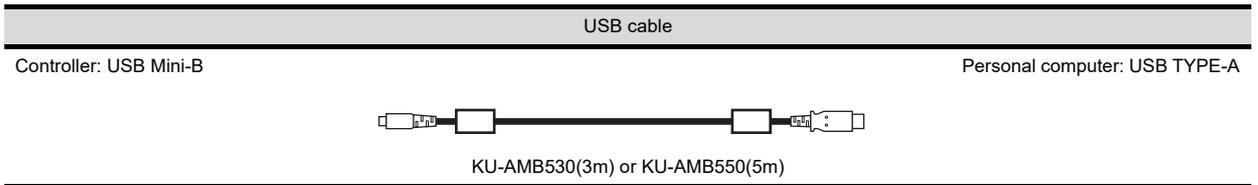
(2) Product manufactured by BUFFALO KOKUYO SUPPLY INC. (Recommended Product)



■ USB cable 6)

With Universal model RCP

(1) Product manufactured by SANWA SUPPLY INC. (Recommended Product)



4.6.3 GT SoftGOT1000 setting

When communicating GT SoftGOT1000 to a PLC in CPU direct connection, communication setup is required. Refer to the following for performing GT SoftGOT1000 communication setup.

 3.6.1 Communication setup dialog box

4.6.4 Precautions

■ 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.

■ USB cable

(1) Before using USB cable

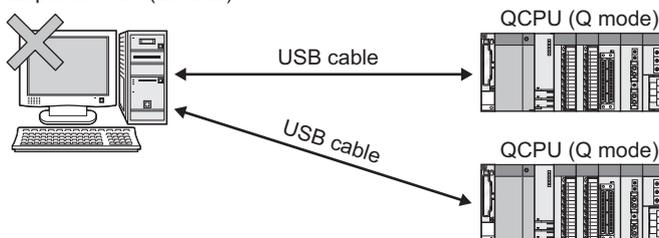
The USB cable can be used with the USB driver already installed.

(2) Number of connectable programmable controllers when using USB cable

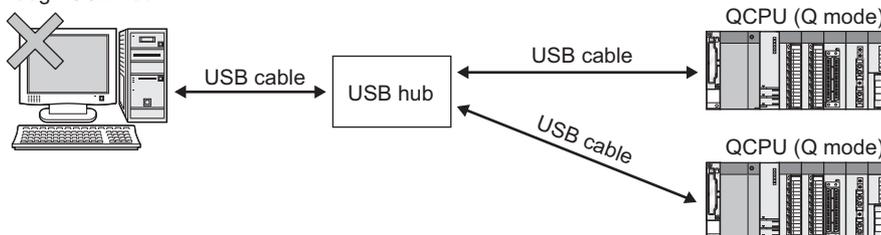
A single programmable controller can be connected when using the USB cable.

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 (Qmode)



- 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.

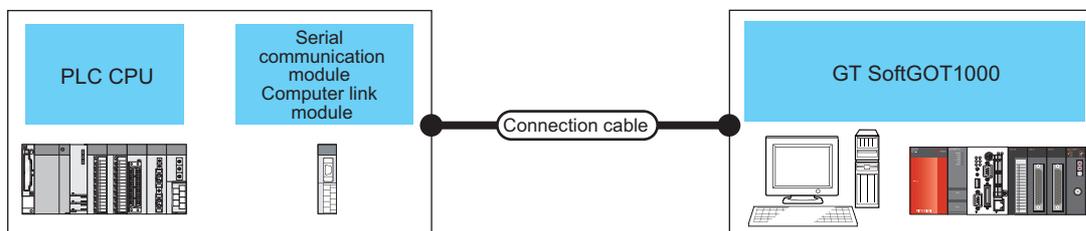
(☞ 3.10 Monitor Stop)

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.)

4.7 Computer Link Connection

4.7.1 System configurations and connection conditions



PLC		Communication type	Connection cable	Max. distance	GT SoftGOT1000	Number of connectable equipment* ¹	
Model name	Communication unit						
RCPUCPU	RJ71C24, RJ71C24-R2	RS-232	RS-232 1)	15m	PC/AT compatible PC PC CPU	1	
QCPU (Q mode)	QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71CMO, QJ71CMON						
QCPU (A mode)	A1SJ71UC24-R2, A1SJ71UC24-PRF, A1SJ71C24-R2, A1SJ71C24-PRF		RS-232 2)				
C controller* ⁴	MELSEC iQ-R series		RJ71C24, RJ71C24-R2				RS-232 1)
	Q series		QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71CMO, QJ71CMON				
LCPUCPU	LJ71C24, LJ71C24-R2		RS-232 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)				

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- 3 OPERATION OF GT SoftGOT1000
- 4 CONNECTION
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PLC			Connection cable	Max. distance	GT SoftGOT1000	Number of connectable equipment*1
Model name	Communication unit	Communication type				
Motion controller CPU	MELSEC iQ-R series	RJ71C24, RJ71C24-R2	RS-232 1)	15m	PC/AT compatible 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 SoftGOT1000 modules, monitoring is enabled on the multiple screens.
- *2 For the motion controller CPU (Q series), only the PLC CPU area (CPU No.1) in the Q170MCPUCPU and Q170MSCPU can be monitored.
- *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.

4.7.2 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.

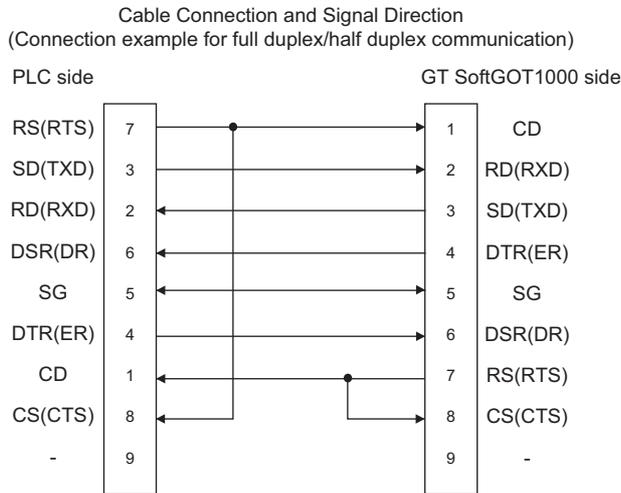
Item	Model name
RCPU	RJ71C24, RJ71C24-R2
QCPU (Q mode)	QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71CMO, QJ71CMON
QCPU (A mode)	A1SJ71UC24-R2, A1SJ71UC24-PRF, A1SJ71C24-R2, A1SJ71C24-PRF
LCPU	LJ71C24, LJ71C24-R2
QnACPU	AJ71QC24, AJ71QC24-R2, AJ71QC24N, AJ71QC24N-R2, A1SJ71QC24, A1SJ71QC24-R2, A1SJ71QC24N, 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 motion controller CPU (Q series), only the PLC CPU area (CPU No.1) in the Q170MCPUCPU and Q170MSCPU can be monitored.

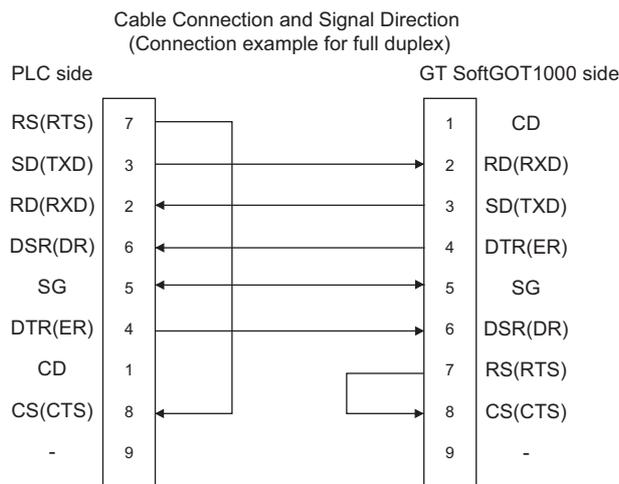
4.7.3 Connection cable

■ RS-232 1)

(1) Connection example which can turn ON/OFF CD signal (No. 1 pin)

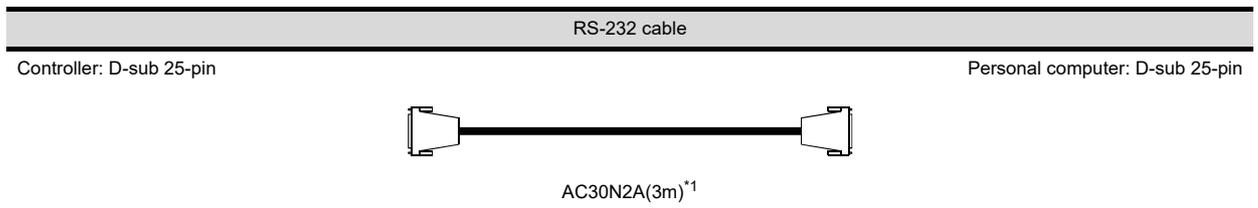


(2) Connection example which cannot turn ON/OFF CD signal (No. 1 pin) Connection example for exercising CD code control or DTR/DSR control.



■ RS-232 2)

(1) MITSUBISHI ELECTRIC product

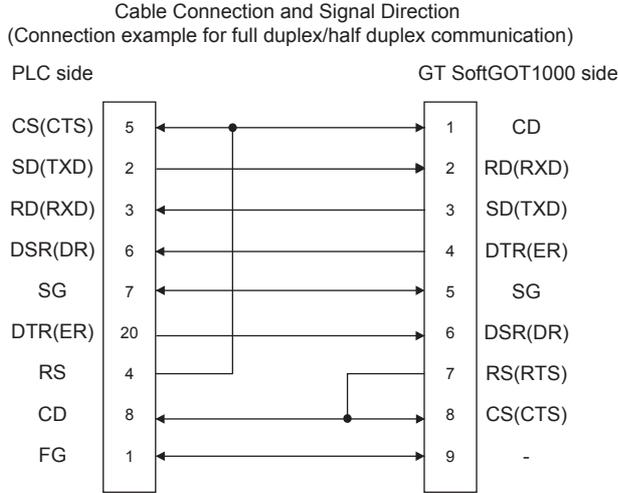


^{*1} When the port on the PC side is 9-pin D-sub, a 9-25 pin converter is required separately.

(2) User-created

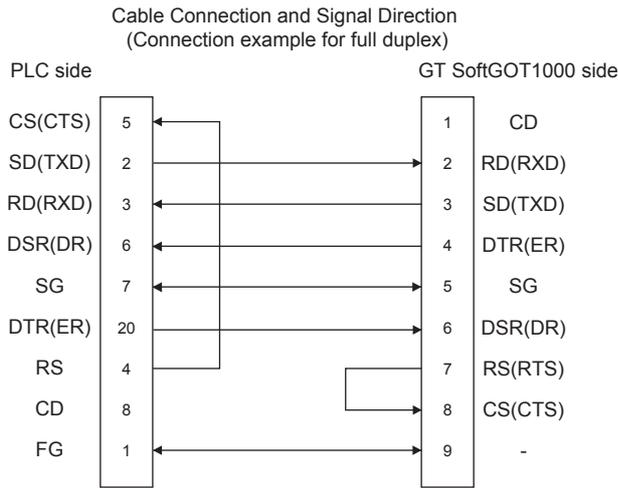
- QnA Series (large-scale QC24(N))

(a) Example of connection to an external device that allows the CD signal (No. 8 pin) to be turned ON/OFF



* DC code control or DTR/DSR control is enabled by connecting the QC24 (N) to an external device as shown above.

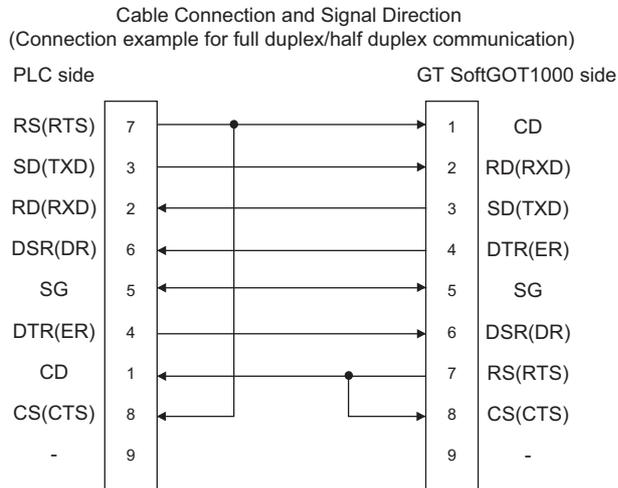
(b) Example of connection to an external device that does not allow the CD signal (No. 8 pin) to be turned ON/OFF



* DC code control or DTR/DSR control is enabled by connecting the QC24 (N) to an external device as shown above.

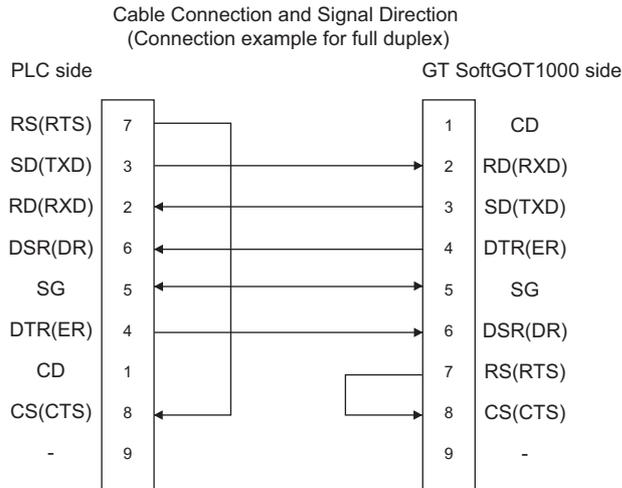
- QnA Series (compact-scale QC24(N))

(a) Example of connection to an external device that allows the CD signal (No.1 pin) to be turned ON/OFF



* DC code control or DTR/DSR control is enabled by connecting the QC24 (N) to an external device as shown above.

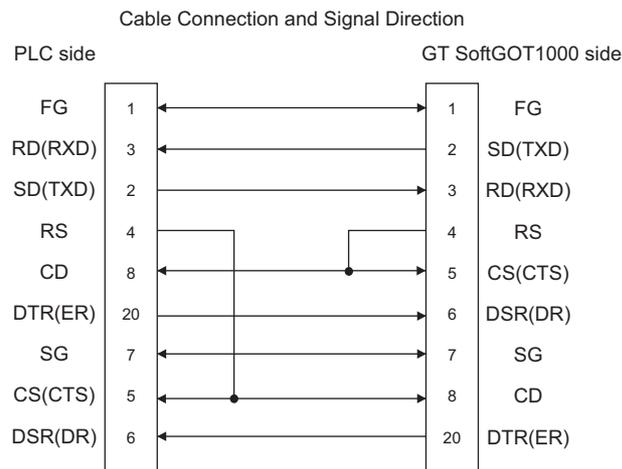
- (b) Example of connection to an external device that does not allow the CD signal (No. 1 pin) to be turned ON/OFF



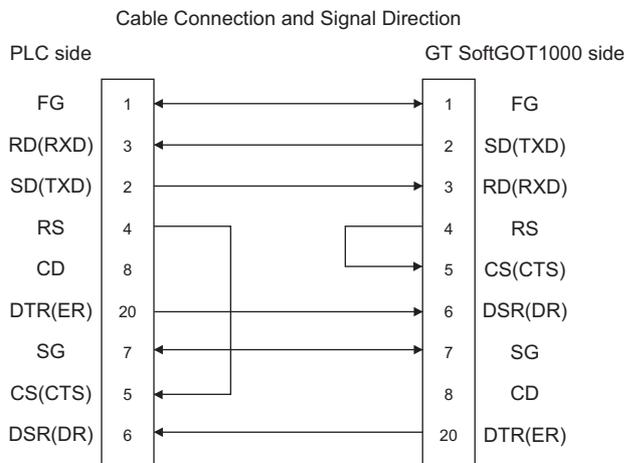
* DC code control or DTR/DSR control is enabled by connecting the QC24 (N) to an external device as shown above.

• A series

- (a) Connection example 1 when the C24 (computer link module) has a 25-pin connector

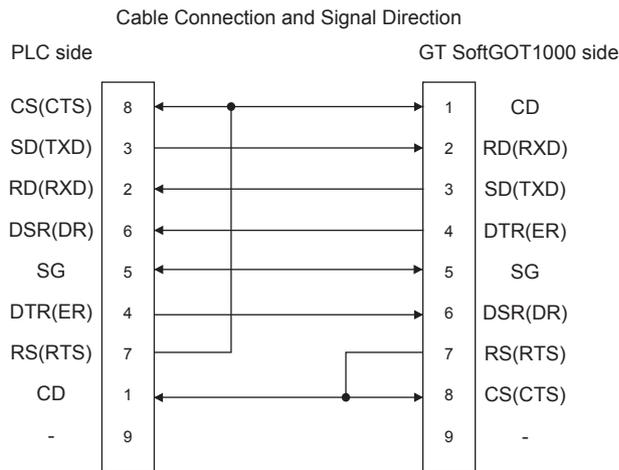


- (b) Connection example 2 when the C24 (computer link module) has a 25-pin connector

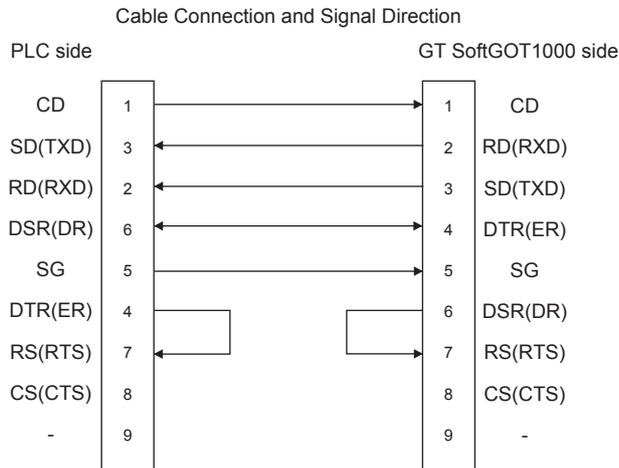


* When performing a communication in the connection shown above, the CD signal is not required to be connected. For the RS-232C CD terminal check setting (set by the buffer memory address "10BH"), specify "without CD terminal check (writing "1")"

(c) Connection example 1 when the C24 (computer link module) has a 9-pin connector



(d) Connection example 2 when the C24 (computer link module) has a 9-pin connector



- *1 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.
- *2 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")".

4.7.4 GT SoftGOT1000 side

When communicating GT SoftGOT1000 to a PLC in computer link 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	9600bps/ 19200bps	8 bits	1 bit	Yes (odd)	Yes

Refer to the following for performing GT SoftGOT1000 communication setup.

 3.6.1 Communication setup dialog box

4.7.5 Controller setting

■ When connecting to serial communication module (MELSEC iQ series, Q series, L series)

No switch setting is required for the serial communication module (MELSEC iQ series, Q series, L series). (GOT monitors via it without making switch setting in the I/O assignment setting of GX Developer.)

The following settings are also available for monitoring, according to the CH (interface) of the module to be connected with GT SoftGOT1000.

For the GX Developer operating method, refer to the GX Developer Operating Manual.

Channel where GT SoftGOT1000 is connected	Settings				
	Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
CH1	0000	0000			0000
CH2			0000	0000	0000

■ 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

■ 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	

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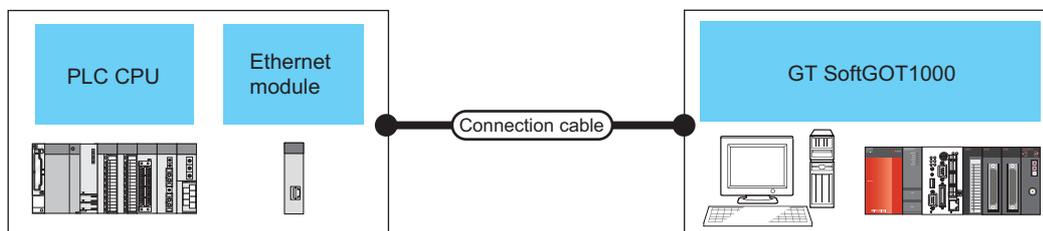
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4.8 Ethernet Connection

4.8.1 System configurations and connection conditions



PLC			Connection cable ^{*4}	Max. distance	GT SoftGOT1000	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)	PC/AT compatible PC PC CPU	128	128	
	RJ71EN71							
QCPU (Q mode)	(Built-in Ethernet port) ^{*8}	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	128 ^{*5}	128	
	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	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	128	128	
C controller	MELSEC iQ-R series	(Built-in Ethernet port) ^{*8}	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	1	128
		RJ71EN71						
	Q series	(Built-in Ethernet port) ^{*8}	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	16	128
		QJ71E71, QJ71E71-B2, QJ71E71-B5, QJ71E71-100						
QSCPU	QJ71E71, QJ71E71-B2, QJ71E71-B5, QJ71E71-100	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	128	128	
LCPU	(Built-in Ethernet port) ^{*8}	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	16	128	
	LJ71E71-100							

PLC			Connection cable*4	Max. distance	GT SoftGOT1000	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)	PC/AT compatible PC 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							
MELSEC iQ-F	(Built-in Ethernet port)*8	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	8	128	
FXCPU	FX3U-ENET-L, FX3U-ENET-ADP	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	2	128	
Motion controller CPU	MELSEC iQ-R series	RJ71EN71	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	128	128
	Q series*1	QJ71E71, QJ71E71-B2, QJ71E71-B5, QJ71E71-100						
	A series	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						
CC-Link IE Field Network Ethernet adapter module	(Built-in Ethernet port)*8							
CNC C70*3	(Built-in Ethernet port)*8							

- *1 For the motion controller CPU (Q series), only the PLC CPU area (CPU No.1) in the Q170MCP and Q170MSCPU can be monitored.
- *2 When starting up multiple GT SoftGOT1000 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 Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q03UDVCP, Q04UDVCP, Q06UDVCP, Q13UDVCP, Q26UDVCP, Q04UDPVCPU, Q06UDPVCPU, Q13UDPVCPU and Q26UDPVCPU.
- *6 This column shows the number of personal computers that can be connected to one PLC.
- *7 This column shows the number of PLCs that can be connected to one personal computer.
- *8 For the applicable CPUs, refer to the following.

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

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

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

■ Built-in Ethernet port CPU, Ethernet module

Item		Model name
RCPU	Built-in Ethernet port CPU	R04CPU, R08CPU, R16CPU, R32CPU, R120CPU, R16MTCPU, R32MTCPU, 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	Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU, 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 (MELSEC iQ-R series)	Built-in Ethernet port CPU	R12CCPU-V
	Ethernet module	RJ71EN71
C controller (Q series)	Built-in Ethernet port CPU	Q12DCCPU-V, Q24DHCCPU-V, Q24DHCCPU-LS, Q26DHCCPU-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
LCPU	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		FX ⁵ _U , FX ⁵ _{UC}
FXCPU		FX ³ _U -ENET-L* ² , FX ³ _U -ENET* ² , FX ³ _U -ENET-ADP* ³ * ⁴

*1 For the motion controller CPU (Q series), only the PLC CPU area (CPU No.1) in the Q170MCP and Q170MSCPU can be monitored.

*2 To use the FX³_U-ENET-L or FX³_U-ENET with the FX³_{UC}, the FX²_{NC}-CNV-IF or FX³_{UC}-1PS-5V is required.

*3 To use the FX³_U-ENET-ADP, the FX³_U-CNV-BD, FX³_U-422-BD, or FX³_U-232-BD is required.

*4 Version 3.10 or later is required.

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

■ 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.

4.8.3 Connection cable

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

4.8.4 Controller setting

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 SoftGOT1000) are connected, line traffic may become dense, causing a time-out error.

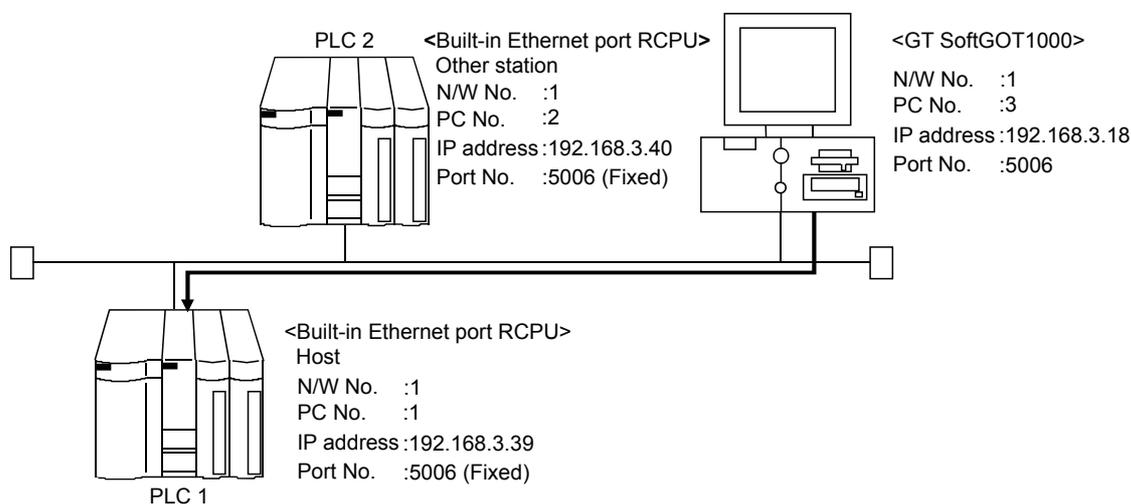
If a time-out error occurs, reduce the number of connected devices or increase the time-out value in the Communication Setup of GT SoftGOT1000.

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

The setting items and precautions are shown below for communicating GT SoftGOT1000 to Built-in Ethernet port RCPU.

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 N/W No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT1000.

 (7) Settings with GT Designer3 and GT SoftGOT1000

(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 setting

(7) Settings with GT Designer3 and GT SoftGOT1000

(b) Precautions for communication

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(2) Compatible models

Compatible models				
R04CPU,	R08CPU,	R16CPU,	R32CPU,	R120CPU,
R16MTCPU,	R32MTCPU,	R08PCPU,	R16PCPU,	R32PCPU,
R120PCPU,	R08SFCPU,	R16SFCPU,	R32SFCPU,	R120SFCPU,
R04ENCPU,	R08ENCPU,	R16ENCPU,	R32ENCPU,	R120ENCPU

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

Set the Built-in Ethernet port for the module parameter setting. (multiple connection only)

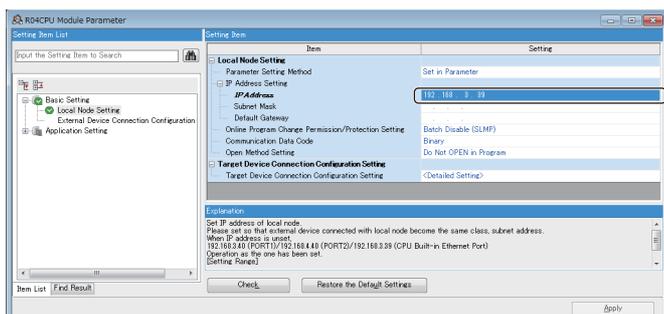
To make communications with GX Works3, ask the person in charge of the network about the IP address setting to confirm, and set the IP address.

Set the other items according to the system used.

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

 GX Works3 Operating Manual

Set IP Address of PLC1 in [IP Address].



Set IP Address for PLC1.

(4) Routing 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.

No.	Relay Station		Target Station
	Network No.	Station No.	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

Explanation
In order to turn to other network, set network/station No. of passing local network (relay station) and network No. of final attainment destination (target station).
[Relay Station Network No. Setting Range]
1 to 239
[Relay Station No. Setting Range]
0 to 120
[Target Station Network No. Setting Range]
1 to 239
[Setting Count]
1 to 238

Check Restore the Default Settings Apply

Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the request source

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

Refer to the following for routing parameter setting.

(7) Settings with GT Designer3 and GT SoftGOT1000

(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. 39
Reply from 192. 168. 3. 39:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 3. 39
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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

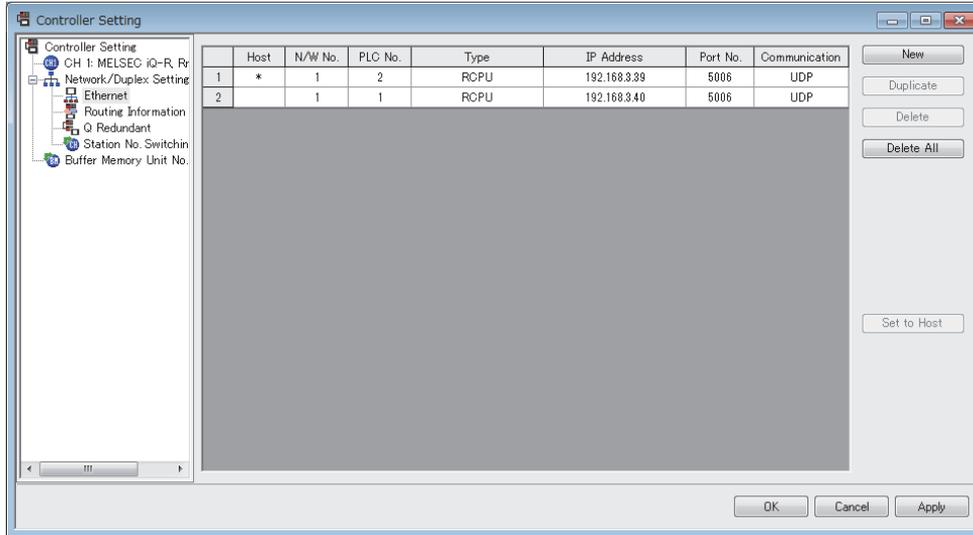
(7) Settings with GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 120
Type	Set the type of the target Ethernet module.	RCPUI
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 box of GT Designer3.
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.

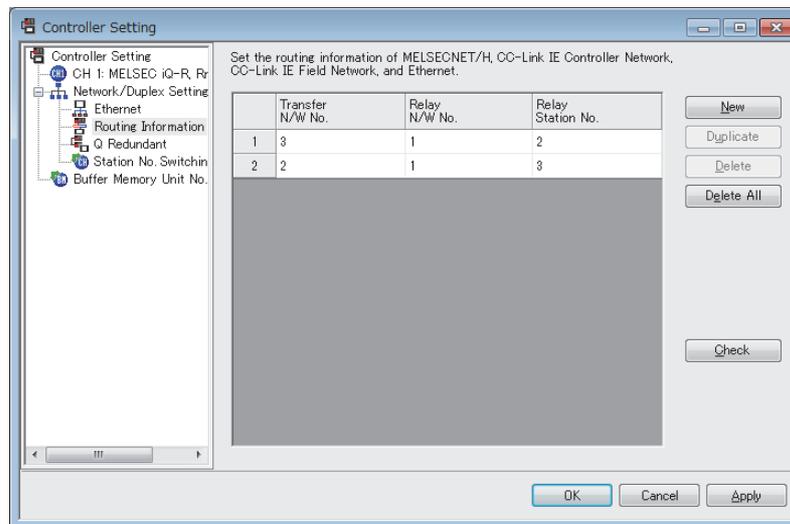
POINT

Routing parameter setting

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

Refer to the following for details of routing parameter setting.

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



Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the relay station

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

Refer to the following for routing parameter setting.

 (4) Routing setting

(b) Setting on GT SoftGOT1000

- Communication setup
Set the communication setup dialog box of GT SoftGOT1000.
For details on the communication setting, refer to the following manual.

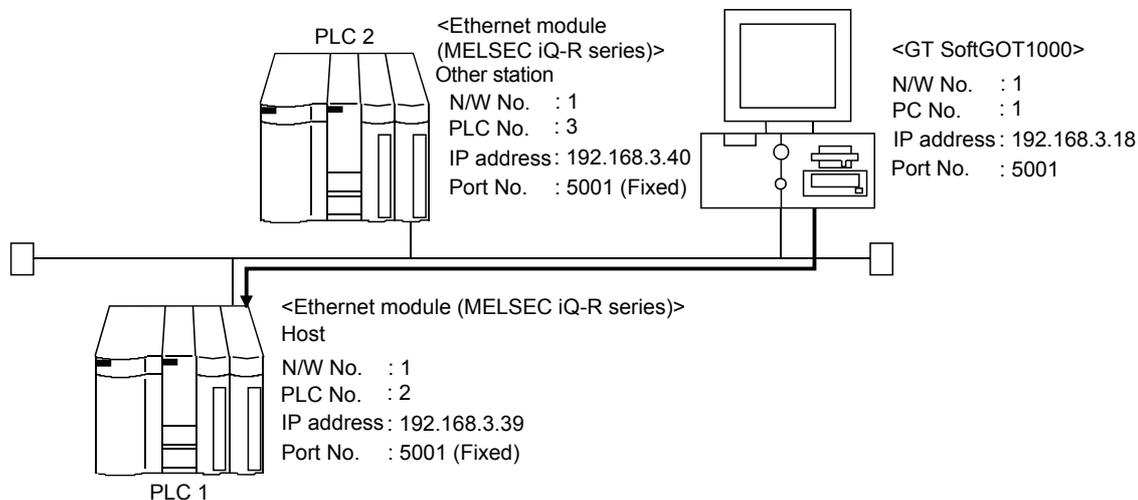
 3.6.1 Communication setup dialog box

■ When using Ethernet module (MELSEC iQ-R series)

The setting items and precautions are shown below for communicating GT SoftGOT1000 to the PLC CPU via the Ethernet module (MELSEC iQ-R 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 N/W No., PLC No./PC No., IP address and port No. of the Ethernet module (MELSEC iQ-R series) and GT SoftGOT1000.

☞ (7) Settings with GT Designer3 and GT SoftGOT1000

(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 setting

(7) Settings with GT Designer3 and GT SoftGOT1000

(b) Precautions for communication

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(2) Compatible models

Compatible models

RJ71EN71

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

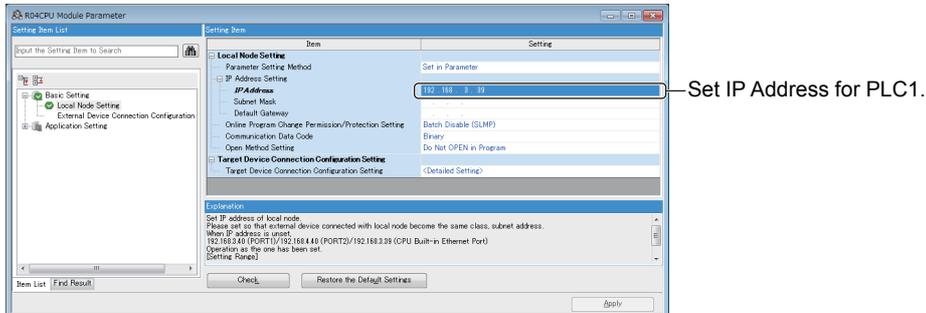
Set the Ethernet module (MELSEC iQ-R series) of the module parameter setting. (multiple connection only)
To make communications with GX Works3, ask the person in charge of the network about the IP address setting to confirm, and set the IP address.

Set the other items according to the system used.

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

 GX Works3 Operating Manual

Set IP Address of PLC1 in [IP Address].

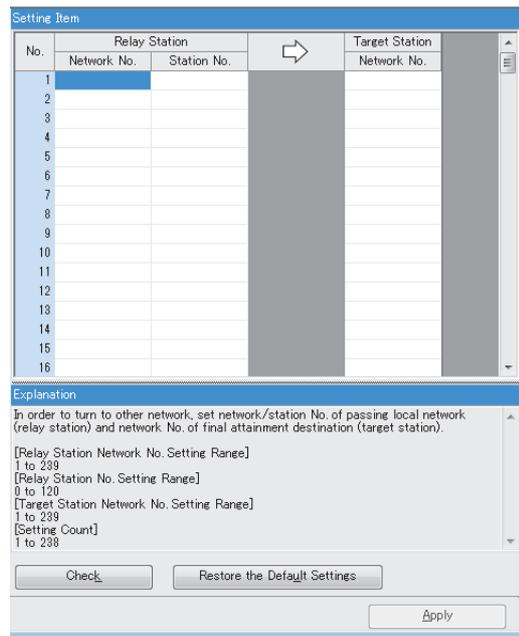


(4) Routing setting

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.



Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the request source

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

Refer to the following for routing parameter setting.

 (7) Settings with GT Designer3 and GT SoftGOT1000

(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. 19
Reply from 192. 168. 3. 19:bytes=32 time<10ms TTL=32
- When connections are not good
C:\>ping 192. 168. 3. 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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

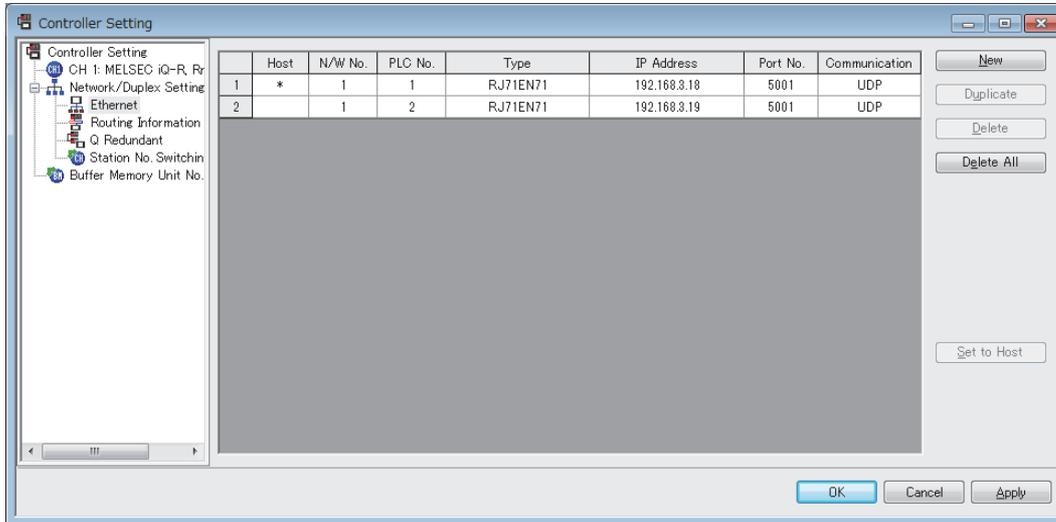
(7) Settings with GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 120
Type	Set 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 box of GT Designer3.
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.

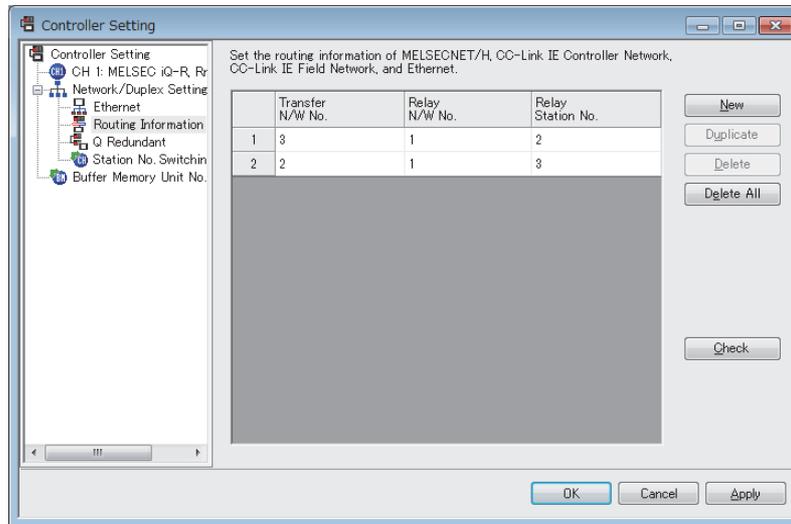
POINT

Routing parameter setting

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

Refer to the following for details of routing parameter setting.

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



Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the relay station

The PLC at the relay station also requires the routing parameter setting.
Refer to the following for routing parameter setting.

☞ (4) Routing setting

(b) Setting on GT SoftGOT1000

- Communication setup
Set the communication setup dialog box of GT SoftGOT1000.
For details on the communication setting, refer to the following manual.

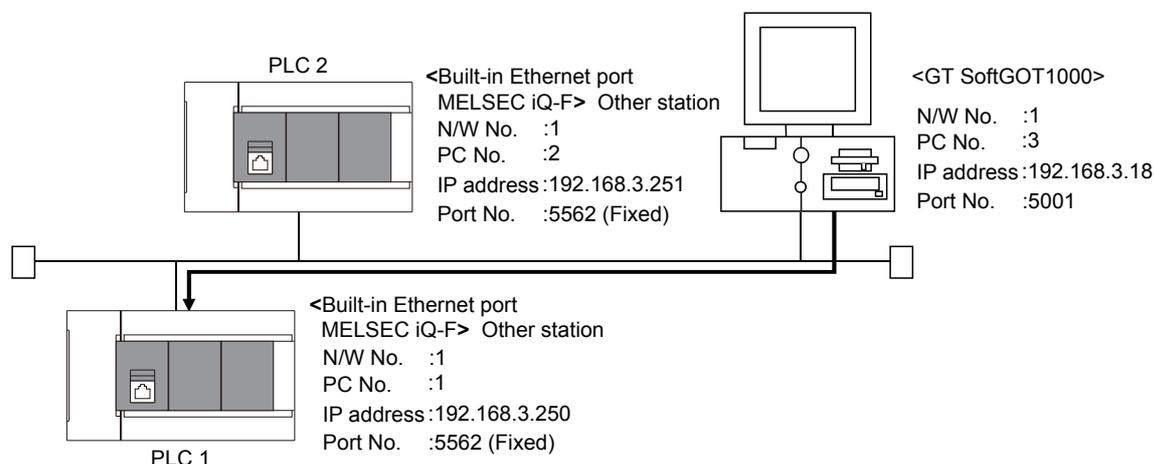
☞ 3.6.1 Communication setup dialog box

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

The setting items and precautions shown below are for the communication from GT SoftGOT1000 via 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 N/W No., PLC No./PC No., IP address and port No. of the CPU module and GT SoftGOT1000.

☞ (7) Settings with GT Designer3 and GT SoftGOT1000

(1) Before setting

- (a) Precautions for monitoring
The CPUs on other networks cannot be monitored.
- (b) Precautions for communication
 - When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
 - When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
 - When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(2) Compatible models

Compatible models	
FX _{5u} ,	FX _{5uc}

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

Set the Built-in Ethernet port for the module parameter setting. (multiple connection only)

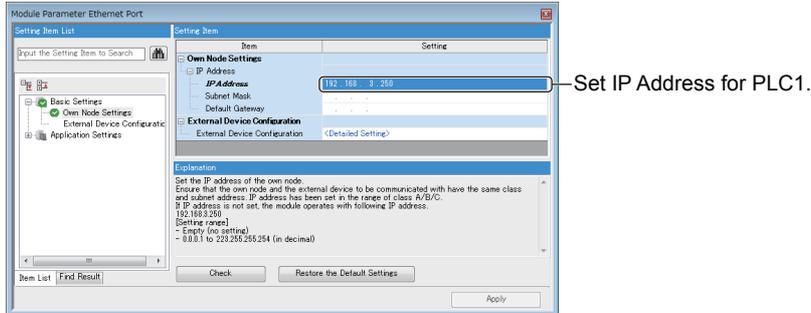
To make communications with GX Works3, ask the person in charge of the network about the IP address setting to confirm, and set the IP address.

Set the other items according to the system used.

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

 GX Works3 Operating Manual

Set IP Address of 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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

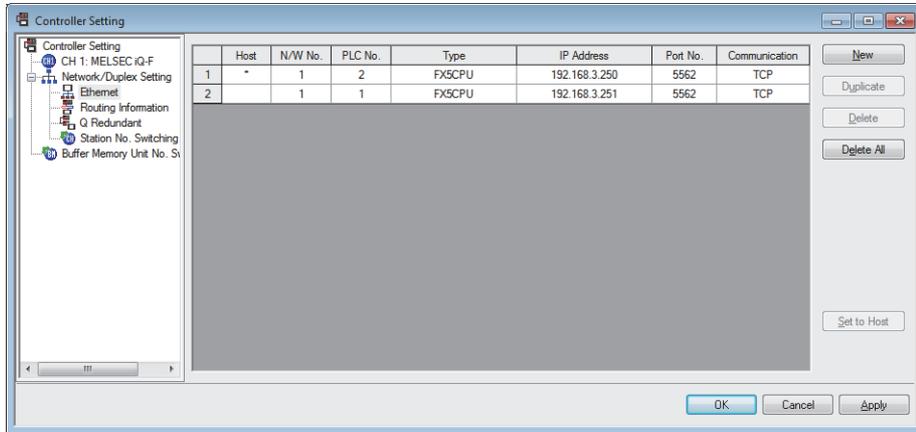
(6) Settings with GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 120
Type	Set 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 SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

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

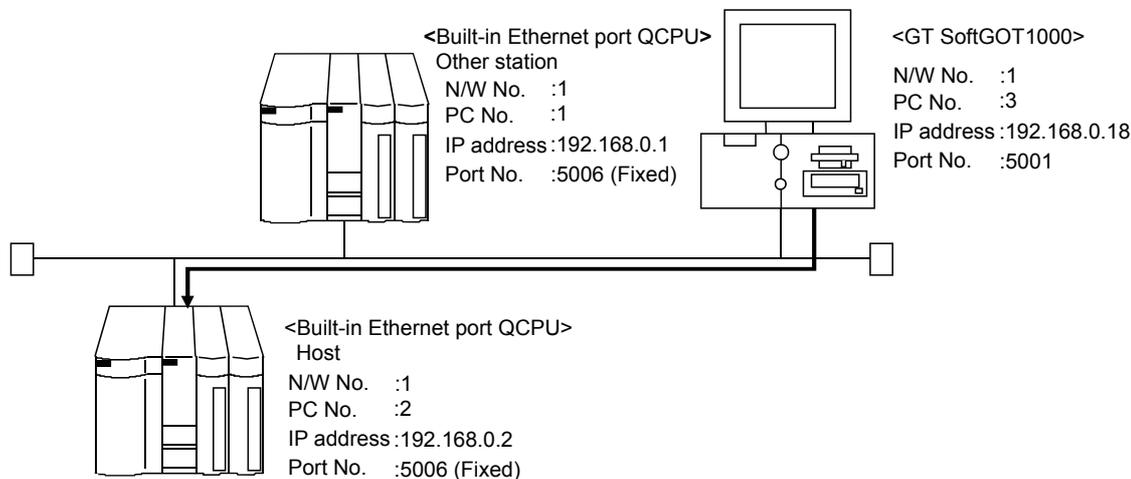
☞ 3.6.1 Communication setup dialog box

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

The setting items and precautions are shown below for communicating GT SoftGOT1000 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 N/W No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT1000.

☞ (7) Settings with GT Designer3 and GT SoftGOT1000

(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 setting

(7) Settings with GT Designer3 and GT SoftGOT1000

(b) Precautions for communication

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(2) Compatible models

Compatible models				
Q03UDECPU,	Q04UDEHCPU,	Q06UDEHCPU,	Q10UDEHCPU,	Q13UDEHCPU,
Q20UDEHCPU,	Q26UDEHCPU,	Q50UDEHCPU,	Q100UDEHCPU,	Q03UDVCPU,
Q04UDVCPU,	Q06UDVCPU,	Q13UDVCPU,	Q26UDVCPU,	Q04UDPVCPU,
Q06UDPVCPU,	Q13UDPVCPU,	Q26UDPVCPU		

(3) Setting on 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	
Open settings	

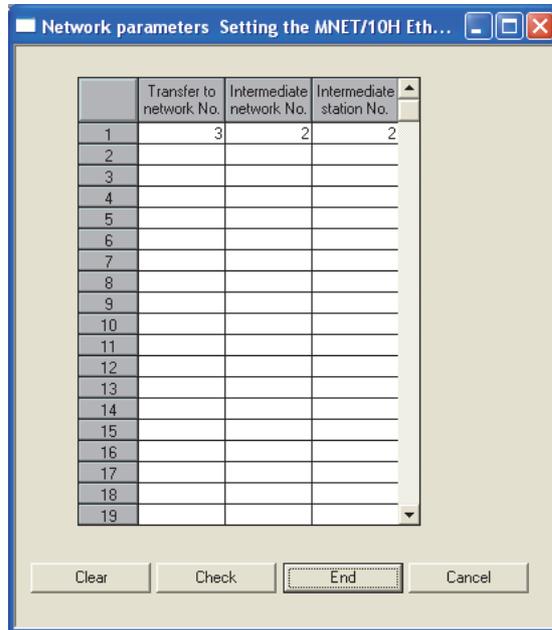
To make communications with GX Developer, ask the person in charge of the network about the IP address setting to confirm, and set the IP address.
Set the other items according to the specifications of other nodes and applications connected to the Ethernet module.

(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.



Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the request source

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

Refer to the following for routing parameter setting.

 (7) Settings with GT Designer3 and GT SoftGOT1000

(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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

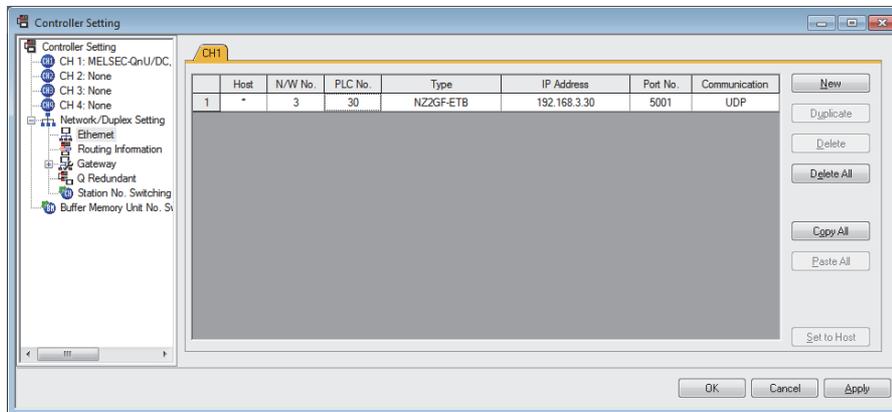
(7) Settings with GT Designer3 and GT SoftGOT1000

- (a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
Type	Set 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 box of GT Designer3.
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.

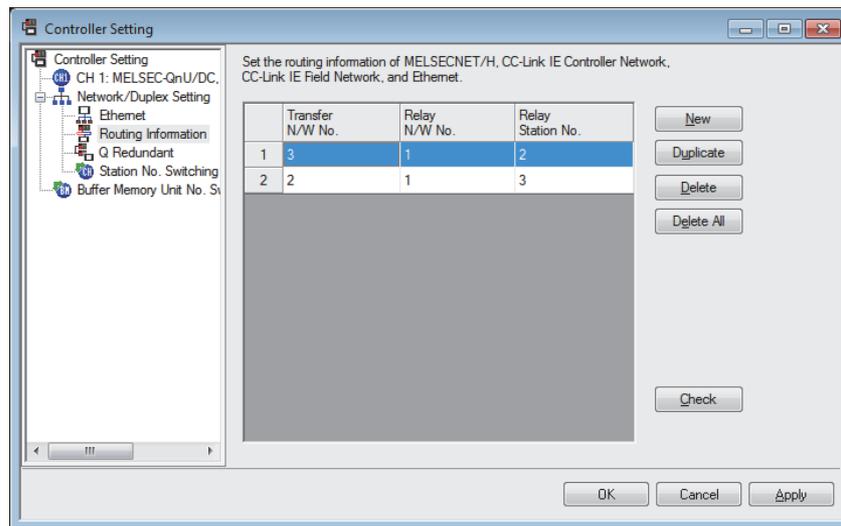
POINT

Routing parameter setting

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

Refer to the following for details of routing parameter setting.

 Q Corresponding Ethernet Interface Module User's Manual (Application)



Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the relay station

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

Refer to the following for routing parameter setting.

 (4) Routing setting

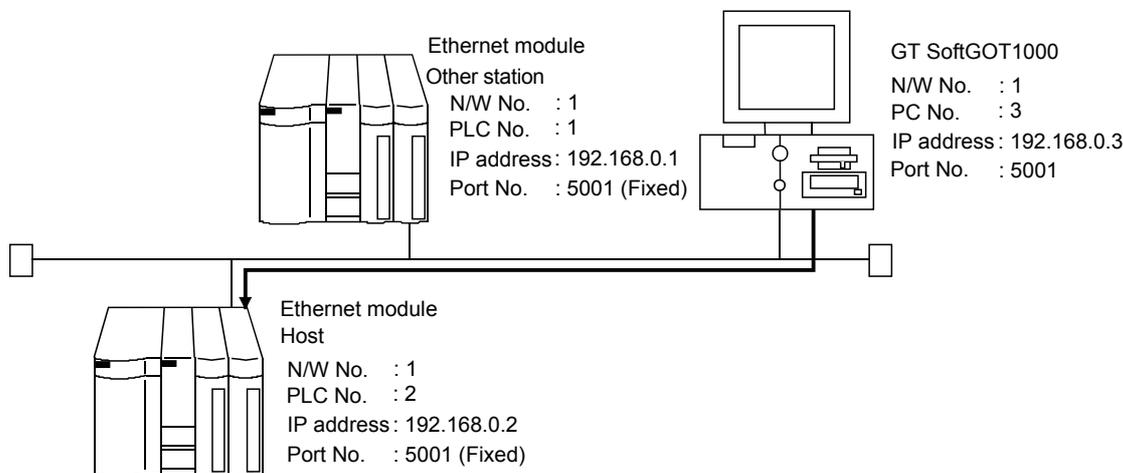
- (b) Setting on GT SoftGOT1000
 - Communication setup
Set the communication setup dialog box of GT SoftGOT1000.
For details on the communication setting, refer to the following manual.
 3.6.1 Communication setup dialog box

■ When using Ethernet module (Q series, L series)

The setting items and precautions are shown below for communicating GT SoftGOT1000 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 N/W No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT1000.

☞ (7) Settings with GT Designer3 and GT SoftGOT1000

(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 setting

(7) Settings with GT Designer3 and GT SoftGOT1000

(b) Precautions for communication

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.

The following countermeasures may improve the communication performance.

- Use a switching hub.
- Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
- Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.

Doing so may cause a communication error on the GOT.

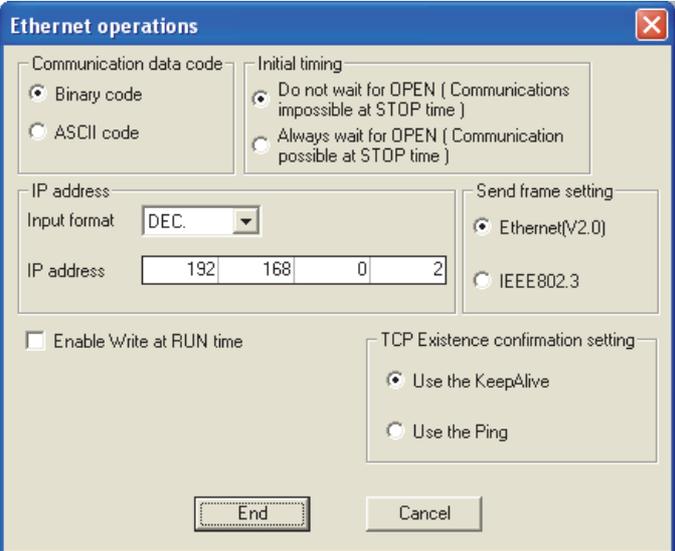
(2) Compatible models

Compatible models				
QJ71E71-100,	QJ71E71-B5,	QJ71E71-B2,	QJ71E71,	LJ71E71-100

(3) Setting on 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	Network type	Module 1: Ethernet Module 2: 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	

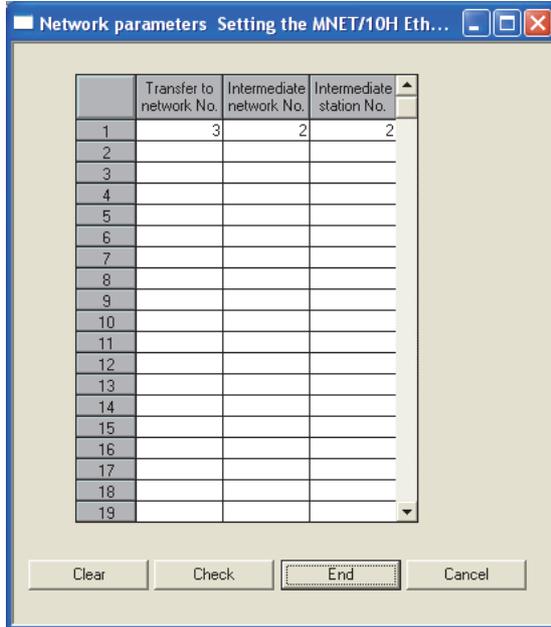
Operation Setting	 <p>The screenshot shows the 'Ethernet operations' dialog box with the following settings:</p> <ul style="list-style-type: none"> Communication data code: <input checked="" type="radio"/> Binary code, <input type="radio"/> ASCII code Initial timing: <input checked="" type="radio"/> Do not wait for OPEN (Communications impossible at STOP time), <input type="radio"/> Always wait for OPEN (Communication possible at STOP time) IP address: Input format DEC, IP address 192.168.0.2 Send frame setting: <input checked="" type="radio"/> Ethernet(V2.0), <input type="radio"/> IEEE802.3 Enable Write at RUN time: <input type="checkbox"/> TCP Existence confirmation setting: <input checked="" type="radio"/> Use the KeepAlive, <input type="radio"/> Use the Ping
	<p>To make communications with GX Developer, ask the person in charge of the network about the IP address setting to confirm, and set the IP address.</p> <p>Set the other items according to the specifications of other nodes and applications connected to the Ethernet module compatible with QCPU or LCPU.</p> <p>The following are the operation setting items that can be set on GX Developer.</p> <p>[Communication data code]: Either the binary code or ASCII code can be specified.</p> <p>[Initial timing]: Communications can be made from GX Developer even when the PLC CPU is in the STOP status.</p> <p>[Enable Write at RUN time]: The online change or device test can be performed with GX Developer.</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.



Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the request source

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

Refer to the following for routing parameter setting.

 (7) Settings with GT Designer3 and GT SoftGOT1000

(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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

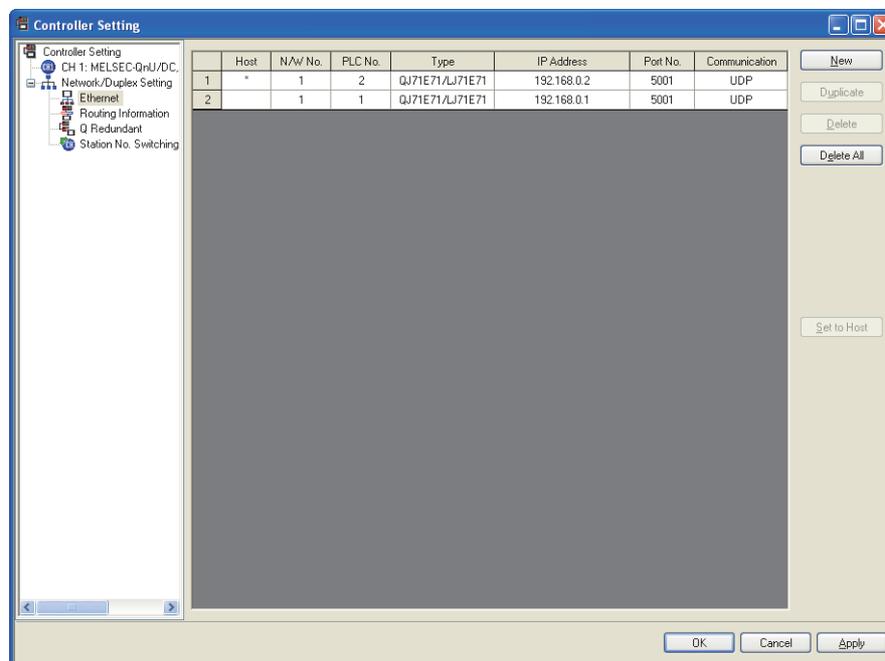
(7) Settings with GT Designer3 and GT SoftGOT1000

- (a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
Type	Set 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 box of GT Designer3.
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.

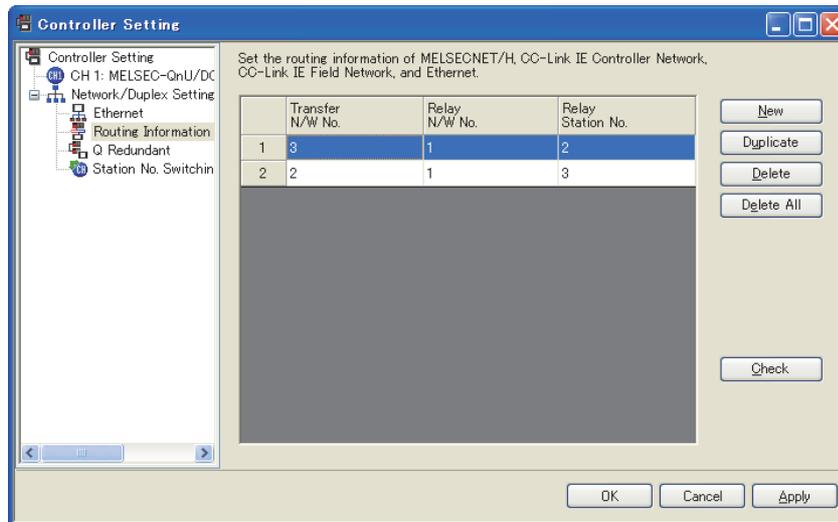
POINT

Routing parameter setting

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

Refer to the following for details of routing parameter setting.

☞ Q Corresponding Ethernet Interface Module User's Manual (Application)



Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the relay station

The PLC at the relay station also requires the routing parameter setting.
Refer to the following for routing parameter setting.

☞ (4) Routing setting

(b) Setting on GT SoftGOT1000

- Communication setup
Set the communication setup dialog box of GT SoftGOT1000.
For details on the communication setting, refer to the following manual.

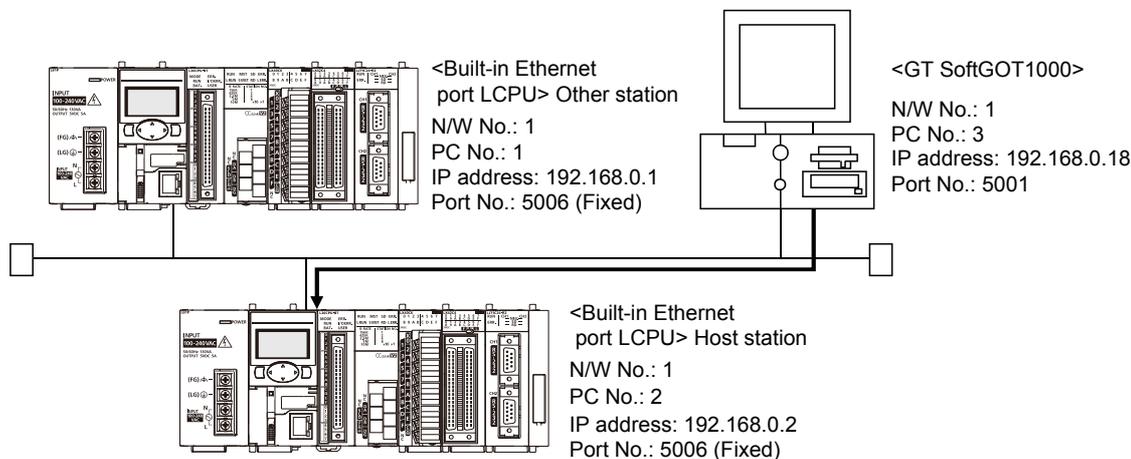
☞ 3.6.1 Communication setup dialog box

■ When using Built-in Ethernet port LCPU (one-to-one connection, multiple connection)

The setting items and precautions are shown below for communicating GT SoftGOT1000 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 N/W No., PLC No./PC No., IP address and port No. of the CPU module and GT SoftGOT1000.

☞ (6) Settings with GT Designer3 and GT SoftGOT1000

(1) Before setting

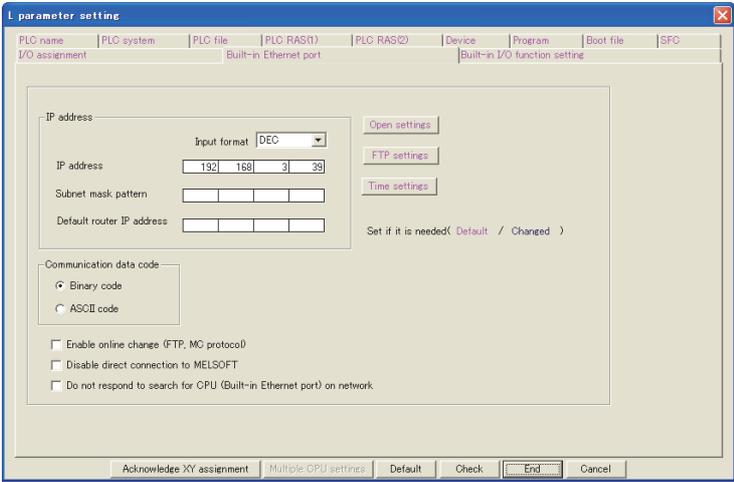
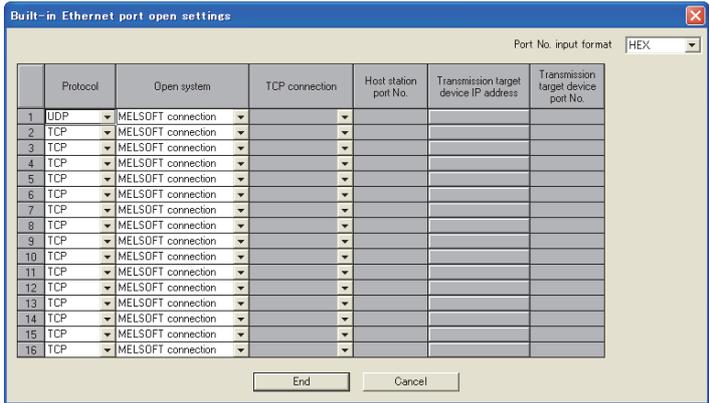
- (a) Precautions for monitoring
The CPUs on other networks cannot be monitored.
- (b) Precautions for communication
 - When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
 - When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
 - When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(2) Compatible models

Compatible models				
L02CPU,	L06CPU,	L26CPU,	L26CPU-BT,	L02CPU-P,
L06CPU-P,	L26CPU-P,	L26CPU-PBT		

(3) Setting on 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	 <p>To make communications with 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 other nodes and applications connected to the Ethernet module.</p>
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 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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

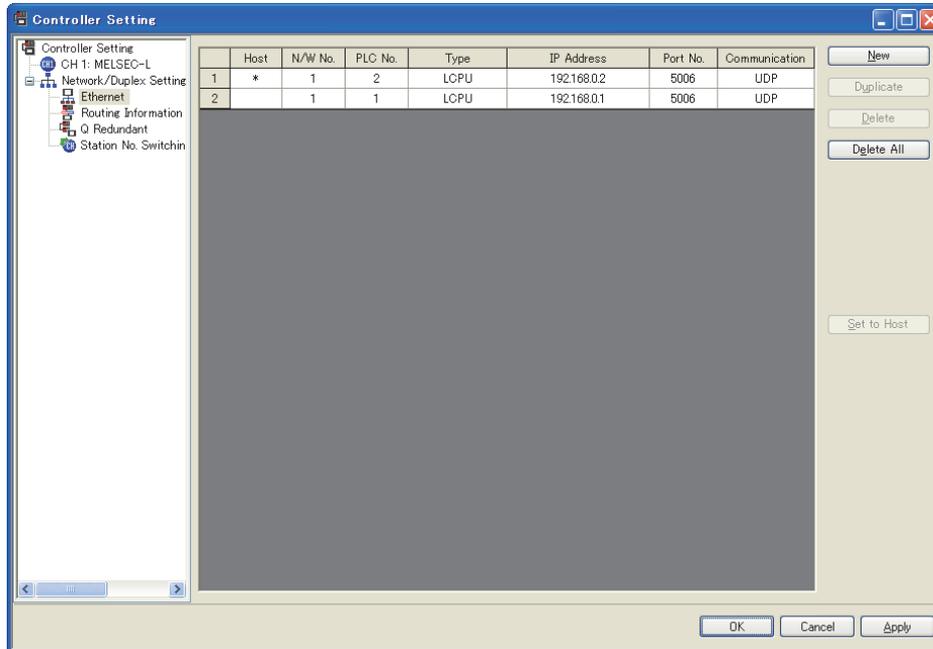
(6) Settings with GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
Type	Set 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 SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

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

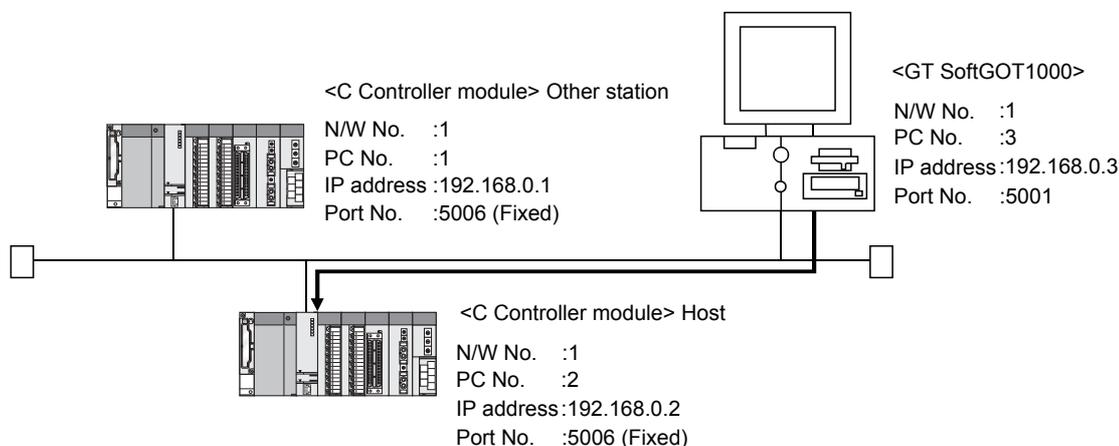
 3.6.1 Communication setup dialog box

■ When using C Controller module

For communications with GT SoftGOT1000 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 N/W No., PLC No./PC No., IP address and port No. of C Controller module and GT SoftGOT1000.

☞ (6) Settings on GT Designer3 and GT SoftGOT1000

(1) Before setting

- (a) Precautions for monitoring
GT SoftGOT1000 cannot monitor CPUs on the other networks.
- (b) Precautions for communication
 - When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
 - When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
 - When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(2) Compatible models

Compatible models				
R12CCPU-V,	Q12DCCPU-V,	Q24DHCCPU-V,	Q24DHCCPU-VG,	Q26DHCCPU-LS,
Q24DHCCPU-LS				

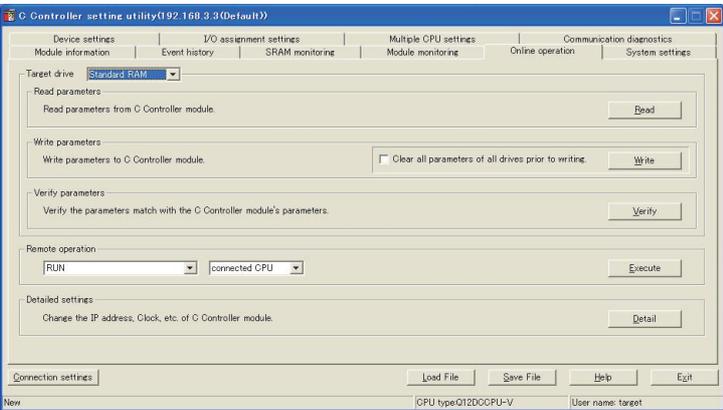
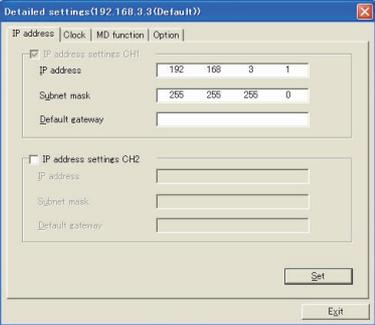
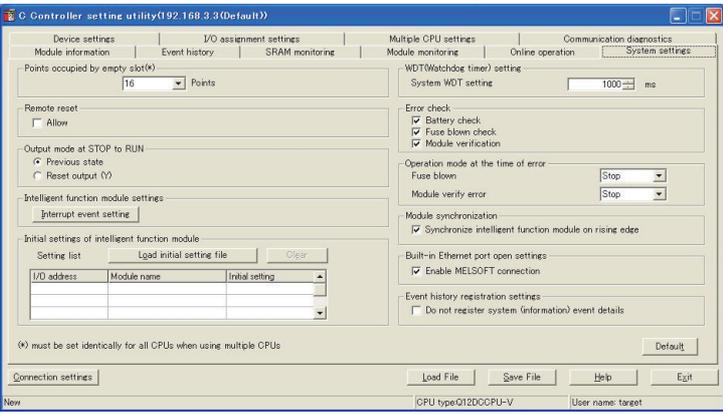
(3) Setting on C Controller setting utility (Parameter setting)

Set the parameter on C Controller setting utility.

Use SW3PVC-CCPU-J Ver.3.05F or later for the C Controller setting utility.

For details of the C Controller setting utility, refer to the following manual.

 C Controller Module User's Manual (Utility Operation, Programming)

Item	Setting Screen Examples
Connection settings	 <p>The screenshot shows a 'Connection settings' dialog box. It has a 'Target module' dropdown menu set to '192.168.3.3(Default)'. There are buttons for 'Test', 'Clear history', and 'Detailed settings'. A 'Write authority' checkbox is checked. Below it are input fields for 'User name' (containing 'target') and 'Password' (containing '*****'). At the bottom are 'Connect' and 'Exit' buttons.</p> <p>If the IP address of the C controller module has been changed, input the changed IP address or host name. If the account of the C controller module has been changed, input the changed user name and password.</p>
Online operation	 <p>The screenshot shows the main window of the 'C Controller setting utility'. It has multiple tabs: 'Device settings', 'I/O assignment settings', 'Multiple CPU settings', and 'Communication diagnostics'. The 'I/O assignment settings' tab is active, showing options for 'Read parameters', 'Write parameters', 'Verify parameters', and 'Remote operation'. The 'Remote operation' dropdown is set to 'RUN' and 'connected CPU'. At the bottom, there are buttons for 'Load File', 'Save File', 'Help', and 'Exit'. The status bar shows 'New', 'CPU type: Q120CCPU-V', and 'User name: target'.</p>
Detailed settings	 <p>The screenshot shows a 'Detailed settings' dialog box for IP address settings. It has tabs for 'IP address', 'Clock', 'MD function', and 'Option'. The 'IP address' tab is active, showing 'IP address settings CH1' with fields for IP address (192.168.3.1), Subnet mask (255.255.255.0), and Default gateway. There are also fields for 'IP address settings CH2'. A 'Set' button and an 'Exit' button are at the bottom.</p>
System settings	 <p>The screenshot shows the main window of the 'C Controller setting utility' with the 'System settings' tab active. It shows various configuration options such as 'Points occupied by empty slot', 'Remote reset', 'Output mode at STOP to RUN', 'Intelligent function module settings', 'Initial settings of intelligent function module', 'WDT (Watchdog timer) setting', 'Error check', 'Operation mode at the time of error', 'Module synchronization', and 'Event history registration settings'. At the bottom, there are buttons for 'Load File', 'Save File', 'Help', and 'Exit'. The status bar shows 'New', 'CPU type: Q120CCPU-V', and 'User name: target'.</p>

(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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

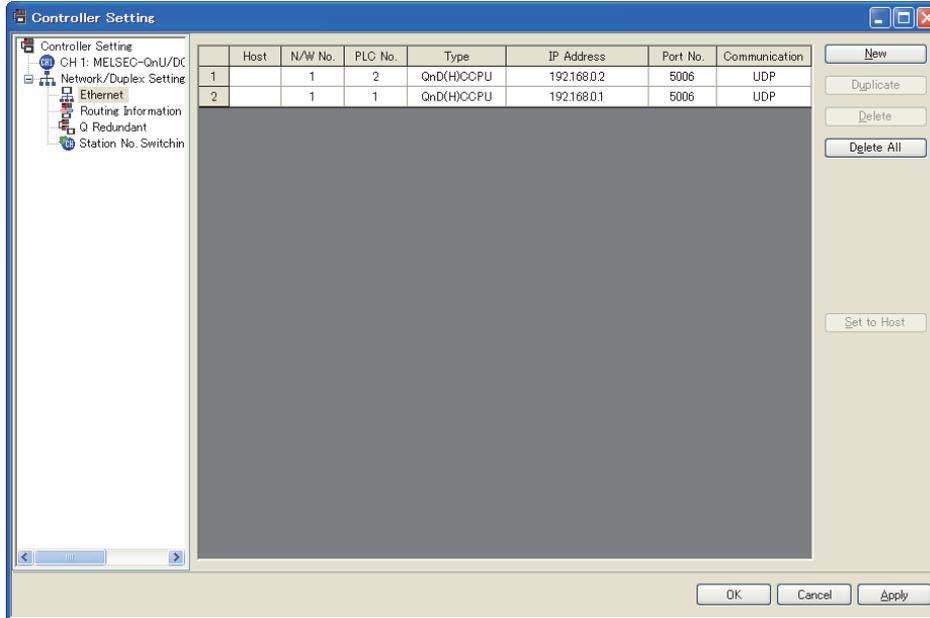
(6) Settings on GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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 C Controller module.	1 to 239 ^{*1}
PLC No.	Set the station number of the target C Controller module.	1 to 64 ^{*2}
Type	Set 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 N/W 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 SoftGOT1000

- Communication Setup

Make the settings in the Communication Setup dialog box of GT SoftGOT1000.

Refer to the following for details of Communication Setup.

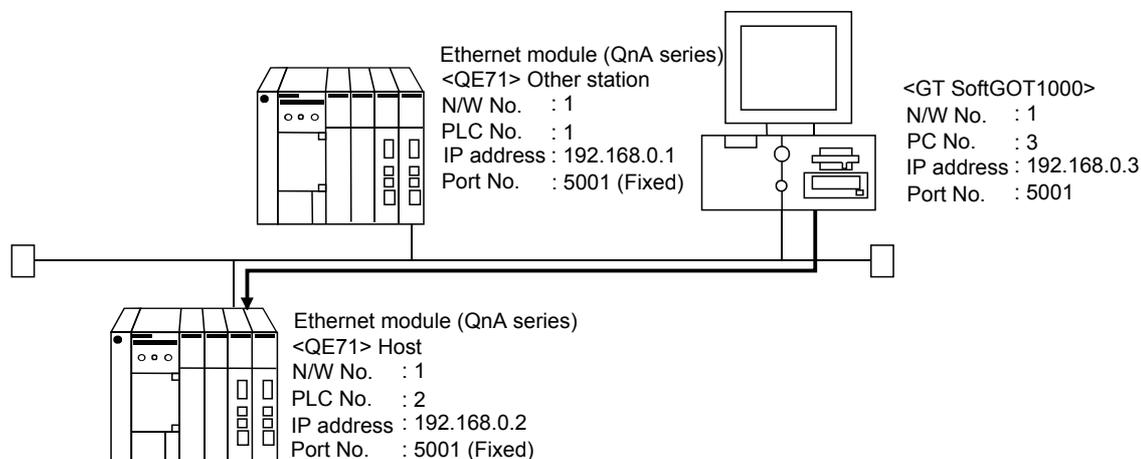
3.6.1 Communication setup dialog box

■ When using Ethernet module (QnA series)

The setting items and precautions are shown below for communicating GT SoftGOT1000 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 N/W No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT1000.

☞ (8) Settings with GT Designer3 and GT SoftGOT1000

(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.

☞ (5) Routing Parameter Setting

(8) Settings with GT Designer3 and GT SoftGOT1000

(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 a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(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 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 border="1"> <thead> <tr> <th></th> <th>Module No.1</th> <th>Module No.2</th> </tr> </thead> <tbody> <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> </tbody> </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																															
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	IP addressDEC	192.168. 0. 2																																
		Station No. <-> IP information																																
	FTP Parameters																																	
	Router relay parameter																																	
IP Address Setting																																		

(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			

Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the request source

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

Refer to the following for routing parameter setting.

☞ (8) Settings with GT Designer3 and GT SoftGOT1000

(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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

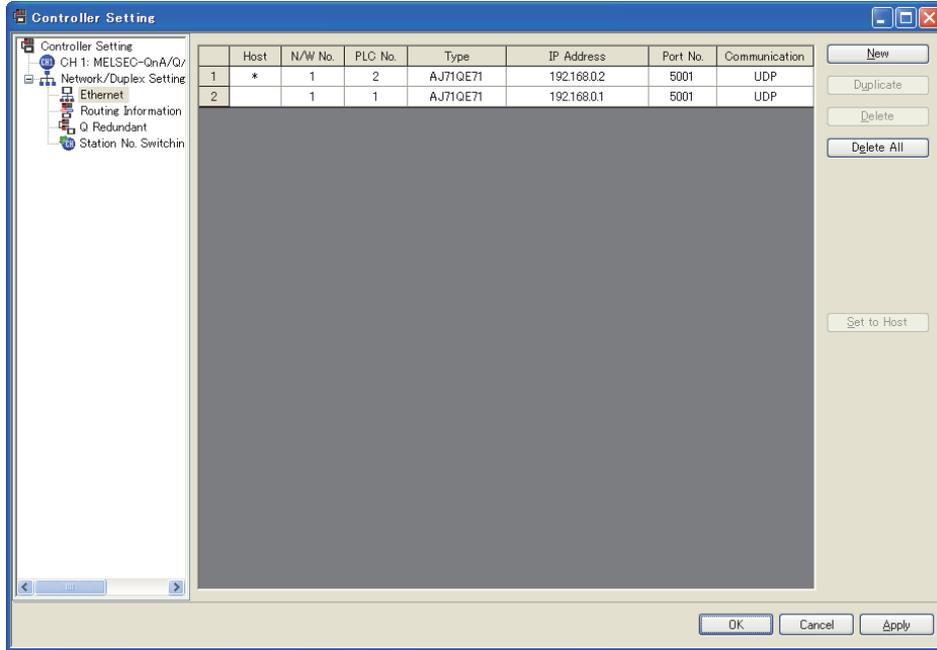
(8) Settings with GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
Type	Set 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 box of GT Designer3.
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.

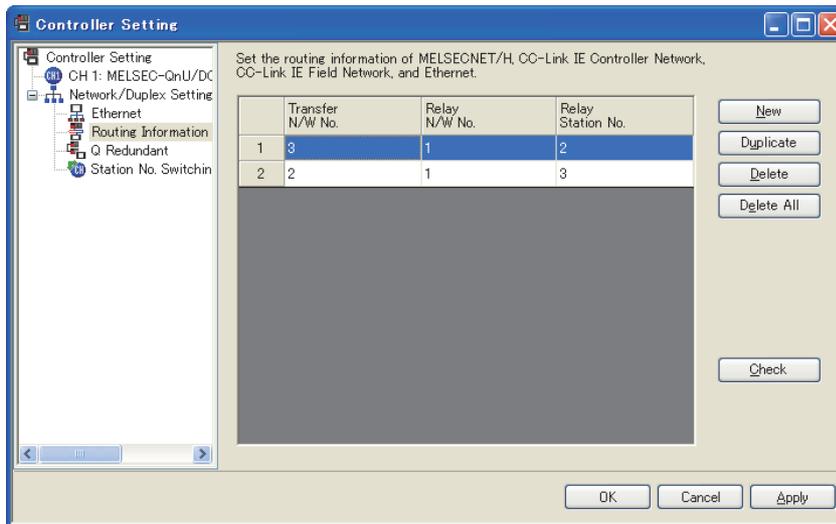
POINT

Routing parameter setting

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

Refer to the following for details of routing parameter setting.

☞ For QnA Ethernet Interface Module User's Manual



Item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the relay station

The PLC at the relay station also requires the routing parameter setting. Refer to the following for routing parameter setting.

☞ (5) Routing Parameter Setting

(b) Setting on GT SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

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

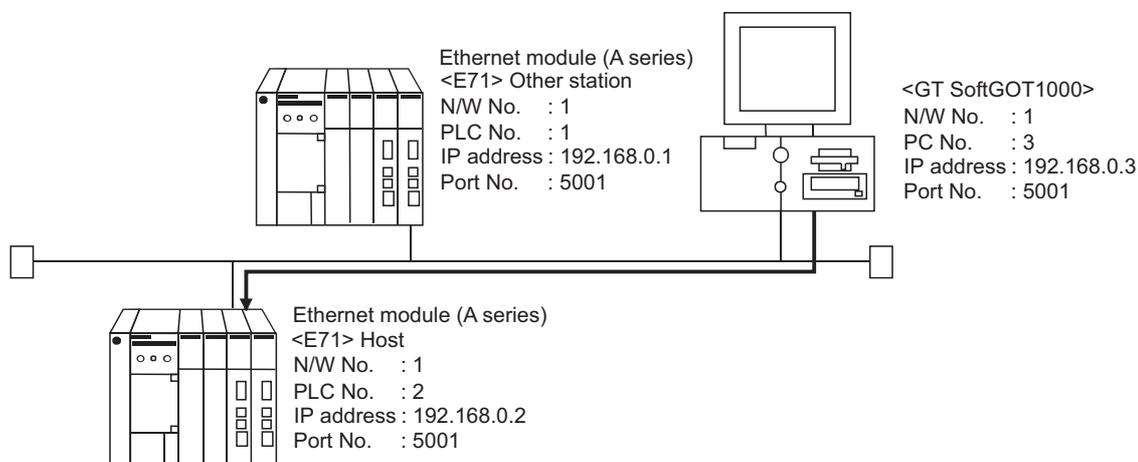
☞ 3.6.1 Communication setup dialog box

■ When using Ethernet module (A series)

The setting items and precautions are shown below for communicating GT SoftGOT1000 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 N/W No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT1000.

☞ (7) Settings with GT Designer3 and GT SoftGOT1000

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.
- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(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.

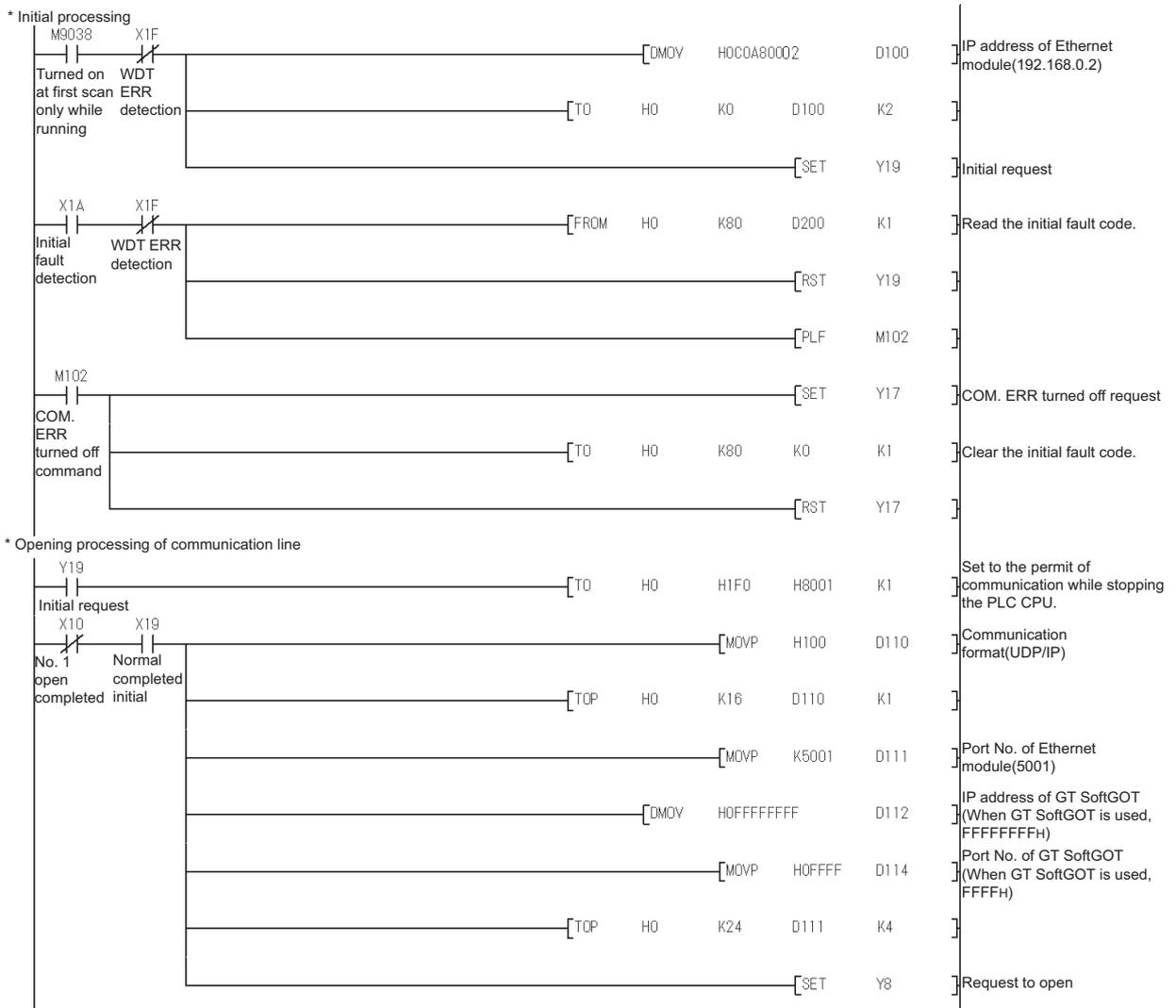
b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
6)						5) 4) 3)			2) 1)						

- 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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

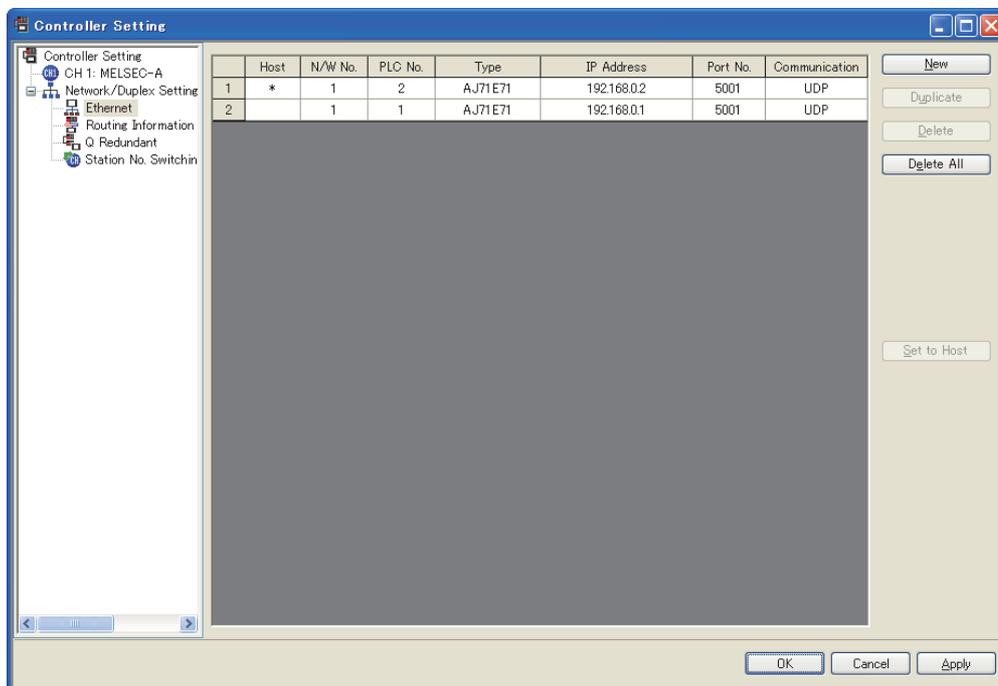
(7) Settings with GT Designer3 and GT SoftGOT1000

- (a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
Type	Set 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 SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

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

 3.6.1 Communication setup dialog box

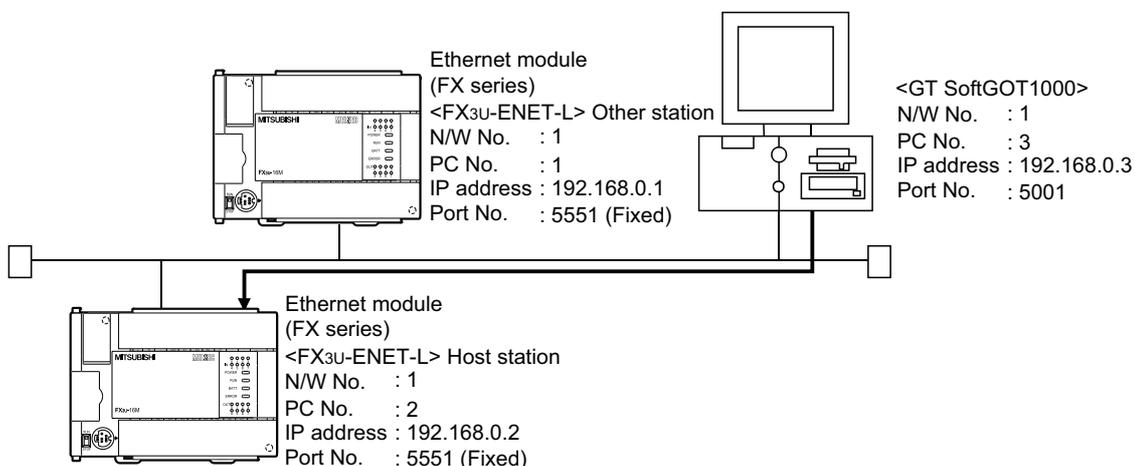
■ When using Ethernet module (FX series)

The setting items and precautions are shown below for communicating GT SoftGOT1000 to the PLC CPU via the Ethernet module (FX series).

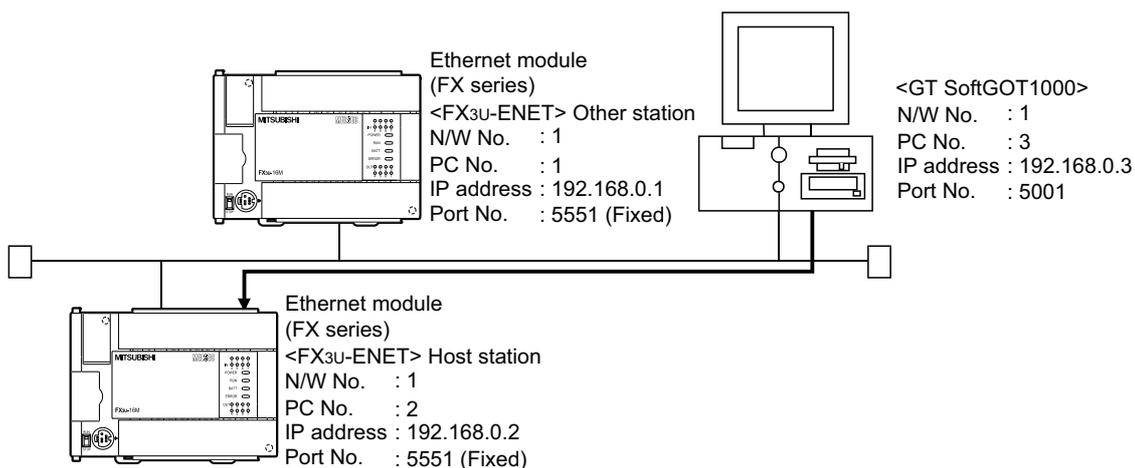
This section explains the system configuration to monitor the host as shown below.

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

- For FX3U-ENET-L



- For FX3U-ENET



POINT

Setting items

Refer to the following for how to set the N/W No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT1000.

☞ (8) Settings with GT Designer3 and GT SoftGOT1000

(1) Before setting

(a) Precautions for monitoring

The CPUs on other networks cannot be monitored.

(b) Precautions for communication

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.

The following countermeasures may improve the communication performance.

- Use a switching hub.
- Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
- Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.

Doing so may cause a communication error on the GOT.

(2) Compatible models

Compatible models		
FX3U-ENET-L	FX3U-ENET	FX3U-ENET-ADP

(3) Setting with FX Configurator-EN-L or FX Configurator-EN (network parameter setting)

Set the Ethernet parameter with FX Configurator-EN-L or FX Configurator-EN.

GX Developer Ver.8.88S or later is required to use the FX Configurator-EN-L.

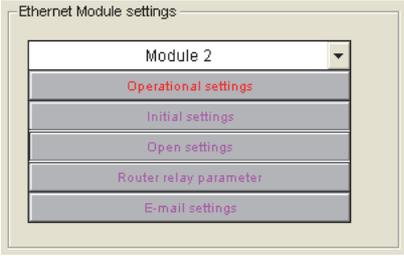
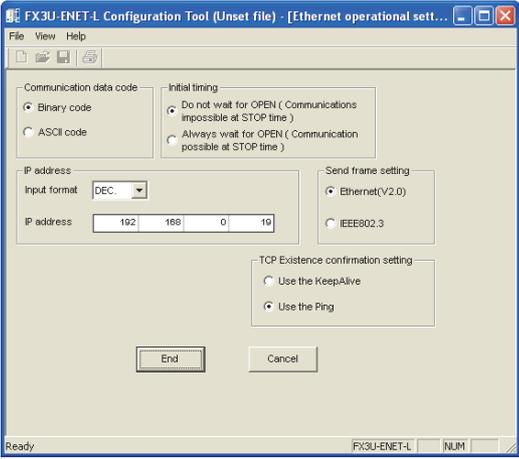
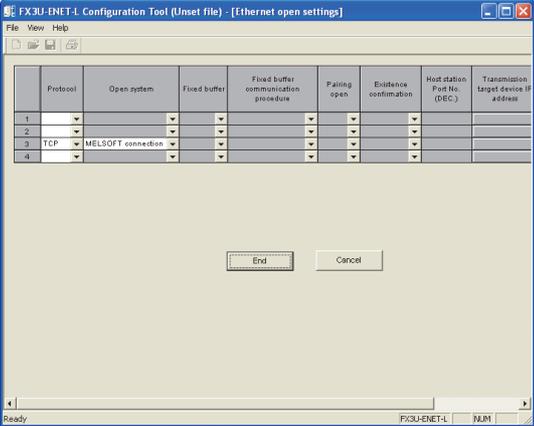
For the details of the FX Configurator-EN-L, refer to the following manual.

 [FX Configurator-EN-L Operation Manual](#)

To use FX Configurator-EN, GX-Developer Ver.8.25B or later is required.

For details of FX Configurator-EN, refer to the following manual.

 [FX Configurator-EN 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 SoftGOT1000.</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

A ping test can be performed also with FX Configurator-EN-L or FX Configurator-EN.

For details of the ping test, refer to the following.

 FX Configurator-EN-L Operation Manual

 FX Configurator-EN Operation Manual

(b) Station monitoring function

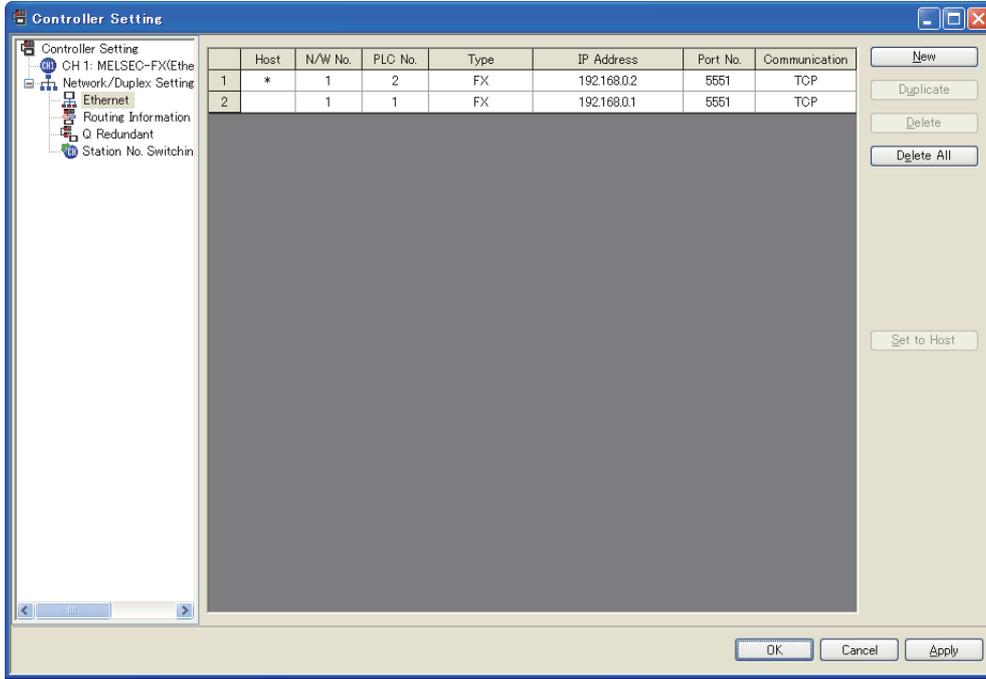
For details on the station monitoring function, refer to the following manual.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

(6) Settings with GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting
Set the Ethernet setting dialog box on GT Designer3 as shown below.
Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
Type	Set 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
Communication	Select a communication method.	TCP

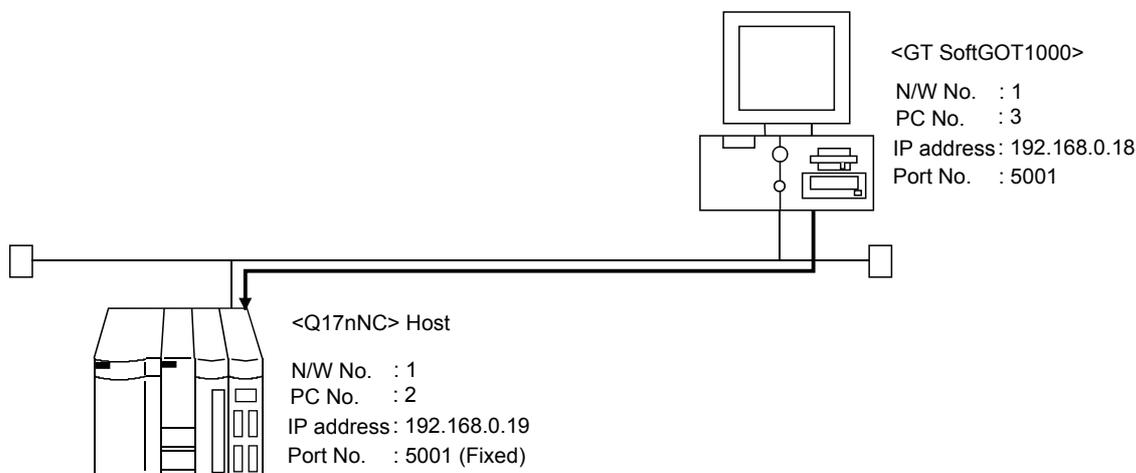
(b) Setting on GT SoftGOT1000

- Communication setup
Set the communication setup dialog box of GT SoftGOT1000.
For details on the communication setting, refer to the following manual.
➡ 3.6.1 Communication setup dialog box

■ When using CNC C70 (Q17nNCCPU)

For communications with GT SoftGOT1000 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 N/W No., IP address, and port No. of the CNC C70 and GT SoftGOT1000.

☞ When using CNC C70 (Q17nNCCPU)

(1) Before setting

(a) Precautions for monitoring

GT SoftGOT1000 cannot monitor CPUs on the other networks.

(b) Precautions for communication

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.

The following countermeasures may improve the communication performance.

- Use a switching hub.
- Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
- Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.

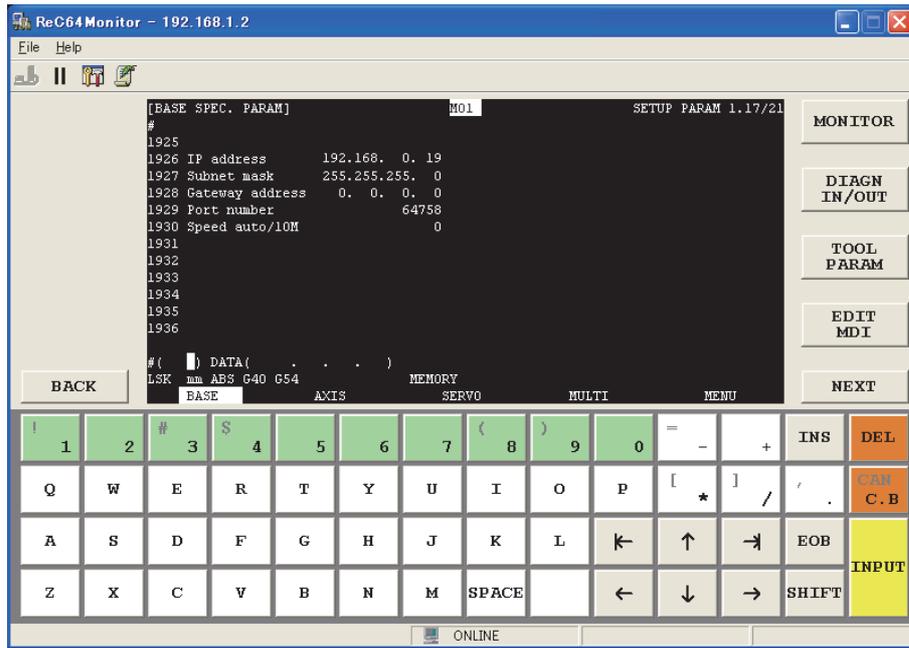
Doing so may cause a communication error on the GOT.

(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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

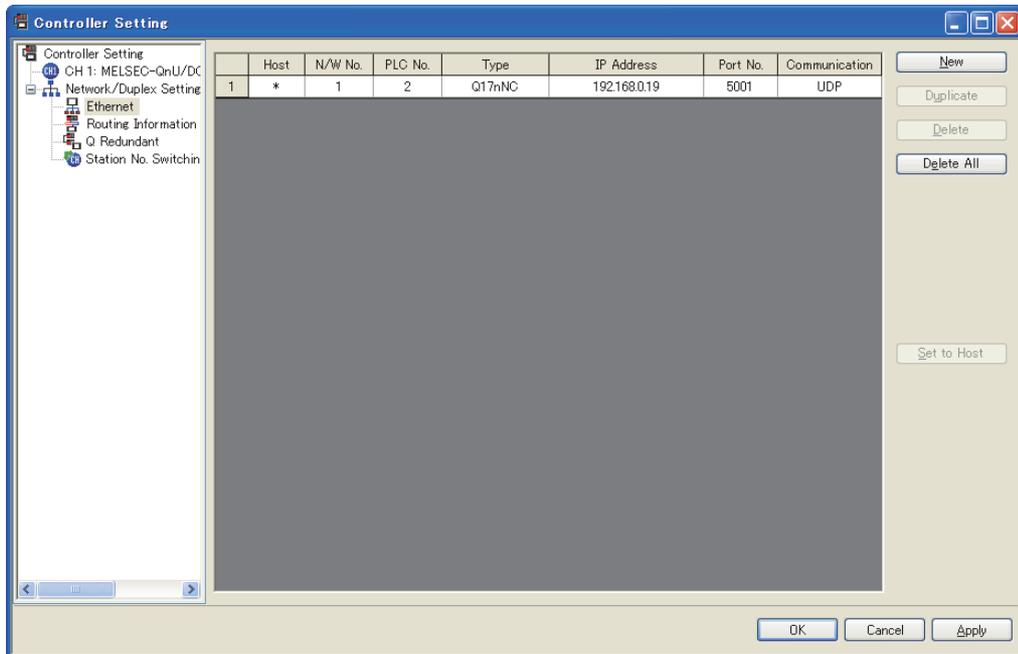
(6) Settings on GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
Type	Set 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 SoftGOT1000

- Communication setup

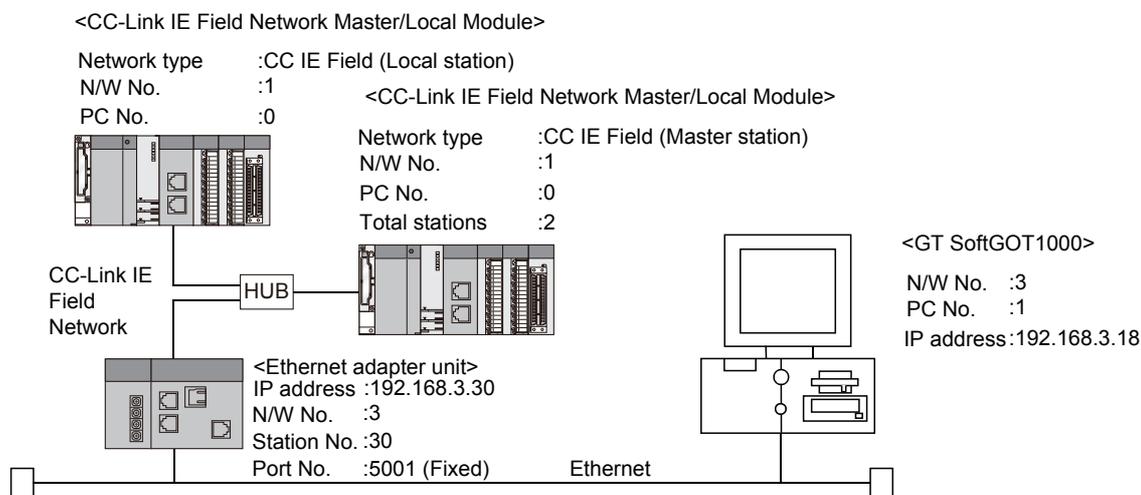
Set the communication setup dialog box of GT SoftGOT1000.

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

 3.6.1 Communication setup dialog box

■ When using CC-Link IE Field Network Ethernet adapter module

The setting items and precautions are shown below for communicating GT SoftGOT1000 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 N/W No., PLC No./PC No., IP address and port No. of the CC-Link IE Field Network Ethernet adapter module and GT SoftGOT1000.

☞ (8) Settings on GT Designer3 and GT SoftGOT1000

The following shows the procedure for communicating GT SoftGOT1000 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.
Refer to the following for how to set the routing parameters.
☞ (4) Routing Parameter Setting
(8) Settings on GT Designer3 and GT SoftGOT1000
- (c) Precautions for communication
 - When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
 - When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
 - When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(2) Compatible models

Compatible models
NZ2GF-ETB

(3) Setting on 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.

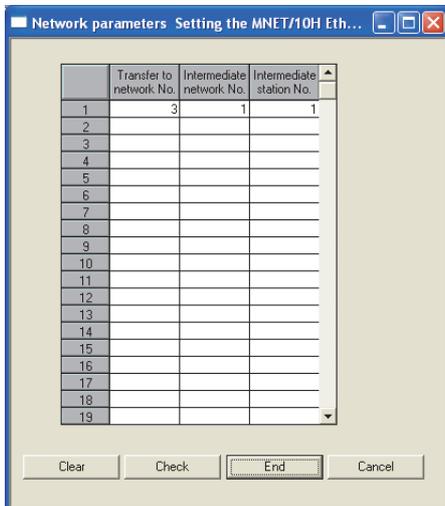
Item	Setting Screen Examples	
	Module 1	Module 2
Ethernet parameter	Network Type	CC IE Field (Master Station) <input type="text"/> None <input type="text"/>
	Start I/O No.	0000
	Network No.	1
	Total Stations	2
	Group No.	
	Station No.	0
	Mode	Online (Normal Mode) <input type="text"/>
		Network Configuration Setting
		Network Operation Setting
		Refresh Parameters
		Interrupt Setting
		Specify Station No. by Parameter <input type="text"/>

(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.



Setting item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the request source

The GOT at the request source also requires the routing parameter setting. Refer to the following for routing parameter setting.

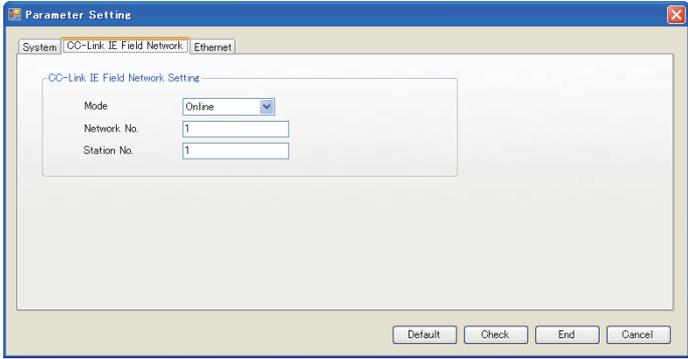
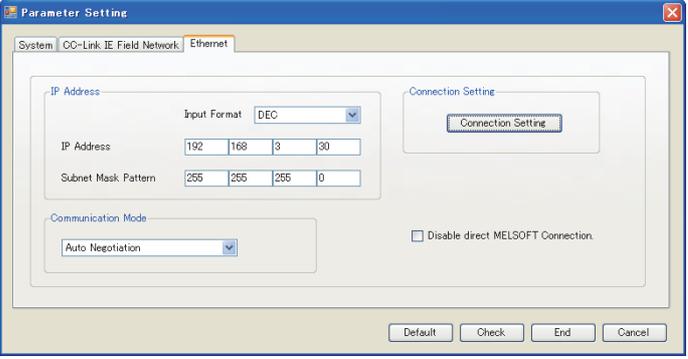
☞ (8) Settings on GT Designer3 and GT SoftGOT1000

(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
<p>CC-Link IE Field Network Setting</p>	 <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>
<p>Ethernet Setting</p>	 <p>Set the IP address within the following range.</p> <p>192.168.3.30</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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

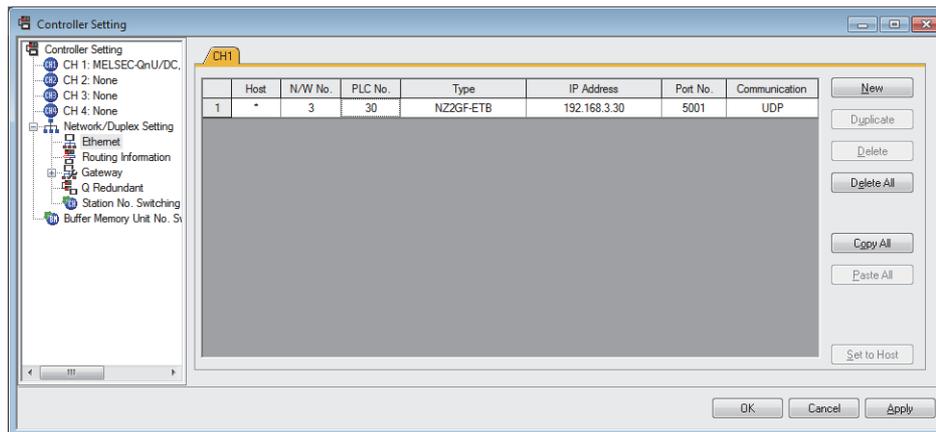
(8) Settings on GT Designer3 and GT SoftGOT1000

- (a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings can be configured.



Item	Description	Range
Host	Indicate the host station. (The host station is indicated as *.)	-
N/W No.* ¹	Set the network number of the CC-Link IE Field Network Ethernet adapter module.	1 to 239
PLC No.* ²	Set the station number of the CC-Link IE Field Network Ethernet adapter module.	1 to 64
Type	Set 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 box of GT Designer3.
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.

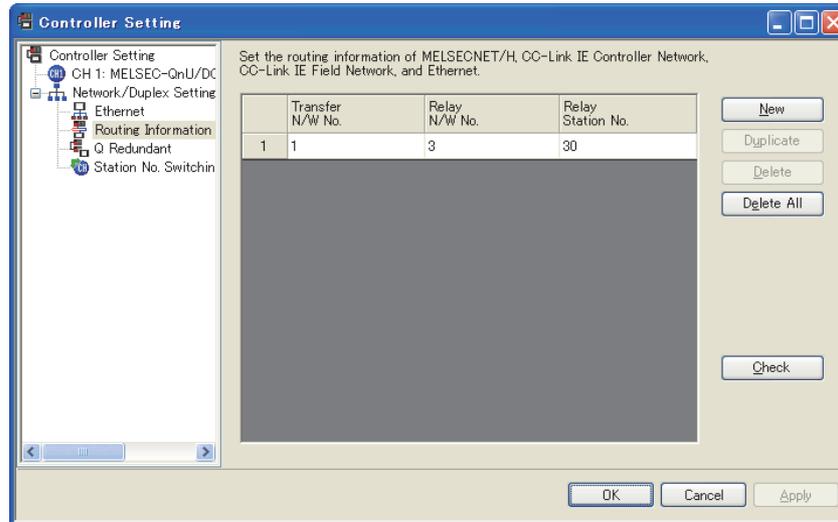
POINT

Routing parameter setting

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

Refer to the following for details of routing parameter setting.

☞ Q Corresponding Ethernet Interface Module User's Manual (Application)



Setting item	Range
Transfer Network No.	1 to 239
Relay Network No.	1 to 239
Relay Station No.	0 to 120

POINT

Routing parameter setting for the relay station

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

Refer to the following for routing parameter setting.

☞ (4) Routing Parameter Setting

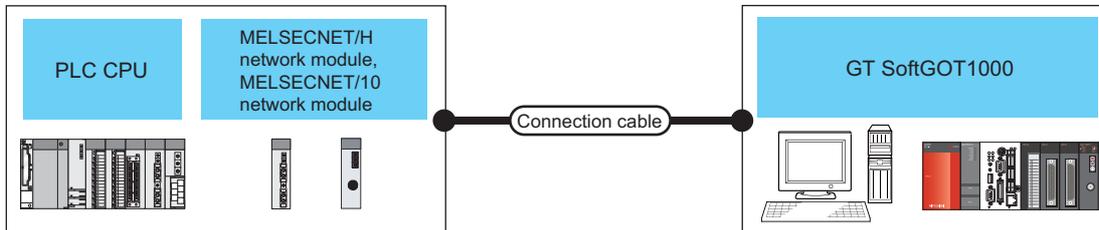
(b) Setting on GT SoftGOT1000

- Communication setup
Set the communication setup dialog box of GT SoftGOT1000.
For details on the communication setting, refer to the following manual.

☞ 3.6.1 Communication setup dialog box

4.9 MELSECNET/H, MELSECNET/10 Connection

4.9.1 System configurations and connection conditions



PLC			Max. distance	GT SoftGOT1000	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}	PC/AT compatible PC PC CPU	Optical fiber cable: 64 ^{*3*4} Coaxial cable: 32 ^{*3*4}
C controller	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}					
CRnQ-700 ^{*5}					
Same as QCPU (Q mode)					

*1 For the motion controller CPU (Q series), only the PLC CPU area (CPU No.1) in the Q170MPCU and Q170MSCPU can be monitored.

*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 SoftGOT1000 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.

4.9.2 Network module, interface board

The following shows connectable network modules and interface boards.

■ 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	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	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.

■ 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	SW0DNC-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.

4.9.3 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)

4.9.4 GT SoftGOT1000 setting

When communicating GT SoftGOT1000 to a PLC in MELSECNET/H or MELSECNET/10 network system, communication setup is required.

Refer to the following for performing GT SoftGOT1000 communication setup.

 3.6.1 Communication setup dialog box

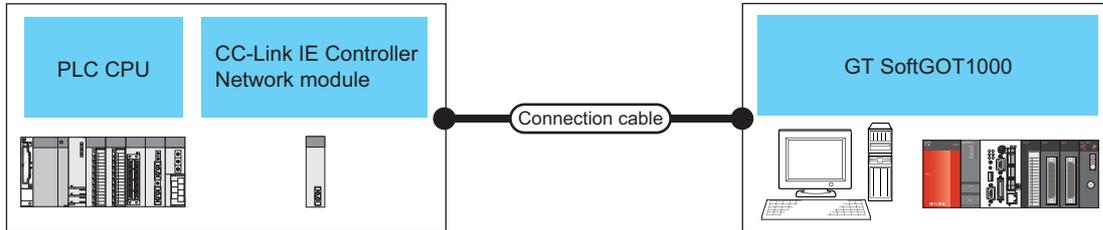
4.9.5 Controller setting

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)

4.10 CC-Link IE Controller Network Connection

4.10.1 System configurations and connection conditions



PLC			Max. distance	GT SoftGOT1000	Number of connectable equipment	
Model name	Network module	Communication type				
RCPU	RJ71GP21-SX	CC-Link IE Controller Network	550m ^{*2}	PC/AT compatible PC PC CPU	120 ^{*3}	
QCPU	QJ71GP21-SX, QJ71GP21S-SX					
C controller	MELSEC iQ-R series					RJ71GP21-SX
	Q series					QJ71GP21-SX, QJ71GP21S-SX
QSCPU	QJ71GP21-SX, QJ71GP21S-SX					
Motion controller CPU	MELSEC iQ-R series					RJ71GP21-SX
	Q Series ^{*1}					QJ71GP21-SX, QJ71GP21S-SX
CNC C70 ^{*4}	Same as QCPU (Q mode)					
CRnQ-700 ^{*4}						

- *1 For the motion controller CPU (Q series), only the PLC CPU area (CPU No.1) in the Q170MCP and Q170MSCPU can be monitored.
- *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 SoftGOT1000 modules, monitoring is enabled on the multiple screens.
- *4 The multiple CPU system with the QCPU (Q mode) is mounted on.

4.10.2 Network module, interface board

The following shows connectable network modules and interface boards.

■ Network module

Item	Model name
RCPU	RJ71GP21-SX
C controller MELSEC iQ-R series	
QCPU (Q mode)	QJ71GP21-SX, QJ71GP21S-SX
C controller Q Series	
QSCPU	
Motion controller CPU Q Series	

■ 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.

4.10.3 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](#)

4.10.4 GT SoftGOT1000 setting

When communicating GT SoftGOT1000 to a PLC in CC-Link IE Controller Network, communication setup is required.
Refer to the following for performing GT SoftGOT1000 communication setup.

 [3.6.1 Communication setup dialog box](#)

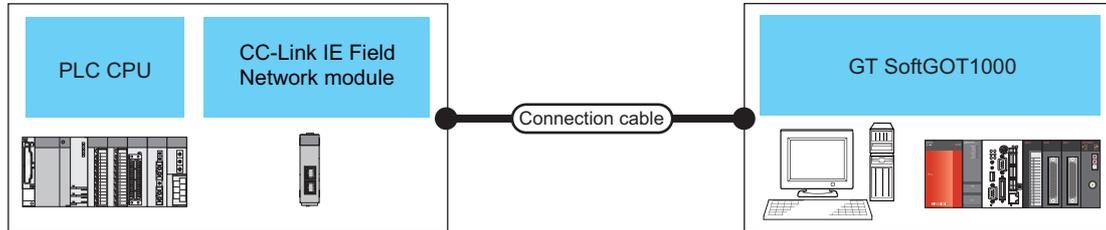
4.10.5 Controller setting

For the settings of the CC-Link IE Controller Network module, refer to the following.

 [CC-Link IE Controller Network Reference Manual](#)

4.11 CC-Link IE Field Network Connection

4.11.1 System configurations and connection conditions



PLC			connection cable *5	Max. distance	GT SoftGOT1000	Number of connectable equipment	
Model name	Network module	Communication type					
RCPU	RJ71GF11-T2, RJ71EN71, RD77GF4, RD77GF8, RD77GF16	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)	PC/AT compatible PC CPU	120*4	
QCPU(Q mode) *1	QJ71GF11-T2						
C controller	MELSEC iQ-R series						RJ71GF11-T2, RJ71EN71, RD77GF4, RD77GF8, RD77GF16
	Q series						QJ71GF11-T2
QSCPU	QS0J71GF11-T2						
LCPU	LJ71GF11-T2						
Motion controller CPU	MELSEC iQ-R series						RJ71GF11-T2, RJ71EN71, RD77GF4, RD77GF8, RD77GF16
	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 motion controller CPU (Q series), only the PLC CPU area (CPU No.1) in the Q170MCP and Q170MSCPU can be monitored.

*4 When starting up multiple GT SoftGOT1000 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.

4.11.2 Network module, interface board

The following shows connectable network modules and interface boards.

■ Network module

Item		Model name
RCPU		RJ71GF11-T2, RJ71EN71, RD77GF4, RD77GF8, RD77GF16
C controller	MELSEC iQ-R series	
QCPU (Q mode)		QJ71GF11-T2
C controller	Q series	
Motion controller CPU	Q Series	
QSCPU		QS0J71GF11-T2
LCPU		LJ71GF11-T2

■ 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.

4.11.3 GT SoftGOT1000 setting

When communicating GT SoftGOT1000 to a PLC in the CC-Link IE Field Network system, communication setup is required.

Refer to the following for performing GT SoftGOT1000 communication setup.

 [3.6.1 Communication setup dialog box](#)

4.11.4 Controller setting

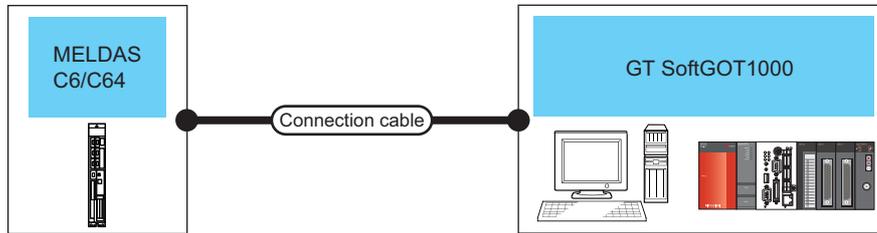
For the settings of the CC-Link IE Field Network module, refer to the following.

 [CC-Link IE Field Network Master/Local Module User's Manual](#)

4.12 CNC Connection

4.12.1 Direct CPU connection

■ System configurations and connection conditions



PLC		Connection cable	Max. distance	GT SoftGOT1000	Number of connectable equipment
Model name	Communication type				
MELDAS C6/C64	RS-232	RS-232 1)	15m	PC/AT compatible PC PC CPU	1 ^{*1}

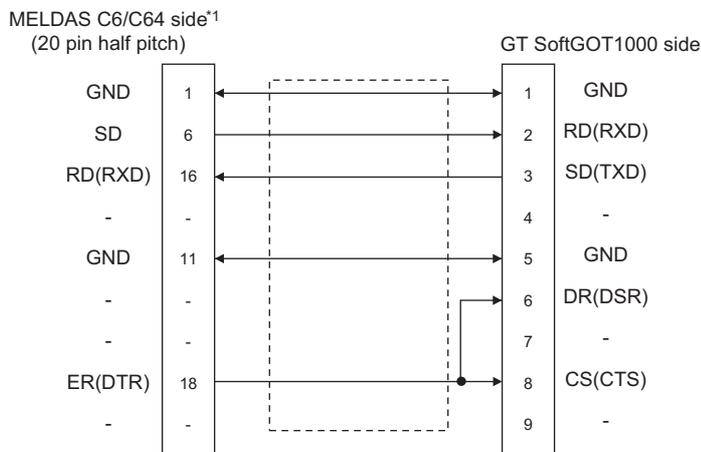
*1 When starting up multiple GT SoftGOT1000 modules, monitoring is enabled on the multiple screens.

■ 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.

■ GT SoftGOT1000 setting

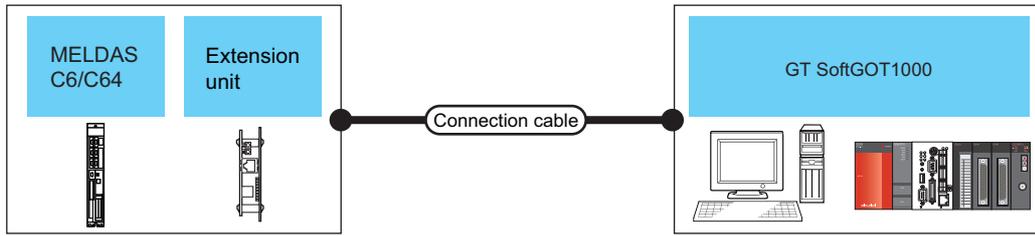
When communicating GT SoftGOT1000 to a MELDAS C6/C64 in CPU direct connection, communication setup is required.

Refer to the following for performing GT SoftGOT1000 communication setup.

👉 3.6.1 Communication setup dialog box

4.12.2 Ethernet connection

■ System configurations and connection conditions



PLC			Connection cable*2	Max. distance	GT SoftGOT1000	Number of connectable equipment
Model name	Extension unit	Communication type				
MELDAS C6/C64	FCU6-EX875	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC	128*1

*1 When starting up multiple GT SoftGOT1000 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.

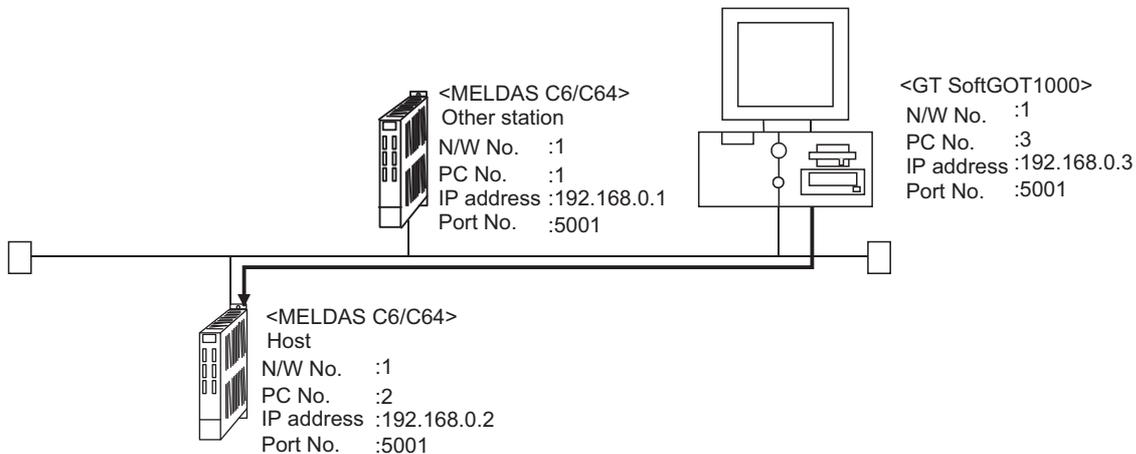
Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard.

■ Connection cable

Use a cable applicable to the Ethernet module to be used.

■ Controller setting

The setting items and precautions are shown below for communicating GT SoftGOT1000 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 N/W No., PLC No./PC No., IP address and port No. of the MELDAS C6/C64 and GT SoftGOT1000.

☞ (7) Settings with GT Designer3 and GT SoftGOT1000

The following shows the procedure for communicating GT SoftGOT1000 to the MELDAS C6/C64.

(1) Before setting

- (a) Precautions for monitoring
GT SoftGOT1000 cannot monitor CPUs on the other networks.
- (b) Precautions for communication
 - When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
 - When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
 - When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(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	<p>(a)When mounted in EXT1 and EXT2 (b)When mounted in EXT1 and EXT3 (c)When mounted in EXT2 and EXT3</p> <p>(d)When mounted in EXT1 only (e)When mounted in EXT2 only (f)When mounted in EXT3 only</p>
EXT2	0280	
EXT3	0300	

(b) Example of GX Developer setting

	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)

Start I/O No.: 0280 Valid module during other station access: 1

Interlink transmission parameters: Input the start I/O No. installed in the module in 16-point unit.

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.

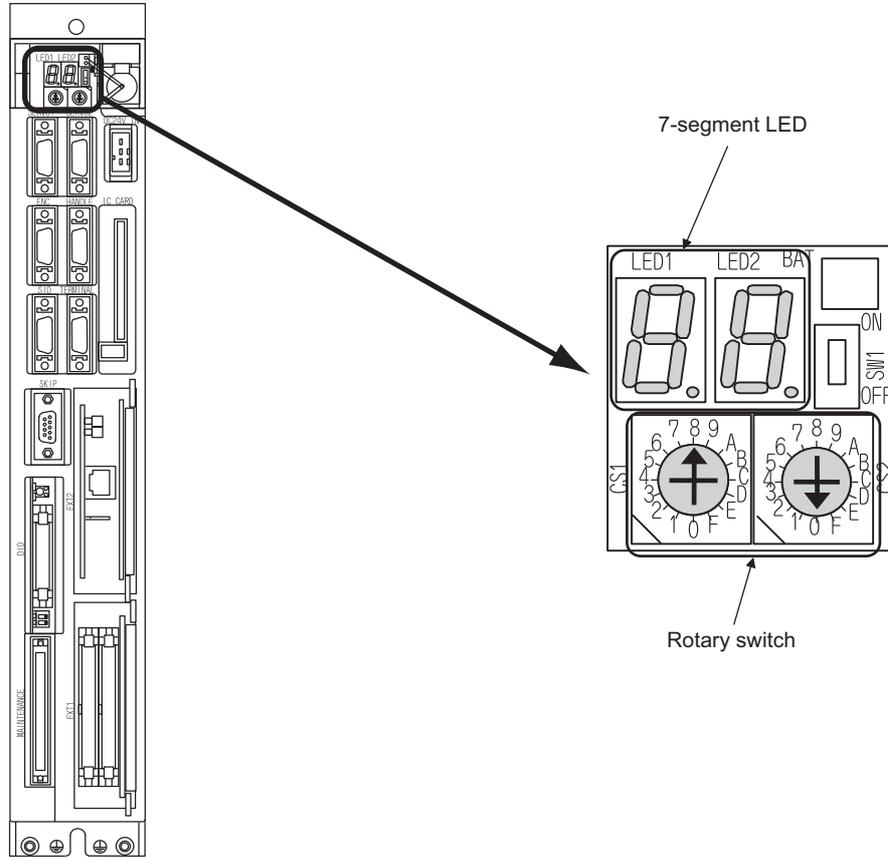
Set the IP address by the 7-segment LED and rotary switch of the MELDAS C6/C64 side, referring to the next page.

(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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

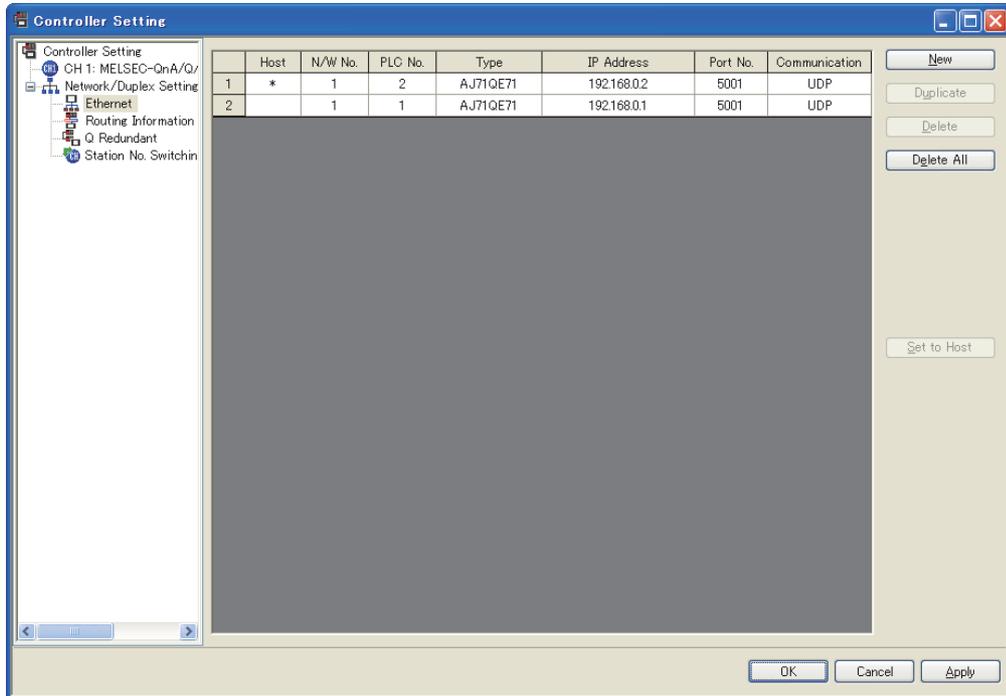
(7) Settings with GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
Type	Set 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 SoftGOT1000

- Communication setup

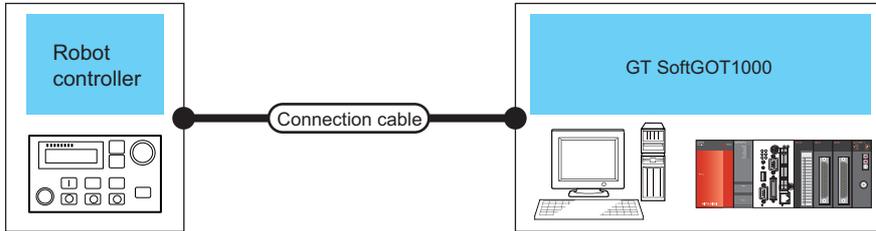
Set the communication setup dialog box of GT SoftGOT1000.

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

 3.6.1 Communication setup dialog box

4.13 Robot Controller Connection

4.13.1 System configurations and connection conditions



PLC		Connection cable ^{*2}	Max. distance	GT SoftGOT1000	Number of connectable equipment
Model name	Communication type				
CRnD-700, CR750-D, CR751-D	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	1 ^{*1}

*1 When starting up multiple GT SoftGOT1000 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.

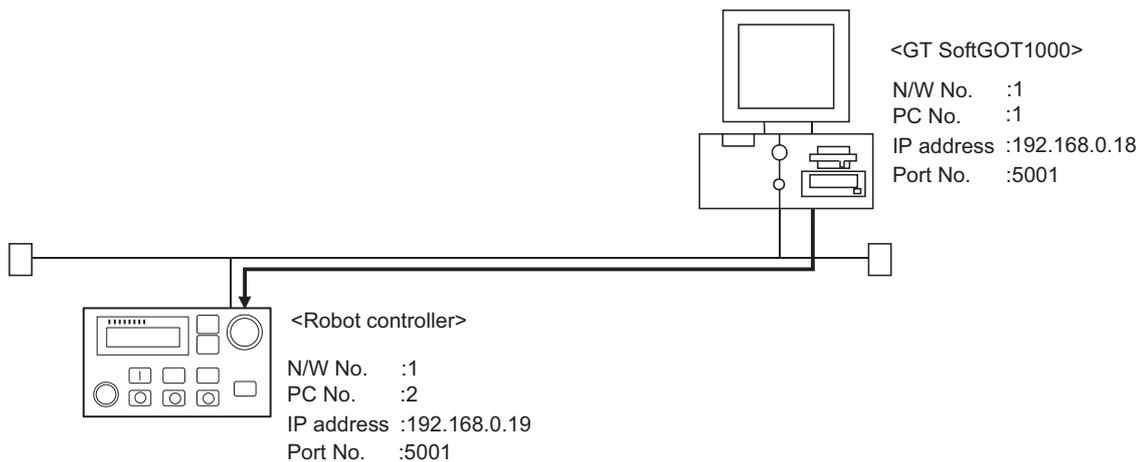
4.13.2 Connection cable

Use a cable applicable to the robot controller to be used.

4.13.3 Controller setting

For communications between GT SoftGOT1000 and the robot controller, the following setting items and precautions are described below.

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



POINT

Setting items

Refer to the following for how to set the N/W No., PLC No./PC No., IP address, and port No. of the robot controller and GT SoftGOT1000.

☞ (6) Settings on GT Designer3 and GT SoftGOT1000

The following shows the procedures for communications with the robot controller.

(1) Before setting

- (a) Precautions for monitoring
 - GT SoftGOT1000 cannot monitor other stations.
 - GT SoftGOT1000 cannot monitor CPUs on the other networks.
- (b) Precautions for communication
 - When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
 - The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
 - When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
 - When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
 - Doing so may cause a communication error on the GOT.

(2) Compatible models

Compatible models		
CRnD-700,	CR750-D,	CR751-D

(3) Parameter settings for robot controller

Set the robot controller parameter settings with the R32TB, R56TB, or RT ToolBox2.

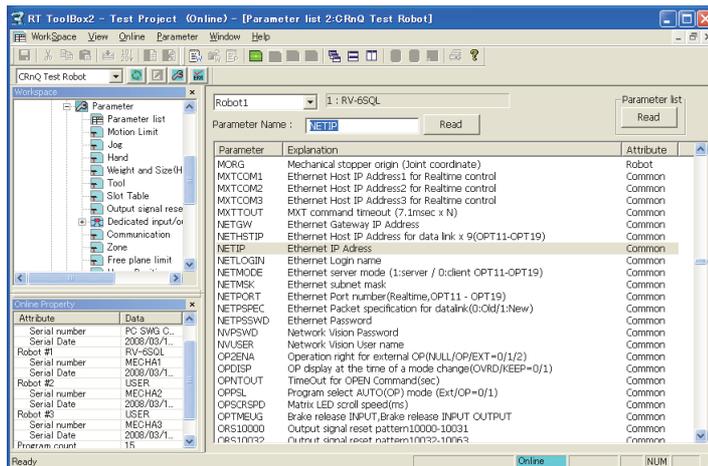
POINT

Robot controller

For details of the robot controller, refer to the following manual.

 [Manual for the robot controller](#)

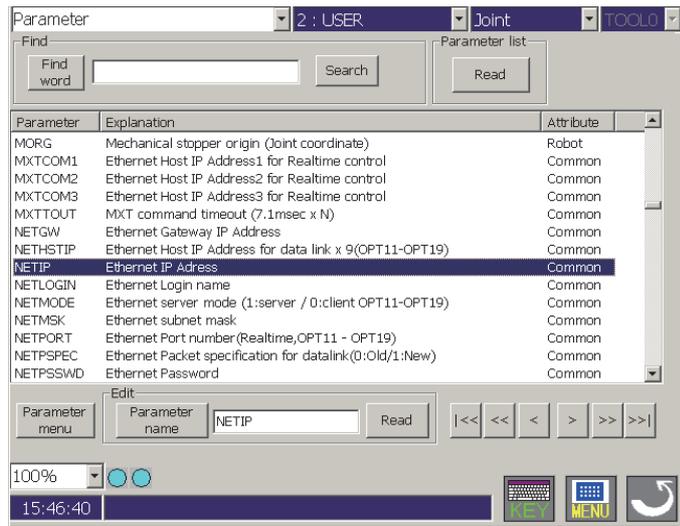
(a) For RT ToolBox2



Item	Setting	Setting (with GOT connected)
NETIP	192.168.0.19	○
GOTPORT	5001	○

○ : Required △ : Set if necessary × : Not required

(b) 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

(a) 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®.

(b) Station monitoring function

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

👉 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

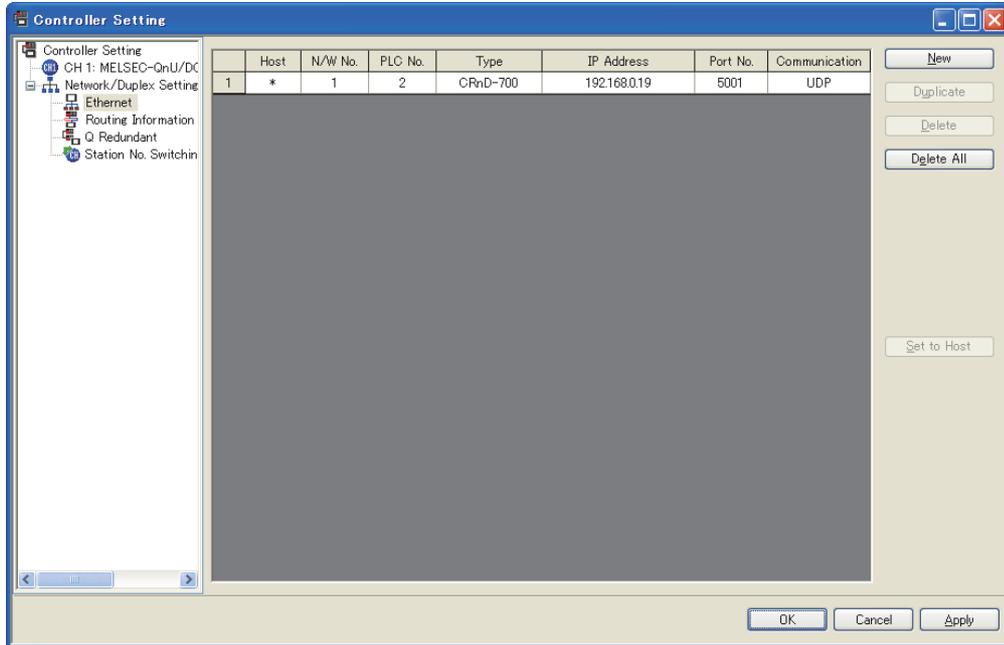
(6) Settings on GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
Type	Set 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

(b) Setting on GT SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

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

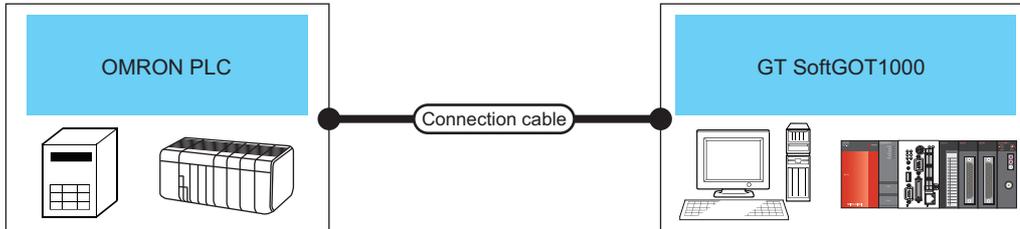
 3.6.1 Communication setup dialog box

4.14 Third Party PLC Connections

4.14.1 OMRON PLC

Serial connection

(1) System configurations and connection conditions



PLC			Connection cable	Max. distance	GT SoftGOT1000	Number of connectable equipment
Model name	Communication unit	Communication type				
SYSMAC CQM1H	CQM1-SCB41	RS-232	RS-232 1) RS-232 2)	15m	PC/AT compatible PC PC CPU	1
SYSMAC CJ1	CJ1W-SCU21, CJ1W-SCU41, CJ1W-SCU21-V1, CJ1W-SCU41-V1					
SYSMAC CJ2	CP1W-CIF01, CJ1W-SCU21-V1, CJ1W-SCU41-V1					
SYSMAC CP1	CP1W-CIF01, CJ1W-SCU21, CJ1W-SCU41, CJ1W-SCU21-V1, CJ1W-SCU41-V1					
SYSMAC α	C200H-LK201-V1, C200HW-COM02, C200HW-COM05, C200HW-COM06					
SYSMAC CS1	CS1W-SCU21, CS1W-SCU21-V1, CS1W-SCB21, CS1W-SCB41, CS1W-SCB21-V1, CS1W-SCB41-V1					
SYSMAC CVM1/CV	(Built-in serial port) ^{*1}					
CQM1	(Built-in serial port) ^{*1}					
CPM2A	CPM1-CIF01					

*1 For the applicable CPUs, refer to the following.

GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 1) for GT Works3

(2) Connection cable

- (a) MITSUBISHI SYSTEM & SERVICE product
RS-232 1)

RS-232 cable

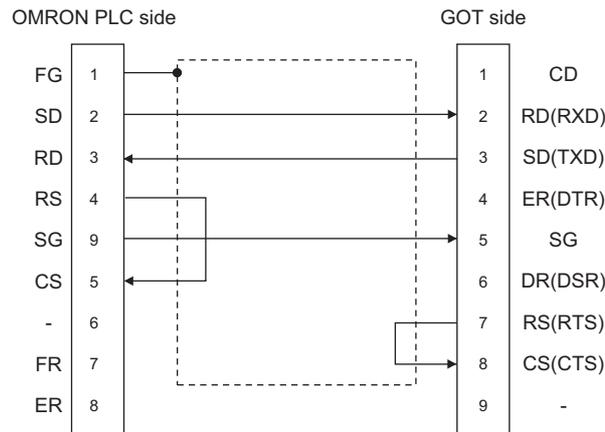


GT09-C30R20101-9P(3m) (For the 9-pin D-sub connector of the PC side)

- (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.
 - 2) Omron PLC CPU side connector
Use the connector compatible with Omron PLC CPU side.
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 SoftGOT1000 setting

When communicating GT SoftGOT1000 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 SoftGOT1000 must be the same.

Refer to the following for performing GT SoftGOT1000 communication setup.

3.6.1 Communication setup dialog box

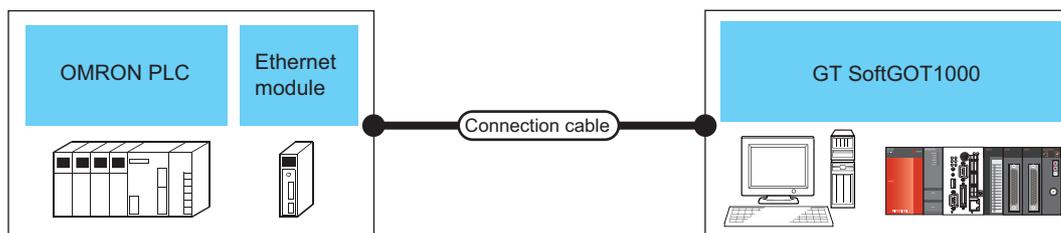
(4) Controller setting

For the OMRON PLC side setting, refer to the following manual.

GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 1) for GT Works3

■ Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable ^{*4}	Max. distance	GT SoftGOT1000	Number of connectable equipment	
Model name	Ethernet module	Communication type				Personal computer ^{*6}	PLC ^{*7}
SYSMAC CJ1	CS1W-ETN21	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC 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 SoftGOT1000 module together with another GT SoftGOT1000 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 The CJ2H-CPU6□-EIP or CJ2M-CPU3□ can be connected by using its Ethernet port or an Ethernet module.
- *6 This column shows the number of personal computers that can be connected to one PLC.
- *7 This column shows the number of PLCs that can be connected 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 ELECTRIC PLC.

☞ 4.8.2 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 N/W No. and the PLC No. of the OMRON 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 SoftGOT1000, refer to the following.

 (8) Settings on GT Designer3 and GT SoftGOT1000.

(a) Before setting

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.

The following countermeasures may improve the communication performance.

- Use a switching hub.
- Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
- Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.

Doing so may cause a communication error on the GOT.

(5) Setting of programmable controller side

For settings for each part of programmable controller, refer to the following manual.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric 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.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 1) for GT Works3

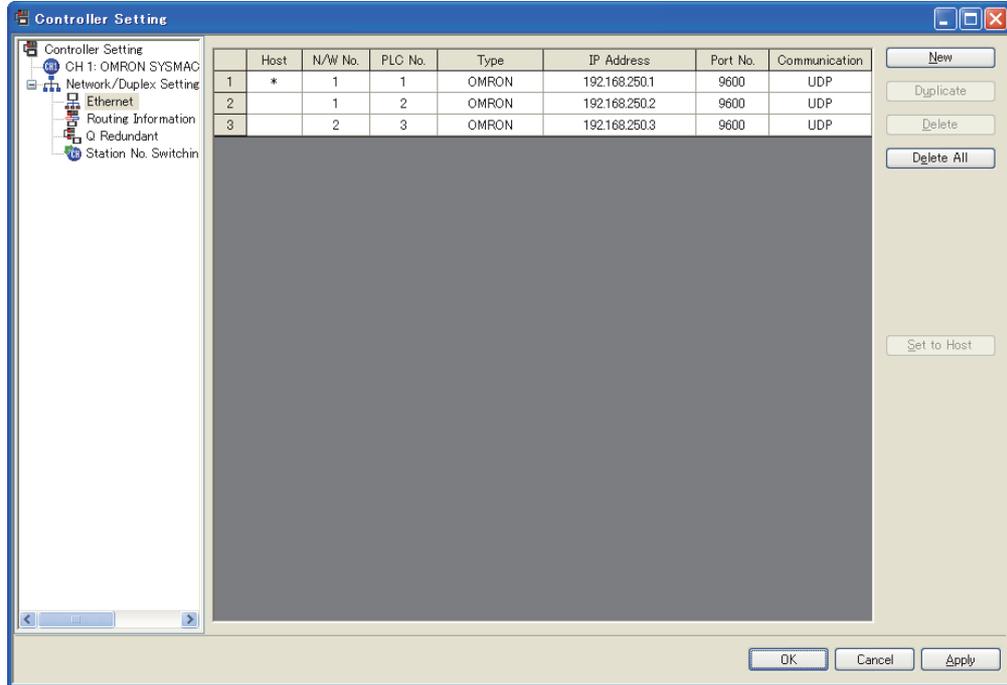
(8) Settings on GT Designer3 and GT SoftGOT1000.

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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 127
PLC No.	Set the station number of the target Ethernet module.	1 to 254
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 SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

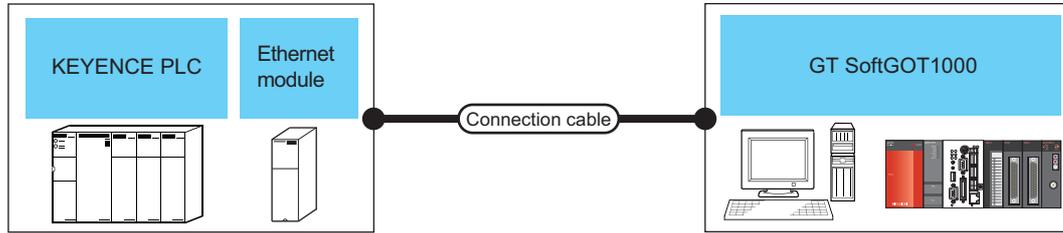
For details on the communication setting, refer to the following manual.

☞ 3.6.1 Communication setup dialog box

4.14.2 KEYENCE PLC

■ Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable ^{*4}	Max. distance	GT SoftGOT1000	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)	PC/AT compatible PC CPU	UDP: 1 ^{*1} TCP: 15 ^{*1*2*3}	UDP: 128 TCP: 128

*1 To use GT SoftGOT1000 module together with another GT SoftGOT1000 module or a different application, set the different number for each port No.

*2 When the number of connected equipment is increased, the load on the communication is increased. This may affect the communication performance.

*3 The number of connectable personal computers includes the number of total GT SoftGOT1000 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
Ethernet module	KV-LE20V, KV-LE21V

(b) Ethernet board/card

Use the same Ethernet board and card as those for connecting to MITSUBISHI ELECTRIC PLC.

☞ 4.8.2 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 of KEYENCE PLCs, refer to the following manual.

 User's manual for KEYENCE PLC CPU

(2) Precautions for Ethernet connection

Specify the N/W No. and the PLC No. of the KEYENCE 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., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT1000, refer to the following.

 (8) Settings on GT Designer3 and GT SoftGOT1000.

(a) Before setting

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.

The following countermeasures may improve the communication performance.

- Use a switching hub.
- Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
- Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.

Doing so may cause a communication error on the GOT.

(5) Setting of programmable controller side

For settings for each part of programmable controller, refer to the following manual.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric 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.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 1) for GT Works3

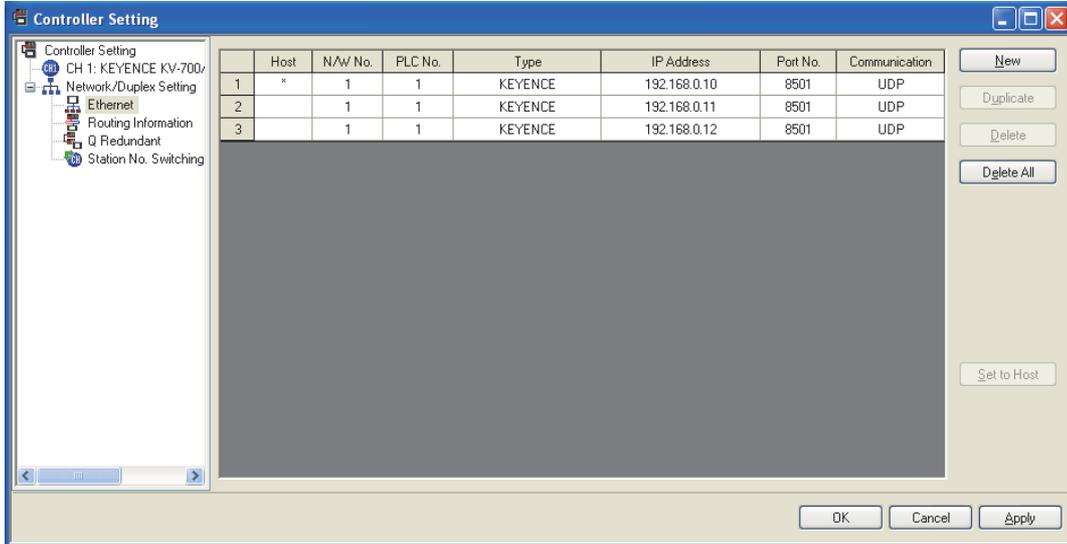
(8) Settings on GT Designer3 and GT SoftGOT1000.

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 64 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 254
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	Displays the communication method.	UDP, TCP

(b) Setting on GT SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

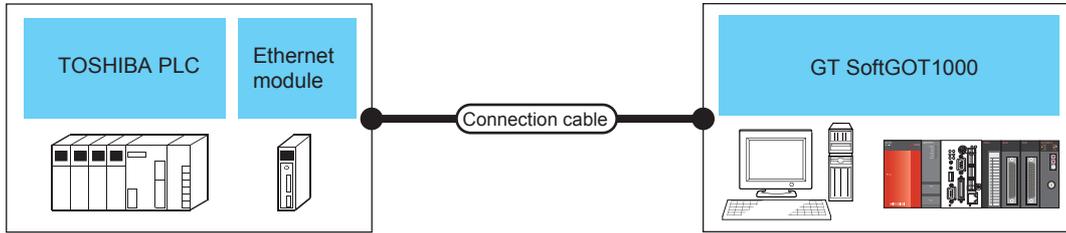
For details on the communication setting, refer to the following manual.

☞ 3.6.1 Communication setup dialog box

4.14.3 TOSHIBA PLC

■ Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable ^{*4}	Max. distance	GT SoftGOT1000	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 CPU	No limitation ^{*1*2*3}	32

*1 To use GT SoftGOT1000 module together with another GT SoftGOT1000 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 board/card

Use the same Ethernet board and card as those for connecting to MITSUBISHI ELECTRIC PLC.

☞ 4.8.2 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 SoftGOT1000, refer to the following.

 (8) Settings on GT Designer3 and GT SoftGOT1000.

(a) Before setting

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.

The following countermeasures may improve the communication performance.

- Use a switching hub.
- Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
- Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.

Doing so may cause a communication error on the GOT.

(5) Setting of programmable controller side

For settings for each part of programmable controller, refer to the following manual.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric 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.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 1) for GT Works3

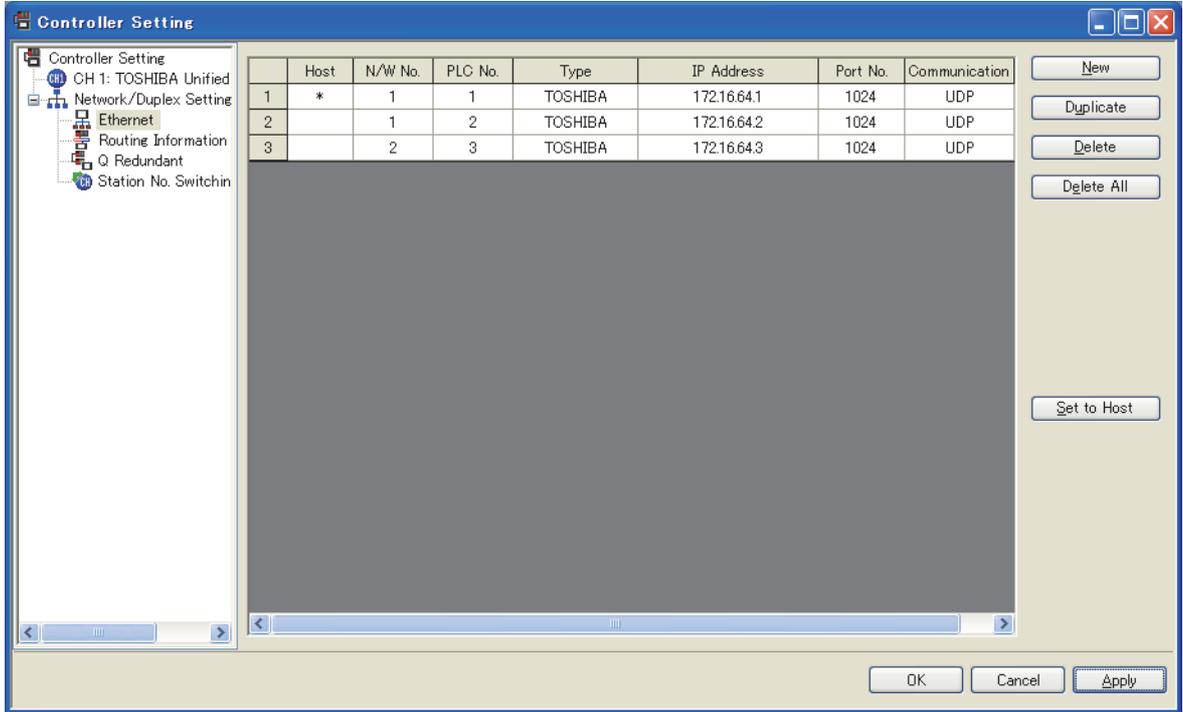
(8) Settings on GT Designer3 and GT SoftGOT1000.

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 254
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.	256 to 65534
Communication	Select a communication method.	UDP

(b) Setting on GT SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

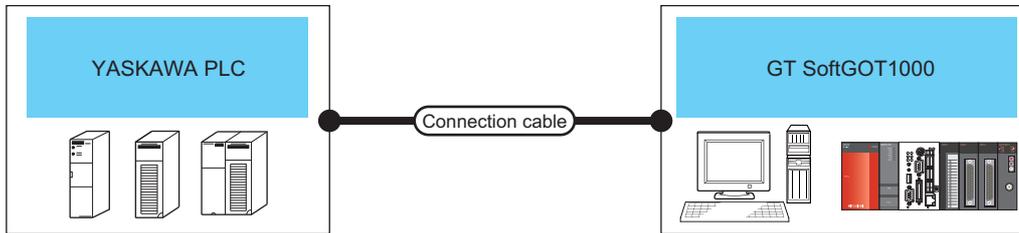
For details on the communication setting, refer to the following manual.

3.6.1 Communication setup dialog box

4.14.4 YASKAWA PLC

Serial connection

(1) System configurations and connection conditions



PLC		Communication type	Connection cable	Max. distance	GT SoftGOT1000	Number of connectable equipment	
Model name	MODBUS module Communication module						
GL60S, GL60H, GL70H	JAMSC-IF60, JAMSC-IF61	RS-232	RS-232 1) RS-232 3)	15m	PC/AT compatible PC 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		(Built-in serial port)* ¹				RS-232 1) RS-232 3)
	For connecting to port 2		(Built-in serial port)* ¹				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		For connecting to CN1				RS-232 1) RS-232 3)
			For connecting to CN2				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.

GOT1000 Series Connection Manual (Non-Mitsubishi Electric 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

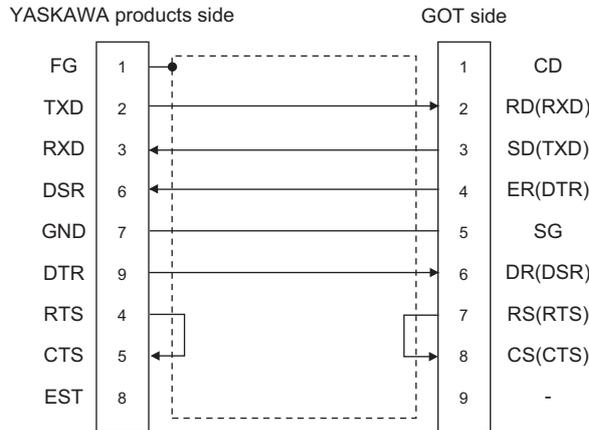


GT09-C30R20203-9P (3m) (For the 9-pin D-sub connector of the personal computer side)

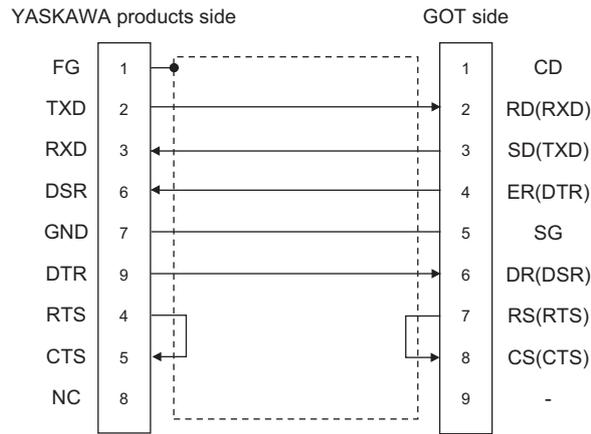
(b) Using an RS-232 cable prepared by user

The following describes the connection diagram, connector and others for each cable.

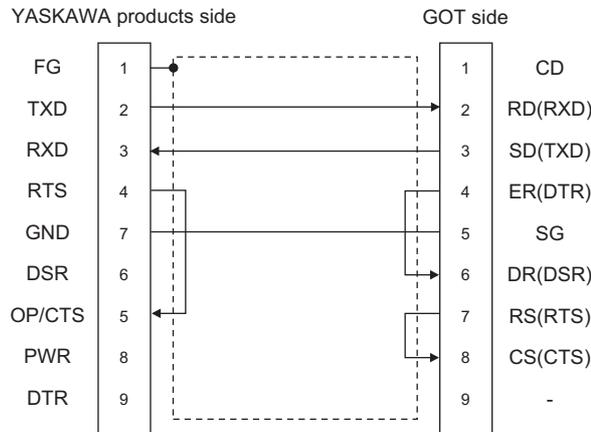
- Connection diagram
RS-232 3)



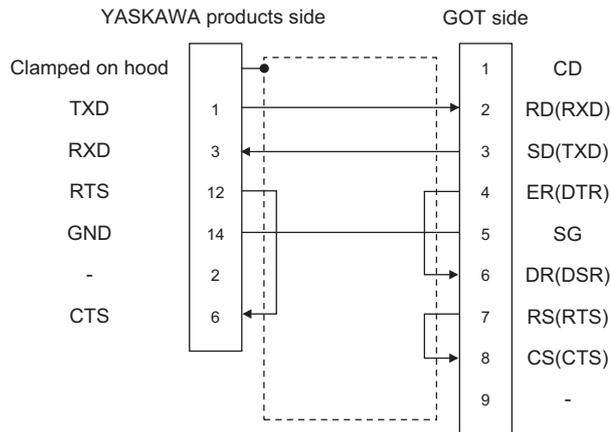
RS-232 4)



RS-232 5)



RS-232 6)



RS-232 7)



- Connector specification
 - 1) Personal computer side connector
Use the connector compatible with the personal computer side.
 - 2) YASKAWA PLC CPU side connector
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 SoftGOT1000 setting

When communicating GT SoftGOT1000 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 SoftGOT1000 must be the same.

Refer to the following for performing GT SoftGOT1000 communication setup.

3.6.1 Communication setup dialog box

(5) Controller setting

For the programmable controller side setting, refer to the following manual.

GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 2) for GT Works3

POINT

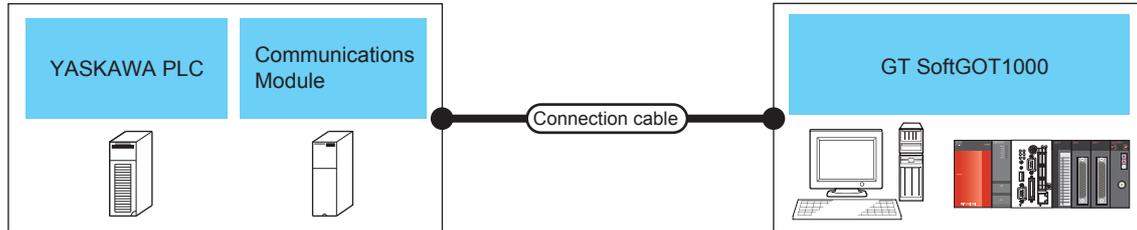
Send delay time

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

■ Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable ^{*3}	Max. distance	GT SoftGOT1000	Number of connectable equipment	
Model name	Communications Module	Communication type				Personal computer ^{*4}	PLC ^{*5}
MP920	218IF	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	10 ^{*1,2}	UDP: 128 TCP: 10
MP2200, MP2300, MP2300S	218IF-01, 218IF-02						
CP-317	218TXB						

*1 To use GT SoftGOT1000 module together with another GT SoftGOT1000 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 SoftGOT 1000 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 This column shows the number of personal computers that can be connected to one PLC.

*5 This column shows the number of PLCs that can be connected 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 ELECTRIC PLC.

☞ 4.8.2 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 N/W No. and PLC No. are specified when connecting to the YASKAWA PLC via the Ethernet connection. In such cases, set the N/W No. and PLC No. arbitrarily on GT Designer3.

For how to set the N/W No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT1000, refer to the following.

 (8) Settings on GT Designer3 and GT SoftGOT1000.

(a) Before setting

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.

The following countermeasures may improve the communication performance.

- Use a switching hub.
- Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
- Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.

Doing so may cause a communication error on the GOT.

(5) Setting of programmable controller side

For settings for each part of programmable controller, refer to the following manual.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric 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.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 2) for GT Works3

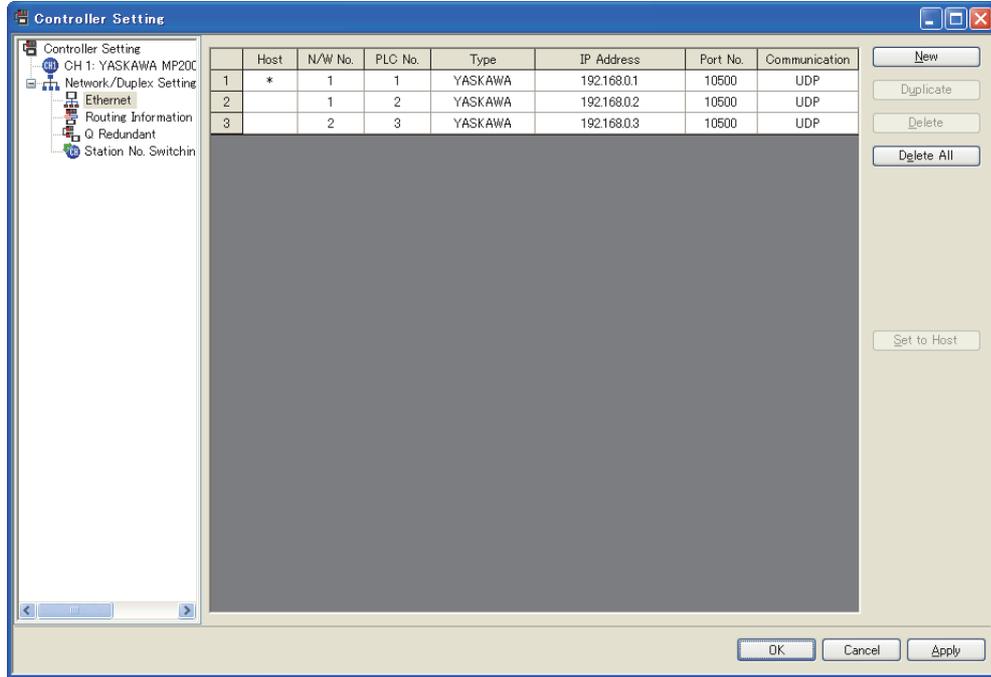
(8) Settings on GT Designer3 and GT SoftGOT1000.

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 64
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 SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

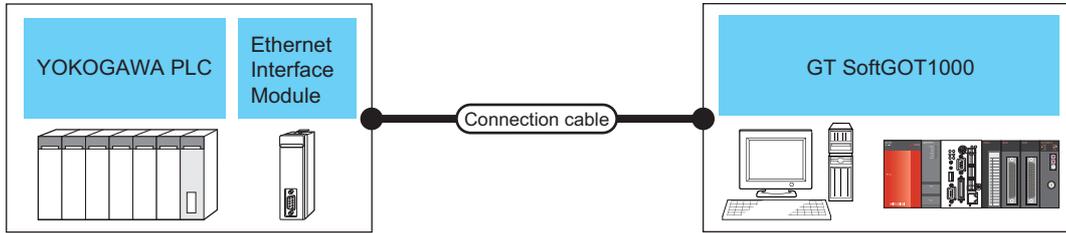
For details on the communication setting, refer to the following manual.

3.6.1 Communication setup dialog box

4.14.5 YOKOGAWA PLC

■ Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable ^{*3}	Max. distance	GT SoftGOT1000	Number of connectable equipment	
Model name	Ethernet Interface Module	Communication type				Personal computer ^{*4}	PLC ^{*5}
FA-M3, FA-M3V	(Sequence CPU module with built-in network functions) ^{*6}	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	UDP: 128 ^{*1} TCP: 8 ^{*2}	UDP: 128 TCP: 10
	F3LE01-5T, F3LE11-0T, F3LE12-0T						

*1 To use GT SoftGOT1000 module together with another GT SoftGOT1000 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 SoftGOT 1000 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 This column shows the number of personal computers that can be connected to one PLC.

*5 This column shows the number of PLCs that can be connected to one personal computer.

*6 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, F3SP71-4S, F3SP76-7S

(b) Ethernet board/card

Use the same Ethernet board and card as those for connecting to MITSUBISHI ELECTRIC PLC.

4.8.2 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 N/W No. and PLC No. are specified when connecting to the YOKOGAWA PLC via the Ethernet. In such cases, set the N/W No. and PLC No. arbitrarily on GT Designer3.

Refer to the following for how to set the N/W No., PLC No./PC No., IP address and port No. of the Ethernet module and GT SoftGOT1000

 (8) Settings on GT Designer3 and GT SoftGOT1000

(a) Before setting

- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.

The following countermeasures may improve the communication performance.

- Use a switching hub.
- Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
- Reduce the number of devices monitored by GT SoftGOT1000.
- When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
- When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.

Doing so may cause a communication error on the GOT.

(5) Setting of programmable controller side

For settings for each part of the programmable controller, refer to the following manual.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric 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.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 2) for GT Works3

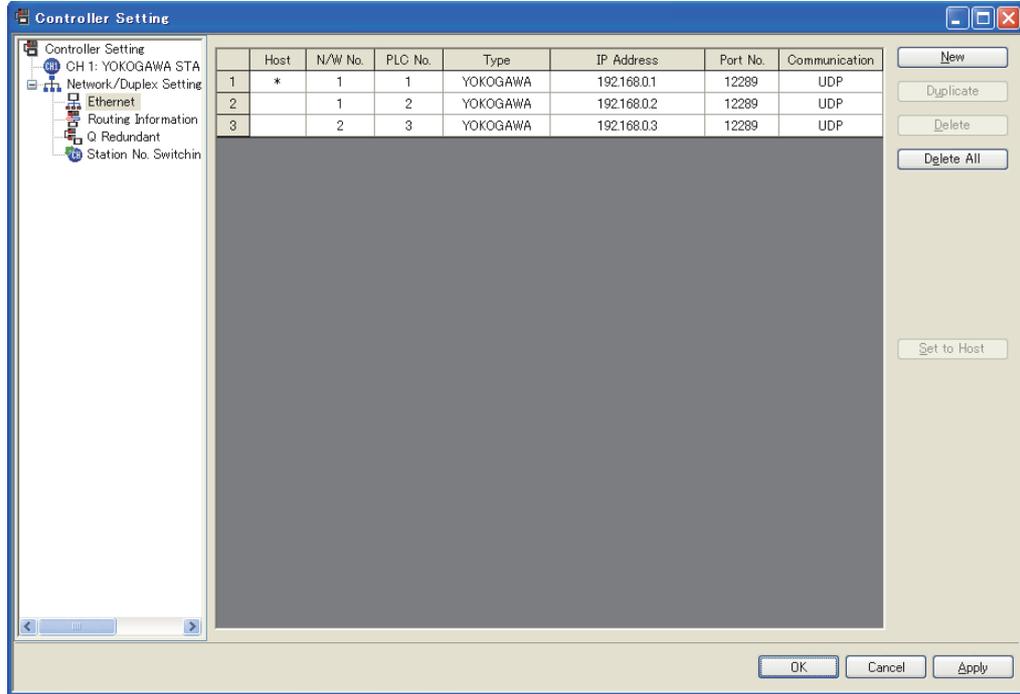
(8) Settings on GT Designer3 and GT SoftGOT1000

(a) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PC No.	Set the station number of the target Ethernet module	1 to 64
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 SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

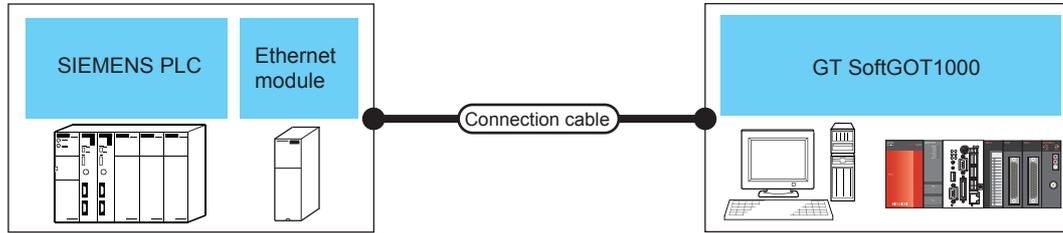
For details on the communication setting, refer to the following manual.

☞ 3.6.1 Communication setup dialog box

4.14.6 SIEMENS PLC

■ Ethernet connection

(1) System configurations and connection conditions



PLC			Connection cable ^{*4}	Max. distance	GT SoftGOT1000	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 (Controller Type: FETCH/WRITE)	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC 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 (Controller Type: OP communication)				Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	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 SoftGOT1000 module together with another GT SoftGOT1000 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 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.

*7 For the applicable CPUs, refer to the following.

 (2) Ethernet module and Ethernet board/card

(2) Ethernet module and Ethernet board/card

The following shows connectable Ethernet modules and Ethernet boards/cards.

(a) Ethernet Module

- Controller 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

- Controller 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 ELECTRIC PLC.

 4.8.2 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 N/W No. and the PLC No. of the SIEMENS 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 SoftGOT1000, refer to the following.

 (8) Settings on GT Designer3 and GT SoftGOT1000.

- (a) Before setting
- When multiple network devices (including a GT SoftGOT1000 module) are connected to the same segment, the network load increases, possibly degrading the communication performance between the GT SoftGOT1000 module and PLC.
The following countermeasures may improve the communication performance.
 - Use a switching hub.
 - Configure the system compliant with the high-speed 100BASE-TX (100Mbps) standard.
 - Reduce the number of devices monitored by GT SoftGOT1000.
 - When multiple GT SoftGOT1000 modules are connected to the same Ethernet network, set a different PLC number for each module.
 - When a GT SoftGOT1000 module is used with the GOT, do not set IP address 192.168.0.18 for the GT SoftGOT1000 module.
Doing so may cause a communication error on the GOT.

(5) Setting of programmable controller side

For settings for each part of programmable controller, refer to the following manual.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric 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

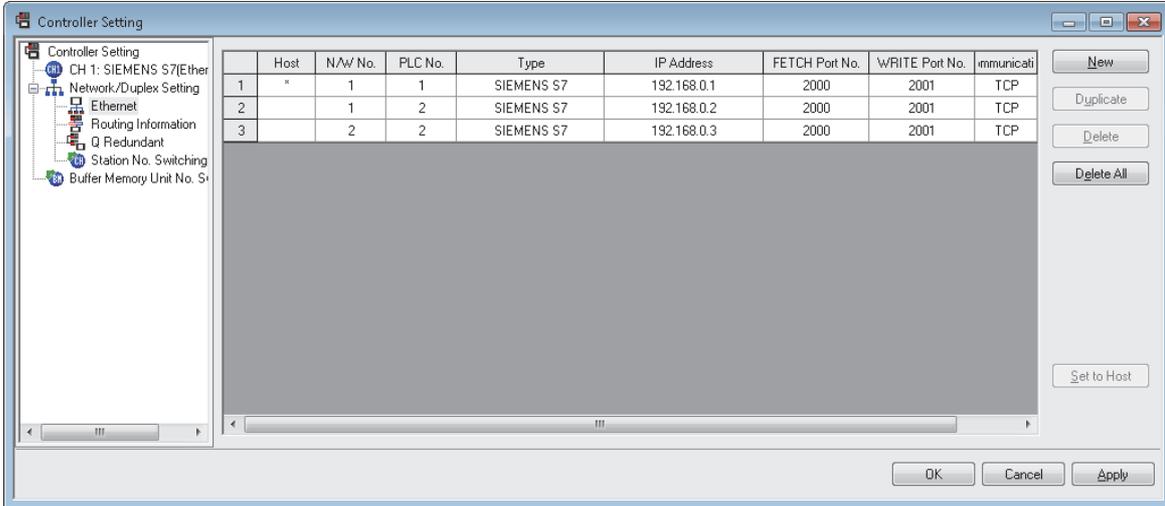
For details on the station monitoring function, refer to the following manual.

 GOT1000 Series Connection Manual (Non-Mitsubishi Electric Products 2) for GT Works3

(8) Settings on GT Designer3 and GT SoftGOT1000.

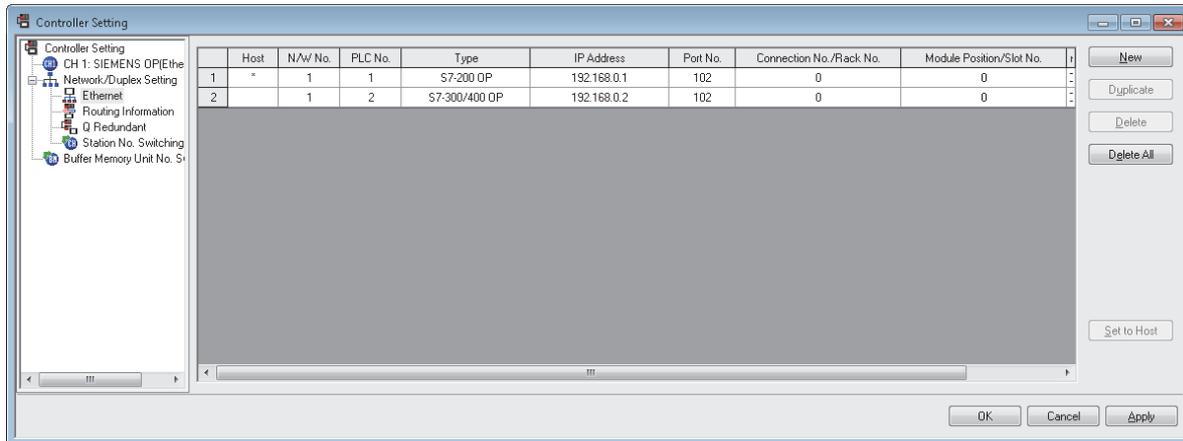
(a) Setting on GT Designer3

- Ethernet setting (Controller Type: FETCH/WRITE)
Set the Ethernet setting dialog box on GT Designer3 as shown below.
Up to 64 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 254
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 (Controller Type: OP communication)
Set the Ethernet setting dialog box on GT Designer3 as shown below.
Up to 64 Ethernet settings 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
PLC No.	Set the station number of the target Ethernet module.	1 to 254
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.

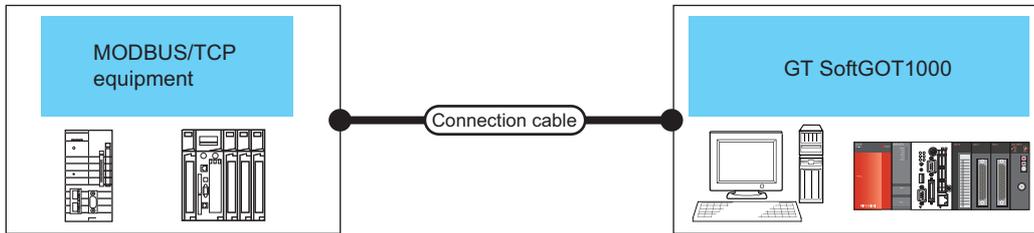
(b) Setting on GT SoftGOT1000

- Communication setup
Set the communication setup dialog box of GT SoftGOT1000.
For details on the communication setting, refer to the following manual.

 3.6.1 Communication setup dialog box

4.15 MODBUS(R)/TCP Connection

4.15.1 System configuration and connection condition



Model name	Communication type	Connection cable ^{*2}	Max. distance	GT SoftGOT1000	Number of connectable equipment	
					Personal computer ^{*4}	PLC ^{*5}
MODBUS/TCP equipment ^{*3}	Ethernet	Twisted pair cable	100m (max. segment length)	PC/AT compatible PC PC CPU	128 ^{*1}	Depends on the MODBUS/TCP equipment used ^{*6}

- *1 When starting up multiple GT SoftGOT1000 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 GOT1000 Series with MODBUS Connection (GOT-A-0037)
For Technical News, contact your local distributor.
- *4 This column shows the number of personal computers that can be connected to one PLC.
- *5 This column shows the number of PLCs that can be connected to one personal computer.
- *6 For details, refer to the MODBUS/TCP equipment manual.

4.15.2 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.

4.15.3 Connection cable

Use a cable applicable to the Ethernet module or the MODBUS/TCP equipment to be used.

4.15.4 Controller setting

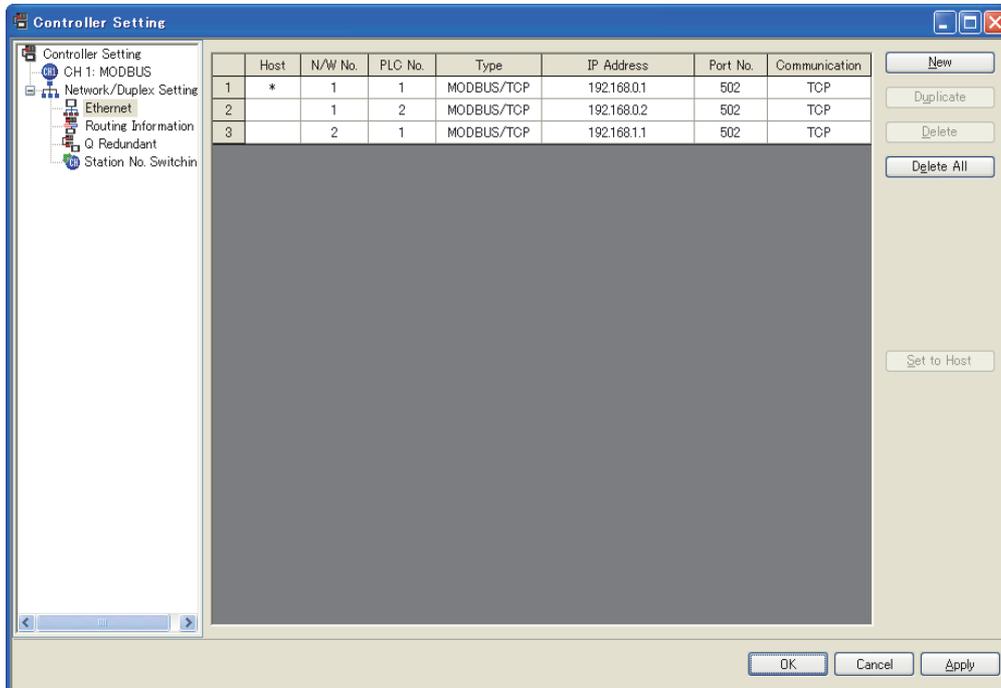
■ Settings on GT Designer3 and GT SoftGOT1000

(1) Setting on GT Designer3

- Ethernet setting

Set the Ethernet setting dialog box on GT Designer3 as shown below.

Up to 128 Ethernet settings 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
PC No.	Set the station number of the target Ethernet module	1 to 64
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 SoftGOT1000

- Communication setup

Set the communication setup dialog box of GT SoftGOT1000.

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

3.6.1 Communication setup dialog box

■ MODBUS/TCP equipment settings

For the MODBUS/TCP equipment settings, refer to the manual of the MODBUS/TCP equipment used.

■ 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.

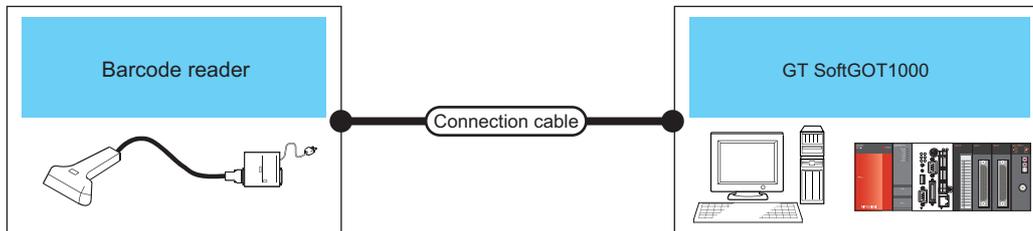
When GS579.b0 is on, the communication setting 2 (GS590 to GS596) is applied.

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.

4.16 Barcode Reader Connection

4.16.1 System configurations and connection conditions



Controller	Connection cable	GT SoftGOT1000	Number of connectable equipment
Barcode reader*1	Varies according to the specifications of the barcode reader used.*1	PC/AT compatible PC PC CPU	1 barcode reader for 1 GT SoftGOT1000 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 GOT1000 series (GOT-A-0010)
For Technical News, contact your local distributor.

4.16.2 Controller setting

■ 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 Version1 Screen Design Manual (Functions)

■ Setting on GT SoftGOT1000

Set the [Communication Setup] dialog box of GT SoftGOT1000.
For details on the [Communication Setup] dialog box, refer to the following manual.

3.6.1 Communication setup dialog box

■ Barcode reader setting

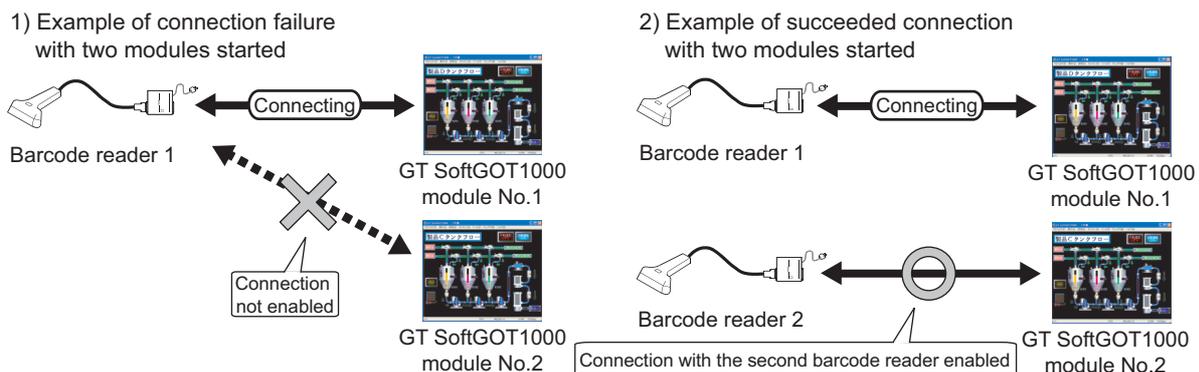
For details on the barcode reader setting, refer to the following manual.

Manual of the barcode reader used

4.16.3 Precautions

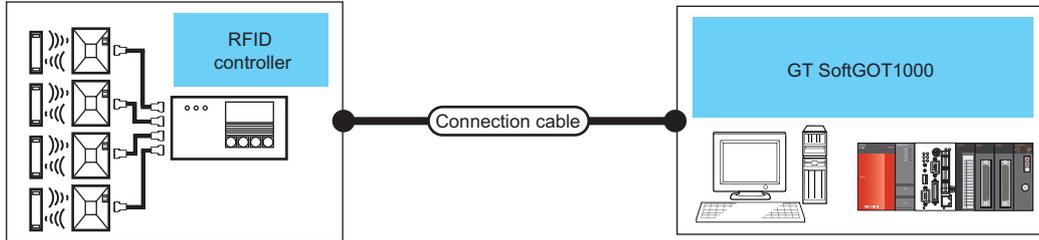
■ Using barcode reader connection on multiple started GT SoftGOT1000 modules

A barcode reader cannot be used by multiple started GT SoftGOT1000 modules or other applications simultaneously.
The barcode reader communicates with the GT SoftGOT1000 which first establishes the connection.



4.17 RFID Connection

4.17.1 System configurations and connection conditions



Controller	Connection cable	GT SoftGOT1000	Number of connectable equipment
RFID controller*1	Varies according to the specifications of the RFID controller used.*1	PC/AT compatible PC PC CPU	1 RFID controller for 1 GT SoftGOT1000 module

*1 For connectable RFID controllers, system equipment, and connection cables, refer to the following Technical News.

☞ List of valid devices applicable for GOT1000 series (GOT-A-0010)
For Technical News, contact your local distributor.

4.17.2 Controller setting

■ 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 Version1 Screen Design Manual (Functions)

■ Setting on GT SoftGOT1000

Set the [Communication Setup] dialog box of GT SoftGOT1000.
For details on the [Communication Setup] dialog box, refer to the following manual.

☞ 3.6.1 Communication setup dialog box

■ RFID controller setting

For details on the RFID controller setting, refer to the following manual.

☞ Manual of the RFID controller used

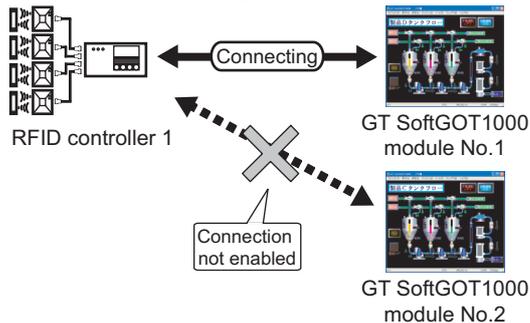
4.17.3 Precautions

■ Using RFID connection on multiple started GT SoftGOT1000 modules

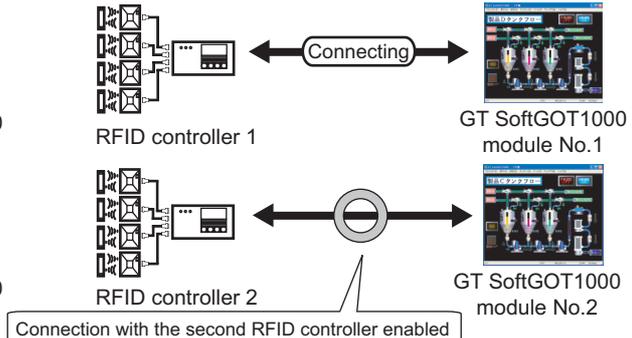
An RFID controller cannot be used by multiple started GT SoftGOT1000 modules or other applications simultaneously.

The RFID controller communicates with the GT SoftGOT1000 which first establishes the connection.

1) Example of connection failure with two modules started



2) Example of succeeded connection with two modules started



FUNCTIONS OF GT SoftGOT1000

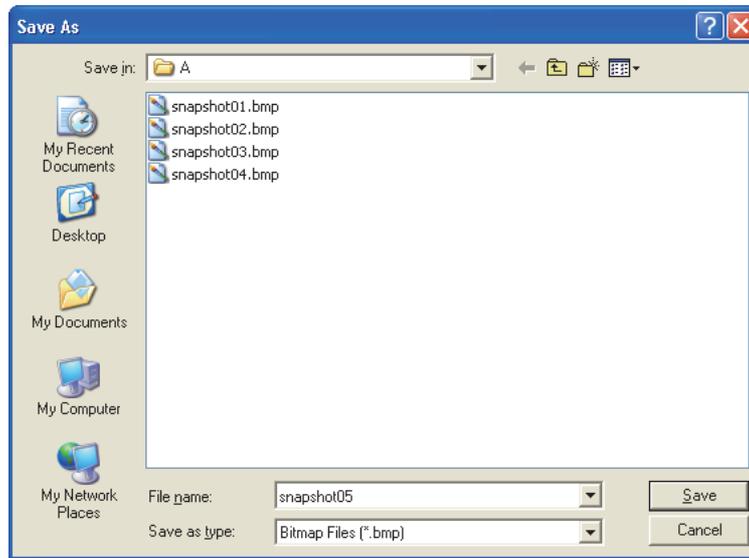
5. FUNCTIONS..... 5 - 1

5. FUNCTIONS

5.1 Snap Shot

The screen image being monitored is saved into BMP or JPEG format file.

1. Perform the following operation.
 - Select [Project] → [Snap Shot...] from the menu.
2. The save as dialog box is displayed.
Set the following items and click the **Save** button.



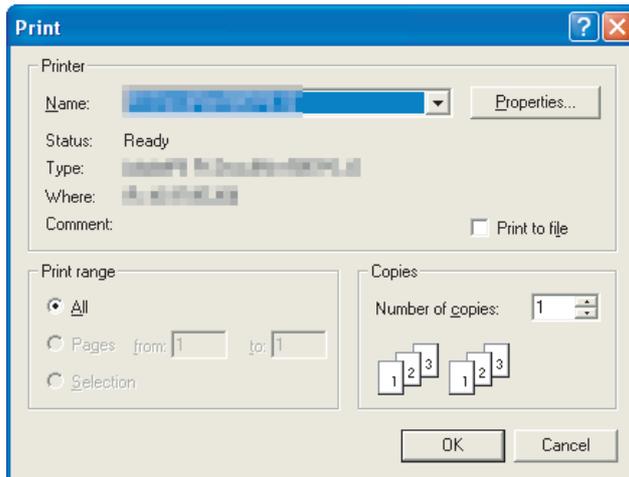
Item	Description
Save in	Selects the area where the file is saved.
File name	Selects the file name to be saved.
Save as type	Selects a format of the file. <ul style="list-style-type: none">• Bitmap Files (*.bmp) : BMP format• JPEG Files (*.jpg) : JPEG format

5.2 Print

The screen image being monitored is output to a printer.

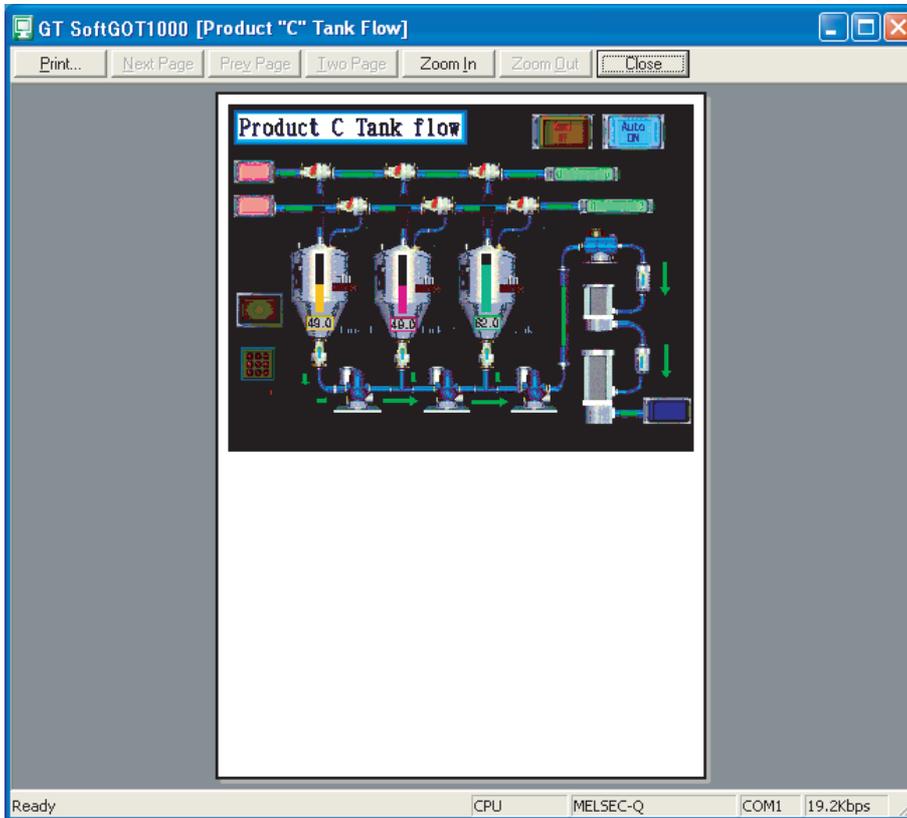
5.2.1 Printing

1. Perform the following operation.
 - Select [Project] → [Print...] from the menu.
2. The print dialog box of Windows® is displayed.
Click the button to start printing.



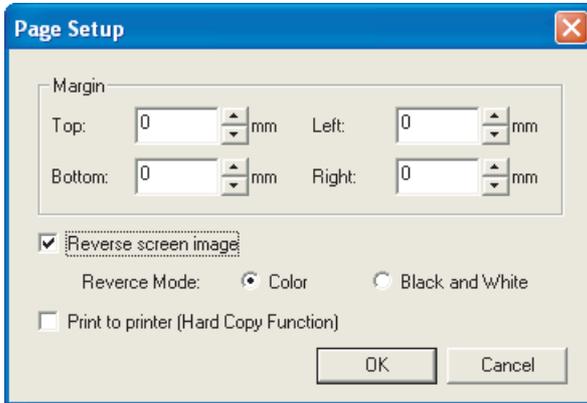
5.2.2 Performing print preview

1. Perform the following operation.
 - Select [Project] → [Print Preview] from the menu.
2. Print Preview is displayed.



5.2.3 Performing page setup

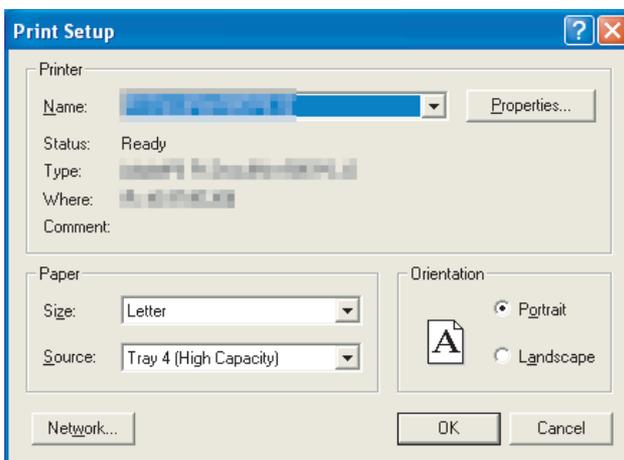
1. Perform the following operation.
 - Select [Project] → [Page Setup] from the menu.
2. The page setup dialog box is displayed.
Set the following items and click the button.



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.
Print to printer (Hard Copy Function)	Check this item to output data to a printer using the hard copy function.

5.2.4 Performing print setup

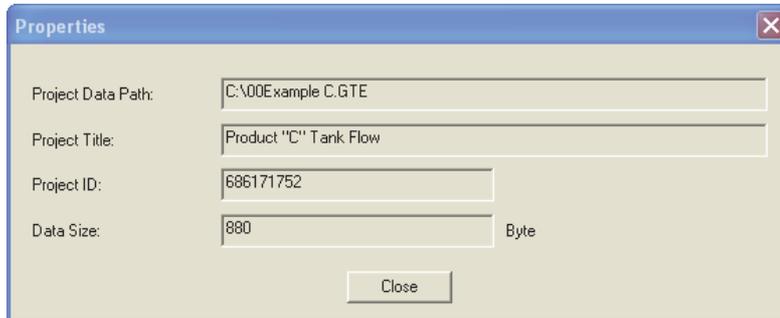
1. Perform the following operation.
 - Select [Project] → [Print Setup...] from the menu.
2. The Print Setup dialog box of Windows® is displayed.
3. Configure the settings for the printer (selecting a printer, paper size, direction of printing) and click the button.



5.3 Property

The project title, project ID and data size of project data being monitored are displayed.

1. Perform the following operation.
 - Select [Project] → [Properties...] from the menu.
2. The Properties dialog box 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.



When the properties dialog box is displayed before starting monitoring

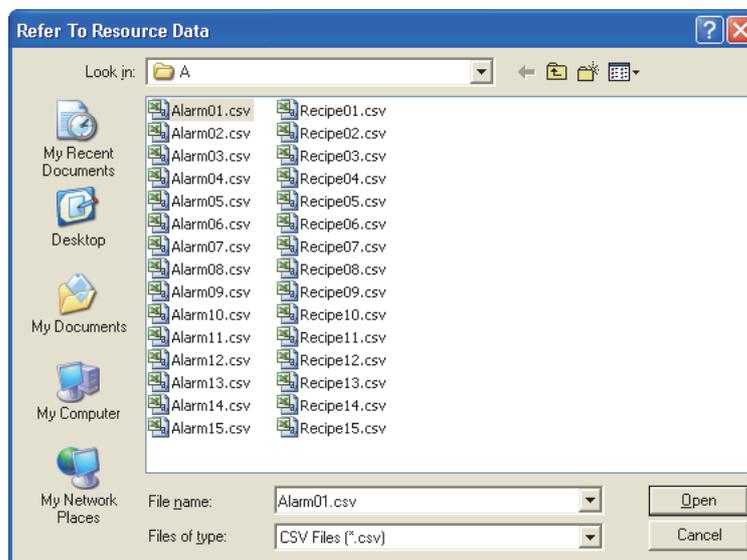
When the properties dialog box is displayed before starting monitoring, the project data path, project title, project ID and data size of project data monitored previously are displayed.
(If project data has not been loaded, the project data path, project title, project ID and data size are not displayed.)

5.4 Resource Data

It is possible to reference data of the following object functions stored in the hard disk of the personal computer:

Advanced alarm,	Alarm history,	Logging,	Recipe,
Advanced recipe,	Report (Print),	Hard copy (File save),	Hard copy (Print),
Operation log			

1. Perform the following operation.
 - Select [Tool] → [Resource Data] from the menu.
 - Right-click the mouse to select [Tool] → [Resource Data].
2. The Refer to Resource Data dialog box 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.)
- Use the format shown in Example 1 if tables are created in the report function.
Tables with the format shown in Example 2 cannot be properly displayed in CSV files.

(Example 1) Table created with
GT Designer2

	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 Designer2

	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.

5.5 Displaying File Information in PLC (QCPU, QSCPU Only)

GT SoftGOT1000 displays the file information in the connected PLC (QCPU or QSCPU).

POINT

(1) Requirements to display file information

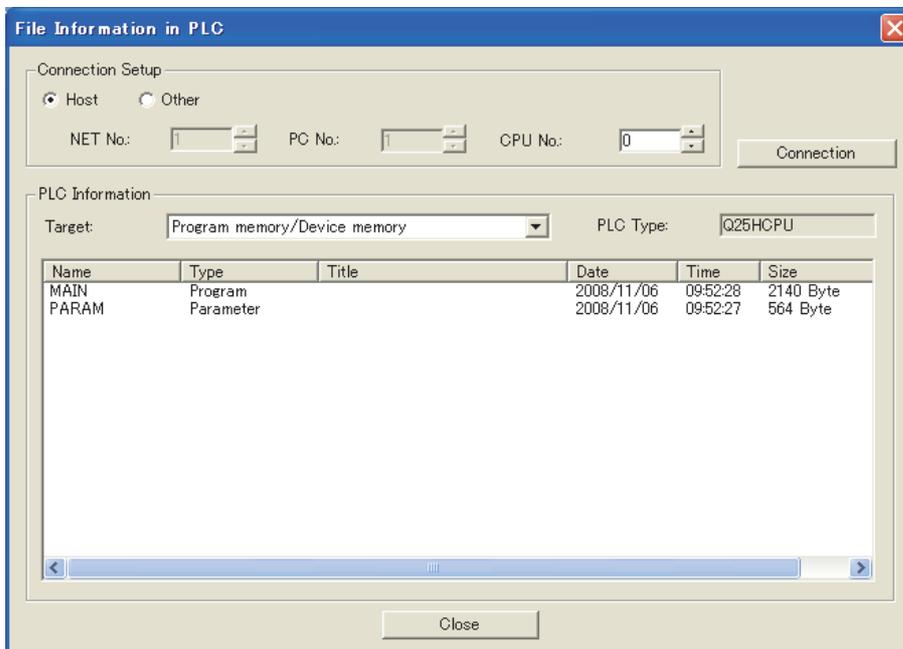
The file information is displayed when the host station is set to a MITSUBISHI ELECTRIC PLC (QCPU or QSCPU) and GT SoftGOT1000 is in the online mode after monitoring is started.

(2) Displaying the dialog box by using the GOT special register (GS device)

Turning on the PLC file display signal (GS500.b2) displays the [File Information in PLC] dialog box.

5.5.1 Setting method

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.
2. The File Information in PLC dialog box is displayed.
Set the connection setup by referring to the table on the next page, and then click the **Connection** button.
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.
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].)
PC No.	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.

5.5.2 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 box 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.

5.6 Mail Function

POINT

Before using the mail function

When using the mail function, e-mail is sent from GT SoftGOT1000, so mail software is not required on the sending side.

To use the mail function, a contract with a service provider and set up the environment so that e-mail can be sent is required.

5.6.1 Mail function overview

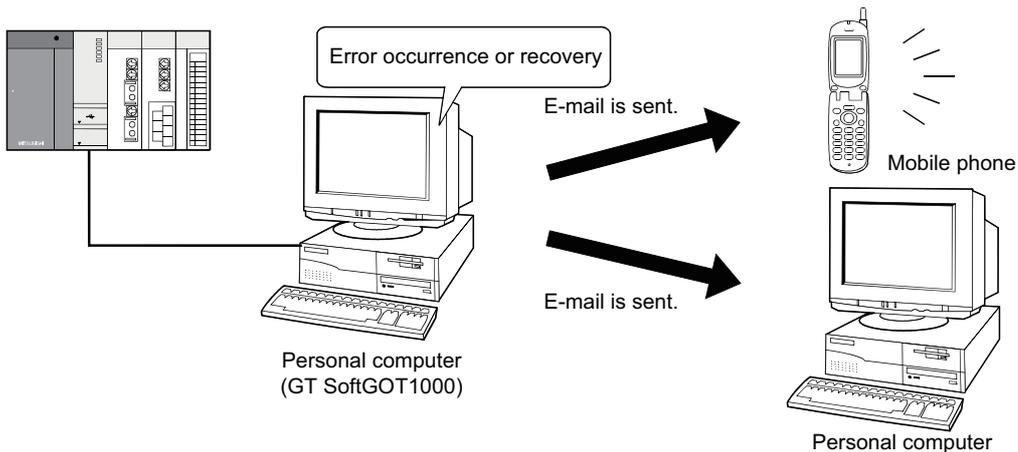
It is possible to send messages from GT SoftGOT1000 to personal computers and mobile phones.

The mail function can only be used in the following object functions:

- Alarm history display function
- System alarm

(1) Using the alarm history display function

It is possible to send error and recovery information at error/recovery of stations using the alarm history display function.



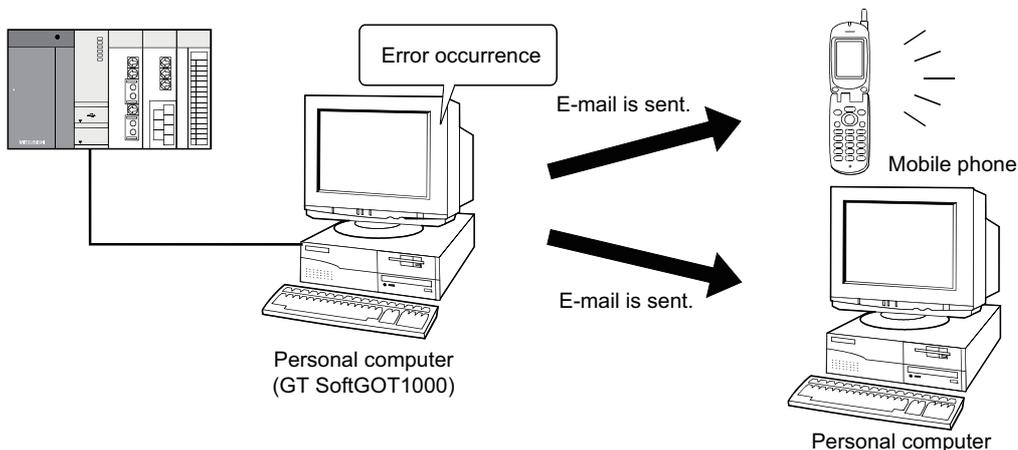
(2) Using system alarms

An error definition is sent at system alarm occurrence.

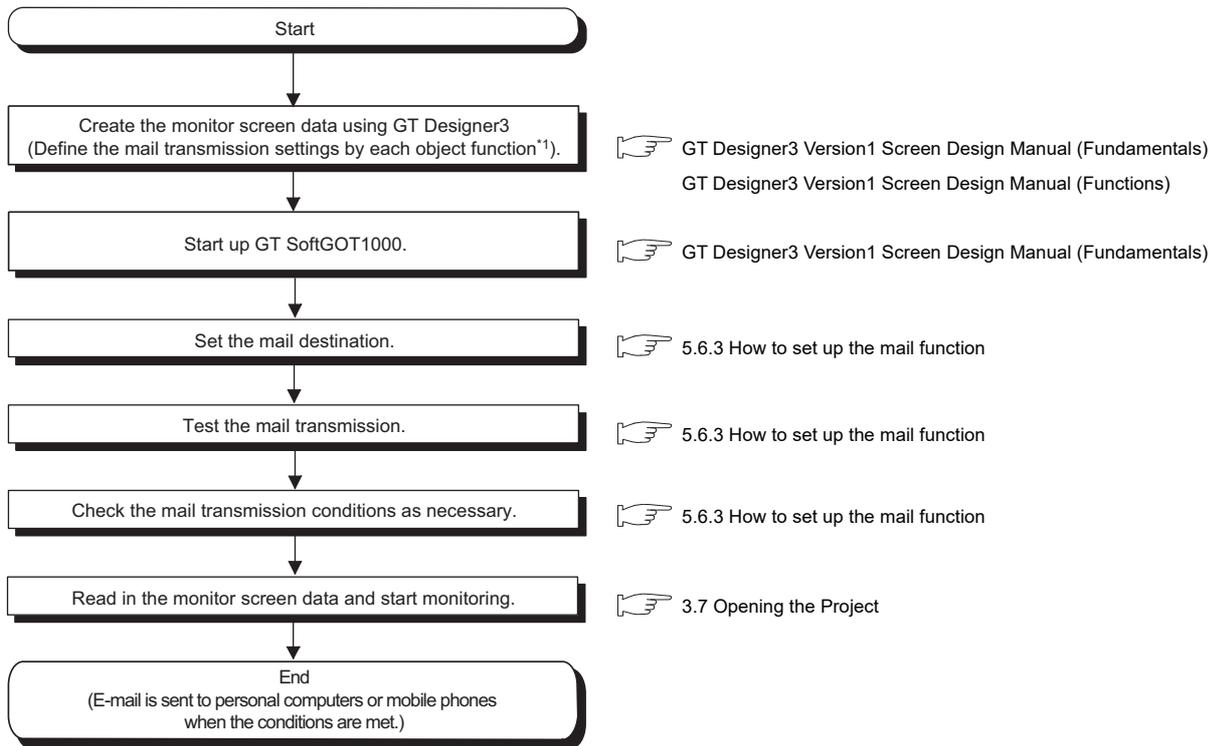
The system alarm transmission of GT SoftGOT1000 differs from the alarm list display function (system alarm) of the GOT.

It does not require the alarm list display function (system alarm) to be set in the monitor screen data.

Turn on/off the checkboxes in the Mail Condition dialog box to select whether this function will be used or not.



5.6.2 Operation flow when using the mail function



*1: Setting need not be made when system alarm transmission is used.

5.6.3 How to set up the mail function

The following explains how to set up the mail function to send e-mail using GT SoftGOT1000.

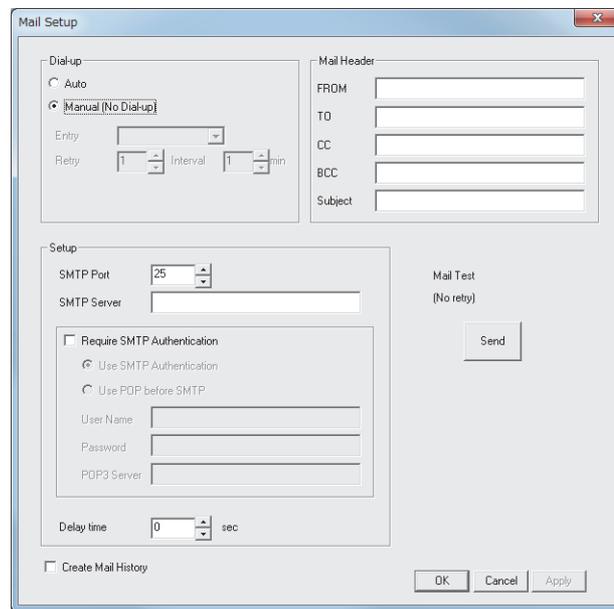
■ Mail setup

Used to set the mail send destination and perform a mail transmission test.

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.

2. The Mail Setup dialog box is displayed.



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".)

(Continued to next page)

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	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].
Delay time	Specify the send interval between e-mails. "1" to "10" (seconds) (The default is "0.") The mail server may restrict you to send many e-mails at once to avoid suspicious e-mails. With this setting, e-mails are sent at specified intervals.
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 box.
Cancel	Used to cancel the settings and close the dialog box.
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 SoftGOT1000.

(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 SoftGOT1000 is not compatible with the SSL encrypted communication (SMTP over SSL, TLS) when sending e-mails.

For the items to be set, check the server specifications.

(a) Mail test

It is possible to check whether e-mail can be sent properly before starting monitoring by GT SoftGOT1000. In the mail test, the following sample message of GT SoftGOT1000 is sent to the destination based on the definition set in the Mail Setup dialogue box.

- GT SoftGOT1000 sample message displayed at the destination.

GT SoftGOT1000 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.

 5.6.5 Mail history

Mail Condition

Set the mail send conditions.

If the mail transmission is set with GT SoftGOT1000, it is possible to set not to send e-mail for certain functions without modifying the monitor screen data.

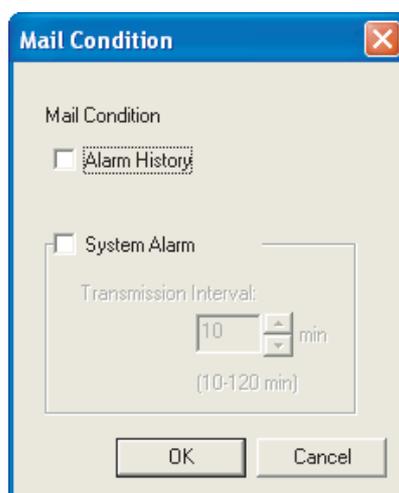
Disable the functions for which e-mail is not to be sent.

(Check boxes are enabled by default.)

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].

2. The Mail Condition dialog box 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 style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">System alarm 1) ↓ In 5 minutes ↓ System alarm 1)</div> <div style="margin-right: 10px;">GT SoftGOT1000</div> <div style="margin-right: 10px;">→ [envelope icon]</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">Personal computer</div> <div style="margin-right: 10px;">→ [envelope icon]</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">System alarm 1)</div> <div style="margin-left: 10px;">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 style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">System alarm 1) ↓ In 5 minutes ↓ System alarm 2)</div> <div style="margin-right: 10px;">GT SoftGOT1000</div> <div style="margin-right: 10px;">→ [envelope icon]</div> <div style="margin-right: 10px;">→ [envelope icon]</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">Personal computer</div> <div style="margin-right: 10px;">→ [envelope icon]</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">System alarm 1) System alarm 2)</div> <div style="margin-left: 10px;">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).

Refer to the GT Designer3 Version1 Screen Design Manual (Functions) for how to set objects.

5.6.4 Sending e-mail

When e-mail is sent from GT SoftGOT1000 to the target device, the reception header part shown at the destination displays a message that shows that the e-mail is from GT SoftGOT1000.

Example of display in the reception header part at the destination

```
From:*****
To:*****
Cc:*****
Subject:GT SoftGOT1000 Mail.
:
X-Mailer:GT SoftGOT1000(Version3)
```

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 SoftGOT1000 can send up to 64 e-mails at once.

(1) When sending e-mail using the alarm history display function

If an alarm occurs in GT SoftGOT1000, 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 details of the alarm history display functions, refer to the GT Designer3 Version1 Screen Design Manual (Functions).

(a) Example of the header part display in the mail send destination when an alarm occurred

```
[Alarm history: Occurrence Notification]
[Occurrence Data and Time]
2005/10/12 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].

(b) Example of display at destination (when an alarm recovered)

[Alarm History: Restoration Notification]
[Restored Time]
2005/10/12 15:05:47
[Restoration Information]
Alarm of the tank has been restored.
[Detailed Information]
The hydraulic pressure of tank is low.

(2) When sending e-mail using System Alarm

At communication error occurrence, the error occurrence time and error information are sent to the destination by mail.

(a) Destination display example (at error occurrence)

[System Alarm]
402 Communication timeout. Confirm communication pathway or modules. 2005/11/22 11:24:25

5.6.5 Mail history

It is possible to reference the operation history data of the e-mail sent from GT SoftGOT1000.
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®.

■ How to reference mail history

The following explains how to reference the mail history data.

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.

2. The mail history information is displayed.

(a) Example of mail history data display

			:
2006/09/25	15:10:52	No.1	POP:##### Searching...
2006/09/25	15:10:52	No.1	POP:##### Connecting...
2006/09/25	15:10:52	No.1	POP:##### Connection is completed.
2006/09/25	15:10:52	No.1	SMTP:##### Searching...
2006/09/25	15:10:52	No.1	SMTP:##### Connecting...
2006/09/25	15:10:52	No.1	SMTP:##### Connection is completed.
2006/09/25	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 box, refer to the following.

 5.6.3 How to set up the mail function

The mail history data is not deleted even if GT SoftGOT1000 is exited.

The unnecessary history data is required to delete by the user.

5.7 Keyboard Input

The following can be operated using the keyboard input function.

- For the numerical input and the ASCII input, characters and values can be input with a keyboard.
- Operations, including displaying a ladder with the alarm history, can be operated with function keys of a keyboard.

5.7.1 Keyboard input enabling/disabling procedure

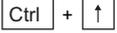
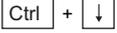
1. When switching the keyboard input enable/disable, perform the following operation.

- Click  (Keyboard).
- Select [Set] → [Keyboard] from the menu.
- Right-click the mouse to select [Set] → [Keyboard] from the menu.

5.7.2 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 box.	
	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	–

5.7.3 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

For applicable key codes for objects, refer to the following manual.

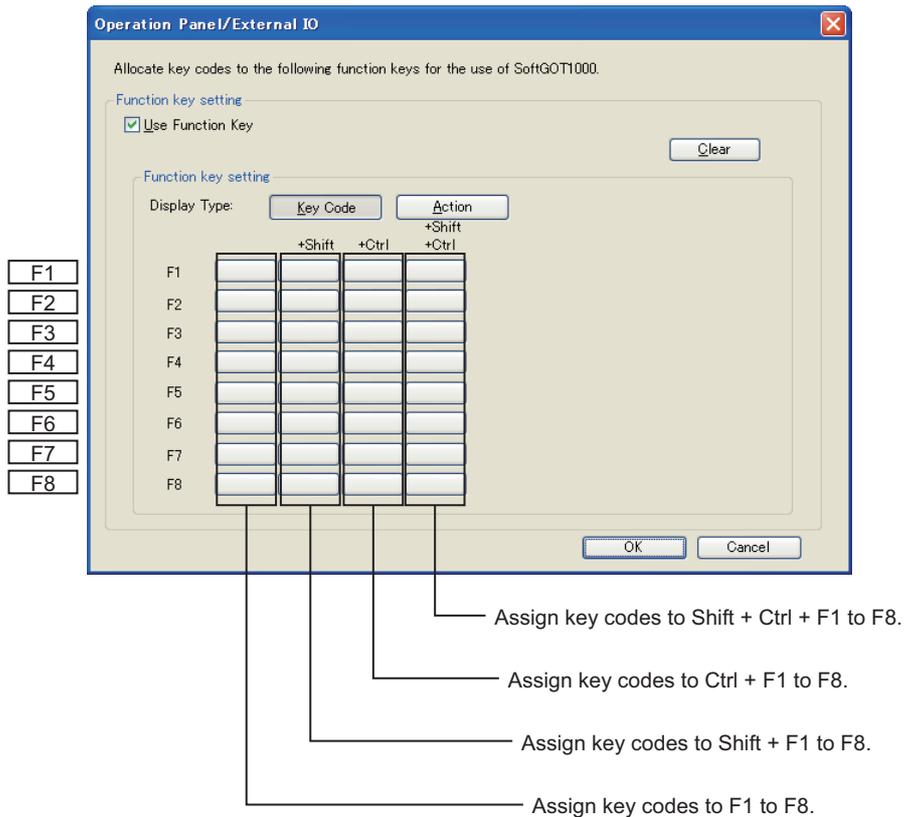
 GT Designer3 Version1 Screen Design Manual (Fundamentals)

(1) How to assign key codes

Key codes are assigned in the OperationPanel screen on GT Designer3

For settings in the OperationPanel dialog box, refer to the following manual.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)



Allocate key codes to the following function keys for the use of SoftGOT1000.

Function key setting

Use Function Key Clear

Display Type: Key Code Action Action

	+Shift	+Ctrl	+Shift	+Ctrl
F1				
F2				
F3				
F4				
F5				
F6				
F7				
F8				

OK Cancel

Assign key codes to Shift + Ctrl + F1 to F8.

Assign key codes to Ctrl + F1 to F8.

Assign key codes to Shift + F1 to F8.

Assign key codes to F1 to F8.

5.7.4 Precautions

(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

(a) When the screen save is set on GT SoftGOT1000, 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.

(b) When the screen saves for GT SoftGOT1000 and Windows operate, canceling the screen saves must be executed respectively.

(4) Keyboard inputs

(a) The keyboard input function is not compatible with the utility screen.

Operate the utility screen with the mouse.

(b) Do not use software keyboards (keyboard applications).

(5) Precautions for function keys

(a) Function keys cannot be used during clicking the mouse.

(b) 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

(c) 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®.

5.8 Full Screen Mode

The full monitor screen of GT SoftGOT1000 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 SoftGOT1000 cannot be performed, since the menu bar, toolbar and status bar of GT SoftGOT1000 are hidden.

To perform operations of the menu bar and toolbar, use the mouse right-click menu.

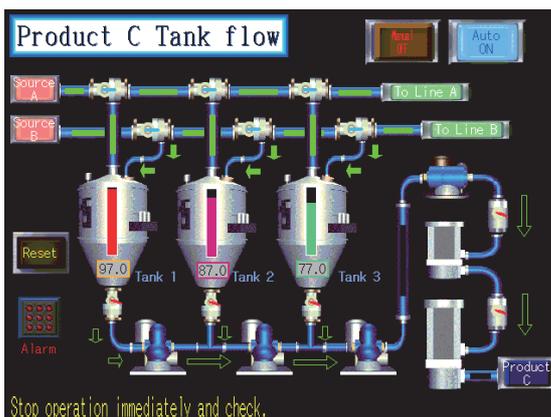
5.8.1 Full screen mode types

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 SoftGOT1000.

(2) Full screen 2

A monitor screen is displayed fully on the screen, and a small dialog is displayed.
GT SoftGOT1000 can be minimized/exited in the small dialog.

Since GT SoftGOT1000 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 SoftGOT1000.
- Exit: Exits GT SoftGOT1000.

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 SoftGOT1000.

(3) Full screen 3

A monitor screen is displayed fully on the screen, and a small dialog is also displayed.

GT SoftGOT1000 can be opened/monitored/minimized/exited in the small dialog.

Since GT SoftGOT1000 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 SoftGOT1000.
- Exit: Exits GT SoftGOT1000.

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 SoftGOT1000.

POINT

Exiting the full screen mode

Turning ON the GOT internal device (system information area of GT SoftGOT1000: GS500.b0) exit GT SoftGOT1000.

By setting the above device as a touch switch, GT SoftGOT1000 can be exited without using a mouse and keyboard.

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

 GT Designer 3 Version1 Screen Design Manual (Fundamentals)

5.8.2 Setting method

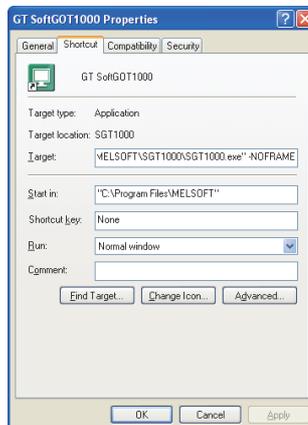
The full screen mode can be set either before or after starting GT SoftGOT1000.

■ Setting before starting GT SoftGOT1000

1. Select [Start]^{*1} → [MELSOFT]^{*2} → [GT Works3] from the menu of Windows, right-click [GT SoftGOT1000], 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.
2. As the GT SoftGOT1000 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

3. After addition, click the **OK** button.
4. When GT SoftGOT1000 is started next, GT SoftGOT1000 is started in the full screen mode.
5. When you cancel the full screen mode, delete the keyword added to [Target].



When starting the GT SoftGOT1000 with the specified module number in the full-screen mode

The specified module of GT SoftGOT1000 can be started in the full-screen by entering the keyword for both full screen mode and module No. in the [Target] of [GT SoftGOT1000 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.

☞ 5.10 Starting Up Multiple GT SoftGOT1000 Modules

■ Setting after starting GT SoftGOT1000

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.
2. The GT SoftGOT1000 is displayed in full screen 1 mode.
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 SoftGOT1000 can be switched between enabled and disabled states by turning on and off the GOT internal device (GS500.b1).

- ON: GT SoftGOT1000 is displayed in the full screen mode.
- OFF: The full screen mode of GT SoftGOT1000 is canceled.

For GOT internal devices, refer to the following manual.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

5.8.3 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 SoftGOT1000 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 SoftGOT1000 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 SoftGOT1000 are different, the GT SoftGOT1000 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 SoftGOT1000**

When displaying the screen in full screen mode after starting the GT SoftGOT1000, 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 5.8 Full Screen Mode.

5.9 Popup Menu

The right-click of the mouse can be disabled (the menu can be hidden).

When the Popuption menu 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 SoftGOT1000.

5.9.1 Popup menu ineffective/effective

1. Perform the following operation.
 - Select [Set] → [Popup Menu] from the menu.
 - Right-click the mouse to select [Set] → [Popup Menu] from the menu.
2. The right-click of the mouse is disabled.
3. When you want to enable the right-click of the mouse again, choose [Set] - [Popup Menu].

5.9.2 Precautions

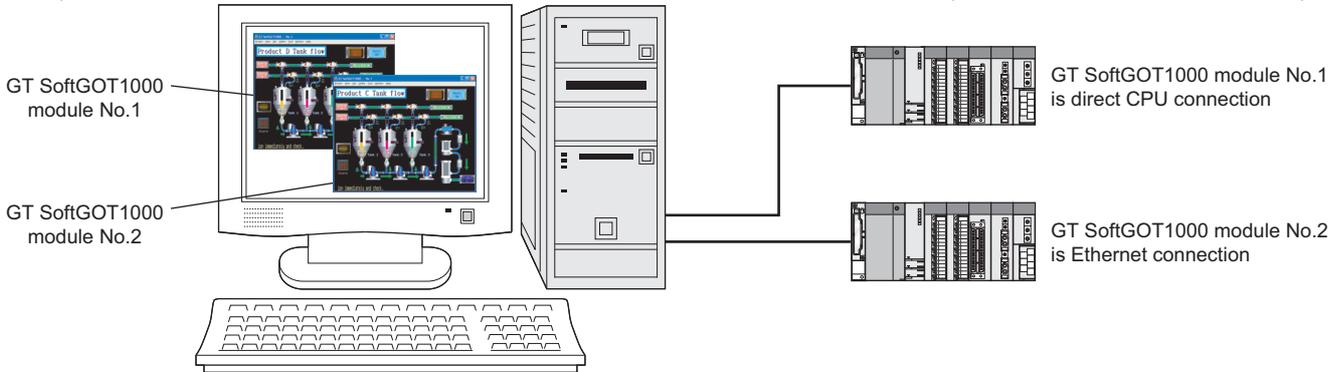
When the full screen mode and Popuption menu disable are set, the operations of the menu bar and mouse right-click menu cannot be performed. Therefore, the pop-up menu cannot be enabled until the full screen mode is canceled.

When you want to enable the pop-up menu, cancel the full screen mode in the following method.

- (a) When the keyword of the full screen mode was added to the property of the GT SoftGOT1000 icon.
After exiting GT SoftGOT1000 (pressing the **F12** key or turning ON the GOT internal device GS500.b0), delete the added keyword.
- (b) 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 Popuption menu from the menu.

5.10 Starting Up Multiple GT SoftGOT1000 Modules

Multiple modules of GT SoftGOT1000 can be started up simultaneously by a single computer. Each module of GT SoftGOT1000 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.)



5.10.1 Startup procedure

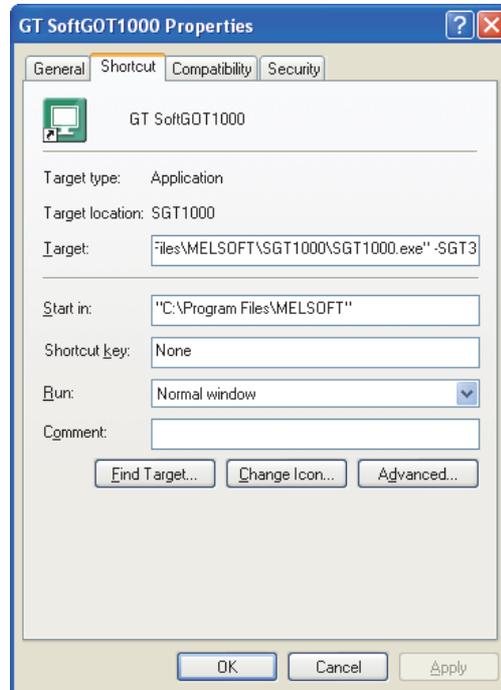
Take one of the following procedures to start up multiple modules of GT SoftGOT1000.

- (1) **When starting up multiple modules in the order of module numbers**
If the GT SoftGOT1000 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 SoftGOT1000 module (e.g., module No. 3 only).
 1. Select [Start]^{*1} → [MELSOFT]^{*2} → [GT Works3] from the menu of Windows, right-click [GT SoftGOT1000], 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.

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 SoftGOT1000 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

3. Press the button after entering the module number.
4. The specified module of GT SoftGOT1000 will start up at the next startup.
5. Delete the keyword that was entered in the [Target] field when not specifying the module No.

HINT



Starting up multiple GT SoftGOT1000 modules

(1) When starting up multiple GT SoftGOT1000 modules by specifying the module numbers

Create a shortcut for each module to start up multiple GT SoftGOT1000 modules by specifying each module number.

(2) When multiple GT SoftGOT1000 modules are started up in the full screen mode

If multiple modules of GT SoftGOT1000 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.

 5.11 Moving the Window

(3) When starting the GT SoftGOT1000 with the specified module number in the full-screen mode

The specified module of GT SoftGOT1000 can be started in the full-screen by entering the keyword for both full screen mode and module No. in the [Target] of [GT SoftGOT1000 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 the keyword for the full screen mode.

 5.8 Full Screen Mode

5.10.2 Precautions for use

(1) Monitoring speed when starting up multiple GT SoftGOT1000 modules

When starting up multiple GT SoftGOT1000 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 SoftGOT1000 modules, only the first GT SoftGOT1000 module that starts monitoring is allowed to communicate.

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

5.11 Moving the Window

GT SoftGOT1000 can be moved by operating the mouse.

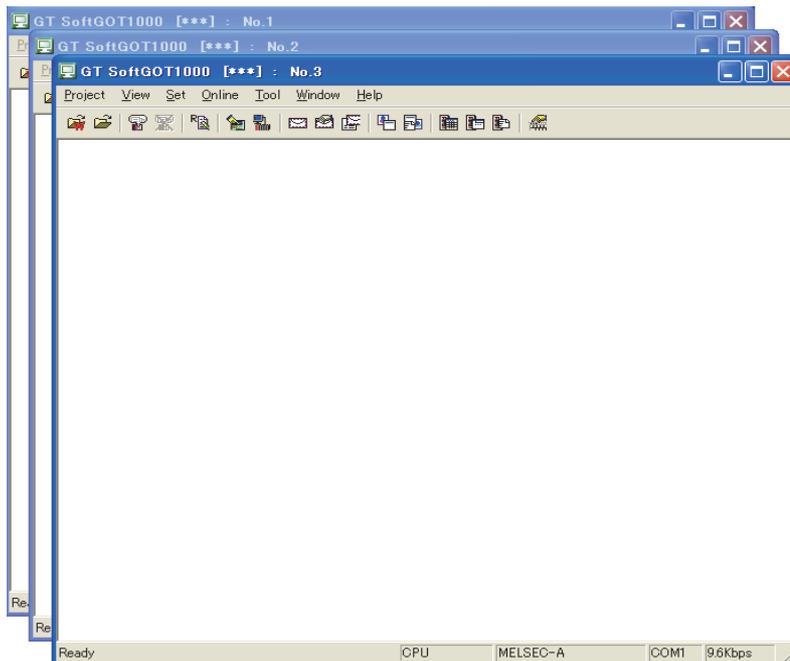
GT SoftGOT1000 can also be moved when the full screen display function, where the title bar is not displayed, is used.

5.11.1 Window movement types

There are the following window movement types.

(1) Cascade

Cascades the windows of the active GT SoftGOT1000. (These windows may not necessarily be in the order of module numbers, depending on the Windows[®] specifications.)



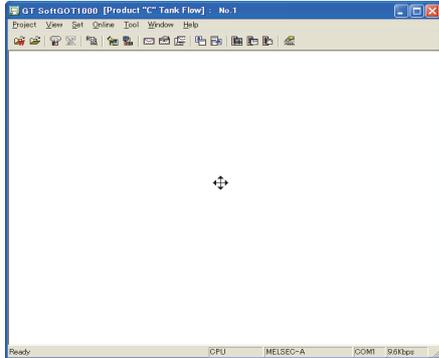
(2) Minimize all windows

Minimizes all the windows of the active GT SoftGOT1000 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.

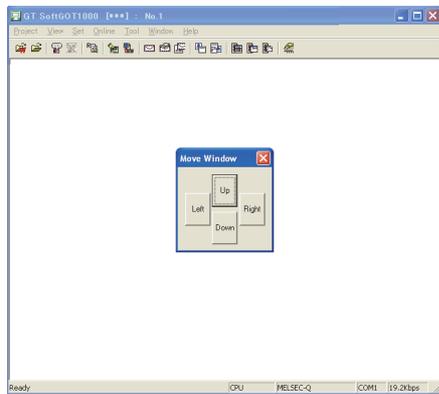
 3.5 Environment Setup



Movement with mouse

Setting the cursor of the mouse to the Move mode and moving the mouse also moves GT SoftGOT1000 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 box moves GT SoftGOT1000 on a 10-dot every clicking.
A window can also be moved on a panel computer that cannot use a mouse.

5.11.2 Setting method

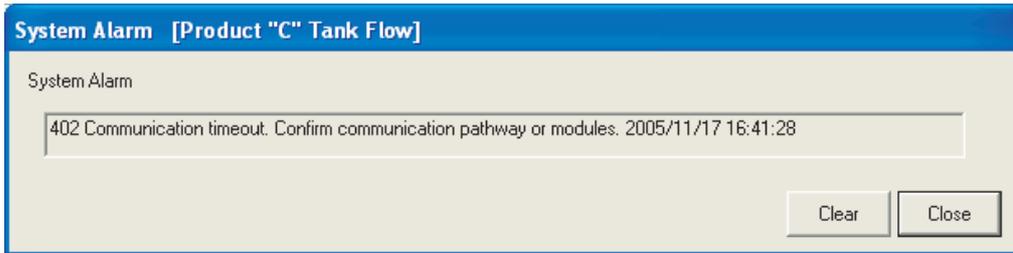
1. Perform the following operation.
 - Select [Window] → [Cascade] / [Mimimize All Windows] / [Move Window] from the menu.
 - Right-click the mouse to select [Window] → [Cascade] / [Mimimize All Windows] / [Move Window] from the menu.
2. Move GT SoftGOT1000 in the selected moving method.

5.12 System Alarm

System alarm is displayed.

If system alarm is not set to project data, it can be confirmed with this dialog box.

1. Perform the following operation.
 - Select [Tool] → [System Alarm] from the menu.
 - Right-click the mouse to select [Tool]→[System Alarm] from the menu.
2. The System Alarm dialog box is displayed.



Item	Description
System Alarm*1	Error contents are displayed.
<input type="button" value="Clear"/>	Displayed error message is cleared. However, it is redisplayed when the error keeps occurring.

*1 Refer to the following manual for list of system alarm.

 Appendix.2.6 GOT error code list

POINT

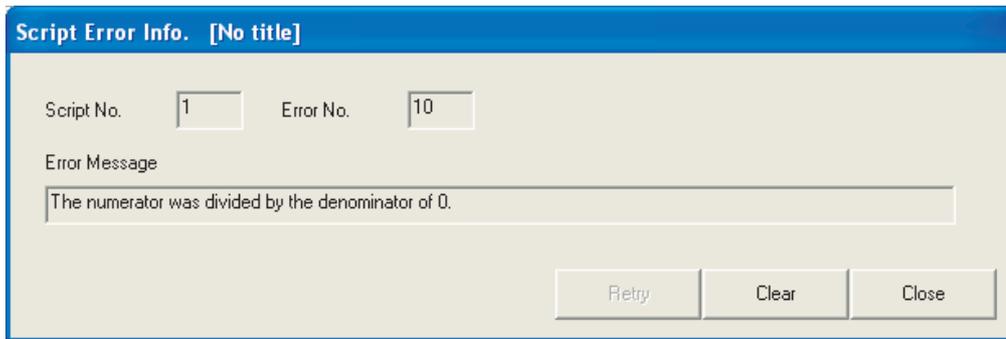
About system alarm to be displayed

- Only the error detected by GOT is displayed on the system alarm dialog box.
Set the system alarm display in the project data for checking errors of the PLC CPU and network.
- Error messages are displayed in English.
To display them in other languages, configure the following setting.
 - Setting the system alarm display in the project data
 - Setting the system language switching device
- Error messages cannot be cleared with the GOT error reset signal (system signal 1-1.b13).
Error messages can be cleared only with the [Clear] button.

5.13 Script Error

Script error information is displayed.

1. Perform the following operation.
 - Select [Tool] → [Script Error] menu.
 - Right-click the mouse to select [Tool] → [Script Error] from the menu.
2. The Script Error Info. dialog box 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.
<input type="button" value="Retry"/>	Script is executed again.
<input type="button" value="Clear"/>	Displayed error message is cleared. However, it is redisplayed when the error keeps occurring.

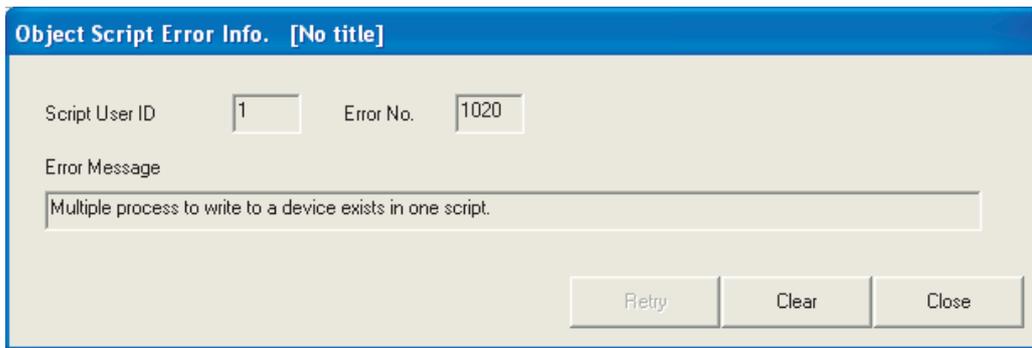
*1 Refer to the following manual for script function.

 GT Designer3 Version1 Screen Design Manual (Functions)

5.14 Object Script Error

Object script error information is displayed.

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.
2. The Object Script Error Info. dialog box is displayed.



Item	Description
Script User ID *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.

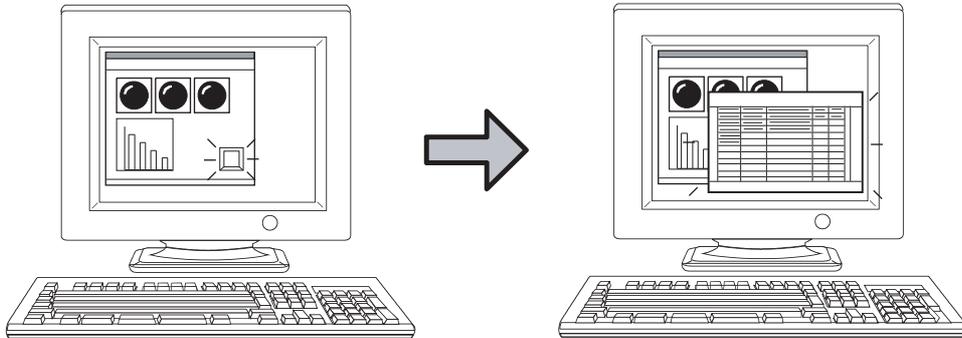
*1 Refer to the following manual for object script function and corrective actions for error messages.

 GT Designer3 Version1 Screen Design Manual (Functions)

5.15 Application Start-up

Various applications (such as Microsoft® Excel) can be started from GT SoftGOT1000 while GT SoftGOT1000 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 box.

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.

Tub	Description	Reference
APP Setup 1	Up to 16 applications can be allotted for the device GS501.	5.15.1 ■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.	5.15.1 ■Advanced APP Setup tub

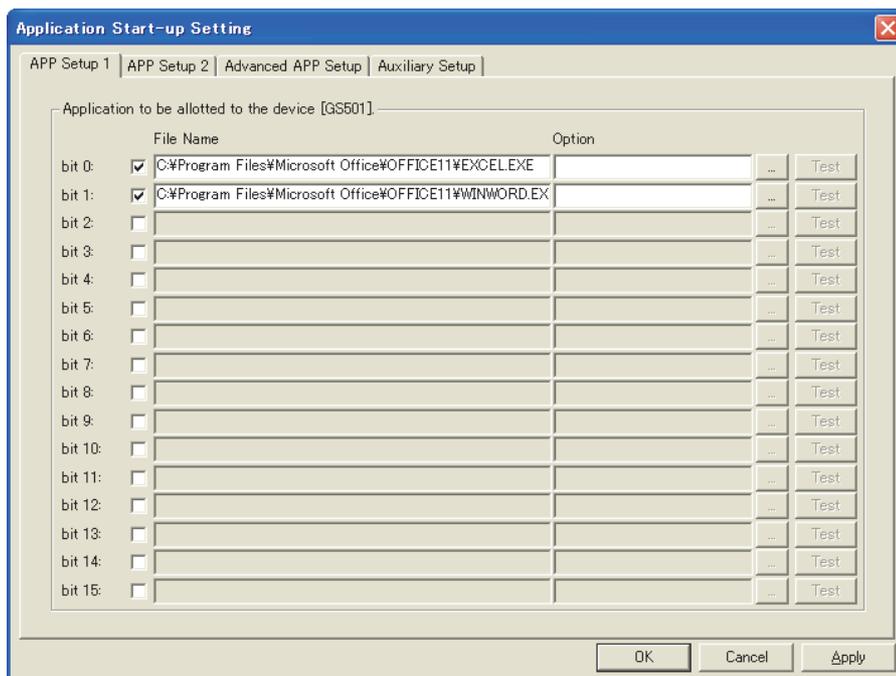
For details of GOT internal devices and the method of device settings, refer to the following manual.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

5.15.1 Setting method

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.
2. The Application Start-up Setting dialog box is displayed.
Make the settings referring to the explanation below.

■ APP Setup 1/APP Setup 2 tab



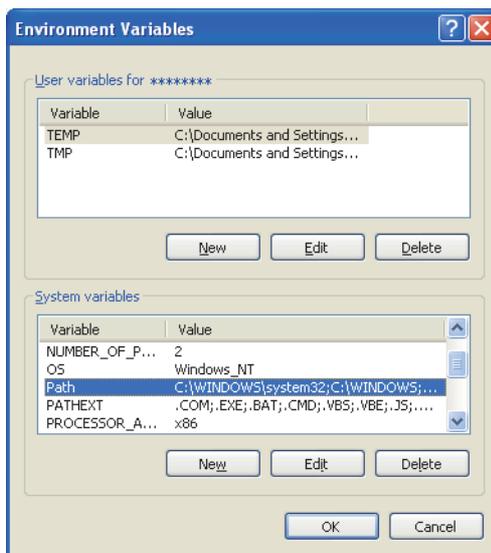
Item	Description
Application to be allotted to the device GS501 Application to be allotted to the device GS502	Specify an application to be allotted to the bit of device GS501 or GS502. Up to 32 applications can be allotted. Applications allotted start up when these bits turn ON. The bits which were 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 SoftGOT1000, click this button to confirm the normal operation of the set application.

POINT

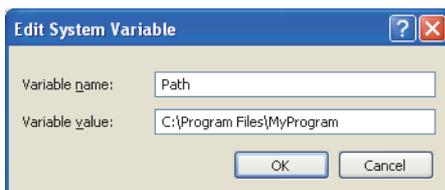
Using environment variables

Using the environment variables (Path) provided by Windows®, paths no longer need to be set each time. For details of environment variables, refer to the manual or Help of Windows®. The following shows an example setting of environment variables.

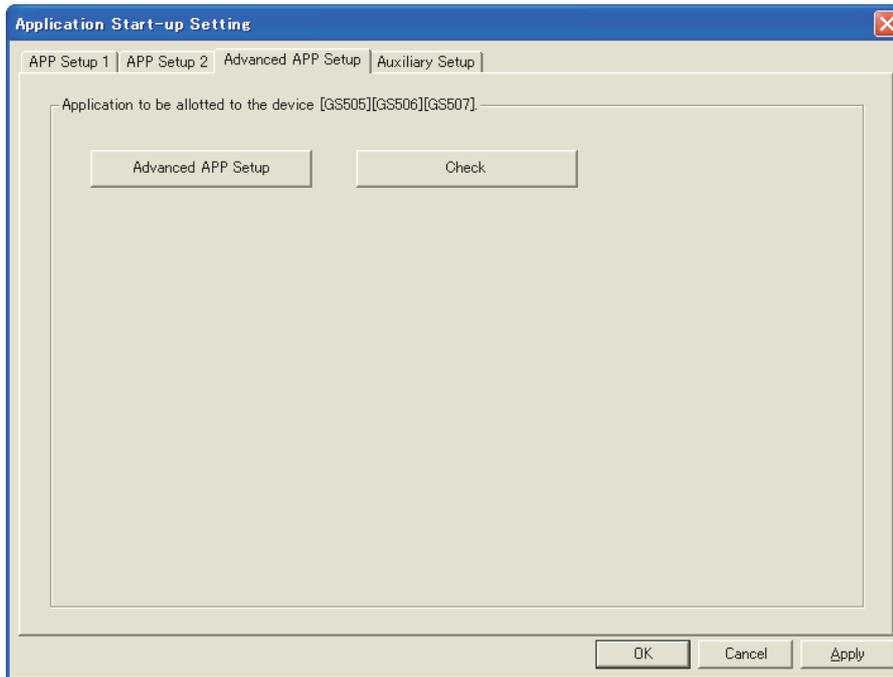
1. Select [Start] → [Control Panel] → [Performance and Maintenance] → [System].
2. Display the Advanced tab and then select [Environment Variables].
3. Select [Path] from [System variables] and click [Edit].



4. Add the path to an executable file to Variable value.
(To set multiple paths, place ; (semi-colon) between paths.)
Example) Specifying a file located in C:\Program Files\MyProgram



■ 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. 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>
Setting check	Click this item to check the setting contents of the Advanced APP setup file (AppStartSet.csv).

POINT

(1) Creation and storage destination of Advanced APP setup file

When GT SoftGOT1000 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

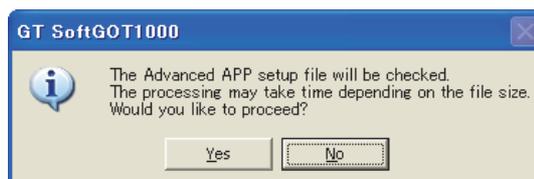
The advanced application setting can be changed by editing the Advanced APP setup file directly.

(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 box when not executing the setting check.

Returns to the Advanced APP Setup tab.

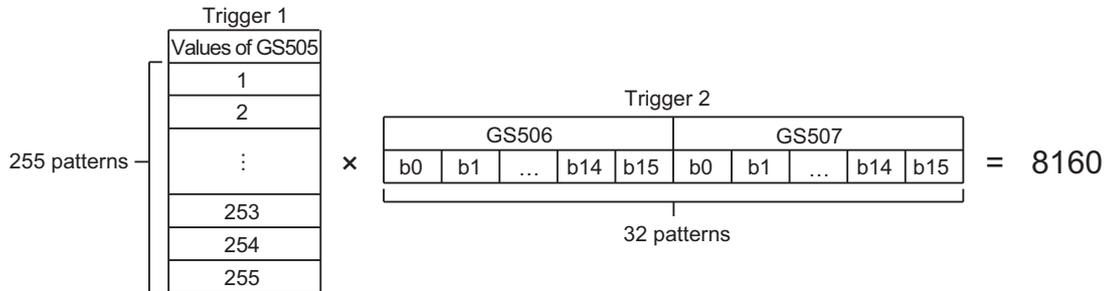


(1) Advanced application settings

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		100		15 C:\Program Files\Microsoft Office\OFFICE11\EXCEL.EXE	
9					
10					

Item	Description
Record	One Record is configured with Field 1 to 5.
Field 1	Set whether to enable or disable the setting of record. • 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) • 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

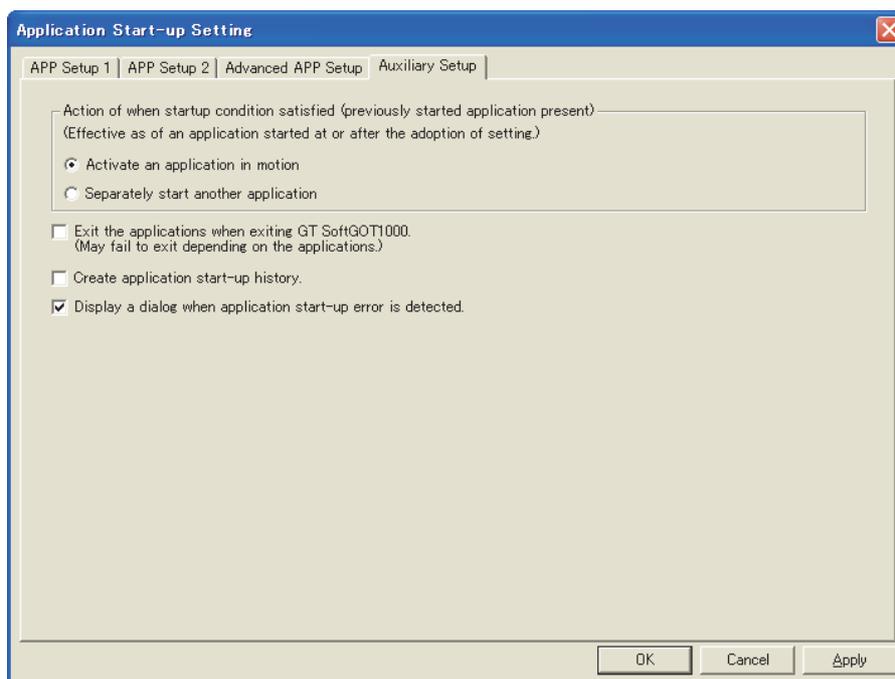
In the status that 100 is stored in GS505, the application (EXCEL.EXE) set in Setting 1 starts when GS506.b15 is turned ON.

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.

■ Auxiliary Setup tab



Item	Description
Action of when startup condition satisfied *1	Select how the application that was started up from GT SoftGOT1000 behaves when its start-up condition is satisfied again. Activate an application in motion: Select this item to make an application that is already in motion active. Separately start another application: Select this item to start up the same application in addition to the one currently running.
Exit the applications when exiting GT SoftGOT1000 *1	Check this item to terminate GT SoftGOT1000 together with applications that were started up from GT SoftGOT1000. Note that applications that are started up after checking [Separately start another application] in [Action of when startup condition satisfied] are not terminated.
Create application start-up history *1	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]. For details of data storable in a history, refer to the following.  5.15.2 Application start-up history
Display a dialog when application start-up error is detected.	Check this item to display an error dialog box when an error occurs at application start-up.

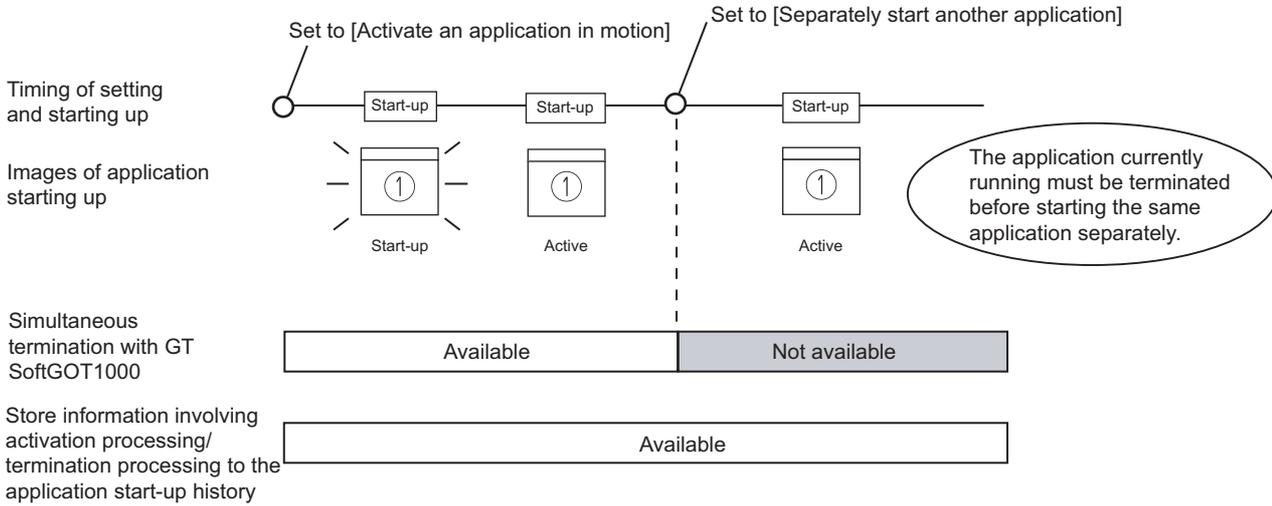
For details of * 1, refer to the next page.

***1 Action of when startup condition satisfied**

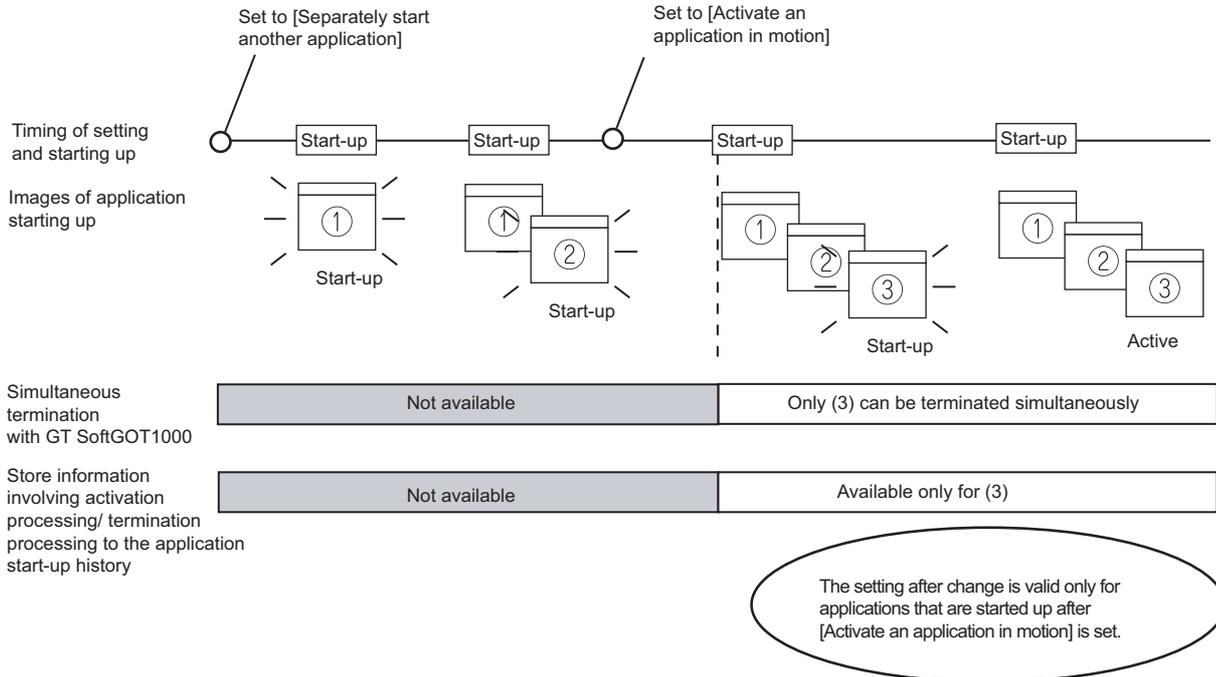
When a setting is changed while GT SoftGOT1000 is operating, the setting after change is valid only for applications started up after the change.

For this reason, even when [Exit the applications when exiting GT SoftGOT1000.] is enabled, some applications may not be terminated simultaneously with termination of GT SoftGOT1000.

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]



5.15.2 Application start-up history

Information involving application start-ups can be stored in a history.

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].

Referring to history data

The following explains how to refer to history data.

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.
2. History data are displayed.

2006/09/25	19:56:26	No.1	GS501.b0	: The application has been started.
2006/09/25	20:10:30	No.1	GS501.b0	: The application has been terminated.
2006/09/25	13:51:28	No.10000	GS501.b10	: The application has been started.
2006/09/25	14:00:30	No.10000	GS501.b10	: The application has been terminated.
2006/09/25	16:47:02	No.1	GS501.b0	: The application has been started.
2006/09/25	16:57:07	No.1	GS501.b0	: The application has been activated.

POINT

History data

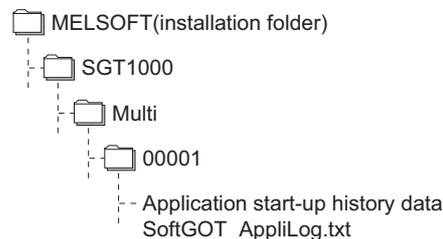
Any application start-up history cannot be referred to when no history data are stored.

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.

 5.15.1 Setting method

Historical data are stored for each module as follows. They are not deleted even when GT SoftGOT1000 is closed. Delete unnecessary history data.



5.15.3 Precautions

(1) Precautions for setting

With personal computers employing VGA (640 × 480) resolution, the Application Start-up Setting dialog box cannot entirely be seen on the screen.

Move the dialog box 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 box is displayed.

The application cannot be restarted in this state.

Close the error dialog box before starting the application.

Choose not to display the error dialog box in the application start-up setting, if necessary.

(3) Precautions for exiting applications when exiting GT SoftGOT1000

Applications started from other than GT SoftGOT1000 are not terminated.

Also, some applications may not be terminated with this function.

(4) Precautions for use

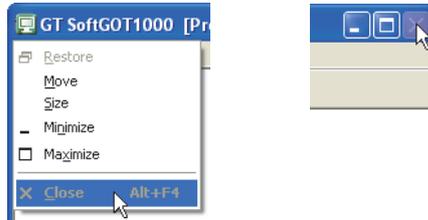
Applications may not be started up if device ON time is too short.

Keep the device ON until applications are started up.

5.16 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 SoftGOT1000.
The setting selected here remains valid even after GT SoftGOT1000 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

5.16.1 Disabling/enabling the close menu

1. Follow the procedure below.
Select [Set] → [Close Menu] from the menu.
Right-click the mouse, and select [Set] → [Close Menu] from the menu.
2. The Close menu at the upper right of the title bar is disabled.
3. To enable back the Close menu at the upper right of the title bar, select [Set] → [Close Menu].

5.17 Interaction with PX Developer

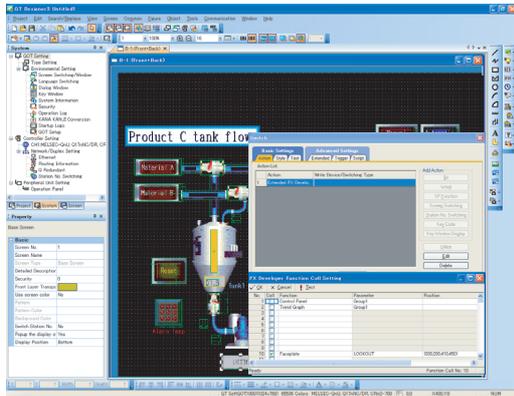
The monitor tool function of PX Developer can be called on GT SoftGOT1000.

In PX Developer, when registering GT SoftGOT1000 as the user graphic screen, the registered GT SoftGOT1000 can be started up.

With interaction between GT SoftGOT1000 and PX Developer, their functions can be shared.

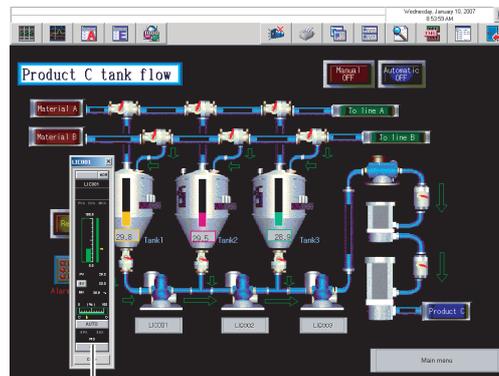
Thus, the interaction improves the operational performance for combining the functions.

<Setting on GT Designer3>



Set the PX Developer function call for a special function switch on GT Designer3.

<Interaction between GT SoftGOT1000 and PX Developer>



Screen of the called monitor tool function

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 SoftGOT1000 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 SoftGOT1000, the setting for the special function switch is required.

For details on the setting, refer to the following.

☞ GT Designer3 Version1 Screen Design Manual (Functions)

■ Security level change

By changing the mode with the monitor tool of PX Developer, the security level of GT SoftGOT1000 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.

5.17.1 Setting method

■ Before interaction with PX Developer

For interaction with PX Developer, the setting is required respectively for GT SoftGOT1000 and PX Developer. The following describes the settings required for interaction with PX Developer.

(1) Settings on GT SofGOT1000

- Set to the online mode at start-up. (☞ 3.12 Automatic Startup)
- Check the [Display dialog when starting GT SoftGOT1000, specified with the module that has been activated.] of the auxiliary setup tab on the environment setup dialog box. (☞ 3.5 Environment Setup)
- Do not check [Display dialog when closing GT SoftGOT1000.]. (☞ 3.5 Environment Setup)
- Call project data on GT SoftGOT1000. (☞ 3.7 Opening the Project)

POINT

Opening project data

Set the PX Developer function call for the current project data opened on the GT SoftGOT1000.

For the following cases, open the project data on GT SoftGOT1000.

- When the project data has never been opened on GT SoftGOT1000
- When the target project data differs from the last monitored project data

When GT SoftGOT1000 is displayed in the full screen mode for the interaction with PX Developer, set the back screen mode for GT SoftGOT1000, and then monitor tool windows are not behind GT SoftGOT1000.

(☞ 5.18 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)

■ PX Developer function call setting

Set to call monitor tool functions on GT SoftGOT1000.

To call monitor tool functions for PX Developer on GT SoftGOT1000, 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)

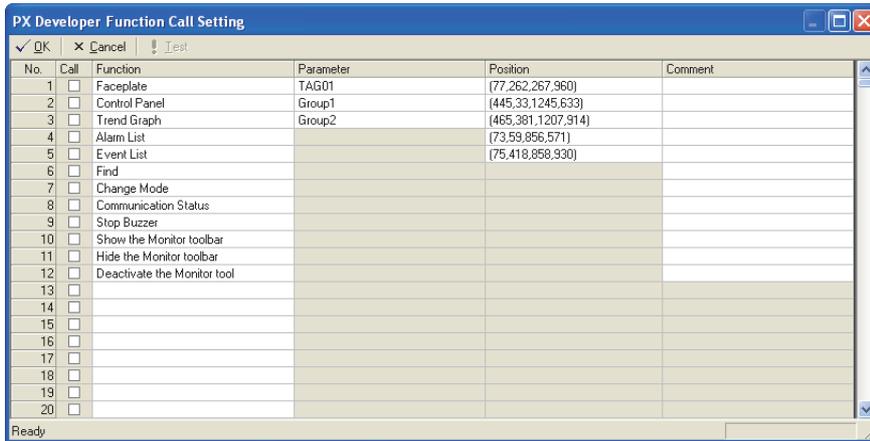
After setting the PX Developer function call in the special function switch with GT Designer3, the settings can be changed on GT SoftGOT1000. (To change the settings, starting GT Designer3 is not needed.)

The following describes the method for changing the settings on GT SoftGOT1000.

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.

2. The dialog box appears for the PX Developer function call setting. Set the dialog box 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 box.
Cancel	Press the button to cancel the setting and close the dialog box.
Test	<p>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 SoftGOT1000] checked in [Display Position Setting] are disabled.) For restrictions for calling monitor tool functions, refer to the following manual.</p> <p> PX Developer Version <input type="checkbox"/> Operating Manual (Monitor Tool)</p>
Call	<p>Assign the functions that is checked in the [Call] column to the special function switch. The setting is available only with GT Designer3.</p>
Function	<p>Select monitor tool functions to be called when touching the special function switch. The following indicates the applicable functions.</p> <ul style="list-style-type: none"> • 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 <p>For details for each function, refer to the following manual.</p> <p> PX Developer Version <input type="checkbox"/> Operating Manual (Monitor Tool)</p>
Parameter	<p>Input an argument when calling a monitor tool function. The following indicates the applicable functions and their settings.</p> <ul style="list-style-type: none"> • Faceplate : Tag name • Control Panel : Group name • Trend Graph : Group name
Position	<p>Set the display position of monitor tool windows to be called. Click the <input type="text" value="..."/> button to show the setting dialog box for the display position.</p>
Comment	Comments can be entered arbitrarily. (Up to 512 characters regardless of whether single-byte or double-byte)
Status bar	<p>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.</p>

For details on *1, refer to the next page.

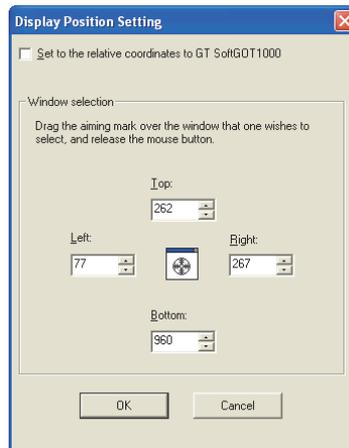
POINT

Precautions for changing PX Developer function call setting

During changing the PX Developer function call setting on GT SoftGOT1000, do not change the PX developer function call setting of the same project data on other GT SoftGOT1000 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.

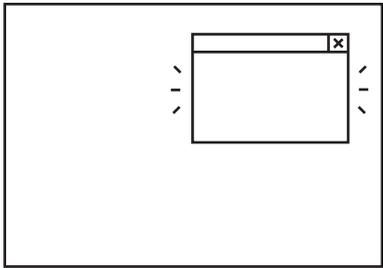
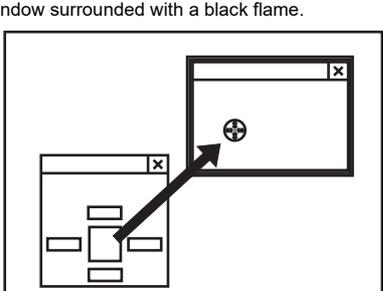
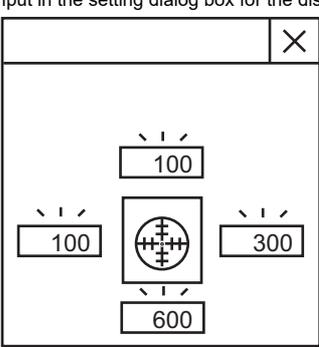
***1 Setting for display position**

In the setting dialog box for the display position, the position can be set for displaying monitor tool windows to be called.



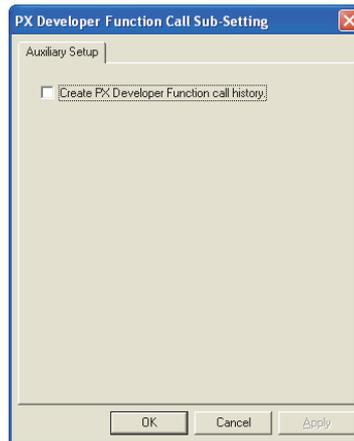
Item	Description
Set to the relative coordinates to GT SoftGOT 1000.	To display monitor tool windows in the fixed position on the display regardless of whether display is GT SoftGOT1000, do not check the item. If not checked, the coordinates of the display position can be set with their origin at the upper left on the display of a personal computer. Check the item to always display monitor tool windows in the fixed position on GT SoftGOT1000. 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.

(Continued to next page)

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).</p>
	<p>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.</p>	
<p>If dragged, the window is surrounded with a black frame.</p>	
<p>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 box for the display position.</p>	
	
<p>Do not use  (Aiming mark) if [Set to the relative coordinates to GT SoftGOT1000.] is checked.</p>	
<p>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.

■ PX Developer function call sub-setting

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.
2. The dialog box appears for the PX Developer function call sub-setting. Set the dialog box with reference to the following explanation.



Item	Description
Create PX Developer Function call history.	Check the item to register the calling status of monitor tool functions as a history. For available information as history, refer to the following.  5.17.2 PX Developer function call history

5.17.2 PX Developer function call history

Histories for calling monitor tool functions can be registered.

■ 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

■ Referencing history data

The following describes the reference method of the history data.

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.

2. The history data appears.

2007/01/10	10:56:47	No.1	Function Call No.1	: Failed to call PX Developer Function.
2007/01/10	10:57:39	No.1	Function Call No.1	: PX Developer Function has been called.
2007/01/10	10:57:53	No.1	Function Call No.2	: Failed to call PX Developer Function.
2007/01/10	11:07:56	No.1	Function Call No.2	: PX Developer Function has been called.
2007/01/11	17:10:35	No.1	Function Call No.3	: PX Developer Function has been called.
2007/01/12	13:25:11	No.1	Function 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.

 5.17.1 Setting method

The history data is managed for each module as shown below. The data is not deleted even if GT SoftGOT1000 is exited.

The unnecessary data is required to delete by the user.



5.18 Back screen mode

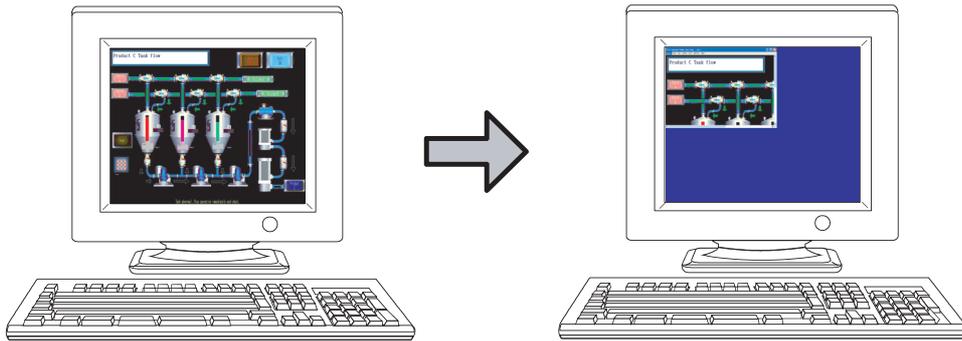
The monitor screen of GT SoftGOT1000 is always displayed behind all the other screens. In this mode, other applications can be used while GT SoftGOT1000 is displayed in full-screen.

5.18.1 Setting method

1. 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.
2. GT SoftGOT1000 is displayed behind all other screens.
3. 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.

5.19 Scroll Function

The scroll bars are displayed when GT SoftGOT1000 pane is resized to a smaller size.



5.19.1 Setting method

1. Operate the following.
 - Select [View] → [Scroll Bar] from the menu.
2. The scroll bars are displayed when GT SoftGOT1000 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.
3. For hiding the scroll bars, select [View] → [Scroll Bar] from the menu.

5.20 Exit Key

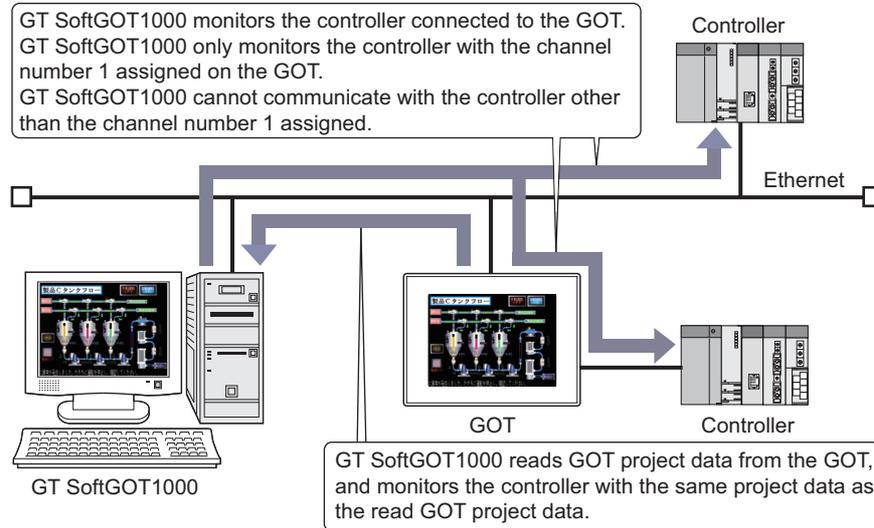
GT SoftGOT1000 can be ended with the **F12** key on a keyboard.

5.20.1 Disabling/enabling exit key

1. Operate the following.
 - Select [Set] → [Exit Key [F12]] from the menu.
2. The **F12** key on the keyboard cannot end GT SoftGOT1000.
End GT SoftGOT1000 with the Set menu and others.
3. For ending GT SoftGOT1000 with the **F12** key on the keyboard, select [Set] → [Exit Key [F12]] from the menu.

5.21 SoftGOT-GOT Link Function

The SoftGOT-GOT link function enables GT SoftGOT1000 to connect the GOT via Ethernet. And then, the function synchronizes GT SoftGOT1000 data with GOT project data and resource data. When input objects (touch switch, numerical input, and ASCII input) are input or other operation is performed, the simultaneous operation between GT SoftGOT1000 and the GOT must be prevented. The operation must be allowed by either GT SoftGOT1000 or the GOT. GT SoftGOT1000 can monitor a controller connected to the GOT.



POINT

- (1) GT SoftGOT1000 project data**
GT SoftGOT1000 uses project data read from the GOT.
Creating new GT SoftGOT1000 project data is not required.
- (2) Number of GOTs that can communicate with GT SoftGOT1000**
Only one GT SoftGOT1000 can communicate with one GOT.
While GT SoftGOT1000 communicates with the GOT, another GT SoftGOT1000 cannot communicate with the GOT.
- (3) Controller monitored by GT SoftGOT1000 while the GOT uses the multi-channel function**
GT SoftGOT1000 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 SoftGOT1000, 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.

☞ GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

■ Difference between the SoftGOT-GOT link function and the VNC® server function

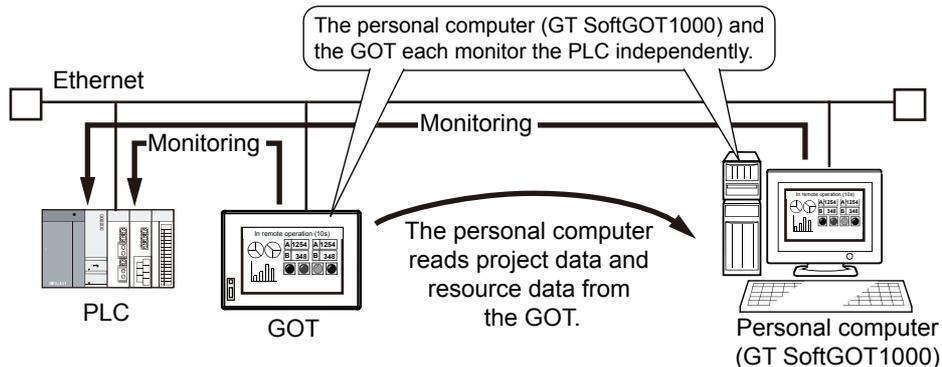
To operate the GOT on the personal computer connected via Ethernet, two functions are available: SoftGOT-GOT link function and VNC® server function.

(1) SoftGOT-GOT link function

With the SoftGOT-GOT link function, GT SoftGOT1000 and the GOT each have a project data and monitor a controller.

Since GT SoftGOT1000 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 SoftGOT1000 and the GOT can display different screens.



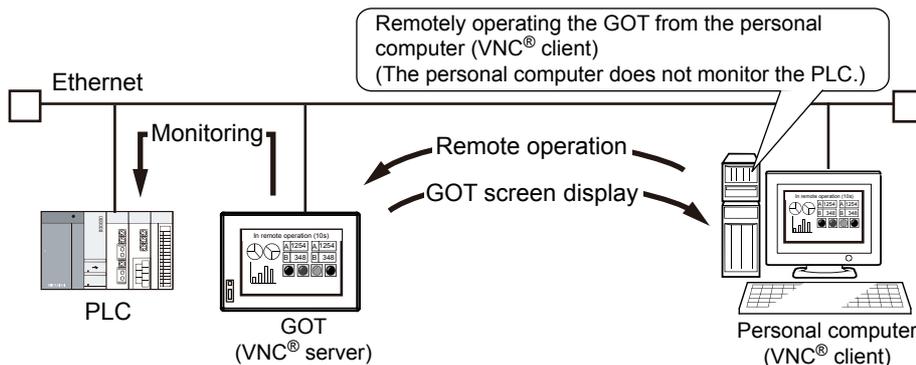
The GOT and GT SoftGOT1000 each operate independently. Therefore, collecting data, including alarm data and logging data, can make a difference in the collection result between the GOT and the personal computer. The functions unavailable for GT SoftGOT1000, including extended functions and option functions, 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 or an option 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).

5.21.1 Project data synchronization

When the SoftGOT-GOT link function is used, GT SoftGOT1000 reads project data or resource data from the GOT, and synchronizes GT SoftGOT1000 data with the GOT data.

When the project data is synchronized, GT SoftGOT1000 can display the same screen as that of the GOT.

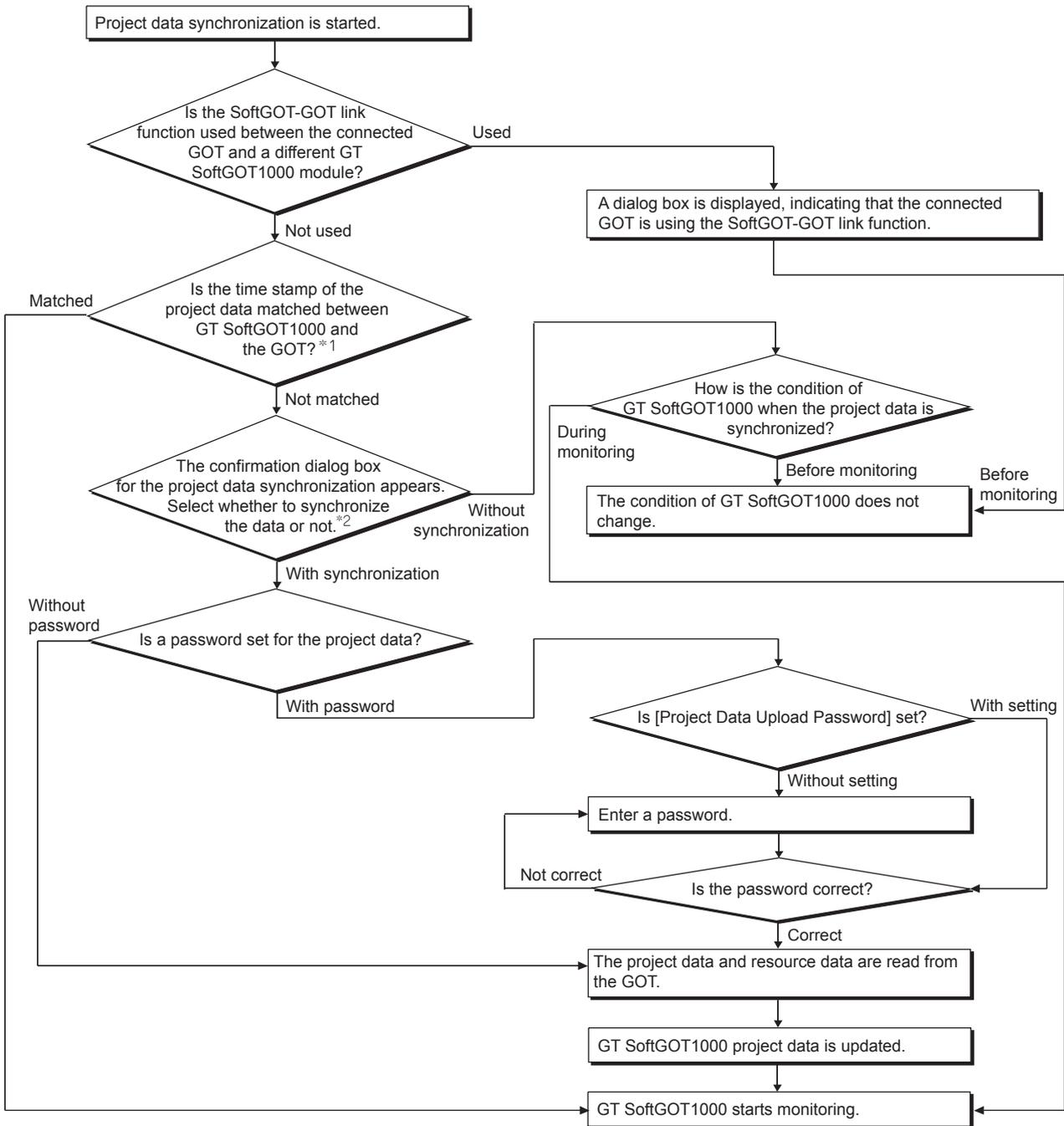
Because the project data used for GT SoftGOT1000 is read from the GOT, creating new GT SoftGOT1000 project data is not required.

■ Project data synchronization

Project data is synchronized at the following timing.

Synchronization timing	Reference
Starting the monitor with GT SoftGOT1000	3.8
Selecting [Tool] → [GOT Project Data Acquisition] from the menu	3.3
Changing project data of the GOT that is communicating with GT SoftGOT1000	GT Designer3 Version1 Screen Design Manual (Fundamentals)

The following shows the processes of the project data synchronization.



*1 When [Tool] → [GOT Project Data Acquisition] is selected from the menu, GT SoftGOT1000 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 SoftGOT1000 is changed, the confirmation dialog box for the project data synchronization does not appear.

POINT

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 SoftGOT1000 project data and GOT project data may differ.

Select [Tool] → [GOT Project Data Acquisition], and synchronize GT SoftGOT1000 project data with GOT project data again.

HINT

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 box beforehand.

 3.6.1 ■Communication setup dialog box

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 the drive A or B in the GOT to the virtual drive A or B in GT SoftGOT1000.

 2.4.1 Precautions for using the GT Soft GOT1000

The resource data of the following functions is synchronized.

Function
Advanced user alarms, Alarm history

For how to collect resource data with each function, refer to the following.

 GT Designer3 Version1 Screen Design Manual (Functions)

After the resource data is synchronized, GT SoftGOT1000 and the GOT collect each resource data. Therefore, the synchronized resource data may differ between GT SoftGOT1000 and the GOT.

POINT

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 SoftGOT1000 data is synchronized with all GOT resource data.

After the resource data is synchronized, GT SoftGOT1000 only monitors a controller with the channel number 1 assigned. Therefore, GT SoftGOT1000 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.)

5.21.2 Authorization control

When the SoftGOT-GOT link function is used, and when input objects (touch switch, numerical input, and ASCII 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 SoftGOT1000 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, status observation function, and others)• GOT internal devices (GS654, 655, and 656)

POINT

Operations not recognized by GT SoftGOT1000/GOT

In the following operations, touching is not recognized as the input operation.

- Screen save status
 - While Key-in disable signal (system signal 1-1.b9) is ON.
-

HINT

How to check the authorization status

(1) How to check the status with GT SoftGOT1000

When the SoftGOT-GOT link function is used, the status bar on GT SoftGOT1000 displays the status whether the authorization or the exclusive authorization is obtained or not.



Item	Description
OPE	Displays the status whether GT SoftGOT1000 obtains the authorization or not. Lights in green when GT SoftGOT1000 obtains the authorization.
PRI	Displays the status whether the GOT obtains the exclusive authorization or not. Lights in blue when the GOT obtains the exclusive authorization.

The status is checked by GOT internal devices.

 5.21.3 Control or notification with GOT internal devices

(2) 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.

 5.21.3 Control or notification with GOT internal devices

(3) 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 Version1 Screen Design Manual (Fundamentals)

■ Obtaining the authorization

(1) Obtaining the authorization by using the GOT

When GT SoftGOT1000 starts monitoring, the GOT automatically obtains the authorization.

When input objects are input without obtaining the authorization with the GOT, the dialog box 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 SoftGOT1000 obtains the authorization, the user does not operate GT SoftGOT1000 within the authorization obtained time set in the GOT utility or GOT setup of GT Designer3.
- GT SoftGOT1000 stops monitoring.
- GT SoftGOT1000 is terminated.
- The communication between GT SoftGOT1000 and the GOT is disconnected by a communication cable disconnection or others.

(2) Obtaining the authorization by using GT SoftGOT1000

When input objects are input without obtaining the authorization with the GT SoftGOT1000, the dialog box for obtaining the authorization appears.

When the GOT has the exclusive authorization, GT SoftGOT1000 cannot obtain the authorization.

■ 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.

 5.21.3 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 dedicated screen for the utility, the extended function, or the option function is displayed, the GOT obtains the exclusive authorization regardless of the value of the Exclusive authorization control signal (GS447.b0).

When the above dedicated screen is switched to the user-created screen, the exclusive authorization is controlled by the value of GS447.b0.

 5.21.3 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.

 User's Manual of GOT used

For how to set GT Designer3, refer to the following.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

5.21.3 Control or notification with GOT internal devices

GOT internal devices enable to check the exclusive authorization control or the communication status between GT SoftGOT1000 and the GOT.

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

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

(1) Exclusive authorization control (GS447)

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 SoftGOT1000
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	-

(2) SoftGOT-GOT link status control/notification (GS244)

Bit number	Signal name	Description
b0	Communication status notification signal	Turns on while GT SoftGOT1000 communicates with the GOT.
b1	Obtaining authorization notification signal	Turns on when the GOT or GT SoftGOT1000 obtains the authorization.
b2	GT SoftGOT1000/GOT identification signal	Notifies that SoftGOT1000 or the GOT is in use. • 0: GOT • 1: GT SoftGOT1000 (Changes to 0 if GT SoftGOT1000 does not communicate with the GOT.)
b3	Obtaining exclusive authorization notification signal	Turns on when the GOT obtains the exclusive authorization. Always off for GT SoftGOT1000
b4	System screen displaying notification signal	Turns on when the dedicated screen for the utility, the extended function, or the option function is displayed. Always off for GT SoftGOT1000
b5 to b15	Use prohibited	-

(3) Authorization guarantee status notification signal (GS984)

Signal name	Description
Authorization guarantee status notification signal	When the authorization guarantee time is set in GT SoftGOT1000 or GOT, the remaining authorization guarantee time (seconds) is stored.



How to utilize GOT internal devices

Objects or others displayed only on the GOT can be set by using the GT SoftGOT1000/GOT identification signal (GS244.b2).

Example) Bit switch displayed only on the GOT

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 Version1 Screen Design Manual (Fundamentals)

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.

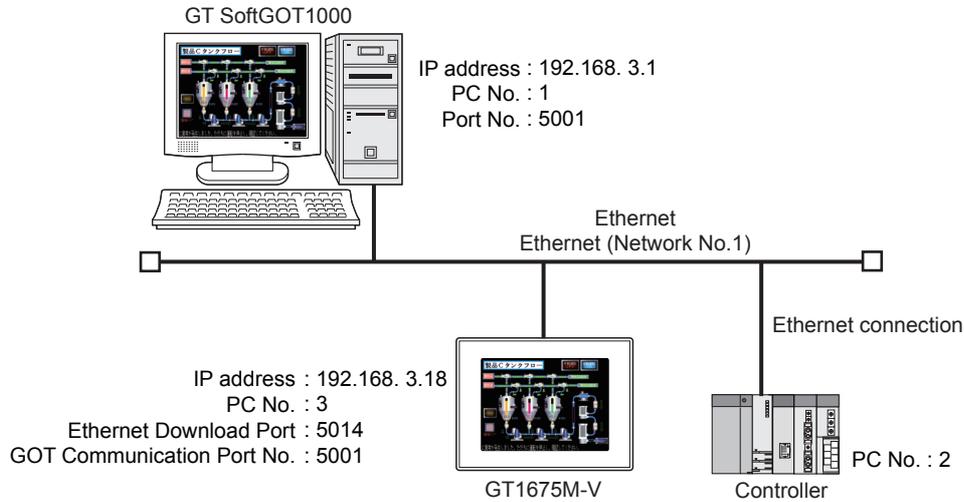
For how to set objects, refer to the following.

GT Designer3 Version1 Screen Design Manual (Fundamentals)

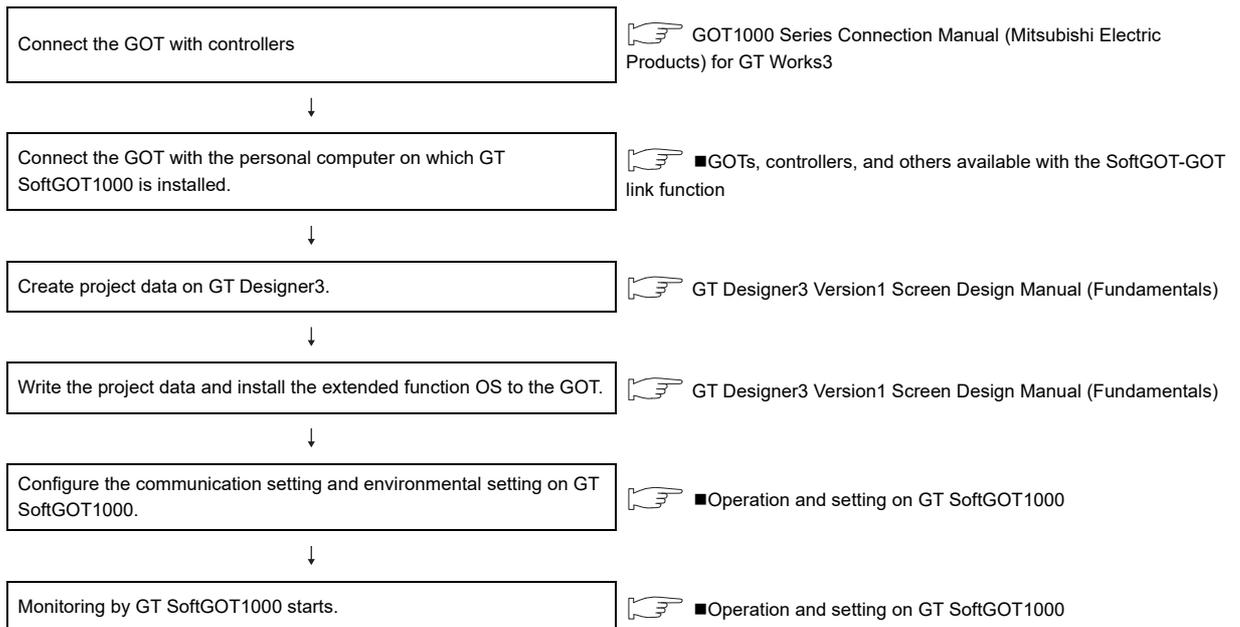
3. Arrange the bit switch on the created parts display.

5.21.4 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.



■ Operation flow before using the SoftGOT-GOT link function



■ GOTs, controllers, and others available with the SoftGOT-GOT link function

(1) GOTs available with the SoftGOT-GOT link function

Item	Type
GOT	GT16 GT15

(2) Controllers and connection types monitorable by GT SoftGOT1000 when using the SoftGOT-GOT link function

Controller monitored		Bus connection	CPU direct connection	Computer link 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		×	×	×	○
TOSHIBA PLC		×	×	×	×
YASKAWA PLC		×	×	×	×
YOKOGAWA PLC		×	×	×	×
SIEMENS PLC		×	×	×	×
KEYENCE PLC		×	×	×	×
CNC	CNC C70	○	○	○	○
	MELDAS C6/C64	×	×	×	×
Robot controller	CRnQ-700/CR750-Q/CR751-Q	○	○	○	○
	CRnD-700/CR750-D/CR751-D	×	×	×	○

(3) Units connecting a personal computer (GT SoftGOT1000) with the GOT

Item	Type
GT16	- (Built-in interface)
GT15	GT15-J71E71-100

(4) Cables connecting a personal computer (GT SoftGOT1000) with the GOT

Use the cables applicable to an interface of the GOT to be used.

(5) Connection conditions for GT SoftGOT1000 and the GOT

Connection type		Connection conditions	
		Distance between controller and PC	Number of connectable PCs
GOT	Ethernet connection	100m (max. segment length)	1

■ 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.

 GOT1000 Series Connection Manual (Mitsubishi Electric Products) for GT Works3

(2) Ethernet download setting

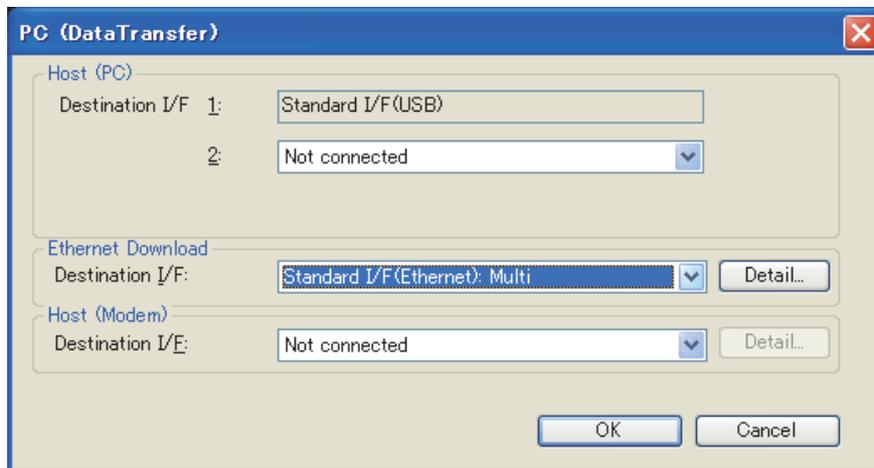
Configure the Ethernet download setting between the GOT and GT SoftGOT1000.

Set the Ethernet download port.

Item	Description
Ethernet download port	Set on GT Designer3 (Default: 5014)

The following is the example of setting with the [PC (Data Transfer)] dialog box.

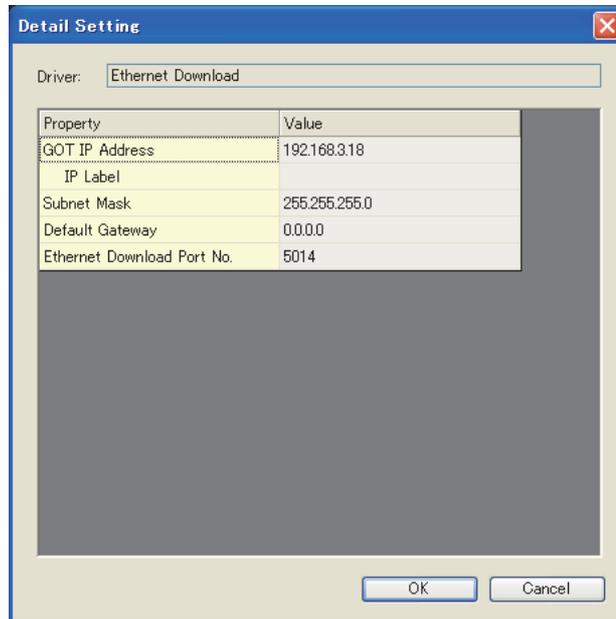
1. Select [Common] → [Peripheral Setting] → [PC (Data Transfer)] from the menu to display the [PC (Data Transfer)] dialog box.
2. Set an interface for [Destination I/F] in [Ethernet Download].



3. Click the [Detail] button to display the [Detail Setting] dialog box.

4. Set the following items, and click the [OK] button.
For setting items of the [Detail Setting] dialog box, refer to the following.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)
8. COMMUNICATION WITH GOT



Item	Description
GOT IP Address	192.168.3.18
Ethernet Download Port No.	5014

5. Click the [OK] button in the [PC (Data Transfer)] dialog box.

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 box.
- Set a driver for Ethernet in [Driver] in the [Controller Setting] dialog box.
- Select [Communication Setting] of [Gateway] in the [Controller Setting] dialog box, and then select [Use the function of Gateway].

(3) Unusable port Nos. (Port No. 49154, 49158)

The following GOT port numbers are used as command communication ports. Do not use them for the communication or others between the GOT and the controller.

- TCP communication: Port No. 49154
- UDP communication: Port No. 49158

(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 Version1 Screen Design Manual (Fundamentals)
8. COMMUNICATION WITH GOT

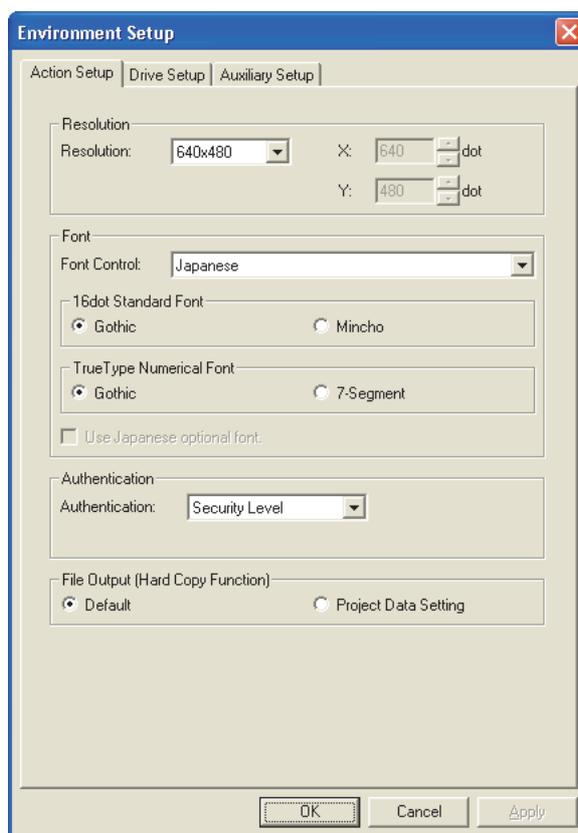
■ Operation and setting on GT SoftGOT1000

(1) Environmental setting

For setting items of the [Environment Setup] dialog box, refer to the following.

 3.5.1 Environment setup dialog box

1. Perform either of the following operations to display the [Environment Setup] dialog box.
 -  Clicking (Environment Setup)
 - Selecting [Set] → [Environment Setup] from the menu
 - Right-clicking the mouse to select [Environment Setup] from the menu
2. Select [640×480] for [Resolution] in the [Action Setup] tab.
(Select [Resolution] according to the resolution of the GOT to be used.)



HINT

When the resolutions of GT SoftGOT1000 and the GOT differ
The resolution of GT SoftGOT1000 is automatically changed according to the resolution of the GOT when GT SoftGOT1000 starts monitoring.

(2) Communication setting

For setting items of the [Communication Setup] dialog box, refer to the following.

3.6.1 Communication setup dialog box

1. Perform either of the following operations to display the [Communication Setup] dialog box.

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

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

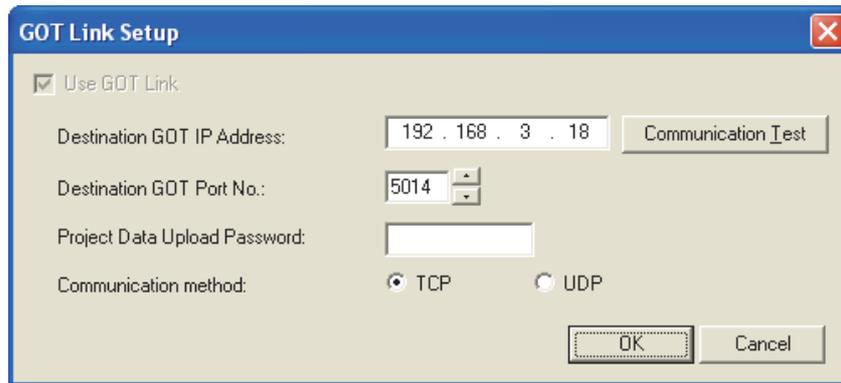
Connection types of the GOT/controllers and communication settings of GT SoftGOT1000

Configure the communication setting for GT SoftGOT1000 as follows according to the connection type of the GOT and controllers.

Connection type of the GOT and controller	Communication setting of GT SoftGOT1000
Bus connection, Direct CPU connection, Computer link connection	[Ethernet]-[GOT]
Ethernet connection	[Ethernet]-[MELSEC]

3. Click the [GOT Link] button to display the [GOT Link Setup] dialog box.

4. Select [Use GOT Link], and then set the following items.



Item	Description
Destination GOT IP Address	192.168.3.18
Destination GOT Port No.	5014
Communication method	TCP

5. Click the [Communication Test] button to execute the communication test between GT SoftGOT1000 and the GOT.

(3) Starting the monitor

1. GT SoftGOT1000 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.
2. The project data of GT SoftGOT1000 and the GOT are synchronized when monitoring starts. When a password is set for a GOT project data, enter the password.



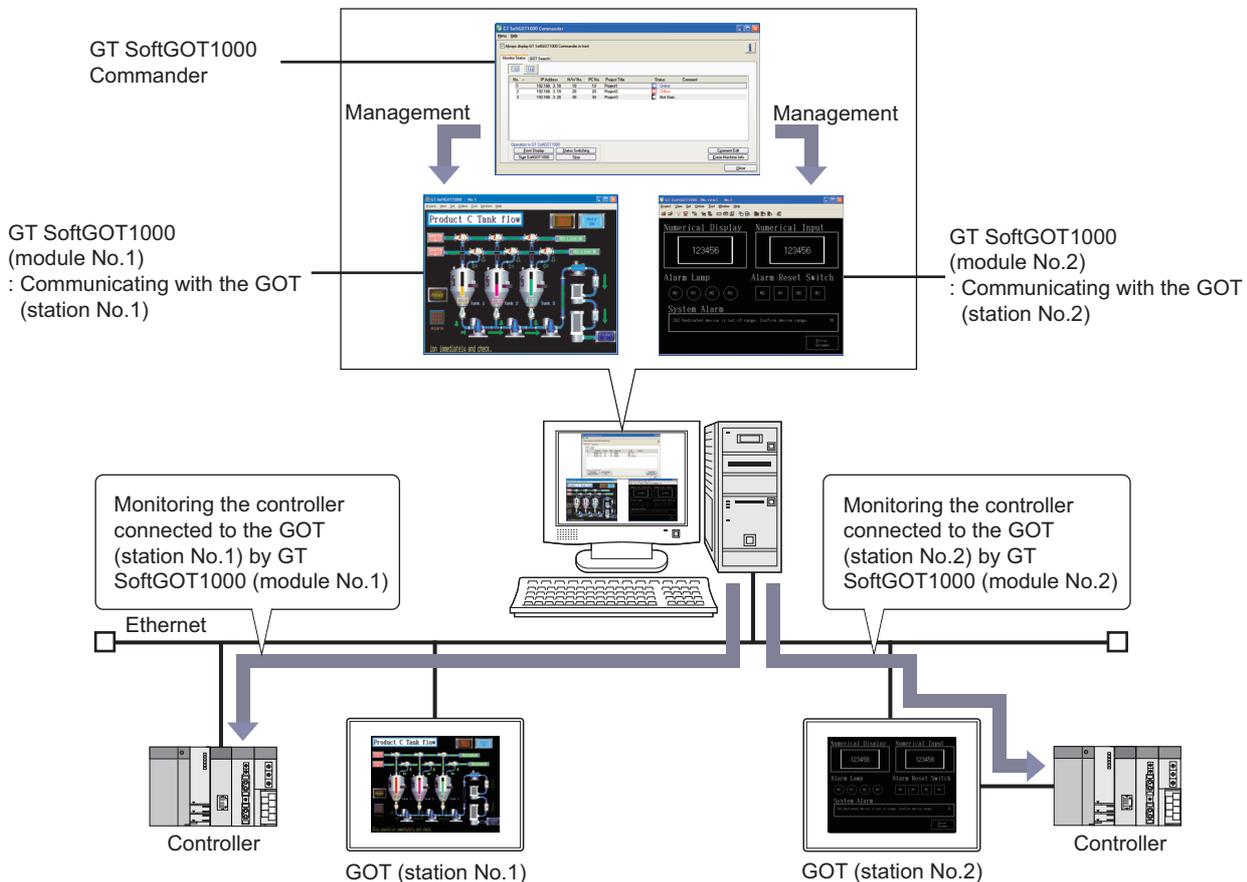
- (1) When using the SoftGOT-GOT link function, the project data saved in a personal computer cannot be opened on GT SoftGOT1000. To open project data on GT SoftGOT1000, clear [Use GOT Link] in the [GOT Link Setup] dialog box.
- (2) To automatically enter a password when project data are synchronized, enter a password in the [GOT Link Setup] dialog box beforehand.

 3.6.1 Communication setup dialog box

5.21.5 Management of GT SoftGOT1000 modules with the SoftGOT-GOT link function (GT SoftGOT1000 Commander)

GT SoftGOT1000 Commander is the tool to manage the multiple GT SoftGOT1000 modules with the SoftGOT-GOT link function.

The monitor status check of GT SoftGOT1000 modules and the operation to start or stop monitoring are available by GT SoftGOT1000 Commander.



■ Operating environment

The operating environment is the same as that of GT SoftGOT1000.

For details of the operating environment of GT SoftGOT1000, refer to the following.

☞ 2.1 Operating Environment

■ How to install or uninstall the tool

SoftGOT1000 Commander is installed or uninstalled automatically when GT SoftGOT1000 is installed or uninstalled. However, if comments are set by GT SoftGOT1000 Commander, the comments are not deleted even if GT SoftGOT1000 Commander is uninstalled.

■ How to start the tool

Select [Start]^{*1} → [MELSOFT]^{*2} → [GT Works3] → [GT SoftGOT1000 Commander] from the menu of Windows to start GT SoftGOT1000 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.

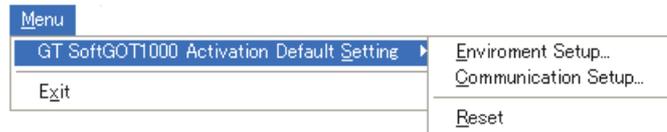
■ Operating procedure

GT SoftGOT1000 Commander manages target GT SoftGOT1000 modules with the SoftGOT-GOT link function. GT SoftGOT1000 Commander can start the target GT SoftGOT1000 modules and make the target GT SoftGOT1000 modules start or stop monitoring controllers. The status of the target GT SoftGOT1000 modules is displayed in the monitor status list on the [Monitor Status] tab.

 ■Setting item (1) Monitor Status tab

■ Menu item

(1) Menu



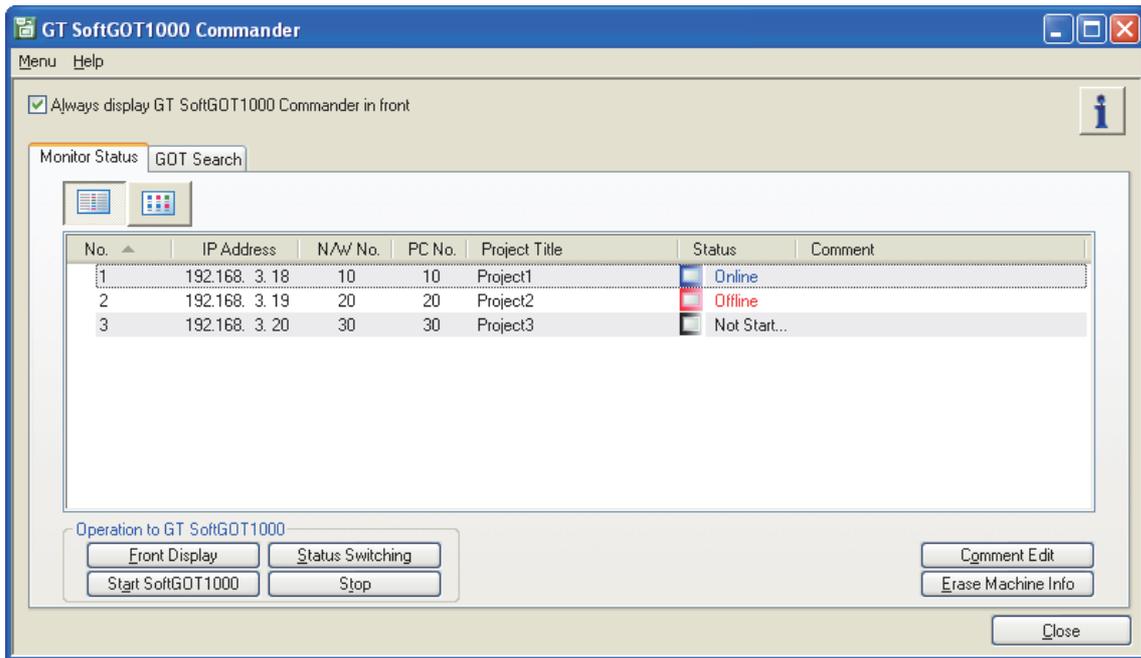
Item	Description
GT SoftGOT1000 Activation Default Setting	<ul style="list-style-type: none"> • [Environment Setup] [Environment Setup] of GT SoftGOT1000 can be registered as default. The default value registered can be reflected as set value when starting GT SoftGOT1000 from GT SoftGOT1000 Commander. • [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 SoftGOT1000 Commander. • [Reset] Restores the setting of [Environment Setup] and [Communication Setup] to the initial value.
Exit	<ul style="list-style-type: none"> • Exits GT SoftGOT1000 Commander.

(2) Help



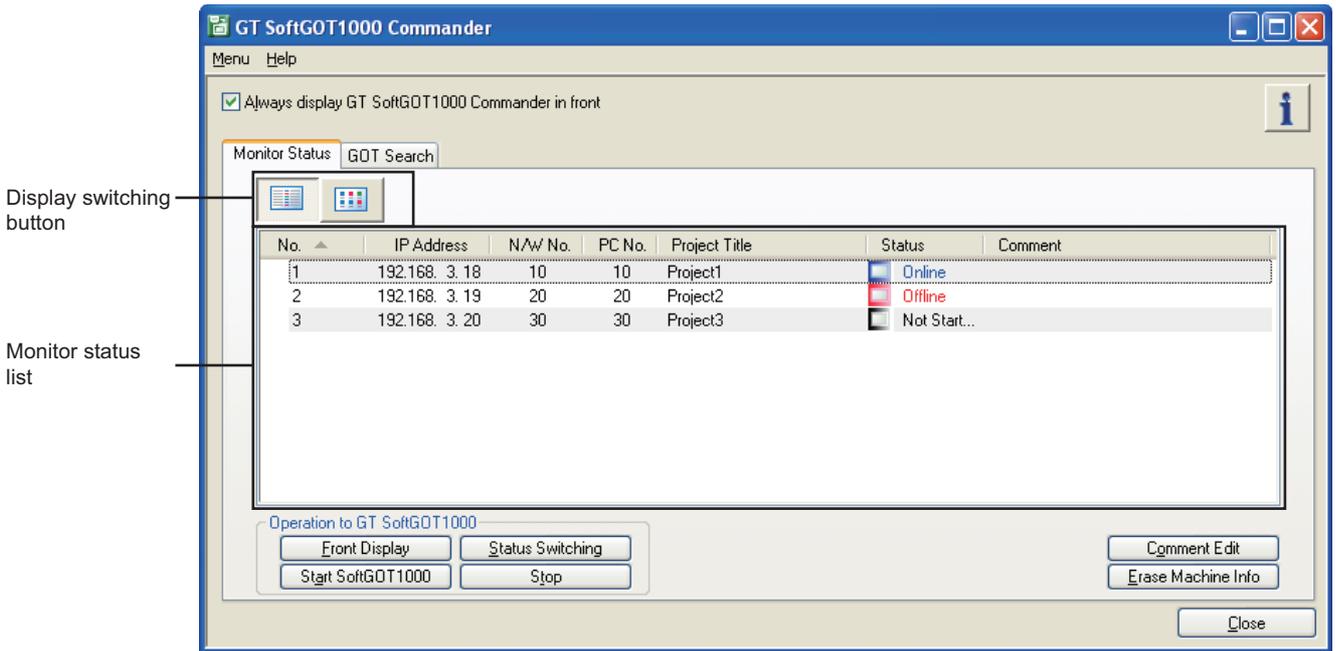
Item	Description
About GT SoftGOT1000 Commander	The version information of GT SoftGOT1000 Commander can be checked.

■ Setting item



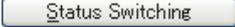
Item	Description
Always display GT SoftGOT1000 Commander in front	Select this item to display the GT SoftGOT1000 Commander window on the top front.
	Checks the version information of GT SoftGOT1000 Commander.
Monitor Status	Checks the monitor status of GT SoftGOT1000 modules with the SoftGOT-GOT link function.  (1) Monitor Status tab
GOT Search	Searches GOTs connected to the Network.  (2) GOT Search tab
	Exits GT SoftGOT1000 Commander.

(1) Monitor Status tab



Item	Description
Monitor status list	Displays GT SoftGOT1000 modules with the SoftGOT-GOT link function. When any of rows are clicked, the clicked row is highlighted and selected. The display contents of the monitor status list displayed in icon display by the display switching button differs from the same in detail display.  Point (1) Display switching button
	No. Displays the GT SoftGOT1000 module number.
	IP Address Displays the IP address of the GOT which communicates with the GT SoftGOT1000 module.
	N/W No. Displays the network number of the GOT which communicates with the GT SoftGOT1000 module. When the connection type between the GOT and the controller is the bus connection or the direct CPU connection, [-] is displayed.
	PC No. Displays the GOT station number of the GOT which communicates with GT SoftGOT1000 module. When the connection type between the GOT and the controller is the bus connection or the direct CPU connection, [-] is displayed.
	Project Title Displays the project title of the project data read by the GOT.
	Status Displays the GT SoftGOT1000 module status. • Online: During monitoring • Offline: Stopped monitoring • Uploading: During reading project data from the GOT • Not Started: The target GT SoftGOT1000 module is not activated.
	Comment Displays the comment entered in the [No. n Property] dialog box.
Display switching button	Clicking the  button displays the monitor status list in detail. Clicking the  button displays the monitor status list with icons.  Point (1) Display switching button

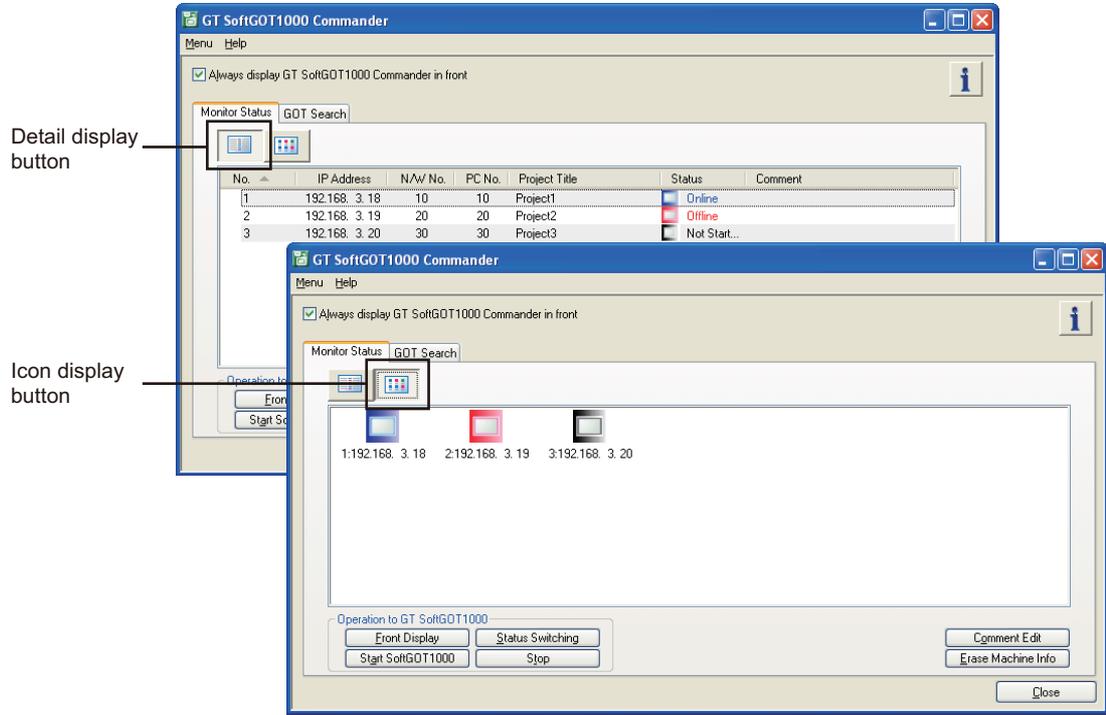
(Continued to next page)

Item	Description
	<p>Select any rows in the monitor status list, and then click the [Front Display] button to display the GT SoftGOT1000 module window of the selected row on the top front.</p> <p>The window can also be displayed on the top front when [No.], [IP Address], [N/W No.], [PC No.], or [Project Title] in each row of the monitor status list is double-clicked.</p> <p>However, when the back screen mode is enabled by the GT SoftGOT1000 module, the GT SoftGOT1000 module window is not displayed on the top front even if the [Front Display] button is clicked.</p> <p>When the GT SoftGOT1000 module window on the top front and the GT SoftGOT1000 Commander window are overlapped, the GT SoftGOT1000 Commander window is displayed on the top front.</p>
	<p>Select a row (a GT SoftGOT1000 module) in the monitor status list and click the [Status Switching] button to switch the status of the selected GT SoftGOT1000 module ([Online] or [Offline], [Not Started] to [Online]/[Offline]).</p> <p>The monitor statuses can also be switched when [Status] in each row of the monitor status list is double-clicked.</p> <p>However, the monitor statuses cannot be switched while [Uploading] is displayed on [Status].</p>
	<p>When starting GT SoftGOT1000 newly, clicking the [Start SoftGOT1000] button displays the [Start SoftGOT1000] dialog box.</p> <p> (a) Start SoftGOT1000</p>
	<p>Selecting GT SoftGOT1000 in the monitor status list and clicking the [Stop] button exits the selected GT SoftGOT1000.</p>
	<p>Select any rows in the monitor status list, and then click the [Comment Edit] button to display the [No. n Property] dialog box.</p> <p>The [No. n Property] dialog box can also be displayed when [Comment] in each row of the monitor status list is double-clicked.</p> <p> (b) n module number property</p>
	<p>Select an inactivated GT SoftGOT1000 module in the monitor status list and click the [Erase Machine Info] button to delete the information of the selected GT SoftGOT1000 module.</p> <p>The information of the GT SoftGOT1000 module being activated cannot be deleted.</p>

POINT

(1) Display switching button

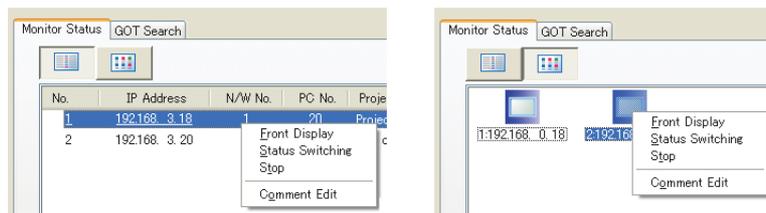
The display switching button switches the monitor status list between detail display and icon display. When in icon display, [No.] and [IP Address] are displayed in the monitor status list.



(2) Context menu

Select a row in the detail display or an icon in the icon display of the monitor status list and right-click to display the context menu.

In the context menu, [Front Display], [Status Switching], [Stop] and [Comment Edit] can be selected.

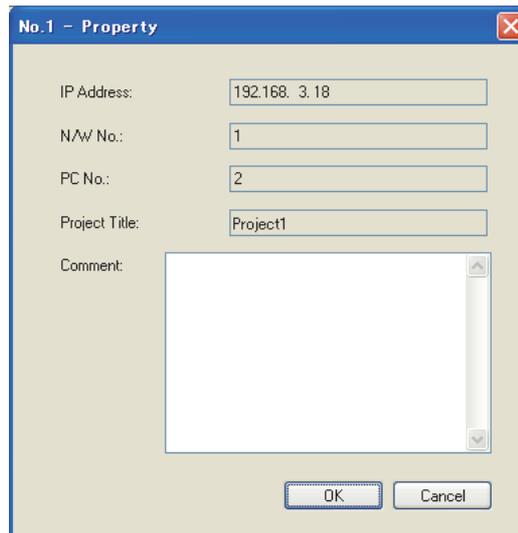


(a) Start SoftGOT1000



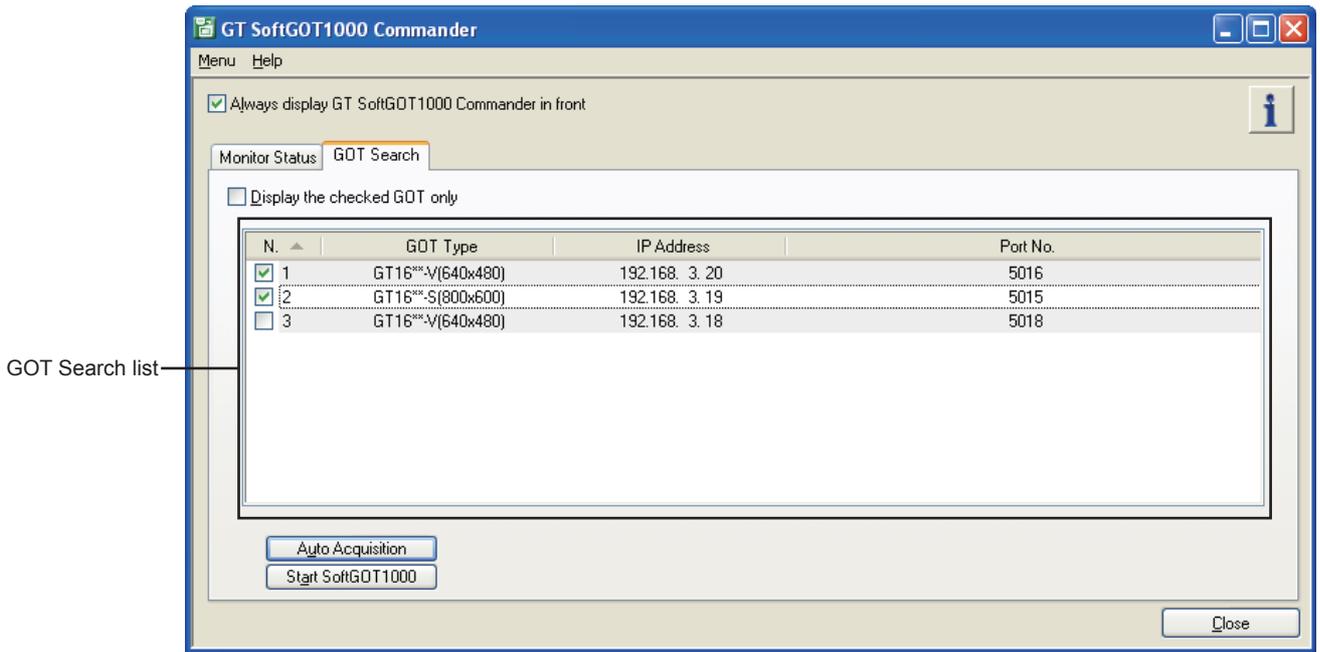
Item	Description
No.	Specify the machine No. of GT SoftGOT1000 to be started.
Environmental Setup	Configure the environmental settings of GT SoftGOT1000 to be started. The settings are identical to [Environment Setup] in GT SoftGOT1000.  3.5.1 Environment setup dialog box
Communication Setup	Configure the communication settings of GT SoftGOT1000 to be started. The settings are identical to [Communication Setup] in GT SoftGOT1000.  3.6.1 Communication setup dialog box
Default Setting Reflection	Reflect default values of Environment Setup/Communication Setup of GT SoftGOT1000 to be started in a batch. If the Environment Setup/Communication Setup already exists in the specified machine, the default value setting is overwritten.
Activate GT SoftGOT1000 and start monitoring	Select this item to start the monitoring after starting GT SoftGOT1000.
Activate in the monitor-only mode	Select this item to start GT SoftGOT1000 in the monitor-only mode.

(b) n module number property



Item	Description
Comment	Up to 255 characters can be entered. One line feed is counted as two characters. The comments are saved with the IP address of the GOT linked. Therefore, even if the GT SoftGOT1000 module number to be communicated to the GOT is changed to a new module number, the displayed comment is the same as that of the old module number.

(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 SoftGOT1000 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.
	Clicking the [Auto Acquisition] button displays the [GOT Type], [IP Address] and [Port No.] of the searched GOT.	
	For linking GT SoftGOT1000 newly started to the found GOT, select the row of the found GOT in the GOT Search list and click the [Start SoftGOT1000] button to display the [Start SoftGOT1000] dialog box. The [Start SoftGOT1000] dialog box can be also displayed by double-clicking the GOT row selected in the GOT Search list. The settings are identical to the [Start SoftGOT1000] dialog box in the monitor status list tab. (1) Monitor Status tab (a) Start SoftGOT1000	

*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

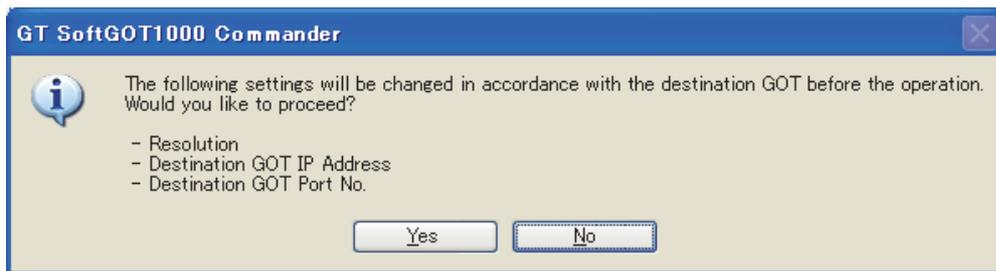
Auto acquisition searches only GT16 GOTs.

(2) IP Address duplication

If a duplicated [IP Address] is found, GTSoftGOT1000 can not 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) Resolution, IP Address, and Destination GOT Port No. settings

Click [Communication Setup], [Environment Setup], or [OK] in the [Start SoftGOT1000] dialog box to display the following dialog box.



(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 box is changed to [IP Address] and [Port No.] of the row selected in the GOT Search list.

(b) Select [No].

GT SoftGOT1000 is started with the values set in the [Communication Setup] or [Environment Setup] dialog box.

5.21.6 Precautions

■ Settings and OS required for the GOT

(1) Ethernet setting

Set [GOT IP Address] and [Ethernet Download Port No.] for project data.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)
7. COMMUNICATION WITH GOT

(2) Extended function OS

Install the extended function OS (SoftGOT-GOT Link Function) on the GOT.

 5.21.4 ■ Ethernet download setting (2) Ethernet download setting

■ Setting devices which affect the control of GOT/GT SoftGOT1000

It is recommended to set a GOT internal device for a control device of the function which affects the control of the GOT/GT SoftGOT1000 (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 SoftGOT1000, due to an operation of either GT SoftGOT1000 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 SoftGOT1000 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 SoftGOT1000 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	Set the following project script in which the trigger type is set to [Ordinary]. <pre>if([b:GS244.b1] == ON){ [w:GD1000] = [w:D1000]; }</pre>

For the screen switching device, refer to the following.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

For the script function, refer to the following.

 GT Designer3 Version1 Screen Design Manual (Functions)

■ Function not available with the SoftGOT-GOT link function

When using the SoftGOT-GOT link function, the PX developer function call is not available.

■ Operation without the authorization

Clicking and touching an input object are not recognized as input operations if the authorization is not obtained. The dialog box for obtaining the authorization appears. (When the GOT has the exclusive authorization, GT SoftGOT1000 cannot obtain the authorization.)

■ 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 box which disables operation of other screens if the dialog box is displayed

■ 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 SoftGOT1000 will decrease.

5.22 Monitor-only Mode

The monitor operation of GT SoftGOT1000 by a mouse and keyboard is disabled in this mode. It is useful when using GT SoftGOT1000 only for monitoring.

5.22.1 Setting method

■ After starting GT SoftGOT1000

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.
2. Start monitoring.
 3.8 Starting Monitoring

■ Before starting GT SoftGOT1000

1. Select [Start]^{*1} → [MELSOFT]^{*2} → [GT Works3] from the menu of Windows, right-click [GT SoftGOT1000] , 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.
2. The [GT SoftGOT1000 Properties] dialog box 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 "/.)



3. After adding [/MNTONLY], click the [OK] button.
4. At the next GT SoftGOT1000 startup, GT SoftGOT1000 starts with the monitor-only mode enabled.

POINT

Precautions for the monitor-only mode

- (1) Once monitoring starts, the monitor-only mode cannot be switched between enabled and disabled.
- (2) When the monitor-only mode is enabled, the keyboard input function cannot be set.
- (3) 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.

HINT



Confirmation dialog box displayed at monitor startup in the monitor-only mode

The confirmation dialog box appears when monitoring starts with the monitor-only mode enabled.

Whether to display the confirmation dialog box or not can be set by selecting the following item in the [Environment Setup] dialog box.

- [Display dialog at the start of monitoring in the monitor-only mode.] in the [Auxiliary Setup] tab

 3.5.1 ■Auxiliary Setup tab

APPENDICES

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Appendix3 Applicable Project Data.	App - 20
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Appendix1 Internal Device Interface Function

The internal device interface function is a function that can be used with Microsoft® Visual C++®, Microsoft® Visual C#®, Microsoft® Visual Basic®, and Embarcadero® C++ Builder®.

By using the internal device interface function, the GOT internal device can be read/written from a user-created application.

Appendix.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, 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
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

Appendix.1.2 Accessible devices

For the GOT internal devices that can be read/written from a user-created application, refer to the following.

 GT Designer3 Version1 Screen Design Manual (Functions)

POINT

Access to internal devices

- Internal devices can be accessed only while GT SoftGOT1000 is running.
Internal devices hold their values while GT SoftGOT1000 is running.
- Internal devices can be accessed irrespective of the connection type of GT SoftGOT1000.

Appendix.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.	Appendix.1.4
long GDev_Read()	Reads from the GOT internal device.	Appendix.1.5
long GDev_Write()	Writes to the GOT internal device.	Appendix.1.6
void GDev_CloseUnMapping()	Unmaps and closes the shared memory of the GOT internal device.	Appendix.1.7

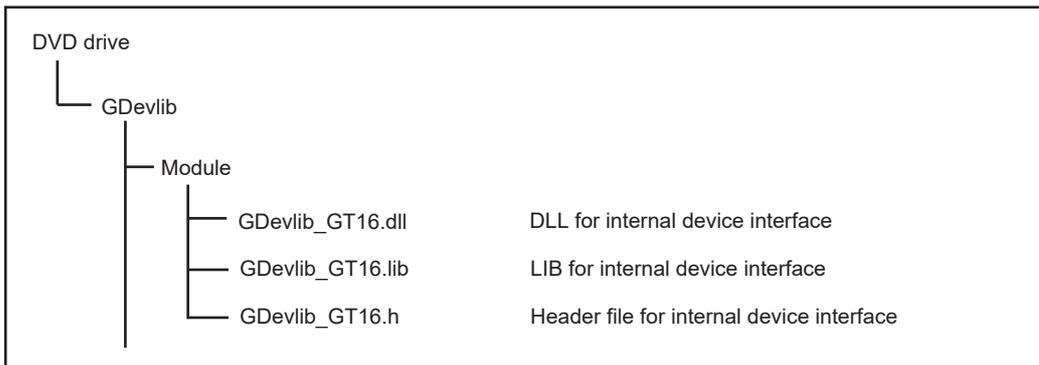
The following files are required when using the internal device interface function.

File name	Description
GDevlib_GT16.dll	DLL for the internal device interface
GDevlib_GT16.lib	LIB for the internal device interface
GDevlib_GT16.h	Header file for the internal device interface

The above files are stored in the Disk4 folder in the GT Works3 DVD.

When using an application that uses the internal device interface function, store GDevlib_GT16.dll in the same folder as the application or in a folder with a path specified.

The folder storing the above files is shown below.



POINT

Before using the internal device interface function

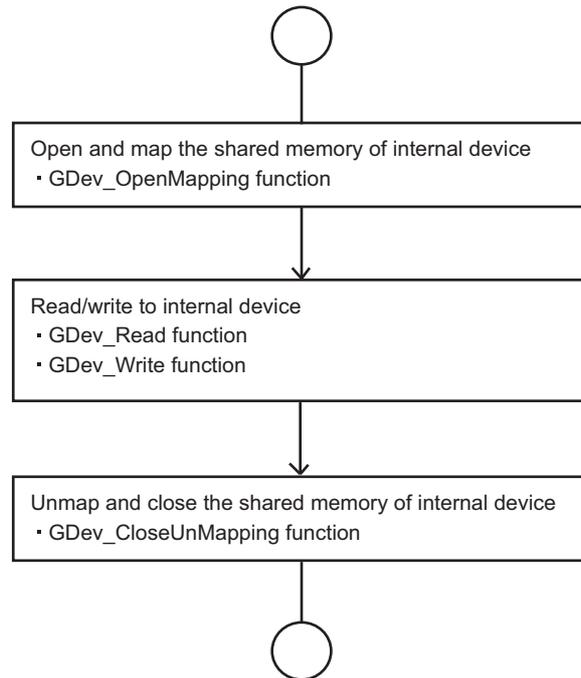
Use the GDevlib_GT16.dll, GDevlib_GT16.lib, or GDevlib_GT16.h that is stored in the same DVD as GT SoftGOT1000 to be used.

If you use any file that is copied from another DVD, an error such as application error may occur.

HINT

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.



Appendix.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

(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 SoftGOT1000 (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 SoftGOT1000 (1 to 32767)	Input

(c) For Visual Basic

```
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 SoftGOT1000 (1 to 32767)	Input

(3) Explanation

The shared memory handle for the internal device of GT SoftGOT1000 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.

Appendix.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

(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

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

(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 uiMapPointer.

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

Appendix.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

(a) For Visual C++[®] and C++ Builder[®]

IReturn = GDev_Write(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 to be written	Input
IDataSize	long	Number of data points to be written	Input

(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	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

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 to be written	Input
IDataSize	long	Number of data points to be written	Input

(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

Appendix.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

(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[®]

GDev_CloseUnMapping(hMapFile, ulMapPointer)

Variable name	Variable type	Description	I/O
hMapFile	HANDLE	Shared memory handle	Input
ulMapPointer	unsigned long	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.

Appendix.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 SoftGOT1000 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 SoftGOT1000 is running.

(3) When exiting GT SoftGOT1000

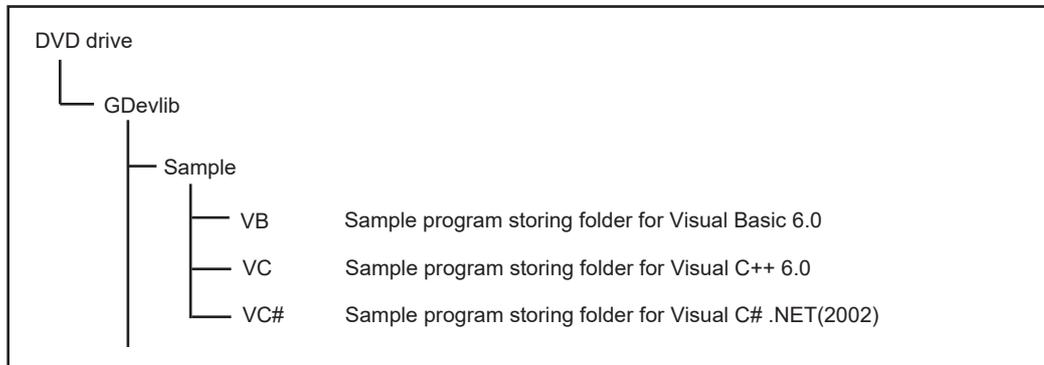
If GT SoftGOT1000 has been exited in a status the GDev_OpenMapping function is called, the GDev_CloseUnMapping function must be called immediately.

If GT SoftGOT1000 is started again without the GDev_CloseUnMapping function called, after GT SoftGOT1000 is exited, GT SoftGOT1000 may not operate normally.

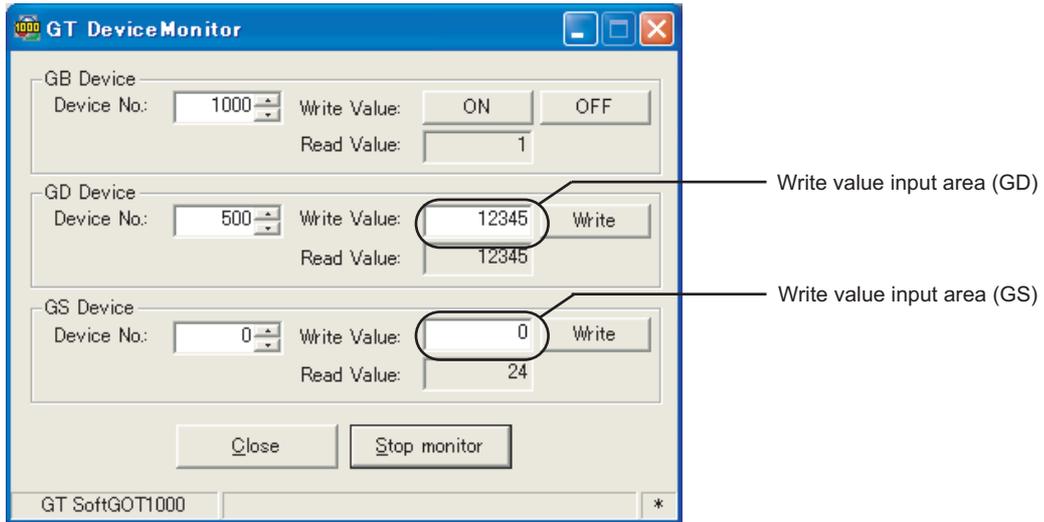
If GT SoftGOT1000 does not operate normally, the GDev_CloseUnMapping function should be called before GT SoftGOT1000 is exited.

Appendix.1.9 Sample program

A sample program using the internal device interface function is stored in the Disk4 folder in the GT Works3 DVD. 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.



This sample program is used to read/write data from/to the internal device of GT SoftGOT1000 that is running.
 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	<input type="button" value="ON"/>	Turns ON the device specified for Device No.
	<input type="button" value="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)
	<input type="button" value="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)
	<input type="button" value="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.
<input type="button" value="Start monitor"/>		Starts monitoring. (Displayed only while monitoring is stopped.)
<input type="button" value="Stop monitor"/>		Stops monitoring.(Displayed only while monitoring is performed.)

Appendix2 Troubleshooting

Appendix.2.1 Error message

The following table indicates the error messages occurred in [GT SoftGOT1000] themselves, the Descriptions and resolutions.

■ Error messages displayed when GT SoftGOT1000 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 SoftGOT1000 is not installed correctly.	After uninstalling GT SoftGOT1000, 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 SoftGOT1000 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 SoftGOT1000. • 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 SoftGOT1000 was terminated illegally last time. 	<ul style="list-style-type: none"> • Terminate unnecessary applications. • Increase free space in the hard disk. • Restart GT SoftGOT1000. • Restart the personal computer.
The GT SoftGOT1000 is not installed correctly.	Can not find the Windows® sregistry for GT SoftGOT1000.	After uninstalling GT SoftGOT1000, reinstall it.
Please do logoff/the termination of Windows after ending 'GT SoftGOT1000'.	Close 'GT SoftGOT1000' before log out or shut down the Windows®.	Close 'GT SoftGOT1000' 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.

(Continued to next page)

Error message	Definition and cause	Corrective action
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 SoftGOT1000 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 SoftGOT1000. After restarting the personal computer, restart GT SoftGOT1000.
The check result cannot be displayed.	<p>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.</p>	<p>Check the access right of the Advanced APP setup check file. Install the application associated with the file extension again.</p>
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 SoftGOT1000 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 SoftGOT1000 may be not installed correctly.	After uninstalling GT SoftGOT1000, 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 SoftGOT1000.	<p>Select a button on the displayed dialog box. Yes: Execute reading and perform monitoring with operable functions. No: Install GT SoftGOT1000 of the same version as GT Designer3 and execute reading again.</p>
The major versions of the specified project data and GT SoftGOT1000 Standard monitor OS do not match. Project data : Ver. ###.### GT SoftGOT1000 Standard monitor OS : Ver. ###.### Specify the project data of the same version.	<p>The following OS major versions are not matched.</p> <ul style="list-style-type: none"> The major version of OS in GT Designer3 that stores the created project data to be read. The standard monitor OS in GT SoftGOT1000 	<ul style="list-style-type: none"> Install GT SoftGOT1000 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 SoftGOT1000, and read the data again.
Failed to take a snap shot.	<ul style="list-style-type: none"> GT SoftGOT1000 was closed illegally last time. Illegal process is running. 	<ul style="list-style-type: none"> Restart GT SoftGOT1000. After restarting the personal computer, restart GT SoftGOT1000.
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 SoftGOT1000. <ES:0x#####>	<ul style="list-style-type: none"> Cable was disconnected. Cable was broken. <p>Transmission speed (Baud rate) is incorrect.</p> <p>The PLC CPU type is different from that of the project setting.</p>	<p>After checking for the left causes, select the button in the displayed dialog box. [Retry] Restarts communication. [Cancel] After Cancel is selected, all communications will not be made. When performing monitoring, restart GT SoftGOT1000.</p>
Cannot set up the operating environment. Insufficient disk space or memory may be the cause.	<ul style="list-style-type: none"> Not enough free disk space. GT SoftGOT1000 was exited illegally last time. Illegal process is running. 	<ul style="list-style-type: none"> Exit unnecessary applications. Increase the free space of hard disk to 250MB or more. Restart GT SoftGOT1000. After restarting the personal computer, restart GT SoftGOT1000.

(Continued to next page)

Error message	Definition and cause	Corrective action
Failed to set up an operating environment. Check the followings and retry the operation. <ul style="list-style-type: none"> Free disk space. Access privileges to the environment file. Validity of environment files (invalid files or files not found). Effect of antivirus software's real-time surveillance. 	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 SoftGOT1000's operation.	Check whether GT SoftGOT1000 has been operated already.
	GT SoftGOT1000 may be not installed correctly.	After uninstalling GT SoftGOT1000, reinstall it.
	Real-time protection in antivirus software gets in the way of accessing the file.	Stop real-time protection in antivirus software, or set the following multiple paths from exception settings in anti-virus software and put aside real-time protection in anti-virus software. C:\Program Files\MELSOFT\SGT1000
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 SoftGOT1000. [Project data setting] GOT type : #####(###x###) PLC type : ##### [GT SoftGOT1000 setting] Resolution : ###x### Connection : #####(#####)	The GOT type set in the project is different from the GOT type specified in GT SoftGOT1000.	Make correction so that the GOT type of the project created on GT Designer3 is the same as the GOT type of GT SoftGOT1000.
GOT type (Resolution) of the project is different from the one specified in the GT SoftGOT1000. [Project data setting] GOT type : #####(###x###) PLC type : ##### [GT SoftGOT1000 setting] Resolution : ###x### Connection : #####(#####)	The GOT type (Resolution) set in the project is different from the GOT type (Resolution) specified in GT SoftGOT1000.	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 SoftGOT1000.
PLC type of the project is different from the one specified in the GT SoftGOT1000. [Project data setting] GOT type : #####(###x###) PLC type : ##### [GT SoftGOT1000 setting] Resolution : ###x### Connection : #####(#####)	The PLC type set in the project is different from that in GT SoftGOT1000.	Make correction so that the PLC type of the project created on GT Designer3 is the same as the CPU type of GT SoftGOT1000.
Manual file cannot be found. Please install manuals.	<ul style="list-style-type: none"> GT Manual 1000 is not installed. GT Manual 1000 is not installed correctly. 	After uninstalling GT Manual, reinstall it.
Cannot stop monitoring. Close the dialog on monitor screen and retry.	Since the message such as "This function cannot be used now" was displayed on the screen, GT SoftGOT1000 could not be exit correctly.	After selecting <input type="button" value="OK"/> in the dialog box to erase the on-screen message, exit from GT SoftGOT1000 again.
	There was the other internal cause than the above that did not allow to exit from the software.	After selecting <input type="button" value="OK"/> in the dialog box, wait for some time and exit from GT SoftGOT1000 again.
Fail in the delete of resource data. <ul style="list-style-type: none"> Please close resource data if it is opened. Check the file access privilege. 	Failed in erasing resource data after loading screen data.	<ul style="list-style-type: none"> If there is resource data opened by another software, close that file. Check the file access privilege.
Initialization for reading failed. Execute one of the following operations. <ul style="list-style-type: none"> Close the dialog if it is displayed. Switching to offline mode may have been failed. Wait for several seconds and retry the operation.	Since the message such as "This function cannot be used now" was displayed on the screen, this function can not be loaded.	After selecting <input type="button" value="OK"/> in the dialog box to erase the on-screen message, re-load the function.
	Waiting for completion of internal process.	re-load the function after a few minutes.

(Continued to next page)

Error message	Definition and cause	Corrective action
Failed to read a project data. Check the following items and retry the operation. <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). 	Screen data size was too large.	Decrease the screen data size to 57MB or less.
	Not enough free disk space.	Increase the free space of hard disk to more than 250M bytes.
	Can not access the project data.	Check the access privilege of the project data.
	Not compatible with the project setting.	Check whether setting is correct on GT Designer3.
	<ul style="list-style-type: none"> • This data is not for GT SoftGOT1000 project. • The project data does not exist. 	Use a correct project data or normal project data. Check that the project data exists.

Appendix.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.

■ 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 SoftGOT1000 without any installation and then remove the license key. When attaching the GT15-SGTKEY-U after installing the system driver, it is recognized as license key.
The GT15-SGTKEY-U is not recognized as license key by the OS when attached to the PC.	The GT15-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 GT15-SGTKEY-U. When attaching the GT15-SGTKEY-U after installation, it is recognized as license key.
The GT SoftGOT1000 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 GT15-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 GT15-SGTKEY-U after installing System Driver. Then it is recognized as license key.
When the license key is attached, the dialog box 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\sntnusb.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 SoftGOT1000 installation folder)\SGT1000\SystemDriver\SPI_768.exe*

*When using a PC CPU module, use SPI_710.exe.

(2) Troubleshooting Related to the License Key

Check the following items if the license key is not recognized even if it has been installed on the DOS/V personal computer or the printer does not operate properly after being connected on the external side of the license key.

Problem	Definition and cause	Corrective action
The license key cannot be recognized	The license key is connected to the personal computer's serial port.	Connect the license key to the printer port
	The license key is installed on the DOS/V personal computer via the printer switch (the devices are installed in the order from the DOS/V personal computer, then the printer switch, and then the license key).	Install the license key closer to the DOS/V personal computer than the printer switch (i.e., install the devices in the order from the DOS/V personal computer, then the license key, and then the printer switch.)
	It is possible that the power supply to the printer port is shut off via setting of the DOS/V personal computer.	Change the settings so that the printer port can be used.
	The system driver is not installed.	Install the system driver.
	The parallel port is unusable.	Set the personal computer, Windows®, etc. to make the parallel port usable.
	In the case of a Fujitsu-made FM/V Series computer	Install the system driver and restart the DOS/V personal computer.
Cannot print	If a printer cable that is 5 m or longer is used, the printing may be disturbed by noise from the surroundings.	Check the cable length. (Check the overall cable length when a switch is used.)

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 SoftGOT1000 installation folder)\SGT1000\SystemDriver\SPI_768.exe*

*When using a PC CPU module, use SPI_710.exe.

Appendix.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 SoftGOT1000 has not been made.	Make the mail send setting of GT SoftGOT1000.
	Mail send setting has been made on GT Designer3.	
	The mail send setting method is wrong.	Reexamine the mail send setting of GT SoftGOT1000.

(2) Error code

No dialogue boxes are displayed by GT SoftGOT1000 for errors related to mail transmission and dialup. Refer to the mail history data for error codes and error messages. For how to check the mail history data, refer to the following.

 5.6.5 Mail history

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.

Appendix.2.4 Troubleshooting for print

Problem	Definition and cause	Corrective action
GT SoftGOT1000 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 SoftGOT1000 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.

Appendix.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 SoftGOT1000.	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.

Appendix.2.6 GOT error code list

For the system alarm detected with GOT, refer to the following manual.

 GT16 User's Manual (Hardware)

Appendix.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.

■ 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 SoftGOT1000. • Specify the module No. (1 to 32767) of the existing GT SoftGOT1000. • Exit unnecessary applications to secure memory space. • Restart the personal computer.

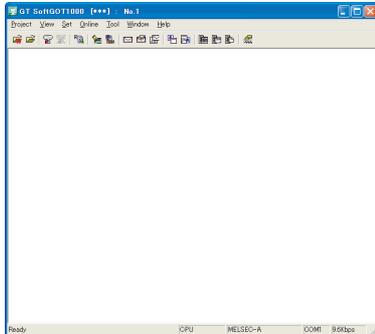
■ GDev_Read function/GDev_Write function

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.

Appendix3 Applicable Project Data

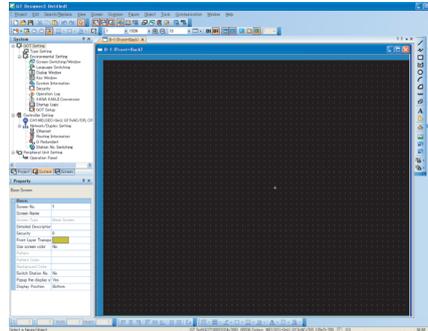
Use GT SoftGOT1000 of the same version as the GT Designer3.

When the versions of GT SoftGOT1000 and GT Designer3 are different, install the same version of GT SoftGOT1000/GT Designer3.



GT SoftGOT1000 version

=



GT Designer3 version



When using the project data created on the GT Designer3 version older than the GT SoftGOT1000 version
Open the project data on the GT Designer3 of the same version as the GT SoftGOT1000, and save the project data.

Appendix4 Unsupported Functions

Compared to GT SoftGOT2, the GT SoftGOT1000 does not support the following functions.

Function	Description
Remote device monitoring	Monitoring a device monitored by GT SoftGOT1000 with a PC or mobile phone using the mail function

Appendix5 Open Source Software

Appendix.5.1 OpenSSL toolkit

This product uses OpenSSL toolkit licensed under the OpenSSL License and the Original SSLeay License. The permission notice of the OpenSSL License and Original SSLeay License is described below.

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The OpenSSL toolkit stays under a double license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit. See below for the actual license texts.

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```

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REVISIONS

* The manual number is given on the bottom left of the back cover.

Print Date	* Manual Number	Revision
Oct., 2009	SH(NA)-080860ENG-A	First printing: Compatible with GT SoftGOT1000 Version3.01B
Jan., 2010	SH(NA)-080860ENG-B	Compatible with GT SoftGOT1000 Version3.10L <ul style="list-style-type: none"> • FXCPU (compatible with the Ethernet connection) • OMRON PLC (compatible with SYSMAC CJ2, CP1E and Ethernet connection) • Compatible with the GT Designer3 compressed file (*.GTW) • Connection with LCPUs supported • SoftGOT-GOT link function supported
May, 2010	SH(NA)-080860ENG-C	Compatible with GT SoftGOT1000 Version3.14Q <ul style="list-style-type: none"> • Windows® 7 supported • Connection with Q50UDEHCPU and Q100UDEHCPU supported • Management of GT SoftGOT1000 modules with the SoftGOT-GOT link function by GT SoftGOT1000 Commander enabled • Monitor-only mode supported
Jun., 2010	SH(NA)-080860ENG-D	Compatible with GT SoftGOT1000 Version3.17T <ul style="list-style-type: none"> • Connection with LJ72GF15-T2 supported
Oct., 2010	SH(NA)-080860ENG-E	Compatible with GT SoftGOT1000 Version3.19V <ul style="list-style-type: none"> • OMRON PLC (SYSMAC CJ2M compatible) • Advanced setting of the application startup is supported. • Extension of module No. (1 to 32767) at multiple startups is supported. • OMROM PLC (Ethernet connection) supports connection types which can be monitored by SoftGOT-GOT link function.
Jan., 2011	SH(NA)-080860ENG-F	Compatible with GT SoftGOT1000 Version3.23Z <ul style="list-style-type: none"> • FXCPU (compatible with the USB connection) • Connection with C Controller module supported • Connection with the CC-Link IE field network Ethernet adapter unit supported • Advanced setting of the application startup is supported • MODBUS®/TCP connection supported • Displaying the [File Information in PLC] dialog box by using the GOT special register (GS device) supported • The internal device interface function supports the C# language.
Apr., 2011	SH(NA)-080860ENG-G	Compatible with GT SoftGOT1000 Version3.28E <ul style="list-style-type: none"> • Barcode reader connection supported • RFID connection supported • The internal device interface function supports Embarcadero® C++ Builder® EX
Jul., 2011	SH(NA)-080860ENG-H	Compatible with GT SoftGOT1000 Version3.31H <ul style="list-style-type: none"> • Windows® 7 64-bit OS supported • Connection with L02CPU-P and L26CPU-PBT supported • CC-Link IE Field Network connection supported
Oct., 2011	SH(NA)-080860ENG-I	Compatible with GT SoftGOT1000 Version3.37P <ul style="list-style-type: none"> • Displaying the comment set with GT SoftGOT1000 Commander on the title bar supported • Connection with TOSHIBA PLC (Unified Controller nv series) supported • Changing the security level in the interaction with PX Developer supported
Jan., 2012	SH(NA)-080860ENG-J	Compatible with GT SoftGOT1000 Version3.40S <ul style="list-style-type: none"> • Connection with SIEMENS PLC (ISMATIC S7-300/400 series) supported • GT SoftGOT1000 Commander supports displaying only the selected GOTs. • The troubleshooting for the licence key has been updated.
Apr., 2012	SH(NA)-080860ENG-K	Compatible with GT SoftGOT1000 Version3.45X <ul style="list-style-type: none"> • Connection with OMRON PLC (CJ2H-CPU6□-EIP) supported • Connection with YASKAWA PLC (MP2300S) supported • Connection with FX3GC supported

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Print Date	* Manual Number	Revision
Jun., 2012	SH(NA)-080860ENG-L	Compatible with GT SoftGOT1000 Version3.54G <ul style="list-style-type: none"> In the communication setting, the setting range of the timeout time is changed.
Sep., 2012	SH(NA)-080860ENG-M	Compatible with GT SoftGOT1000 Version3.58L <ul style="list-style-type: none"> Connection with YOKOGAWA PLC (F3SP71-4N) supported The information site on the Internet is changed to the Mitsubishi Electric Factory Automation Global Website.
Nov., 2012	SH(NA)-080860ENG-N	Compatible with GT SoftGOT1000 Version3.63R <ul style="list-style-type: none"> SAFETY PRECAUTIONS changed Connection with Q24DHCCPU-V supported Connection with YASKAWA PLC (CP-317) supported
Feb., 2013	SH(NA)-080860ENG-O	Compatible with GT SoftGOT1000 Version3.67V <ul style="list-style-type: none"> Connection with Q03UDVCP, Q04UDVCP, Q06UDVCP, Q13UDVCP, Q26UDVCP, L02SCPU, L26CPU, LJ71E71-100 supported The connection setting of giving priority to communication processing is supported. Communication effective mode with PLC supported SIEMENS S7 Ethernet OP communication supported SoftGOT-GOT link function supports the UDP/IP communication
May, 2013	SH(NA)-080860ENG-P	Compatible with GT SoftGOT1000 Version3.70Y <ul style="list-style-type: none"> Connection with YOKOGAWA PLC (F3SP76-7S) supported Connection with L06CPU and Q170MSCPU supported
Jun., 2013	SH(NA)-080860ENG-Q	Compatible with GT SoftGOT1000 Version3.74C <ul style="list-style-type: none"> Windows® 8 supported Connection with L02SCPU-P, L06CPU-P, L26CPU-P, Q24DHCCPU-LS, CR750-Q, CR750-D, CR751-Q, CR751-D, FX3S supported Ethernet connection with KEYENCE PLC (KV series) supported
Sep., 2013	SH(NA)-080860ENG-R	Compatible with GT SoftGOT1000 Version3.100E <ul style="list-style-type: none"> Changed the error message displayed when GT softGOT1000 is used.
Nov., 2013	SH(NA)-080860ENG-S	Compatible with GT SoftGOT1000 Version3.104J <ul style="list-style-type: none"> FX3U-232-ADP-MB compatible
Jan., 2014	SH(NA)-080860ENG-T	Compatible with GT SoftGOT1000 Version3.108N <ul style="list-style-type: none"> Windows® 8.1 supported
Jun., 2014	SH(NA)-080860ENG-U	Compatible with GT SoftGOT1000 Version3.117X <ul style="list-style-type: none"> Connection with R04CPU, R08CPU, R16CPU, R32CPU, R120CPU, RJ71C24, RJ71C24-R2, RJ71EN71, Q24DHCCPU-VG, F3SP71-4S supported
Jul., 2014	SH(NA)-080860ENG-V	Compatible with GT SoftGOT1000 Version3.118Y <ul style="list-style-type: none"> Partial corrections
Oct., 2014	SH(NA)-080860ENG-W	Compatible with GT SoftGOT1000 Version3.122C <ul style="list-style-type: none"> GT Works3 Version1 is no longer compatible with Windows® XP Service Pack2 and Windows® 2000.
Jan., 2015	SH(NA)-080860ENG-X	Compatible with GT SoftGOT1000 Version3.126G <ul style="list-style-type: none"> Connection with the motion controller CPU (MELSEC iQ-R series) supported Connection with the MELSEC iQ-F supported
Apr., 2015	SH(NA)-080860ENG-Y	Compatible with GT SoftGOT1000 Version3.130L <ul style="list-style-type: none"> R08PCPU, R16PCPU, R32PCPU, and R120PCPU are supported. R12CCPU-V is supported.
Jul., 2015	SH(NA)-080860ENG-Z	Compatible with GT SoftGOT1000 Version3.136S <ul style="list-style-type: none"> R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, and R120ENCPU are supported. The folder name [MELSOFT Application] displayed in the Windows® start menu has been changed to [MELSOFT].

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Print Date	* Manual Number	Revision
Oct., 2015	SH(NA)-080860ENG-AA	Compatible with GT SoftGOT1000 Version3.144A • R08SFCPU, R16SFCPU, R32SFCPU, and R120SFCPU are supported.
Dec., 2015	SH(NA)-080860ENG-AB	Compatible with GT SoftGOT1000 Version3.150G • SAFETY PRECAUTIONS changed. • Q26DHCCPU-LS is supported. • Access to an LCPU or a QCPU via an RCPU by the Ethernet connection is supported.
May, 2016	SH(NA)-080860ENG-AC	Compatible with GT SoftGOT1000 Version3.155M • SAFETY PRECAUTIONS changed. • GT SoftGOT1000 is compatible with Windows® 10.
Aug., 2016	SH(NA)-080860ENG-AD	Compatible with GT SoftGOT1000 Version3.160S • Partial corrections
Oct., 2016	SH(NA)-080860ENG-AE	Compatible with GT SoftGOT1000 Version3.165X • [Delay time] has been added to the mail setup.
Jun., 2017	SH(NA)-080860ENG-AF	Compatible with GT SoftGOT1000 Version3.180N • Partial corrections
Oct., 2017	SH(NA)-080860ENG-AG	Partial corrections
Apr., 2018	SH(NA)-080860ENG-AH	Partial corrections
Oct., 2018	SH(NA)-080860ENG-AI	Partial corrections
Apr., 2019	SH(NA)-080860ENG-AJ	A description of OpenSSL toolkit has been added.
Oct., 2019	SH(NA)-080860ENG-AK	Partial corrections
Jan., 2020	SH(NA)-080860ENG-AL	Partial corrections
Oct., 2020	SH(NA)-080860ENG-AM	Partial corrections
Apr., 2022	SH(NA)-080860ENG-AN	Compatible with GT SoftGOT1000 Version3.275M • GT SoftGOT1000 is compatible with Windows® 11. • GT SoftGOT1000 has ended support for Windows® XP and Windows Vista®.
Jul., 2022	SH(NA)-080860ENG-AP	Compatible with GT SoftGOT2000 Version1.280S • FX3U-ENET and FX Configurator-EN are supported.
Apr., 2023	SH(NA)-080860ENG-AQ	Compatible with GT SoftGOT1000 Version3.295H • GT SoftGOT1000 has ended support for Windows® 8.1, Windows® 8, and Windows® 7.

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GOT1000 COMPATIBLE HMI SOFTWARE

GT SoftGOT1000 Version3

Operating Manual

for GT Works3

MODEL	SW3-SOFTGOT-O-E
MODEL CODE	_____
SH(NA)-080860ENG-AQ(2304)MEE	

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