MELSOFT

MITSUBISHI ELECTRIC

Engineering Software

GT SoftGOT3000
User's Manual

-SW1DND-GTWK3-E

Safety precautions

Always read the precautions before using this product.

Also read this manual and the relevant manuals mentioned in this manual carefully, and use the product properly while paying full attention to safety.

Note that the precautions in this manual apply only to this product.

The safety precautions are divided into the following levels: ⚠ 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 minor or moderate injury or property damage.**

Note that failure to observe ⚠ CAUTION may lead to a serious accident depending on the circumstances.

Make sure to observe both warnings and cautions to ensure personal safety.

Ensure that this manual is easily accessible to all users of this product.

[Design precautions]

⚠WARNING

- Some failures of the personal computer, interface board, or cables may keep the GT SoftGOT3000 outputs on or off.
  Create an external monitoring circuit to check for output signals which may lead to a serious accident.
  Not doing so may cause an accident due to false output or malfunction.
- Do not use GT SoftGOT3000 as the warning device that warns you of serious accidents.
  For the device that displays or outputs serious warnings, provide an independent redundant hardware or mechanical interlock.
  Not doing so may cause an accident due to false output or malfunction.
- If you have changed a program or parameter of the controller (such as a PLC) that is monitored by GT SoftGOT3000, restart GT SoftGOT3000.
  Not doing so may cause an accident due to false output or malfunction.
- Create safety circuits external to the PLC to ensure that the entire system works safely even if the personal computer fails.
  Not doing so may cause an accident due to false output or malfunction.
  (1) Create the following circuits external to the PLC: emergency stop circuits, protection circuits, interlock circuits that prevent an invert operation (such as a forward/reverse rotation), and interlock circuits that prevent a machine breakage (such as positioning at the upper or lower limit).
  (2) If the station with an interface board is disconnected from the data link due to a data link error, the other stations retain the last-minute data output from that station. The data is retained until the data link resumes (the disconnected station is returned). Establish a mechanism so that each station in the data link system monitors the data link status and handles data link errors.
- To check the operating status of each station if a network communication error occurs, refer to the manual for the interface module used.
  Not doing so may cause an accident due to false output or malfunction.
- If you change the data during operation, provide an interlock using the program of the PLC to ensure that the entire system always works safely.
  Establish a mechanism to handle data communication between the personal computer and PLC CPU if a data communication error occurs in the system.
- To maintain the security (availability, integrity, and confidentiality) 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.
- Check our website for vulnerability periodically, and update the software if any vulnerabilities are found.

[Design precautions]

⚠CAUTION

- When using the Ethernet interfaces, set an IP address for each interface to access a different network.
- Turn on the controllers and the network devices to be ready for communication before they communicate with the GOT.
  Not doing so may cause a communication error on the GOT.
- Do not run control line cables and communication cables together with or near main circuit cables, power line cables, or other cables.
  Run these cables separately from such wiring and keep them a minimum of 100 mm apart.
  Not doing so may cause a malfunction due to noise.
- Turn on the controllers and the network devices to be ready for communication before they communicate with GT SoftGOT3000.
  Not doing so may cause a communication error on GT SoftGOT3000.

[Wiring precautions]

⚠WARNING

- Before wiring, make sure to shut off all phases of the external power supply used by the system.
  Not doing so may result in an electric shock, product damage or malfunction.

[Wiring precautions]

⚠CAUTION

- Connect the communication cable to the interface connector of the personal computer, and tighten the mounting screws and terminal screws within the specified torque range.
  Undertightening may cause a short circuit or malfunction.
  Overtightening may damage the screws or personal computer interface, causing a short circuit or malfunction.
  Also, do not apply excessive force to the connector or bend the cable excessively.
  Doing so may cause contact failure or disconnection.

[Input operation precautions]

⚠WARNING

- Thoroughly read the manual to fully understand the operating procedures before performing input operations on a user-created screen (such as turning a bit device on or off, changing the current value of a word device, changing the set or current value of a timer or counter, or changing the current value of a buffer memory or parameter).
  During the input operation, never change the data of the devices which are used to perform significant operation for the system.
  Doing so may cause an accident due to an incorrect output or malfunction.

[Startup/maintenance precautions]

⚠WARNING

- Do not touch the terminals while power is on.
  Close the terminal block cover before supplying power.
  Not doing so may cause an electric shock or malfunction.
- Before cleaning or terminal screw retightening, make sure to shut off the external power supply in all phases.
  Not doing so may cause damage to the personal computer interface or malfunction.
  Undertightening may cause a short circuit or malfunction.
  Overtightening may damage the screws or personal computer interface, causing a short circuit or malfunction.

[Remote control precautions]

⚠WARNING

- Remote control is available through a network by using GOT functions, including the VNC server function and the GOT Mobile function.
  If these functions are used to perform remote control of control equipment, the field operator may not notice the remote control, possibly leading to an accident.
  In addition, a communication delay or interruption may occur depending on the network environment, and remote control of control equipment cannot be performed normally in some cases.
  Before using the above functions to perform remote control, fully grasp the circumstances of the field site and ensure safety.
- When operating the server (GOT) of the GOT Mobile function to disconnect a client, notify the operator of the client about the disconnection beforehand.
  Not doing so may cause an accident.

Product application

(1) Mitsubishi graphic operation terminal ("the PRODUCT") shall be used in conditions;
i) where any problem, fault or failure occurring in the PRODUCT, if any, shall not lead to any major or serious accident;
and
ii) where the backup and fail-safe function are systematically or automatically provided outside of the PRODUCT for the case of any problem, fault or failure occurring in the PRODUCT.

(2) The PRODUCT has been designed and manufactured for the purpose of being used in general industries.
MITSUBISHI ELECTRIC SHALL HAVE NO RESPONSIBILITY OR LIABILITY (INCLUDING, BUT NOT LIMITED TO ANY AND ALL RESPONSIBILITY OR LIABILITY BASED ON CONTRACT, WARRANTY, TORT, PRODUCT LIABILITY) FOR ANY INJURY OR DEATH TO PERSONS OR LOSS OR DAMAGE TO PROPERTY CAUSED BY the PRODUCT THAT ARE OPERATED OR USED IN APPLICATION NOT INTENDED OR EXCLUDED BY INSTRUCTIONS, PRECAUTIONS, OR WARNING CONTAINED IN MITSUBISHI ELECTRIC USER'S, INSTRUCTION AND/OR SAFETY MANUALS, TECHNICAL BULLETINS AND GUIDELINES FOR the PRODUCT. ("Prohibited Application")
- Nuclear Power Plants and any other power plants operated by Power companies, and/or any other cases in which the public could be affected if any problem or fault occurs in the PRODUCT.
- Railway companies or Public service purposes, and/or any other cases in which establishment of a special quality assurance system is required by the Purchaser or End User.
- Aircraft or Aerospace, Medical applications, Train equipment, transport equipment such as Elevator and Escalator, Incineration and Fuel devices, Vehicles, Manned transportation, Equipment for Recreation and Amusement, and Safety devices, handling of Nuclear or Hazardous Materials or Chemicals, Mining and Drilling, and/or other applications where there is a significant risk of injury to the public or property.

Notwithstanding the above restrictions, Mitsubishi Electric may in its sole discretion, authorize use of the PRODUCT in one or more of the Prohibited Applications, provided that the usage of the PRODUCT is limited only for the specific applications agreed to by Mitsubishi Electric and provided further that no special quality assurance or fail-safe, redundant or other safety features which exceed the general specifications of the PRODUCTs are required. For details, please contact the Mitsubishi Electric representative in your region.

(3) Mitsubishi Electric shall have no responsibility or liability for any problems involving graphic operation terminal trouble and system trouble caused by DoS attacks, unauthorized access, computer viruses, and other cyberattacks.

Introduction

Thank you for choosing Mitsubishi Electric Graphic Operation Terminal (GOT).
Before using the product, read this manual carefully and make sure you understand the functions and performance of the GOT for correct use.

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Relevant manuals

Point

e-Manual refers to the Mitsubishi Electric FA electronic book manuals that can be browsed using a dedicated tool.

e-Manual has the following features:

- Required information can be cross-searched in multiple manuals.
- Other manuals can be accessed from the links in the manual.
- Hardware specifications of each part can be found from the product figures.
- Pages that users often browse can be bookmarked.
- Sample programs can be copied to the engineering tool.

Screen design software-related manuals

Manual name	Manual number	Format
GT Works3 Installation Instructions	—	PDF e-Manual
GT Designer3 (GOT3000) Screen Design Manual	SH-082590ENG	PDF e-Manual

Connection manuals

Manual name	Manual number	Format
GOT3000 Series User's Manual (Connection)	SH-082593ENG	PDF e-Manual

GT SoftGOT3000 manual

Manual name	Manual number	Format
GT SoftGOT3000 User's Manual	SH-082594ENG	PDF e-Manual

GOT3000 series use's manuals

Manual name	Manual number	Format
GOT3000 Series User's Manual (Hardware)	SH-082591ENG	PDF e-Manual Bound document
GOT3000 Series User's Manual (Utility & Maintenance Functions)	SH-082592ENG	PDF e-Manual

Abbreviations, generic terms, and model icons

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

GOT3000 series

Abbreviations and generic terms			Model	Meaning of icon	
				Available	Unavailable
GT37	GT37-W		GT3715-FHCBD		
			GT3712-WXCBD		
	GT37-X	GT3715-X	GT3715-XRBA GT3715-XRBD		
		GT3712-X	GT3712-XRBA GT3712-XRBD		
		GT3710-X	GT3710-XRBA GT3710-XRBD		
		GT3708-X	GT3708-XRBA GT3708-XRBD		
GT SoftGOT3000			GT SoftGOT3000		

GOT2000 series and GOT1000 series

Abbreviations and generic terms	Model	Meaning of icon	
		Available	Unavailable
GOT2000 series	GOT2000 series	—	—
GOT1000 series	GOT1000 series	—	—

GOT units and option units

Abbreviations and generic terms		Description
Extension interface converter unit		This unit connects the extension unit of the GOT2000 series and GOT1000 series to the GOT3000 series.
Extension unit	Communication unit	A unit, such as the serial communication unit or CC-Link IE TSN communication unit, installed on the GOT to enable communication with other devices
	Option unit	A unit, such as an external I/O unit, installed on the GOT to provide specific functions
Option		Options, such as SD cards, batteries, and protective sheets, installed on the GOT for use

Software

■Software related to GOT

Abbreviations and generic terms	Description
GT Works3	Software that comprehensively supports screen design for the GOT
GT Works3 Version1	
GT Designer3	Screen design software for the GOT3000 series, GOT2000 series, and GOT1000 series
GT Designer3 (GOT3000)	Screen design software for the GOT3000 series
Speech synthesis license	License to use the speech synthesis function
VNC server function license	License to use the VNC server function with the GOT3000
VPN function license	License to use the VPN function with the GOT3000
License for the remote personal computer operation function (Ethernet)	License to use the remote personal computer operation function (Ethernet) on the GOT3000
Multimedia function license	License to perform the following with the GOT3000 • Use a network camera. • Record or play images taken by a network camera or web camera.
License for GT SoftGOT3000	License to use GT SoftGOT3000
GOT Mobile function license for GOT3000	License to use the GOT Mobile function with the GOT3000
GOT Mobile function license for GT SoftGOT3000	License to use the GOT Mobile function with GT SoftGOT3000
GENESIS64 Advanced	GENESIS64 server application (GEN64-APP)
GENESIS64 Basic SCADA	GENESIS64 server application (GEN64-BASIC)
GENESIS64	Generic term of GENESIS64 Advanced and GENESIS64 Basic SCADA
GT Simulator3	Screen simulator GT Simulator3 for the GOT3000 series
GT SoftGOT3000	Software that performs the same functions as the GOT3000 on a personal computer or panel computer
GT OPC UA Client	OPC UA server connection setting software

■Software related to iQ Works

Abbreviations and generic terms	Description
iQ Works	iQ Platform compatible engineering environment MELSOFT iQ Works
MELSOFT Navigator	Integrated development environment software included in the iQ Platform-compatible engineering environment, MELSOFT iQ Works
MELSOFT iQ AppPortal	Integrated application management software

■Other software

Abbreviations and generic terms		Description
GX Works3		Programmable controller engineering software
GX Works2		
Controller simulator	GX Simulator3	Simulation function of GX Works3
	GX Simulator2	Simulation function of GX Works2
	GX Simulator	Ladder logic test tool function software package
GX Developer		Programmable controller programming software
GX LogViewer		Dedicated logging data viewer
MI Configurator		Configuration and monitor tool for Mitsubishi Electric industrial computers
PX Developer		FBD software package for process control
MT Works2		Motion controller engineering software
MT Developer		Integrated start-up support software for motion controller Q series
CW Configurator		Setting/monitoring tools for the C Controller module and MELSECWinCPU
MR Configurator2		Servo configuration software
MR Configurator		Servo configuration software
FR Configurator2		Inverter setup software
FR Configurator		Inverter setup software
NC Configurator2		CNC parameter setting support software
NC Configurator		CNC parameter setting support tool
FX Configurator-FP		Parameter setting, monitoring, and testing software
FX Configurator-EN-L		FX3U-ENET-L type Ethernet module setting software
RT ToolBox3		Robot program creation software
RT ToolBox2		Robot program creation software
MX Component		Communication library
MX Sheet		Communication support software package
CPU Module Logging Configuration Tool		CPU Module Logging Configuration Tool

PART 1 How to read this manual

1 Useful information

1 Useful information

☞ Page 16 Finding the reference manual

1.1 Finding the reference manual

This section describes the main GOT manuals and their contents.
The following abbreviations are used for the manual names.

Manual name	Abbreviation	Main contents
GT Designer3 (GOT3000) Screen Design Manual	GTD	• Screen operation with GT Designer3 • Settings of the functions that run on the GOT • Functions enabled by connecting the GOT and controllers
GOT3000 Series User's Manual (Hardware)	HW	• GOT hardware specifications • How to connect cables to and install units on the GOT
GOT3000 Series User's Manual (Utility & Maintenance Functions)	UT	• How to operate the utility • How to use dedicated screens such as the sequence program monitor • System alarms and corrective actions
GOT3000 Series User's Manual (Connection)	Connection	• Devices connectable with the GOT • System configuration • Communication settings • FA transparent function (reading and writing programs between a personal computer and a controller via the GOT)
GT SoftGOT3000 User's Manual	SGT	• How to operate GT SoftGOT3000

The following contents and their reference manuals are shown below.

☞ Page 17 Operations related to package data, BootOS, and CoreOS (data transfer)
☞ Page 17 How to protect the GOT and data
☞ Page 17 Operating the GOT using gestures
☞ Page 17 How to use GOT peripherals
☞ Page 18 Settings that can be changed in the utility or in GT Designer3
☞ Page 19 Devices, labels, and tags that can be monitored with the GOT
☞ Page 19 Drive configuration and capacity of the GOT
☞ Page 19 Differences between GT SoftGOT3000 functions and other functions

1.1.1 Operations related to package data, BootOS, and CoreOS (data transfer)

○: Available

—: Not available

Information on...	Reference				
	GTD	HW	UT	Connection	SGT
Reading/writing the package data	○	—	—	—	—
Writing the BootOS and the CoreOS (version upgrade)	○	—	—	—	—
How to use the package data of the GOT with another GOT (uploading and downloading)	—	—	○	—	—

1.1.2 How to protect the GOT and data

○: Available

—: Not available

Information on...	Reference				
	GTD	HW	UT	Connection	SGT
Security functions of the GOT and GT Designer3	○	—	—	—	○ ☞ Page 65 Opening the project

1.1.3 Operating the GOT using gestures

○: Available

—: Not available

Information on...	Reference				
	GTD	HW	UT	Connection	SGT
Operating the GOT screen using gestures	○	—	—	—	—
Operating objects using gestures	○	—	—	—	—

1.1.4 How to use GOT peripherals

○: Available

—: Not available

Information on...	Reference				
	GTD	HW	UT	Connection	SGT
How to use a barcode reader	○	—	—	○	—
How to use an RFID controller	○	—	—	○	—
How to operate a personal computer from the GOT	○	—	—	○	—
How to use a VNC server	○	—	—	○	—
How to display or record images from a camera, video device, or other equipment on the GOT	○	—	—	○	—
How to display the GOT screen on an external display	○	—	—	○	—
How to play a sound file through speakers	○	—	—	○	—
How to use an external I/O device or an operation panel	○	—	—	○	—
How to monitor a controller on a tablet via the GOT	○	—	—	○	—
How to use the GOT as an OPC UA server	○	—	—	—	—
How to monitor a controller via the GOT	○	—	—	—	—
How to access GOT files from a peripheral	○	—	—	—	—
How to access files on an external server from the GOT	○	—	—	—	—

1.1.5 Settings that can be changed in the utility or in GT Designer3

The following shows whether utility menus can be set in GT Designer3.

When the package data is written to the GOT, the utility settings of the GOT can be updated to those of GT Designer3.

○: Available

—: Not available

Information on...		Reference				
		GTD	HW	UT	Connection	SGT
[GOT basic set] tab	[Display]	○	—	○	—	—
	[Language]	○	—	○	—	—
	[Unique info]	○	—	○	—	—
	[IP address]	○	—	○	—	—
	[IP filter setting]	○	—	○	—	—
	[Operation]	○	—	○	—	—
	[Utility call key]	○	—	○	—	—
	[USB device/host]	○	—	○	—	—
	[Time]	○	—	○	—	—
	[Controller]	○	—	○	—	—
	[Ethernet]	○	—	○	—	—
	[Transparent mode]	○	—	○	—	—
	[GOT internal device monitor]	○	—	○	—	—
	[Security]*1	○	—	○	—	—
	[Operator authentication management]	—	—	○	—	—
	[Opr authn. Password change]	—	—	○	—	—
	[Brightness adjustment]	○	—	○	—	—
[Add-on setting] tab	[SoftGOT-GOT link function]	○	—	○	—	—
	[VNC server function]	○	—	○	—	—
	[Seq. program monitor]	○	—	○	—	—
	[Backup restoration]	○	—	○	—	—
	[License management]	—	—	○	—	—
	[System launcher]	○	—	○	—	—
	[iQSS utility]	○	—	○	—	—
	[File transfer]	○	—	○	—	—
	[Mail]	○	—	○	—	—
	[Web browser function]	○	—	○	—	—
	[ANDON connection]	—	—	○	—	—
	[VPN connection function]	○	—	○	—	—
	[Contactless tag function]	○	—	○	—	—
[Maintenance]		—	—	○	—	—
[Monitor]		—	—	○	—	—
[Data mng.]		—	—	○	—	—

*1 Appears only when the security mode is set to mode 1.

1.1.6 Devices, labels, and tags that can be monitored with the GOT

○: Available

—: Not available

Information on...	Reference				
	GTD	HW	UT	Connection	SGT
GOT internal device list	○	—	—	—	—
Mitsubishi Electric products device list	○	—	—	○	—
Non-Mitsubishi Electric products device list	○	—	—	○	—
Types of devices that can be monitored with the GOT	○	—	—	—	—
Types of labels and tags that can be monitored with the GOT	○	—	—	—	—

1.1.7 Drive configuration and capacity of the GOT

○: Available

—: Not available

Information on...	Reference				
	GTD	HW	UT	Connection	SGT
Drive configuration and capacity of the GOT	○	—	—	—	—
Virtual drive of GT SoftGOT3000	○	—	—	—	○ ☞ Page 25 Virtual drive

1.1.8 Differences between GT SoftGOT3000 functions and other functions

○: Available

—: Not available

Information on...	Reference				
	GTD	HW	UT	Connection	SGT
List of differences between GT SoftGOT3000 functions and other functions	—	—	—	—	○ ☞ Page 26 Available and unavailable functions

PART 2 Specifications

2 Operating environment

3 Specifications of GT SoftGOT3000

2 Operating environment

The following shows the GT SoftGOT3000 operating environment.

Item	Description
Personal computer	• A personal computer that can run Windows • MELIPC (MI3321G-W, MI3315G-W)
OS*1*2*3*4*5*6	• Microsoft Windows Server 2022 Standard (64-bit)*7 • Microsoft Windows 11 Education (64-bit)*7 • Microsoft Windows 11 Enterprise (64-bit)*7 • Microsoft Windows 11 Pro (64-bit)*7 • Microsoft Windows 11 Home (64-bit)*7
CPU	Intel Core i3 (8th generation) or later
Memory	8 GB or more recommended
Display	9 inches or larger with a resolution of FWXGA (1366 dots × 768 dots) or higher
Hard disk space	• For installation: 5 GB or more recommended • For execution: 512 MB or more recommended
Display color	High color (16 bits) or more
Hardware	Network adapter

*1 Administrator privileges are required when installing GT SoftGOT3000.
Administrator privileges are not required when using GT SoftGOT3000.
If another MELSOFT product is running with administrator privileges, also start GT SoftGOT3000 with administrator privileges.

*2 The following Windows functions are not supported by GT SoftGOT3000.
Activating the application with Windows compatibility mode
Fast user switching
Changing the desktop theme (or font size)
Remote desktop
Setting the size of text and illustrations on the screen to any size other than [Small-100%]

*3 Disable high-speed startup.
If enabled, GT SoftGOT3000 may not operate properly when the personal computer is shut down and then started.

*4 Some digital pens are unusable.

*5 Operation is not supported in a virtual environment such as Hyper-V.

*6 The following lockdown features are not supported.
Unified Write Filter
Assigned Access
USB Filter
Layout Control
AppLocker
Shell Launcher

*7 Use the same language version of Windows OS as that of GT SoftGOT3000.
Example: When using the Japanese version of GT SoftGOT3000, use the Japanese version of Windows OS.

Precautions

■Resume, suspend, power saving, standby, or sleep setting on the personal computer

If the resume, suspend, power saving, standby, or sleep setting is configured on the personal computer, a communication error may occur when communication with the PLC CPU is attempted.

Therefore, do not configure the above-mentioned settings.

■Precautions when using the GOT Mobile function

When using the GOT Mobile function, run GT SoftGOT3000 with administrator privileges.

■Operating environment for starting multiple modules or using the multi-channel function

Monitoring performance may be degraded or a timeout may occur depending on the specifications of the personal computer.

Request the network administrator to adjust each communication setting, which may improve such situations.

■Installing a redistributable package of the Visual C++ 2015 or a later version

A redistributable package of the Visual C++ 2015 or a later version may not function correctly if the OS is not supported or prerequisites are not met.

If the package does not function correctly, check the following.

- Use a supported OS.
- Install the Visual C++ 2015 redistributable package or a later version again.
- Perform Windows Update.

■Operating environment when using a user-created application

The user-created application is used together with GT SoftGOT3000.

Therefore, when using the user-created application, prepare an operating environment where the user-created application and GT SoftGOT3000 can operate simultaneously.

3 Specifications of GT SoftGOT3000

☞ Page 23 Operating specifications
☞ Page 23 Supported software versions
☞ Page 24 License
☞ Page 24 Operations that require administrator privileges
☞ Page 25 Virtual drive
☞ Page 26 Resource data
☞ Page 26 Available and unavailable functions
☞ Page 26 Differences between functions for remotely operating a GOT
☞ Page 27 Specifications for starting multiple modules
☞ Page 30 Online mode, offline mode
☞ Page 30 Screen saver specifications

3.1 Operating specifications

The following shows the operating specifications of GT SoftGOT3000.

Item	Specifications
Resolution (dots)	• VGA: 640 × 480 • SVGA: 800 × 600 • XGA: 1024 × 768 • HD: 1280 × 720 • WXGA: 1280 × 800 • FWXGA: 1366 × 768 • Full HD: 1920 × 1080 • WUXGA: 1920 × 1200 • Custom (to be specified): X × Y*1
Display color	Full Color (24 bits) or higher
User memory capacity	• Storage memory (ROM): 256 MB • Operating memory (RAM): 768 MB

*1 The following shows the setting ranges.
• X: [640] dots to [1920] dots
• Y: [480] dots to [1920] dots
When creating a project in GT Designer3 with a custom screen size, set the values within the above ranges.
Also, if one side length is set to [1920] dots, set the other side length to within [1200] dots.
For details, refer to the following.
GT Designer3 (GOT3000) Screen Design Manual

3.2 Supported software versions

The following lists the software versions compatible with GT SoftGOT3000.

Software	Version	Application
GT Designer3 (GOT3000)	1.400S or later	Used to create a project.
GX Works3	1.105K or later	Used to connect to GX Simulator3.
GX Works2	1.621X or later	Used to connect to GX Simulator2.
MT Works2	1.189X or later	Used to connect to MT Simulator2.
GT OPC UA Client Setting Tool	1.06G or later	Used to connect to the OPC UA client.
GT SoftGOT1000	3.64S or later	Used to set Commander.
GT SoftGOT2000	1.215Z or later	Used to set Commander.
MELSOFT Mirror	1.000A or later	Used to connect to MELSOFT Mirror.

3.3 License

To use GT SoftGOT3000, license registration is required in GT SoftGOT3000.

For information on how to register or deregister the license, refer to the following.

☞ Page 46 Registering or deregistering the license

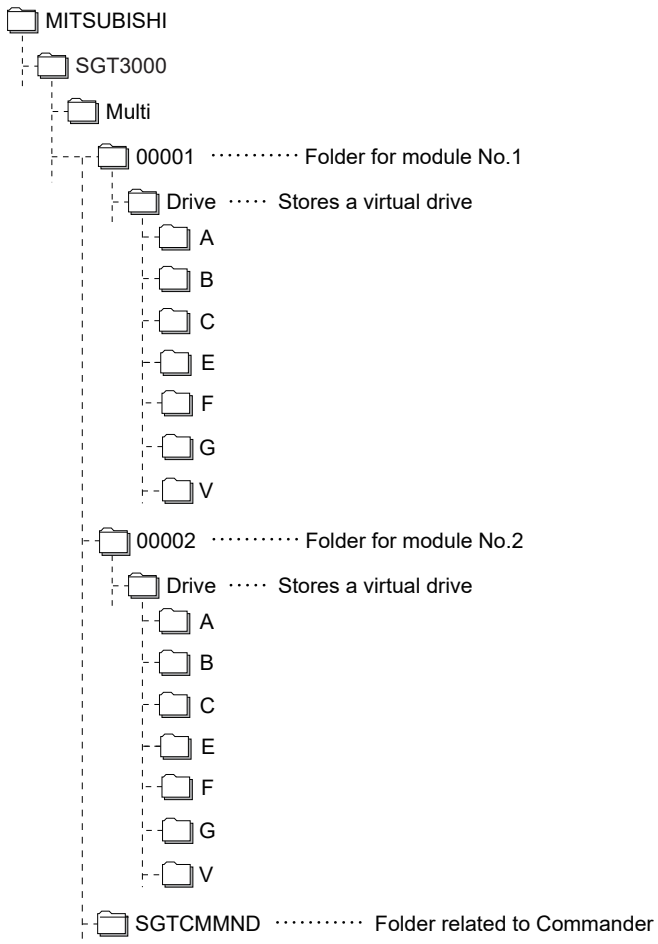
3.4 Operations that require administrator privileges

The following shows the functions that require Windows administrator privileges for operating GT SoftGOT3000.

Function	Reference
Installing GT SoftGOT3000	🕮GT Works3 Version1 Installation Instructions
Registering or deregistering the license	☞ 7 Registering or deregistering the license
When using the GOT Mobile function	🕮GOT3000 Series User's Manual (Connection)
Importing the certificate when sending emails	☞ Page 160 Mail sending
Importing the certificate when using the SoftGOT-GOT link function	☞ Page 191 Encrypted communication
Starting GT SoftGOT3000 Commander	☞ Page 204 Management by a tool (Commander)
When using the all data initialization function	☞ Page 219 All data initialization

3.5 Virtual drive

GT SoftGOT3000 uses the following folders on the hard disk of the personal computer as virtual drives.
C:\Users\(user name)\AppData\Local\MITSUBISHI\SGT3000\Multi\(5-digit module No.)\Drive



A virtual drive is created for each module.

☞ Page 29 Data of each module

Point

Any folder can be set as a virtual drive.
For changing the folder specified as the virtual drive, refer to the following.

☞ Page 119 [Action]

3.6 Resource data

Some functions of the GOT store the resource data into a data storage.

For details on the destination folder, file name, and file format when each resource data is saved, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

3.7 Available and unavailable functions

Some functions available for the GOT3000 series are not available for GT SoftGOT3000.

For the functions that can and cannot be used with GT SoftGOT3000, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

3.8 Differences between functions for remotely operating a GOT

You can use the following three functions to operate the GOT screen with a personal computer connected by Ethernet.

- VNC server function
- SoftGOT-GOT link function
- GOT Mobile function

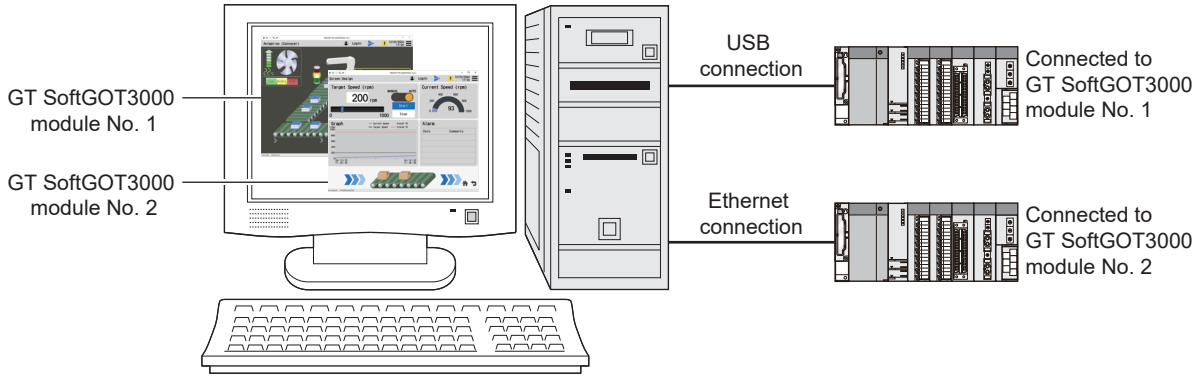
For the functions that can and cannot be used with GT SoftGOT3000, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

3.9 Specifications for starting multiple modules

☞ Page 27 Recommended number of modules
☞ Page 28 Module numbers when multiple modules are started
☞ Page 29 Data of each module

The following explains the specifications for starting multiple GT SoftGOT3000 modules.
Multiple GT SoftGOT3000 modules can be started on a single personal computer.
Each GT SoftGOT3000 module can start with module No. n and use different connection types for monitoring.



Operating procedure

When either of the following operations is performed multiple times, an equivalent number of GT SoftGOT3000 modules will start.

- From the Windows start menu, select [MELSOFT] → [GT SoftGOT3000].
- Click the [GT SoftGOT3000] icon.

3.9.1 Recommended number of modules

The following shows the recommended number of GT SoftGOT3000 modules to be started on a single personal computer.

Number of channels set in [Controller]	Recommended number of GT SoftGOT3000 modules
1CH	Up to 4
2CH to 4CH	1

Precautions

■Performance degradation when multiple modules are running

When multiple GT SoftGOT3000 modules are running, the monitor performance may decrease or a timeout may occur depending on the specifications of the personal computer.
Request the network administrator to adjust each communication setting, which may improve such situations.

■Monitoring PLCs while multiple modules are running

When multiple GT SoftGOT3000 modules are connected to PLC, if the same port number is specified as the monitoring target for the modules, only the module that starts monitoring first can communicate with the PLC.
A communication timeout occurs in GT SoftGOT3000 modules that start monitoring later.

3.9.2 Module numbers when multiple modules are started

The following explains the module number assignment and module number specification method when multiple GT SoftGOT3000 modules are started.

Module number assignment

Module numbers are assigned to GT SoftGOT3000 modules sequentially, starting with 1 for the first module started.
Modules with the same module number cannot be started simultaneously.
If a new GT SoftGOT3000 module is started while multiple GT SoftGOT3000 modules are running, it will be assigned the smallest available module number.
A GT SoftGOT3000 module opened in Commander is treated as already started.

Ex.
If a GT SoftGOT3000 module is started while module No. 1 and No. 10 are running, the started module will be assigned to module No. 2.

Ex.
If a GT SoftGOT3000 module is started while the setting dialog for module No. 1 is open, the started module will be assigned to module No. 2.

Specifying the module to be started

A GT SoftGOT3000 module can be started with any number between 1 and 32767 by setting the startup option in the [Properties] of the GT SoftGOT3000 shortcut.
For details, refer to the following.
☞ Page 62 Starting GT SoftGOT3000 by specifying a module number

Module number display

The module number appears in the title bar.
The module number can be displayed or hidden by configuring the setting under [Display] in the [Set] dialog.
☞ Page 122 [Display]

3.9.3 Data of each module

☞ Page 29 Functions managed for each module
☞ Page 29 Data storage destination
☞ Page 29 Deletion of data

Functions managed for each module

The following shows the functions managed for each GT SoftGOT3000 module.

Function	Reference
Each setting	—
Virtual drive	☞ Page 25 Virtual drive
GOT internal device	🕮GT Designer3 (GOT3000) Screen Design Manual
Operator and group information (when the security mode is mode 2)	🕮GT Designer3 (GOT3000) Screen Design Manual 🕮GOT3000 Series User's Manual (Utility & Maintenance Functions)
Display language switching	☞ Page 74 Switching the display language
Import, export	☞ Page 166 Importing and exporting the settings

Precautions

■GOT internal devices while multiple modules are running

GOT internal devices are controlled for each module.

GOT internal devices cannot be shared among modules.

■Data save destination while multiple modules are running

Data is saved in different destinations for each module.

■Projects uploaded with the data synchronization function

Uploaded project data is saved in different destinations for each module.

Data storage destination

The data of each module is stored in its respective folder.

For information on the folder structure, refer to the following.

☞ Page 25 Virtual drive

Deletion of data

The user can delete the following folders and data for each module.

Folders and data that can be deleted	Description
Folder of each module (00001 to 32767)	—
Folders and data within virtual drive A	Resource data folders and files
Folders and data within virtual drive B	
Folders and data within virtual drive E	
Folders and data within virtual drive F	
Folders and data within virtual drive G	
Folders and data within virtual drive V	

Precautions

If you delete folders and data other than those listed above, delete the folder of the corresponding module.

If the module's folder is deleted, a new folder is created when the module is started.

Reconfiguring is necessary because the settings are reset to default.

3.10 Online mode, offline mode

Online mode is a state where the controller can be monitored.
Offline mode is a state where the monitoring of the controller is stopped.
For details on offline mode, refer to the following.
GT Designer3 (GOT3000) Screen Design Manual

3.11 Screen saver specifications

When the screen saver of GT SoftGOT3000 is set, the monitor screen does not darken like it does on the GOT, even when the screen saver is active. (The screen display remains the same.)
The first input operation (touch, mouse, or keyboard) while GT SoftGOT3000 is in screen saver mode is not recognized as an input because the input is recognized as clearing the screen saver mode.
When clearing the screen saver mode, be careful not to make incorrect inputs.
The GT SoftGOT3000 screen saver and Windows screen saver are different functions.
If both GT SoftGOT3000 and Windows screen savers are active, each must be cleared separately.

PART 3 Screen layout

4 GT SoftGOT3000 screen and menu layout

5 Context menu

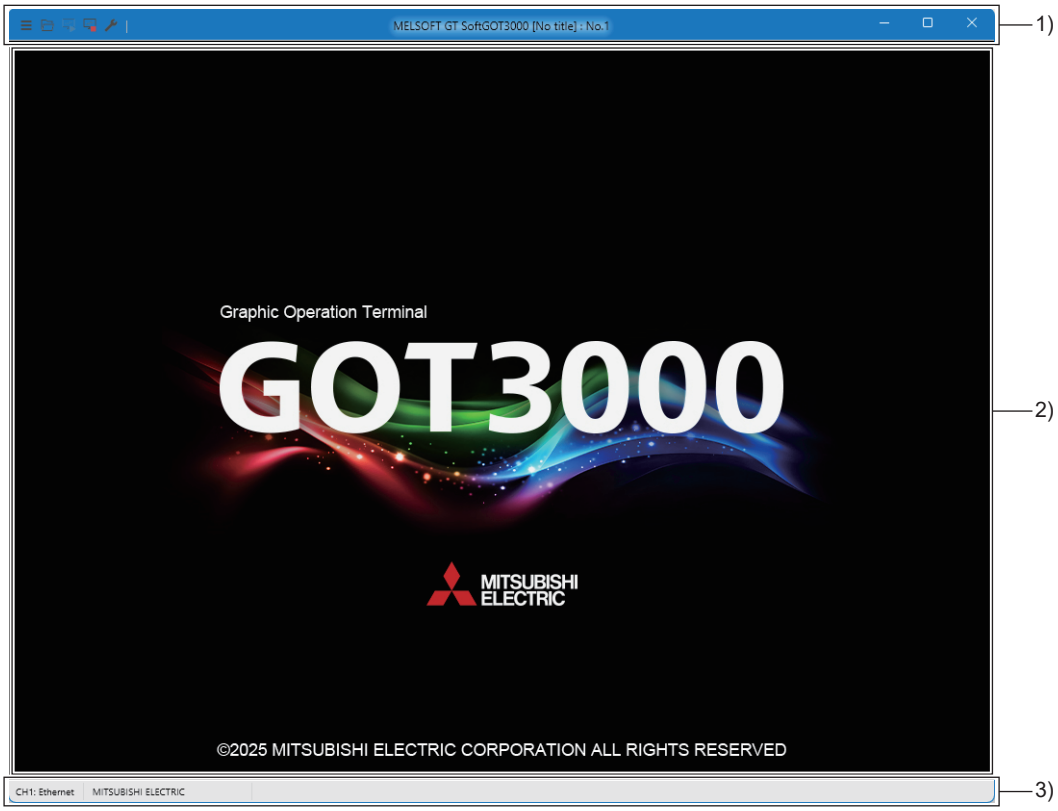
4 GT SoftGOT3000 screen and menu layout

The following explains the GT SoftGOT3000 screen layout and menus.

☞ Page 32 Screen layout
☞ Page 34 Menus

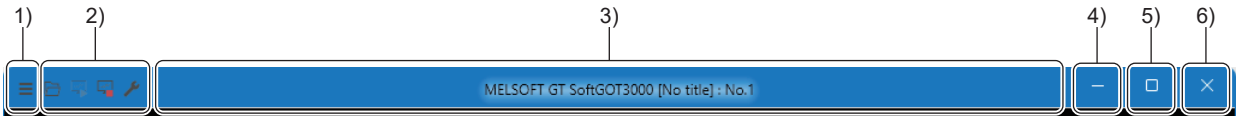
4.1 Screen layout

The following explains the GT SoftGOT3000 screen layout.



Item		Description
1)	Title bar	Displays the menu icons, and the information including the application name. ☞ Page 33 Title bar
2)	Monitor screen	The area that displays the monitor screen.
		Right-clicking the mouse on the monitor screen displays the context menu. Various function settings can be configured from the context menu. ☞ Page 39 Context menu
3)	Status bar	Displays the channel setting, connection method in the communication settings, model, communication port, and baud rate.
		If connection settings are configured for multiple channels in [Controller], you can switch the displayed channel using the right-click context menu in the status bar. Only the channels with settings configured in [Controller] are configured are displayed in the context menu.

Title bar



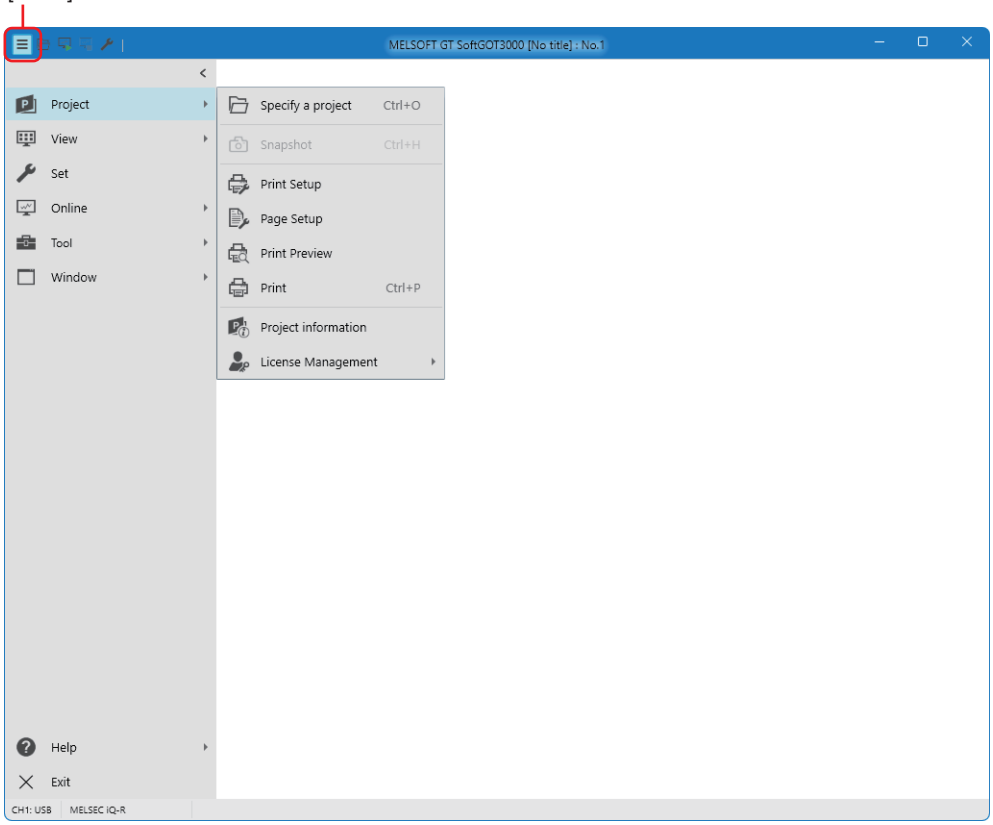
Item		Description
1)	[Menu] icon	Click this button to display the GT SoftGOT3000 menu. ☞ Page 34 Menus
2)	Quick access toolbar	Click an icon to display the corresponding dialog or execute the corresponding function. • [Specify a project] • [Start monitoring] • [Monitor Stop] • [Set]
3)	Title display area	Displays the following items. • Application name • Project title • Module No.
		If no project title is set, [No title] is displayed. You can set the items to be displayed in the title display area in [Display]. ☞ Page 122 [Display]
4)	[Minimize] button	Click this button to minimize the window.
5)	[Maximize] button	Click this button to maximize the window.
6)	[×] button	Click this button to exit GT SoftGOT3000.
		The [×] button can be enabled or disabled. ☞ Page 151 Enabling/disabling the close button

PART 3

4.2 Menus

The following explains each menu item that appears when the [Menu] icon is clicked in GT SoftGOT3000.

[Menu] icon

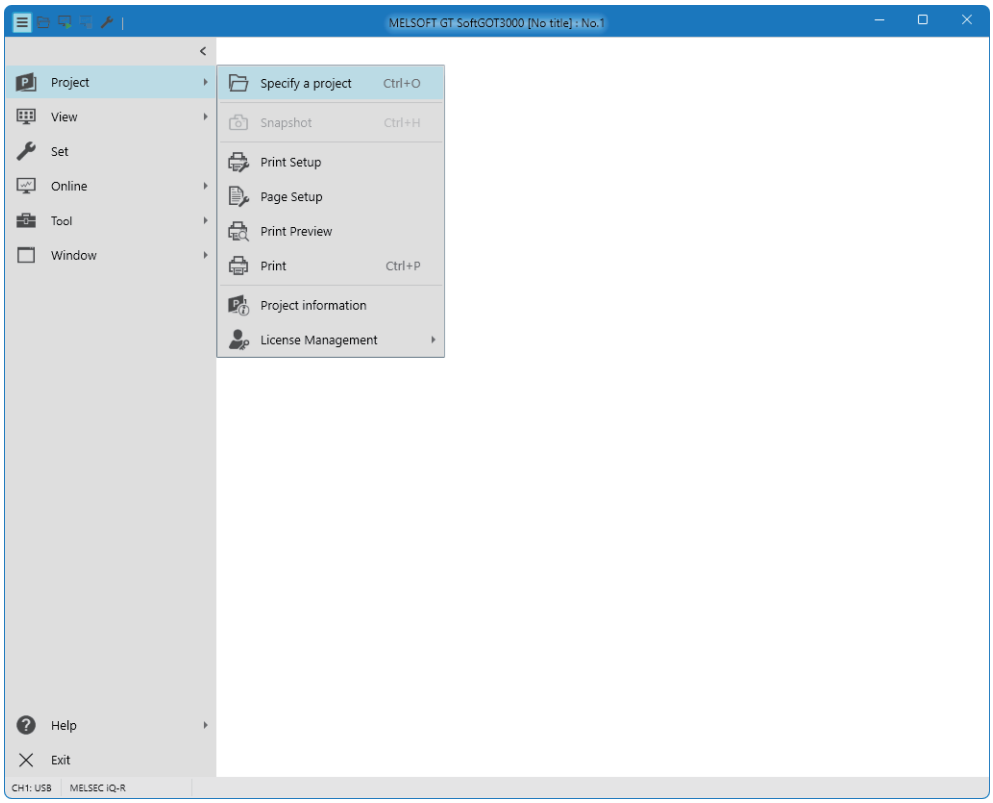


☞ Page 35 [Project] menu
☞ Page 36 [View] menu
☞ Page 37 [Set] menu
☞ Page 37 [Online] menu
☞ Page 37 [Tool] menu
☞ Page 38 [Window] menu
☞ Page 38 [Help] menu

Point

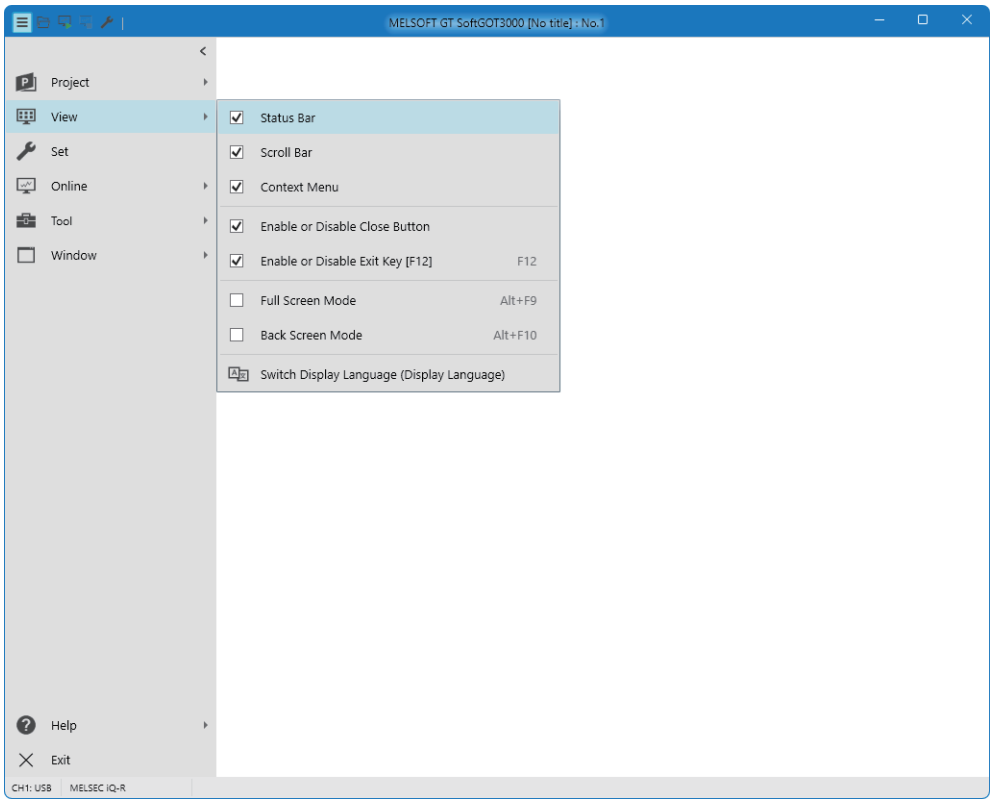
The GT SoftGOT3000 menu can also be opened by pressing the Alt + 1 keys.

4.2.1 [Project] menu



Item		Description
[Specify a project]		Specify the project to be opened with GT SoftGOT3000. Also, set the behavior for monitoring with GT SoftGOT3000. ☞ Page 66 [Specify a project] dialog
[Snap Shot]		Saves the image of the screen being monitored in a BMP or JPEG format file. ☞ Page 140 Snap shot
[Print Setup]		Configure the print settings. ☞ Page 141 Performing print setup
[Page Setup]		Adjusts the page layout for printing. ☞ Page 142 Page settings
[Print Preview]		Displays a print preview. ☞ Page 143 Displaying the print preview
[Print]		The screen image being monitored is output to a printer. ☞ Page 144 Printing
[Project information]		The project title, project ID and data size of project data being monitored are displayed. ☞ Page 145 Project information
[License Management]	[Product License Management]	Displays the registration status of GT SoftGOT3000 license. The license can also be registered or deregistered. ☞ Page 146 Product license management
	[Add-on Function License Management]	Displays the registration status of the add-on function license. The add-on function license can be registered or deregistered. ☞ Page 147 Add-on function license management
	[Display individual identification information of GT SoftGOT3000]	Displays the individual identification information of GT SoftGOT3000. ☞ Page 148 GT SoftGOT3000 individual identification information display

4.2.2 [View] menu



Item	Description
[Status Bar]	Displays or hides the status bar. Select this item to display the status bar at the bottom of the screen.
[Scroll Bar]	Displays or hides the scroll bar. Select this item to display scroll bars. ☞ Page 149 Enabling/disabling the scroll bar display
[Context Menu]	Displays or hides the context menu when the mouse is right-clicked. Select this item to display the context menu when the mouse is right-clicked. ☞ Page 150 Enabling/disabling the context menu display
[Enable or Disable Close Button]	Enables or disables the [×] button in the upper right corner of the title bar and the [Close] menu of the context menu that appears when the title bar is right-clicked. Select this item to enable the [×] button and the [Close] menu. ☞ Page 151 Enabling/disabling the close button
[Enable or Disable Exit Key [F12]]	Switches between exiting and not exiting GT SoftGOT3000 when the F12 key is pressed. Select this item to exit GT SoftGOT3000 by pressing the F12 key. ☞ Page 152 Enabling/disabling the exit key [F12]
[Full Screen Mode]	Switches the GT SoftGOT3000 screen between full-screen mode and non-full-screen mode. Select this item to display the GT SoftGOT3000 screen is in full screen mode. ☞ Page 153 Full-screen display
[Back Screen Mode]	Switches the GT SoftGOT3000 screen between displaying and not displaying in the background. Select this item to display the GT SoftGOT3000 screen in the background. ☞ Page 159 Back screen mode
[Switch Display Language]	Switches the display language of GT SoftGOT3000. ☞ Page 74 Switching the display language

4.2.3 [Set] menu

Click [Set] from the menu to display the [Set] dialog.

For details on each setting in the [Set] dialog, refer to the following.

☞ Page 76 [Basic Settings]

☞ Page 78 [System Settings]

4.2.4 [Online] menu

Item		Description
[Monitor Start]		Starts monitoring. ☞ Page 72 Starting monitoring
[Monitor Stop]		Stops monitoring. ☞ Page 73 Stopping monitoring
[Startup in Online Mode]		Set whether to start monitoring simultaneously with the next startup of GT SoftGOT3000 or not. Select this item to start monitoring simultaneously with the next startup.
[Monitor-only Mode]		Enables or disables operations using a mouse, keyboard, and touch display on the monitor screen. Select this item to disable the operations. ☞ Page 172 Monitor-only mode
[SoftGOT-GOT Link Function]	[GOT Project Data Acquisition]	Synchronizes the project data and resource data of the GOT and GT SoftGOT3000 when the SoftGOT-GOT link function is used. ☞ Page 179 Data synchronization
	[Resource Data Upload Status]	Check the upload status of resource data when a logging file is being uploaded.

4.2.5 [Tool] menu

Item	Description
[Resource Data]	Refers to the resource data in the personal computer. ☞ Page 216 Referring to resource data
[Keyboard Input]	Enables or disables the keyboard input. ☞ Page 217 Enabling/disabling the keyboard input
[Initialize all information]	Deletes any data that is not removed during the uninstallation of GT SoftGOT3000. ☞ Page 219 All data initialization

4.2.6 [Diagnostics] menu

Item	Description
[SoftGOT Diagnostics]	Displays the causes and corrective actions for GT SoftGOT3000 errors. ☞ Page 220 SoftGOT diagnostics

4.2.7 [Window] menu

Item	Description
[Cascade]	Cascades the running GT SoftGOT3000 windows. ☞ Page 224 Cascade
[Minimize All Windows]	Minimizes all the running GT SoftGOT3000 windows. ☞ Page 226 Minimize all windows
[Move Window]	Moves the GT SoftGOT3000 window with the mouse or the move buttons. ☞ Page 227 Window movement
[Move to Start-up Display Position]	Moves the GT SoftGOT3000 window to its startup display position. ☞ Page 230 Movement to the startup display position
[Move to Previous Display]	When multiple displays are connected to the personal computer, the GT SoftGOT3000 window moves across the displays according to the descending order of the display numbers assigned by GT SoftGOT3000. ☞ Page 231 Movement to the previous display
[Move to Next Display]	When multiple displays are connected to the personal computer, the GT SoftGOT3000 window moves across the displays according to the ascending order of the display numbers assigned by GT SoftGOT3000. ☞ Page 232 Movement to the next display
Move to display n.*1	When multiple displays are connected to the personal computer, the GT SoftGOT3000 window moves to the specified display. ☞ Page 232 Movement to the specified display

*1 The number of menu options increases correspondingly with the increase in the number of displays.

4.2.8 [Help] menu

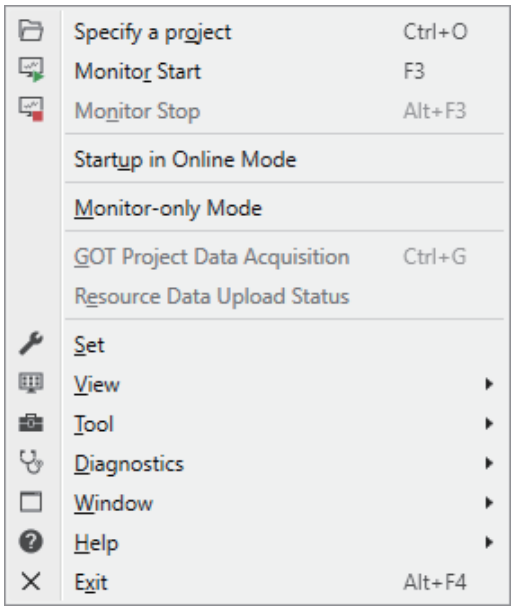
Item	Description
[MELSOFT GT SoftGOT3000 Help]	Displays Help (e-Manual) of GT SoftGOT3000.
[Connection to MITSUBISHI ELECTRIC FA Global Website]	Connects to the Mitsubishi Electric Factory Automation Global Website.
[About GT SoftGOT3000]	The GT SoftGOT3000 version can be checked.

4.2.9 [Exit] menu

Exit GT SoftGOT3000.

5 Context menu

The following explains the context menu that appears when the mouse is right-clicked on the monitor screen.



Item	Reference
[Specify a project]	Specify the project to be opened with GT SoftGOT3000. Also, set the behavior for monitoring with GT SoftGOT3000. ☞ Page 66 [Specify a project] dialog
[Monitor Start]	Starts monitoring. ☞ Page 72 Starting monitoring
[Monitor Stop]	Stops monitoring. ☞ Page 73 Stopping monitoring
[Startup in Online Mode]	Set whether to start monitoring simultaneously with the next startup of GT SoftGOT3000 or not. Select this item to start monitoring simultaneously with the next startup.
[Monitor-only Mode]	Enables or disables operations using a mouse, keyboard, and touch display on the monitor screen. Select this item to disable the operations. ☞ Page 172 Monitor-only mode
[GOT Project Data Acquisition]	Synchronizes the project data and resource data of the GOT and GT SoftGOT3000 when the SoftGOT-GOT link function is used. ☞ Page 179 Data synchronization
[Resource Data Upload Status]	Check the upload status of resource data when a logging file is being uploaded.
[Set]	Displays the [Set] dialog. For details on each setting in the [Set] dialog, refer to the following. ☞ Page 76 [Basic Settings] ☞ Page 78 [System Settings]

Item		Reference
[View]	[Status Bar]	Displays or hides the status bar. Select this item to display the status bar at the bottom of the screen.
	[Scroll Bar]	Displays or hides the scroll bar. Select this item to display scroll bars. ☞ Page 149 Enabling/disabling the scroll bar display
	[Context Menu]	Displays or hides the context menu when the mouse is right-clicked. Select this item to display the context menu when the mouse is right-clicked. ☞ Page 150 Enabling/disabling the context menu display
	[Enable or Disable Close Button]	Enables or disables the [×] button in the upper right corner of the title bar and the [Close] menu of the context menu that appears when the title bar is right-clicked. Select this item to enable the [×] button and the [Close] menu. ☞ Page 151 Enabling/disabling the close button
	[Enable or Disable Exit Key [F12]]	Switches between exiting and not exiting GT SoftGOT3000 when the F12 key is pressed. Select this item to exit GT SoftGOT3000 by pressing the F12 key. ☞ Page 152 Enabling/disabling the exit key [F12]
	[Full Screen Mode]	Switches the GT SoftGOT3000 screen between full-screen mode and non-full-screen mode. Select this item to display the GT SoftGOT3000 screen is in full screen mode. ☞ Page 153 Full-screen display
	[Back Screen Mode]	Switches the GT SoftGOT3000 screen between displaying and not displaying in the background. Select this item to display the GT SoftGOT3000 screen in the background. ☞ Page 159 Back screen mode
	[Switch Display Language]	Switches the display language of GT SoftGOT3000. ☞ Page 74 Switching the display language
[Tool]	[Resource Data]	Refers to the resource data in the personal computer. ☞ Page 216 Referring to resource data
	[Keyboard Input]	Enables or disables the keyboard input. ☞ Page 217 Enabling/disabling the keyboard input
	[Initialize all information]	Deletes any data that is not removed during the uninstallation of GT SoftGOT3000. ☞ Page 219 All data initialization
[Diagnostics]	[SoftGOT Diagnostics]	Displays the causes and corrective actions for GT SoftGOT3000 errors. ☞ Page 220 SoftGOT diagnostics
[Window]	[Cascade]	Cascades the running GT SoftGOT3000 windows. ☞ Page 224 Cascade
	[Minimize All Windows]	Minimizes all the running GT SoftGOT3000 windows. ☞ Page 226 Minimize all windows
	[Move Window]	Moves the GT SoftGOT3000 window with the mouse or the move buttons. ☞ Page 227 Window movement
	[Move to Start-up Display Position]	Moves the GT SoftGOT3000 window to its startup display position. ☞ Page 230 Movement to the startup display position
	[Move to Previous Display]	When multiple displays are connected to the personal computer, the GT SoftGOT3000 window moves across the displays according to the descending order of the display numbers assigned by GT SoftGOT3000. ☞ Page 231 Movement to the previous display
	[Move to Next Display]	When multiple displays are connected to the personal computer, the GT SoftGOT3000 window moves across the displays according to the ascending order of the display numbers assigned by GT SoftGOT3000. ☞ Page 232 Movement to the next display
	Move to display n.*1	When multiple displays are connected to the personal computer, the GT SoftGOT3000 window moves to the specified display. ☞ Page 232 Movement to the specified display
[Help]	[MELSOFT GT SoftGOT3000 Help]	Displays Help (e-Manual) of GT SoftGOT3000.
	[Connection to MITSUBISHI ELECTRIC FA Global Website]	Connects to the Mitsubishi Electric Factory Automation Global Website.
	[About GT SoftGOT3000]	The GT SoftGOT3000 version can be checked.
[Exit]		Exit GT SoftGOT3000.

*1 The number of menu options increases correspondingly with the increase in the number of displays.

Point

- You can set whether to display the context menu on the monitor screen when right-clicking the mouse.

☞ Page 150 Enabling/disabling the context menu display

- The context menu that appears when the mouse is right-clicked on the title bar is a standard Windows menu.

PART 4 Run

6 Procedure before operation

6 Procedure before operation

This chapter outlines the procedure before operation.
The procedure before operation differs depending on the security mode set for the project.
For the procedure before operation and the differences depending on the security mode, refer to the following.
☞ Page 44 Procedure before operating GT SoftGOT3000

What is the security mode?

The GOT's security function has two security modes.

Security mode	Description
Mode 1	The security functions compatible with the GOT2000 series can be used.
Mode 2 (default)	More robust security functions than mode 1 can be used.

Security mode settings can be configured only with GT Designer3.
For details, refer to the following.
📖GT Designer3 (GOT3000) Screen Design Manual

PART 4

6.1 Procedure before operating GT SoftGOT3000

This section explains the procedure before operating GT SoftGOT3000 and the manuals describing the details.

The procedure before operation differs depending on the security mode.

The necessity of each step is shown below.

○: Required, △: Optional, —: Not required

Step		Security mode		Reference
		Mode 1	Mode 2	
1	Install GT SoftGOT3000 on the personal computer.	○	○	📖GT Works3 Version1 Installation Instructions
	When creating a project, install GT Designer3 on the personal computer.	○	○	📖GT Works3 Version1 Installation Instructions
2	Start GT SoftGOT3000 and register the GT SoftGOT3000 license.	○	○	☞ Page 46 Registering or deregistering the license
	When starting GT SoftGOT3000 for the first time, set a password for the GT SoftGOT3000 application log file.	○	○	☞ Page 51 Startup and exit
3	Create a project with GT Designer3.	○	○	📖GT Designer3 (GOT3000) Screen Design Manual
	Configure the settings to connect GT SoftGOT3000 and the controller.	○	○	📖GOT3000 Series User's Manual (Connection)
4	Connect the personal computer with GT SoftGOT3000 installed to the controller.	○	○	📖GOT3000 Series User's Manual (Connection)
5	Open the project in GT SoftGOT3000.	○	○	☞ Page 65 Opening the project
	Enter the password when the file protection function is enabled.	△	△	📖GT Designer3 (GOT3000) Screen Design Manual ☞ Page 65 Opening the project
	When the security mode set for the project is mode 2, register the information of the operator with administrator privileges to GT SoftGOT3000.	—	○	📖GT Designer3 (GOT3000) Screen Design Manual ☞ Page 65 Opening the project
6	Perform monitoring with GT SoftGOT3000 using the project.	○	○	☞ Page 72 Monitoring
	The following shows how to check if GT SoftGOT3000 is monitoring correctly. • When an error occurs, the details of the error can be checked on the [System alarm] screen of the utility.	○	○	📖GOT3000 Series User's Manual (Utility & Maintenance Functions)

PART 5 Basic operations

7 Registering or deregistering the license

8 Startup and exit

9 Opening the project

10 Monitoring

11 Switching the display language

7 Registering or deregistering the license

The following explains how to register and deregister the license.

If monitoring starts without registering the GT SoftGOT3000 license, GT SoftGOT3000 automatically ends in about three hours.

To use the following software or function, license registration is required in GT SoftGOT3000.

Software, function	License product name	License product model
GT SoftGOT3000	GT SoftGOT3000 license	GT3S-SGTKEYA1N-☐ GT3S-SGTKEYA1-☐
GOT Mobile function for GT SoftGOT3000	GOT Mobile function license for GT SoftGOT3000	GT3S-WEBSKEYA1N-☐ GT3S-WEBSKEYA1-☐

Purchase the required license, then apply for and register it.

☞ Page 46 License registration method
☞ Page 49 Deregistering the license
☞ Page 50 Application for reissuing the activation file

Precautions

■License registration/deregistration rights

Register or deregister the license in GT SoftGOT3000.

When registering or deregistering the license, be sure to start GT SoftGOT3000 with administrator privileges.

■Registering or deregistering the license when multiple modules are running

When multiple GT SoftGOT3000 modules are running, the license cannot be registered or deregistered.

Start only one GT SoftGOT3000 module when registering or deregistering the license.

7.1 License registration method

The following explains how to register the license.

To register the license, first purchase the required license and then apply for the activation file.

After receiving the activation file, register the license.

Be sure to complete the GT SoftGOT3000 license registration before starting monitoring with GT SoftGOT3000.

☞ Page 46 Information required for activation file application
☞ Page 47 Applying for the activation file
☞ Page 48 License registration

7.1.1 Information required for activation file application

The following information is required to apply for the activation file.

Required information	Description
License product name	It is provided on the purchased license certificate.
License product model	
License product ID	
GT SoftGOT3000 individual identification information	The individual identification information can be checked in the [Display individual identification information of GT SoftGOT3000] dialog of GT SoftGOT3000. ☞ Page 148 GT SoftGOT3000 individual identification information display
E-mail address	E-mail address to receive the activation file

7.1.2 Applying for the activation file

When you apply for the activation file on the website, the file will be sent by e-mail.
After receiving the file, use it to register the license in GT SoftGOT3000.

Operating procedure

1. Launch a web browser and access the URL below to display the terms and conditions screen of the HMI GOT activation file request form.

https://www.mitsubishielectric.com/contact/ssl/php/1477/kiyaku.php?fid=1477

2. If you agree to the terms and conditions and apply for the GOT activation file, click [I agree and move to new application form].

If you do not agree to the terms and conditions, close the screen.
If you do not agree to the terms and conditions, you will not be able to apply for the activation file.

3. When the application form appears, enter the required information and press the [Confirm Information] button.
4. When the confirmation screen appears, review the entered information and click the [Register] button to send the data.
5. When an e-mail is received at the address registered in the application form, change the extension of the attached activation file to zip, and save it in any folder on the personal computer where GT SoftGOT3000 is installed.
6. Register the license in GT SoftGOT3000.

☞ Page 48 License registration

Precautions

When entering information in the HMI GOT activation file request form, note the following:

- Do not use one-byte katakana or special symbols, as they may not be transmitted correctly.

Enter katakana using two-byte characters.

- Only one model can be applied for at a time.

If applying for multiple models, apply separately for each model.

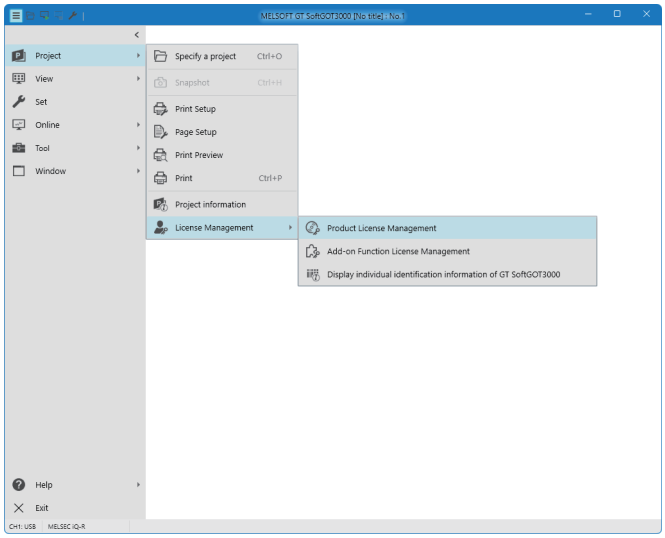
- It may take several days to issue the activation file.
- Depending on the entered information, the activation file may not be issued.

7.1.3 License registration

Register the license in GT SoftGOT3000.

Operating procedure

1. Start GT SoftGOT3000 with administrator privileges.
2. Click the [Menu] icon, select [Project] → [License Management], then select the management menu for the license to be registered. The license management dialog appears.



License	Menu to select	
GT SoftGOT3000	[Product License Management]	☞ Page 146 Product license management
Add-on function	[Add-on Function License Management]	☞ Page 147 Add-on function license management

3. Check that [License Status] is set to [Not registered], and click the [Register] button in the license management dialog. The [Open] dialog appears.
4. In the dialog, select the activation file (zip file) stored in a folder, and click the [Open] button.

Click the [Open] button to register the license in GT SoftGOT3000.

- When the license registration is successful, the license registration successful dialog appears.
- If the license registration fails, an error message appears.

For the error causes and corrective actions, refer to the following.

☞ Page 282 Error messages related to the license

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

When the license registration is successful, [License Status] in the license management dialog is updated to [Registered].
This completes the license registration.

Point

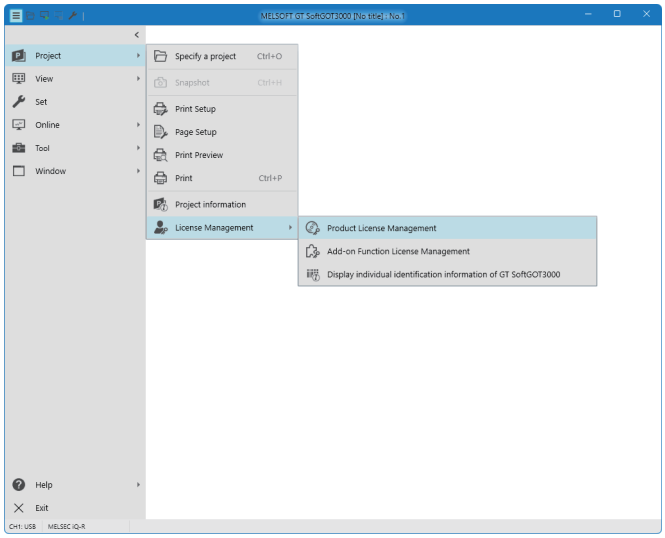
After the license is registered, you can move the registered activation file to a different folder.
Keep the activation file in a safe place and do not lose it.

7.2 Deregistering the license

The following shows how to deregister the license.

Operating procedure

1. Start GT SoftGOT3000 with administrator privileges.
2. Click the [Menu] icon, select [Project] → [License Management], then select the management menu for the license to be deregistered. The license management dialog appears.



License	Menu to select	
GT SoftGOT3000	[Product License Management]	☞ Page 146 Product license management
Add-on function	[Add-on Function License Management]	☞ Page 147 Add-on function license management

3. Check that [License Status] is set to [Registered], and click the [Cancel] button. A confirmation dialog appears.
4. Click the [Yes] button in the displayed dialog to deregister the license.

- When the license deregistration is successful, the license deregistration successful dialog appears.
- If the license deregistration fails, an error message appears.

For the error causes and corrective actions, refer to the following.

☞ Page 282 Error messages related to the license

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

When the license deregistration is successful, [License Status] in the license management dialog is updated to [Not registered].

This completes the license deregistration.

Point

If you register the license again on the same personal computer after deregistering it, use the activation file previously registered.

Keep the activation file in a safe place and do not lose it.

PART 5

7.3 Application for reissuing the activation file

To use the activation file already registered on another GT SoftGOT3000, access the HMI GOT activation file request form and click [I agree and move to reissue application form] and apply for reissuance of the activation file.

https://www.mitsubishielectric.com/contact/ssl/php/1477/kiyaku.php?fid=1477

Precautions

You can apply for reissuance of the activation file only once through the reissue application form.
If a second or subsequent reissuance is required, consult your local sales office.

8 Startup and exit

The following explains how to start and exit GT SoftGOT3000.

☞ Page 52 Manual startup
☞ Page 55 Automatic startup
☞ Page 59 Specifying the operation or processing upon startup
☞ Page 64 Exit

Startup procedure

The following methods are available for starting GT SoftGOT3000.

Startup procedure	Reference
Start GT SoftGOT3000 manually from the Windows menu or the [GT SoftGOT3000] icon.	☞ Page 52 Manual startup
Start GT SoftGOT3000 automatically to start monitoring when the personal computer is started.	☞ Page 55 Automatic startup

For manual startup, the operation or processing upon startup of GT SoftGOT3000 can be specified by setting the startup option.

☞ Page 59 Specifying the operation or processing upon startup

Precautions

To perform monitoring with GT SoftGOT3000, register the GT SoftGOT3000 license in advance.
For instructions on how to register the license, refer to the following.

☞ Page 46 Registering or deregistering the license

Exiting procedure

For information on how to exit GT SoftGOT3000, refer to the following.

☞ Page 64 Exit

8.1 Manual startup

The following shows the procedure for manually starting GT SoftGOT3000.

Operating procedure

The following explains how to start GT SoftGOT3000 using the Windows 11 operating environment as an example.
Perform one of the following operations to start GT SoftGOT3000.

- From the Windows start menu, select [All apps] → [MELSOFT] → [GT SoftGOT3000].
- Double-click the shortcut to GT SoftGOT3000.

A dialog appears when GT SoftGOT3000 is started for the first time.
For details on the displayed dialog, refer to the following.
☞ Page 53 Dialog displayed at startup

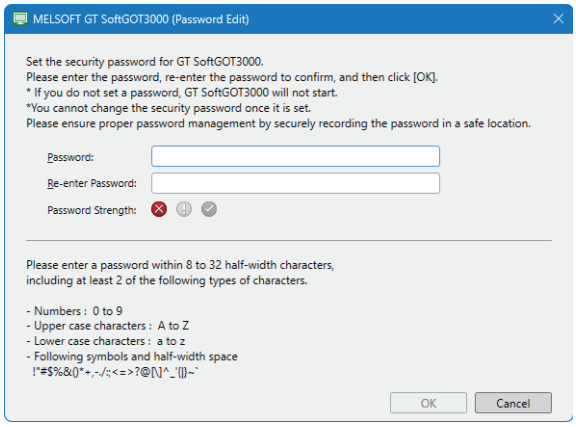
Point

You can start multiple GT SoftGOT3000 modules.
Each time the above startup operation is performed, another GT SoftGOT3000 module is started and assigned a module number sequentially (No. 1, No. 2, etc.).
For the specifications when multiple GT SoftGOT3000 modules are started, refer to the following.
☞ Page 27 Specifications for starting multiple modules

Dialog displayed at startup

The following explains the dialog displayed when GT SoftGOT3000 is started.

■Password setting dialog for the GT SoftGOT3000 application log file



This dialog is used to set a password to protect log files output by the GT SoftGOT3000 application log function, which is a unique operation log function of GT SoftGOT3000.

The dialog appears when a password for the GT SoftGOT3000 application log file is not set when GT SoftGOT3000 is started. If the password is not set, GT SoftGOT3000 will not start.

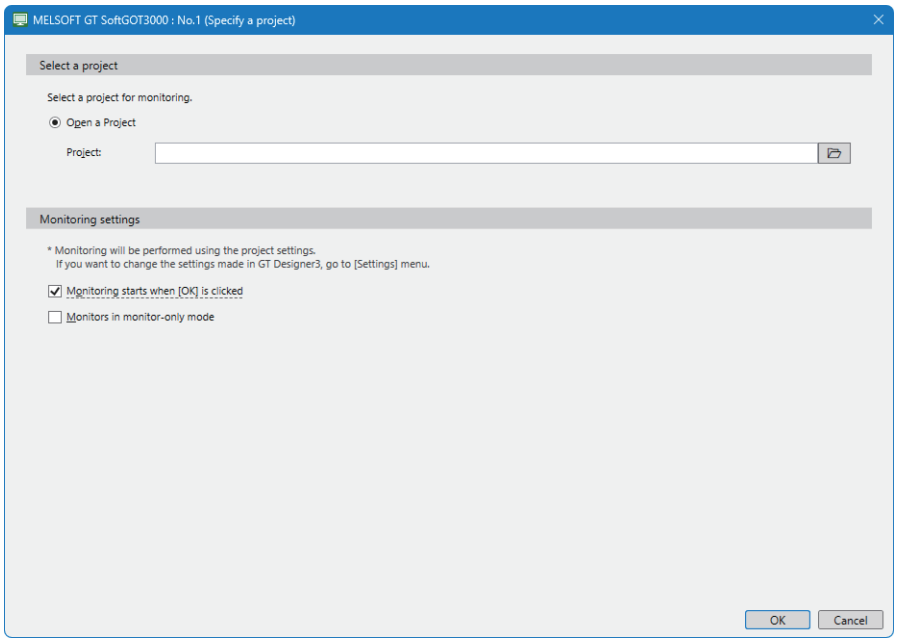
For information on the log files output by the GT SoftGOT3000 application log function, refer to the following.

☞ Page 233 GT SoftGOT3000 application log function

Point

The password for the GT SoftGOT3000 application log files cannot be changed once it has been set. Do not forget the password.

■[Specify a project] dialog



This dialog is used to specify the project used for monitoring.

The dialog appears if the project for monitoring is not specified when each module is started.

Specify the project to be used for monitoring and set the behavior when the project is opened.

☞ Page 65 Opening the project

How to specify the operation or processing upon startup

You can set the startup option in [Properties] of the GT SoftGOT3000 shortcut to specify the operation or processing upon startup of GT SoftGOT3000.

For details, refer to the following.

☞ Page 59 Specifying the operation or processing upon startup

Window position upon startup of GT SoftGOT3000

The window position at GT SoftGOT3000 startup can be set in [Display Position] in the [Environment] dialog or with the startup option.

For details, refer to the following.

☞ Page 121 [Display Position]

☞ Page 59 Specifying the operation or processing upon startup

If GT SoftGOT3000 was abnormally terminated, the window upon startup will be displayed in the position where it was normally terminated last time.

Each GT SoftGOT3000 module retains its window position.

8.2 Automatic startup

Using [Startup in Online Mode] in GT SoftGOT3000 with the Windows [Startup] or [Task Scheduler] functions allows GT SoftGOT3000 to start monitoring automatically when the personal computer starts.

To enable automatic startup of GT SoftGOT3000, you need to configure the settings in both GT SoftGOT3000 and Windows.

☞ Page 55 Settings in GT SoftGOT3000

☞ Page 56 Windows settings

Precautions

Before using the automatic startup, make sure to start Windows while the device to be monitored is on.

8.2.1 Settings in GT SoftGOT3000

Configure the settings of the project to be used when GT SoftGOT3000 is automatically started and the setting of the startup in online mode.

Operating procedure

1. Start GT SoftGOT3000 with the module number to be automatically started.

For information on how to start GT SoftGOT3000 by specifying a module number, refer to the following.

☞ Page 62 Starting GT SoftGOT3000 by specifying a module number

Point

When GT SoftGOT3000 is started for the first time, the password setting dialog for GT SoftGOT3000 application log file is displayed.

Set the password.

☞ Page 53 Password setting dialog for the GT SoftGOT3000 application log file

2. Perform one of the following operations to display the [Specify a project] dialog.

- Click the [Menu] icon and select [Project] → [Specify a project] from the menu.
- Right-click the mouse and select [Specify a project] from the context menu.

Point

If no project is specified to be opened, the [Specify a project] dialog appears at startup.

3. Open the project to be used when GT SoftGOT3000 automatically starts in the [Specify a project] dialog.

Deselect [Monitoring starts when [OK] is clicked].

For information on the [Specify a project] dialog, refer to the following.

☞ Page 66 [Specify a project] dialog

4. Click the [OK] button to open the selected project.

Point

To open the project with security mode set to mode 2 for the first time, an operator with administrator privileges must be registered.

If an operator with administrative privileges has already been registered, the registered operator information will be used for login when the project is opened.

☞ Page 69 Opening a mode 2 project

5. Perform one of the following operations to set [Startup in Online Mode].

- Click the [Menu] icon, select [Online], and select [Startup in Online Mode].
- Right-click the mouse and select [Startup in Online Mode] from the context menu.
- In the [Set] dialog, click [Action] under [Environment] in the setting tree, and then select [Enable online mode on startup].

6. Exit GT SoftGOT3000.

☞ Page 64 Exit

8.2.2 Windows settings

Configure the settings in [Startup] or [Task Scheduler].

☞ Page 56 Settings in [Startup]
☞ Page 57 Settings in [Task Scheduler]

Precautions

If User Account Control (UAC) is enabled, configure the settings in [Task Scheduler] on the Windows.

Settings in [Startup]

When the [Startup] settings are configured in Windows, GT SoftGOT3000 can automatically start and start monitoring when the personal computer is started.

Operating procedure

1. Create a shortcut to GT SoftGOT3000 in the following startup folder.

C:\Users\(Username)\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Startup

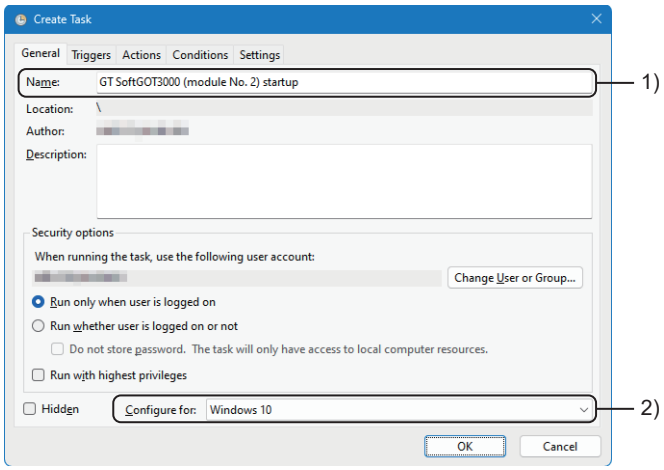
2. When the personal computer is started, GT SoftGOT3000 starts automatically.

Settings in [Task Scheduler]

Configure the settings such as when to start GT SoftGOT3000 in Windows [Task Scheduler].
To start multiple GT SoftGOT3000 modules automatically, set [Task Scheduler] for each module to be started.

Operating procedure

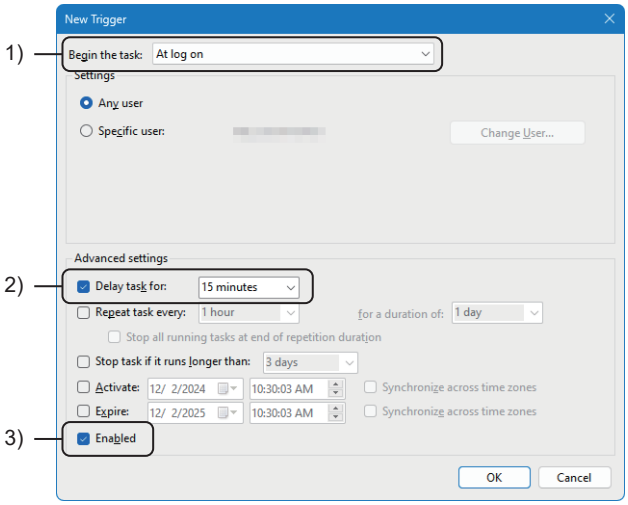
1. Start Windows [Task Scheduler].
2. Select [Actions] → [Create Task] from the menu in the [Task Scheduler] window to display the [Create Task] dialog.
3. On the [General] tab in the [Create Task] dialog, configure the following settings.



Setting item		Description
1)	[Name]	Set a name.
2)	[Configure for]	Select the OS used.

4. Click the [New] button on the [Triggers] tab to display the [New Trigger] dialog.

Configure the settings as shown below.

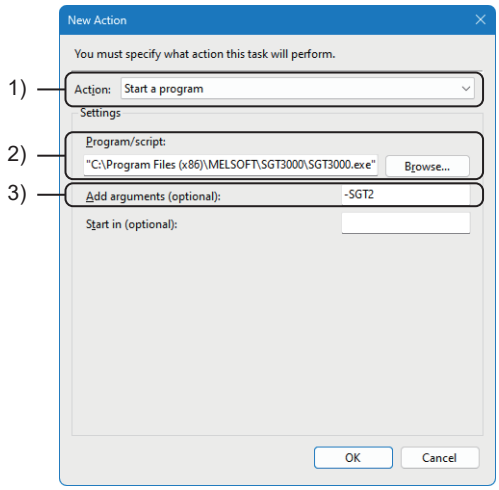


Setting item		Description
1)	[Begin the task]	Select [At log on].
2)	[Delay task for]	According to the personal computer environment, set the optimum time. To set automatic startup for multiple GT SoftGOT3000 modules, set a different trigger delay time for each module.
3)	[Enabled]	Select this item.

5. When you have completed the settings, click the [OK] button to close the [New Trigger] dialog.

6. Click the [New] button on the [Actions] tab to display the [New Action] dialog.

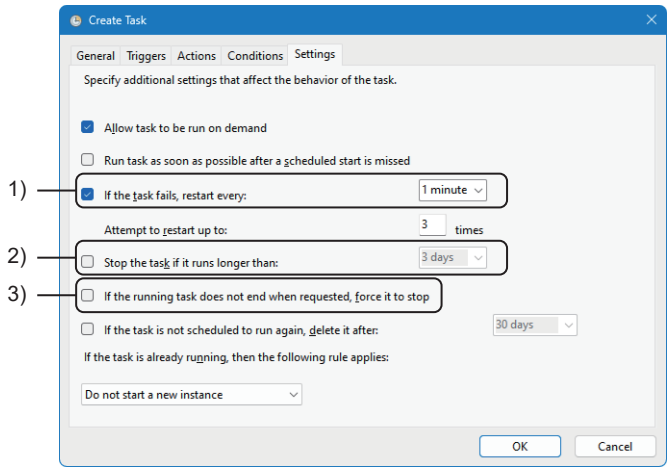
Configure the settings as shown below.



Setting item		Description
1)	[Action]	Select [Start a program].
2)	[Program/script]	Specify the executable file of GT SoftGOT3000.
3)	[Add arguments (optional)]	To start a GT SoftGOT3000 module by specifying the module number, set the startup option in [Add arguments (optional)]. For the startup option, refer to the following. ☞ Page 62 Starting GT SoftGOT3000 by specifying a module number

7. When you have completed the settings, click the [OK] button to close the [New Action] dialog.

8. On the [Settings] tab, configure the following settings.



Setting item		Description
1)	[If the task fails, restart every]	Set this item as required.
2)	[Stop the task if it runs longer than]	Set this item as required. (Recommended: Deselect the checkbox.*1)
3)	[If the running task does not end when requested, force it to stop]	Set this item as required. (Recommended: Deselect the checkbox.*2)

*1 Up to [3 days] can be set for [Stop the task if it runs longer than].
To use GT SoftGOT3000 for three or more consecutive days, deselect this item.

*2 If this item is selected, all the termination processing of GT SoftGOT3000 will not be performed correctly when GT SoftGOT3000 is forcibly exited.
Therefore, you are recommended to deselect this item.

9. Click the [OK] button in the [Create Task] dialog to complete the settings.

8.3 Specifying the operation or processing upon startup

You can set the startup option in [Properties] of the GT SoftGOT3000 shortcut to specify the operation or processing upon startup of GT SoftGOT3000.

8.3.1 Setting or canceling the startup option

The following explains how to set and cancel the startup option in [Properties] of the shortcut to GT SoftGOT3000.

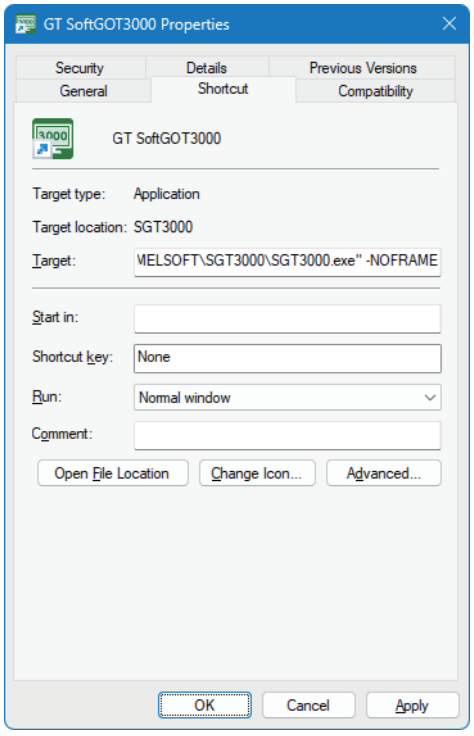
Setting the startup option

The following shows the procedure for setting the startup option.

Operating procedure

1. Create a shortcut to GT SoftGOT3000.
2. Right-click the shortcut and select [Properties] to display the [GT SoftGOT3000 Properties] window.
3. Select the [Shortcut] tab in the [GT SoftGOT3000 Properties] window.
4. Add the startup option corresponding to the operation or processing to be specified to the end of [Target].

Enter a one-byte space before the startup option to be added.



Reference	Startup option
☞ Page 61 Opening the specified project for monitoring	File name with a full path
☞ Page 61 Not displaying the confirmation dialog upon startup	/NOONLINEDLG
☞ Page 62 Starting in the monitor-only mode	/MNTONLY
☞ Page 62 Starting GT SoftGOT3000 by specifying a module number	-SGTn
☞ Page 62 Starting in the full-screen display	-NOFRAME
	-NOFRAMEDLG
	-NOFRAMEDLGMENU
☞ Page 63 Specifying the display position and screen size	-WINDOWSIZE
	-WINDOWPOS

Point

Multiple startup options can be added in combination to [Target].
For example, add the startup option for the full screen mode and the one for module number specification to start a specified GT SoftGOT3000 module in the full-screen display.
There are no rules for the order of adding startup options.
Example) Starting GT SoftGOT3000 module No. 3 in full-screen display 1

"C:\Program Files (x86)\MELSOFT\SGT3000\SGT3000.exe" -SGT3 -NOFRAME

A one-byte space is required before each startup option.

5. After adding startup options, click the [OK] button.

GT SoftGOT3000 module will start in a state corresponding to the set startup options upon the next startup.

Canceling the startup option

To cancel the setting, delete the startup option added to [Target] in [Properties] of the shortcut.

8.3.2 Opening the specified project for monitoring

When GT SoftGOT3000 is started, the project specified with the startup option can be opened to start monitoring.
The following shows the startup option and setting example.

Startup option	Setting example
File name with a full path*1	• To read Project 1.GTYP in drive C on the personal computer and start monitoring "C:\Program Files\MELSOFT\SGT3000\SGT3000.exe""C:\Project 1.GTYP"

*1 If the full path of the project contains a one-byte or two-byte space, enclose the entire full path of the project in double quotation marks.

Precautions

■Checking the environmental setting and connection setting

Monitoring is started when GT SoftGOT3000 is started with this startup option specified.
Before setting the startup option, check that the environmental setting and connection setting of GT SoftGOT3000 and the project are correct.

■When the specified project does not exist

If the project specified with the startup option does not exist, an error message appears.
For details on errors and corrective actions, refer to the following.
☞ Page 278 GT SoftGOT3000 error messages

■When specifying a project with security mode set to mode 2

When a project with security mode set to mode 2 is opened for the first time, an operator with administrator privileges must be registered.
If an operator with administrative privileges has already been registered, the registered operator information will be used for login when the project is opened.
For details, refer to the following.
☞ Page 69 Opening a mode 2 project

8.3.3 Not displaying the confirmation dialog upon startup

Without displaying a confirmation dialog for switching to online mode, you can open the project specified with the startup option to start monitoring.

Point

This startup option can be set when the following startup option is set.
☞ Page 61 Opening the specified project for monitoring

The following shows the startup option and setting example.

Startup option	Setting example
/NOONLINEDLG	• To read Project 1.GTYP in drive C on the personal computer and start monitoring without displaying the online transition confirmation dialog "C:\Program Files\MELSOFT\SGT3000\SGT3000.exe" "C:\Project 1.GTYP" /NOONLINEDLG

8.3.4 Starting in the monitor-only mode

GT SoftGOT3000 is started in the monitor-only mode.

The following shows the startup option and setting example.

Startup option	Setting example
/MNTONLY	"C:\Program Files\MELSOFT\SGT3000\SGT3000.exe" /MNTONLY

For details on monitor-only mode, refer to the following.

☞ Page 172 Monitor-only mode

Precautions

Once GT SoftGOT3000 is started in the monitor-only mode, the mode cannot be canceled while GT SoftGOT3000 is running. To change the monitor-only mode and standard screen display while GT SoftGOT3000 is running, set the monitor-only mode after starting GT SoftGOT3000 without setting this option.

☞ Page 172 Starting/canceling the monitor-only mode

8.3.5 Starting GT SoftGOT3000 by specifying a module number

GT SoftGOT3000 is started by specifying a module number with the startup option.

The following shows the startup option and setting example.

Startup option	Setting example
-SGTn*1	• Starting GT SoftGOT3000 module No. 5 "C:\Program Files\MELSOFT\SGT3000\SGT3000.exe" -SGT5

*1 Set the module number of GT SoftGOT3000 to be started for "n". (n = 1 to 32767)

8.3.6 Starting in the full-screen display

GT SoftGOT3000 is displayed in the full-screen display.

The following shows the startup option and setting example.

Startup option	Screen to be displayed	Setting example
-NOFRAME	Full-screen display 1	"C:\Program Files\MELSOFT\SGT3000\SGT3000.exe" -NOFRAME
-NOFRAMEDLG	Full-screen display 2	"C:\Program Files\MELSOFT\SGT3000\SGT3000.exe" -NOFRAMEDLG
-NOFRAMEDLGMENU	Full-screen display 3	"C:\Program Files\MELSOFT\SGT3000\SGT3000.exe" -NOFRAMEDLGMENU

For details on the full screen display, refer to the following.

☞ Page 153 Full-screen display

Precautions

The startup options for full-screen display cannot be set in combination.

Set one of the startup options for the full-screen display.

8.3.7 Specifying the display position and screen size

The startup display position and screen size of GT SoftGOT3000 can be specified with the startup options.
Specify the display position at the left corner of the GT SoftGOT3000 screen using (X, Y) coordinates, considering the upper left corner of the personal computer screen as (0, 0) coordinates.
The coordinates and screen size are specified in units of pixels.
Specify the values for the startup option in units of pixels.

Precautions

■Setting values of the startup option

The setting values of the startup option must be one-byte numeric characters and separated by one-byte commas (,).
No one-byte space is required before or after numeric characters or symbols.
In addition, set the display position of GT SoftGOT3000 to fit into the screen of the personal computer and set the screen size to a value equal to or greater than 1.
If a value outside the screen area of the personal computer is set for the display position or when a value equal to or smaller than 0 is set for the screen size, an error message appears.

■Operation when the display position is set in [Display Position]

Even if the display position at GT SoftGOT3000 startup is set in [Display Position] in the [Environment] dialog, the values set for the startup option are prioritized.

■Combination with other startup options

If the display position and screen size for GT SoftGOT3000 startup are specified using the startup option (-WINDOWSIZE), do not set the startup option (-WINDOWPOS).
If the display position for GT SoftGOT3000 startup is specified using the startup option (-WINDOWPOS), do not set the startup option (-WINDOWSIZE).
When configured with the startup option to open a specified project for monitoring, the screen size of GT SoftGOT3000 at startup prioritizes the resolution set in the project.

Specifying the display position and screen size

The following shows the startup option and setting example.

Startup option	Setting example
-WINDOWSIZE=left,top,width,height • left: X-coordinate on the upper left corner of the GT SoftGOT3000 screen • top: Y-coordinate on the upper left corner of the GT SoftGOT3000 screen • width: Width of the GT SoftGOT3000 screen • height: Height of the GT SoftGOT3000 screen	• To display the screen at the coordinates (10, 20) with a width of 800 and a height of 600 "C:\Program Files\MELSOFT\SGT3000\SGT3000.exe" -WINDOWSIZE=10,20,800,600

Specifying the display position

The following shows the startup option and setting example.

Startup option	Setting example
-WINDOWPOS=left,top • left: X-coordinate on the upper left corner of the GT SoftGOT3000 screen • top: Y-coordinate on the upper left corner of the GT SoftGOT3000 screen	• To set the display position to the coordinates (10, 20) "C:\Program Files\MELSOFT\SGT3000\SGT3000.exe" -WINDOWPOS=10,20

8.4 Exit

Exit GT SoftGOT3000.

Operating procedure

Perform one of the following operations to exit GT SoftGOT3000.

- Select [Exit] from the menu.
- Click the [×] button in the title bar.
- Right-click the mouse and select [Exit] from the context menu.
- Press the F12 key on the keyboard.*1
- Press the Alt + F4 keys on the keyboard.
- Turn on the GOT special register (GS500.b0).

*1 You can enable or disable the function to exit GT SoftGOT3000 by pressing the F12 key on the keyboard.
For details, refer to the following.
☞ Page 119 [Action]

Point

By turning on the GOT special register (GS500.b0), GT SoftGOT3000 can be exited.
By setting the above device for a touch switch, GT SoftGOT3000 can be exited without selecting an item from the menu.
GT SoftGOT3000 may not be terminated if device ON time is too short.
Keep the device ON until GT SoftGOT3000 is terminated.
For details on the GOT special register, refer to the following manual.
GT Designer3 (GOT3000) Screen Design Manual

9 Opening the project

Open a project in GT SoftGOT3000 and start monitoring.
The procedure for opening a project depends on the security mode (mode 1, mode 2) set for the project.
For details on the procedure, refer to the following.

☞ Page 66 [Specify a project] dialog
☞ Page 68 Opening a mode 1 project
☞ Page 69 Opening a mode 2 project
☞ Page 71 Changing the security mode

Point

For information on the security mode specifications, refer to the following.
📖GT Designer3 (GOT3000) Screen Design Manual

Precautions

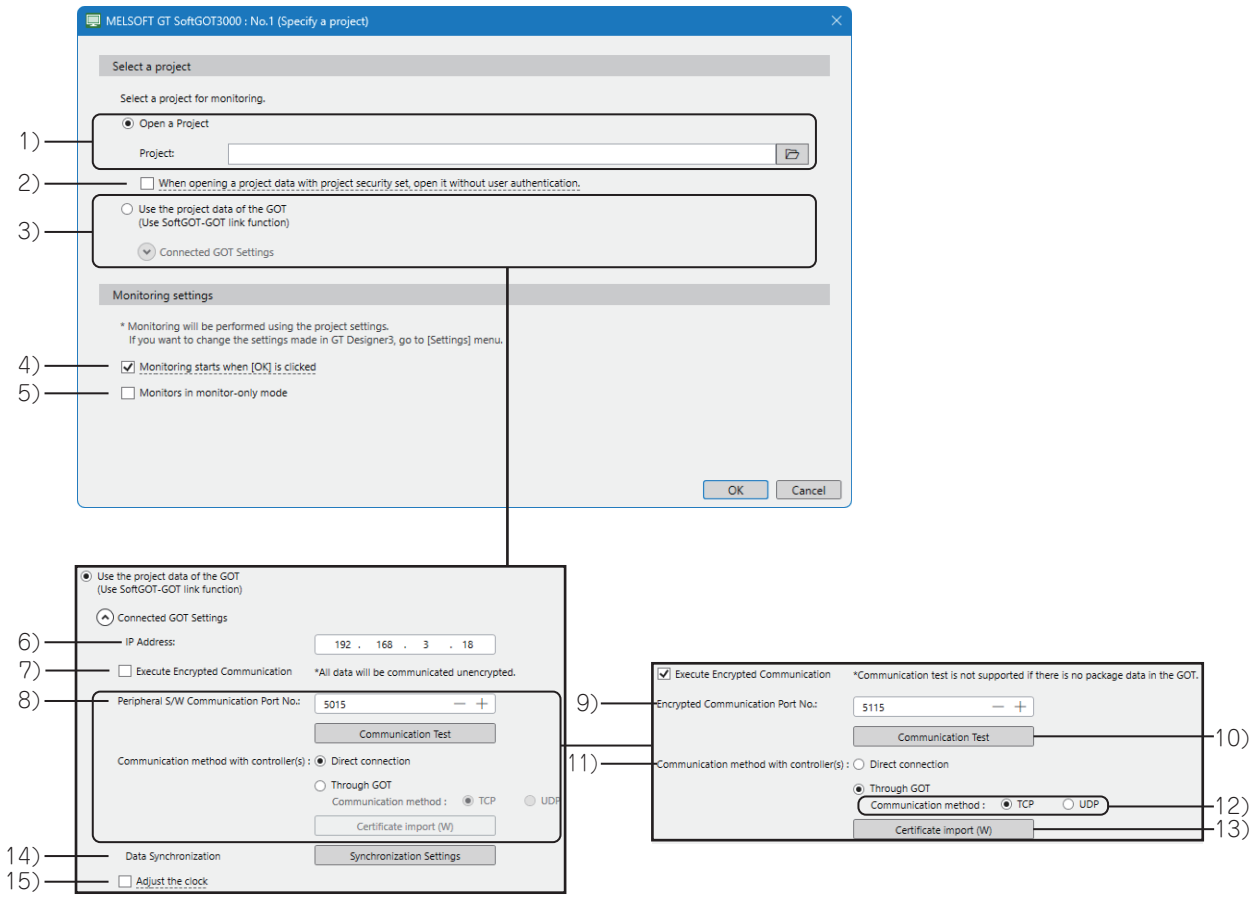
■Reflecting the settings from GT Designer3

The GT SoftGOT3000 settings configured in GT Designer3 are applied to GT SoftGOT3000 when a project is opened.
If a project is opened when GT SoftGOT3000 is in online or offline mode, only the external application start trigger settings are applied to GT SoftGOT3000.
To apply all the settings of the project to GT SoftGOT3000, restart GT SoftGOT3000 and reopen the project.

PART 5

9.1 [Specify a project] dialog

Select the project to be monitored and set the behavior when the project is opened.



Item		Description	
1)	[Open a Project]	Select the project (GTYP file) to be used for monitoring using either of the following methods. • Enter the full path to the project used for monitoring in [Project]. • Click the icon on the right and select the project from the [Open a project] dialog that appears.	
2)	[When opening a project data with project security set, open it without user authentication.]	Select this item to open project data with project security set without user authentication.	
		Selected	The user authentication dialog is not displayed.
		Deselected	Click the [OK] button to display the user authentication dialog.
3)	[Use the project data of the GOT (Use SoftGOT-GOT link function)]	Connects the GOT and GT SoftGOT3000 and synchronizes the project data of them.	
4)	[Monitoring starts when [OK] is clicked]	Select this item to start monitoring when the project is opened.	
		Selected	Click the [OK] button to start monitoring.
		Deselected	Click the [OK] button to display the GT SoftGOT3000 main window before starting the monitoring.
5)	[Monitors in monitor-only mode]	Select this item to perform monitoring in monitor-only mode when the project is opened. For details on monitor-only mode, refer to the following. ☞ Page 172 Monitor-only mode	
6)	[IP Address]	Set the IP address of the GOT.	
7)	[Execute Encrypted Communication]	Selected	Encrypts communication data when the GOT communicates with an external device.
		Deselected	All data is communicated in plain text.
8)	[Peripheral S/W Communication Port No.]	Set the port number of the connected GOT.	
9)	[Encrypted Communication Port No.]	Set the port number for encrypted communication with the connected GOT.	
10)	[Communication Test]	Executes a communication test with the connected GOT.	
11)	[Communication method with controller(s)]	Set the method of communication between the connected GOT and the controller.	

Item		Description
12)	[Communication method]	Set the format of communication between the connected GOT and the controller when [Through GOT] is selected for [Communication method with controller(s)].
13)	[Certificate import]	Imports the certificate.
14)	[Data Synchronization]	Opens the SoftGOT-GOT link function setting (data synchronization setting) dialog.
15)	[Adjust the clock]	Synchronizes the time of the personal computer where GT SoftGOT3000 runs with the time of the controller while the SoftGOT-GOT link function is used.

9.2 Opening a mode 1 project

The following explains how to open a project in security mode set to mode 1 using GT SoftGOT3000 and perform monitoring.

Operating procedure

1. Start GT SoftGOT3000.

☞ Page 51 Startup and exit

2. Perform one of the following operations to display the [Specify a project] dialog.

- Click the [Menu] icon and select [Project] → [Specify a project] from the menu.
- Click the [Specify a project] icon on the quick access toolbar.
- Right-click the mouse and select [Specify a project] from the context menu.
- Press the Ctrl + O keys on the keyboard.

Point

When GT SoftGOT3000 is started and a project used for monitoring is not specified, the [Specify a project] dialog is automatically displayed.

3. In the [Specify Project] dialog, select the project to be used for monitoring and set the behavior when the project is opened.

☞ Page 66 [Specify a project] dialog

4. When you have completed the settings, click the [OK] button.

If the file protection function is enabled, a dialog prompting you to enter a password is displayed.

Enter the password you have set.

For information on the file protection function, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

The behavior differs depending on whether [Monitoring starts when [OK] is clicked] is selected or deselected in the [Specify a project] dialog.

Selected/deselected	Description
Selected	A confirmation dialog appears to confirm the transition to online mode. The dialog does not appear if the mode is already online mode. Click the [Yes] button to start monitoring with the project selected in the [Specify a project] dialog.
Deselected	The GT SoftGOT3000 main window is displayed. For instructions on how to start monitoring from the main window, refer to the following. ☞ Page 72 Starting monitoring

9.3 Opening a mode 2 project

The following explains how to open a project in security mode set to mode 2 using GT SoftGOT3000 and perform monitoring.

Operating procedure

1. Start GT SoftGOT3000.

☞ Page 51 Startup and exit

2. Perform one of the following operations to display the [Specify a project] dialog.

- Click the [Menu] icon and select [Project] → [Specify a project] from the menu.
- Click the [Specify a project] icon on the quick access toolbar.
- Right-click the mouse and select [Specify a project] from the context menu.
- Press the Ctrl + O keys on the keyboard.

Point

When GT SoftGOT3000 is started and a project used for monitoring is not specified, the [Specify a project] dialog is automatically displayed.

3. In the [Specify Project] dialog, select the project to be used for monitoring and set the behavior when the project is opened.

☞ Page 66 [Specify a project] dialog

4. When you have completed the settings, click the [OK] button.

If the file protection function is enabled, a dialog prompting you to enter a password is displayed.

Enter the password you have set.

For information on the file protection function, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

A different screen appears depending on how many times the mode 2 object is opened.

Number of times a mode 2 project is opened	Description
When a mode 2 project is opened for the first time	The operator registration screen appears. Register an operator with administrator privileges in the Administrators group.
When a mode 2 project is opened for the second time or later	The operator authentication screen appears. Log in with the registered operator information.

If the operator is successfully registered or authenticated, the project opens.

After the project opens, the subsequent operation depends on whether [Monitoring starts when [OK] is clicked] set in step 3 is selected or not.

Selected/deselected	Description
Selected	A confirmation dialog appears to confirm the transition to online mode. The dialog does not appear if the mode is already online mode. Click the [Yes] button to start monitoring with the project selected in the [Specify a project] dialog.
Deselected	The GT SoftGOT3000 main window is displayed. For instructions on how to start monitoring from the main window, refer to the following. ☞ Page 72 Starting monitoring

PART 5

Registering or editing an operator or group

The operator and group information can be registered or edited with the utility function or the GOT Operator Management Information Conversion Tool.

For details on the utility functions, refer to the following.

GOT3000 Series User's Manual (Utility & Maintenance Functions)

For the operator authentication specifications, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

Point

The operator and group information is held in each GT SoftGOT3000 module.

9.4 Changing the security mode

When a project is opened with GT SoftGOT3000, GT SoftGOT3000 is in the security mode (mode 1 or mode 2) set for the opened project.

The security mode of GT SoftGOT3000 can be changed by opening a project set to a different mode with GT SoftGOT3000.

☞ Page 71 Changing to mode 2

☞ Page 71 Changing to mode 1

9.4.1 Changing to mode 2

When the security mode of GT SoftGOT3000 is mode 1 and a project in mode 2 is opened, GT SoftGOT3000 switches to the mode 2 state.

When switching to the mode 2 state, an operator in the Administrators group with administrator privileges must be registered.

For details on the procedure, refer to the following.

☞ Page 69 Opening a mode 2 project

Precautions

If there is operator information in security mode 1, the information is deleted.

9.4.2 Changing to mode 1

When the security mode of GT SoftGOT3000 is mode 2 and a project in mode 1 is opened, GT SoftGOT3000 switches to the mode 1 state.

Before reading a mode 1 project, authenticate an operator with [Security Mode change] rights.

For details on the procedure, refer to the following.

☞ Page 68 Opening a mode 1 project

Precautions

■Operations required to open a project

To open a project, authentication by an operator in the Administrators group with administrator privileges is required.

■Operator information when switching to mode 1

When the security mode is changed from mode 2 to mode 1, the operator information registered in GT SoftGOT3000 is deleted.

10 Monitoring

The following explains how to start or stop monitoring with GT SoftGOT3000.

☞ Page 72 Starting monitoring
☞ Page 73 Stopping monitoring

10.1 Starting monitoring

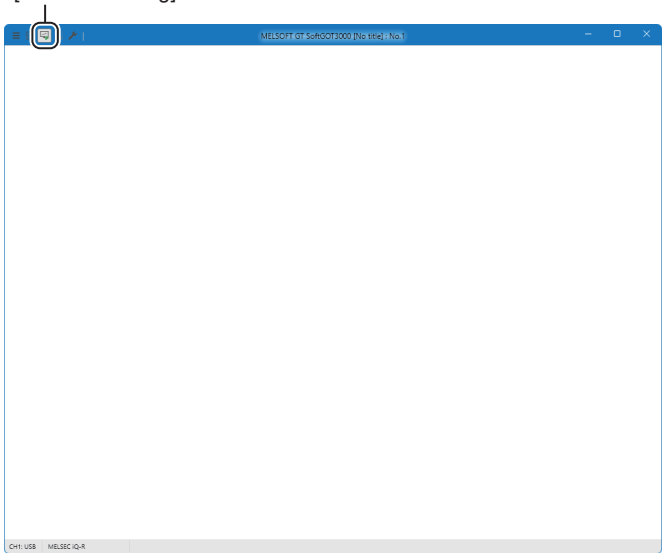
Start monitoring using the project opened on GT SoftGOT3000.

Operating procedure

Perform one of the following operations to start monitoring.

- Click the [Menu] icon and select [Online] → [Monitor Start] from the menu.
- Right-click the mouse and select [Monitor Start] from the context menu.
- Click the [Start monitoring] icon on the quick access tool bar.
- Press the F3 key.

[Start monitoring] icon



During monitoring, operations are performed using a mouse or touch input on the touch display.

Point

When the startup in online mode is enabled, GT SoftGOT3000 can automatically start monitoring at startup.
For details on the setting, refer to the following.

☞ Page 119 [Action]

Precautions

■GT SoftGOT3000 license registration

To perform monitoring with GT SoftGOT3000, register the product license in advance.

If monitoring is started without the product license registered, GT SoftGOT3000 automatically ends in about three hours.

For information on how to register the product license, refer to the following.

☞ Page 46 Registering or deregistering the license

10.2 Stopping monitoring

This section describes how to stop monitoring.

Operating procedure

Perform one of the following operations to stop monitoring.

- Click the [Menu] icon and select [Online] → [Monitor Stop] from the menu.
- Right-click the mouse and select [Monitor Stop] from the context menu.
- Click the [Monitor Stop] icon on the quick access tool bar.
- Press the Alt key + F3 key.

PART 5

11 Switching the display language

The display language of GT SoftGOT3000 can be switched.

Operating procedure

1. Perform one of the following operations to display the [Switch Display Language] dialog.
- Click the [Menu] icon and select [View] → [Switch Display Language] from the menu.
- Right-click the mouse and select [View] → [Switch Display Language] from the context menu.

2. Select the language to be switched to from the list in the [Switch Display Language] dialog.

3. Click the [OK] button to close the [Switch Display Language] dialog. Then, the display of GT SoftGOT3000 will change to the selected language.

Precautions

If the personal computer does not support the language to be switched to, the screen layout collapses and characters become garbled on the GT SoftGOT3000 screen.
Install a language pack or other components on the personal computer as needed.

PART 6 Settings

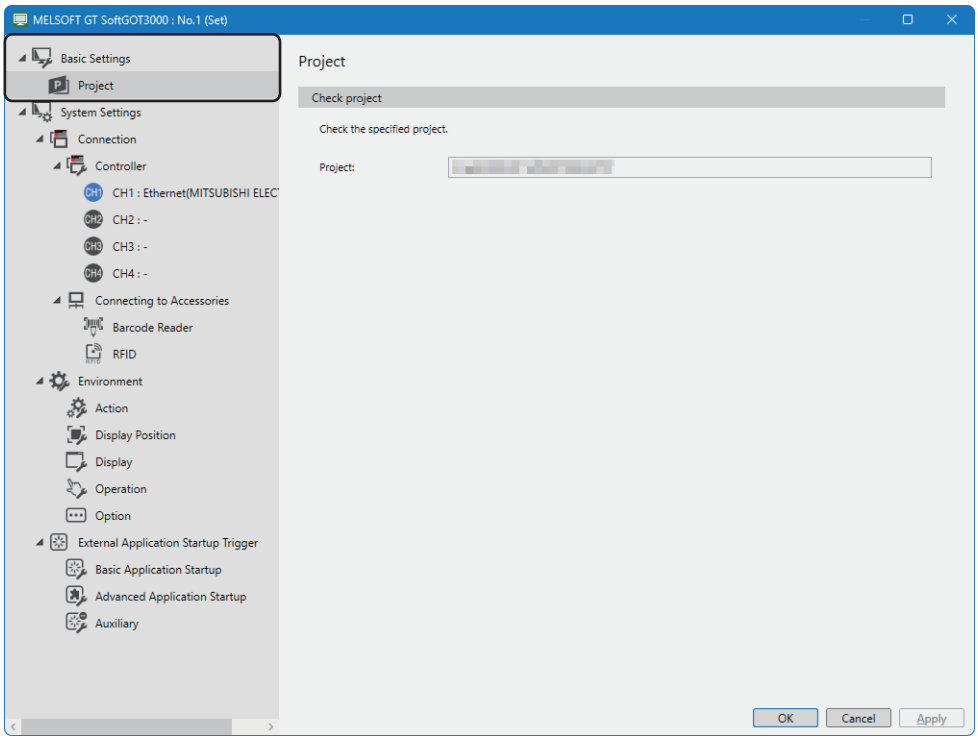
12 [Basic Settings]

13 [System Settings]

12 [Basic Settings]

The following explains the settings of [Basic Settings] in the left-side tree of the [Set] dialog.

☞ Page 77 [Project]



Operating procedure

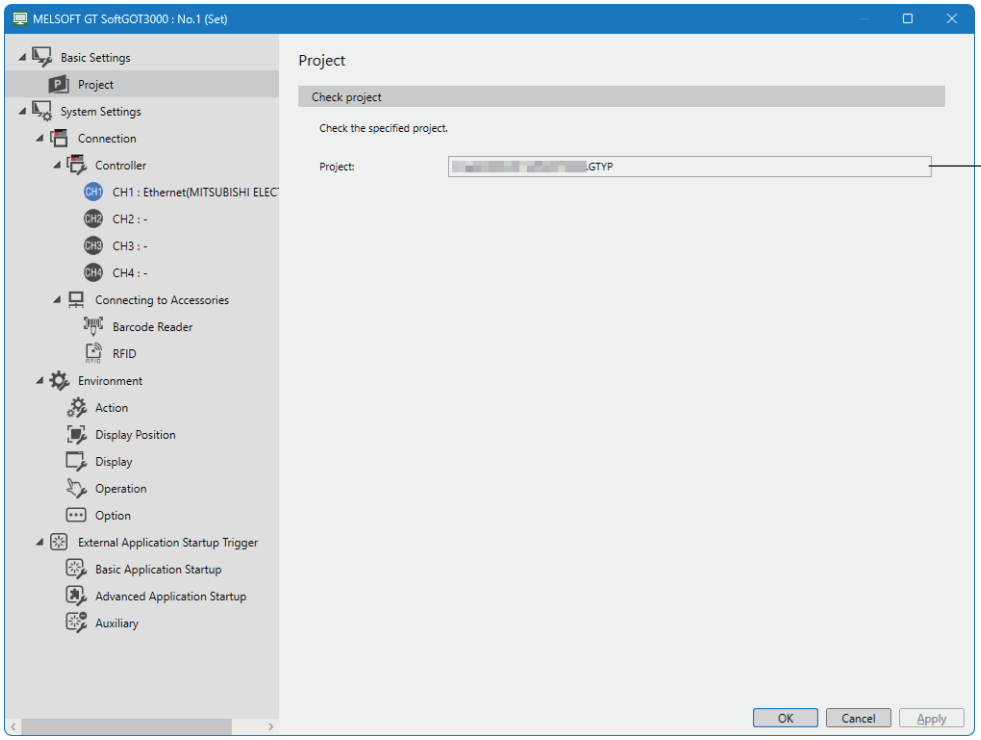
1. Perform one of the following operations to display the [Set] dialog.

- Click the [Menu] icon and select [Set] from the menu.
- Right-click the mouse and click [Set] from the context menu.
- Click the [Set] icon on the quick access tool bar.

2. Click the setting target item from [Basic Settings] in the left-side tree of the [Set] dialog.

12.1 [Project]

Displays the full path to the project opened with GT SoftGOT3000.

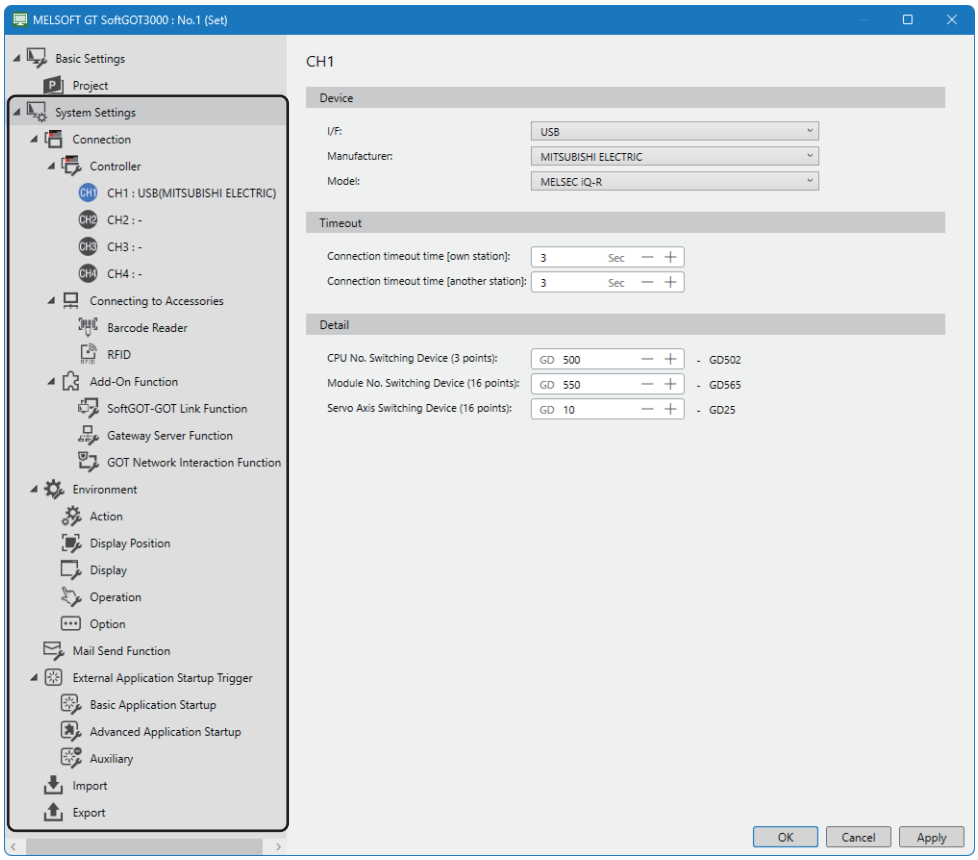


Item		Description
1)	[Project]	Displays the full path to the open project. If no project is open, this field is blank.

13 [System Settings]

The following explains [System Settings] in the left-side tree of the [Set] dialog.

☞ Page 80 [Connection]
☞ Page 119 [Environment]
☞ Page 125 [Mail Send Function]
☞ Page 129 [External Application Startup Trigger]
☞ Page 136 [Import]
☞ Page 138 [Export]



Window

1. Perform one of the following operations to display the [Set] dialog.

- Click the [Menu] icon and select [Set] from the menu.
- Right-click the mouse and click [Set] from the context menu.
- Click the [Set] icon in the Quick Access Toolbar.

2. In the [Set] dialog, click the target item in the left-side settings tree.

Precautions

■Settings in the [Set] dialog

The settings in the [Set] dialog reflect the settings configured in GT Designer3 when a project is created.

Configure these settings in GT Designer3 in advance, rather than after opening the project with GT SoftGOT3000.

■Changing the settings

When the settings in the [Set] dialog are changed for a project opened in GT SoftGOT3000, the changes are applied only to the currently open project.

The changes are not applied to the project specified to be opened.

To change the settings of the specified project, use GT Designer3.

Additionally, if you change the settings in GT Designer3, reopen the project in GT SoftGOT3000 afterward.

13.1 [Connection]

Displays the connection settings between GT SoftGOT3000 and the controller.

☞ Page 80 [Controller]
☞ Page 113 [Connecting to Accessories]
☞ Page 115 [Add-On Function]

13.1.1 [Controller]

Displays the communication settings for the controller set in the project.

The controller settings (connection method and model for each channel) are also displayed in the setting tree.

To use channel No. 2 to No. 4 in GT SoftGOT3000, click the intended channel No. and select [Use CH*] in the upper right.

Items in the setting tree	[I/F] setting
CH1 to CH4	☞ Page 81 [RS-232]
	☞ Page 85 [Ethernet]
	☞ Page 102 [USB]
	☞ Page 109 [CC-Link IE Field Network]
CH1	☞ Page 110 [MELSOFT Simulator]

For details on the controller settings, refer to the following.

📖GOT3000 Series User's Manual (Connection)

[RS-232]

Displays the setting items for connecting GT SoftGOT3000 and the controller using the RS-232 connection.

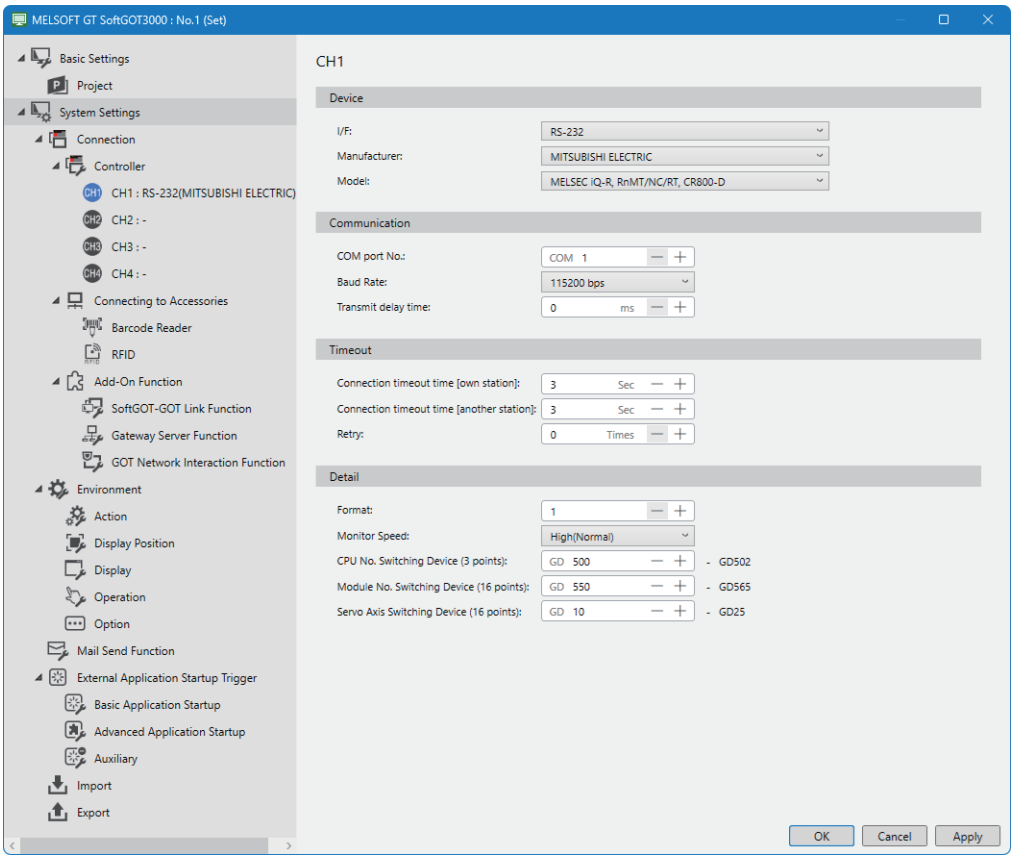
The setting items differ depending on the setting for [Model].

☞ Page 81 [Manufacturer]: [MITSUBISHI ELECTRIC]

☞ Page 84 [Manufacturer]: [Computer connection]

■[Manufacturer]: [MITSUBISHI ELECTRIC]

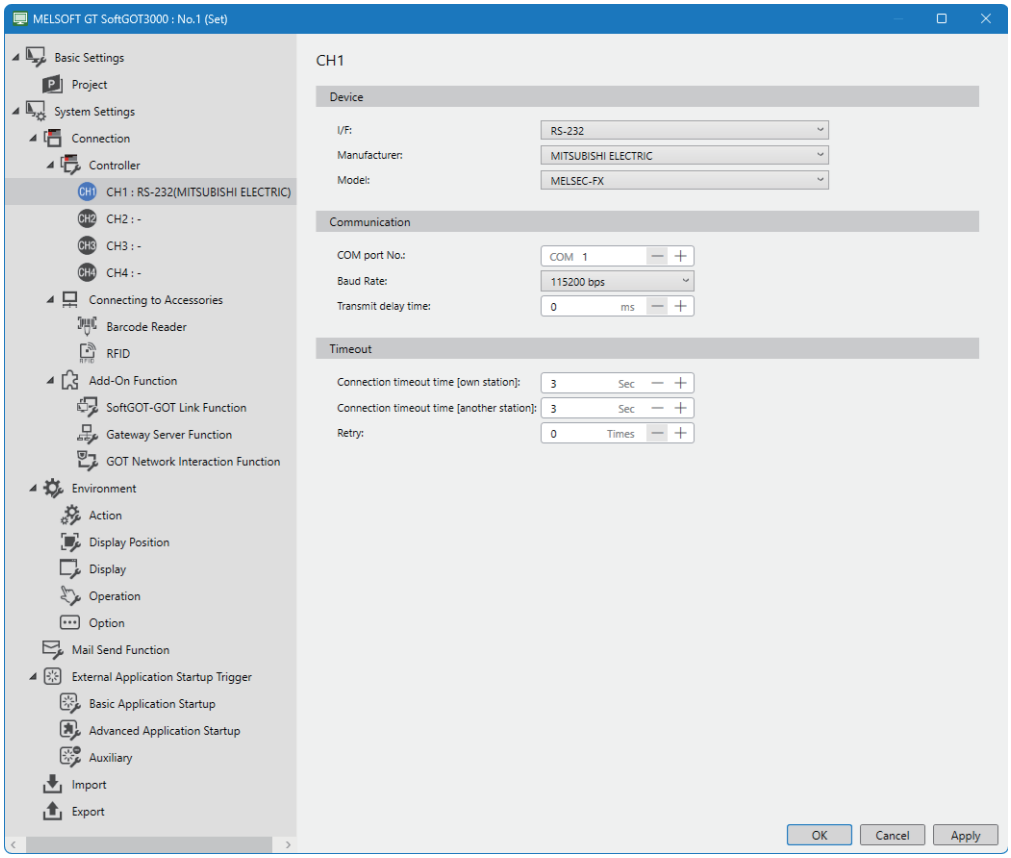
- When [Model] is [MELSEC MX Controller], [MELSEC iQ-R, RnMT/NC/RT, CR800-D], [MELSEC iQ-F], [MELSEC-Q/QS, Q17nD/M/NC/DR/DSR, CRnD-700], [MELSEC-L], or [MELSEC-A]



Item		Description	Range
[Device]	[I/F]	[RS-232]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
	[Model]	[MELSEC MX Controller] [MELSEC iQ-R, RnMT/NC/RT, CR800-D] [MELSEC iQ-F] [MELSEC-Q/QS, Q17nD/M/NC/DR/DSR, CRnD-700] [MELSEC-L] [MELSEC-A]	—
[Communication]	[COM port No.]	Displays the communication port number of the personal computer used for connection.	COM[1] to COM[63]
	[Baud Rate]	Displays the baud rate for communication with the controller.	[9600 bps] [19200 bps] [38400 bps] [57600 bps] [115200 bps]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [300] ms

Item		Description	Range
[Timeout]	[Connection timeout time [own station]]	Displays the timeout period for monitoring the host station.	[1] Sec to [90] Sec
	[Connection timeout time [another station]]	Displays the timeout period for monitoring another station.	[1] Sec to [30] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times
[Detail]	[Format]	Select a communication format.	[1] to [2]
	[Monitor Speed]	Select a monitor speed.	High(Normal) Middle Low
	[CPU No. Switching Device (3 points)]	Displays the start device number of the GOT data registers (GD) to specify the CPU number.	GD[0] to GD[65520]
	[Module No. Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the module number.	GD[0] to GD[65520]
	[Servo Axis Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the axis number.	GD[0] to GD[65520]

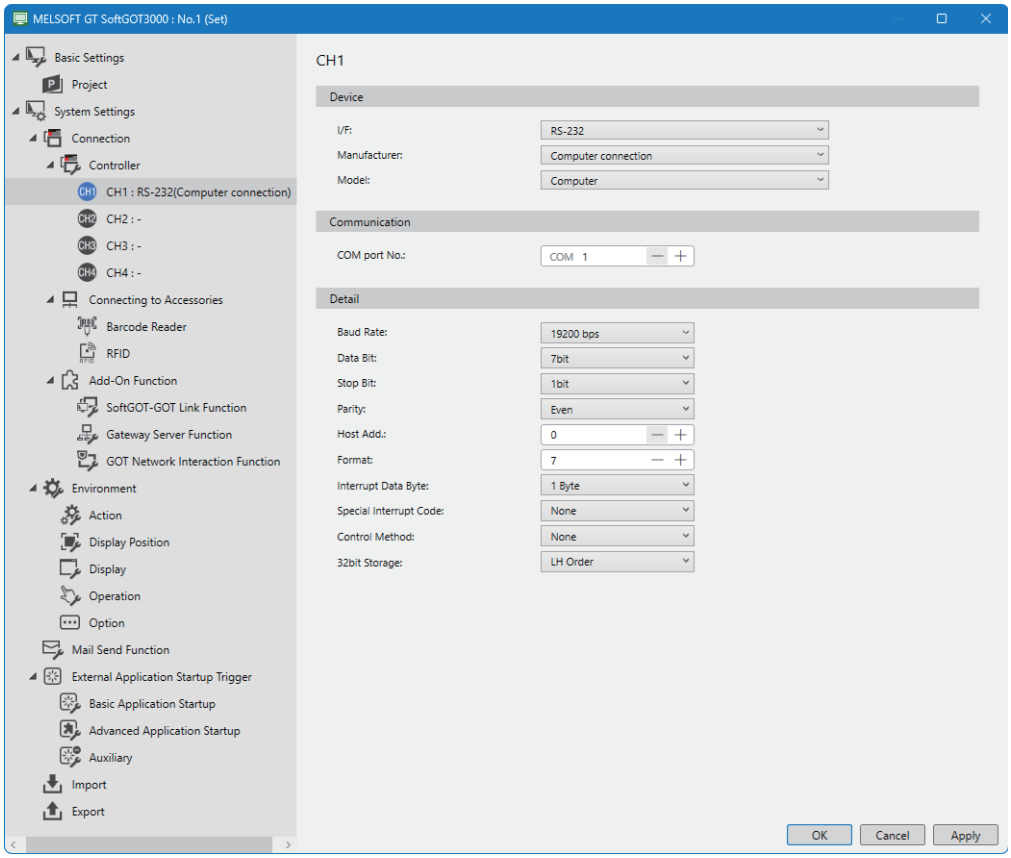
- When [Model] is [MELSEC-FX]



Item		Description	Range
[Device]	[I/F]	[RS-232]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
	[Model]	[MELSEC-FX]	—
[Communication]	[COM port No.]	Displays the communication port number of the personal computer used for connection.	COM[1] to COM[63]
	[Baud Rate]	Displays the baud rate for communication with the controller.	[9600 bps] [19200 bps] [38400 bps] [57600 bps] [115200 bps]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [300] ms

Item		Description	Range
[Timeout]	[Connection timeout time [own station]]	Displays the timeout period for monitoring the host station.	[1] Sec to [90] Sec
	[Connection timeout time [another station]]	Displays the timeout period for monitoring another station.	[1] Sec to [30] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

■[Manufacturer]: [Computer connection]



Item		Description	Range
[Device]	[I/F]	[RS-232]	—
	[Manufacturer]	[Computer connection]	—
	[Model]	[Computer]	—
[Communication]	[COM port No.]	Displays the communication port number of the personal computer used for connection.	COM[1] to COM[63]
[Detail]	[Baud Rate]	Displays the baud rate for communication with the controller.	[4800 bps] [9600 bps] [19200 bps] [38400 bps] [57600 bps] [115200 bps]
	[Data Bit]	Displays the data length for communication with the controller.	[7bit] [8bit]
	[Stop Bit]	Displays the stop bit length for communications.	[1bit] [2bit]
	[Parity]	Displays whether a parity check is performed during communication and the format used if it is performed.	[None] [Even] [Odd]
	[Host Add.]	Specify the host address (the station number of the GT SoftGOT3000 connected to the microcomputer) in the connected network.	[0] to [31]
	[Format]	Select a communication format.	[1] to [15]
	[Interrupt Data Byte]	Set the number of bytes for the interrupt data.	[1Byte] [2Bytes] [4Bytes]
	[Special Interrupt Code]	Displays whether to output special interrupt codes.	[None] [Done]
	[Control Method]	Set a control method.	[None] [XON/XOFF]
	[32bit Storage]	Displays the storage order of two words (32-bit data).	[LH Order] [HL Order]

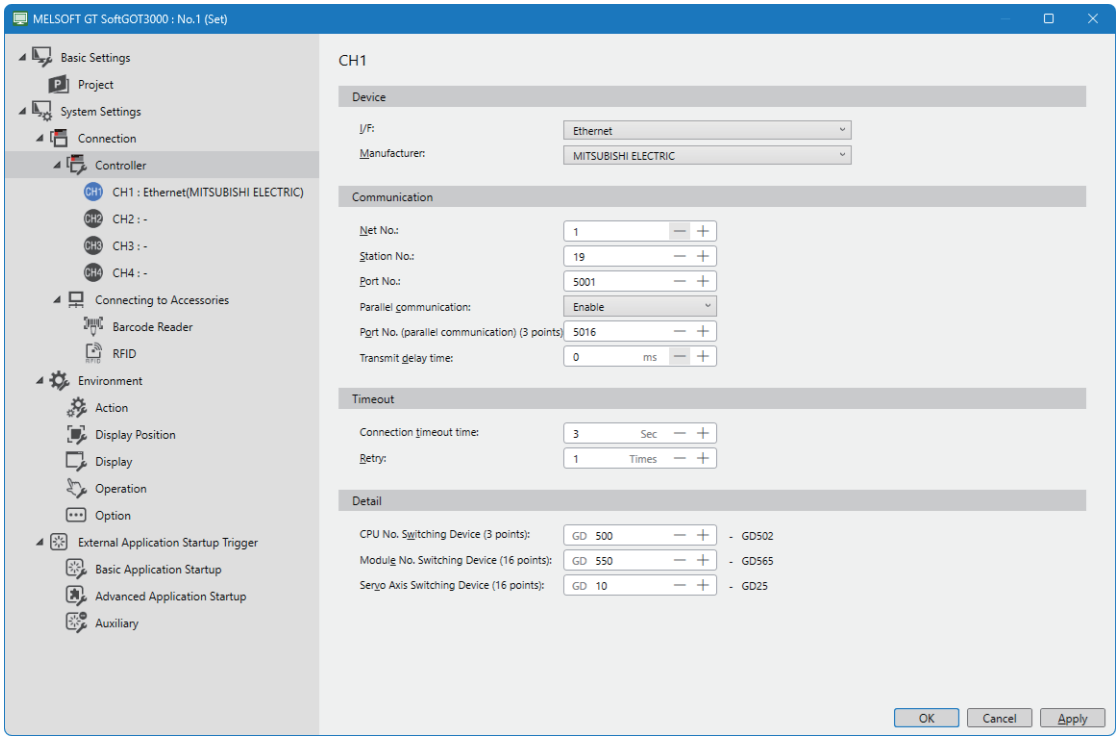
[Ethernet]

Displays the setting items for connecting GT SoftGOT3000 and the controller via Ethernet.

The setting items differ depending on the setting for [Manufacturer].

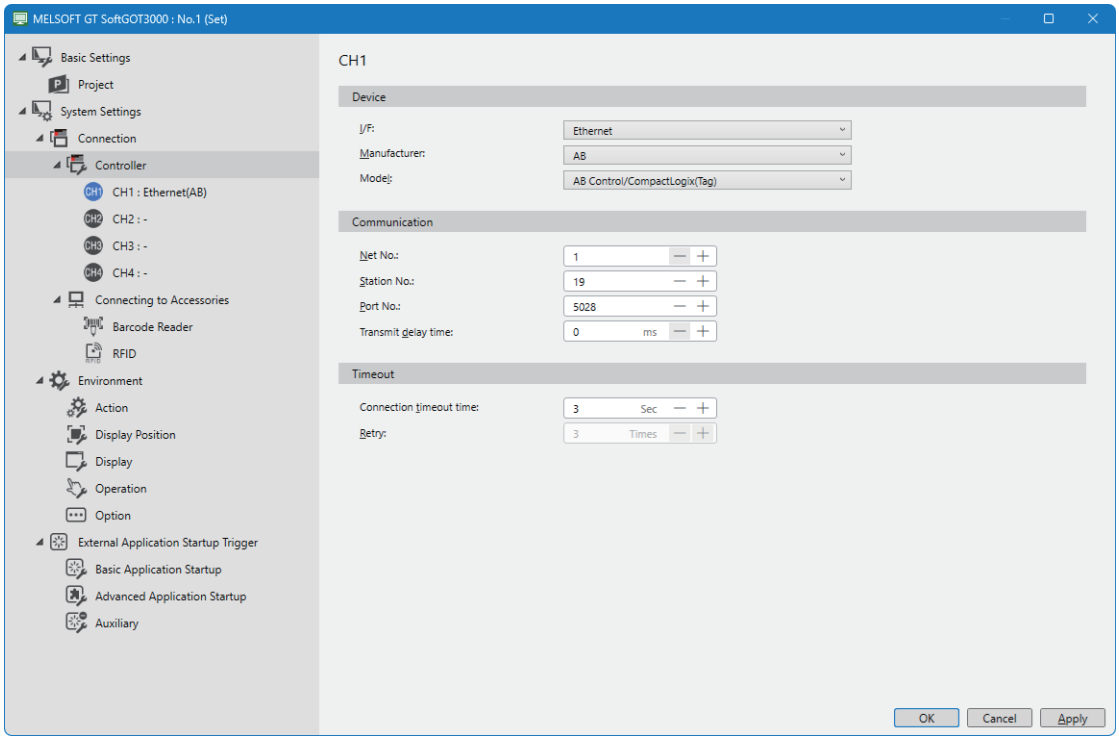
☞ Page 86 [Manufacturer]: [MITSUBISHI ELECTRIC]
☞ Page 87 [Manufacturer]: [AB]
☞ Page 88 [Manufacturer]: [KEYENCE]
☞ Page 89 [Manufacturer]: [LS ELECTRIC]
☞ Page 90 [Manufacturer]: [OMRON]
☞ Page 92 [Manufacturer]: [SIEMENS]
☞ Page 93 [Manufacturer]: [YASKAWA]
☞ Page 96 [Manufacturer]: [YOKOGAWA]
☞ Page 97 [Manufacturer]: [CLPA]
☞ Page 98 [Manufacturer]: [MODBUS]
☞ Page 100 [Manufacturer]: [Computer connection]
☞ Page 101 [Manufacturer]: [OPC]

■[Manufacturer]: [MITSUBISHI ELECTRIC]



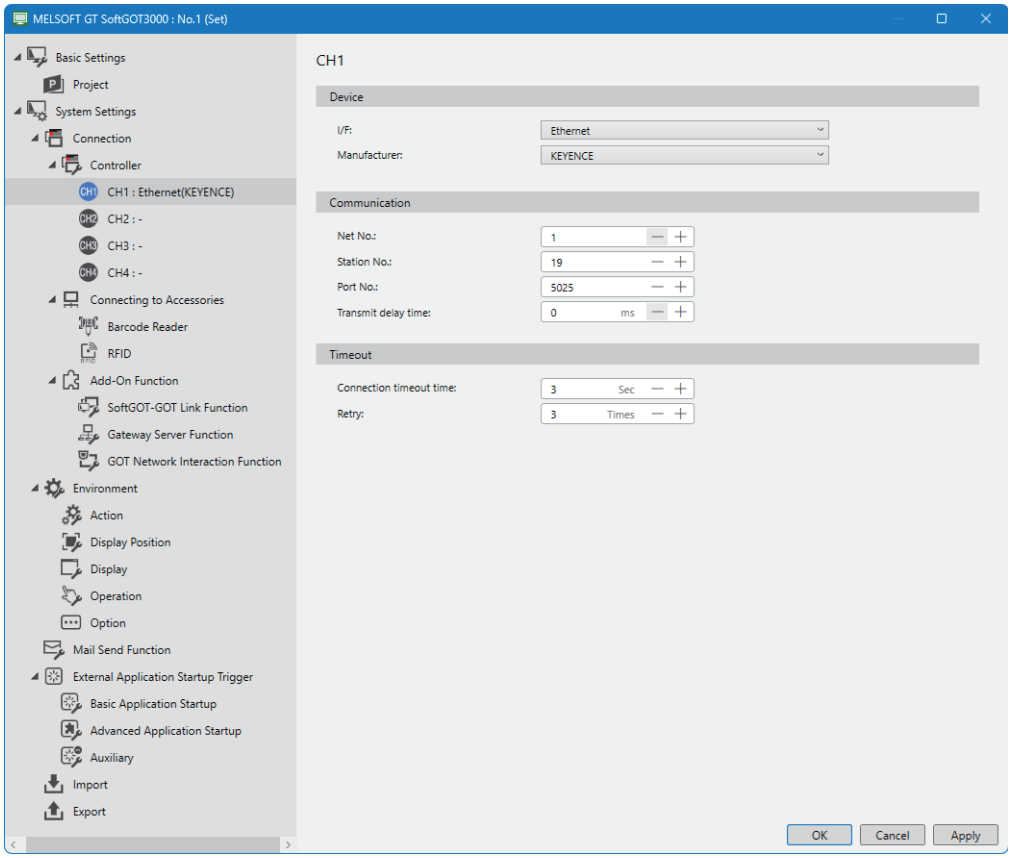
Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [120]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Parallel communication]	Displays whether the parallel communication set in GT SoftGOT3000 is enabled or disabled.	[Enable] [Disable]
	[Port No. (parallel communication)]	Displays the port No. used for the parallel communication.	[1024] to [5008] [5014] to [49150] [49171] to [65532]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [10] Times
[Detail]	[CPU No. Switching Device (3 points)]	Displays the start device number of the GOT data registers (GD) to specify the CPU number.	GD[0] to GD[65520]
	[Module No. Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the module number.	GD[0] to GD[65520]
	[Servo Axis Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the axis number.	GD[0] to GD[65520]

■[Manufacturer]: [AB]



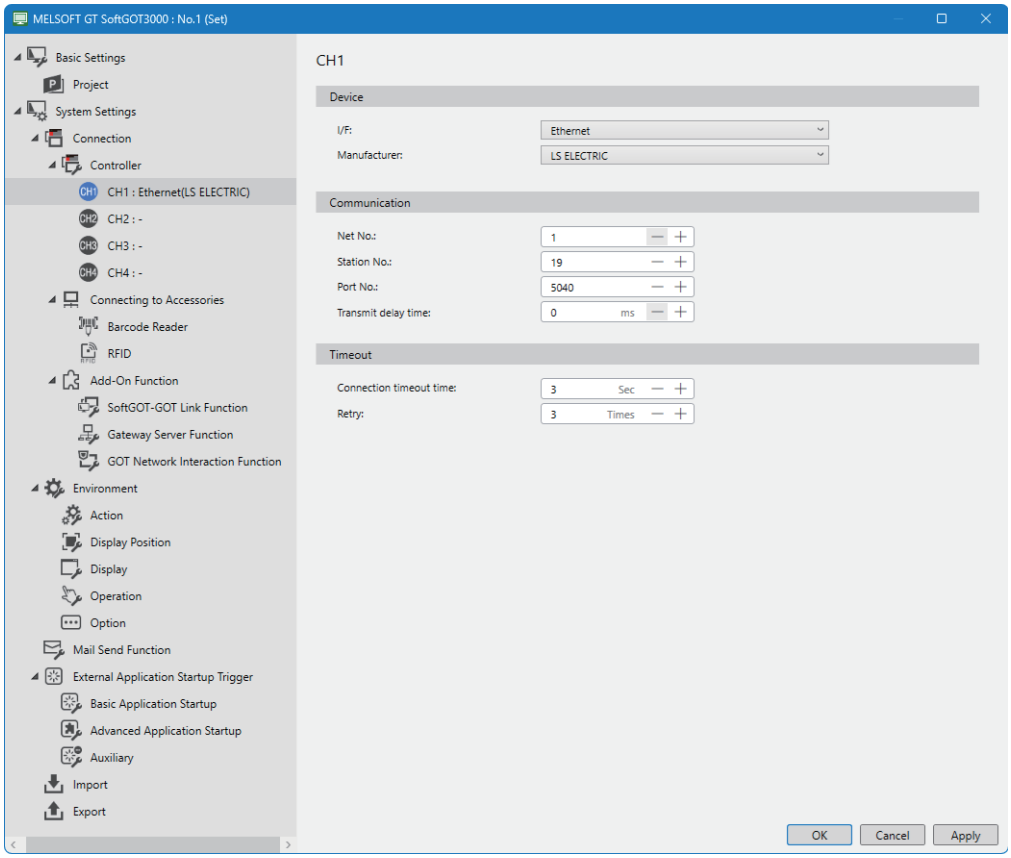
Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[AB]	—
	[Model]	[AB Control/CompactLogix(Tag)]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [64]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[3] Times

■[Manufacturer]: [KEYENCE]



Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[KEYENCE]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [254]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

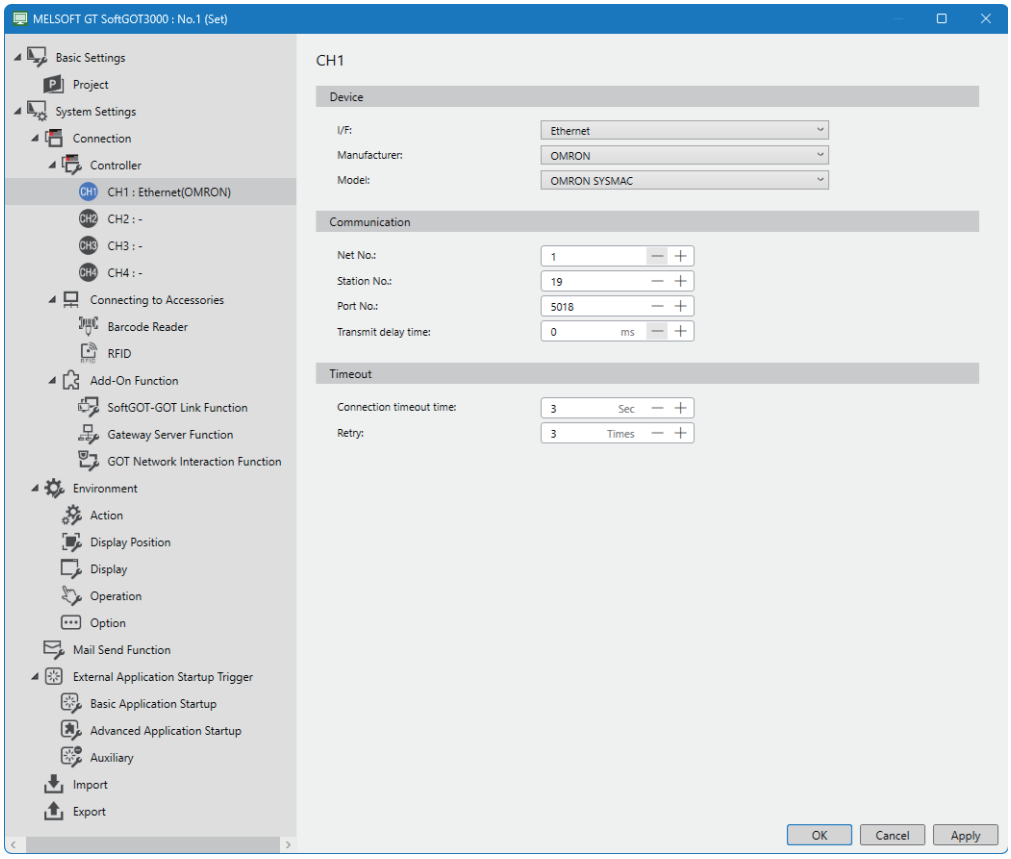
■[Manufacturer]: [LS ELECTRIC]



Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[LS ELECTRIC]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [64]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

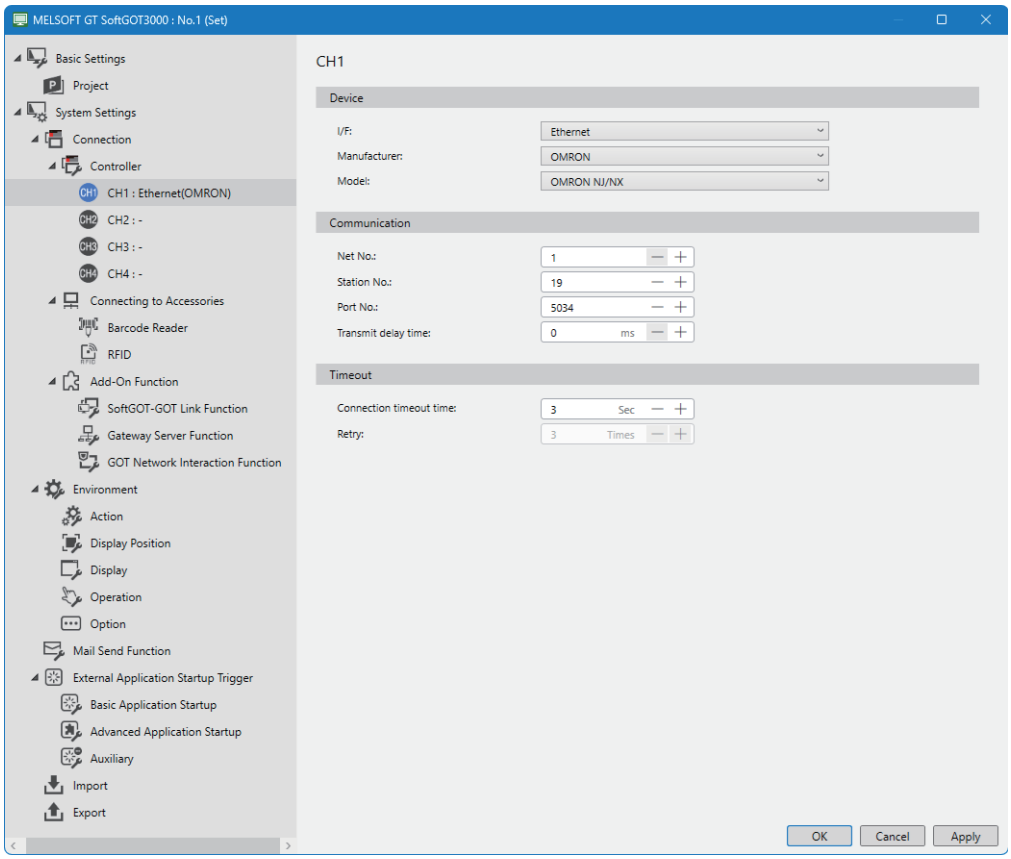
■[Manufacturer]: [OMRON]

• When [Model] is [OMRON SYSMAC]



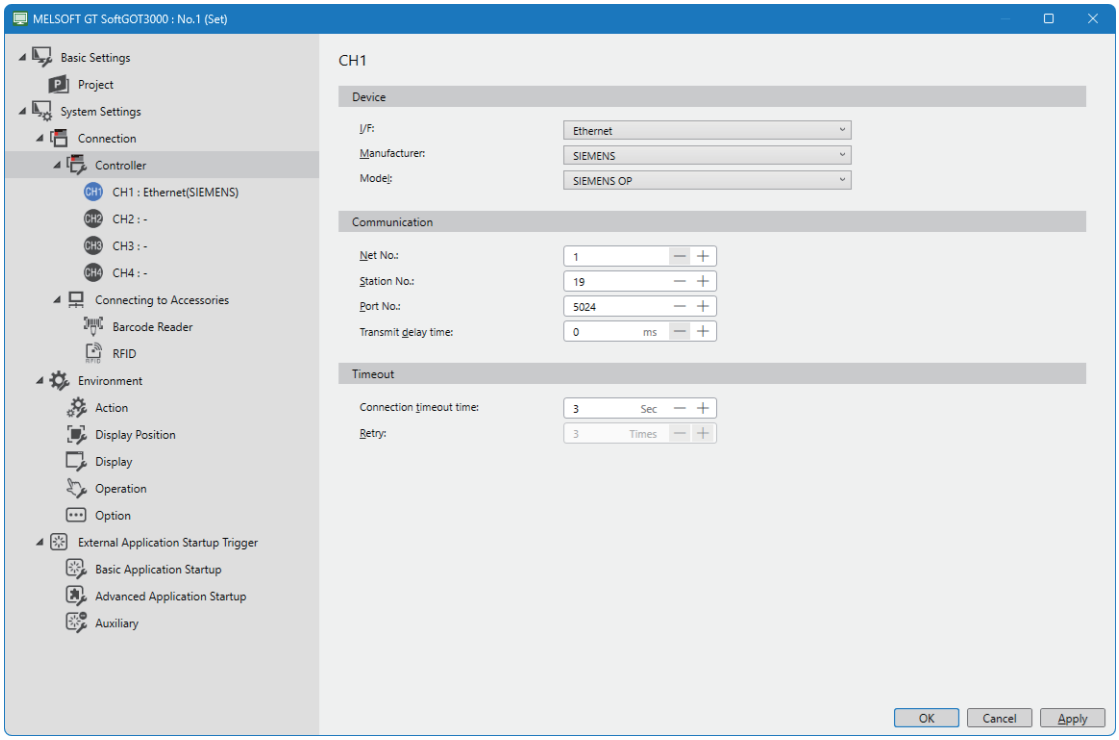
Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[OMRON]	—
	[Model]	[OMRON SYSMAC]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [127]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [254]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

• When [Model] is [OMRON NJ/NX]



Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[OMRON]	—
	[Model]	[OMRON NJ/NX]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [64]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	—

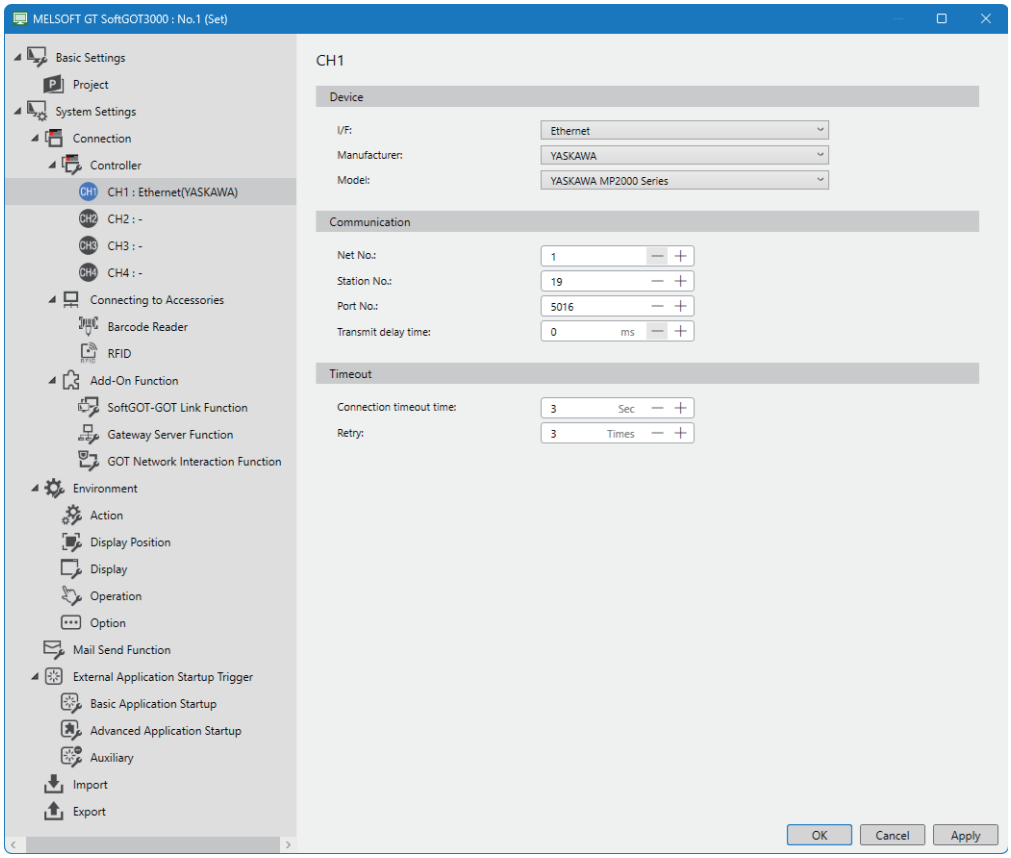
■[Manufacturer]: [SIEMENS]



Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[SIEMENS]	—
	[Model]	[SIEMENS OP]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [254]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

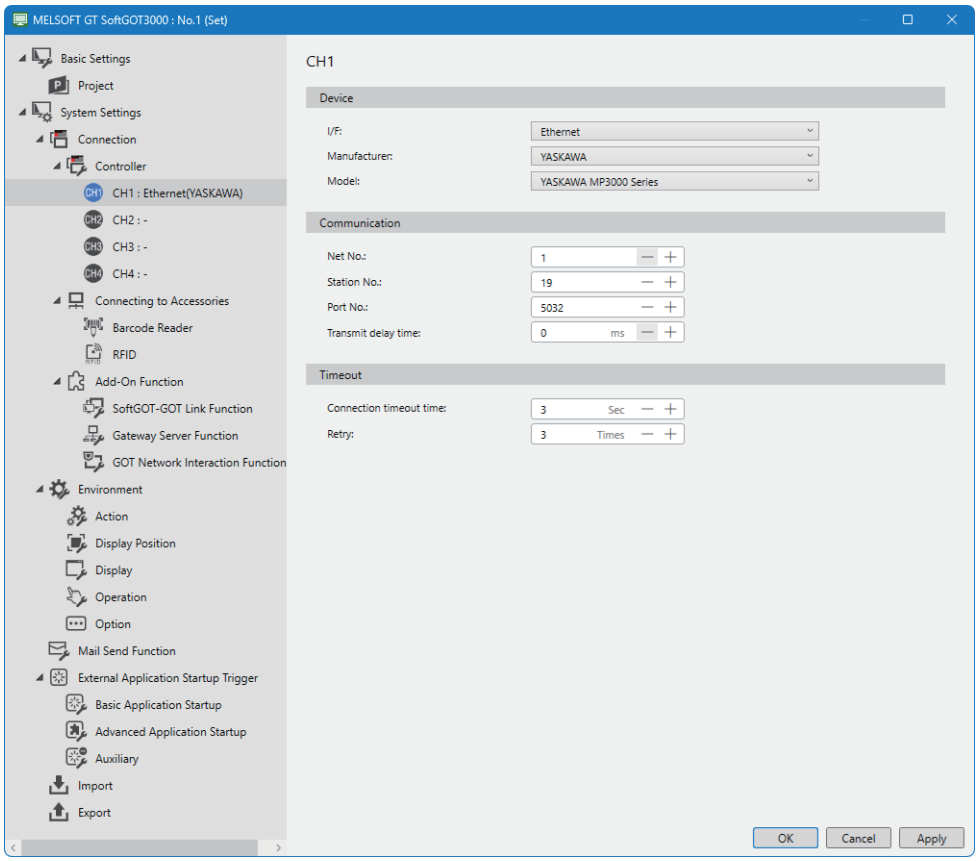
■[Manufacturer]: [YASKAWA]

• When [Model] is [YASKAWA MP2000 Series]



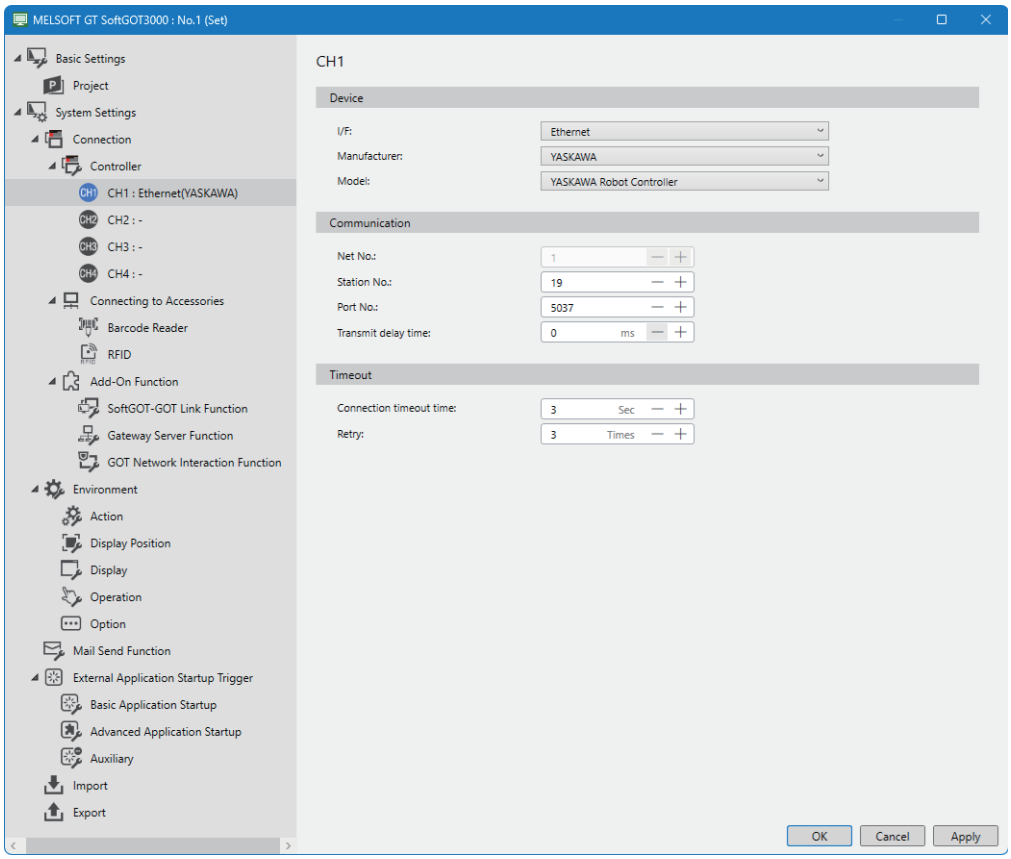
Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[YASKAWA]	—
	[Model]	[YASKAWA MP2000 Series]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [64]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

• When [Model] is [YASKAWA MP3000 Series]



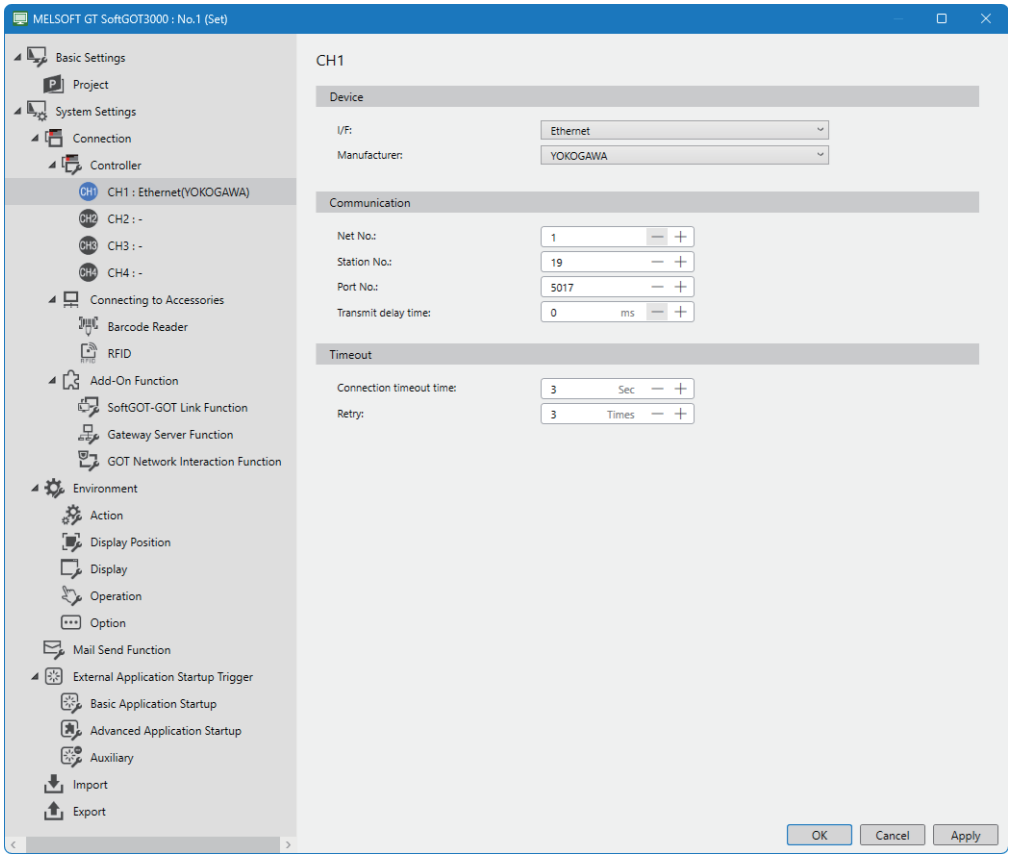
Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[YASKAWA]	—
	[Model]	[YASKAWA MP3000 Series]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [64]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

• When [Model] is [YASKAWA Robot Controller]



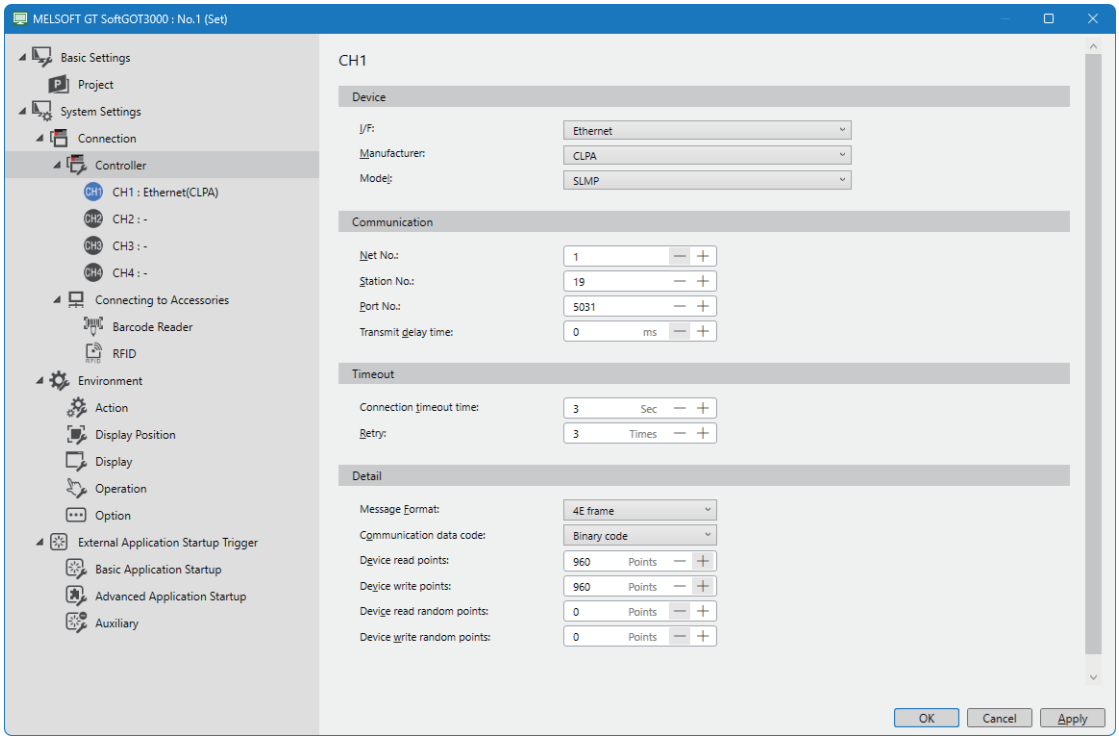
Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[YASKAWA]	—
	[Model]	[YASKAWA Robot Controller]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [120]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

■[Manufacturer]: [YOKOGAWA]



Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[YOKOGAWA]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [64]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

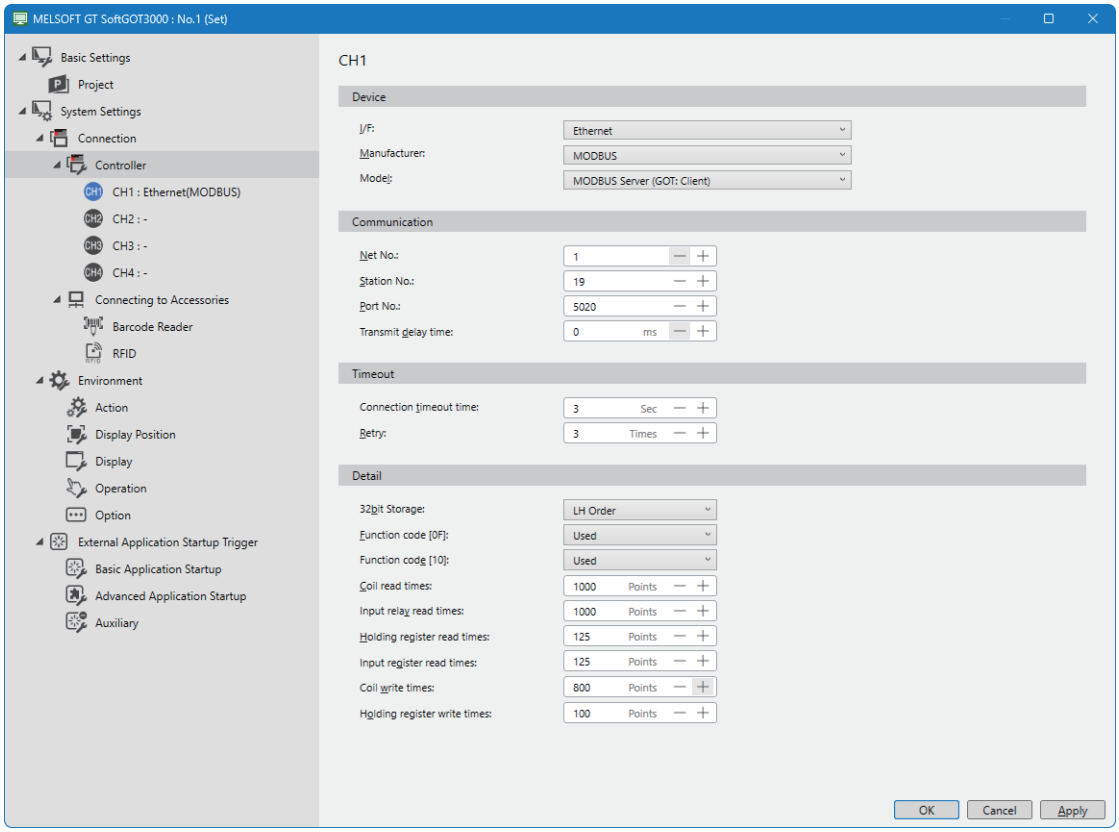
■[Manufacturer]: [CLPA]



Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[CLPA]	—
	[Model]	[SLMP]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [120]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times
[Detail]	[Message Format]	Display the message format.	[QnA compatible 3E frame] [4E frame]
	[Communication data code]	Displays the communication code.	[ASCII code] [Binary code]
	[Device read points]	Displays the number of consecutive read points.	[1] Points to [960] Points
	[Device write points]	Displays the number of consecutive write points.	[1] Points to [960] Points
	[Device read random points]	Displays the number of random read points.	[0] Points to [192] Points
	[Device write random points]	Displays the number of random write points.	[0] Points to [160] Points

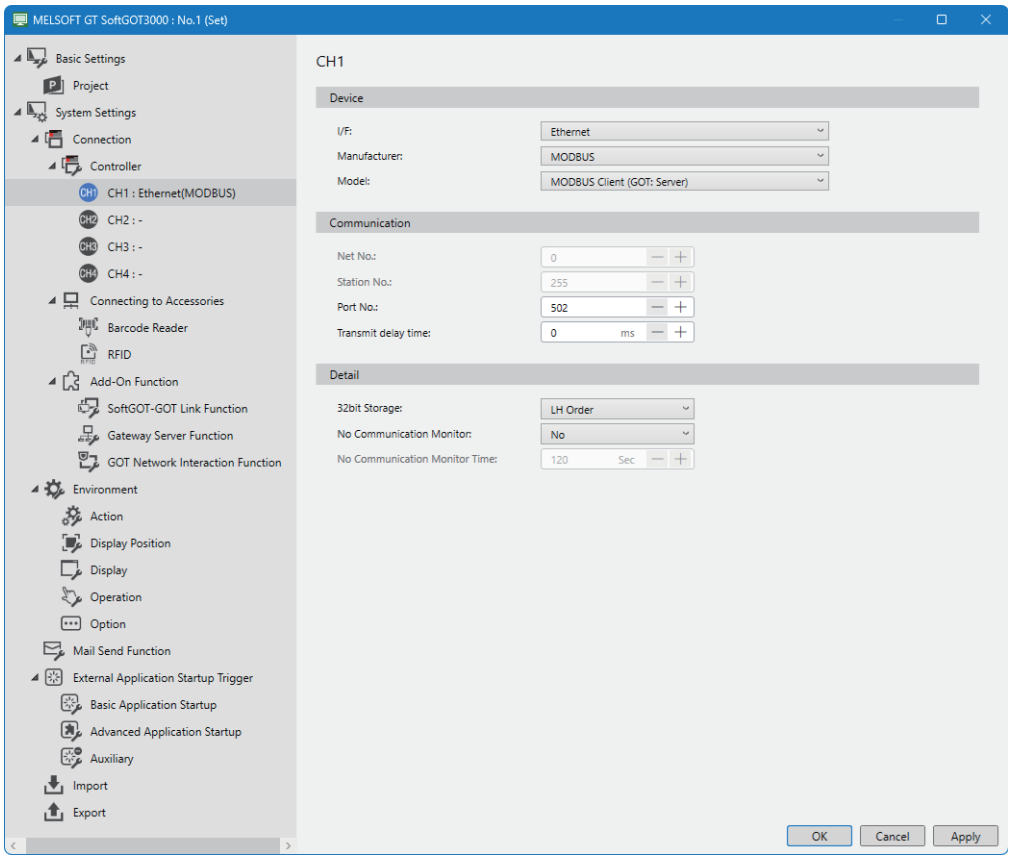
■[Manufacturer]: [MODBUS]

• When [Model] is [MODBUS Server (GOT: Client)]



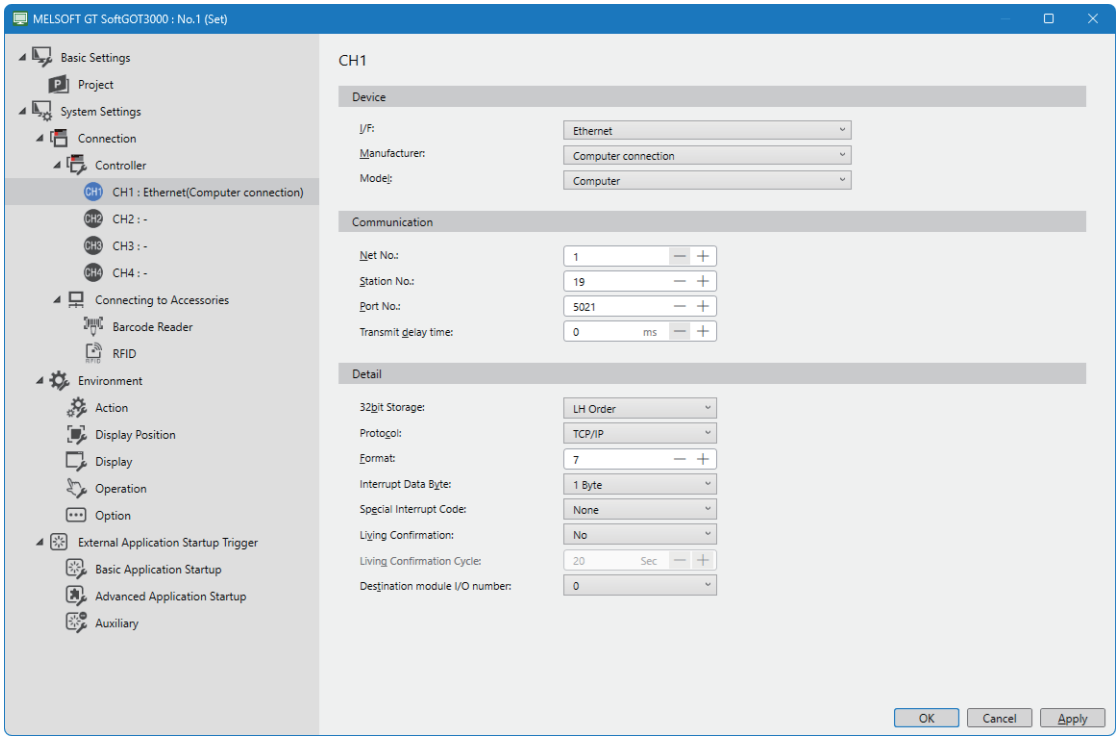
Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[MODBUS]	—
	[Model]	[MODBUS Server (GOT: Client)]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [247]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times
[Detail]	[32bit Storage]	Displays the storage order of two words (32-bit data).	[LH Order] [HL Order]
	[Function code [0F]]	Select whether to use the function code [0F].	[Used] [Unused]
	[Function code [10]]	Select whether to use the function code [10].	[Used] [Unused]
	[Coil read times]	Displays the number of coil read points.	[1] Points to [2000] Points
	[Input relay read times]	Displays the number of input relay read points.	[1] Points to [2000] Points
	[Holding register read times]	Displays the number of holding register read points.	[1] Points to [125] Points
	[Input register read times]	Displays the number of input register read points.	[1] Points to [125] Points
	[Coil write times]	Displays the number of coil write points.	[1] Points to [800] Points
	[Holding register write times]	Displays the number of holding register write points.	[1] Points to [100] Points

• When [Model] is [MODBUS Client (GOT: Server)]



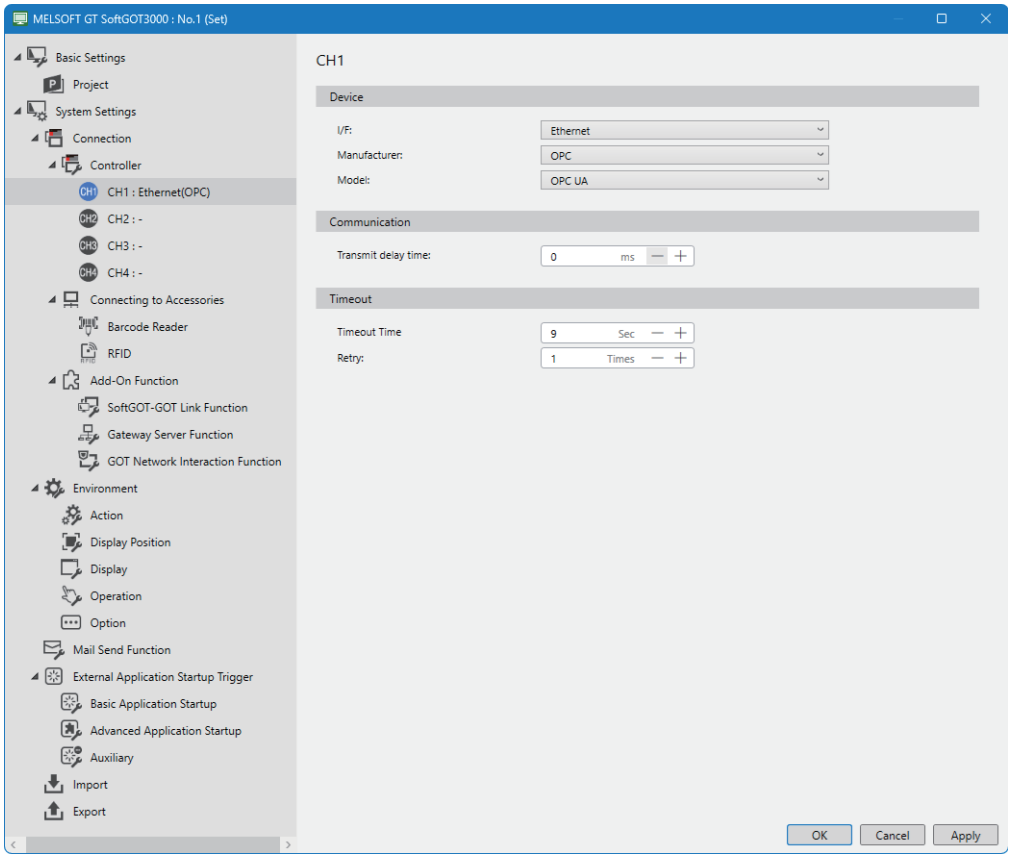
Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[MODBUS]	—
	[Model]	[MODBUS Client (GOT: Server)]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[0]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[255]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[502] [1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Detail]	[32bit Storage]	Displays the storage order of two words (32-bit data).	[LH Order] [HL Order]
	[No Communication Monitor]	Displays whether the no communication monitoring function set in GT SoftGOT3000 is enabled or disabled.	[No] [Yes]
	[No Communication Monitor Time]	Displays the no communication monitoring time.	[10] Sec to [3600] Sec

■[Manufacturer]: [Computer connection]



Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[Computer connection]	—
	[Model]	[Computer]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [64]
	[Port No.]	Displays the port number of GT SoftGOT3000.	[1024] to [5010] [5014] to [49152] [49171] to [65534]
	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Detail]	[32bit Storage]	Displays the storage order of two words (32-bit data).	[LH Order] [HL Order]
	[Protocol]	Select a communication protocol.	[TCP/IP] [UDP/IP]
	[Format]	Select a communication format.	[1] to [9]
	[Interrupt Data Byte]	Displays the number of interrupt data bytes.	[1 Byte] [2 Bytes] [4 Bytes]
	[Special Interrupt Code]	Displays whether to output special interrupt codes.	[Done] [None]
	[Living Confirmation]	Displays whether to perform a living confirmation.	[Yes] [No]
	[Living Confirmation Cycle]	Displays the cycle at which a living confirmation is performed.	[10] Sec to [100] Sec
	[Destination module I/O number]	Displays the I/O number of the destination module that responds to requests from the controller.	[0] [Same as requested value]

■[Manufacturer]: [OPC]



Item		Description	Range
[Device]	[I/F]	[Ethernet]	—
	[Manufacturer]	[OPC]	—
	[Model]	[OPC UA]	—
[Communication]	[Transmit delay time]	Display the send delay time for reducing the load on the network and destination PLC.	[0] ms to [10000] ms
[Timeout]	[Timeout Time]	Displays the time until a timeout occurs.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [5] Times

Precautions

The OPC UA client can be used only for one channel.

If the OPC UA client is set for multiple channels, only the channel with the smallest number for which the OPC UA client is set will operate, and system alarms will occur for the other channels.

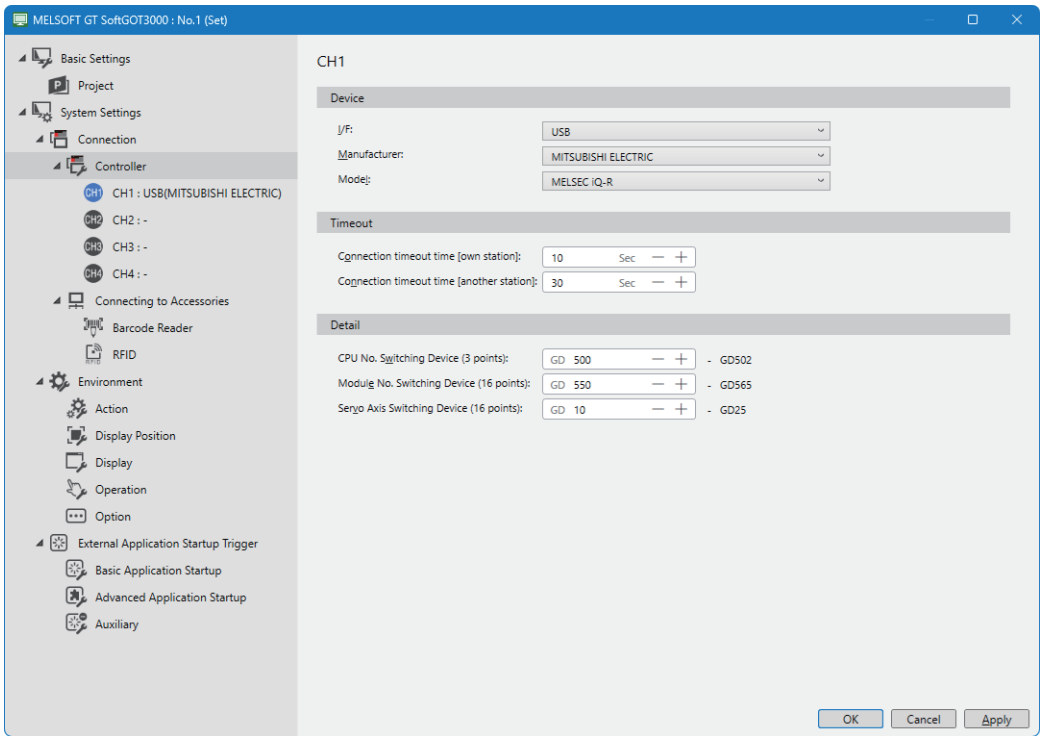
[USB]

Displays the setting items for connecting GT SoftGOT3000 and the controller via USB.

The setting items differ depending on the setting for [Model].

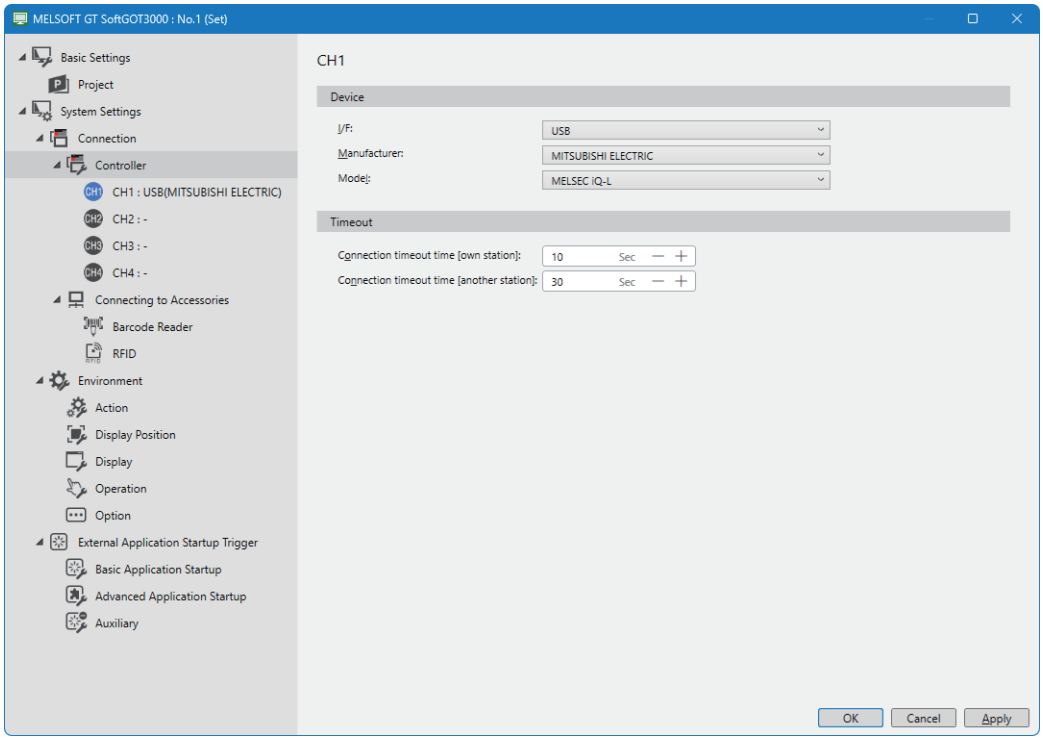
☞ Page 102 [Model]: [MELSEC iQ-R]
☞ Page 103 [Model]: [MELSEC iQ-L]
☞ Page 104 [Model]: [MELSEC iQ-F]
☞ Page 105 [Model]: [MELSEC-Q]
☞ Page 106 [Model]: [MELSEC-QS]
☞ Page 107 [Model]: [MELSEC-L]
☞ Page 108 [Model]: [MELSEC-FX]

■[Model]: [MELSEC iQ-R]



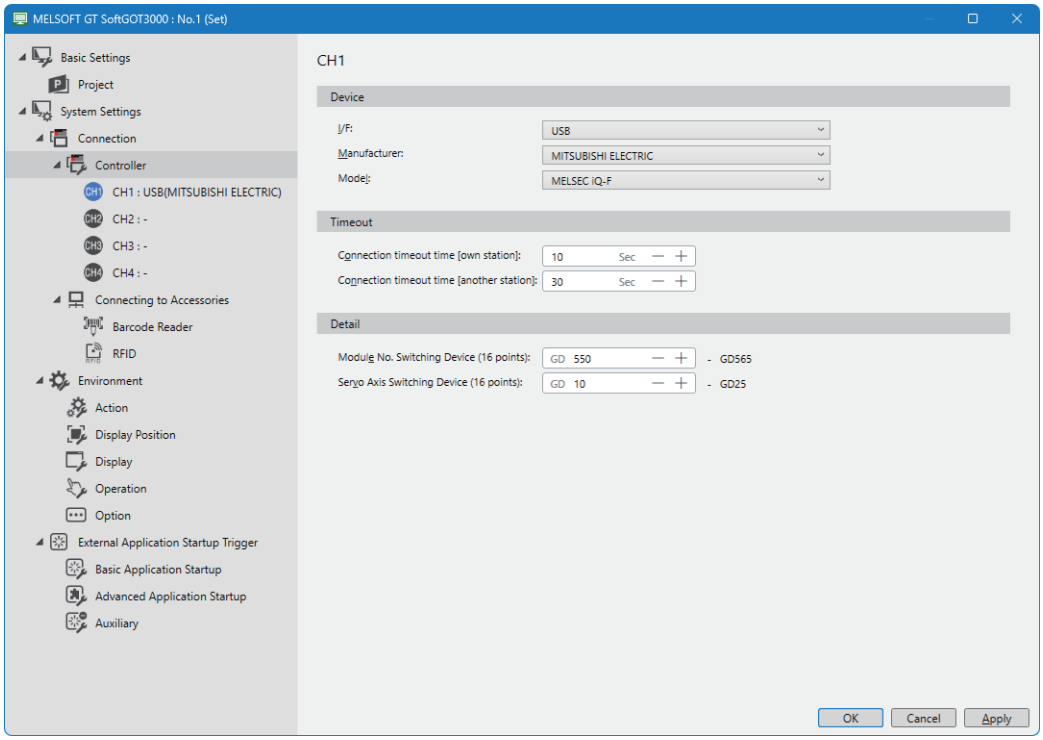
Item		Description	Range
[Device]	[I/F]	[USB]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
	[Model]	[MELSEC iQ-R]	—
[Timeout]	[Connection timeout time [own station]]	Displays the timeout period for monitoring the host station.	[1] Sec to [90] Sec
	[Connection timeout time [another station]]	Displays the timeout period for monitoring another station.	[1] Sec to [30] Sec
[Detail]	[CPU No. Switching Device (3 points)]	Displays the start device number of the GOT data registers (GD) to specify the CPU number.	GD[0] to GD[65520]
	[Module No. Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the module number.	GD[0] to GD[65520]
	[Servo Axis Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the axis number.	GD[0] to GD[65520]

■[Model]: [MELSEC iQ-L]



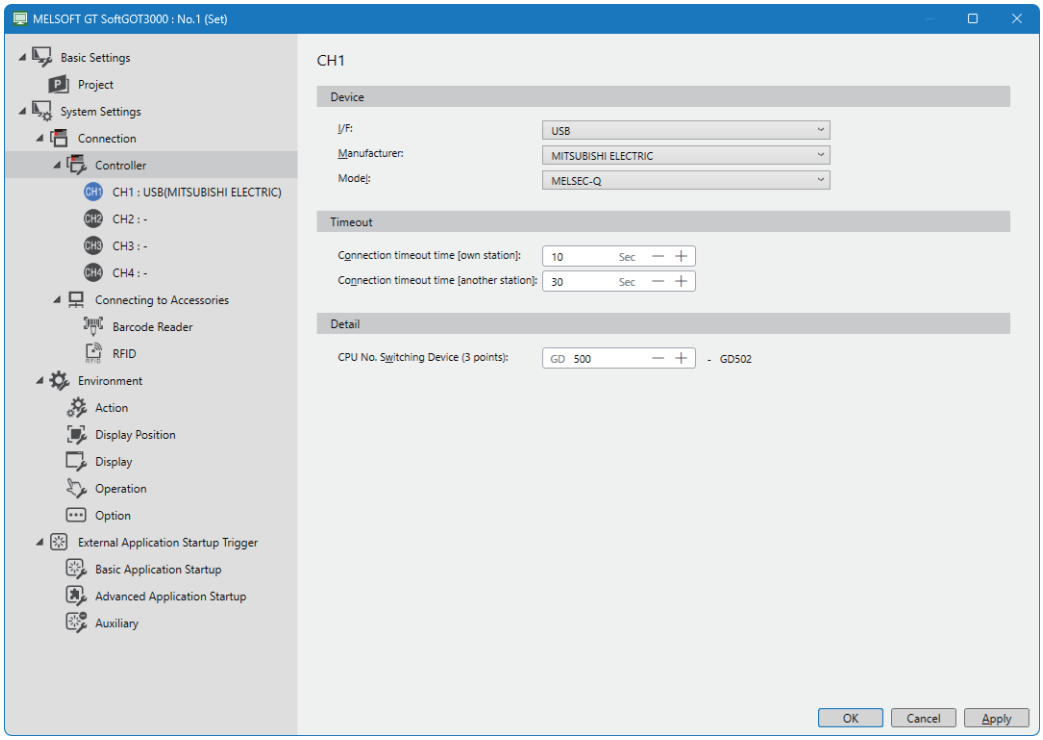
Item		Description	Range
[Device]	[I/F]	[USB]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
	[Model]	[MELSEC iQ-L]	—
[Timeout]	[Connection timeout time [own station]]	Displays the timeout period for monitoring the host station.	[1] Sec to [90] Sec
	[Connection timeout time [another station]]	Displays the timeout period for monitoring another station.	[1] Sec to [30] Sec

■[Model]: [MELSEC iQ-F]



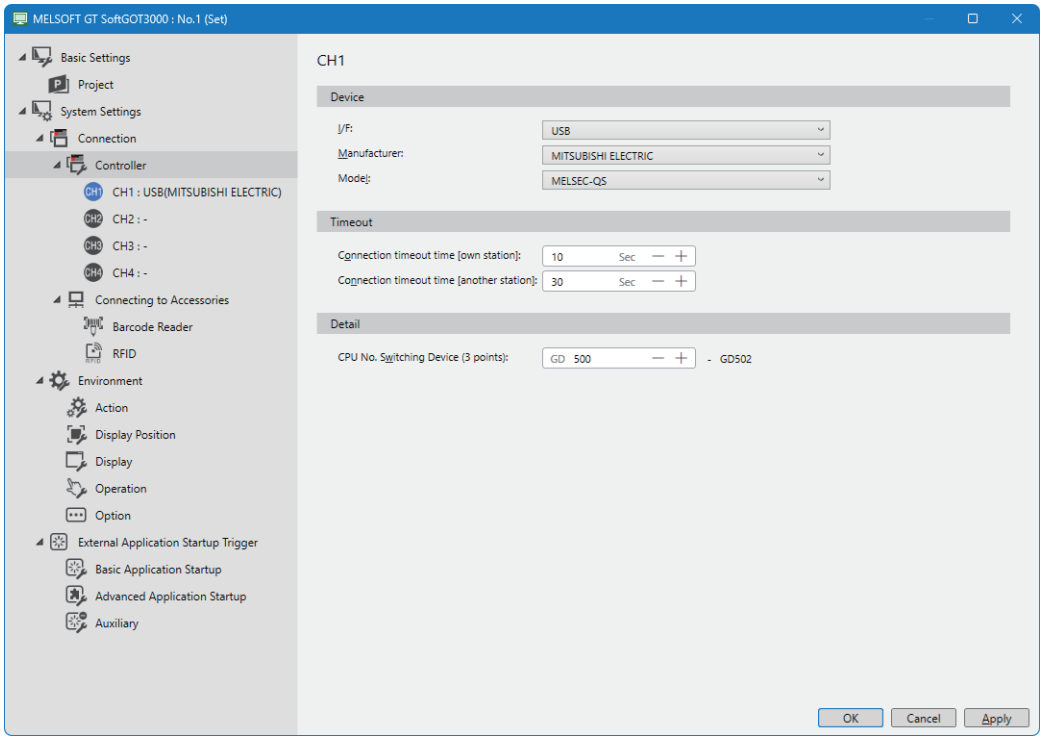
Item		Description	Range
[Device]	[I/F]	[USB]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
	[Model]	[MELSEC iQ-F]	—
[Timeout]	[Connection timeout time [own station]]	Displays the timeout period for monitoring the host station.	[1] Sec to [90] Sec
	[Connection timeout time [another station]]	Displays the timeout period for monitoring another station.	[1] Sec to [30] Sec
[Detail]	[Module No. Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the module number.	GD[0] to GD[65520]
	[Servo Axis Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the axis number.	GD[0] to GD[65520]

■[Model]: [MELSEC-Q]



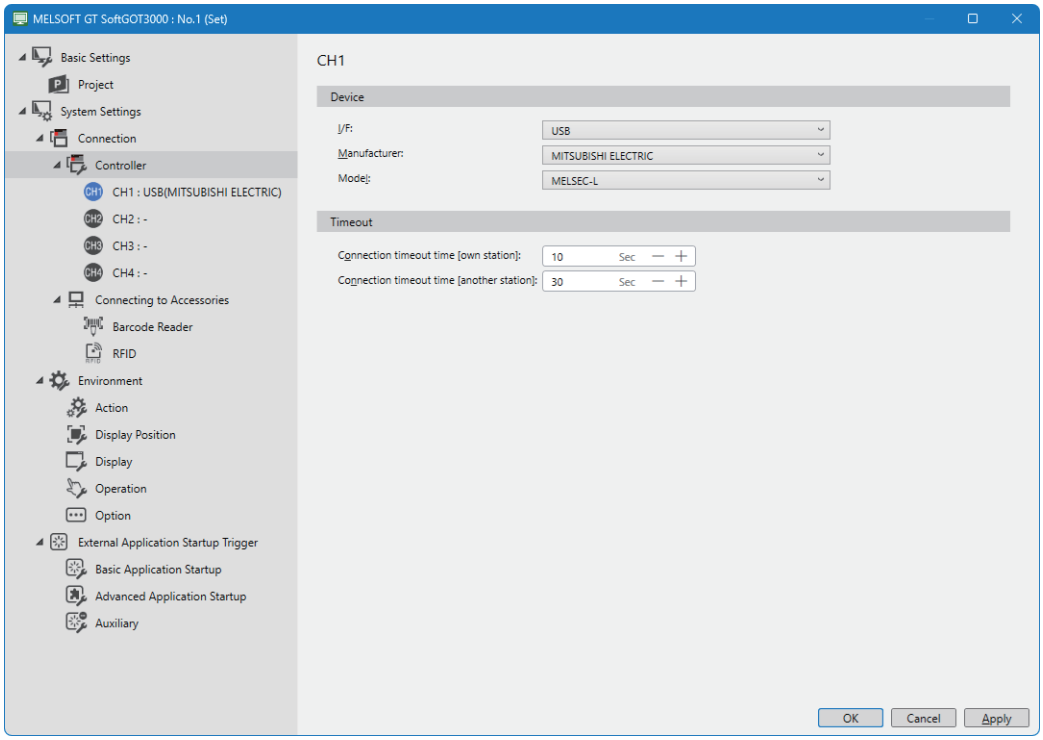
Item		Description	Range
[Device]	[I/F]	[USB]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
	[Model]	[MELSEC-Q]	—
[Timeout]	[Connection timeout time [own station]]	Displays the timeout period for monitoring the host station.	[1] Sec to [90] Sec
	[Connection timeout time [another station]]	Displays the timeout period for monitoring another station.	[1] Sec to [30] Sec
[Detail]	[CPU No. Switching Device (3 points)]	Displays the start device number of the GOT data registers (GD) to specify the CPU number.	GD[0] to GD[65520]

■[Model]: [MELSEC-QS]



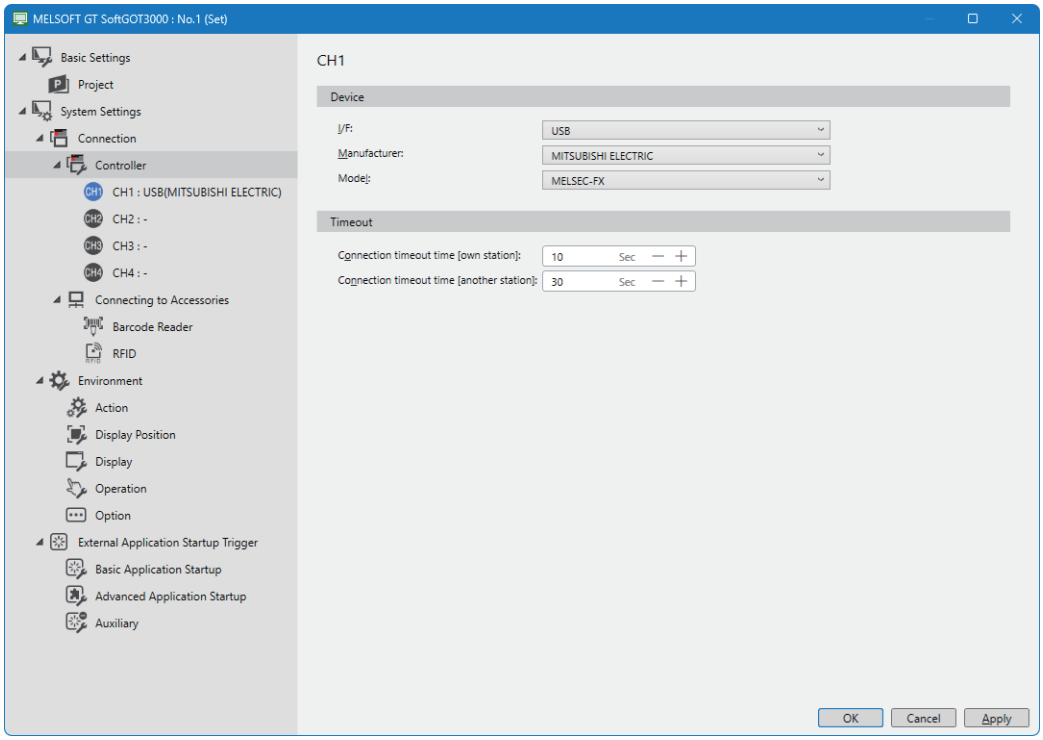
Item		Description	Range
[Device]	[I/F]	[USB]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
	[Model]	[MELSEC-QS]	—
[Timeout]	[Connection timeout time [own station]]	Displays the timeout period for monitoring the host station.	[1] Sec to [90] Sec
	[Connection timeout time [another station]]	Displays the timeout period for monitoring another station.	[1] Sec to [30] Sec
[Detail]	[CPU No. Switching Device (3 points)]	Displays the start device number of the GOT data registers (GD) to specify the CPU number.	GD[0] to GD[65520]

■[Model]: [MELSEC-L]



Item		Description	Range
[Device]	[I/F]	[USB]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
	[Model]	[MELSEC-L]	—
[Timeout]	[Connection timeout time [own station]]	Displays the timeout period for monitoring the host station.	[1] Sec to [90] Sec
	[Connection timeout time [another station]]	Displays the timeout period for monitoring another station.	[1] Sec to [30] Sec

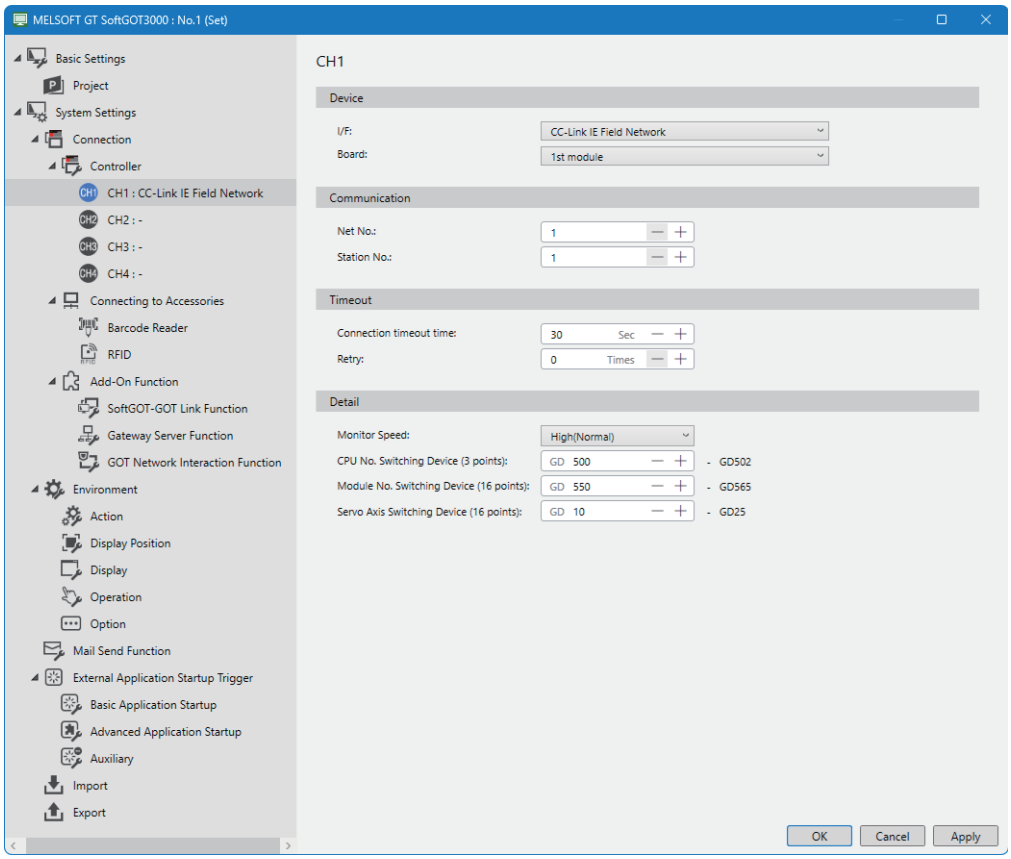
■[Model]: [MELSEC-FX]



Item		Description	Range
[Device]	[I/F]	[USB]	—
	[Manufacturer]	[MITSUBISHI ELECTRIC]	—
	[Model]	[MELSEC-FX]	—
[Timeout]	[Connection timeout time [own station]]	Displays the timeout period for monitoring the host station.	[1] Sec to [90] Sec
	[Connection timeout time [another station]]	Displays the timeout period for monitoring another station.	[1] Sec to [30] Sec

[CC-Link IE Field Network]

Displays the setting items for connecting GT SoftGOT3000 and the controller via CC-Link IE Field Network.



Item		Description	Range
[Device]	[I/F]	[CC-Link IE Field Network]	—
	[Board]	[1st module] [2nd module] [3rd module] [4th module]	—
[Communication]	[Net No.]	Displays the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Displays the station number of GT SoftGOT3000.	[1] to [120]
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[1] Sec to [90] Sec
	[Retry]	Displays the number of retries when the communication times out. If no response is received after the retries, the communication times out.	[0] Times to [10] Times
[Detail]	[Monitor Speed]	Select a monitor speed.	[High(Normal)] [Middle] [Low]
	[CPU No. Switching Device (3 points)]	Displays the start device number of the GOT data registers (GD) to specify the CPU number.	GD[0] to GD[65520]
	[Module No. Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the module number.	GD[0] to GD[65520]
	[Servo Axis Switching Device (16 points)]	Displays the start device number of the GOT data registers (GD) to specify the axis number.	GD[0] to GD[65520]

[MELSOFT Simulator]

Displays the setting items for connecting GT SoftGOT3000 and the controller via MELSOFT Simulator.

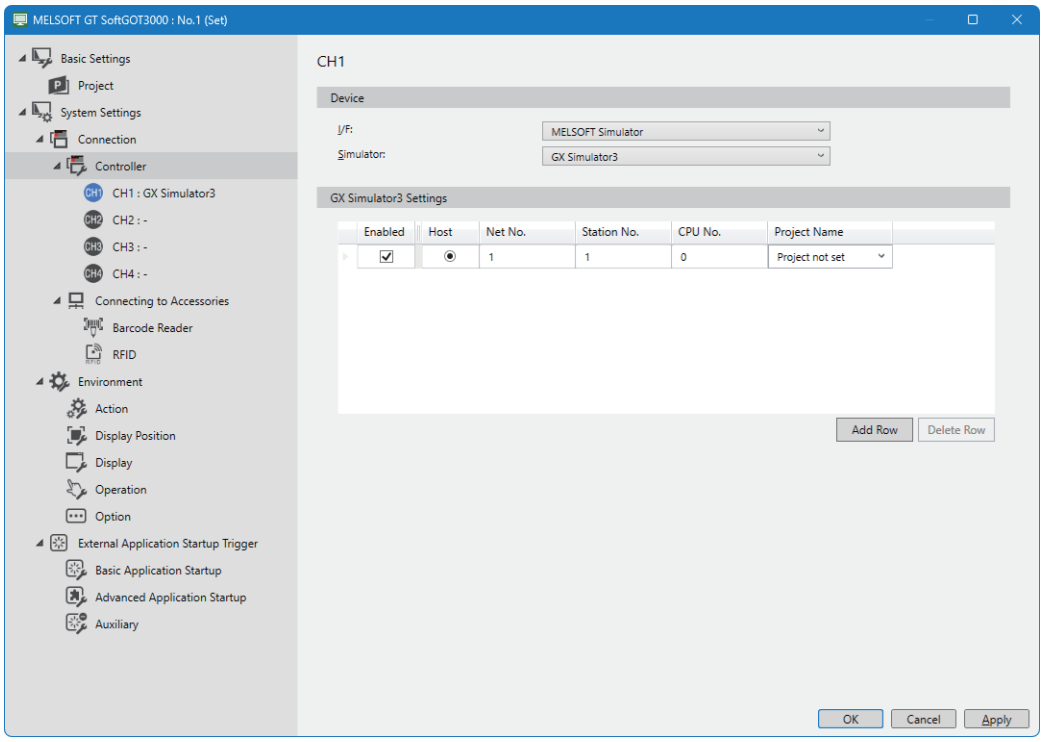
The setting items differ depending on the setting for [Simulator].

☞ Page 110 [Simulator]: [GX Simulator3]

☞ Page 111 [Simulator]: [GX Simulator2/MT Simulator2]

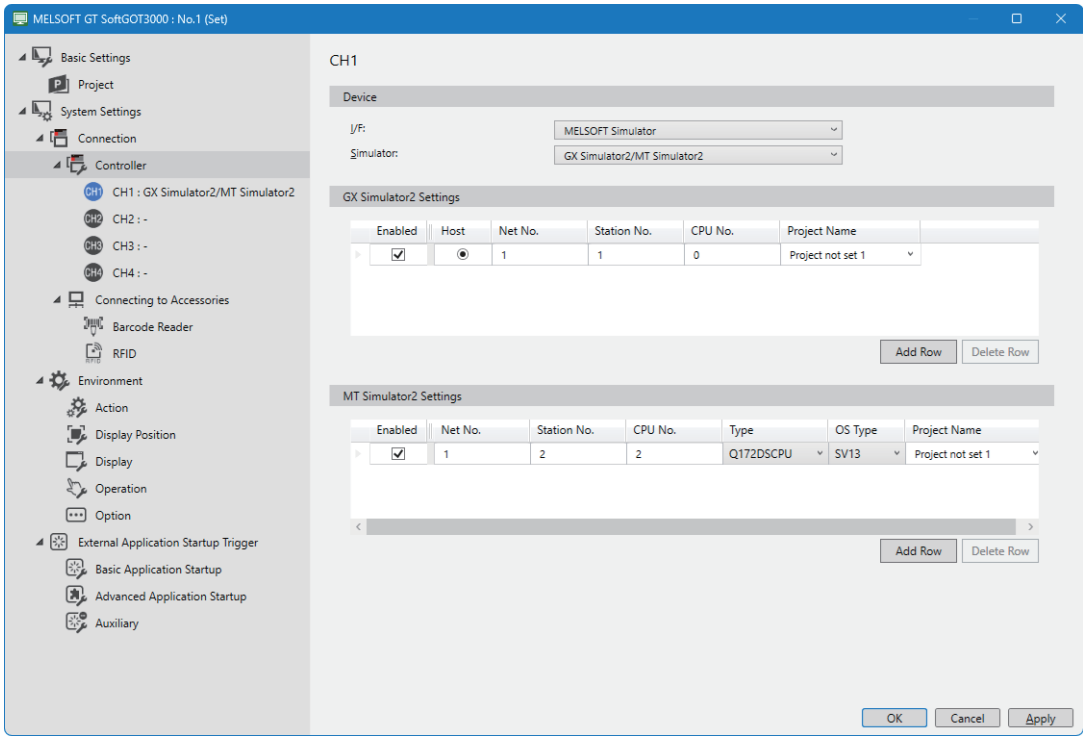
☞ Page 112 [MELSOFT Mirror]

■[Simulator]: [GX Simulator3]



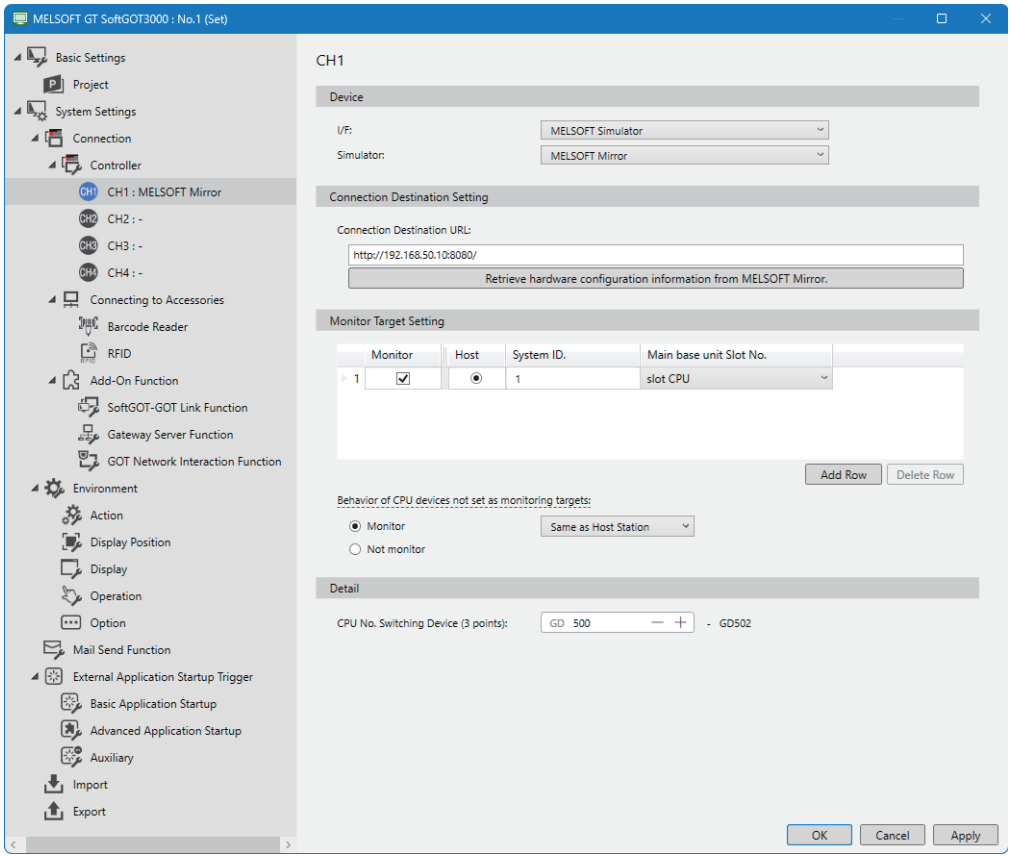
Item		Description	Range
[Device]	[I/F]	[MELSOFT Simulator]	—
	[Simulator]	[GX Simulator3]	—
[GX Simulator3 Settings]	Checkbox	Select this to enable the setting.	—
	[Host]	Displays the host station.	—
	[Net No.]	Displays the network number.	[0] to [239]
	[Station No.]	Displays the station number.	[0] to [255]
	[CPU No.]	Displays the CPU number.	[0] to [4]
	[Project Name]	Displays the name of the configured GX Simulator3 project. Specify a project that starts a simulation with GX Works3 without generating errors. If no project is set, GX Simulator3 will start with the default project.	—
	[Add Row] button	Adds a setting row. Up to 32 rows can be added.	—
	[Delete Row] button	Deletes the selected setting row.	—

■[Simulator]: [GX Simulator2/MT Simulator2]



Item		Description	Range
[Device]	[I/F]	[MELSOFT Simulator]	—
	[Simulator]	[GX Simulator2/MT Simulator2]	—
[GX Simulator2 Settings]	Checkbox	Select this to enable the setting.	—
	[Host]	Displays the host station.	—
	[Net No.]	Displays the network number.	[0] to [239]
	[Station No.]	Displays the station number.	[0] to [255]
	[CPU No.]	Displays the CPU number.	[0] to [4]
	[Project Name]	Displays the project name for GX Simulator2. The following shows the available project formats. • Workspace format project (*.gd2) • Single file format project (*.GXW)	[Unset Project1] to [Unset Project4]
	[Add Row] button	Adds a setting row. Up to four rows can be added.	—
	[Delete Row] button	Deletes the selected setting row.	—
[MT Simulator2 Settings]	Checkbox	Select this to enable the setting.	—
	[Net No.]	Displays the network number.	[0] to [239]
	[Station No.]	Displays the station number.	[0] to [255]
	[CPU No.]	Displays the CPU number.	[2] to [4]
	[Type]	Select the PLC to be connected.	[Q172DSCPU] [Q173DSCPU]
	[OS Type]	Select the OS type of the controller to be connected.	[SV13] [SV22]
	[Project Name]	Displays the project name for MT Simulator2. The following shows the available project formats. • Workspace format project (*.mt2) • Single file format project (*.MTW)	[Unset Project1] to [Unset Project4]
	[Add Row] button	Adds a setting row. Up to three rows can be added.	—
	[Delete Row] button	Deletes the selected setting row.	—

■[MELSOFT Mirror]

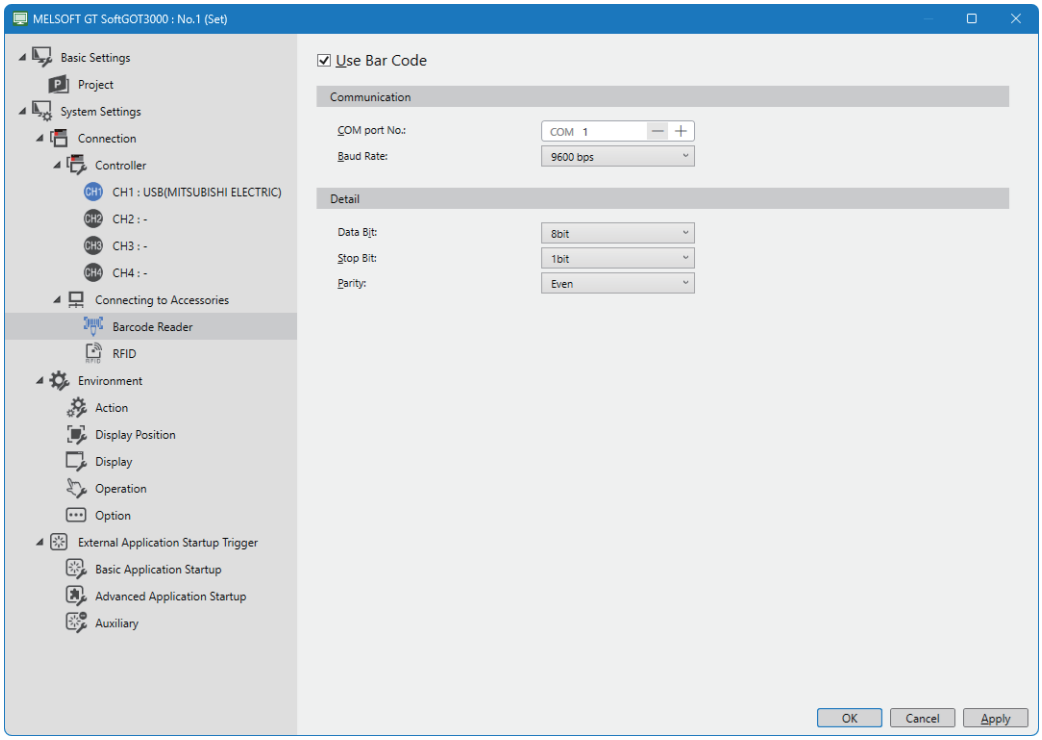


Item		Description	Range
[Device]	[I/F]	[MELSOFT Simulator]	—
	[Simulator]	[MELSOFT Mirror]	—
[Connection Destination Setting]	[Connection Destination URL]	Specify the URL for connection with the MELSOFT Mirror server. Specify the URL with one-byte alphanumerics and symbols within 2083 characters.	—
	[Retrieve hardware configuration information from MELSOFT Mirror.] button	Acquires the hardware configuration being simulated in MELSOFT Mirror. When this button is clicked, the hardware configuration information of MELSOFT Mirror is reflected in the detail setting table for [Monitor Target Setting].	—
[Monitor Target Setting]	Checkbox	Select this to enable the setting.	—
	[Host]	Displays the host station.	—
	[System ID.]	Set the system ID of the system to be simulated.	[1] to [59]
	[Main base unit Slot No.]	Set the slot number of the CPU module on the main base unit in the system to be simulated.	[slot CPU] [slot I/O 0] to [slot I/O 6]
	[Add Row] button	Adds a setting row. Up to 64 rows can be added.	—
	[Delete Row] button	Deletes the selected setting row.	—
	[Behavior of CPU devices not set as monitoring targets]	Set the behavior of CPU devices not targeted for monitoring.	[Monitor] [Not monitor]
[Detail]	[CPU No. Switching Device (3 points)]	Displays the start device number of the GOT data registers (GD) to specify the CPU number.	GD[0] to GD[65520]

13.1.2 [Connecting to Accessories]

☞ Page 113 [Barcode Reader]
☞ Page 114 [RFID]

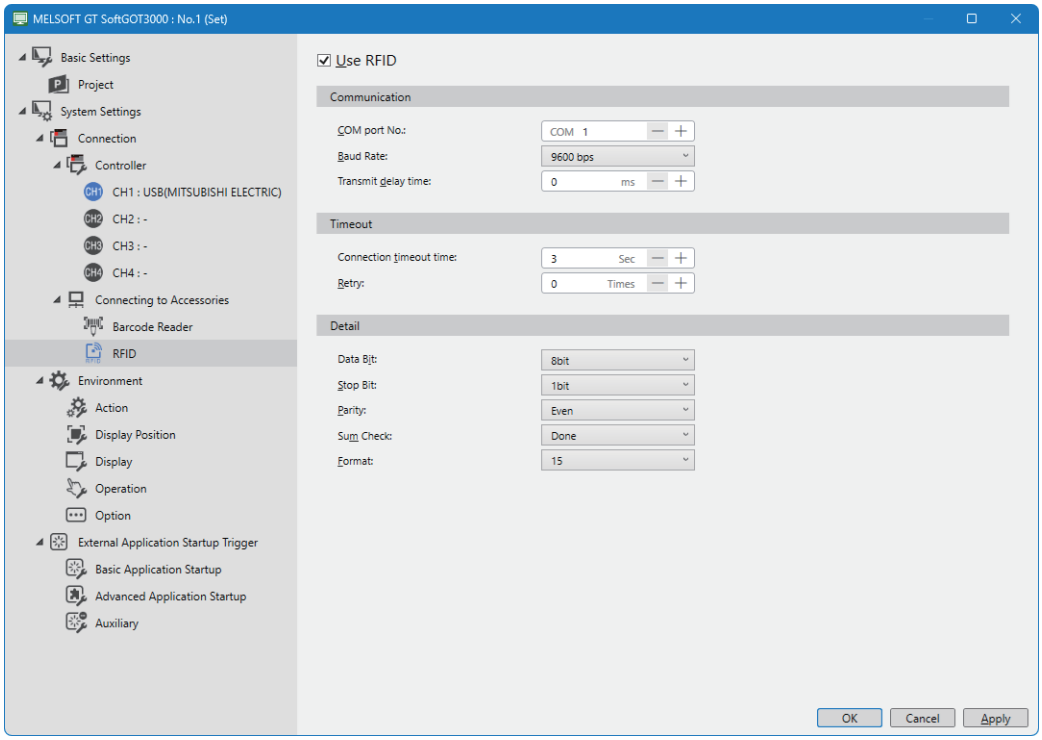
[Barcode Reader]



Item		Description	Range
[Communication]	[COM port No.]	Displays the communication port number of the personal computer used for connection.	COM[1] to COM[63]
	[Baud Rate]	Displays the baud rate for communication with the controller.	[4800 bps] [9600 bps] [19200 bps] [38400 bps] [57600 bps] [115200 bps]
[Detail]	[Data Bit]	Displays the data length for communication with the controller.	[7bit] [8bit]
	[Stop Bit]	Displays the stop bit length for communications.	[1bit] [2bit]
	[Parity]	Displays whether a parity check is performed during communication and the format used if it is performed.	[None] [Even] [Odd]

PART 6

[RFID]

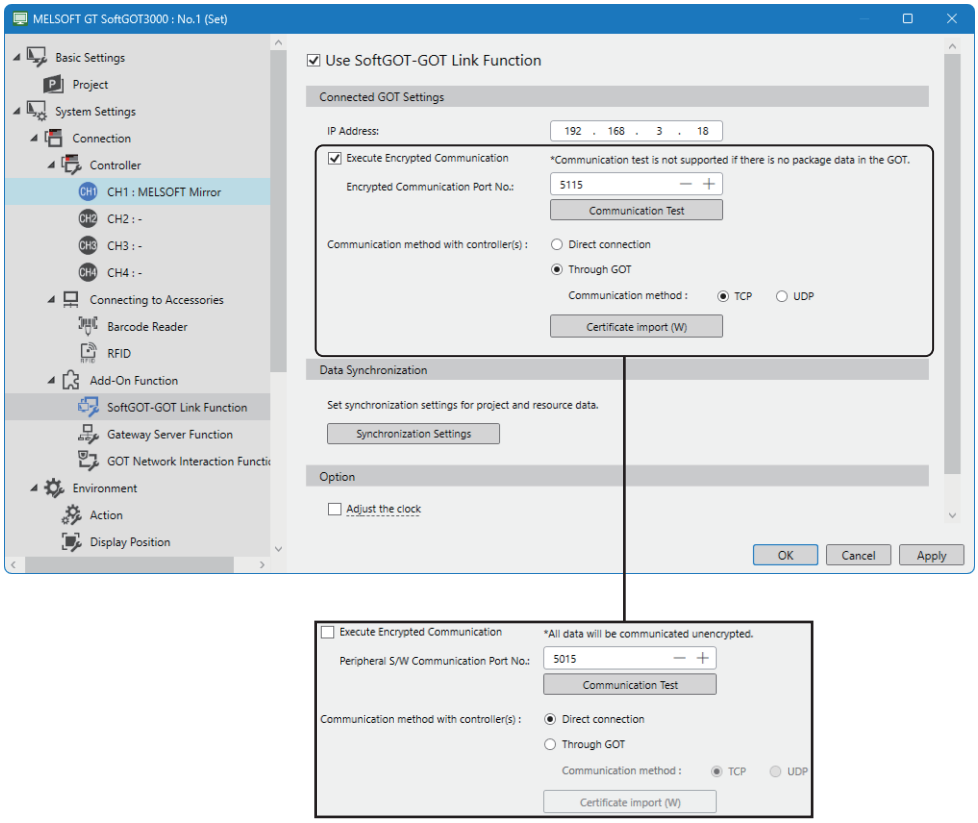


Item		Description	Range
[Communication]	[COM port No.]	Displays the communication port number of the personal computer used for connection.	COM[1] to COM[63]
	[Baud Rate]	Displays the baud rate for communication with the controller.	[4800 bps] [9600 bps] [19200 bps] [38400 bps] [57600 bps] [115200 bps]
	[Transmit delay time]	Appears to adjust the timing of sending a communication request from GT SoftGOT3000.	[0] ms to [3000] ms
[Timeout]	[Connection timeout time]	Displays the time until the communication times out.	[3] Sec to [30] Sec
	[Retry]	Displays the number of retries when the communication times out. When receiving no response after retries, the communication times out.	[0] Times to [5] Times
[Detail]	[Data Bit]	Displays the data length for communication with the controller.	[7bit] [8bit]
	[Stop Bit]	Displays the stop bit length for communications.	[1bit] [2bit]
	[Parity]	Displays whether a parity check is performed during communication and the format used if it is performed.	[None] [Even] [Odd]
	[Sum Check]	Displays whether to perform a sum check during communication.	[Done] [None]
	[Format]	Select a communication format.	[10] [11] [15]

13.1.3 [Add-On Function]

☞ Page 115 [SoftGOT-GOT Link Function]
☞ Page 117 [Gateway Server Function]
☞ Page 118 [GOT Network Interaction Function]

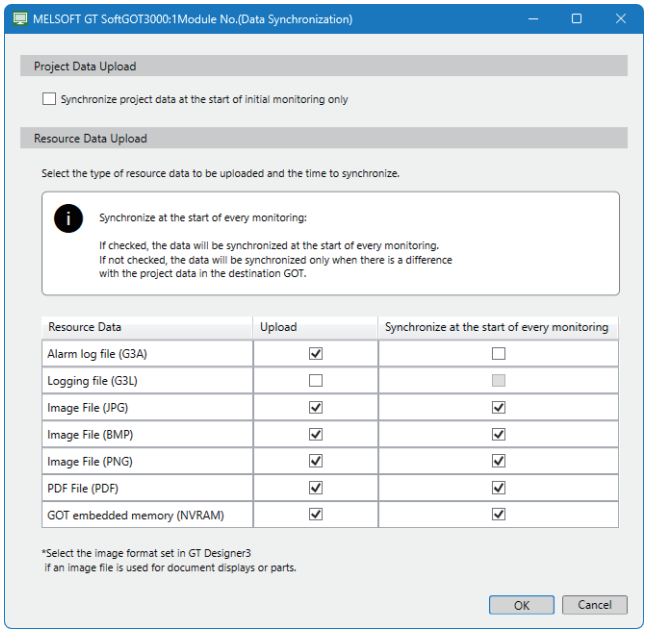
[SoftGOT-GOT Link Function]



Item		Description	Range
Checkbox		Select this item to enable the SoftGOT-GOT link function.	—
[Connected GOT Settings]	[IP Address]	Set the IP address of the GOT.	—
	[Execute Encrypted Communication]	Select this item to encrypt communication data when the GOT communicates with an external device.	—
	[Encrypted Communication Port No.]	Set the port number for encrypted communication with the connected GOT.	—
	[Peripheral S/W Communication Port No.]	Set the port number of the connected GOT.	—
	[Communication Test]	Executes a communication test with the connected GOT.	—
	[Communication method with controller(s)]	Set the method of communication between the connected GOT and the controller.	[Direct connection] [Through GOT]
	[Communication method]	Set the format of communication between the connected GOT and the controller when [Through GOT] is selected for [Communication method with controller(s)].	[TCP] [UDP]
	[Certificate import]	Imports the certificate for the connected GOT.	—
[Data Synchronization]	[Synchronization Settings]	Opens the SoftGOT-GOT link function settings dialog (data synchronization settings).	—
[Option]	[Adjust the clock]	Synchronizes the time of the personal computer where GT SoftGOT3000 runs with the time of the controller while the SoftGOT-GOT link function is used.	GD[0] to GD[65520]

■[Synchronization Settings]

Click the [Synchronization Settings] button under [Data Synchronization] to display the following window.



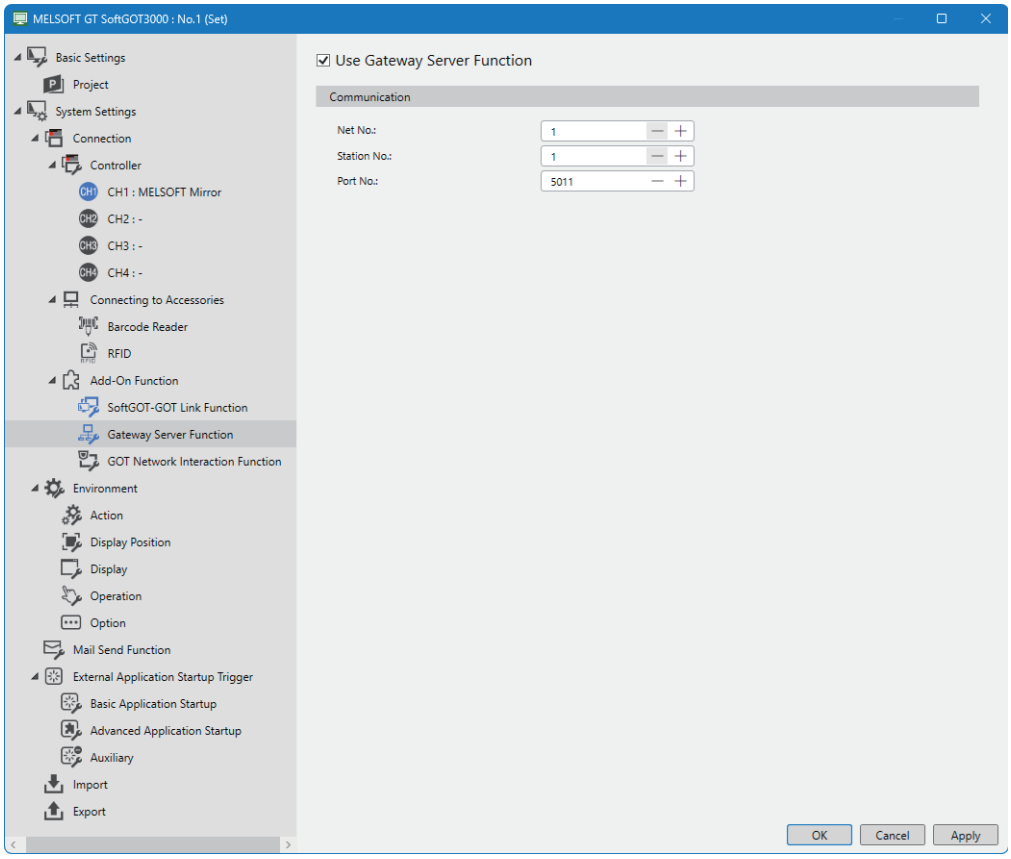
Item		Description
[Project Data Upload]	[Synchronize project data at the start of initial monitoring only]	Synchronizes the project data only when initial monitoring starts in GT SoftGOT3000. From the second time onward, monitoring starts with the already synchronized project data, reducing the startup time.
[Resource Data Upload]	[Resource Data]*1	The following shows selectable resource data. • [Alarm log file (G3A)] • [Logging file (G3L)] • [Image File (JPG)] • [Image File (BMP)] • [Image File (PNG)] • [PDF File (PDF)] • [GOT embedded memory (NVRAM)]
	[Upload]	Select the type of resource data to be synchronized.
	[Synchronize at the start of every monitoring]	Select the timing for synchronizing the resource data. When this item is deselected, synchronization occurs only if there is a difference between the project data of the connected GOT and the data at the time of synchronization. When this item is selected, resource data is synchronized at each synchronization timing.

*1 When the file save and power-failure backup settings are configured in the GOT, select files such as [Alarm Log File] and [GOT embedded memory (NVRAM)] applicable to the settings as the synchronization targets.
Make sure that the [Synchronize at the start of every monitoring] setting is consistent between the corresponding file and [GOT embedded memory (NVRAM)].

Precautions

When [Synchronize project data at the start of initial monitoring only] is selected, monitoring starts using the already synchronized project data without performing project data synchronization. As a result, there may be differences between the project data of the connected GOT and the synchronized data.
To synchronize with the project data of the connected GOT during the second or subsequent time, deselect [Synchronize project data at the start of initial monitoring only] and start monitoring again.

[Gateway Server Function]

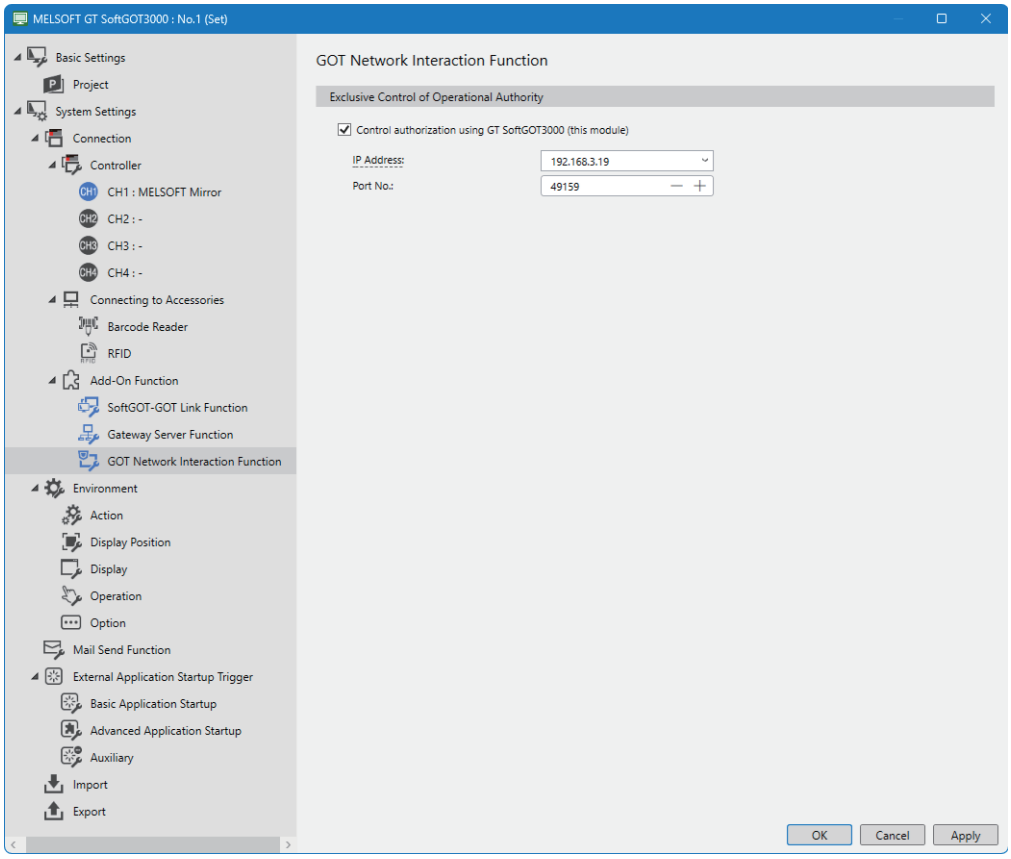


Item		Description	Range
Checkbox		Select this item to enable the gateway server function.	—
[Communication]	[Net No.]	Set the network number of GT SoftGOT3000.	[1] to [239]
	[Station No.]	Set the station No. of GT SoftGOT3000.	[1] to [64]
	[Port No.]	Set the Ethernet port No. of the device with GT SoftGOT3000 installed.	[1024] to [65534]

For details on the gateway server function, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

[GOT Network Interaction Function]



Item		Description	Range
[Exclusive Control of Operational Authority]	[Control authorization using GT SoftGOT3000 (this module)]	Select this item to specify this module as the master GOT.	—
	[IP Address]	Set the IP address of the device with GT SoftGOT3000 installed.	[0.0.0.0] to [255.255.255.255]
	[Port No.]	Set the Ethernet port No. of the device with GT SoftGOT3000 installed.	[1024] to [65534]

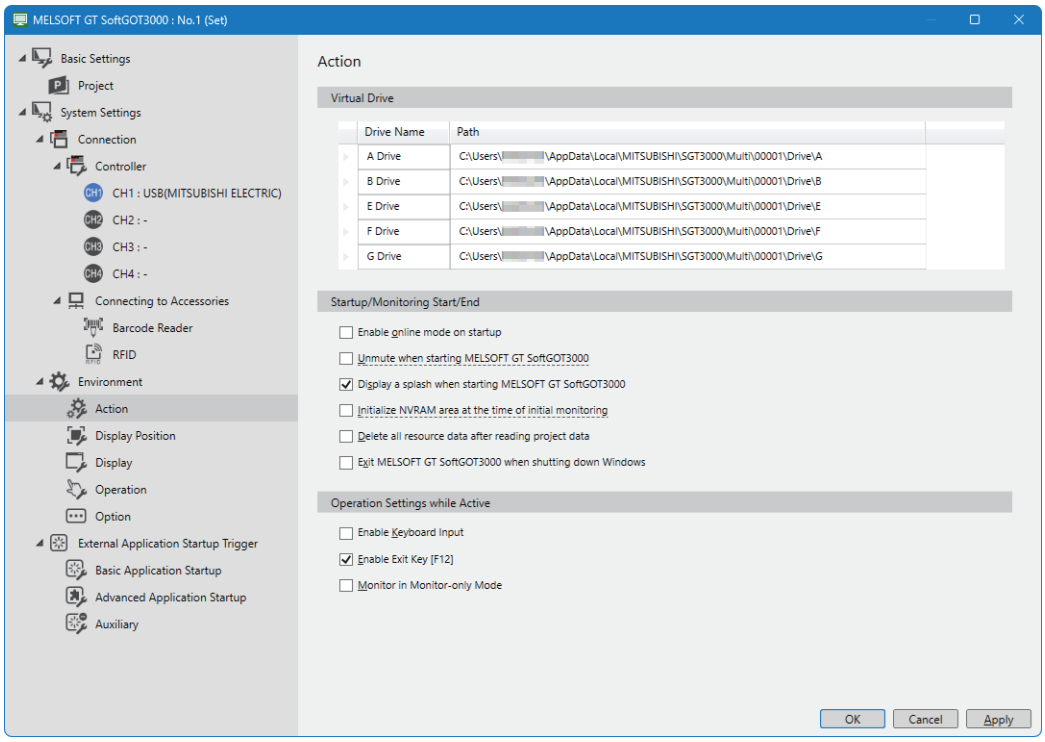
For details on the network interaction function, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

13.2 [Environment]

☞ Page 119 [Action]
☞ Page 121 [Display Position]
☞ Page 122 [Display]
☞ Page 123 [Operation]
☞ Page 124 [Option]

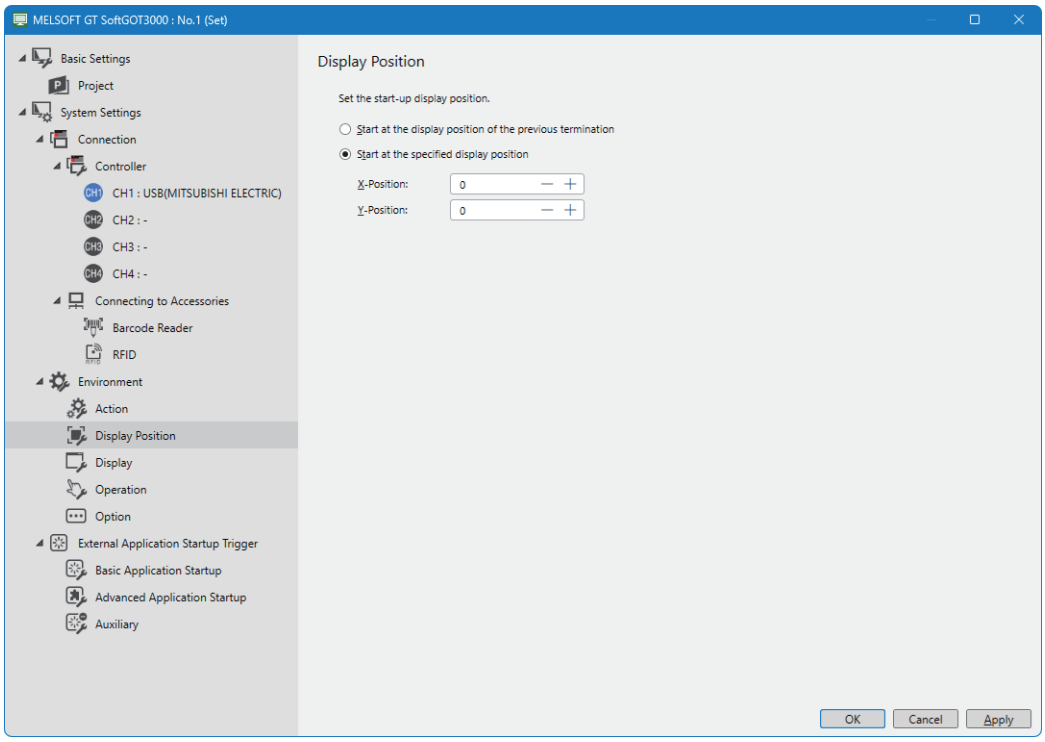
13.2.1 [Action]



Item		Description
[Virtual Drive]		Displays the paths to the folders set as virtual drives. Any folder can be set as a virtual drive.
[Startup/Monitoring Start/End]	[Enable online mode on startup]	Select this item to automatically start monitoring when GT SoftGOT3000 is started.
	[Unmute when starting MELSOFT GT SoftGOT3000]	Select this item to forcibly unmute when GT SoftGOT3000 is started, regardless of the Windows volume setting.
	[Display a splash when starting MELSOFT GT SoftGOT3000]	Select this item to display the splash screen when GT SoftGOT3000 is started.
	[Initialize NVRAM area at the time of initial monitoring]	Select this item to initialize the nonvolatile RAM area when monitoring starts. The nonvolatile RAM area can store data of the following functions. • User alarm monitoring • System alarm monitoring • Logging • Recipe • Internal device retention Deselect this item to start monitoring with the data stored in the nonvolatile RAM area at the last exit.
	[Delete all resource data after reading project data]	Select this item to delete all resource data within and under the virtual drive after the project data reading is completed.
	[Exit MELSOFT GT SoftGOT3000 when shutting down Windows]	Select this item to exit GT SoftGOT3000 simultaneously when logging off or shutting down Windows.

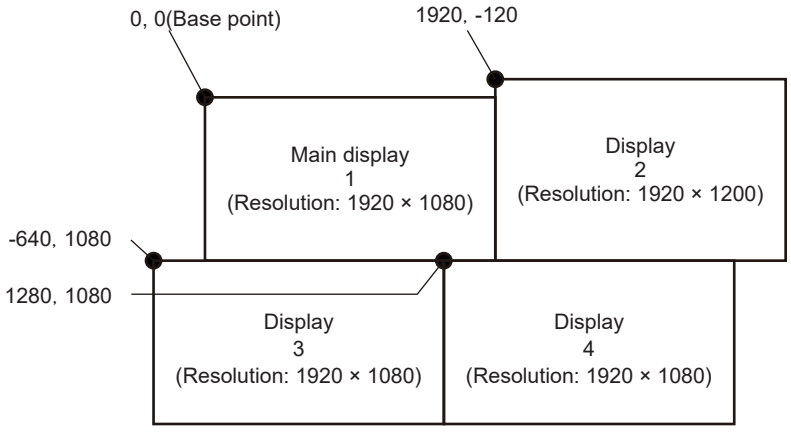
Item		Description
[Operation Settings while Active]	[Enable Keyboard Input]	Select this item to enable keyboard input during monitoring.
	[Enable Exit Key [F12]]	Select this item to exit GT SoftGOT3000 when pressing the F12 key. ☞ Page 152 Enabling/disabling the exit key [F12]
	[Monitor in Monitor-only Mode]	Select this item to perform monitoring in monitor-only mode. ☞ Page 172 Monitor-only mode

13.2.2 [Display Position]



Item	Description
[Start at the display position of the previous termination]	Starts GT SoftGOT3000 at the window display position of the last exit. If the last session ended abnormally, the window appears in the last normal exit position. When the coordinates of the display position of the last exit do not exist on the display, the window at startup is displayed on the X coordinate, Y coordinate (0, 0) on the upper-left corner of the main display.
[Start at the specified display position]*1	Displays the window display position when GT SoftGOT3000 is started. Specify the display position at the left corner of the GT SoftGOT3000 screen using (X, Y) coordinates, considering the upper left corner of the personal computer screen as (0, 0) coordinates. The setting range is [-32768] to [32767] for both [X-Position] and [Y-Position]. When the coordinates of the specified display position do not exist on the display, the window at startup is displayed on the X coordinate, Y coordinate (0, 0) on the upper-left corner of the main display.

*1 If multiple displays are used, the X and Y coordinates at the upper left corner of the main display are the base point (0, 0).
Example) When four displays are used



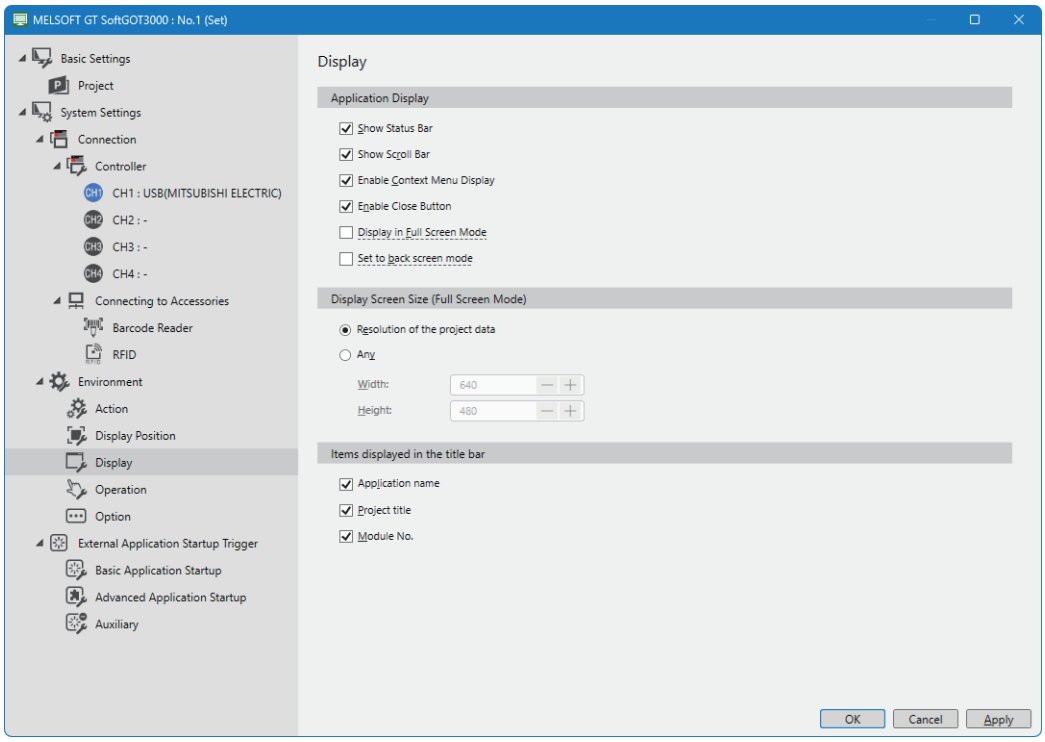
Precautions

If the display position when GT SoftGOT3000 is started is also set with the startup option, the value set with the startup option takes precedence over the value set in this dialog.

For details on the startup option, refer to the following.

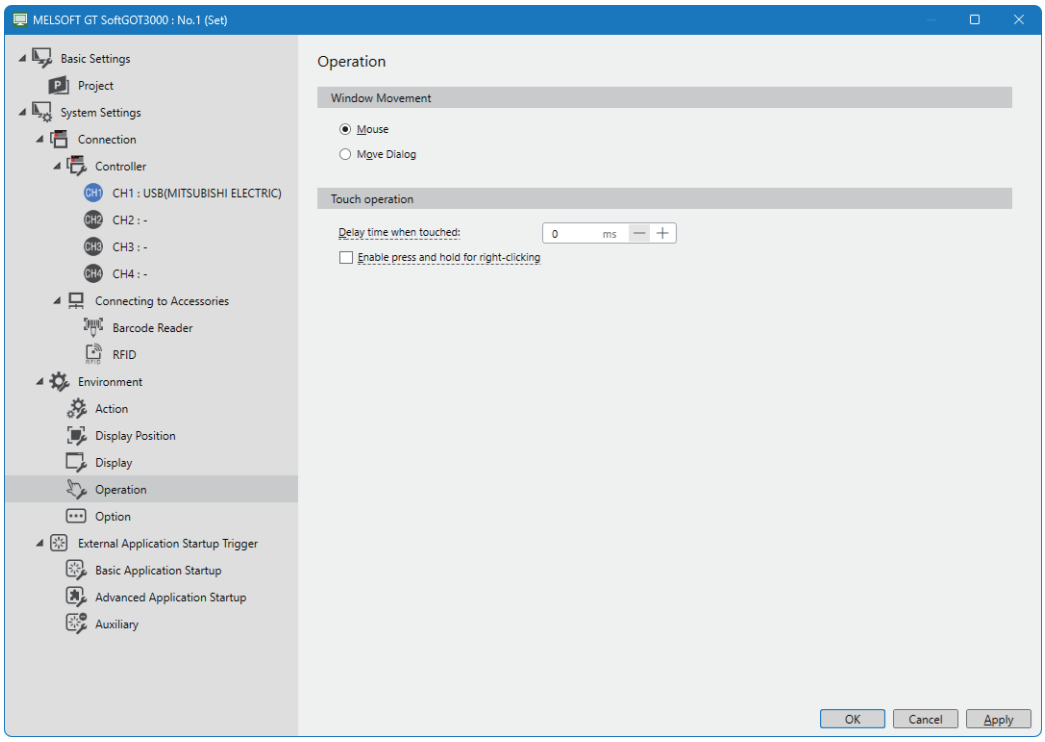
☞ Page 59 Specifying the operation or processing upon startup

13.2.3 [Display]



Item		Description
[Application Display]	[Show Status Bar]	Select this item to display the status bar at the bottom of the GT SoftGOT3000 screen.
	[Show Scroll Bar]	Select this item to display the scroll bars of GT SoftGOT3000. ☞ Page 149 Enabling/disabling the scroll bar display
	[Enable Context Menu Display]	Select this item to enable the right-click context menu. ☞ Page 150 Enabling/disabling the context menu display
	[Enable Close Button]	Select this item to enable the [Close] button in the context menu that appears when the [×] button in the upper right corner of the title bar is clicked or the title bar is right-clicked. ☞ Page 151 Enabling/disabling the close button
	[Display in Full Screen Mode]	Select this item to display the GT SoftGOT3000 screen in full-screen mode. ☞ Page 153 Full-screen display
	[Set to back screen mode]	Select this item to display the GT SoftGOT3000 screen in the background. ☞ Page 159 Back screen mode
[Display Screen Size (Full Screen Mode)]	[Resolution of the project data]	Select this item to display the GT SoftGOT3000 screen in full-screen mode in the same size as the resolution set for the project.
	[Any]	Select this item to display the GT SoftGOT3000 screen in full-screen mode in any size. The following shows the setting ranges. • [Width]: [640] dots to [1920] dots • [Height]: [480] dots to [1920] dots
[Items displayed in the title bar]	[Application name]	Select this item to display the application name in the title bar. ☞ Page 33 Title bar
	[Project title]	Select this item to display the project title in the title bar. ☞ Page 33 Title bar
	[Module No.]	Select this item to display the GT SoftGOT3000 module number in the title bar. ☞ Page 33 Title bar

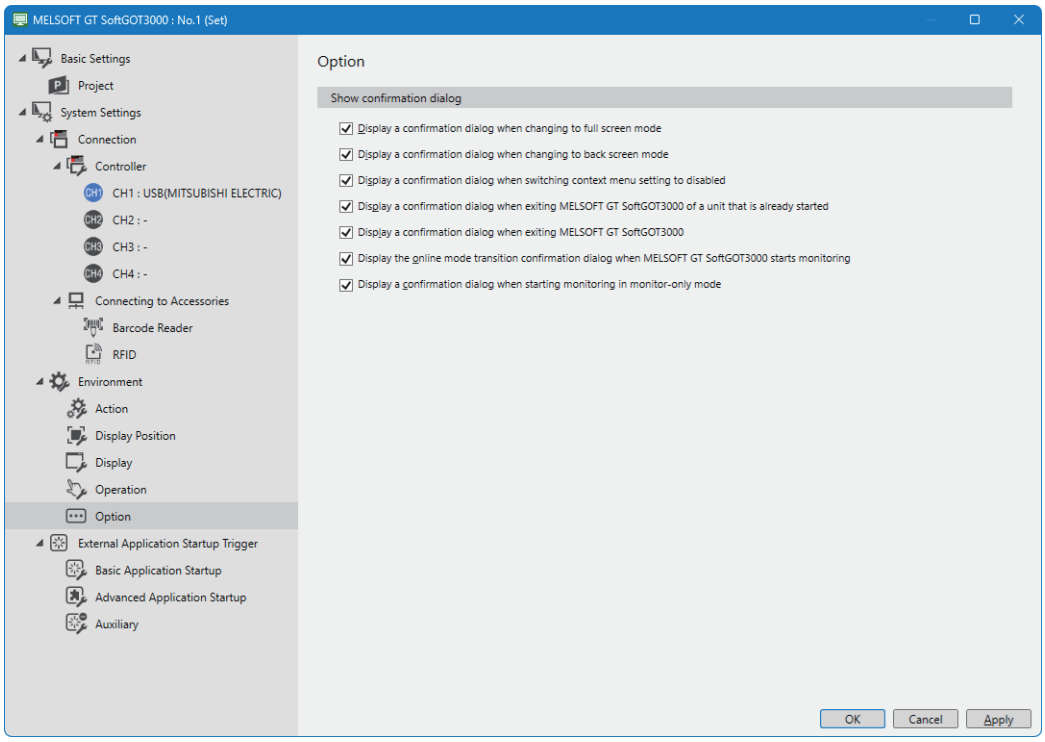
13.2.4 [Operation]



Item		Description
[Window Movement]		Select the operation method when moving the GT SoftGOT3000 screen. ☞ Page 227 Window movement
[Touch operation]	[Delay time when touched]	Displays the touch delay time to stabilize the touch operation when a touch screen is used. The setting range is [0] ms to [500] ms.
	[Enable press and hold for right-clicking]	Select this item to display the context menu when the touchscreen is pressed and held.

PART 6

13.2.5 [Option]



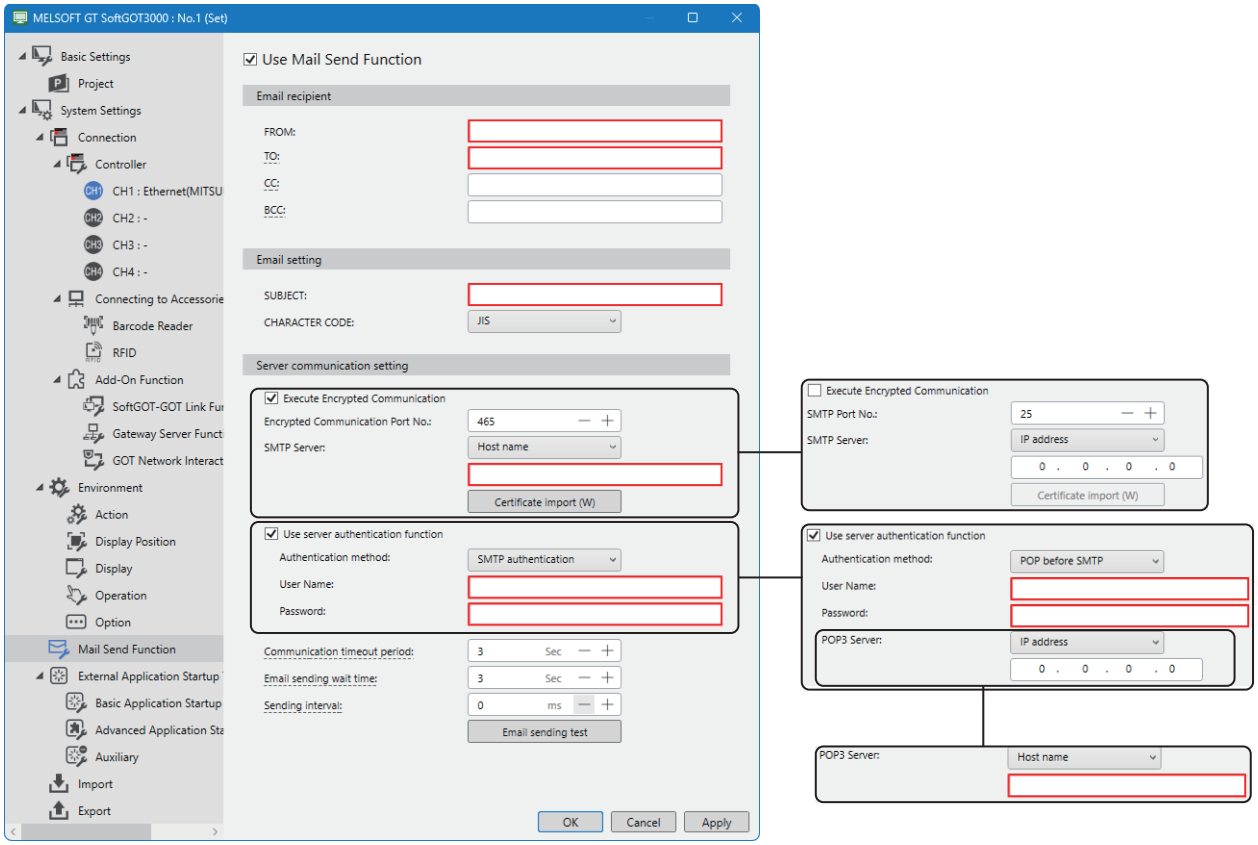
Item		Description
[Show confirmation dialog]	[Display a confirmation dialog when changing to full screen mode]	Select this item to display a confirmation dialog when switching to full screen mode.
	[Display a confirmation dialog when changing to back screen mode]	Select this item to display a confirmation dialog when switching to back screen mode.
	[Display a confirmation dialog when switching context menu setting to disabled]	Select this item to display a confirmation dialog when the context menu setting is disabled.
	[Display a confirmation dialog when exiting MELSOFT GT SoftGOT3000 of a unit that is already started]	Select this item to display a confirmation dialog when starting an already running GT SoftGOT3000 module.
	[Display a confirmation dialog when exiting MELSOFT GT SoftGOT3000]	Select this item to display a confirmation dialog when GT SoftGOT3000 exits.
	[Display the online mode transition confirmation dialog when MELSOFT GT SoftGOT3000 starts monitoring]	Select this item to display a dialog to confirm transition to online mode when monitoring starts.
	[Display a confirmation dialog when starting monitoring in monitor-only mode]	Select this item to display a confirmation dialog when monitoring starts in monitor-only mode.

13.3 [Mail Send Function]

The following explains the [Mail Send Function] settings in the left-side tree of the [Set] dialog.

For details on the functions related to emails, refer to the following.

☞ Page 160 Email functions



Item	Description	Range
Checkbox	Select this item to enable the mail send function.	—

Item		Description	Range
[Email recipient]	[FROM]	Enter the address of the email sender. Only one address can be entered. Up to 64 one-byte characters can be entered per address. Invalid characters and reserved words cannot be used. ☞ Page 128 Invalid characters and reserved words in [FROM]	—
	[TO]	Enter the address of the email recipient. When entering multiple addresses, separate the addresses by spaces or commas. Up to 32 addresses can be entered. Up to 64 one-byte characters can be entered per address. Invalid characters and reserved words cannot be used. ☞ Page 128 Invalid characters and reserved words in [TO], [CC], [BCC], [SUBJECT], [User Name], and [Password]	—
	[CC]	Enter the address of the email recipient (carbon copy). (You can send emails without entering an address in this field) When entering multiple addresses, separate the addresses by spaces or commas. Up to 32 addresses can be entered. Up to 64 one-byte characters can be entered per address. Invalid characters and reserved words cannot be used. ☞ Page 128 Invalid characters and reserved words in [TO], [CC], [BCC], [SUBJECT], [User Name], and [Password]	—
	[BCC]	Enter the address of the email recipient (blind carbon copy). (You can send emails without entering an address in this field) When entering multiple addresses, separate the addresses by spaces or commas. Up to 32 addresses can be entered. Up to 64 one-byte characters can be entered per address. Invalid characters and reserved words cannot be used. ☞ Page 128 Invalid characters and reserved words in [TO], [CC], [BCC], [SUBJECT], [User Name], and [Password]	—
[Email setting]	[SUBJECT]	Enter the title of the email. Up to 128 one-byte characters can be entered. Invalid characters and reserved words cannot be used. ☞ Page 128 Invalid characters and reserved words in [TO], [CC], [BCC], [SUBJECT], [User Name], and [Password]	—
	[CHARACTER CODE]*1	Set the character code for the email body.	—

Item			Description	Range
[Server communication setting]	[Execute Encrypted Communication]		Select this item to encrypt communication data when the GOT communicates with an external device.	—
	[Encrypted Communication Port No.]		Specify the port number for encrypted communication.	[0] to [65535]
	[SMTP Port No.]		Set the port number used for SMTP.	[0] to [65535]
	[SMTP Server]	[IP address]	Specify the IP address.	[0.0.0.0] to [255.255.255.255]
		[Host name]	Specify the host name. Up to 253 one-byte characters can be entered. Invalid characters and reserved words cannot be used. ☞ Page 128 Invalid characters and reserved words for [Host name] in [SMTP Server] and [POP3 Server]	—
		[Certificate import]	Imports the certificate. Opens the dialog for selecting the certificate. Administrator privileges are required to import certificates.	—
	[Use server authentication function]		Select this item to authenticate the server.	—
	[Authentication method]		Select the authentication method.	[SMTP authentication] [POP before SMTP]
	[User Name]		Enter the user name. Up to 256 one-byte characters can be entered. Invalid characters and reserved words cannot be used. ☞ Page 128 Invalid characters and reserved words in [TO], [CC], [BCC], [SUBJECT], [User Name], and [Password]	—
	[Password]		Enter the password for the user name. Up to 256 one-byte characters can be entered. Invalid characters and reserved words cannot be used. ☞ Page 128 Invalid characters and reserved words in [TO], [CC], [BCC], [SUBJECT], [User Name], and [Password]	—
	[POP3 Server]	[IP address]	Specify the IP address of the POP3 server.	[0.0.0.0] to [255.255.255.255]
		[Host name]	Specify the host name of the POP3 server. Up to 253 one-byte characters can be entered. Invalid characters and reserved words cannot be used. ☞ Page 128 Invalid characters and reserved words for [Host name] in [SMTP Server] and [POP3 Server]	—
	[Connection timeout time]		Displays the time until the communication times out during email sending.	[1] Sec to [90] Sec
	[Email sending wait time]		Displays the email sending wait time.	[0] Sec to [255] Sec
	[Sending interval]		Displays the sending interval.	[0] ms to [10000] ms
	[Email sending test]		Sends test emails to the email recipients when clicked.	—

*1 When JIS is selected in the character code settings, only Japanese and English can be used.
When JIS is selected in the character code settings, one-byte katakana in the email body is converted to two-byte katakana when the email is sent.

Invalid characters and reserved words

■Invalid characters and reserved words in [FROM]

The following characters and combinations cannot be used.

- One-byte spaces, two-byte spaces
- Surrogate pairs (codes that treat 4 bytes as one character in Unicode (0xD800 to 0xDBFF, 0xDC00 to 0xDFFF))
- Control codes (U+0000 to U+001F (C0 control code), U+007F (delete character), U+0080 to U+009F (C1 control code))

■Invalid characters and reserved words in [TO], [CC], [BCC], [SUBJECT], [User Name], and [Password]

The following characters and combinations cannot be used.

- Two-byte spaces
- Surrogate pairs (codes that treat 4 bytes as one character in Unicode (0xD800 to 0xDBFF, 0xDC00 to 0xDFFF))
- Control codes (U+0000 to U+001F (C0 control code), U+007F (delete character), U+0080 to U+009F (C1 control code))

■Invalid characters and reserved words for [Host name] in [SMTP Server] and [POP3 Server]

The following characters and combinations cannot be used.

- ! " # $ % & ' ( ) * + , ` / : ; < = > ? @ [\ ] ^ _ { | } ~
- One-byte spaces, two-byte spaces
- Surrogate pairs (codes that treat 4 bytes as one character in Unicode (0xD800 to 0xDBFF, 0xDC00 to 0xDFFF))
- Control codes (U+0000 to U+001F (C0 control code), U+007F (delete character), U+0080 to U+009F (C1 control code))
- Reserved character strings in Windows definitions containing symbols
- Device names of all controllers containing symbols
- $ (label (GT Designer3) identifier), :: (tag identifier), & (OPC UA tag identifier)
- Command names in GOT scripts containing symbols

13.4 [External Application Startup Trigger]

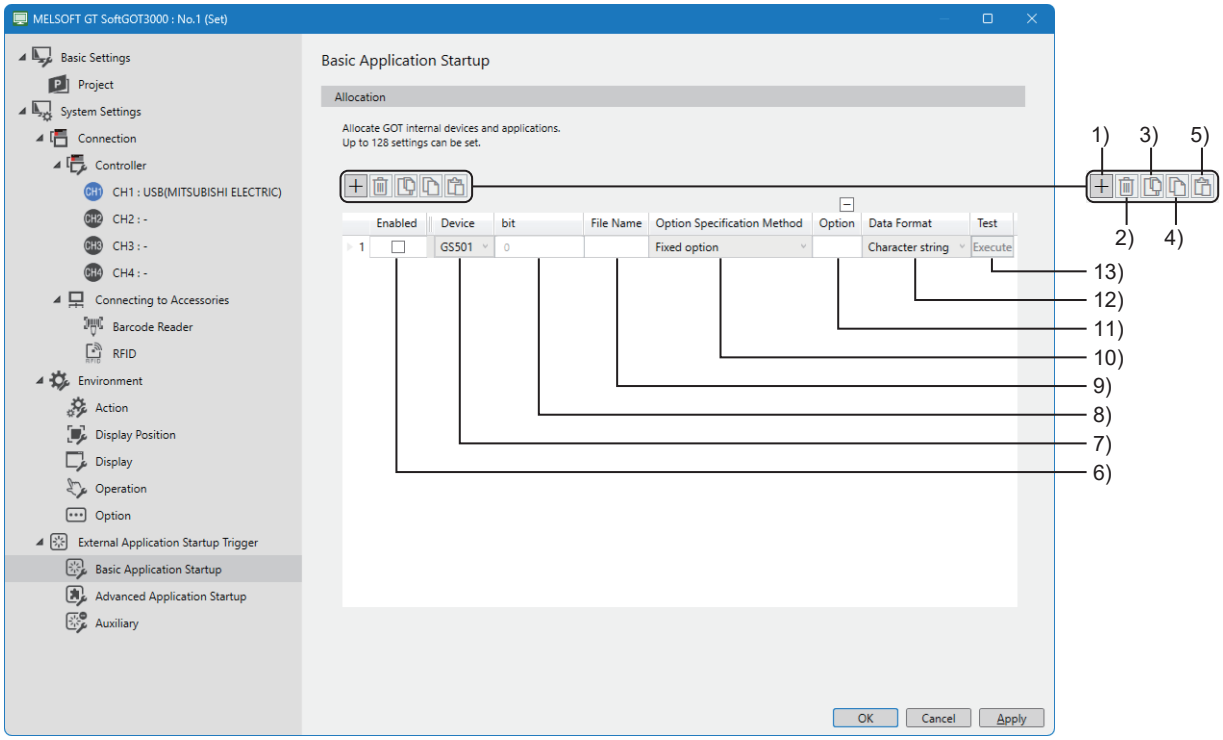
An external application can be started while monitoring with GT SoftGOT3000 using a GOT internal device.

☞ Page 129 [Basic Application Startup]
☞ Page 131 [Advanced Application Startup]
☞ Page 133 [Auxiliary]

For details on the functions, refer to the following.

☞ Page 162 Settings to start applications during monitoring

13.4.1 [Basic Application Startup]



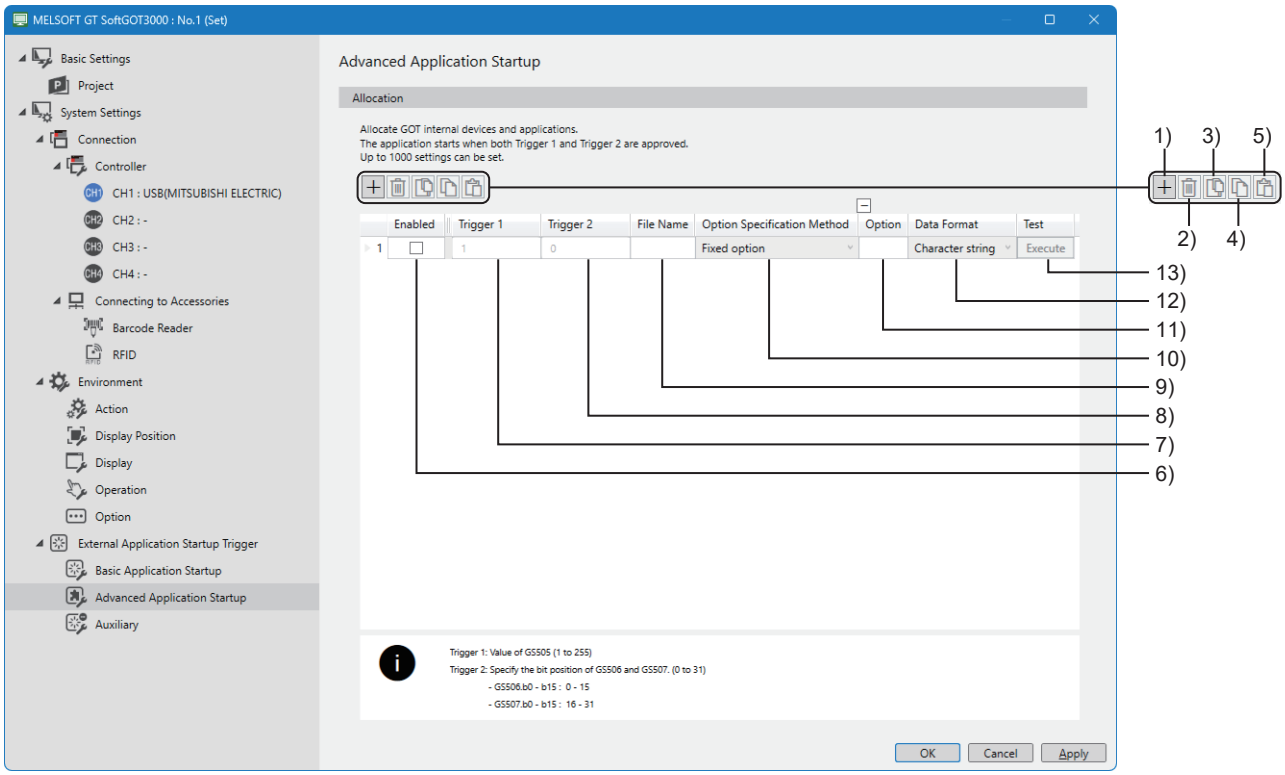
Item		Description
1)	[Add] button	Adds a new standard application start setting below the bottom row in the list.
2)	[Delete] button	Deletes the selected row.
3)	[Reproduction] button	Duplicates the selected row below the bottom row in the list.
4)	[Copy] button	Copies the selected row.
5)	[Paste] button	Overwrites the selected row with the settings of the copied row.
6)	[Enable]	Select the checkbox for the allocation setting to be used.
7)	[Device]	Set the number of the device that triggers the start of an application.
8)	[bit]	Set the bit position of the device that triggers the start of an application. The assigned application starts when the specified bit turns on. When the application starts, the bit automatically turns off.
9)	[File Name]	Directly enter the path to the application to be started (up to 1023 characters), or click [...] and specify. Setting a Windows environment variable (path) allows you to omit setting the path. For details, refer to the following. ☞ Page 165 Environment variable settings
10)	[Option Specification Method]*1	Select how to specify the option settings at application startup. • [Fixed option]: Specify option settings with character strings. • [Internal device]: Specify option settings with character strings or numerical values stored in the GOT internal devices or SoftGOT3000 internal devices.

Item			Description
11)	[Option]*1	When [Fixed option] is selected	Set a character string to specify the option setting. Up to 1023 characters can be entered.
		When [Internal device] is selected	Set the start device number of the GOT internal devices (GB or GD) or SoftGOT3000 internal devices (SGB or SGD) to specify option settings. Option settings are enabled according to the values stored in the internal devices. The following shows the ranges for the settable devices. • GB64 to GB65520*2 • GD0 to GD65535 • SGB0 to SGB65520*2 • SGD0 to SGD65535
12)	[Data Format]*1	—	Configure the setting when [Option setting specification method] is [Internal device]. Select the data type of the values stored in the internal devices.
		[Character string]	The values stored in the internal devices are handled as character strings. • Unicode is supported. • Data will be read from the specified devices starting from the higher-order bits. • NULL (0x00) is supported as the termination character. • Up to 1023 characters except the termination character can be entered.
		[Numerical value]	The values stored in the internal devices are handled as numerical values. • The setting range is 0 to 65535. • Values are read as a decimal number.
13)	[Test]		Clicking this button confirms that the set application operates normally. Before monitoring with GT SoftGOT3000, click this button to confirm that the set application operates normally.

*1 This setting is displayed when you click the [+] button between [File Name] and [Test].

*2 Specify the value in 16-bit units.

13.4.2 [Advanced Application Startup]



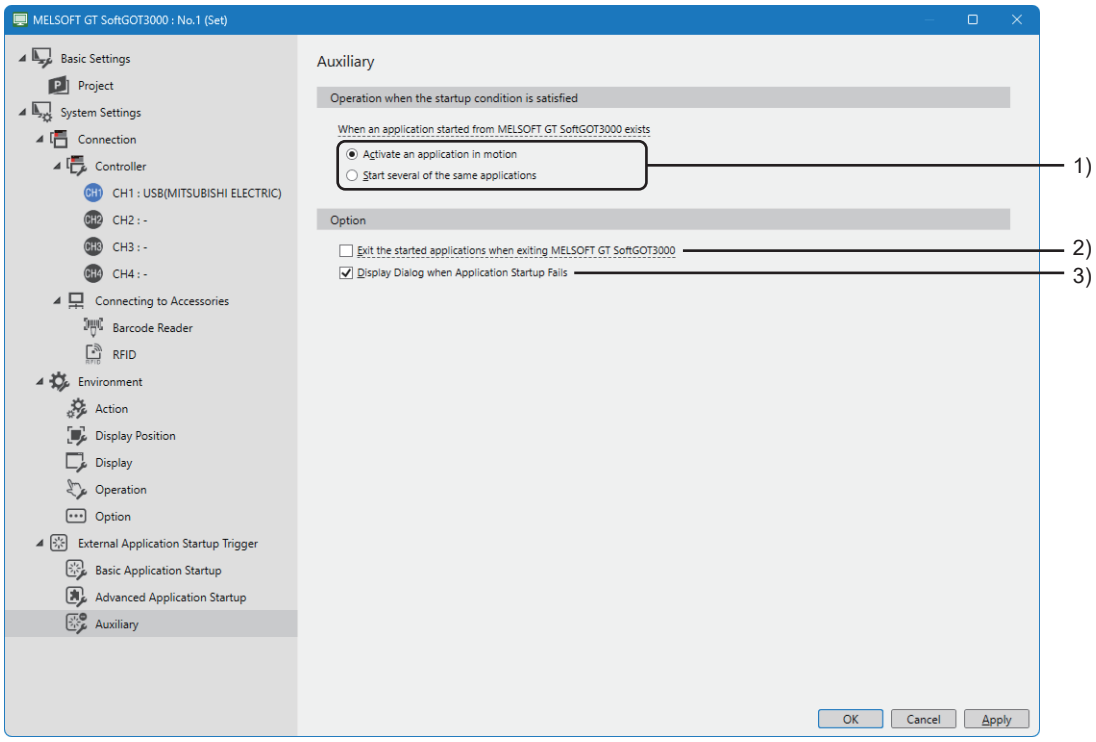
Item			Description
1)	[Add] button		Adds a new standard application start setting below the bottom row in the list.
2)	[Delete] button		Deletes the selected row.
3)	[Reproduction] button		Duplicates the selected row below the bottom row in the list.
4)	[Copy] button		Copies the selected row.
5)	[Paste] button		Overwrites the selected row with the settings of the copied row.
6)	[Enabled]		Select the checkbox for the allocation setting to be used.
7)	[Trigger 1]		Set the value of the device (GS505) that triggers the start of an application. The setting range is 1 to 255.
8)	[Trigger 2]		Set the bit position of the device (GS506 or GS507) that triggers the start of an application. The following shows the setting range. • GS506.b0 to b15: 0 to 15 • GS507.b0 to b15: 16 to 31
9)	[File Name]		Directly enter the path to the application to be started (up to 1023 characters), or click [...] and specify. Setting a Windows environment variable (path) allows you to omit setting the path. For details, refer to the following. ☞ Page 165 Environment variable settings
10)	[Option Specification Method]*1		Select how to specify the option settings at application startup. • [Fixed option]: Specify option settings with character strings. • [Internal device]: Specify option settings with character strings or numerical values stored in the GOT internal devices or SoftGOT3000 internal devices.
11)	[Option]*1	When [Fixed option] is selected	Set a character string to specify the option setting. Up to 1023 characters can be entered.
		When [Internal device] is selected	Set the start device number of the GOT internal devices (GB or GD) or SoftGOT3000 internal devices (SGB or SGD) to specify option settings. Option settings are enabled according to the values stored in the internal devices. The following shows the ranges for the settable devices. • GB64 to GB65520*2 • GD0 to GD65535 • SGB0 to SGB65520*2 • SGD0 to SGD65535

Item			Description
12)	[Data Format]*1	—	Configure the setting when [Option setting specification method] is [Internal device]. Select the data type of the values stored in the internal devices.
		[Character string]	The values stored in the internal devices are handled as character strings. • Unicode is supported. • Data will be read from the specified devices starting from the higher-order bits. • NULL (0x00) is supported as the termination character. • Up to 1023 characters except the termination character can be entered.
		[Numerical value]	The values stored in the internal devices are handled as numerical values. • The setting range is 0 to 65535. • Values are read as a decimal number.
13)	[Test]		Clicking this button confirms that the set application operates normally. Before monitoring with GT SoftGOT3000, click this button to confirm that the set application operates normally.

*1 This setting is displayed when you click the [+] button between [File Name] and [Test].

*2 Specify the value in 16-bit units.

13.4.3 [Auxiliary]



Item			Description
1)	[Operation when the startup condition is satisfied]	—	Select the operation to be performed when the startup condition is satisfied again for the same application already started by this function.
		[Activate an application in motion]	Displays an already running application in the foreground to activate it.
		[Start several of the same applications]	The same application is started in another window.
2)	[Option]	[Exit the started applications when exiting MELSOFT GT SoftGOT3000]*1	Select this item to terminate the applications started from GT SoftGOT3000 when exiting GT SoftGOT3000.
3)		[Display Dialog when Application Startup Fails]	Select this item to display the error dialog if an error occurs during application startup.

*1 This setting is available when [Activate an application in motion] is selected for [Operation when the startup condition is satisfied]. Also, if you change the setting to [Start several of the same applications] with this setting enabled, the applications started before the setting change are not terminated.
For details, refer to the following.
☞ Page 134 Timing for applying the application startup setting

Precautions

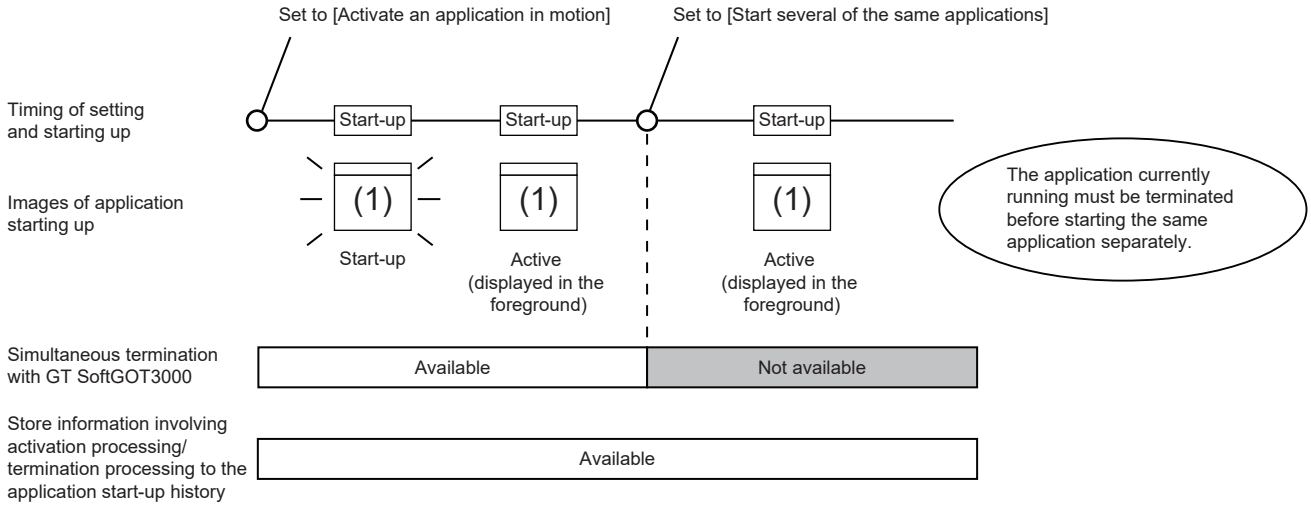
■Timing for applying the application startup setting

If you change the application startup setting while the application is active, the changed setting is not applied to the active application.

Ex.

When changing from [Activate an application in motion] to [Start several of the same applications]

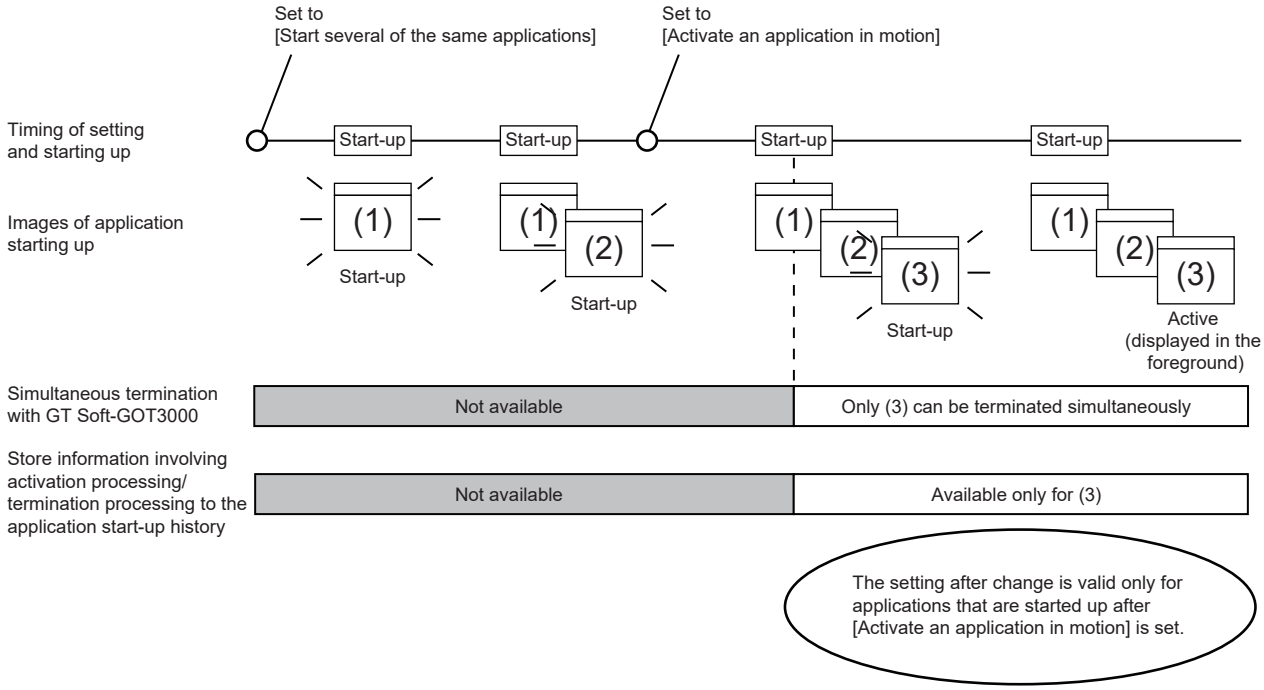
The new setting is enabled when the running application is exited.



Ex.

When changing from [Start several of the same applications] to [Activate an application in motion]

The new setting is enabled when the running application is exited or reopened after the setting change.



■Precautions for terminating applications when exiting GT SoftGOT3000

Applications that are not started from GT SoftGOT3000 are not terminated.

Also, the following applications cannot be terminated.

- Applications that are executing a process
- Applications that display the termination confirmation dialog
- Applications that deny external termination
- Applications that consolidate processes into one when multiple applications are started

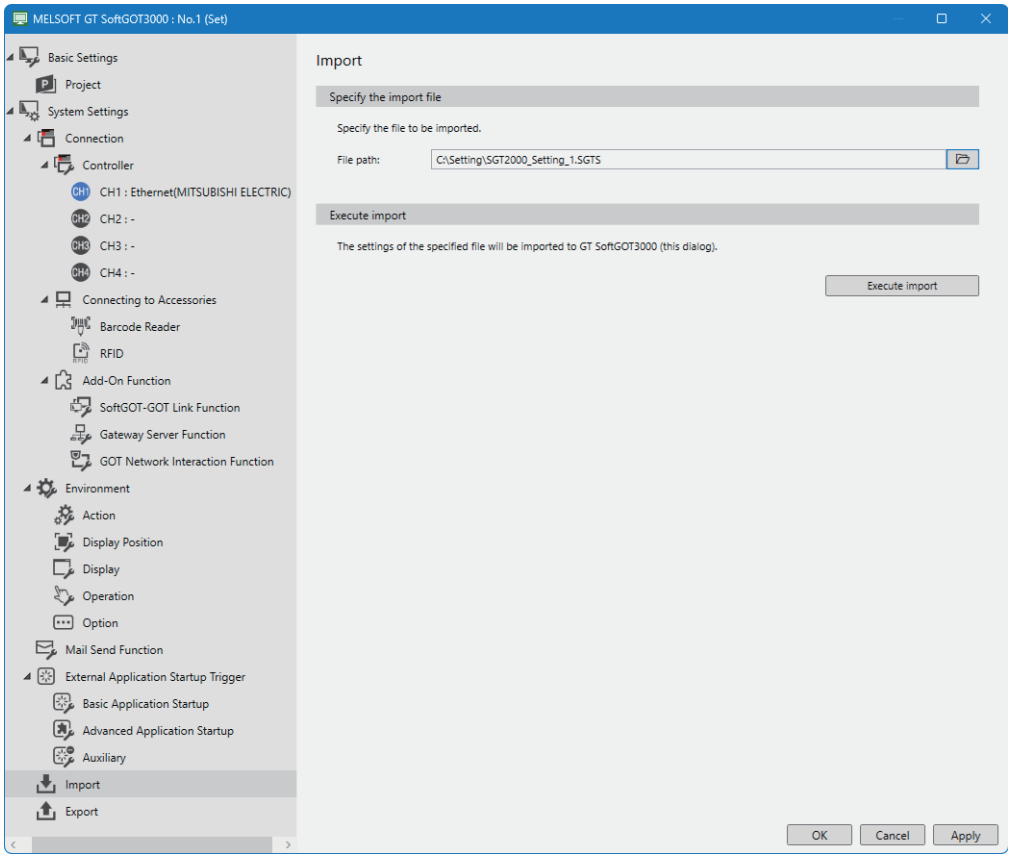
13.5 [Import]

The following explains the [Import] settings in the left-side tree of the [Set] dialog.

For details on import, refer to the following.

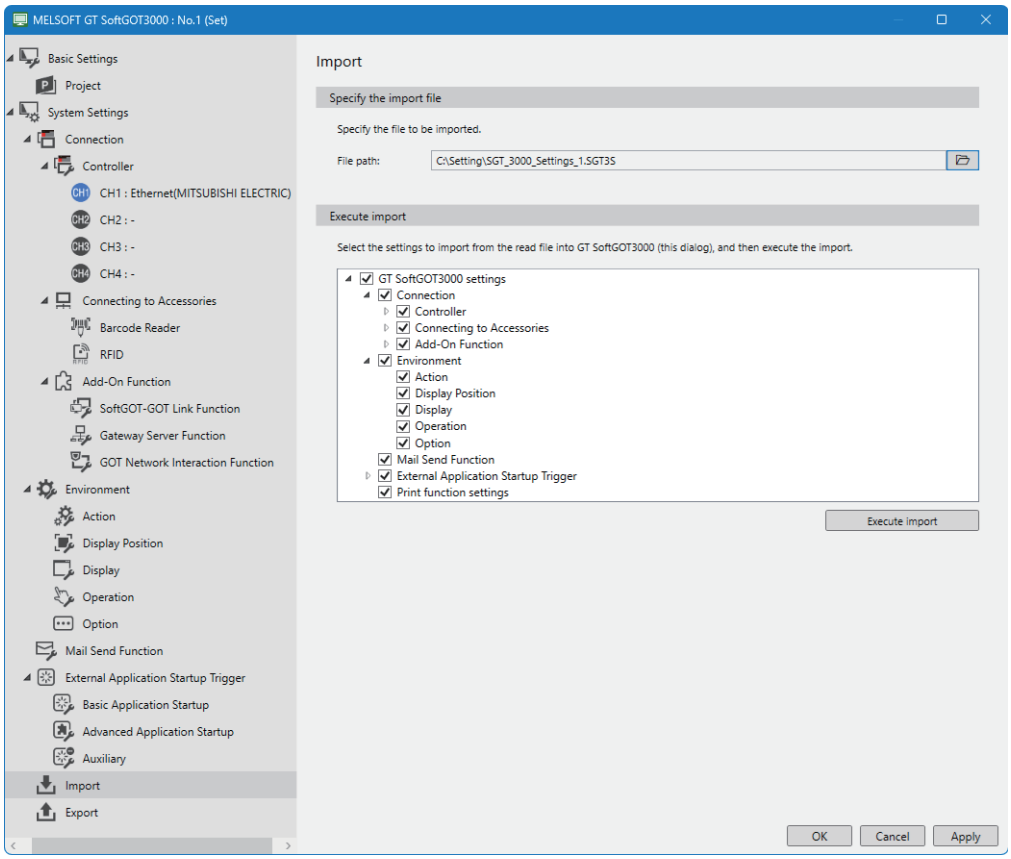
☞ Page 166 Importing and exporting the settings

- When importing a GT SoftGOT2000 file into GT SoftGOT3000



Item	Description
[Specify the import file]	Set the folder path of the setting file to be imported.
[Execute import]	Imports all settings.

• When importing a GT SoftGOT3000 file into GT SoftGOT3000



Item	Description
[Specify the import file]	Set the folder path of the setting file to be imported.
[Execute import]	Select the setting files to be imported and import them.

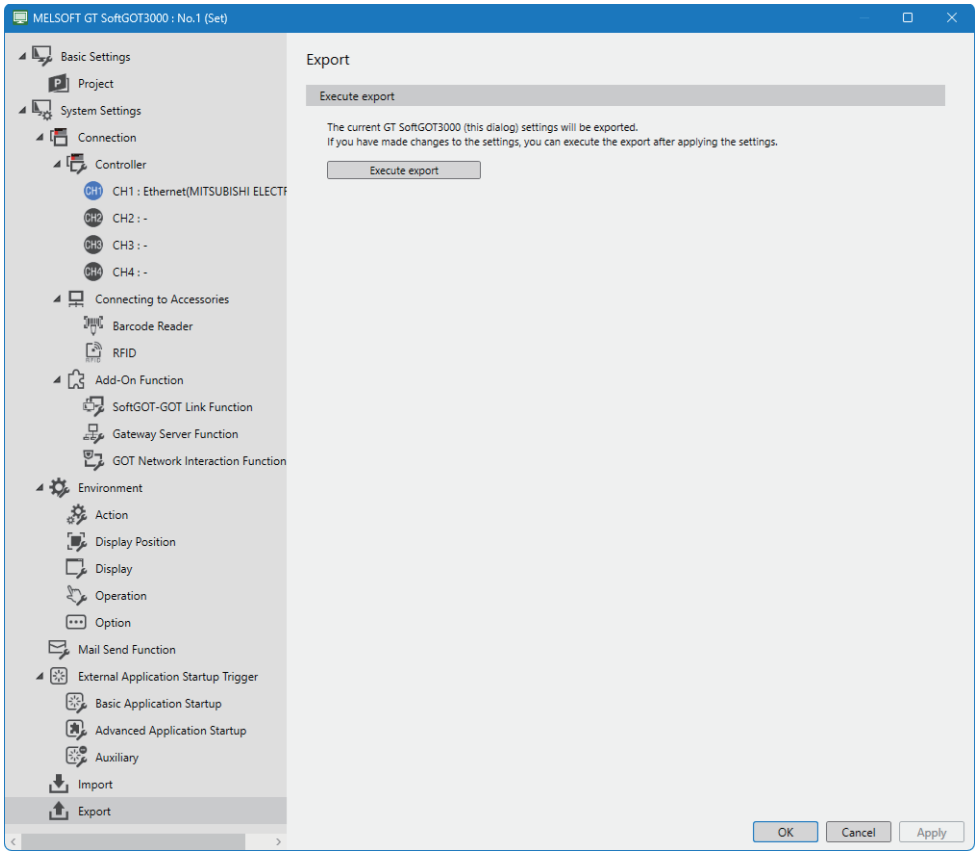
PART 6

13.6 [Export]

The following explains the [Export] settings in the left-side tree of the [Set] dialog.

For details on export, refer to the following.

☞ Page 166 Importing and exporting the settings



Item	Description
[Execute export]	Exports all GT SoftGOT3000 settings.

PART 7 Functions

14 Project functions

15 Display functions

16 Email functions

17 Functions for external interactions

18 Import and export functions

19 Online functions

20 Email functions

21 Diagnostics functions

22 Windows functions

23 Other functions

14 Project functions

☞ Page 140 Snap shot
☞ Page 141 Printing the image of the monitor screen
☞ Page 145 Project information
☞ Page 146 License information management

14.1 Snap shot

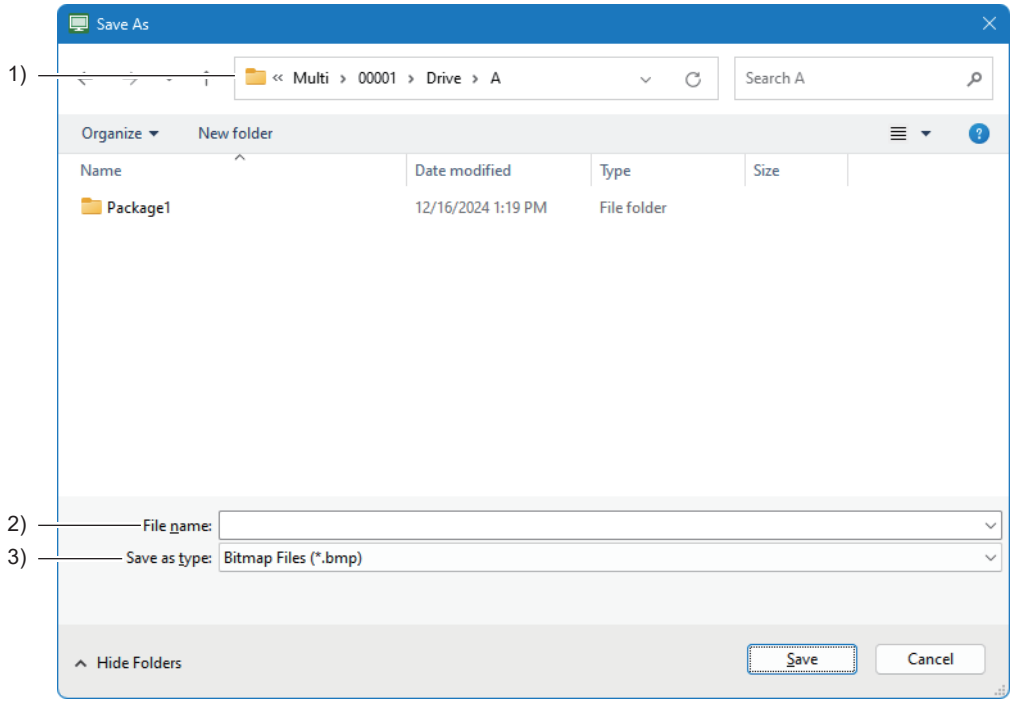
The screen image being monitored is saved into BMP or JPEG format file.

Operating procedure

1. Perform one of the following operations to display the [Save As] dialog.

- Click the [Menu] icon and select [Project] → [Snapshot] from the menu.
- Press the Ctrl + H keys.

2. Configure the required settings and click the [Save] button to save the screen image.



Item		Description
1)	[Save in]	Selects the area where the file is saved.
2)	[File name]	Selects the file name to be saved.
3)	[Files of type]	Selects a format of the file.

14.2 Printing the image of the monitor screen

The screen image being monitored is output to a printer.

☞ Page 141 Performing print setup
☞ Page 142 Page settings
☞ Page 143 Displaying the print preview
☞ Page 144 Printing

14.2.1 Performing print setup

Set the output method, paper size, and others.

Operating procedure

1. Click the [Menu] icon and select [Project] → [Print Setup] from the menu to display the [Print Setup] dialog.
2. Output the pages by the following operations in the setting dialog.

- For the printer output, configure the settings and click the [OK] button.
- For the file output, specify the save destination and click the [Save] button.

Precautions

■Precautions for the printer used

Each GT SoftGOT3000 module has its own print settings.

However, when you perform one of the following operations, the printer selected for [Set as default printer] in Windows is specified.

- Deleting the selected printer
- Selecting a printer whose name contains 31 characters or more

■Precautions for the print settings

Depending on the printer used, some print settings are not retained.

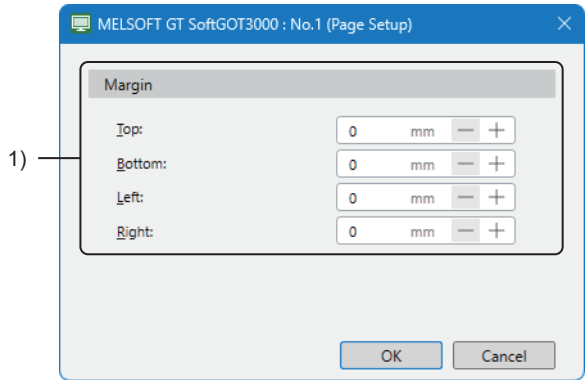
PART 7

14.2.2 Page settings

Set the margins for the page to be printed.

Operating procedure

1. Click the [Menu] icon and select [Project] → [Page Setup] from the menu to display the [Page Setup] dialog.
2. Set the top, bottom, left and right margins and click the [OK] button to save the settings.



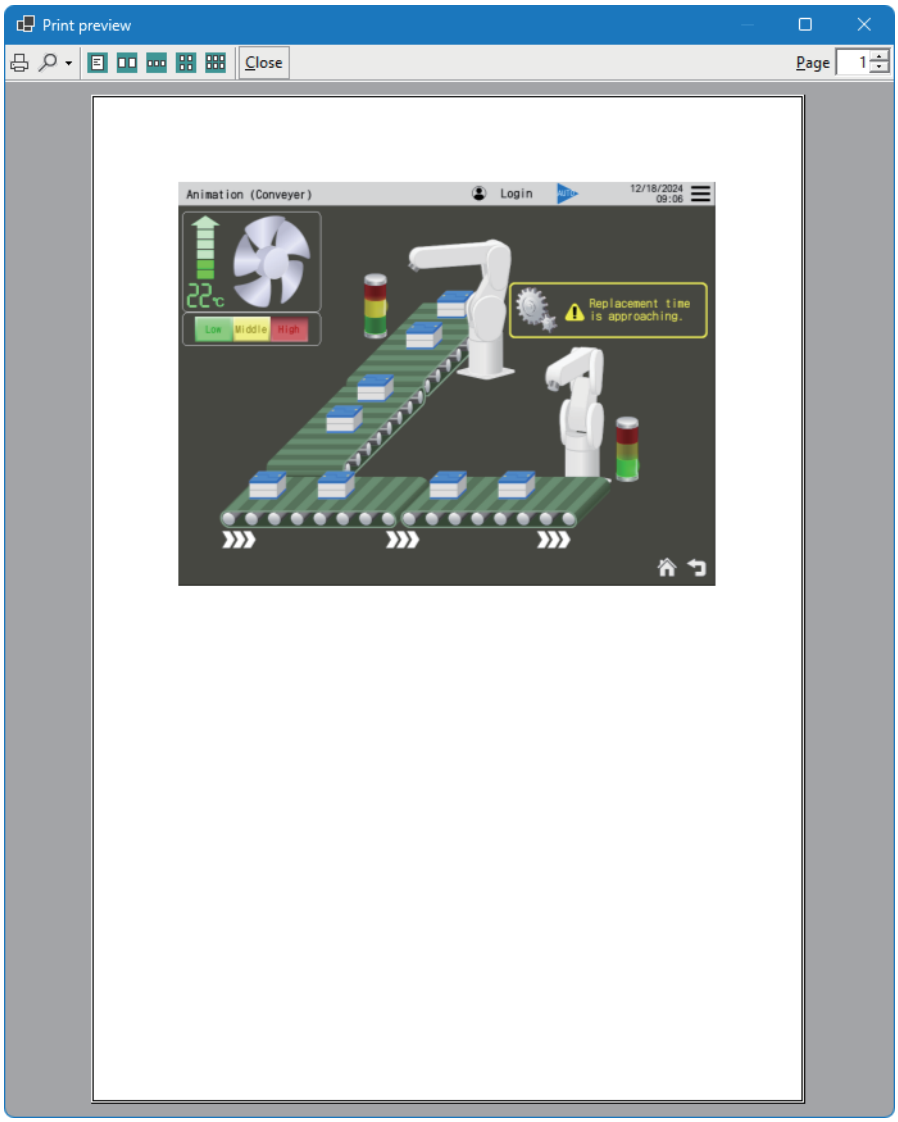
Item		Description
1)	[Margin]	Set the margins on a page to be printed.

14.2.3 Displaying the print preview

Displays the screen image to be printed.

Window

During monitoring, click the [Menu] icon, and select [Project] → [Print Preview] from the menu to display the print preview.



Precautions

The print preview of the GT SoftGOT3000 screen may look smaller than the actual screen depending on the paper type or size, and the screen resolution.
Therefore, what is printed may not match the print preview.
Check what has been printed.

PART 7

14.2.4 Printing

Output the image of the monitor screen to a printer connected to the personal computer.

Operating procedure

1. During monitoring, perform one of the following operations to display the [Print] dialog.

- Click the [Menu] icon and select [Project] → [Print] from the menu.
- Press the Ctrl key + P key.

2. Output the pages by the following operations in the setting dialog.

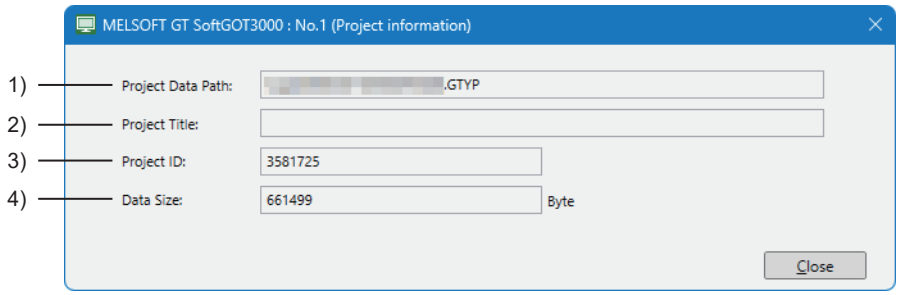
- For the printer output, configure the settings and click the [OK] button.
- For the file output, specify the save destination and click the [Save] button.

14.3 Project information

Displays the information about the project being monitored GT SoftGOT3000.

Window

Click the [Menu] icon and select [Project] → [Project information] from the menu to display the [Project information] dialog.



Item		Description
1)	[Project Data Path]	Displays the path to the monitored project.
2)	[Project Title]	Displays the project title set for the project.
3)	[Project ID]	Displays the project ID set for the project.
4)	[Data Size]	Displays the data size of the project.

Point

If the [Project information] dialog is displayed before starting monitoring of a project, the dialog displays the information about the previously monitored project.
If no project has ever been monitored, no project information is displayed.

PART 7

14.4 License information management

Acquires the information necessary to manage the GT SoftGOT3000 and add-on function license information and to register the GT SoftGOT3000 license.

14.4.1 Product license management

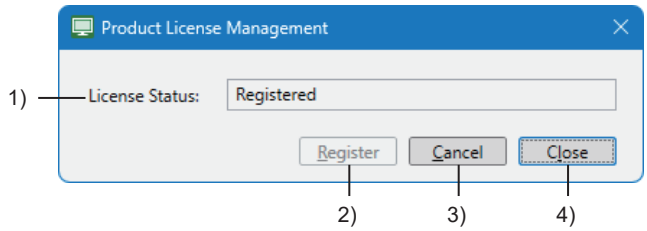
Register, view, or deregister the GT SoftGOT3000 license.

For instruction on how to register or deregister the GT SoftGOT3000 license, refer to the following.

☞ Page 46 Registering or deregistering the license

Window

Click the [Menu] icon and select [Project] → [License Management] from the menu to display the [Product License Management] dialog.



Item		Description
1)	[License Status]	Displays the status of the GT SoftGOT3000 license.
2)	[Register] button	Registers the GT SoftGOT3000 license. Click the [Register] button and select the GT SoftGOT3000 activation file in the displayed dialog.
3)	[Cancel] button	Deregisters the GT SoftGOT3000 license.
4)	[Close] button	Closes the [Product License Management] dialog.

14.4.2 Add-on function license management

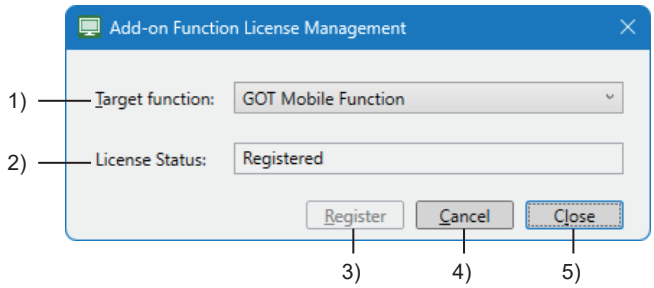
Register, view, or deregister the add-on function licenses.

For instruction on how to register or deregister the add-on function licenses, refer to the following.

☞ Page 46 Registering or deregistering the license

Window

Click the [Menu] icon and select [Project] → [License Management] → [Add-on License Management] from the menu to display the [Add-on Function License Management] dialog.



Item		Description
1)	[Target function]	Select the target add-on function to register, view, or deregister its license information.
2)	[License Status]	Displays the status of the add-on license.
3)	[Register] button	Registers the add-on function license. Click the [Register] button and select the activation file for the add-on function targeted for license registration in the displayed dialog.
4)	[Cancel] button	Deregisters the add-on function license.
5)	[Close] button	Closes the [Add-on Function License Management] dialog.

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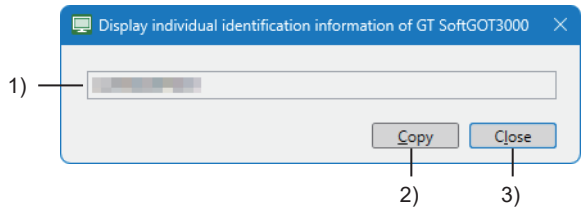
14.4.3 GT SoftGOT3000 individual identification information display

Displays the individual identification information of GT SoftGOT3000.
The individual identification information is used when registering the GT SoftGOT3000 license.

Window

Click the [Menu] icon and select [Project] → [License Management] → [Display individual identification information of GT SoftGOT3000] from the menu to display the [Display individual identification information of GT SoftGOT3000] dialog.



Item		Description
1)	Individual identification information display	Displays the individual identification information of GT SoftGOT3000.
2)	[Copy] button	Copies the individual identification information being displayed.
3)	[Close] button	Closes the [Display individual identification information of GT SoftGOT3000] dialog.

15 Display functions

☞ Page 149 Enabling/disabling the scroll bar display
☞ Page 150 Enabling/disabling the context menu display
☞ Page 151 Enabling/disabling the close button
☞ Page 152 Enabling/disabling the exit key [F12]
☞ Page 153 Full-screen display
☞ Page 159 Back screen mode

15.1 Enabling/disabling the scroll bar display

When the GT SoftGOT3000 screen size is smaller than the project resolution, the scroll bars are displayed on the GT SoftGOT3000 screen.
Scroll the monitor screen with the scroll bars, and then the hidden part of the monitor screen is displayed.

Operating procedure

To display or hide the scroll bars, perform the following operation.

- Click the [Menu] icon, select [View], and select or deselect [Scroll Bar].
- Right-click the mouse and select [View] → [Scroll Bar] from the context menu.
- Click [Display] under [Environment] In the setting tree of the [Set] dialog, and select or deselect [Show Scroll Bar].

☞ Page 122 [Display]

Precautions

The scroll bars cannot be operated with keyboards.

15.2 Enabling/disabling the context menu display

Set whether to display the context menu when the mouse is right-clicked on the monitor screen.

Operating procedure

Perform one of the following operations to switch between displaying or hiding the context menu when the mouse is right-clicked.

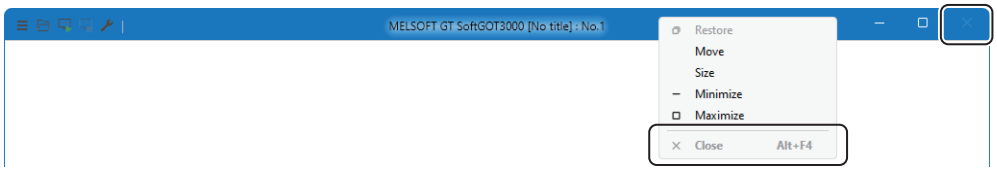
- Click the [Menu] icon, select [View], and select or deselect [Context Menu].
- Right-click the mouse and select [View] → [Context Menu] from the context menu (not displayed if the context menu display is disabled).
- Click [Display] under [Environment] in the setting tree of the [Set] dialog, and select or deselect [Enable Context Menu Display].

☞ Page 122 [Display]

15.3 Enabling/disabling the close button

Set whether to enable or disable the [×] button in the upper right corner of the title bar and the [Close] menu in the context menu.

When the close menu is disabled, the [×] button and the [Close] menu in the context menu are grayed out.



Operating procedure

Perform one of the following operations to enable or disable the [×] button and the [Close] menu.

- Click the [Menu] icon, select [View], and select or deselect [Enable or Disable Close Button].
- Right-click the mouse and select [View] → [Enable or Disable Close Button] from the context menu.
- Click [Display] under [Environment] in the setting tree of the [Set] dialog, and select or deselect [Enable Close Button].

☞ Page 122 [Display]

Precautions

■Shortcut key operations while the close button is disabled

Disabling [Enable or Disable Close Button] does not disable the closing operation with shortcut keys (Alt key + F4 key).

■Enable/disable setting after restart

When GT SoftGOT3000 is restarted with [Enable or Disable Close Button] enabled, it will start with the settings retained at the point of exit.

Each GT SoftGOT3000 module retains the setting of [Enable or Disable Close Button].

PART 7

15.4 Enabling/disabling the exit key [F12]

Set whether to enable or disable the operation to exit GT SoftGOT3000 with F12 key on the keyboard.

Operating procedure

Perform one of the following operations to enable or disable the exit key.

- Click the [Menu] icon, select [View], and select or deselect [Enable or Disable Exit Key [F12]].
- Right-click the mouse and select [View] → [Enable or Disable Exit Key [F12]] from the context menu.
- Click [Operation] under [Environment] in the setting tree of the [Set] dialog, and select or deselect [Enable Exit Key [F12]].

☞ Page 119 [Action]

15.5 Full-screen display

Only the monitor screen is displayed in full-screen size, and the title bar, menu bar, status bar, and toolbar are not displayed on the GT SoftGOT3000 screen.

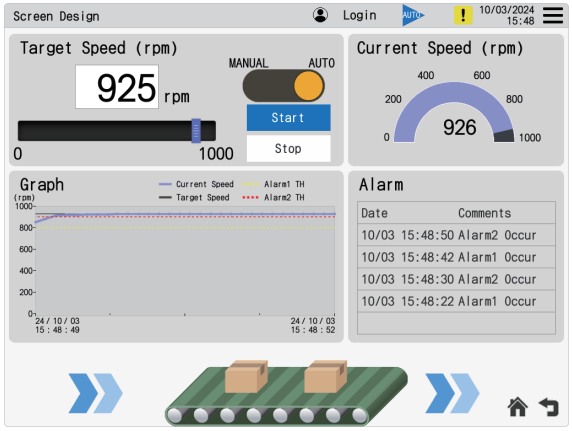
By displaying only the monitor screen, the screen can be monitored in the same size as the resolution set in the project.

When the full-screen display is started, the upper-left corner of the GT SoftGOT3000 screen is positioned at the upper-left corner of the personal computer display.

When the full screen mode function is not use

When the full screen mode function is not used, the title bar, menu bar, status bar, and toolbar are displayed.

When the full screen mode function is used



When the full screen mode function is used, the title bar, menu bar, status bar, and toolbar are hidden and the screen is displayed fully on the personal computer screen.

Point

When the same resolution is set for the personal computer display and the project, the monitor screen is displayed fully on the screen.

Precautions

When GT SoftGOT3000 is displayed in full-screen size, the menu bar is not displayed.

Therefore, if the full-screen display is selected while the context menu display is disabled, the context menu display cannot be enabled until the full-screen display is canceled.

☞ Page 150 Enabling/disabling the context menu display

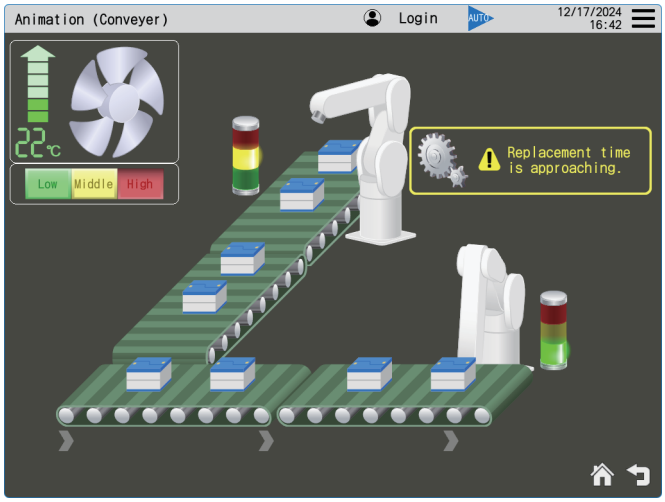
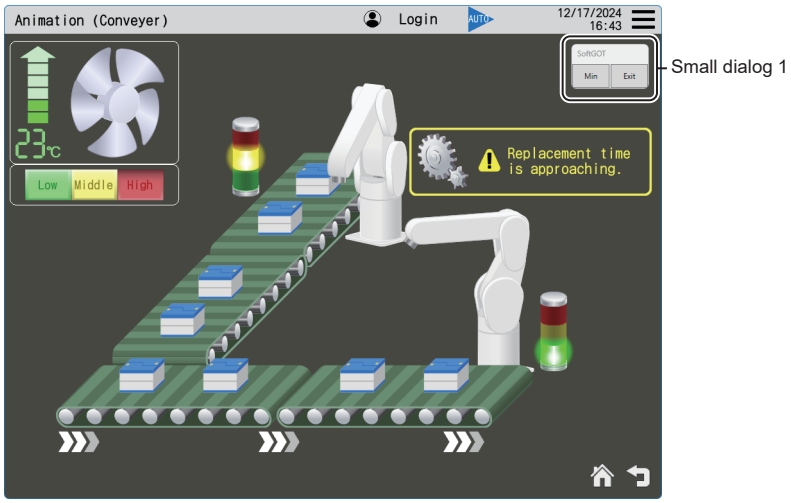
For information on how to cancel the full-screen display while the context menu display is disabled, refer to the following.

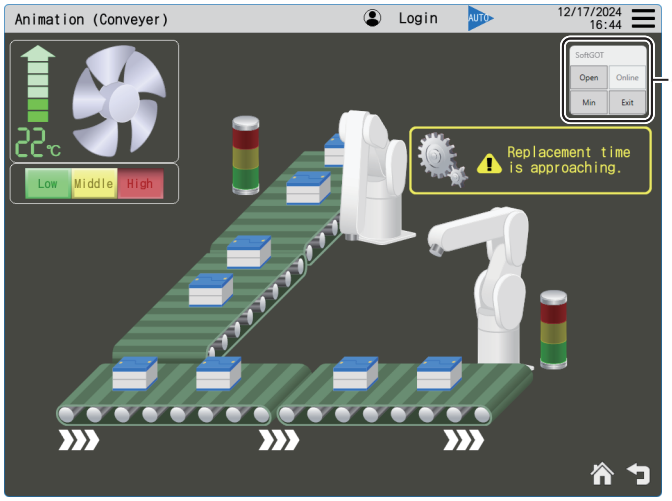
☞ Page 157 Canceling the full-screen display

PART 7

15.5.1 Full screen mode types

There are three types of screen: full-screen display 1, full-screen display 2, and full-screen display 3.
The following describes each type of screen.

Screen type	Explanation	Display method
Full-screen display 1	The monitor screen is displayed fully on the personal computer screen. Use this function with the personal computer or panel computer where a mouse and keyboard are connected. A small dialog used to minimize or exit the screen is not displayed on the monitor screen. 	Perform either of the following operations to start full-screen display 1. ☞ Page 156 Starting in the full screen mode ☞ Page 156 Setting the full-screen display after the startup
Full-screen display 2	The monitor screen is displayed fully on the personal computer screen. Since GT SoftGOT3000 can be exited on the monitor screen, it can be used for the panel computer where a mouse and keyboard are not connected.  Small dialog 1 is displayed on the monitor screen. The following operations are available in small dialog 1. • [Min]: Minimizes the GT SoftGOT3000 window. • [Exit]: Exits GT SoftGOT3000. The small dialog is movable but cannot be closed. It is always displayed on the front position.	Full-screen display 2 can be displayed when the screen is started with the startup option set in [Properties] of the GT SoftGOT3000 shortcut. ☞ Page 156 Starting in the full screen mode

Screen type	Explanation	Display method
Full-screen display 3	The monitor screen is displayed fully on the personal computer screen. Since GT SoftGOT3000 can be exited on the monitor screen, it can be used for the panel computer where a mouse and keyboard are not connected.  Small dialog 2 is displayed on the monitor screen. The following operations are available in small dialog 2. • [Open]: Opens a project. • [Monitor]: Starts monitoring. (Not selectable during monitoring) • [Min]: Minimizes the GT SoftGOT3000 window. • [Exit]: Exits GT SoftGOT3000. The small dialog is movable but cannot be closed. It is always displayed on the front position.	Full-screen display 3 can be displayed when the screen is started with the startup option set in [Properties] of the GT SoftGOT3000 shortcut. ☞ Page 156 Starting in the full screen mode

15.5.2 Starting/canceling the full-screen display

The following shows how to start and cancel the full-screen display.

Starting the full-screen display

You can start GT SoftGOT3000 in the full screen mode or set the full-screen display after starting GT SoftGOT3000.

Operating procedure

■Starting in the full screen mode

You can start the screen in full screen mode by setting the startup option in the [Properties] of the GT SoftGOT3000 shortcut.
The screen type of the full-screen display can be specified by setting a startup option.
For instructions on configuring the settings, refer to the following.
☞ Page 59 Specifying the operation or processing upon startup

■Setting the full-screen display after the startup

Perform one of the following operations to change the GT SoftGOT3000 screen from the standard screen display to the full-screen display (full-screen display 1).

- Click the [Menu] icon, select [View], and select [Full Screen Mode].
- Right-click the mouse and select [View] → [Full Screen Mode] from the context menu.
- Click [Display] under [Environment] in the setting tree of the [Set] dialog, and select [Display in Full Screen Mode].

☞ Page 122 [Display]

- Press the Alt + F9 keys.
- Turn on the GOT special register (GS500.b1).

Point

For details on the GOT special register, refer to the following manual.
GT Designer3 (GOT3000) Screen Design Manual

Precautions

■Changing the display started in the full screen mode to the standard screen display

When a screen is started with the startup option set in the [Properties] of the GT SoftGOT3000 shortcut, the full-screen display cannot be canceled and switched to the standard screen display.
To cancel the full-screen display, exit GT SoftGOT3000, delete the startup option added to [Target] in [Properties] of the shortcut, and then restart GT SoftGOT3000.
☞ Page 157 Canceling the full-screen display

■Full-screen display when multiple GT SoftGOT3000 modules are started

If multiple modules of GT SoftGOT3000 are started up in the full screen mode, only the very front GT SoftGOT3000 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.
For moving a window, refer to the following.
☞ Page 224 Window

■Restarting while the full-screen display is set

Each GT SoftGOT3000 module has its own full-screen display setting.
When GT SoftGOT3000 is exited and restarted while the full-screen display is set, the display is started in the full screen mode.

Canceling the full-screen display

The full-screen display is canceled in different ways according to whether the display is started by starting GT SoftGOT3000 in the full screen mode or the display is set after starting GT SoftGOT3000.

Operating procedure

■When the display is started in the full screen mode

When a screen is started in the full screen mode by the startup option set in the [Properties] of the GT SoftGOT3000 shortcut, the full-screen display cannot be canceled.

1. Perform either one of the following operations to exit GT SoftGOT3000.

- Click the [Exit] button in the small dialog (for full-screen display 2 or full-screen display 3)
- Right-click the mouse and select [Exit] from the context menu.
- Press the F12 key on the keyboard.
- Turn on the GOT special register (GS500.b0).

2. Delete the startup option added to [Target] in [Properties] of the shortcut.

■When the display is set after the startup

Perform one of the following operations to cancel the full-screen display.

- Right-click the mouse and select [View] → [Full Screen Mode] from the context menu.
- Press the Alt + F9 keys.
- Turn off the GOT special register (GS500.b1).

Point

For details on the GOT special register, refer to the following manual.
GT Designer3 (GOT3000) Screen Design Manual

Precautions

When you set the full-screen display while the context menu display is disabled, the title bar and menu bar are not displayed, and the right-click operation with the mouse is not available.
Therefore, the full-screen display cannot be canceled with the mouse.
For information on how to cancel the full-screen display while the context menu display is disabled, refer to the following.

■When the display is started in the full screen mode

Perform either of the following operations to exit GT SoftGOT3000 and delete the startup option added to [Target] in [Properties] of the shortcut.

- Press the F12 key.
- Turn on the GOT special register (GS500.b0).

■When the display is set after the startup

Perform one of the following operations to cancel the full-screen display.

- Press the Alt + F9 keys.
- Turn off the GOT special register (GS500.b1).

15.5.3 Operations while the full-screen display is set

When the full-screen display is set, only the monitor screen is displayed and operations started from the menu bar are not available.

The following shows operations available when the full-screen display is set.

Item	Operation
Displaying the menu	Perform either of the following operations. • Right-click the mouse on the monitor screen to display the context menu. • When the touch display is used, press and hold anywhere on the screen to display the context menu.*1
Moving the monitor screen	Select [Window] → [Move Window] from the context menu. ☞ Page 224 Window
Minimizing the monitor screen	Hold down Shift key and double-click anywhere on the screen.
Exiting GT SoftGOT3000	Perform one of the following operations. • Press the F12 key on the keyboard. • Select [Exit] from the context menu. • Turn on the GOT special register (GS500.b0).

*1 To display the context menu with a press-and-hold operation, settings are required in [Operation] in the [Set] dialog. For details, refer to the following.
☞ Page 123 [Operation]

15.6 Back screen mode

The monitor screen of GT SoftGOT3000 is always displayed behind all the other screens.
Use this function to use other applications while the full-screen display is set for GT SoftGOT3000.

Operating procedure

Perform one of the following operations to enable or disable the back screen display for GT SoftGOT3000.

- Click the [Menu] icon, select [View], and select or deselect [Back Screen Mode].
- Right-click the mouse and select [View] → [Back Screen Mode] from the context menu.
- Click [Display] under [Environment] in the setting tree of the [Set] dialog, and select [Set to back screen mode].

☞ Page 122 [Display]

- Press the Alt + F10 keys.

Point

When the full-screen display is set for GT SoftGOT3000, the menu bar is not displayed.
To cancel the back screen display while the full-screen display is set, use the context menu or shortcut keys.

PART 7

16 Email functions

You can send messages from GT SoftGOT3000 to a personal computer or smartphone via email.
☞ Page 160 Mail sending

Point

Before using the mail send function
GT SoftGOT3000 sends emails using the mail send function; therefore, the sender does not need email software.
To use the email sending function, sign a contract with a provider and configure the environment to enable email sending.

Precautions

■Precautions to take when an alarm occurs

Emails are temporarily stored in the mail sending buffer inside GT SoftGOT3000 then sent out one by one.
The mail sending buffer can store up to 16 emails.
If 17 or more alarms occur at the same time, emails for the 17th and subsequent alarms are discarded.

■Precautions when emails are queued in the email sending buffer

If either of the following operations is performed while emails are queued in the email sending buffer inside the GT SoftGOT3000, the emails are discarded.

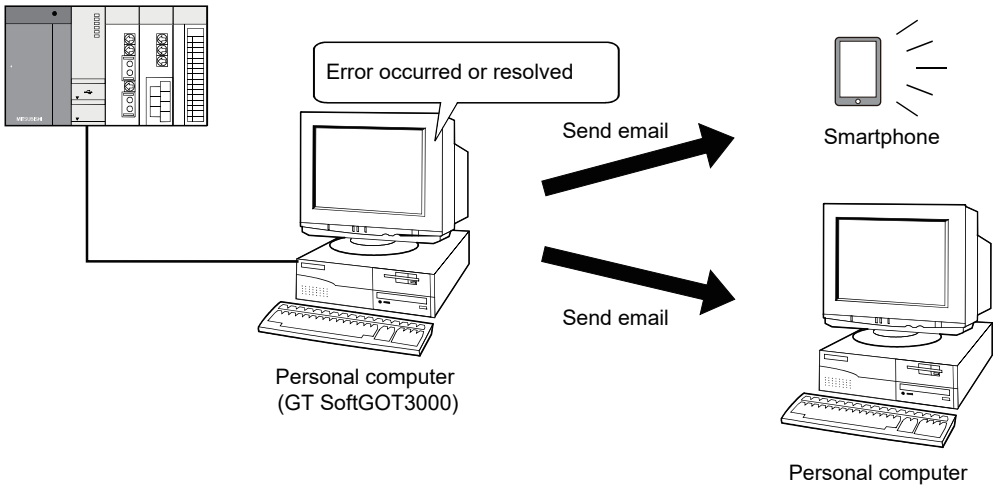
- GT SoftGOT3000 is closed.
- GT SoftGOT3000 goes offline.

■Email sent date and time

The email sent date and time correspond to the time on the SMTP server at the moment the email is sent.

16.1 Mail sending

By sending the details on the alarm that occurred in GT SoftGOT3000 via email to the production site or office, errors can be detected and resolved at an early stage.
GT SoftGOT3000 supports encrypted email communication (SMTP over SSL or TLS).



Operating procedure

1. Create a monitor screen with GT Designer3.

GT Designer3 (GOT3000) Screen Design Manual

2. Open the created data with GT SoftGOT3000.

GT Designer3 (GOT3000) Screen Design Manual

3. Import the certificate from [Mail Send Function].

4. Send a test email.

Click the [Email sending test] button to send a test email to the recipient email address set in [Mail Send Function].

Before starting monitoring with GT SoftGOT3000, you can check whether emails are sent correctly according to the settings in [Mail Send Function].

The GT SoftGOT3000 sample message is displayed at the recipient's email address.

5. Start monitoring with GT SoftGOT3000.

An email is sent to a personal computer or smartphone when the conditions are met.

Page 65 Opening the project

Sending an email using the alarm history display function

If an alarm occurs in GT SoftGOT3000, an email is sent to the recipient with the time of occurrence and alarm details.

When the alarm is resolved, an email to the recipient with the recovery time and recovery details.

For details on the alarm history display function settings, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

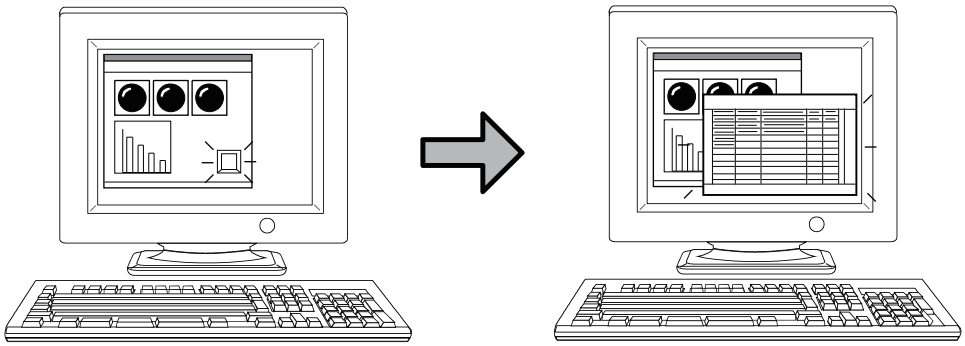
17 Functions for external interactions

☞ Page 162 Settings to start applications during monitoring

17.1 Settings to start applications during monitoring

While monitoring with GT SoftGOT3000, external applications such as Microsoft Excel can be started using touch switches or other objects placed in the project.

As well as an application, a specified file can be started. You can check resource data for each function during monitoring, or you can start GX Works3 to monitor a sequence program.



17.1.1 Trigger and setting points of application startup

This function uses GOT internal devices as the triggers to start applications.
Applications or files can be started from a touch switch by associating the applications or files with the GOT internal devices set to the touch switch or another object.
Two setting methods are available as follows.
☞ Page 163 [Basic Application Startup]
☞ Page 163 [Advanced Application Startup]
Both methods are used to specify the trigger or file to start the application.
The following shows the differences between the setting methods.

[Basic Application Startup]

In [Basic Application Startup], configure the settings to start the application when the bit of the GOT internal device specified as the trigger is turned on.

Trigger to start the application	Number of settable applications	Setting dialog
• GS501 • GS502 • GS493 to GS498	128	☞ Page 129 [Basic Application Startup]

For details on the GOT internal devices and how to set the devices, refer to the following manual.
GT Designer3 (GOT3000) Screen Design Manual

[Advanced Application Startup]

In [Advanced Application Startup], configure the settings to start the application when both conditions for the GOT internal devices specified as triggers are satisfied.

Trigger to start the application	Number of settable applications	Setting dialog
• Trigger 1: One of the specified values (1 to 255) is stored in GS505. • Trigger 2: One of the specified bits (GS506.b0 to b15 or GS507.b0 to b15) turns on.	1000	☞ Page 131 [Advanced Application Startup]

For details on the GOT internal devices and how to set the devices, refer to the following manual.
GT Designer3 (GOT3000) Screen Design Manual

Point

- When the application starts, 0 is stored in GS505.
- The bit of Trigger 2 (GS506.b0 to b15 or GS507.b0 to b15) that turns on automatically turns off.

PART 7

Precautions

■Duplication of the internal devices

When setting the GOT internal devices (GB or GD) or SoftGOT3000 internal devices (SGB or SGD), make sure that they do not overlap with internal devices used by other functions.

Doing so may cause an unintended operation.

■Operation when the data type of the internal device is character string

If the character code of [Character string], the order in which the data is read from the device, or the termination character NULL (0x00) is specified incorrectly, the string cannot be acquired correctly.

In such cases, the application may not start or may behave unintentionally.

■Operation when the data type of the internal device is numerical value

When [Data format] is [Numerical value], the internal device stores 0 until a value is set.

Therefore, the application always starts on the assumption that an option setting is specified.

If no option setting is necessary, select [Character string] for [Data format].

■Device ON time

Applications may not be started up if device ON time is too short.

Keep the device ON until applications are started up.

■Operation when the error dialog is displayed

If an application fails to start up, the error dialog is displayed. The application cannot be restarted in this state.

Close the error dialog before starting the application.

Choose not to display the error dialog in the application startup setting, if necessary.

☞ Page 133 [Auxiliary]

17.1.2 Configurable settings in the application startup settings

Environment variable settings

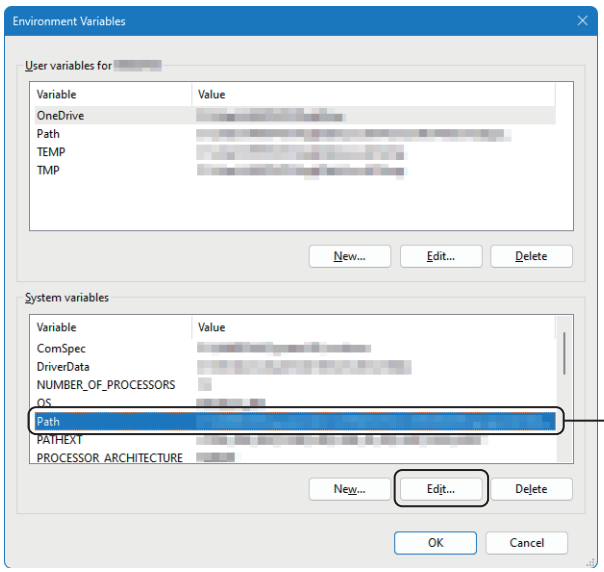
Setting the Windows environment variable (Path) eliminates the need to enter the path in the [File Name] in the [Basic Application Startup] and [Advanced Application Startup] dialogs.

☞ Page 129 [Basic Application Startup]
☞ Page 131 [Advanced Application Startup]

For details on the environment variables, refer to the manual or Help of Windows.

The following shows an example setting of environment variables.

1. In the Windows Control Panel, select [System and Security] → [System] to display the [About] window.
2. Select [Advanced system settings] to display the [System Properties] dialog.
3. In the [Advanced] tab, click the [Environment Variables] button to display the [Environment Variables] dialog.
4. In [Environment Variables], select [Path] and click the [Edit] button to display the [Edit environment variable] dialog.



5. Click the [New] button, and add a path containing an executable file to the variable value.

Example) C:\Program Files\MyProgram

6. Click the [OK] button of each dialog in the following order.

[Edit environment variable] dialog → [Environment Variables] dialog → [System Properties] dialog

Setting the startup file name

When a file name is set, the file opens simultaneously with the start of the application.

Numeric characters, A to Z, a to z, one-byte spaces, and the following symbols are usable in the application path or the file name.

!#$%&'()-^@[;],.=~`{+}_

Option settings

By specifying application options, the application mode and processing can be specified.

Available options and characters differ depending on the application to be used.

To find the available options for each application, refer to the manual or Help of the application to be used.

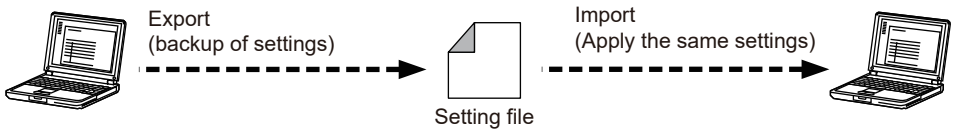
The setting method depends on the selection for [Option Specification Method].

18 Import and export functions

☞ Page 166 Importing and exporting the settings

18.1 Importing and exporting the settings

This function is used to export the GT SoftGOT3000 settings as a setting file (.SGT3S).
Settings can be backed up by module number, restored in case of an error, and applied to other modules.
By importing the settings into GT SoftGOT3000 on another personal computer, the same system as the import source can be configured.
The setting file can be encrypted for each module.
GT SoftGOT3000 settings can be imported into GT SoftGOT3000.
GT SoftGOT3000 settings can be imported into GT Designer3 and applied to a project.
GT SoftGOT2000 settings can be imported into GT SoftGOT3000.
GT SoftGOT2000 settings can be imported into GT Designer3 and applied to a GT SoftGOT3000 project.



GT SoftGOT3000
GT SoftGOT2000

GT SoftGOT3000
GT Designer3 (3000)

18.1.1 Importable and exportable settings

The following shows importable and exportable GT SoftGOT3000 settings.
○: Available, —: Not available

Menu				Importable and exportable settings		
				GT SoftGOT3000	GT Desginer3 (3000)	GT SoftGOT2000
[Set]	[Connection]	[Controller]	[CH1]	○	—	○
			[CH2]	○	—	○*1
			[CH3]	○	—	○*1
			[CH4]	○	—	○*1
		[Connecting to Accessories]	[Barcode Reader]	○	—	○
			[RFID]	○	—	○
		[Add-On Function]	[SoftGOT-GOT Link Function]	○	—	○
			[Gateway Server Function]	○	—	○
			[GOT Network Interaction Function]	○	—	○

Menu				Importable and exportable settings		
				GT SoftGOT3000	GT Desginer3 (3000)	GT SoftGOT2000
[Set]	[Environment]	[Action]	[Virtual Drive]	○	○	○
			[Enable online mode on startup]	○	○	○
			[Unmute when starting MELSOFT GT SoftGOT3000]	○	○	○
			[Display a splash when starting MELSOFT GT SoftGOT3000]	○	○	○
			[Initialize NVRAM area at the time of initial monitoring]	○	○	○
			[Delete all resource data after reading project data]	○	○	○
			[Exit GT SoftGOT3000 when shutting down Windows]	○	○	○
			[Enable Keyboard Input]	○	○	○
			[Enable Exit Key [F12]]	○	○	○
			[Monitor in Monitor-only Mode]	○	—	○
		[Display Position]	Display items in [Display Position]	○	○	○
			[X-Position]	○	○	○
			[Y-Position]	○	○	○
		[Display]	[Show Status Bar]	○	○	○
			[Show Scroll Bar]	○	○	○
			[Enable Context Menu Display]	○	○	○
			[Enable Close Button]	○	○	○
			[Display in Full Screen Mode]	○	○	○
			[Set to back screen mode]	○	○	○
			[Display Screen Size (Full Screen Mode)]	○	○	○
			[Width]	○	○	○
			[Height]	○	○	○
			[Application name]	○	○	—*2
			[Project title]	○	○	○
			[Module No.]	○	○	○
			[GT SoftGOT Commander comments]	○	○	○
		[Operation]	[Window Movement]	○	○	○
			[Delay time when touched]	○	○	○
			[Enable press and hold for right-clicking]	○	○	○
		[Option]	[Display a confirmation dialog when changing to full screen mode]	○	○	○
			[Display a confirmation dialog when changing to back screen mode]	○	○	○
			[Display a confirmation dialog when switching context menu setting to disabled]	○	○	○
			[Display a confirmation dialog when exiting MELSOFT GT SoftGOT3000 of a unit that is already started]	○	○	○
			[Display a confirmation dialog when exiting MELSOFT GT SoftGOT3000]	○	○	○
			[Display a confirmation dialog when starting monitoring using the SoftGOT-GOT link function]	○	○	—*2
			[Display the online mode transition confirmation dialog when MELSOFT GT SoftGOT3000 starts monitoring]	○	○	—*2
			[Display a confirmation dialog when starting monitoring in monitor-only mode]	○	○	○

Menu			Importable and exportable settings		
			GT SoftGOT3000	GT Desginer3 (3000)	GT SoftGOT2000
[Set]	[Mail Send Function]		○	—	—
	[External Application Startup Trigger]	[Basic Application Startup]	○	○	○
		[Advanced Application Startup]	○	○	○
		[Auxiliary]	○	○	○
[Project]	[Print Setup]		○	—	○
	[Page Setup]		○	—	○

*1 Only available for GT SoftGOT2000 (Multiple channels).
*2 Not available for GT SoftGOT2000.

Precautions

• If the exported and imported module numbers are different

Check that the settings of the import destination (virtual drive) are configured as intended.

A folder created for each module number is handled as a virtual drive. If module numbers differ between the import source and import destination, the settings of the import destination (virtual drive) may not be configured as intended.

For details on virtual drives, refer to the following.

☞ Page 119 [Environment]

• If the personal computers used for export and import are different

GT SoftGOT3000 may operate differently at the import source and destination depending on the environments and settings of the personal computers used.

Make sure that the following settings work correctly at the import destination.

Setting name	Item	Setting item display method	Reason	Reference
[Connection] → [Controller] → [CH1] to [CH4]	[COM port No.]	—	The communication port configuration of the personal computer may differ from that of the personal computer used for export.	☞ Page 80 [Controller]
[Connection] → [Connecting to Accessories] → [Barcode Reader]	[COM port No.]	—		☞ Page 113 [Barcode Reader]
[Connection] → [Connecting to Accessories] → [RFID]	[COM port No.]	—		☞ Page 114 [RFID]
[Connection] → [Controller]	[CH1] to [CH4] → [Port No.]	Select [Ethernet] for [I/F] in [Device].	If a module other than the import destination module is used, the port number may be duplicated.	☞ Page 85 [Ethernet]
[Connection] → [Controller]	[Project Name]	In [Connection], select [MELSOFT Simulator] for [I/F], and [GX Simulator3] for [Simulator].	The storage location of the project file may differ from that of the personal computer used for export.	☞ Page 110 [Simulator]: [GX Simulator3]
[Connection] → [Controller]	[Project Name]	In [Connection], select [MELSOFT Simulator] for [I/F], and [GX Simulator2/MT Simulator2] for [Simulator].	The storage location of the project file may differ from that of the personal computer used for export.	☞ Page 111 [Simulator]: [GX Simulator2/MT Simulator2]
[Connection] → [Add-On Function] → [GOT Network Interaction Function]	[IP Address]	—	The IP address of the personal computer may differ from that of the personal computer used for export.	☞ Page 117 [Gateway Server Function]
[Environment] → [Action]	[Virtual Drive]	—	The folder structure or user of the personal computer may differ from those of the personal computer used for export.	☞ Page 119 [Action]
[Print Setup]	[Name]	—	The printer settings on the installation target personal computer may differ from those on the personal computer used for export.	☞ Page 141 Performing print setup
[Mail Send Function]	General settings	—	The supported functions of GT SoftGOT2000 and GT SoftGOT3000 are different. Operation may proceed with unintended settings. When an unsupported function is set, GT SoftGOT3000 operates with the default settings.	☞ Page 125 [Mail Send Function]

Setting name	Item	Setting item display method	Reason	Reference
[External Application Startup Trigger] → [Basic Application Startup]	[File Name]	—	The folder structure of the personal computer may differ from that of the personal computer used for export. The specified application may not be installed on the personal computer used for import.	☞ Page 129 [Basic Application Startup]
	[Option]	—	If a file path or folder path is specified in the option settings, the folder structure of the personal computer may differ from that of the personal computer used for export.	
[External Application Startup Trigger] → [Advanced Application Startup]	[File Name]	—	The folder structure of the personal computer may differ from that of the personal computer used for export. The specified application may not be installed on the personal computer used for import.	☞ Page 131 [Advanced Application Startup]
	[Option]	—	If a file path or folder path is specified in the option settings, the folder structure of the personal computer may differ from that of the personal computer used for export.	

• If the operating systems of the personal computers used for exporting and importing GT SoftGOT3000 are different

GT SoftGOT3000 may operate differently at the import source and destination, because the supported functions vary depending on the operating system.

Check that the following settings are configured as intended.

Setting name	Item	Reference
[Environment]	[Display Position]	☞ Page 121 [Display Position]
[Environment] → [Operation]	[Touch operation]	☞ Page 123 [Operation]

PART 7

18.1.2 Operating procedure

For details on each setting menu, refer to the following.

☞ Page 136 [Import]

☞ Page 138 [Export]

For information on how to import or export GT Designer3, refer to the following manual.

📖GT Designer3 (GOT3000) Screen Design Manual

Import procedure

Operating procedure

■When importing a GT SoftGOT3000 setting file

1. Store the setting file to be imported to a folder.
2. Start GT SoftGOT3000.
3. Perform one of the following operations to display the [Set] dialog.

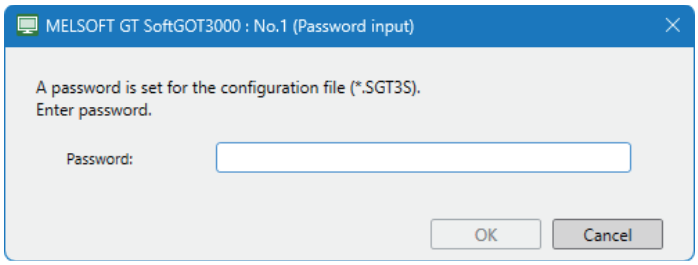
- Click the [Menu] icon and select [Set] from the menu.
- Right-click the mouse and click [Set] from the context menu.
- Click the [Set] icon in the Quick Access Toolbar.

4. In the [Set] dialog, click [Import] under [System Settings] in the left-side settings tree.
5. Set the folder that stores the setting file to be imported in [File Path], and click the [Open] button.

- If a password is set for the setting file (*.SGT3S)

The [Password input] dialog appears.

Enter the password and click [OK]. The setting file is read and displayed in the specified folder in the setting selection tree.



- If a password is not set for the setting file (*.SGT3S)

The setting file is read and displayed in the specified folder in the setting selection tree.

6. Select the setting file to be imported.
7. Click the [Execute import] button to import the setting file.

■When importing a GT SoftGOT2000 setting file

1. Store the setting file to be imported to a folder.
2. Start GT SoftGOT3000.
3. Perform one of the following operations to display the [Set] dialog.

- Click the [Menu] icon and select [Set] from the menu.
- Right-click the mouse and click [Set] from the context menu.
- Click the [Set] icon in the Quick Access Toolbar.

4. In the [Set] dialog, click [Import] under [System Settings] in the left-side settings tree.
5. Set the folder that stores the setting file to be imported in [File Path], and click the [Open] button.
6. Click the [Execute import] button to import the setting file.

Export procedure

Export all settings of the GT SoftGOT3000 module where the dialog is open.
You can set a password for the file when exporting it.

Operating procedure

1. Start the GT SoftGOT3000 module that contains the settings to be exported.
2. Perform one of the following operations to display the [Set] dialog.

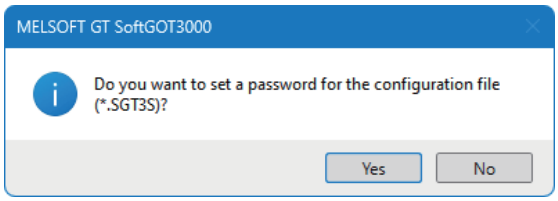
- Click the [Menu] icon and select [Set] from the menu.
- Right-click the mouse and click [Set] from the context menu.
- Click the [Set] icon in the Quick Access Toolbar.

3. If you have changed any settings in the [Set] dialog, click the [Apply] button.
4. In the [Set] dialog, click [Export] under [System Settings] in the left-side settings tree.
5. Click the [Execute export] button.
6. Set the export destination and file name, then click the [OK] button.

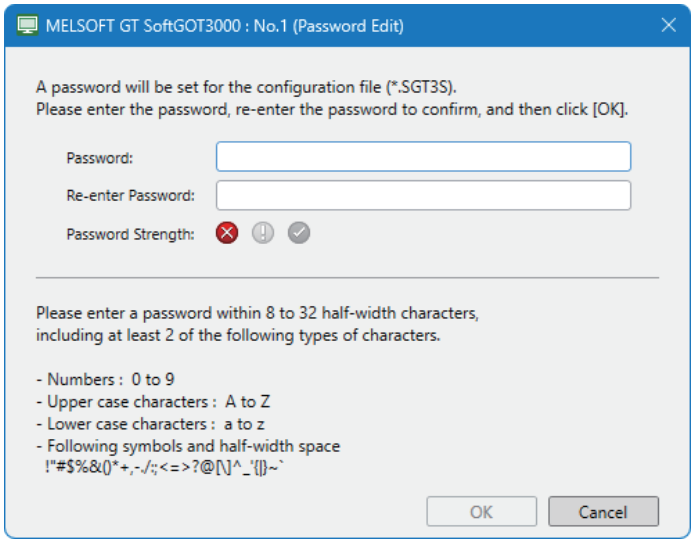
The following characters cannot be used in the setting file name.
\ / : * ? " < >

7. A dialog appears to confirm whether a password needs to be set.

To set a password, click [Yes].
Click [No] to export the setting file without setting a password.



8. Set the password in the [Password Edit] dialog and click the [OK] button to export the setting file.



19 Online functions

☞ Page 172 Monitor-only mode
☞ Page 176 SoftGOT-GOT link function

19.1 Monitor-only mode

The operation with a mouse or a keyboard and the touch operation on the touch display are disabled on the GT SoftGOT3000 monitor screen.
It is useful when using GT SoftGOT3000 only for monitoring.

☞ Page 172 Starting/canceling the monitor-only mode
☞ Page 175 Cursor display in the monitor-only mode

19.1.1 Starting/canceling the monitor-only mode

The following shows how to start and cancel the monitor-only mode.

Starting the monitor-only mode

You can start GT SoftGOT3000 in the monitor-only mode or set the monitor-only mode after starting GT SoftGOT3000.

Operating procedure

■Starting GT SoftGOT3000 in the monitor-only mode

GT SoftGOT3000 can be started in monitor-only mode by setting the startup option in [Properties] of the shortcut.
For instructions on configuring the settings, refer to the following.

☞ Page 59 Specifying the operation or processing upon startup

■Setting the monitor-only mode after the startup of GT SoftGOT3000

1. Perform either one of the following operations to enable the monitor-only mode.

- Click the [Menu] icon, select [Online], and select [Monitor-only Mode].
- Right-click the mouse and select [Monitor-only Mode] from the context menu.
- Open a project with [Monitors in monitor-only mode] selected in the [Specify a project] dialog.

☞ Page 66 [Specify a project] dialog

- Click [Action] under [Environment] in the setting tree of the [Set] dialog, and select [Monitors in monitor-only mode].

☞ Page 119 [Action]

2. Start monitoring.

☞ Page 72 Starting monitoring

Point

The confirmation dialog appears when monitoring starts with the monitor-only mode enabled.
The confirmation dialog can be displayed or hidden by the setting in the [Set] dialog.
For details, refer to the following.

☞ Page 124 [Option]

Precautions

■Switching to/from the monitor-only mode

The monitor-only mode cannot be started or canceled during and after monitoring with GT SoftGOT3000.

Starting or canceling the monitor-only mode is only possible during the period between the startup of GT SoftGOT3000 and the monitoring start time.

To start or cancel the monitor-only mode after the monitoring starts, restart GT SoftGOT3000.

☞ Page 174 Canceling the monitor-only mode

■Canceling the monitor-only mode started when GT SoftGOT3000 is started in the monitor-only mode

When GT SoftGOT3000 is started using the startup option set in [Properties] of the shortcut, the monitor-only mode cannot be canceled.

To cancel the monitor-only mode, exit GT SoftGOT3000, delete the startup option added to [Target], and then restart GT SoftGOT3000.

☞ Page 174 Canceling the monitor-only mode

■Restarting while the monitor-only mode is set

When GT SoftGOT3000 is restarted while the monitor-only mode is set, it is started in the monitor-only mode.

Each GT SoftGOT3000 module has its own monitor-only mode setting.

Canceling the monitor-only mode

The monitor-only mode is canceled in different ways according to whether GT SoftGOT3000 is started in the monitor-only mode or the mode is set after starting GT SoftGOT3000.

Operating procedure

■When GT SoftGOT3000 is started in the monitor-only mode

When GT SoftGOT3000 is started in monitor-only mode using the startup option set in [Properties] of the shortcut, the mode cannot be canceled.

1. Exit GT SoftGOT3000.
2. Delete the startup option added to [Target] in [Properties] of the shortcut.

■When the monitor-only mode is set after the startup

1. Stop monitoring.

☞ Page 73 Stopping monitoring

2. Restart GT SoftGOT3000.
3. Perform either of the following operations to cancel the monitor-only mode.

- Click the [Menu] icon, select [Online], and deselect [Monitor-only Mode].
- Right-click the mouse and select [Monitor-only Mode] from the context menu.
- Click [Action] under [Environment] in the setting tree of the [Set] dialog, and deselect [Monitors in monitor-only mode].

☞ Page 119 [Action]

19.1.2 Cursor display in the monitor-only mode

When the mouse cursor is moved onto the monitor screen in the monitor-only mode, 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 context menu can be displayed by right-clicking the mouse.

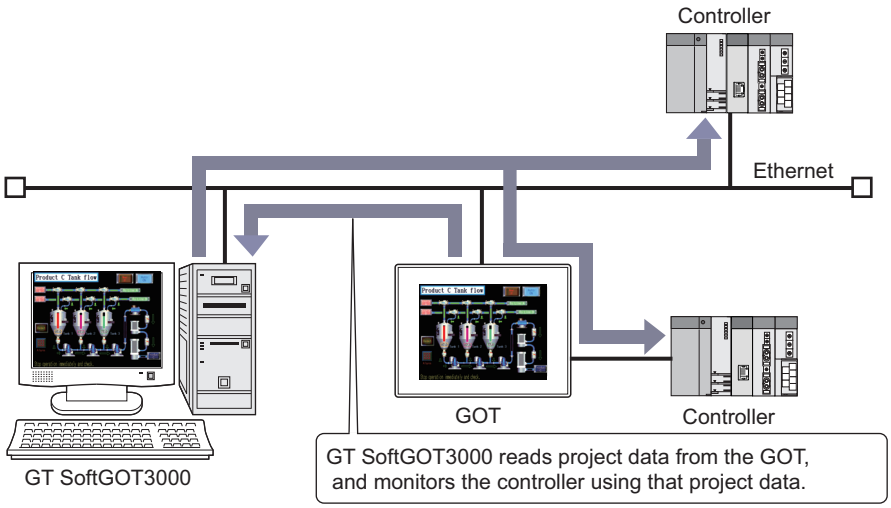
PART 7

19.2 SoftGOT-GOT link function

The SoftGOT-GOT link function connects GT SoftGOT3000 and the GOT via Ethernet and synchronizes project data and resource data between them.

To prevent simultaneous operation, only GT SoftGOT3000 or the GOT is allowed to operate input objects (such as touch switches, numerical inputs, and text inputs) at a time.

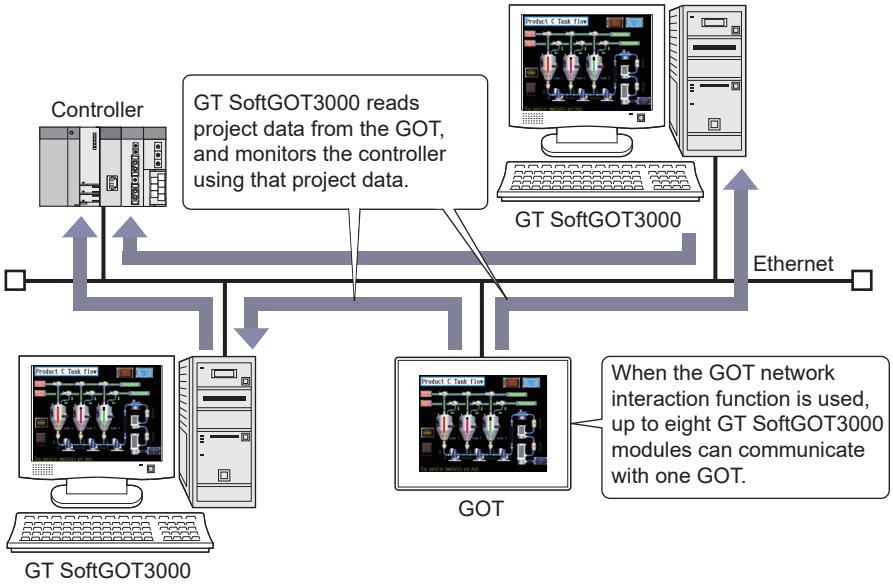
Controllers connected to the GOT can also be monitored via GT SoftGOT3000.



The GOT network interaction function enables multiple GT SoftGOT3000 modules to synchronize with a single GOT.

For information on the GOT network interaction function, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual



GT SoftGOT3000 project data

GT SoftGOT3000 reads and uses GOT project data.

You do not need to create project data for GT SoftGOT3000.

Number of GT SoftGOT3000 modules that can synchronize with one GOT

The following shows the number of GT SoftGOT3000 modules that can synchronize with one GOT.

■When using the GOT network interaction function

Up to eight GT SoftGOT3000 modules can synchronize with the GOT.

However, only one GT SoftGOT3000 module per personal computer can be connected to the same GOT.

■When the GOT network interaction function is not used

Only one GT SoftGOT3000 module can synchronize with one GOT.

A GT SoftGOT3000 module cannot synchronize with a GOT that is communicating with another GT SoftGOT3000 module.

Monitoring targets of GT SoftGOT3000

GT SoftGOT3000 monitors the controllers connected to the GOT that assigns channel numbers 1 to 4 to the controllers.

Ensure that the controller settings for each channel are consistent between the GOT and GT SoftGOT3000.

Communication status between the GOT and controllers

To monitor the controllers connected to the GOT via GT SoftGOT3000, communication between the GOT and the controllers must be enabled.

If the GOT cannot communicate with the controllers, the SoftGOT-GOT link function cannot be used.

For information on how to connect controllers to the GOT, refer to the following.

GOT3000 Series User's Manual (Connection)

System configuration

For the GOT3000 series, use GT SoftGOT3000.

Mixing of GOT1000, GOT2000, and GOT3000 series is not supported.

Use GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 according to the GOT.

Support of base screen size expansion

GT SoftGOT3000 does not support base screen size expansion.

Note that the expanded base screen of the GOT can be operated on GT SoftGOT3000 using the SoftGOT-GOT link function.

For details on the base screen size expansion, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

System application

■System application

Write the extended function (SoftGOT-GOT link function) of the system application to the GOT.

When the function is set, the system application is written along with the package data.

GT Designer3 (GOT3000) Screen Design Manual

Precautions

■Functions that cannot be used with the SoftGOT-GOT link function

The following functions cannot be used with the SoftGOT-GOT link function.

- Gateway server function
- GOT Mobile function

■Precautions for setting the SoftGOT-GOT link function

- The SoftGOT-GOT link function cannot be set after monitoring starts.

Set the function before starting the monitoring.

- Store up to 499 files in one folder.

If 500 or more files are stored, file access performance may be lowered.

- When [Synchronize project data at the start of initial monitoring only] is selected for [Synchronization Settings] in [SoftGOT-GOT Link Function]

When [Synchronize project data at the start of initial monitoring only] is selected, monitoring starts using the already synchronized project data without performing project data synchronization.

As a result, there may be differences between the project data of the connected GOT and the synchronized data.

☞ Page 115 [SoftGOT-GOT Link Function]

To synchronize with the project data on the connected GOT, perform either of the following operations.

Deselect [Synchronize project data at the start of initial monitoring only] and start monitoring again.

After starting monitoring, synchronize the project data using [GOT Project Data Acquisition].

■Use in systems requiring high communication responsiveness

Ethernet connection is recommended between the GOT and the monitored PLC when using the SoftGOT-GOT link function in a system requiring highly responsive communication.

If a PLC is connected to the GOT via direct CPU connection (serial) and monitored using the SoftGOT-GOT link function, the GT SoftGOT3000 becomes less responsive.

■When using the SoftGOT-GOT link function of GT SoftGOT2000 or GT SoftGOT1000

For precautions and restrictions when using the SoftGOT-GOT link function of GT SoftGOT2000 or GT SoftGOT1000, refer to the following.

📖GT SoftGOT2000 Version1 Operating Manual

📖GT SoftGOT1000 Version3 Operating Manual for GT Works3

19.2.1 Data synchronization

When the SoftGOT-GOT link function is used, GT SoftGOT3000 reads the project and resource data written to the GOT and synchronizes the data between GT SoftGOT3000 and the GOT.
By synchronizing the project data, GT SoftGOT3000 and the GOT can display the same screen.
Since the project data used by GT SoftGOT3000 is read from the GOT, there is no need to create project data for GT SoftGOT3000.
When uploading project and resource data from a GOT in security mode 2, you must perform operator authentication in GT SoftGOT3000 before the upload.
The operation rights required for uploading resource data vary depending on the drive where each type of resource data is stored.
Set the operation rights according to the resource data storage destination settings in the project data and the resource data storage destination in the GOT3000.
○: All operations rights required, △: Either operation right required, —: Operation rights optional

Operation rights	Data synchronization function	
	Project data upload	Resource data upload
User screen operation	○	—
Read from current drive	—	△
Write to current drive	—	—
Read/write from non-current drive	—	△
GOT settings in the utility	—	—
Read/write startup package data, firmware update	○	—
Device read/write from external equipment	○	—
Edit operator management information	—	—
Sub-administrative privileges	—	—
GOT full Initialization, security mode change	—	—

Precautions

■Synchronization when the GOT network interaction function is used

When the GOT network interaction function is used and multiple GT SoftGOT3000 modules are connected to the same GOT via the SoftGOT-GOT link function, updating the GOT project data causes the connected GT SoftGOT3000 modules to simultaneously start the upload process.

In this case, only one GT SoftGOT3000 module can perform the upload process at a time, while the other modules wait.

■When the use status of the GOT network interaction function is switched

During project data synchronization, if the use status of the GOT network interaction function is switched on an online GOT, GT SoftGOT3000 must be restarted.

■Precautions for synchronizing the GOT built-in memory (nonvolatile RAM)

When the GOT built-in memory (nonvolatile RAM) is synchronized, the data in the GT SoftGOT3000 nonvolatile RAM is deleted.

In this case, GT SoftGOT3000 operates with the settings configured on the GOT.

For information on functions that use the GOT built-in memory, refer to the following manual.

📖GT Designer3 (GOT3000) Screen Design Manual

When [Initialize NVRAM area at the time of initial monitoring] is selected in [Set] → [Environment] → [Action], GT SoftGOT3000 deletes the acquired data in the GOT built-in memory (nonvolatile RAM) and starts monitoring.

To synchronize the GOT built-in memory (nonvolatile RAM), deselect [Initialize NVRAM area at the time of initial monitoring].

Project data synchronization

Project data is synchronized at the following timings.

○: Synchronized, —: Not synchronized

Synchronization timing		Setting of [Synchronize project data at the start of initial monitoring only][*1]		Reference
		Deselected	Selected	
When GT SoftGOT3000 starts monitoring	First time	○	○	☞ Page 181 Synchronization at the start of monitoring
	Second time or later	○	×	
When [GOT Project Data Acquisition] is selected		○	○	☞ Page 181 Synchronization by user operation
If the GOT project data is changed during communication with GT SoftGOT3000		○	○	☞ Page 182 Synchronization when the project data of the GOT is changed

*1 This setting shortens the time before monitoring by not synchronizing project data at the start of second or subsequent monitoring. For details on this setting, refer to the following.
☞ Page 116 [Synchronization Settings]

Point

Since synchronized project data is managed by module number, assign different module numbers when managing multiple connected GOTs.

The following shows the process for synchronizing project data.

■Synchronization at the start of monitoring

When monitoring starts in GT SoftGOT3000, project data synchronization is performed.
(When [Synchronize project data at the start of initial monitoring only] is selected, project data synchronization is not performed at the start of the second or subsequent monitoring.)
The following shows the operation when project data synchronization is performed.

1. Start the project data, then start monitoring.
2. A confirmation dialog for project data synchronization appears. Click the [Yes] button.
3. If the data transfer password has been set for the project data, the password entry dialog appears. Enter the password.
4. Click the [OK] button to synchronize the project data and resource data of GT SoftGOT3000 with those of the GOT, then start monitoring.

■Synchronization by user operation

The following shows the operation when project data synchronization is performed by the user.

1. Perform one of the following operations to execute [GOT Project Data Acquisition].

- Click the [Menu] icon and select [Online] → [SoftGOT-GOT Link Function] → [GOT Project Data Acquisition].
- Right-click the mouse and click [GOT Project Data Acquisition] from the context menu.
- Press the Ctrl + G keys.

2. If the data transfer password has been set for the project data, the password entry dialog appears. Enter the password.
3. Click the [OK] button to synchronize the project data and resource data of GT SoftGOT3000 with those of the GOT, then start monitoring.

■Synchronization when the project data of the GOT is changed

If GOT project data is changed during communication with GT SoftGOT3000, project data synchronization is performed.
The following shows the operation to be performed when project data synchronization is performed.

1. If the data transfer password has been set for the project data, the password entry dialog appears. Enter the password.
2. Click the [OK] button to synchronize the project data and resource data of GT SoftGOT3000 with those of the GOT, then start monitoring.

Precautions

■Precautions during project data synchronization

Do not perform the following operations while project data is being synchronized.

- Turn off the GOT or the controller.
- Press the reset button on the GOT.
- Disconnect the communication cable.
- Turn off the personal computer.

If any of the above operations are performed during project data synchronization, differences may occur between project data in GT SoftGOT3000 and the GOT.
Select [GOT Project Data Acquisition] to synchronize the project data again.

■Timing when project data synchronization does not occur

During the following operation, project data is not synchronized. Synchronization occurs after the operation is completed.

- While a dialog that disables operations on other screens is displayed

■Changing the settings of the controller after project data synchronization

Do not change the settings of the controller after project data synchronization.

Resource data synchronization

If resource data is stored in the GOT, it is also synchronized when project data is synchronized.

By selecting the synchronization timing for resource data, the data is synchronized even if the project data in the GOT has not changed.

Resource data is copied from each drive of the GOT to the corresponding virtual drive of GT SoftGOT3000.

■Types of resource data that can be synchronized

The following shows the types of resource data to be synchronized.

- Alarm log file (G3A)
- Logging file (G3L)
- Image file (JPG)
- Image file (BMP)
- Image file (PNG)
- PDF file (PDF)
- GOT built-in memory (nonvolatile RAM)

■Synchronization timing

Resource data is synchronized at the following timings.

○: Synchronized, —: Not synchronized

Synchronization timing	Setting of [Synchronize at the start of every monitoring][*1]		Reference
	Deselected	Selected	
When GT SoftGOT3000 starts monitoring	○[*2]	○	☞ Page 181 Synchronization at the start of monitoring
When [GOT Project Data Acquisition] is selected	○	○	☞ Page 181 Synchronization by user operation
If the GOT project data is changed during communication with GT SoftGOT3000	○[*2]	○	☞ Page 182 Synchronization when the project data of the GOT is changed

*1 This setting is used to select the timing for resource data synchronization.
For details on this setting, refer to the following.
☞ Page 115 [SoftGOT-GOT Link Function]

*2 Synchronization occurs only when there is a difference from the project data on the connected GOT.

The type of the resource data to be synchronized and the synchronization timing can be selected in [SoftGOT-GOT Link Function].

For information on how to select the type of resource data to be synchronized and synchronization timing, refer to the following.

☞ Page 115 [SoftGOT-GOT Link Function]

After resource data synchronization, GT SoftGOT3000 and the GOT update the resource data independently.

Therefore, synchronized resource data may differ between GT SoftGOT3000 and the GOT.

Precautions

■Resource data on drive V

The resource data on drive V is not synchronized.

■Precautions when uploading resource data

If the file names of the resource data collected by GT SoftGOT3000 and the resource data uploaded from the GOT are the same, the data collected by GT SoftGOT3000 will be overwritten.

To prevent the logging file (G3L) from being overwritten, select [Add date information to the file name] in the [Logging] dialog in GT Designer3.

For details on the [Logging] dialog, refer to the following.

📖GT Designer3 (GOT3000) Screen Design Manual

19.2.2 Authorization control

When you use the SoftGOT-GOT link function, operation rights are required to operate input objects (touch switch, numerical input, and text input).
By allowing operations only when operation rights have been acquired, simultaneous operations between GT SoftGOT3000 and GOT are prevented.
Note that the following operations and functions do not require operation rights.

Operation/function	Description
Screen operation	• Moving windows • Switching the stacking order of windows
Function	• Functions controlled by triggers (such as system information and screen switching devices) • Touch Status External Notification (GS654, 655, 656)

When you use the GOT network interaction function, operation rights control by the SoftGOT-GOT link function is disabled, and operation rights control by the GOT network interaction function is enabled.
For details on the GOT network interaction function, refer to the following.
GT Designer3 (GOT3000) Screen Design Manual

Precautions

■Device settings that affect the control of GT SoftGOT3000 and the GOT

It is recommended to set GOT internal devices for function control devices that affect the control of GT SoftGOT3000 and the GOT, such as system signals and screen switching devices.
If you set a controller's device for a function that affects the control of GT SoftGOT3000 and the GOT, operations performed on either GT SoftGOT3000 or the GOT may cause unexpected behavior on the other.
The following is an example of settings using a GOT internal device and the script function to ensure that functions affecting the control of GT SoftGOT3000 and the GOT operate only when operation rights have been acquired.
Example) When operation rights are acquired, switching the GT SoftGOT3000 or GOT screen according to the value (screen number) of the controller device (D1000)

Function	Setting
Screen switching device	Set a GOT internal device (GD1000).
Script function	Set the following project script with the trigger type set to [Ordinary]. if([b:GS244.b1] == ON){ [w:GD1000] = [w:D1000];}

For information on how to use the screen switching device and script function, refer to the following.
GT Designer3 (GOT3000) Screen Design Manual

■When both GT SoftGOT3000 and the GOT have operation rights

If the GOT acquires operation rights while a screen other than the user screen is being operated with GT SoftGOT3000, the operation rights on the GT SoftGOT3000 side are retained until the screen returns to the user screen.
Temporarily, both the GOT and GT SoftGOT3000 hold operation rights.

Precautions for operation rights control

■Operations not recognized by GT SoftGOT3000 and the GOT

Touch input is not recognized.

- The Disable Touch Operation signal (System signal 1-1.b9) is on.

■How to check the operation rights acquisition status

• Checking using GT SoftGOT3000

When the SoftGOT-GOT link function is used, the status bar of GT SoftGOT3000 displays the acquisition status of operation rights and exclusive operation rights.

When the network interaction function is used, the status bar of GT SoftGOT3000 displays the acquisition status of operation rights and whether GT SoftGOT3000 is the GOT that controls operation rights.

When the SoftGOT-GOT link function is used

When the network interaction function is used

Item	Description	Icon	
[OPE]	Displays the status of operation rights acquisition for GT SoftGOT3000.	When the GT SoftGOT3000 does not have operation rights	
		When GT SoftGOT3000 has operation rights	
[PRI] *1	Displays the status of operation rights acquisition for the GOT.	When the GOT does not have operation rights	
		When the GOT has operation rights	
[NMG]	Displays the type of GOT that controls operation rights.	When GT SoftGOT3000 is not the GOT that controls operation rights	
		When GT SoftGOT3000 is the GOT that controls operation rights	

*1 When the GOT network interlock function is used, the GOT does not display the exclusive operation rights acquisition status. You can also check it using internal GOT devices.
☞ Page 189 Control and notification using GOT internal devices

• Checking method using the GOT

The acquisition status of operation rights and exclusive operation rights on the GOT can be checked using GOT internal devices.

☞ Page 189 Control and notification using GOT internal devices

• Operation status popup notification function

The acquisition status of operation rights and the operation status on the target side are notified with a popup display.

The display position of the operation status popup display is the same as the display position set for the alarm popup display.

The popup appears as a band at the bottom, center, or top of the screen.

If the base screen is switched while the operation status popup is displayed, the popup appears at the alarm popup display position set in the destination screen.

When operation rights are acquired, the operation status popup is cleared.

Configure the display settings in the GOT utility or in the GOT setup in GT Designer3.

For instructions on configuring the settings in the utility, refer to the following.

📖User manual for the GOT in use

For instructions on configuring the settings in GT Designer3, refer to the following.

📖GT Designer3 (GOT3000) Screen Design Manual

• Popup display when the GOT network interaction function is used

The popup display on the screen is changed to that of the GOT network link function.

For details on the GOT network interaction function, refer to the following.

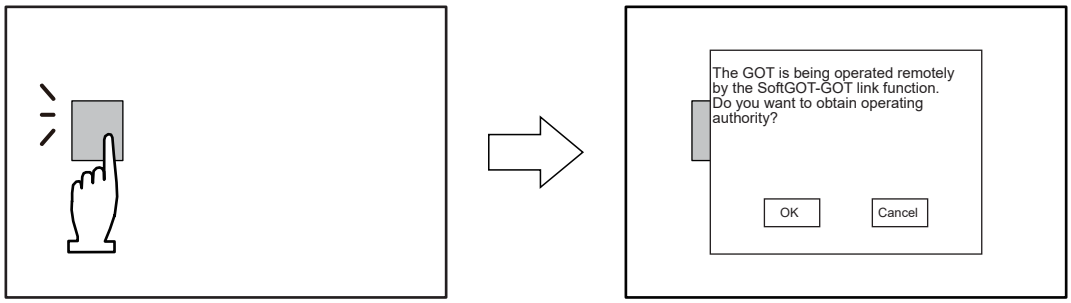
📖GT Designer3 (GOT3000) Screen Design Manual

Acquiring operation rights

■Operation rights acquisition on the GOT

When monitoring starts with GT SoftGOT3000, the GOT automatically acquires operation rights.

If an input object is operated while the GOT has not acquired operation rights, a dialog appears prompting the user to acquire them.



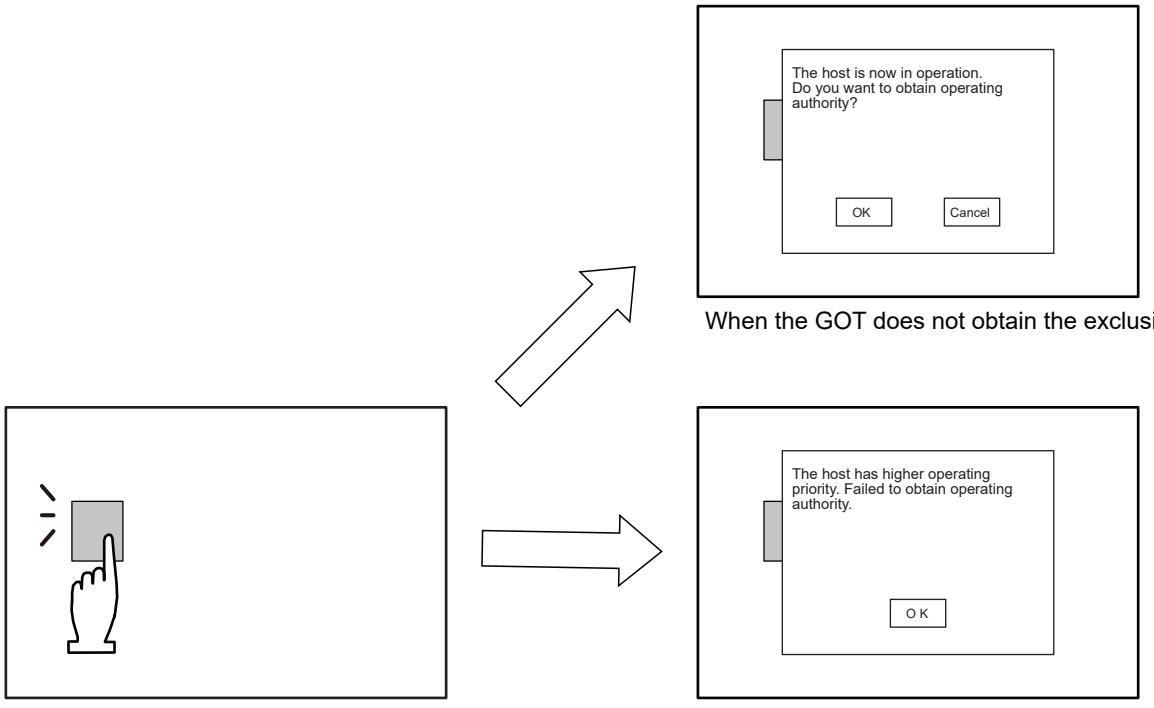
In the following cases, the GOT automatically acquires operation rights.

- The GOT is restarted.
- The GOT acquires exclusive operation rights.
- While GT SoftGOT3000 has operation rights, no operation is performed within the authorization obtained time set in the GOT utility or in the GOT setup in GT Designer3.
- Monitoring is stopped in GT SoftGOT3000.
- GT SoftGOT3000 is exited.
- Communication between GT SoftGOT3000 and GOT is lost due to a communication cable disconnection or similar issue.

■Operation rights acquisition on GT SoftGOT3000

If an input object is operated while GT SoftGOT3000 has not acquired operation rights, a dialog prompting the user to acquire them appears.

However, if the GOT has exclusive operation rights, GT SoftGOT3000 cannot acquire operation rights.



When the GOT does not obtain the exclusive authorization

When the GOT obtains the exclusive authorization

When the GOT is in authorization guarantee status

Exclusive operation rights of the GOT

■What are exclusive operation rights?

The GOT has the right (exclusive operation right) to prevent GT SoftGOT3000 from acquiring operation rights.
When the GOT acquires exclusive operation rights, it also acquires operation rights.

■How to acquire exclusive operation rights

Exclusive operation rights are acquired using the GOT internal device (GS447) or in the GOT utility.
For instructions on configuring the settings using GOT internal devices, refer to the following.
☞ Page 189 Control and notification using GOT internal devices
For instructions on configuring the settings in the utility, refer to the following.
📖GOT3000 Series User's Manual (Utility & Maintenance Functions)

Point

• Operations that automatically acquire exclusive operation rights
When the utility screen or a dedicated screen for extended functions is displayed, the GOT automatically acquires exclusive operation rights, regardless of the value of the Exclusive Authorization Control signal (GS447.b0).
When the utility screen or a dedicated screen for extended functions is switched to a user-created screen, exclusive operation rights are restricted according to the value of the Exclusive Authorization Control signal (GS447.b0).
☞ Page 189 Control and notification using GOT internal devices
• SoftGOT-GOT link function settings
Configure the following settings in the GOT utility or in the GOT setup in GT Designer3.
Authorization obtained time
Authorization guarantee time
Operation status popup notification
For instructions on configuring the settings in the utility, refer to the following.
📖GOT3000 Series User's Manual (Utility & Maintenance Functions)
For instructions on configuring the settings in GT Designer3, refer to the following.
📖GT Designer3 (GOT3000) Screen Design Manual

Precautions

■Operations without acquiring operation rights

Clicking or touching an input object is not recognized as an input operation if operation rights are not acquired.
A dialog prompting the user to acquire operation rights is displayed.
(When the GOT has exclusive operation rights, GT SoftGOT3000 cannot acquire operation rights.)

19.2.3 Control and notification using GOT internal devices

GOT internal devices can be used to control exclusive operation rights and to check the communication status between GT SoftGOT3000 and the GOT.

For details on GOT internal devices, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

Exclusive Authorization Control (GS447)

Bit number	Signal name	Description
b0	Exclusive Authorization Control signal*1	When this bit is turned on, the GOT acquires exclusive operation rights. This bit is not supported by GT SoftGOT3000.
b1	Cancel Post-operation Authorization Guarantee signal*1	Turn on this signal to cancel the authorization guarantee time setting. This enables emergency operation from a remote location when required.
b2 to b15	Use prohibited	-

*1 This signal is disabled when the GOT network interaction function is used.

SoftGOT-GOT Link Status Control/Notification (GS244)

Bit number	Signal name	Description
b0	Communication Status Notification Signal*1	Turns on while GT SoftGOT3000 is communicating with the GOT.
b1	Obtaining Authorization Notification Signal *1	Turns on when operation rights are acquired.
b2	GT SoftGOT3000/GOT Identification Signal	Notifies that GT SoftGOT3000 or the GOT is in use. • 0: GOT • 1: GT SoftGOT3000 (This value changes to 0 if GT SoftGOT3000 is not communicating with the GOT.)
b3	Obtaining Exclusive Authorization Notification Signal *1	Turns on when the GOT acquires exclusive operation rights. This bit is always off in GT SoftGOT3000.
b4	System Screen Displaying Notification Signal *1	Turns on when a utility screen or a dedicated screen for extended functions is displayed. This bit is always off in GT SoftGOT3000.
b5 to b15	Use prohibited	-

*1 This signal is disabled when the GOT network interaction function is used.

Authorization Guarantee Status Notification signal (GS984)

Signal name	Description
Authorization Guarantee Status Notification Signal*1	Stores the remaining authorization guarantee time (seconds) when the authorization guarantee time is set in GT SoftGOT3000 or the GOT.

*1 This signal is disabled when the GOT network interaction function is used.

■How to utilize GOT internal devices

By using the GT SoftGOT3000/GOT Identification Signal (GS244.b2), you can set objects or similar items to be displayed only on the GOT, and not on GT SoftGOT3000, during communication between the two.

Example) Bit switch displayed only on the GOT

1. Register shapes to parts to display them when the bit switch turns on or off.

For information on how to register parts, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

2. Create the following objects.

Object	Setting
Bit switch	• Set [Device] on the [Device] tab. • Select [None] for [Shape] in the [Style] tab. • In the [Trigger] tab, set [Trigger Type] to [OFF] and [Trigger Device] to the GT SoftGOT3000/GOT Identification Signal (GS244.b2).
Parts display (bit parts)	• Set the same device as the bit switch in [Parts Switching Device] in the [Device/Style] tab. • Set the part registered in the step 1. as the part for [ON] or [OFF] in the [Device/Style] tab. • In the [Trigger] tab, set [Trigger Type] to [OFF] and [Trigger Device] to the GT SoftGOT3000/GOT Identification Signal (GS244.b2).

For information on how to set objects, refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

3. Place the bit switch over the created parts display.

19.2.4 Encrypted communication

When [Perform Encrypted Communication] is selected in the settings of the connected GOT, encrypted communication is performed.
When [Perform Encrypted Communication] is deselected, plain text communication is performed.
The following shows the scope of encrypted communication and whether a certificate is required.
○: Supported, —: Not supported

Function	Encrypted communication (without certificate)	Encrypted communication (with certificate)
Data synchronization function	○	—
Operation rights control • Monitoring the GOT and the devices connected to the GOT via GT SoftGOT3000	—	○

Precautions

To enable encrypted communication using a certificate, import the certificate of the connected device using the [Certificate import] button.

Encryption target

Protocol	Packet type	Encryption target	Encryption method used
TCP	Project data upload Resource data upload	○	TLS 1.2 TLS 1.3
TCP	Packet for connection status and operation rights control	○	TLS 1.2 TLS 1.3
TCP	Transparent packet	○	TLS 1.2 TLS 1.3
UDP	Packet for connection status and operation rights control	○	DTLS 1.2
UDP	Transparent packet	○	DTLS 1.2

Certificate to be used

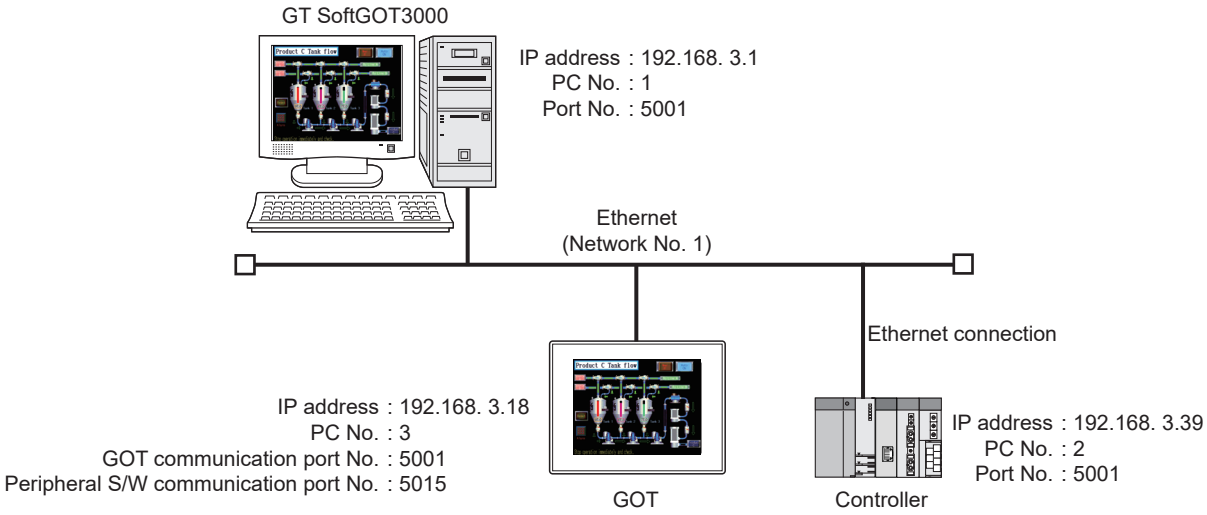
Server authentication is performed using a self-signed server certificate created by the GOT.
Client authentication is not performed.
The server certificate can be created or updated using [Certificate management] in the utility.
The certificate is also automatically created at the following timings.

- When the GOT starts with the basic system application installed and no server certificate present
- When an easy Install (G3BOOTINST.OUT) is transferred from the engineering tool to the GOT without a server certificate in the GOT

19.2.5 Setting procedure

This section explains the system configuration and setting procedure for using the SoftGOT-GOT link function.

This section explains the use of the SoftGOT-GOT link function, using the following system configuration as an example.



Procedure for using the SoftGOT-GOT link function

1. Connect the GOT and controllers.

GOT3000 Series User's Manual (Connection)

2. Connect the GOT and a personal computer with GT SoftGOT3000 installed.

Page 192 GOT that supports the SoftGOT-GOT link function

Page 193 Monitorable controllers and connection types

3. Create project data with GT Designer3, and write the data to the GOT.

GT Designer3 (GOT3000) Screen Design Manual

4. Configure the settings in GT SoftGOT3000.

Page 201 Operations and settings in GT SoftGOT3000

5. Start monitoring with GT SoftGOT3000.

Page 203 Start of monitoring

GOT that supports the SoftGOT-GOT link function

The following GOTs support the function.

- GT37

■Communication interface of the GOT

The following shows the communication interfaces of the GOT used for communication with GT SoftGOT3000.

Item	Type
When GT37 is used	—(Built-in interface)

■Cable for connecting a personal computer (GT SoftGOT3000) and the GOT

Use a cable compatible with the interface of the GOT to be used.

■Connection conditions between a personal computer (GT SoftGOT3000) and the GOT

Connection type	Connection conditions	
	Connection distance to the personal computer	Number of connectable personal computers
Ethernet connection	100 m (max. segment length)	1

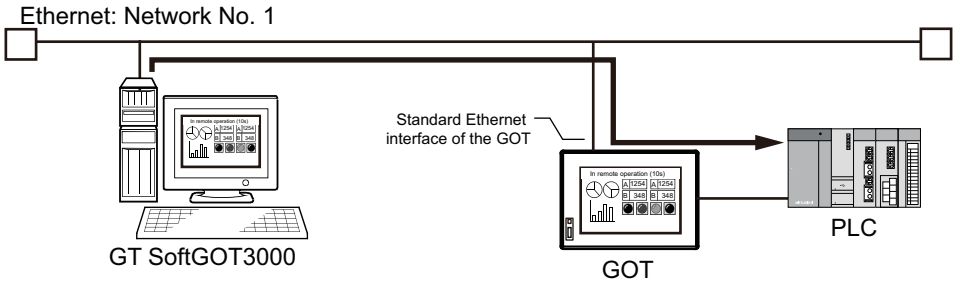
Monitorable controllers and connection types

The controller that can be monitored by GT SoftGOT3000 varies depending on the following conditions.

- Connection type between the GOT and the controller
- Monitoring route from GT SoftGOT3000 to the controller

When the GOT network interaction function is used, the controller cannot be monitored through the GOT using the SoftGOT-GOT link function.

■Monitoring a PLC via a GOT



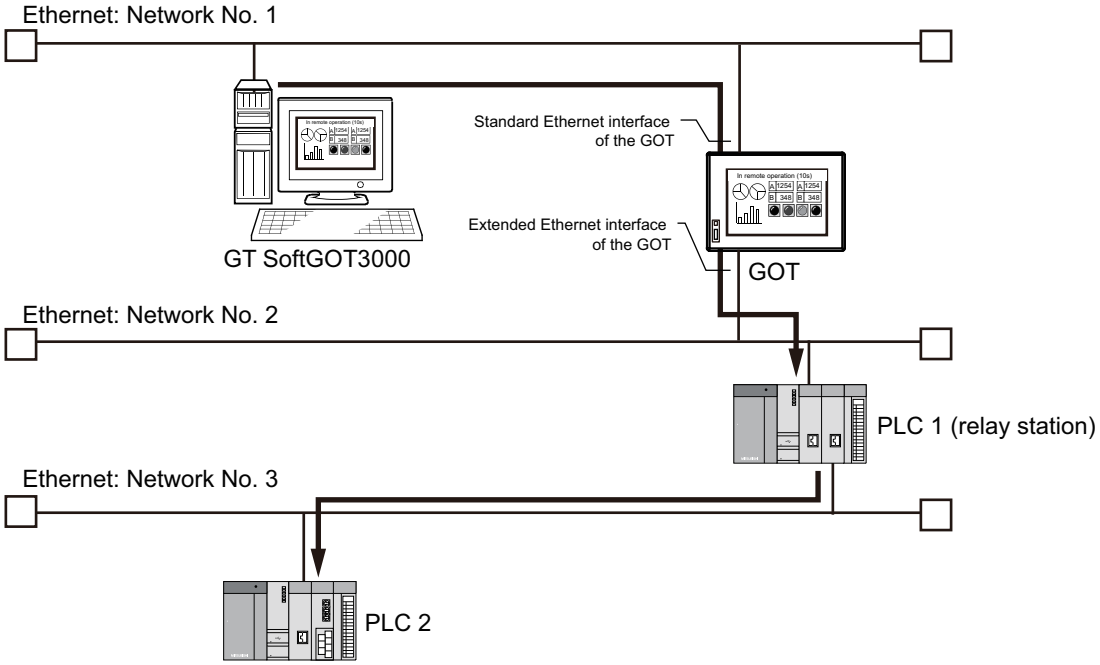
○: Can be monitored, ×: Cannot be monitored

Monitoring target controller		Connection type between the GOT and the controller (Monitoring route from GT SoftGOT3000 to the controller)			
		Bus connection	Direct CPU connection (RS-232, USB)	Serial communication connection	Ethernet connection
MELSEC MX Controller	MXR500-128 MXR500-256	×	×	×	○
	MXR300-16 MXR300-32 MXR300-64	×	×	×	○
	MXF100-8-N32 MXF100-8-P32 MXF100-16-N32 MXF100-16-P32	×	×	×	○
MELSEC iQ-R series	R00CPU R01CPU R02CPU R04CPU R08CPU R16CPU R32CPU R120CPU	×	×	○	○
	R04ENCPU R08ENCPU R16ENCPU R32ENCPU R120ENCPU	×	×	○	○
MELSEC L	L02CPU L06CPU L26CPU L26CPU-BT L02CPU-P L06CPU-P L26CPU-P L26CPU-PBT L26CPU-BT-CM L02SCPU-CM L02CPU-CM L02SCPU L02SCPU-P	×	○	○	○

PART 7

Monitoring target controller		Connection type between the GOT and the controller (Monitoring route from GT SoftGOT3000 to the controller)			
		Bus connection	Direct CPU connection (RS-232, USB)	Serial communication connection	Ethernet connection
MELSEC Q	Q00JCPU Q00CPU Q01CPU Q02CPU Q02HCPU Q06HCPU Q12HCPU Q25HCPU	○	○	○	○
	Q02PHCPU Q06PHCPU Q12PHCPU Q25PHCPU	○	○	○	○
	Q04UDHCPU Q06UDHCPU Q10UDHCPU Q13UDHCPU Q20UDHCPU Q26UDHCPU	○	○	○	○
	Q03UDECPU				
	Q03UDVCPU Q04UDVCPU Q06UDVCPU Q13UDVCPU Q26UDVCPU				
	Q12DCCPU-V Q24DHCCPU-V Q24DHCCPU-LS Q24DHCCPU-VG Q26DHCCPU-LS	×	○	○	○
OMRON PLC	CS1H CS1G CS1D	×	×	×	×
	CJ1M				
	CJ2H CJ2M				
	CP2E				
	NJ101-□□□□ NJ301-□□□□ NJ501-□□□□ NX1P2-□□□□□□□□ NX701-□□□□ NX102-□□□□				
CNC C70	Q173NCCPU	○	○	○	○
Robot controller	CRnQ-700 (Q172DRCPU)	○	○	○	○

■Monitoring a PLC on a different network via a GOT and a relay station

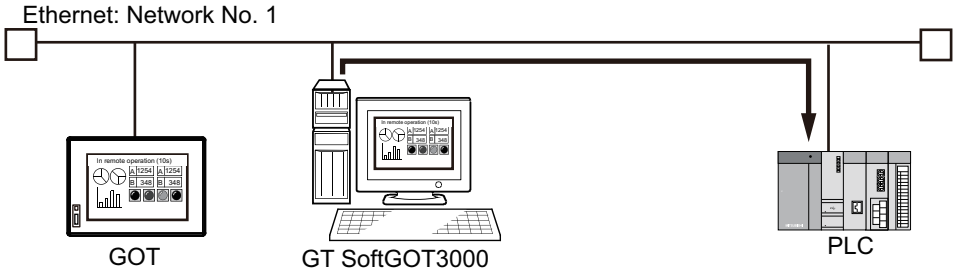


○: Can be monitored, ×: Cannot be monitored

Monitoring target controller		Relay station support
		Ethernet connection
MELSEC L	L02CPU L06CPU L26CPU L26CPU-BT L02CPU-P L06CPU-P L26CPU-P L26CPU-PBT L26CPU-BT-CM L02SCPU-CM L02CPU-CM L02SCPU L02SCPU-P	○
CC-Link IE Field Network Ethernet adapter	NZ2GF-ETB	○

Monitoring target controller		Relay station support
		Ethernet connection
MELSEC Q	Q00JCPU Q00CPU Q01CPU Q02CPU Q02HCPU Q06HCPU Q12HCPU Q25HCPU	○
	Q02PHCPU Q06PHCPU Q12PHCPU Q25PHCPU	○
	Q04UDHCPU Q06UDHCPU Q10UDHCPU Q13UDHCPU Q20UDHCPU Q26UDHCPU	○
	Q03UDECPU	
	Q03UDVCPU Q04UDVCPU Q06UDVCPU Q13UDVCPU Q26UDVCPU	
	Q12DCCPU-V Q24DHCCPU-V Q24DHCCPU-LS Q24DHCCPU-VG Q26DHCCPU-LS	○
CNC C70	Q173NCCPU	○
Robot controller	CRnQ-700 (Q172DRCPU)	○

■Monitoring a PLC directly



○: Can be monitored, ×: Cannot be monitored

Monitoring target controller		Connection type between the GOT and the controller (Monitoring route from GT SoftGOT3000 to the controller)
		Ethernet connection
MELSEC MX Controller	MXR500-128 MXR500-256	○
	MXR300-16 MXR300-32 MXR300-64	○
	MXF100-8-N32 MXF100-8-P32 MXF100-16-N32 MXF100-16-P32	○
MELSEC iQ-R series	R00CPU R01CPU R02CPU R04CPU R08CPU R16CPU R32CPU R120CPU	○
	R04ENCPU R08ENCPU R16ENCPU R32ENCPU R120ENCPU	○
MELSEC L	L02CPU L06CPU L26CPU L26CPU-BT L02CPU-P L06CPU-P L26CPU-P L26CPU-PBT L26CPU-BT-CM L02SCPU-CM L02CPU-CM L02SCPU L02SCPU-P	○

Monitoring target controller		Connection type between the GOT and the controller (Monitoring route from GT SoftGOT3000 to the controller)
		Ethernet connection
MELSEC Q	Q00JCPU Q00CPU Q01CPU Q02CPU Q02HCPU Q06HCPU Q12HCPU Q25HCPU	○
	Q02PHCPU Q06PHCPU Q12PHCPU Q25PHCPU	○
	Q04UDHCPU Q06UDHCPU Q10UDHCPU Q13UDHCPU Q20UDHCPU Q26UDHCPU	○
	Q03UDECPU	
	Q03UDVCPU Q04UDVCPU Q06UDVCPU Q13UDVCPU Q26UDVCPU	
	Q12DCCPU-V Q24DHCCPU-V Q24DHCCPU-LS Q24DHCCPU-VG Q26DHCCPU-LS	○
OMRON PLC	CS1H CS1G CS1D	○
	CJ1M	
	CJ2H CJ2M	
	CP2E	
	NJ101-□□□□ NJ301-□□□□ NJ501-□□□□ NX1P2-□□□□□□□□ NX701-□□□□ NX102-□□□□	×
CNC C70	Q173NCCPU	○
Robot controller	CRnQ-700 (Q172DRCPU)	○

Operations and settings in GT Designer3 (GOT-side settings)

■Settings in the [Controller Setting] window

Configure the communication settings between the GOT and the controller.

1. Select [Common] → [Controller Setting] from the menu to display the [Controller Setting] window.
2. Set the following items in [Detail Setting], and click the [OK] button.

Item	Description
[GOT NET No.]	[1]
[GOT PC No.]	[3]
[GOT Communication Port No.]	[5001]

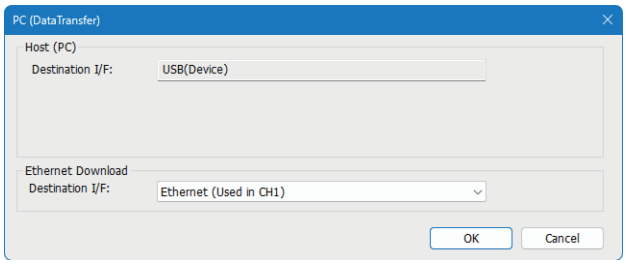
For details on the controller settings, refer to the following.

GOT3000 Series User's Manual (Connection)

■Settings in the [PC (Data Transfer)] dialog

Configure the settings to connect to the Ethernet interface of the GOT for data transfer between the GOT and GT SoftGOT3000.

1. Select [Common] → [Peripheral Setting] → [PC (Data Transfer)] from the menu to display the [PC (Data Transfer)] dialog.
2. Select [Ethernet (Used in CH1)] for [Destination I/F] in [Ethernet Download], and click the [OK] button.



■Settings in the [GOT Ethernet Setting] window

Set [GOT IP Address Setting] and [Peripheral S/W Communication Port No.].

1. Select [Common] → [GOT Ethernet Setting] → [GOT IP Address Setting] from the menu to display the [GOT Ethernet Setting] window ([GOT IP Address Setting]).
2. On the [Port 1] tab, set [GOT IP Address] to [192.168.3.18].
3. In [GOT Common Setting] in the [GOT Ethernet Setting] window, set [Peripheral S/W Communication Port No.] to [5015].
4. Click the [OK] button to complete the settings.

For details on [GOT Ethernet Setting], refer to the following.

GT Designer3 (GOT3000) Screen Design Manual

Precautions

■Ethernet settings

Set [GOT IP Address] and [Ethernet Download Port No.] for project data.

When using encrypted communication, set [Encryption Communication Port No.:].

Point

• Firewall setting

When the port for the Ethernet communication is blocked by the firewall, a communication error occurs.

Disable the firewall or set the port to be opened.

• Unusable port numbers

Do not set the port number used for the other settings.

Duplication of the port number disables communication.

To change the number, it is recommended to use a number in the 50000s or higher.

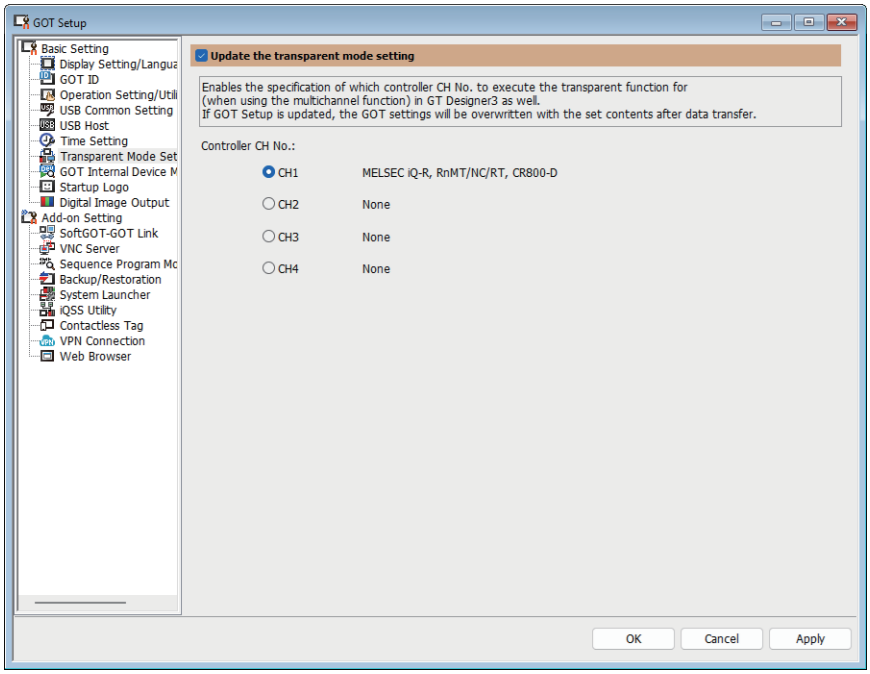
■Transparent mode settings

To monitor a controller from GT SoftGOT3000 via the GOT, set [CH1] for transparent mode on the GOT.

If any option other than [CH1] is set, a communication timeout error occurs, or an unintended controller is monitored when the SoftGOT-GOT link function is used.

The following shows the setting procedure in GT Designer3.

1. Select [Common] → [GOT Setup] → [Basic Setting] → [Transparent Mode Setting] from the menu.
2. Select [Update the transparent mode setting].
3. Select [CH1] for [Controller CH No.], and click the [OK] button.



■SoftGOT-GOT link function settings

Configure the SoftGOT-GOT link function settings.

1. Select [Common] → [GOT Setup] → [Add-on Setting] → [SoftGOT-GOT Link] from the menu.
2. Select [Update the SoftGOT-GOT link function setting].

■Writing a package data into the GOT

Write the created package data (containing the SoftGOT-GOT link function) to the GOT.

For instructions on writing project data to the GOT, refer to the following.

📖GT Designer3 (GOT3000) Screen Design Manual

■Settings

1. Perform one of the following operations to display the [Set] dialog.

- Click the [Menu] icon and select [Set] from the menu.
- Right-click the mouse and click [Set] from the context menu.
- Click the [Set] icon in the Quick Access Toolbar.

2. In the [Set] dialog, click the target item in the left-side settings tree.

3. Configure the [Environment] settings.

For details on the [Environment] settings, refer to the following.

☞ Page 119 [Environment]

4. Configure the [Controller] settings.

Item	Description
[I/F]	[Ethernet]
[Manufacturer]*1*2	[MITSUBISHI ELECTRIC] or [OMRON]*3
[NET No.]	[1]
[Station No.]	[1]
[Port No.]	[5001]
[Transmit delay time]	Transmission wait time
[CPU No. Switching Device (3 points)]	Set the values that are specified in the [Controller Setting] window in GT Designer3. For details on the [Controller] settings, refer to the following. 📖GT Designer3 (GOT3000) Screen Design Manual
[Module No. Switching Device (16 points)]	
[Servo Axis Switching Device (16 points)]	

*1 If the connection type of the connected GOT is not Ethernet, you can still monitor the controller via the GOT by setting [I/F] for [CH1] to [Ethernet] and selecting [MITSUBISHI ELECTRIC] for the manufacturer in the GT SoftGOT3000 controller settings.

*2 To use the GOT network interaction function, set [MITSUBISHI ELECTRIC].

*3 Set [Type] to [OMRON SYSMAC].

For details on the [Controller] settings, refer to the following.

☞ Page 80 [Controller]

5. In [SoftGOT-GOT Link Function], select [Use SoftGOT-GOT Link Function], then configure the [SoftGOT-GOT Link Function] settings.

Item	Description
[IP Address]	[192.168.3.18]
Port No. of the connected GOT	[5015]
[Communication method]	[TCP]

For details on the [SoftGOT-GOT Link Function] settings, refer to the following.

☞ Page 115 [SoftGOT-GOT Link Function]

6. In [SoftGOT-GOT Link Function], click the [Communication Test] button under [Connected GOT Settings] to perform a communication test between GT SoftGOT3000 and the GOT.

Point

• If GT SoftGOT3000 and the GOT have different resolutions

When monitoring starts with GT SoftGOT3000, its resolution is automatically adjusted to match that of the GOT.

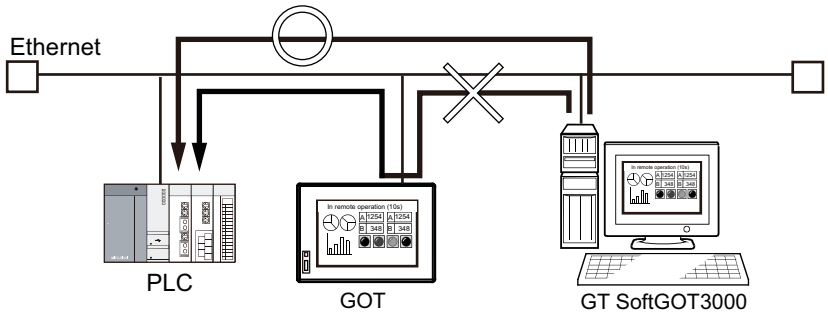
• When a vertically-installed GOT is connected

When GT SoftGOT3000 is connected to a vertically-installed GOT, GT SoftGOT3000 displays the startup logo and the utility screen in the vertical orientation.

• Precautions for the Ethernet connection

When a controller is connected to the GOT via Ethernet, use GT SoftGOT3000 to monitor the controller within the access range of GT SoftGOT3000 directly.

If you monitor the controller through the GOT, the communication speed decreases.



■SoftGOT-GOT link function settings

Select the type of the resource data to be synchronized with the GOT and the synchronization timing.

For details on the settings in the [Detail Setting] dialog, refer to the following.

☞ Page 116 [Synchronization Settings]

Point

Large resource data size affects the time required to start monitoring.

For a large amount of resource data, either of the following settings is recommended.

• Deselect [Upload].

• Deselect [Synchronize at the start of every monitoring].

■Behavior during synchronization of logging files (G3L)

• Synchronization of logging files (G3L)

To synchronize a logging file (G3L), upload only the management file before starting monitoring.

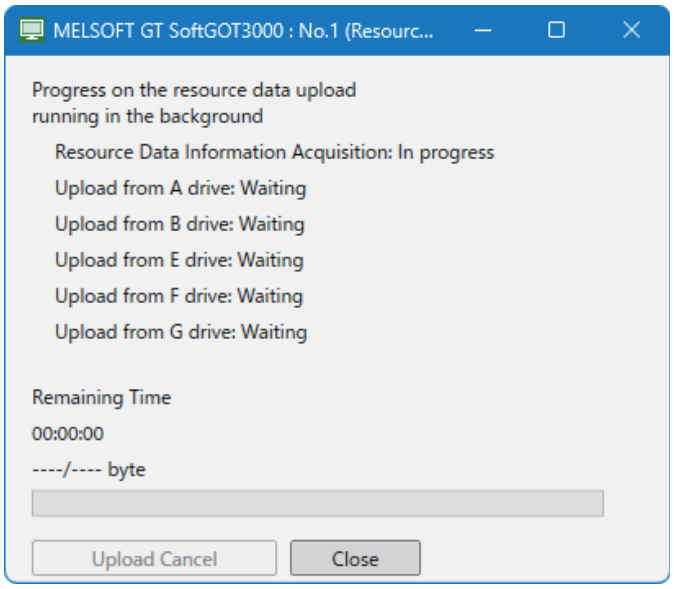
The collected logging file (G3L) is uploaded in the background after monitoring starts.

• Upload status of a logging file (G3L)

To check the upload status of a logging file (G3L), select [Online] → [SoftGOT-GOT Link Function] → [Resource Data Upload Status] from the menu.

To cancel the upload, click the [Upload Cancel] button.

If the upload of resource data is canceled, the upload progress may indicate completion even though the resource data has not been uploaded.



If you cancel the upload of the logging file (G3L), the file is uploaded again the next time project data is synchronized.

■Start of monitoring

1. Perform one of the following operations to start monitoring.

• Click the [Menu] icon, select [Online] → [Monitor Start] from the menu.

• Right-click the mouse and click [Monitor Start] from the context menu.

• Click the [Start monitoring] icon in the Quick Access Toolbar.

• Press the F3 key.

2. When monitoring starts, GT SoftGOT3000 and GOT synchronize their project data.

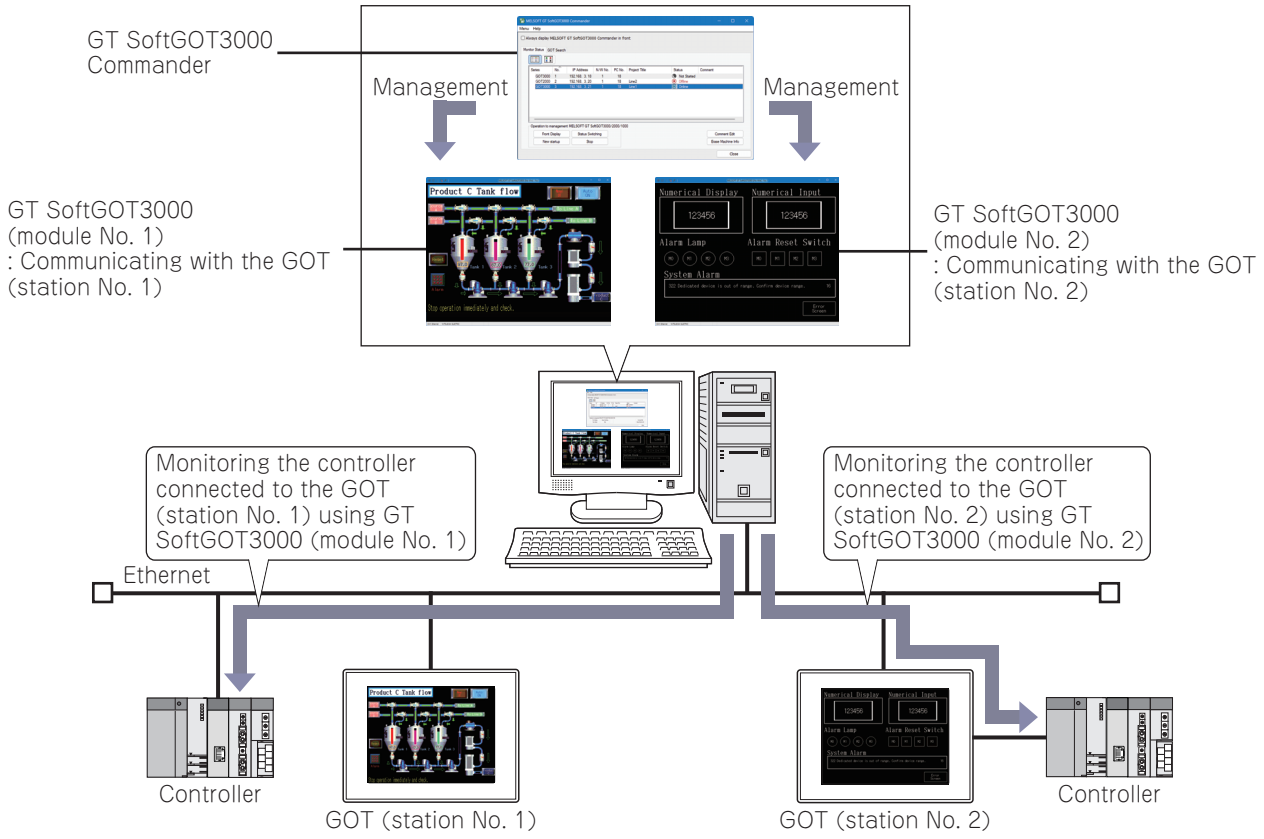
If a password is set for the GOT project data, enter the password.

PART 7

19.2.6 Management by a tool (Commander)

GT SoftGOT3000 Commander is used to manage multiple GT SoftGOT3000, GT SoftGOT2000, and GT SoftGOT1000 modules that use the SoftGOT-GOT link function.

In GT SoftGOT3000 Commander, you can check the monitoring status of GT SoftGOT3000, GT SoftGOT2000, and GT SoftGOT1000 modules, and start or stop monitoring on the modules.



Operating environment

The operating environment is the same as that for GT SoftGOT3000.

For details on the operating environment for GT SoftGOT3000, refer to the following.

☞ Page 21 Operating environment

The following shows the supported versions of GT SoftGOT3000, GT SoftGOT2000, and GT SoftGOT1000 for management with GT SoftGOT3000 Commander.

Software	Applicable version
GT SoftGOT3000	1.410C or later
GT SoftGOT2000	1.215Z or later
GT SoftGOT1000	3.64S or later

For details on the operating environment for GT SoftGOT2000, refer to the following.

📖GT SoftGOT2000 Version1 Operating Manual

For details on the operating environment of GT SoftGOT1000, refer to the following.

📖GT SoftGOT1000 Version3 Operating Manual for GT Works3

Administrator privileges are required to start Commander.

Starting multiple Commander modules is prohibited.

Installation/uninstallation procedure

GT SoftGOT3000 Commander is installed and uninstalled together with GT SoftGOT3000.

However, if comments are set in GT SoftGOT3000 Commander, they are not deleted even if GT SoftGOT3000 Commander is uninstalled.

Startup and exit

From the Windows start menu, select [MELSOFT] → [GT SoftGOT3000 Commander] to start GT SoftGOT3000 Commander.
For GT Works3 version 1.136S or earlier, [MELSOFT Application] appears instead of [MELSOFT].
To exit GT SoftGOT3000 Commander, perform one of the following operations.

- Click [Menu] → [Stop] in GT SoftGOT3000 Commander.
- Click the [×] or [Close] button.
- Press the Alt + F4 keys.

Operating procedure

The following shows the procedure to start GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 from GT SoftGOT3000 Commander.
For details on the menu, refer to the following.
☞ Page 207 Menu item
For details on the settings, refer to the following.
☞ Page 208 Setting items
For details on the [Monitor Status] tab, refer to the following.
☞ Page 209 [Monitor Status] tab
For details on the [GOT Search] tab, refer to the following.
☞ Page 214 [GOT Search] tab

■Starting a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module

1. Click the [New startup] button on the [Monitor Status] tab in GT SoftGOT3000 Commander.
2. The [New startup] dialog appears. Configure the settings and click the [OK] button.
3. A GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module will start.

■Exiting a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module

1. Select a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module to exit from the monitor status list in GT SoftGOT3000 Commander.
2. Perform either of the following operations to exit the GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module.
   - Click the [Stop] button.
   - Right-click the row of the selected GOT and select [Stop] from the context menu.
3. The GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module will exit.

Point

When a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module ends, [Status] changes to [Not Started], and the module information remains displayed in the monitor status list.
To delete information for a module that has not started from the monitor status list, select its row and click the [Erase Machine Info] button.
To start a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module that hasn't started from the monitor status list, refer to the following.
☞ Page 206 Starting a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module that hasn't started from the monitor status list

■Starting a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module that hasn't started from the monitor status list

1. In the monitor status list in GT SoftGOT3000 Commander, select a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module whose [Status] is "Not Started".
2. Perform one of the following operations to switch [Status] from [Not started] to [Online] or [Offline].

- Click the [Status Switching] button.
- Right-click the row of the selected GOT and select [Status Switching] from the context menu.
- Double-click the [Status] column of the row of the selected GOT.

3. The previously started GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module will start.

For information on exiting the GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module, refer to the following.

☞ Page 205 Exiting a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module

■Searching for network-connected GOTs and starting a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module

1. Click the [Auto Acquisition] button on the [GOT Search] tab in GT SoftGOT3000 Commander.
2. The detected GOTs are displayed in the GOT search list. Select the target GOT and perform either of the following operations.

- Click the [New startup] button.
- Double-click the row of the selected GOT.

3. The [New startup] dialog appears. Configure the settings and click the [OK] button.

[IP Address] and [Port No.] of the detected GOT are applied to the settings.

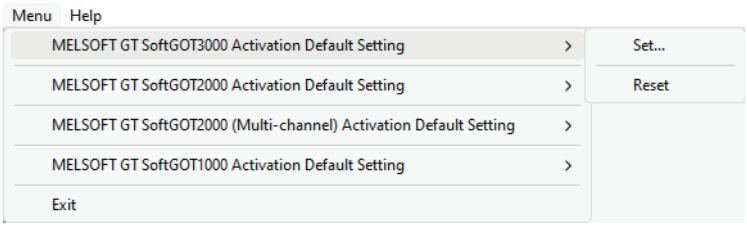
4. GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 to be synchronize with the detected GOT will start.

For information on exiting the GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module, refer to the following.

☞ Page 205 Exiting a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module

Menu item

■[Menu]



Item	Description
[MELSOFT GT SoftGOT3000 Activation Default Setting]	• [Set] The settings in [Set] for GT SoftGOT3000 can be saved as the default values. The saved default values can be applied as the setting values when GT SoftGOT3000 is started from GT SoftGOT3000 Commander. • [Reset] Resets the settings in [Set] from the default values to the initial values.
[MELSOFT GT SoftGOT2000 Activation Default Setting]	• [Environment] The [Environment] settings for GT SoftGOT2000 (Single channel) can be saved as the default values. The saved default values can be applied as the setting values when GT SoftGOT2000 (Single channel) is started from GT SoftGOT3000 Commander. • [Communication] The [Communication] settings for GT SoftGOT2000 (Single channel) can be saved as the default values. The saved default values can be applied as the setting values when GT SoftGOT2000 (Single channel) is started from GT SoftGOT3000 Commander. • [Reset] Resets the [Environment] and [Communication] settings from the default values to the initial values.
[MELSOFT GT SoftGOT2000 (Multi-channel) Activation Default Setting]	• [Environment] The [Environment] settings for GT SoftGOT2000 (Multiple channels) can be saved as the default values. The saved default values can be applied as the setting values when GT SoftGOT2000 (Multiple channels) is started from GT SoftGOT3000 Commander. • [Communication] The [Communication] settings for GT SoftGOT2000 (Multiple channels) can be saved as the default values. The saved default values can be applied as the setting values when GT SoftGOT2000 (Multiple channels) is started from GT SoftGOT3000 Commander. • [Reset] Resets the [Environment] and [Communication] settings from the default values to the initial values.
[MELSOFT GT SoftGOT1000 Activation Default Setting]	• [Environment] The [Environment] settings for GT SoftGOT1000 can be saved as the default values. The saved default values can be applied as the setting values when GT SoftGOT1000 is started from GT SoftGOT3000 Commander. • [Communication] The [Communication] settings for GT SoftGOT1000 can be saved as the default values. The saved default values can be applied as the setting values when GT SoftGOT1000 is started from GT SoftGOT3000 Commander. • [Reset] Resets the [Environment] and [Communication] settings from the default values to the initial values.
[Exit]	• Exits GT SoftGOT3000 Commander.

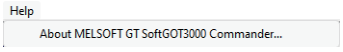
Precautions

■If an error occurs with [Reset]

If the environment file for the initial settings does not exist, the SoftGOT environment may be incorrect.

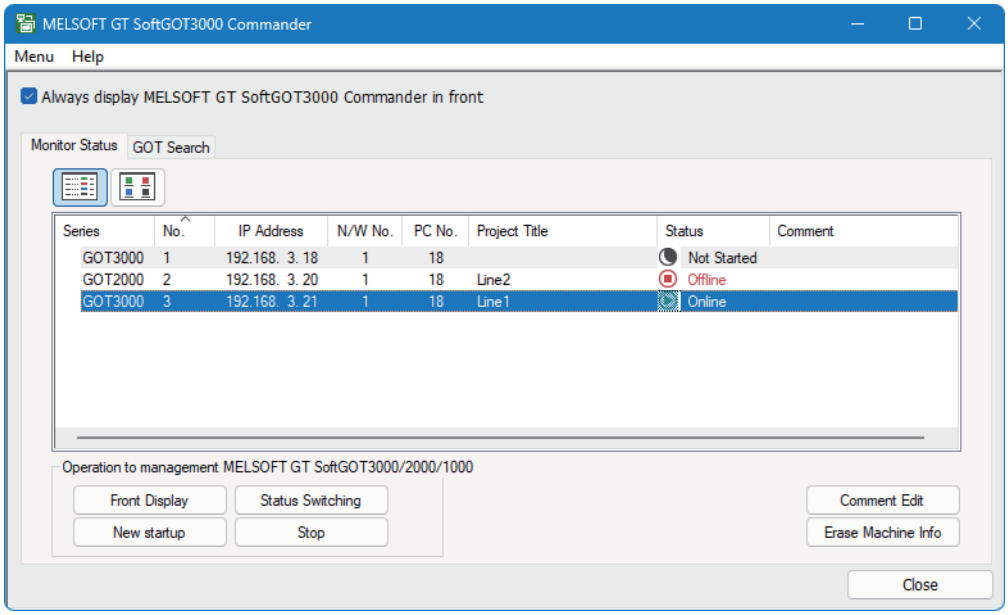
Reinstall the tool.

■[Help]



Item	Description
[About GT SoftGOT3000]	• You can check the version information of GT SoftGOT3000 Commander.

Setting items



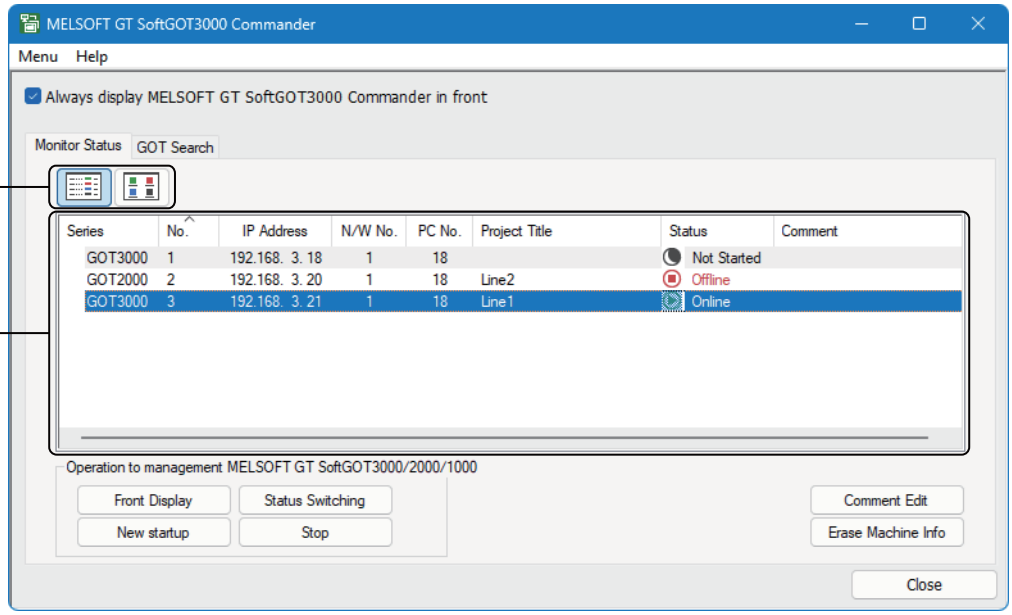
Item	Description
[Always display MELSOFT GT SoftGOT3000 Commander in front]	Select this item to display GT SoftGOT3000 Commander in the foreground.
[Monitor Status]	Displays the monitoring status of GT SoftGOT3000, GT SoftGOT2000, and GT SoftGOT1000 modules that use the SoftGOT-GOT link function. ☞ Page 209 [Monitor Status] tab
[GOT Search]	Searches for the GOTs connected to the network. ☞ Page 214 [GOT Search] tab
[Close]	Exits GT SoftGOT3000 Commander.

[Monitor Status] tab

■[Monitor Status] tab

Display switching button

Monitor status list



Item	Description	
Monitor status list	Displays the GT SoftGOT3000, GT SoftGOT2000, and GT SoftGOT1000 modules that use the SoftGOT-GOT link function. Click a row to highlight and select it. When switched to icon display with the display switching button, the monitor status list displays different contents than in detail display. ☞ Page 210 Display switching button	
	[Series]	Displays the GOT series. • [GOT3000] • [GOT2000] • [GOT1000]
	[No.]	Displays the module numbers of GT SoftGOT3000, GT SoftGOT2000, and GT SoftGOT1000.
	[IP Address]	Displays the IP addresses of the GOTs in communication with GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 modules.
	[N/W No.]	Displays the network numbers of the GOTs in communication with GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 modules. When the connection type between the GOT and controller is the bus connection or direct CPU connection (serial), [-] is displayed.
	[PC No.]	Displays the station numbers of the GOTs in communication with GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 modules. When the connection type between the GOT and controller is the bus connection or direct CPU connection (serial), [-] is displayed.
	[Project Title]	Displays the project title of the project data read from the GOT.
	[Status]	Displays the statuses of the GT SoftGOT3000, GT SoftGOT2000, and GT SoftGOT1000 modules. • [Online]: Monitoring is in progress. • [Offline]: Monitoring has stopped. • [Uploading]: Project data is being read from the GOT. • [Not Started]: The target GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module is not started.
	[Comment]	Displays the comment entered in the [No. n Property] dialog.
Display switching button	Clicking the button displays the monitor status list in detail. Clicking the button displays the monitor status list with icons. ☞ Page 210 Display switching button	

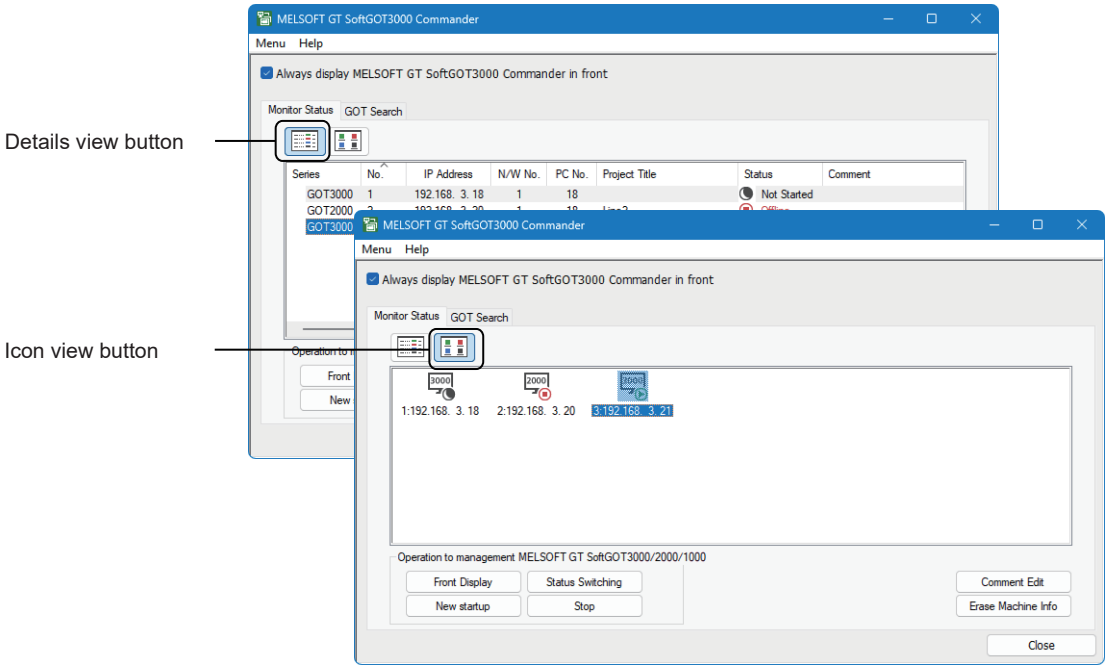
PART 7

Item	Description
[Front Display]	Displays the GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module selected in the monitor status list in the foreground. The target module can also be displayed in the foreground by double-clicking a cell in the [Series], [No.], [IP Address], [N/W No.], [PC No.], or [Project Title] column of the target module's row in the monitor status list. However, if the backmost display is enabled, GT SoftGOT3000, GT SoftGOT2000, and GT SoftGOT1000 will remain in the backmost position even if the [Front Display] button is clicked. When a GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module is displayed in the foreground and overlapped with GT SoftGOT3000 Commander, the Commander will appear in front.
[Status Switching]	Switches the status (between [Online] and [Offline], or [Not Started] to [Online] or [Offline]) of the GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module selected in the monitor status list. The monitor status can also be switched when [Status] in each row of the monitor status list is double-clicked. However, switching is not possible when [Status] is [Uploading].
[New startup]	Displays the [New startup] dialog. ☞ Page 211 [New startup]
[Stop]	Exits the GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module selected in the monitor status list.
[Comment Edit]	Displays the [No. n - Property] dialog. The [No. n - Property] dialog is displayed also by double-clicking a cell in the [Comment] column in the monitor status list. ☞ Page 213 Properties of module n
[Erase Machine Info]	Deletes the information of the GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module selected in the monitor status list. The information of the running GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module cannot be deleted.

■Display switching button

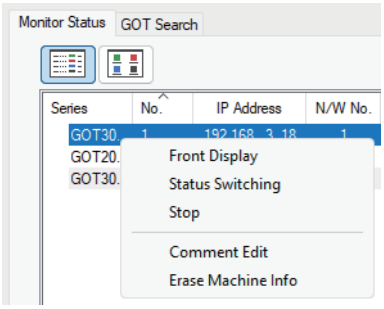
The display switching button switches the monitor status list between detail display and icon display.

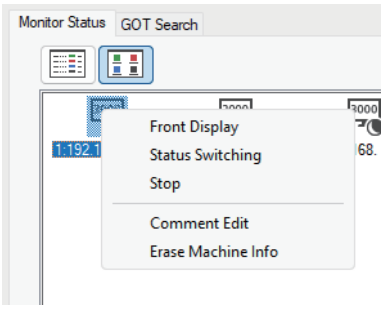
In icon display, the monitor status list displays module numbers and IP addresses.



■Context menu

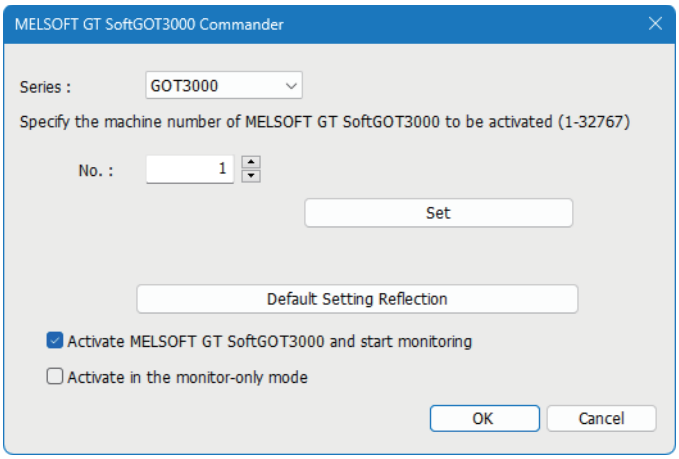
Right-click a row in the detail display or an icon in the icon display in the monitor status list to display the context menu.
In the context menu, [Front Display], [Status Switching], [Stop], [Comment Edit], and [Erase Machine Info] can be selected.





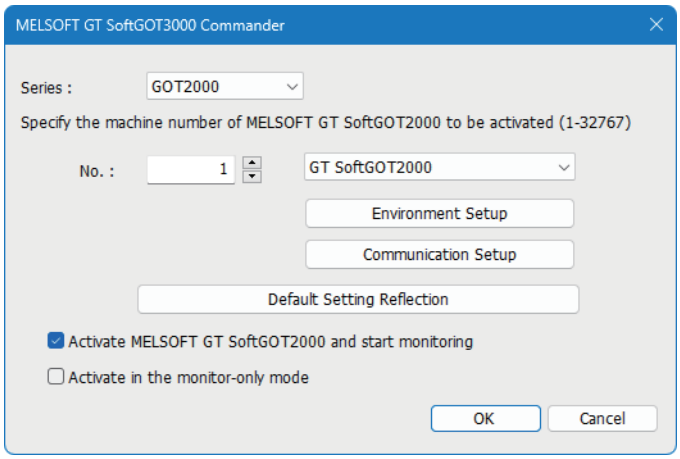
■[New startup]

- GOT3000 series



Item	Description
[Series]	GT SoftGOT3000 starts.
[No.]	Set the module number of GT SoftGOT3000 to be started.
[Set]	Configure the environment settings for GT SoftGOT3000 to be started. The settings are the same as those in [System settings] in GT SoftGOT3000. ☞ Page 78 [System Settings]
[Default Setting Reflection]	Collectively applies the default settings to GT SoftGOT3000 to be started. If any setting exists for the specified module, it will be overwritten by the default setting.
[Activate MELSOFT GT SoftGOT3000 and start monitoring]	Automatically starts monitoring after GT SoftGOT3000 starts.
[Activate in the monitor-only mode]	Starts GT SoftGOT3000 in monitor-only mode.

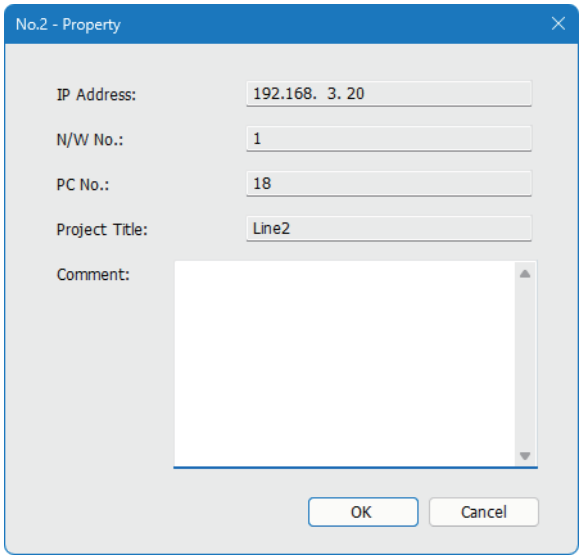
• GOT2000 series and GOT1000 series



Item	Description
[Series]	The software applicable to the selected series is started. • [GOT2000]: GT SoftGOT2000 starts. • [GOT1000]: GT SoftGOT1000 starts.
[No.]	Set the module number of GT SoftGOT2000 or GT SoftGOT1000 to be started.
[Environment]	Configure the environment settings for GT SoftGOT2000 or GT SoftGOT1000 to be started. The settings are the same as those in [Environment] of GT SoftGOT2000 or GT SoftGOT1000. 📖GT SoftGOT2000 Version1 Operating Manual
[GT SoftGOT2000], [GT SoftGOT2000 (Multi-channel)]	When [GT SoftGOT2000] is selected, the setting dialog for GT SoftGOT2000 (Single channel) opens. When [GT SoftGOT2000(Multi-channel)] is selected, the setting dialog for GT SoftGOT2000 (Multiple channels) opens.
[Communication]	Configure the communication settings of GT SoftGOT2000 or GT SoftGOT1000 to start. The settings are the same as those in [Communication] of GT SoftGOT2000 or GT SoftGOT1000. 📖GT SoftGOT2000 Version1 Operating Manual
[Default Setting Reflection]	Applies the default settings collectively to the environment and communication settings for GT SoftGOT2000 or GT SoftGOT1000 before starting. If the environment and communication settings are already configured in the specified module, those settings are overwritten with the default settings.
[Activate MELSOFT GT SoftGOT2000 and start monitoring] *1	Starts monitoring automatically after GT SoftGOT2000 is started.
[Activate in the monitor-only mode]	Starts GT SoftGOT2000 or GT SoftGOT1000 in monitor-only mode.

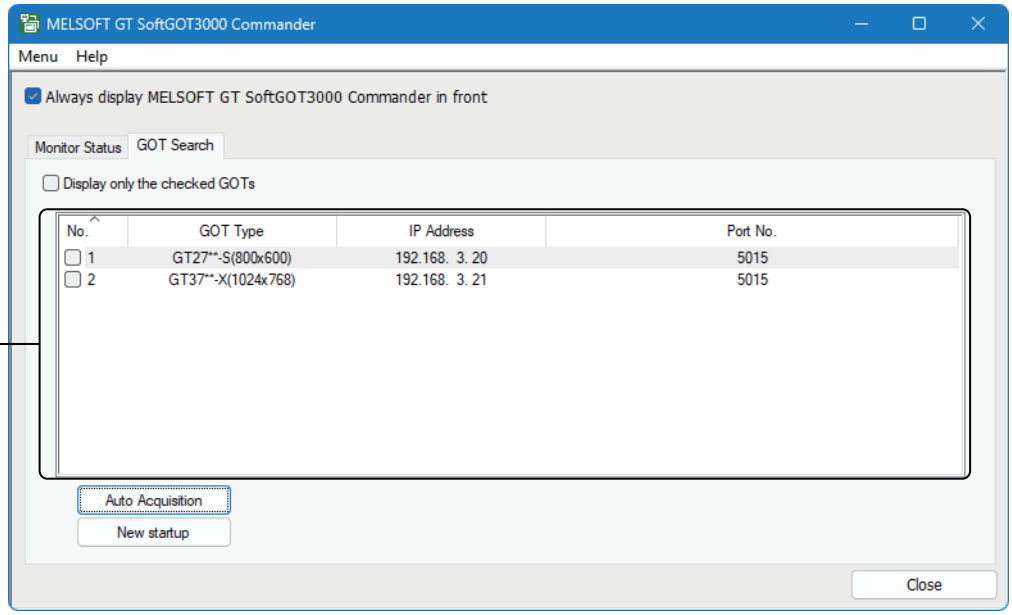
*1 If the setting of [Series] is switched to [GOT1000], the displayed item is changed to [Activate MELSOFT GT SoftGOT1000 and start monitoring].

■Properties of module n



Item	Description
[Comment]	Up to 255 characters can be entered. A line feed is counted as two characters. Comments are saved in association with the IP address of the GOT. Since comments are associated with the IP address of the GOT, even if you change the module number of GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 that communicates with the GOT, the comment for the module number before the change is displayed. When you edit comments for GT SoftGOT1000, characters that are not supported by the language set in Windows [Region and Language] may appear garbled.

[GOT Search] tab



GOT search list

Item	Description	
[Display the checked GOT only]	The GOT search list displays only the GOTs for which the [No.] checkbox is selected. *1 After GT SoftGOT3000 Commander exits, the settings are retained even if the [Auto Acquisition] button is pressed.	
GOT search list	Displays the detected GOTs. Click a row to highlight and select it.	
	[No.]	Displays the number of detected GOTs.
	[GOT type]	Displays the types of detected GOTs.
	[IP Address]	Displays the IP addresses of the detected GOTs.
	[Port No.]	Displays the port number used to upload project data of the detected GOTs.
[Auto Acquisition]	Click the [Auto Acquisition] button display [GOT Type], [IP Address] and [Port No.] of the detected GOT.	
[New startup]	Displays the [New startup] dialog. The [New startup] dialog can also be displayed by double-clicking the GOT row selected in the GOT search list. The settings are the same as those in [New startup] dialog in the [Monitor Status] tab. ☞ Page 211 [New startup]	

*1 If you select [Display the checked GOT only] without selecting any [No.] checkboxes, nothing will be displayed in the GOT search list.

■Search target GOTs

A broadcast is sent across the entire network, and [GOT Type], [IP Address], and [Port No.] of the GOTs connected to the network are displayed.

GOTs that do not use the SoftGOT-GOT link function are also included in the search.

Auto acquisition searches only GOT3000 (GT37), GOT2000 (GT27 and GT25), and GOT1000 (GT16) models.

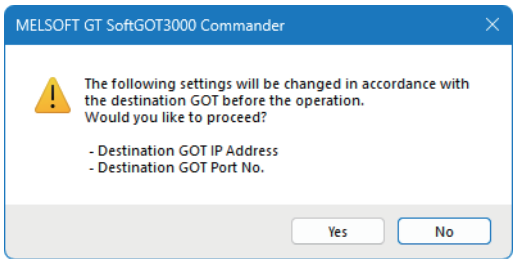
■IP address duplication

If a duplicate IP address is found in the search results, the corresponding GT SoftGOT3000, GT SoftGOT2000, or GT SoftGOT1000 module cannot be started from the GOT search list.

In some cases, [IP Address] duplicates may not be detected even if they exist. Therefore, be sure to check the entire system before searching again.

■Settings for resolution, IP address of the connected GOT, and port number of the connected GOT

Configure the settings in [Communication] and [Environment], then click [OK] to display the following dialog.



- Select [Yes].

[Destination GOT IP Address] and [Destination GOT Port No.] in the [SoftGOT-GOT Link Function] dialog change to match [IP Address] and [Port No.] of the row selected in the GOT search list.

For the GOT1000 series, [Resolution] in [Environment] changes to match [GOT Type] of the row selected in the GOT search list.

- Select [No].

GT SoftGOT3000, GT SoftGOT2000 or GT SoftGOT1000 starts with the values set in [Communication] and [Environment].

PART 7

20 Email functions

☞ Page 216 Referring to resource data
☞ Page 217 Enabling/disabling the keyboard input
☞ Page 219 All data initialization

20.1 Referring to resource data

The resource data collected by GT SoftGOT3000 is displayed.

The following resource data can be displayed.

- Alarm log
- Recipe
- Data log
- Operation log
- Image file (such as a hard copy)

For information on the resource data, refer to the following.

☞ Page 26 Resource data

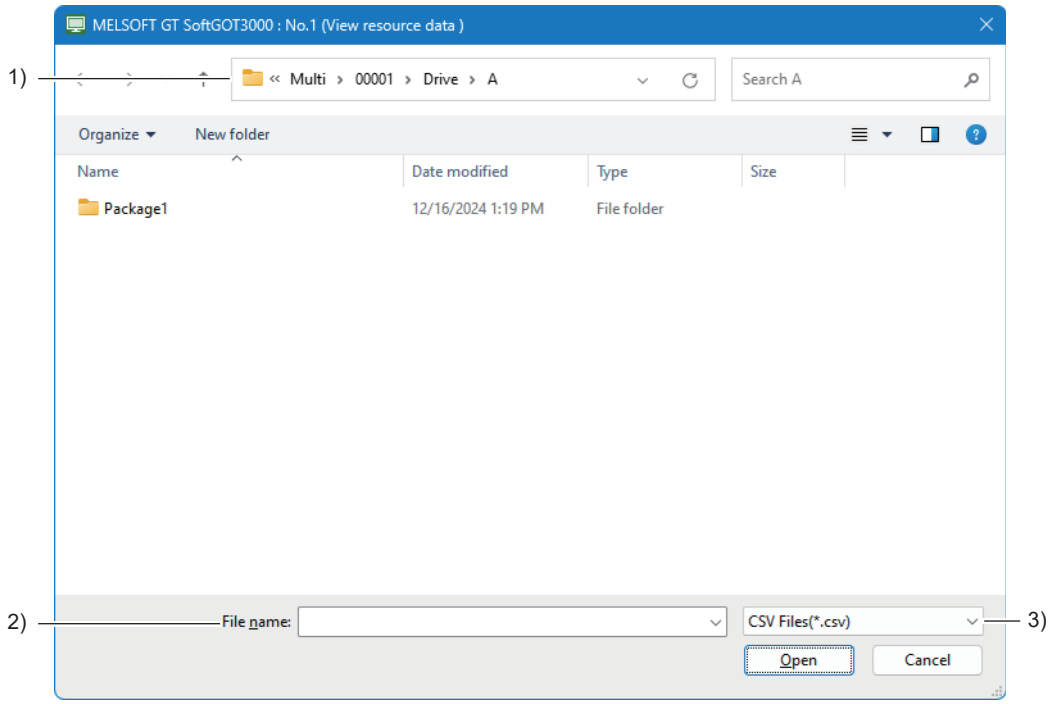
Operating procedure

1. Perform one of the following operations to display the [Refer to Resource Data] dialog.

- Click the [Menu] icon and select [Tool] → [Resource Data] from the menu.
- Right-click the mouse and select [Tool] → [Resource Data] from the context menu.
- Press the Ctrl + R keys.

2. Select the resource data to be displayed, and click the [Open] button.

The application associated with the resource data starts up to display the resource data.



Item		Description
1)	[Look in]	Select the storage location of resource data.
2)	[File name]	Set the file name of the resource data to be opened.
3)	[Files of type]	Select the file format of the resource data.

20.2 Enabling/disabling the keyboard input

Numerical values or text can be into numeric input objects or text input objects of the monitored project using the keyboard of the personal computer or the USB bar code reader.

Operating procedure

Perform one of the following operations to enable or disable the keyboard input.

- Click the [Menu] icon, select [Tool], and select or deselect [Keyboard Input].
- Right-click the mouse and select [Tool] → [Keyboard Input] from the context menu.
- Click [Action] under [Environment] in the setting tree of the [Set] dialog, and select or deselect [Enable Keyboard Input].

☞ Page 119 [Action]

20.2.1 Operations on numerical and text input objects

Keyboard input

Numerical values or text can be input using the keyboard of the personal computer when numerical input objects or text input objects are used.

The following lists the operation when each key is pressed.

Operation	GOT key code (HEX)	Operation on the numerical input	Operation on the text input
Back space	0008	Delete the character on the cursor.	
Enter *1	000D	Write the entry to a specified device, display the cursor on the target object, move the cursor to a different object, or close the key window.	
Esc	001B	Cancel the entry.	
- (Numeric keypad)	002D	Reverse the sign of the value.	—
. (Period)	002E	Enter a decimal point.	—
0 to 9	0030 to 0039	Enter a numeric character.	Enter a character. (ASCII or Unicode 2.1-compatible)
[A] to [Z] [a] to [z]	0041 to 005A 0061 to 007A	Enter a numeric character in hexadecimal ([A] to [F], [a] to [f]).	
Symbol keys	Character codes (ASCII)	—	
Enter text (such as hiragana or kanji characters).	Character codes (Unicode)	—	Enter text. (Unicode 2.1-compatible)
→ ← ↑ ↓	0080 0081 0082 0083	Move the cursor to a different object.	
Home	0084	—	Convert the entry to kanji characters.
PgUp	0085	—	Select the previous candidate.
PgDown	0086	—	Select the next candidate.
End	0087	—	Confirm the entry, or select the next group of hiragana characters to be converted to kanji characters.
Delete	0088	Delete all the entered characters.	
Ctrl + ← Ctrl + →	0090 0091	Move the cursor on the target object.	
Ctrl + ↑ Ctrl + ↓	FFFA FFFB	Increment or decrement the value.	—

*1 The operation on the target object varies depending on the setting in the [Environmental Setting] window ([Key Windows]) on GT Designer3.
For details, refer to the following.
GT Designer3 (GOT3000) Screen Design Manual

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USB barcode reader input

When the numerical input or text input object is used, a USB barcode reader can be used as a keyboard to input numerical values or text.

The USB barcode reader can be used not only to enter a key code to an object or a key window, but also to move the cursor, delete text, and confirm or cancel the input value.

For details on the settings, refer to the following.

📖GT Designer3 (GOT3000) Screen Design Manual

Precautions

■When displaying a window screen on a base screen

When displaying a window screen on a base screen, and the alarm display (user) function or the simple alarm display function has been set up on both the screens, key input is enabled for the alarm display (user) function or the simple alarm display function on the base screen.

■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.

■Precautions on screen saving

When the screen saver of GT SoftGOT3000 is set, the monitor screen does not darken like it does on the GOT, even when the screen saver is active. (The screen display remains the same.)

The first input operation (touch, mouse, or keyboard) while GT SoftGOT3000 is in screen saver mode is not recognized as an input because the input is recognized as clearing the screen saver mode.

When clearing the screen saver mode, be careful not to make incorrect inputs.

The GT SoftGOT3000 screen saver and Windows screen saver are different functions.

If both GT SoftGOT3000 and Windows screen savers are active, each must be cleared separately.

■Keyboard inputs

The keyboard input function is not compatible with the utility screen.

Operate the utility screen with the mouse.

Do not use software keyboards (keyboard applications).

■Monitor-only mode

During monitoring in the monitor-only mode, you cannot enter data into numeric input objects or text input objects with the keyboard.

To enable the keyboard input function, cancel the monitor-only mode.

☞Page 172 Starting/canceling the monitor-only mode

20.3 All data initialization

This function deletes the data that is not deleted by the uninstallation of GT SoftGOT3000.

Point

When disposing of a personal computer with GT SoftGOT3000 installed, use this function in advance to delete the data that is not deleted by the uninstallation.

Precautions

■All data initialization when multiple modules are running

When multiple GT SoftGOT3000 modules are running, all data initialization cannot be executed.

■License deregistration

If a license is registered in GT SoftGOT3000, all data initialization cannot be executed.

Deregistered the GT SoftGOT3000 and add-on function licenses, and then execute all data initialization.

■Startup with administrator privileges

To execute all data initialization, start GT SoftGOT3000 with administrator privileges.

■All data initialization during monitoring

All data initialization cannot be executed during monitoring with GT SoftGOT3000.

Operating procedure

1. Start GT SoftGOT3000 with administrator privileges.
2. Deregister the GT SoftGOT3000 license and add-on function licenses from GT SoftGOT3000.

For information on how to cancel the license, refer to the following.

☞ Page 49 Deregistering the license

3. Perform one of the following operations to delete the data that is not deleted by the uninstallation of GT SoftGOT3000.

- Click the [Menu] icon and select [Tool] → [Initialize all information] from the menu.
- Right-click the mouse and select [Tool] → [Initialize all information] from the context menu.

PART 7

21 Diagnostics functions

☞ Page 220 SoftGOT diagnostics

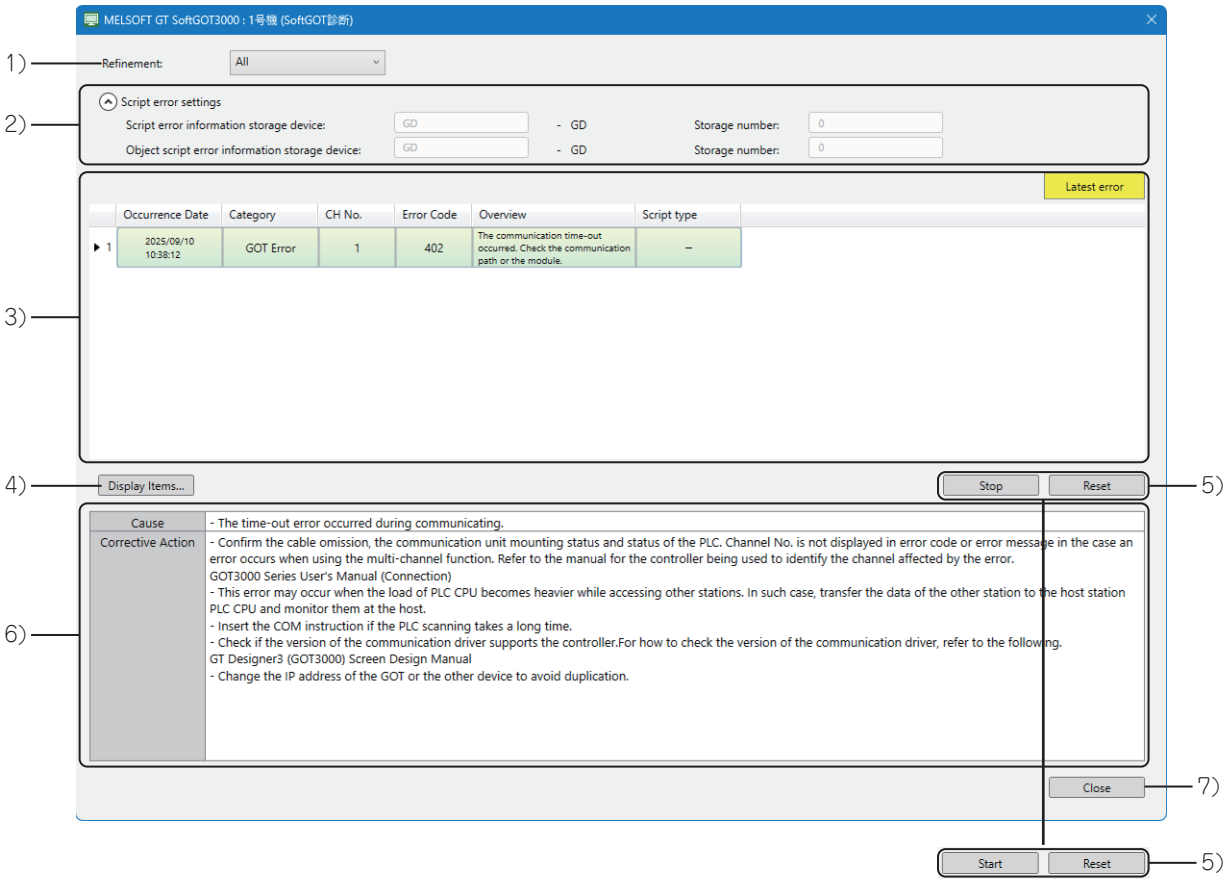
21.1 SoftGOT diagnostics

Displays the causes and corrective actions for GT SoftGOT3000 errors.
The error list is updated every 500 milliseconds.
If there are no errors, [No error.] is displayed on the first line.
If an error different from the currently displayed one occurs, it is added to the table.
If the same error as the one currently displayed occurs, the occurrence date and time of the displayed error is updated.
If multiple different errors occur within a 500 ms cycle, only the last one is updated.
Set the display language of error messages in [View] → [Switch Display Language (Display Language)].

Operating procedure

Perform either of the following operations to display the [SoftGOT Diagnostics] dialog.

- Click the [Menu] icon and select [Diagnostics] → [SoftGOT Diagnostics] from the menu.
- Right-click the mouse and select [Diagnostics] → [SoftGOT Diagnostics] from the context menu.



Item			Description
1)	Refinement	[Refinement]	Filters the errors displayed in SoftGOT diagnostics by type.
2)	Script error settings	[Script error information storage device]	Set the device that stores script error information.
		[Storage number]	Set the number of script error information items to be stored.
		[Object script error information storage device]	Set the device that stores object script error information.
		[Storage number]	Set the number of object script error information items to be stored.

Item			Description
3)	Error list display area	[CH No.]	Displays the error number.
		[Occurrence Date]	Displays the date and time of the error.
		[Category]	Displays the error category.
		[Error Code]	Displays the error code.
		[CH No.]	Displays the channel number of the controller where the error occurred.
		[Script type]	Displays the type of the script that caused the script error.
		[Script No.]	Displays the script number of the script that caused the script error.
		[Object ID]	Displays the object ID of the object where the script error occurred.
		[Screen number]	Displays the screen number of the script where the error occurred.
		[Number of the base screen displayed during an error]	Displays the base screen number that was shown when the error occurred.
		[Overview]	Displays an overview of the error.
4)	Display items	[Display Items]	Set the items to be displayed in the error list display area.
5)	Group of diagnostic operation buttons*1	[Start]	Starts SoftGOT diagnostics.
		[Stop]	Stops SoftGOT diagnostics.
		[Reset]	Resets the currently occurring errors and updates the displayed contents.
6)	Error details display area	[Cause]	Displays the cause of the error for the selected row in the error list table.
		[Corrective Action]	Displays the corrective action for the error in the selected row of the error list table.
7)	Close	[Close]	Closes the SoftGOT diagnostics dialog.

*1 After SoftGOT diagnostics has started, if the [Reset] button is pressed before the [Stop] button, resolved system alarms, script errors (when the number of script errors to be stored is set to zero in the [SoftGOT Diagnostics] dialog), and other related data will remain until the [Start] button is pressed again.
As a result, even if these items are deleted using the [Reset] button, they will reappear.
To reset unnecessary error displays, press the [Stop] button, then the [Reset] button, and then the [Start] button again.

21.1.1 System alarm

Monitor the system alarm execution status (error information) and display the current state.

Error type		Maximum number of displayed items
GOT error	Displays GOT errors as alarms. A GOT Mobile error, which occurs on a GOT Mobile function client, is categorized as a GOT error.	30
CPU error	Displays controller errors as alarms.	30 in total including network errors
Network error	Displays errors of the communication unit mounted on the GOT as alarms.	30 including CPU errors

21.1.2 Script error information

Monitor the script execution status (error information) to display the current state.

Specify [Script error information storage device] and [Storage number] in the [SoftGOT Diagnostics] dialog.

Display up to the specified number of script errors in the error list display area.

[Script error information storage device] is reflected in [Start GD Device for Script Error Info Notification (GS392)].

[Storage number] is reflected in [Number of Script Error Info Outputs (GS394)].

Item		Description
Error list display area	[Script type]	Project script Screen script Script parts
	[Overview]	• Project script [Project script error: Script No.%d] %d: Script No. • Screen script [Screen script error: Script No.%d] %d: Script No. • Script parts [Script parts error]

21.1.3 Object script error information

Monitor the object script execution status (error information) and display the current state.

Specify [Object script error information storage device] and [Storage number] in the [SoftGOT Diagnostics] dialog.

Display up to the specified number of script errors in the error list display area.

Item		Description
Error list display area	[Script type]	Object script
	[Overview]	[Object script error: Script user ID %d] %d: Script user ID

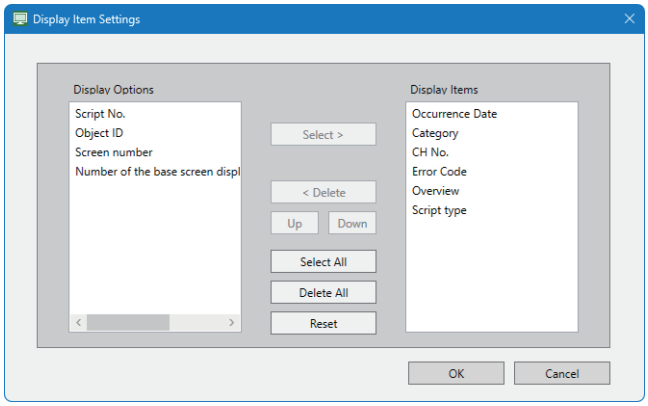
21.1.4 Display item settings

You can set the order of items displayed in the SoftGOT diagnostics error list.

Operating procedure

Perform either of the following operations to display the [Display Items] dialog.

- Click the [Display Items] button.
- Right-click the header row of the error list table in the [SoftGOT Diagnostics] dialog.



Item	Description
[Display Options]	Select the items to be added to [Display Items].
[Display Items]	Set the items displayed in SoftGOT diagnostics.
[Select]	Moves the item selected in [Display Options] to [Display Items].
[Delete]	Moves the item selected in [Display Items] to [Display Options].
[Up]	Moves the item selected in [Display Items] one position up.
[Down]	Moves the item selected in [Display Items] one position down.
[Select All]	Moves all items in [Display Options] to [Display Items].
[Delete All]	Moves all items in [Display Items] to [Display Options].
[Reset]	Resets [Display Options] and [Display Items] to the default state.
[OK]	Saves the edits made in [Display Item Settings] and closes the dialog.
[Cancel]	Discards the edits made in [Display Item Settings] and close the dialog.

22 Windows functions

☞ Page 224 Window

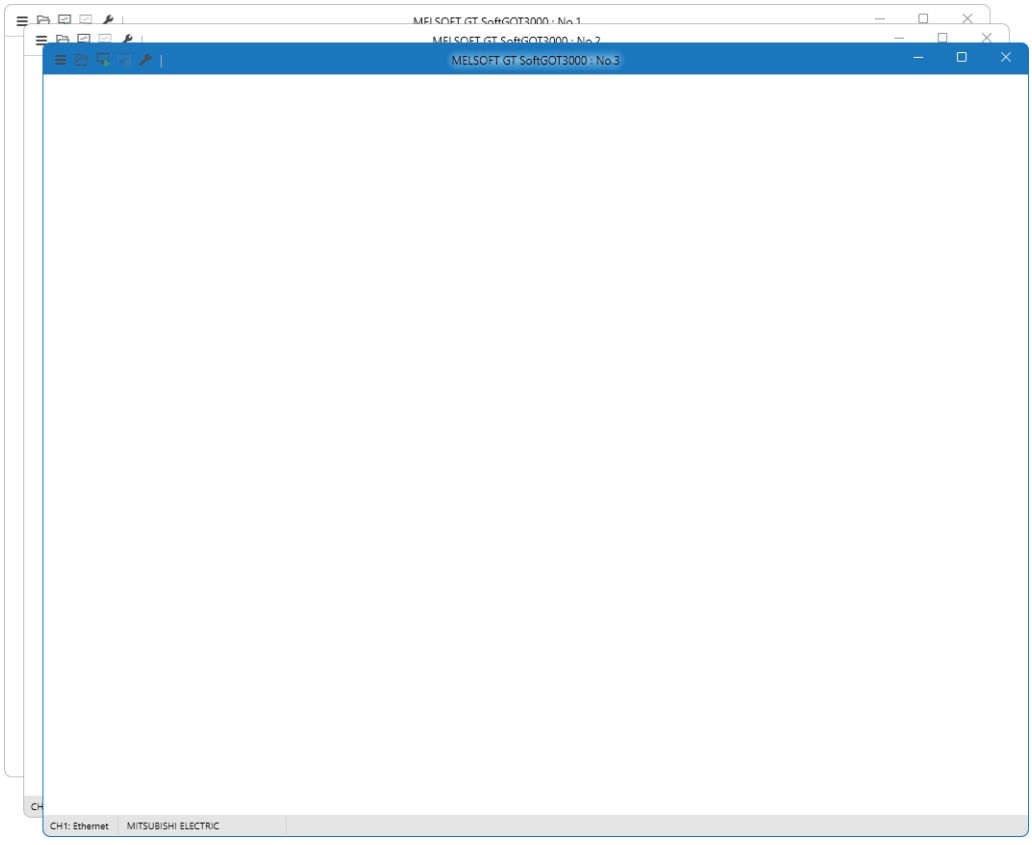
22.1 Window

The display state and position can be changed for active GT SoftGOT3000 modules.

☞ Page 224 Cascade
☞ Page 226 Minimize all windows
☞ Page 227 Window movement
☞ Page 231 Movement to another display

22.1.1 Cascade

Cascades the running GT SoftGOT3000 windows.



Operating procedure

Perform either of the following operations to cascade GT SoftGOT3000 windows.

- Click the [Menu] icon and select [Window] → [Cascade] from the menu.
- Right-click the mouse and select [Window] → [Cascade] from the context menu.

Precautions

■Non-cascaded windows

Any GT SoftGOT3000 module with a dialog displayed is not cascaded.

Close the dialog and then perform the cascade operation.

■Order of the cascade

Windows may not be displayed in the order of GT SoftGOT3000 module numbers depending on the Windows specifications.

■Display position of the cascade

Even if the cascaded GT SoftGOT3000 windows do not fit in the personal computer display, the window positions are not corrected.

22.1.2 Minimize all windows

Minimizes all the running GT SoftGOT3000 windows.

Operating procedure

Perform either of the following operations to minimize all GT SoftGOT3000 windows.

- Click the [Menu] icon and select [Window] → [Minimize All Windows] from the menu.
- Right-click the mouse and select [Window] → [Minimize All Windows] from the context menu.

22.1.3 Window movement

To move a GT SoftGOT3000 window, use the mouse or the move buttons.

☞ Page 228 Movement with a mouse
☞ Page 229 Movement with the move buttons

Precautions

The context menu is not displayed by right-clicking the mouse while moving the window.

Movement with a mouse

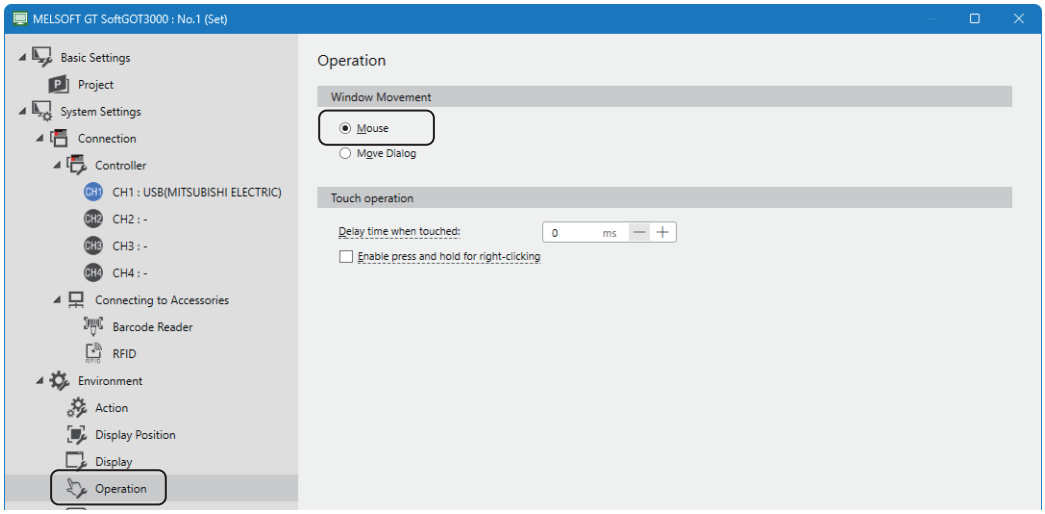
Setting the cursor of the mouse to the move mode and moving the mouse also moves the GT SoftGOT3000 window with the motion of the mouse.

Clicking the mouse cancels the move mode.

Operating procedure

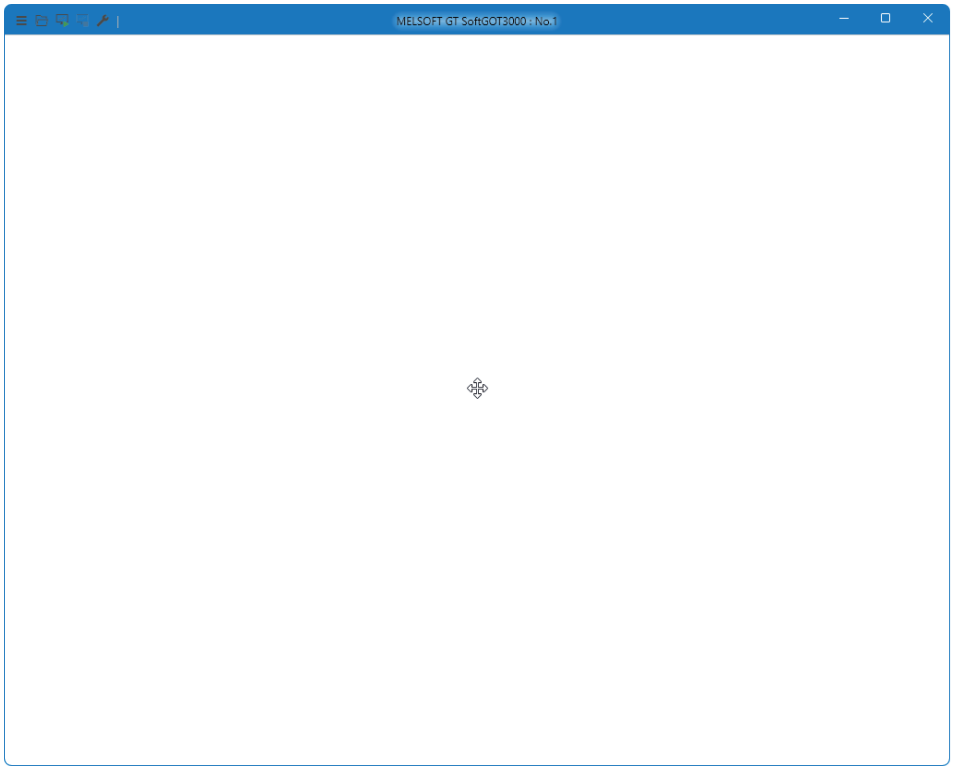
1. Click the [Menu] icon, select [Set] from the menu, and click [Operation] under [Environment] in the setting tree of the dialog.
2. The [Option] dialog appears. Select [Mouse] for [Window Movement].

☞ Page 123 [Operation]



3. Perform either of the following operations to set the cursor to the move mode.

- Click the [Menu] icon and select [Window] → [Move Window] from the menu.
- Right-click the mouse and select [Window] → [Move Window] from the context menu.



4. As the mouse is moved, the window moves at the same time.
5. Click the mouse at the window move destination to complete the movement.

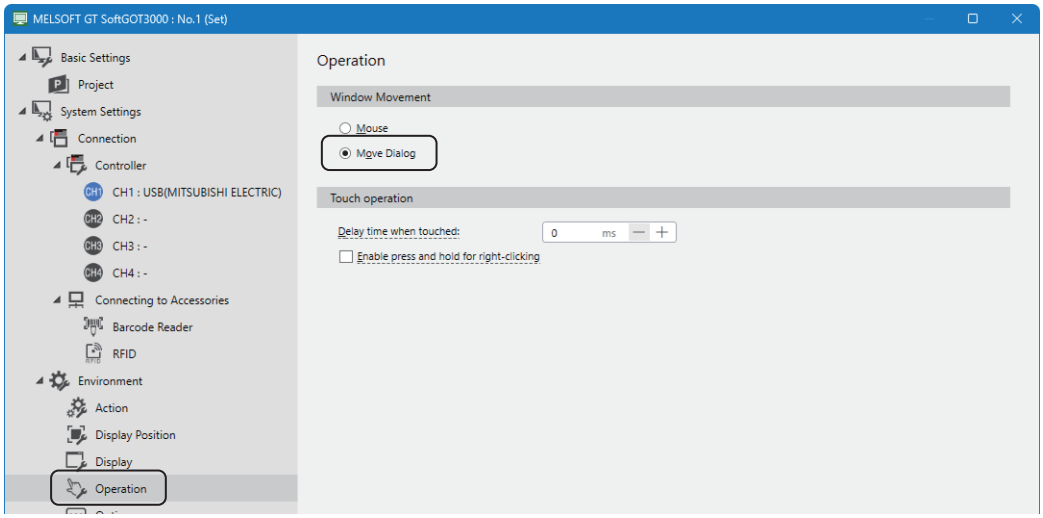
Movement with the move buttons

Click the up, down, left, and right buttons in the [Move Window] dialog to move the GT SoftGOT3000 window.

Operating procedure

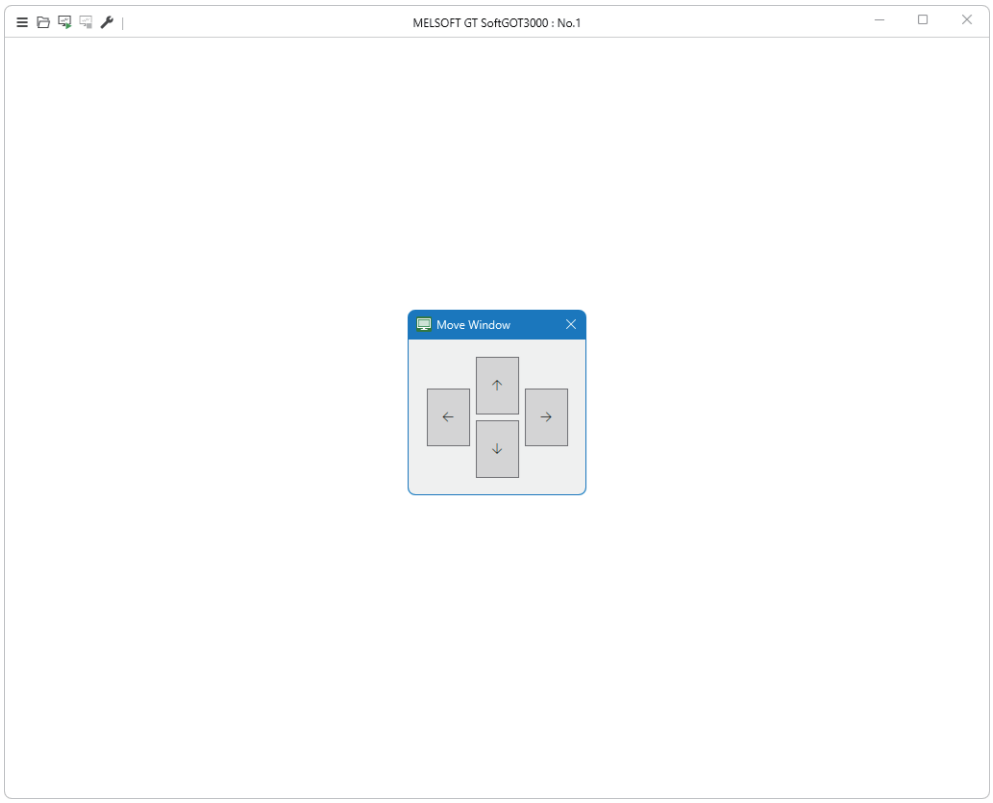
1. Click the [Menu] icon, select [Set] from the menu, and click [Operation] under [Environment] in the setting tree of the dialog.
2. The [Option] dialog appears. Select [Move Dialog] for [Window Movement].

☞ Page 123 [Operation]



3. Perform one of the following operations to display the [Move Window] dialog.

- Click the [Menu] icon and select [Window] → [Move Window] from the menu.
- Right-click the mouse and select [Window] → [Move Window] from the context menu.



4. Clicking the up, down, left, and right buttons moves the GT SoftGOT3000 window in the selected direction in units of 10 dots.
5. Close the [Move Window] dialog by clicking the [×] button to complete the movement.

22.1.4 Movement to the startup display position

The GT SoftGOT3000 window is moved to the startup display position.

Point

The startup display position of the GT SoftGOT3000 window can be set in [Display Position] in the [Environment] dialog.

For details on the setting, refer to the following.

☞ Page 121 [Display Position]

Operating procedure

Perform either of the following operations to move the GT SoftGOT3000 window to the startup display position.

- Click the [Menu] icon and select [Window] → [Move to Start-up Display Position] from the menu.
- Right-click the mouse and select [Window] → [Move to Start-up Display Position] from the context menu.

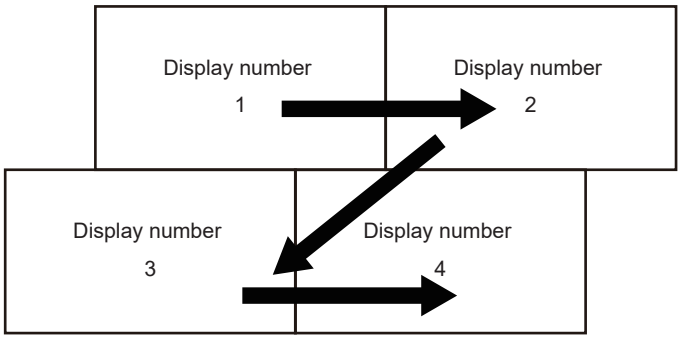
22.1.5 Movement to another display

When multiple displays are used, the GT SoftGOT3000 window can be moved to another display.

☞ Page 231 Movement to the previous display
☞ Page 232 Movement to the next display
☞ Page 232 Movement to the specified display

Point

- Display numbers are assigned in the following order with the top leftmost display as [Display 1].



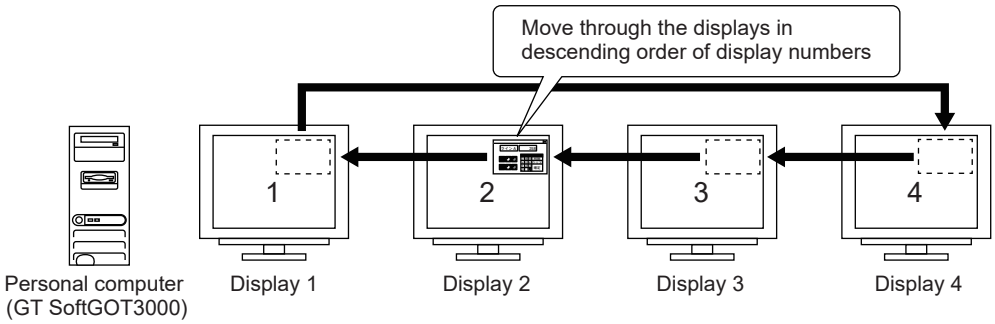
- Up to 8 display numbers can be assigned.

Precautions

To change the mounting state of the display while GT SoftGOT3000 is running, restart GT SoftGOT3000.
Otherwise, the display numbers assigned in GT SoftGOT3000 do not match those of the actual displays.

Movement to the previous display

Move GT SoftGOT3000 to the display with the number assigned by GT SoftGOT3000 in descending order.



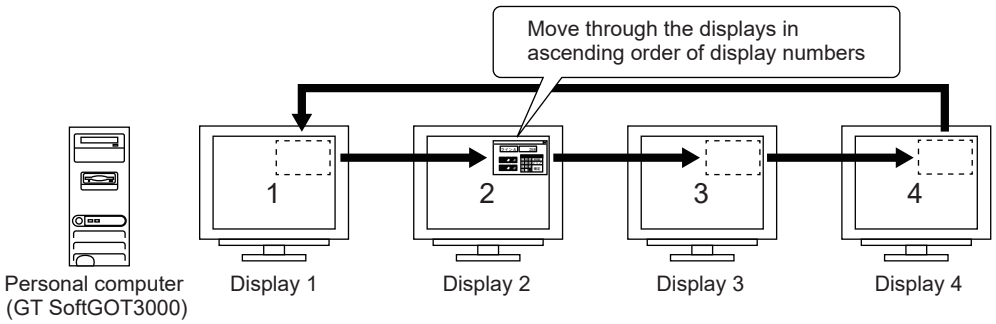
Operating procedure

Perform one of the following operations to move GT SoftGOT3000 in descending order.

- Click the [Menu] icon and select [Window] → [Move to Previous Display] from the menu.
- Right-click the mouse and select [Window] → [Move to Previous Display] from the context menu.

Movement to the next display

Move GT SoftGOT3000 to the display with the number assigned by GT SoftGOT3000 in ascending order.



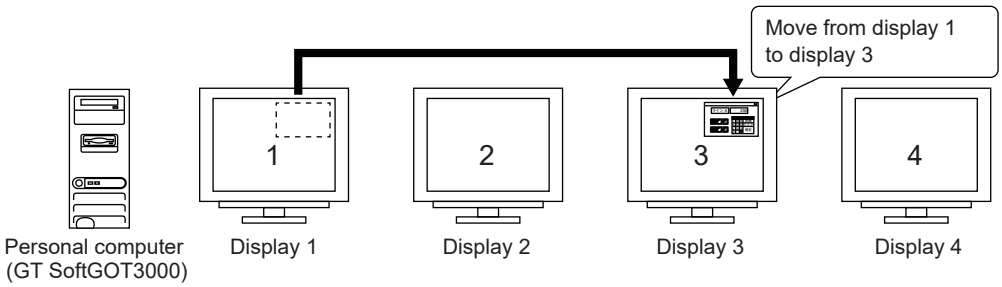
Operating procedure

Perform one of the following operations to move GT SoftGOT3000 in ascending order.

- Click the [Menu] icon and select [Window] → [Move to Next Display] from the menu.
- Right-click the mouse and select [Window] → [Move to Next Display] from the context menu.

Movement to the specified display

The GT SoftGOT3000 window is moved to the display with the specified number.



Operating procedure

Perform either of the following operations to move the window to the display with the selected number.

(☐ indicates the display number of the move destination.)

- Click the [Menu] icon and select [Window] → [Move to Display ☐] from the menu.
- Right-click the mouse and select [Window] → Display ☐ from the context menu.

23 Other functions

☞ Page 233 GT SoftGOT3000 application log function
☞ Page 233 Internal device interface functions

23.1 GT SoftGOT3000 application log function

The GT SoftGOT3000 application log function is an operation log function unique to GT SoftGOT3000.
The following shows the behaviors and operations to be recorded by the GT SoftGOT3000 application log function.

Item	Description
Starting the GT SoftGOT3000 application	Records information when GT SoftGOT3000 is started.
Exiting the GT SoftGOT3000 application	Records information when GT SoftGOT3000 is exited.
Time change	Records the information when the time of the personal computer is changed.
GT SoftGOT3000 all data initialization function	Records the information when the GT SoftGOT3000 all data initialization function is executed.

For details on the GT SoftGOT3000 application log function, refer to the following.
📖GT Designer3 (GOT3000) Screen Design Manual

Point

GT SoftGOT3000 application logs are always output regardless of the security mode set for the project.

23.2 Internal device interface functions

The internal device interface functions are used to read/write values from/to GT SoftGOT3000 internal devices on user-created applications.

☞ Page 233 List of functions
☞ Page 234 Accessible devices
☞ Page 235 Development environment
☞ Page 237 Introduction procedure

23.2.1 List of functions

The following shows the internal device interface functions that are available for users.

Function	Internal device interface function	Details
Opens and maps the shared memory of the GOT internal device.	sgt_GDevOpenMapping()	☞ Page 255 sgt_GDevOpenMapping
	GDev_OpenMapping()	☞ Page 240 GDev_OpenMapping
Unmaps and closes the shared memory of the GOT internal device.	sgt_GDevCloseUnMapping()	☞ Page 257 sgt_GDevCloseUnMapping
	GDev_CloseUnMapping()	☞ Page 253 GDev_CloseUnMapping
Reads data from GOT internal devices.	GDev_Read()	☞ Page 243 GDev_Read
Writes data to GOT internal devices.	GDev_Write()	☞ Page 248 GDev_Write
Reads data from individual GOT internal devices.	sgt_ReadDeviceRandom()	☞ Page 258 sgt_ReadDeviceRandom
Writes data to individual GOT internal devices.	sgt_WriteDeviceRandom()	☞ Page 261 sgt_WriteDeviceRandom
Reads data from consecutive GOT internal devices.	sgt_ReadDeviceBlock()	☞ Page 264 sgt_ReadDeviceBlock
Writes data to consecutive GOT internal devices.	sgt_WriteDeviceBlock()	☞ Page 267 sgt_WriteDeviceBlock

Point

Internal device interface functions with "sgt_" in their name can be used for more devices.
Therefore, when there are multiple functions with the same function, it is recommended to use a function with "sgt_" in its name.

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23.2.2 Accessible devices

The following shows GT SoftGOT3000 internal devices available for reading/writing data on a user-created application using internal device interface functions.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)
- SoftGOT bit registers (SGB)
- SoftGOT data registers (SGD)

For details on the GT SoftGOT3000 internal devices, refer to the following.

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Point

- Internal devices hold their values while GT SoftGOT3000 is running.
- Internal devices can be accessed irrespective of the connection type of GT SoftGOT3000.

Precautions

■Timing of access to the GT SoftGOT3000 internal devices

Reading and writing from user-created applications to internal devices can be executed only when GT SoftGOT3000 is performing monitoring.

■Operation rights required when the security mode of the project is mode 2

When the security mode of the project used for monitoring is set to mode 2, log in to GT SoftGOT3000 as an operator with [Reading/writing a device from an external device] operation rights.

If an operator without [Reading/writing a device from an external device] operation rights logs in, user-created applications cannot be read and written from the GT SoftGOT3000 internal devices.

For information on the operation rights when the security mode is mode 2, refer to the following.

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23.2.3 Development environment

The following shows development environment for an application using the internal device interface function.

Development environment				Availability of internal device interface functions
Language	Software		Framework	
C++	Microsoft Visual C++ 2019	64-bit 32-bit	.NET Framework4.6 .NET Framework4.5.2 .NET Framework4.5.1 .NET Framework4.5 .NET Framework4.0	☞ Page 235 Microsoft Visual C++
C#	Microsoft Visual C# 2019	64-bit 32-bit	.NET Framework4.6	☞ Page 235 Microsoft Visual C#
Microsoft Excel VBA	Microsoft Excel 2019	64-bit	—	☞ Page 236 Microsoft Excel VBA

Precautions

When using internal device interface functions, install Runtime if necessary.

Runtime can be obtained from Microsoft.

Microsoft Visual C++

The following shows the development environment corresponding to each function.

○: Supported, —: Unsupported

Internal device interface function	Development environment	
	Microsoft Visual C++ 2019	
	64-bit	32-bit
GDev_OpenMapping()	○	○
GDev_CloseUnMapping()	○	○
GDev_Read()	○	○
GDev_Write()	○	○
sgt_GDevOpenMapping()	○	○
sgt_GDevCloseUnMapping()	○	○
sgt_ReadDeviceRandom()	○	○
sgt_WriteDeviceRandom()	○	○
sgt_ReadDeviceBlock()	—	—
sgt_WriteDeviceBlock()	—	—

Microsoft Visual C#

The following shows the development environment corresponding to each function.

○: Supported, —: Unsupported

Internal device interface function	Development environment	
	Microsoft Visual C# 2019	
	64-bit	32-bit
GDev_OpenMapping()	○	○
GDev_CloseUnMapping()	○	○
GDev_Read()	○	○
GDev_Write()	○	○
sgt_GDevOpenMapping()	○	○
sgt_GDevCloseUnMapping()	○	○
sgt_ReadDeviceRandom()	○	○
sgt_WriteDeviceRandom()	○	○
sgt_ReadDeviceBlock()	○	—
sgt_WriteDeviceBlock()	○	—

Microsoft Excel VBA

The following shows the development environment corresponding to each function.

○: Supported, —: Unsupported

Internal device interface function	Development environment
	Microsoft Excel 2019
	64-bit
GDev_OpenMapping()	○
GDev_CloseUnMapping()	○
GDev_Read()	○
GDev_Write()	○
sgt_GDevOpenMapping()	○
sgt_GDevCloseUnMapping()	○
sgt_ReadDeviceRandom()	○
sgt_WriteDeviceRandom()	○
sgt_ReadDeviceBlock()	○
sgt_WriteDeviceBlock()	○

23.2.4 Introduction procedure

The following shows how to use internal device interface functions on a user-created application.

1. Prepare the development environment of the application to be created.

For the development environment, refer to the following.

☞ Page 235 Development environment

2. Prepare the modules required to use internal device interface functions.

The required modules are included in the GT SoftGOT3000 installer.

For details, refer to the following.

☞ Page 238 Preparation of the modules

3. Create an application.

The application can also be created using a sample program.

For details on sample programs, refer to the following.

☞ Page 272 Sample program

4. Run the created application.

For the processing flow when internal device interface functions are used, refer to the following.

☞ Page 239 Processing flow when the internal device interface function is used

Precautions

■Versions of the modules

To prepare the modules, use the files included in the installer for GT SoftGOT3000 to be used.

If you copy and use the files from the installer for a different version, an application error or other issues may occur.

■File attributes of the modules

If the read-only attribute is set to the modules, cancel the setting.

■Precautions for loading DLL files

If you create an application with [Any CPU] set to the target platform, load the DLL file applicable to each environment for running the file.

- When running the file on 64-bit Windows: GDevlib64_GT3K.dll
- When running the file on 32-bit Windows: GDevlib_GT3K.dll

■Precautions for introduction

To use an application that includes internal device interface functions, store GDevlib_GT3K.dll or GDevlib64_GT3K.dll in the folder where the application is stored or in the specified folder with a path.

■When replacing GT SoftGOT2000 with GT SoftGOT3000

The GDevlib_GT27.dll and GDevlib64_GT27.dll files of GT SoftGOT2000 cannot access the GT SoftGOT3000 internal devices.

To access the GT SoftGOT3000 internal devices, create an application using GDevlib_GT3K.dll or GDevlib64_GT3K.dll.

Preparation of the modules

The following explains the modules required to use internal device interface functions and how to obtain the modules.

■Required modules

The following modules are required to use internal device interface functions.

File name		Description
64-bit version	GDevlib64_GT3K.dll	DLL for the internal device interface
	GDevlib64_GT3K.lib	LIB for the internal device interface
	GDevlib64_GT3K.h	Header file for the internal device interface
32-bit version	GDevlib_GT3K.dll	DLL for the internal device interface
	GDevlib_GT3K.lib	LIB for the internal device interface
	GDevlib_GT3K.h	Header file for the internal device interface

Point

For the software applications compatible with the 32-bit and 64-bit versions, refer to the following.

☞ Page 235 Development environment

■How to obtain the modules

The modules are included in the GT SoftGOT3000 installer.

Processing flow when the internal device interface function is used

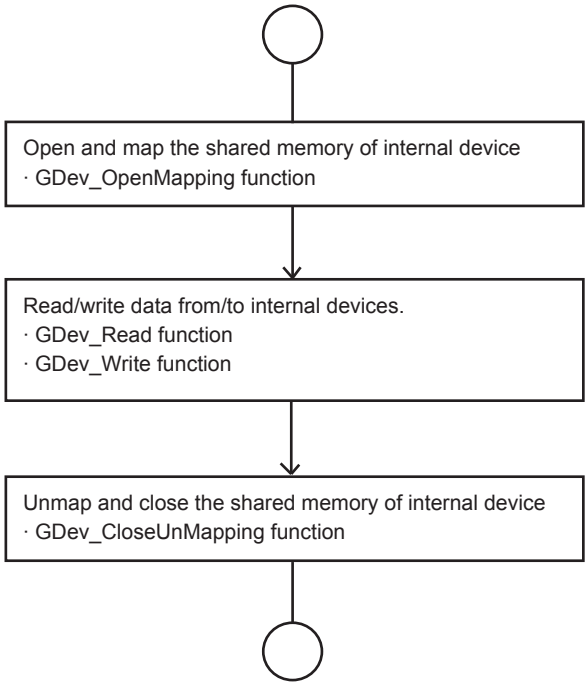
The following shows the processing flow when the internal device interface function is used in a program.

The following operations can be processed simultaneously.

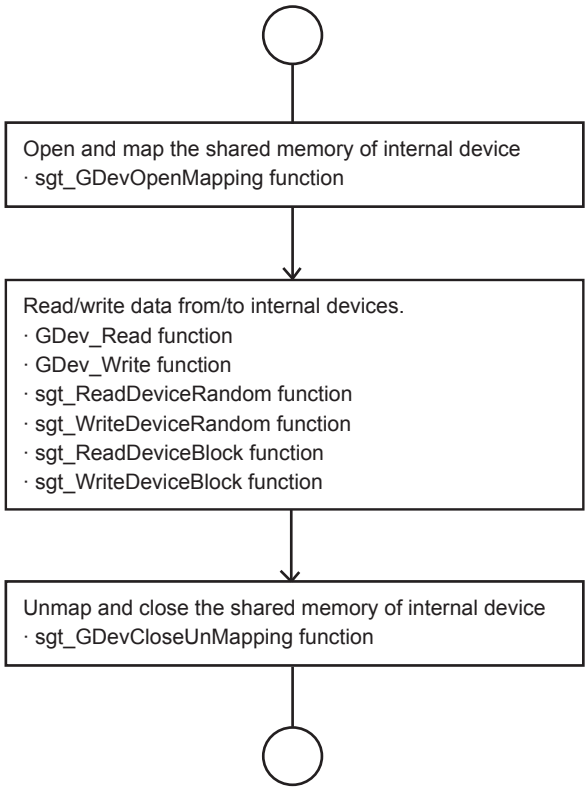
☞ Page 239 When using GB, GD, and GS devices

☞ Page 239 When using GB, GD, GS, SGB, and SGD devices

■When using GB, GD, and GS devices



■When using GB, GD, GS, SGB, and SGD devices



23.2.5 GDev_OpenMapping

The following shows the details of the GDev_OpenMapping function.

Function

Opens and maps the shared memory of the GOT internal device.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)

Format (64-bit version)

■For Visual C++

```
ulMapPointer = GDev_OpenMapping(HANDLE* lphMapFile, short sGotNo)
```

Variable name	Variable type	Description	I/O
ulMapPointer	ULONG_PTR	Return value (shared memory address)	Output
lphMapFile	HANDLE*	Shared memory handle	Output
sGotNo	short	GT SoftGOT3000 module No. (1 to 32767)	Input

■For Visual C#

```
ulMapPointer = GDev_OpenMapping(IntPtr* lphMapFile, Int16 sGotNo)
```

Variable name	Variable type	Description	I/O
ulMapPointer	UInt64	Return value (shared memory address)	Output
lphMapFile	IntPtr*	Shared memory handle	Output
sGotNo	Int16	GT SoftGOT3000 module No. (1 to 32767)	Input

■For Excel VBA

```
ulMapPointer = GDev_OpenMapping(LongPtr lphMapFile, Integer sGotNo)
```

Variable name	Variable type	Description	I/O
ulMapPointer	LongPtr	Return value (shared memory address)	Output
lphMapFile	LongPtr	Shared memory handle	Output
sGotNo	Integer	GT SoftGOT3000 module No. (1 to 32767)	Input

Format (32-bit version)

■For Visual C++

```
ulMapPointer = GDev_OpenMapping(HANDLE* lphMapFile, short 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	GT SoftGOT3000 module No. (1 to 32767)	Input

■For Visual C#

```
ulMapPointer = GDev_OpenMapping(IntPtr* lphMapFile, short sGotNo)
```

Variable name	Variable type	Description	I/O
ulMapPointer	uint32	Return value (shared memory address)	Output
lphMapFile	IntPtr*	Shared memory handle	Output
sGotNo	int16	GT SoftGOT3000 module No. (1 to 32767)	Input

■For Excel VBA

```
ulMapPointer = GDev_OpenMapping(HANDLE hMapFile, short 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	GT SoftGOT3000 module No. (1 to 32767)	Input

Explanation

This function obtains the shared memory handle for accessing the internal devices of the GT SoftGOT3000 module specified with sGotNo, and performs mapping on the handle.

The obtained shared memory handle is stored in lphMapFile or hMapFile, and the shared memory address in ulMapPointer.

Variable

Variable name	Description
lphMapFile	Shared memory handle
sGotNo	GT SoftGOT3000 module No. (1 to 32767)

Return value

- Normal termination: Shared memory address (other than 0)
- Abnormal termination: null (0)

For the error codes, refer to the following.

☞ Page 270 Error code list when using the internal device interface function

Precautions for using the GDev_OpenMapping function

■When to call the function

The GDev_OpenMapping function must be called after GT SoftGOT3000 is started.

■After calling the function

After the GDev_OpenMapping function has completed the required processing, make sure to call the GDev_CloseUnMapping function.

Not doing so may result in a memory leak and an application error or other errors.

Also, if exiting GT SoftGOT3000 while calling the GDev_OpenMapping function, make sure to call the GDev_CloseUnMapping function immediately.

After exiting GT SoftGOT3000, if restarting GT SoftGOT3000 without calling the GDev_CloseUnMapping function, GT SoftGOT3000 may not operate normally.

If GT SoftGOT3000 does not operate normally, call the GDev_CloseUnMapping function and exit GT SoftGOT3000.

23.2.6 GDev_Read

The following shows the details of the GDev_Read function.

Function

Reads data from GOT internal devices.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)
- SoftGOT bit registers (SGB)
- SoftGOT data registers (SGD)

Format (64-bit version)

■For Visual C++

lReturn = GDev_Read(ULONG_PTR ulMapPointer, short sDevNameID, long lDevNum, INT_PTR* lpsDataTable, long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	long	Return value	Output
ulMapPointer	ULONG_PTR	Shared memory address	Input
sDevNameID	short	Device name ID • 0: GB device • 1: GD device • 2: GS device	Input
lDevNum	long	Device number	Input
lpsDataTable	INT_PTR*	Value read from the device*1	Output
lDataSize	long	Number of read points	Input

*1 Specify the short (Int16) type for the area, and cast the value before calling a function.

■For Visual C#

lReturn = GDev_Read(UInt64 ulMapPointer, Int16 sDevNameID, Int32 lDevNum, IntPtr* lpsDataTable, Int32 lDataSize)

Variable name	Variable type	Description	I/O
lReturn	Int32	Return value	Output
ulMapPointer	UInt64	Shared memory address	Input
sDevNameID	Int16	Device name ID • 0: GB device • 1: GD device • 2: GS device	Input
lDevNum	Int32	Device number	Input
lpsDataTable	IntPtr*	Value read from the device*1	Output
lDataSize	Int32	Number of read points	Input

*1 Specify the short (Int16) type for the area, and cast the value before calling a function.

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■For Excel VBA

lReturn = GDev_Read(LongPtr ulMapPointer, Integer sDevNameID, Long lDevNum, LongPtr lpsDataTable, Long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	Long	Return value	Output
ulMapPointer	LongPtr	Shared memory address	Input
sDevNameID	Integer	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device • 4: SGD device	Input
lDevNum	Long	Device number	Input
lpsDataTable	LongPtr	Value read from the device*1	Output
lDataSize	Long	Number of read points	Input

*1 Specify the short (Int16) type for the area, and cast the value before calling a function.

Format (32-bit version)

■For Visual C++

lReturn = GDev_Read(unsigned long ulMapPointer, short sDevNameID, long lDevNum, short* lpsDataTable, long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	long	Return value	Output
ulMapPointer	unsigned long	Shared memory address	Input
sDevNameID	short	Device name ID • 0: GB device • 1: GD device • 2: GS device	Input
lDevNum	long	Device number	Input
lpsDataTable	short*	Value read from the device	Output
lDataSize	long	Number of read points	Input

■For Visual C#

lReturn = GDev_Read(UInt32 ulMapPointer, Int16 sDevNameID, Int32 lDevNum, Int16* lpsDataTable, Int32 lDataSize)

Variable name	Variable type	Description	I/O
lReturn	Int32	Return value	Output
ulMapPointer	UInt32	Shared memory address	Input
sDevNameID	Int16	Device name ID • 0: GB device • 1: GD device • 2: GS device	Input
lDevNum	Int32	Device number	Input
lpsDataTable	Int16*	Value read from the device	Output
lDataSize	Int32	Number of read points	Input

■For Excel VBA

lReturn = GDev_Read(unsigned long ulMapPointer, short sDevNameID, long lDevNum, short sDataTable(0), long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	long	Return value	Output
ulMapPointer	unsigned long	Shared memory address	Input
sDevNameID	short	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device (settable for Excel VBA only) • 4: SGD device (settable for Excel VBA only)	Input
lDevNum	long	Device number	Input
sDataTable(n)	short	Value read from the device	Output
lDataSize	long	Number of read points	Input

Explanation

This function accesses the shared memory of the specified devices, and reads device values by batch. The shared memory address, the devices, and the amount of data to be read are specified with ulMapPointer, sDevNameID and lDevNum, and lDataSize.

Values read from the device are stored in lpsDataTable or sDataTable.

Specify the shared memory address obtained by the GDev_OpenMapping function.

Variable

Variable name	Description
ulMapPointer	• When reading the values of GB, GD, and GS devices: Specify the shared memory address obtained by the Gdev_OpenMapping function. • When reading the values of SGB or SGD device: Specify the shared memory address obtained by the sgt_GDevOpenMapping function.
sDevNameID	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device • 4: SGD device
lDevNum	Start device number
lpsDataTable	Variable that stores values read from the device
lDataSize	Number of read points ☞ Page 246 Precautions for using the GDev_Read function

Return value

- Normal termination: 0
- Abnormal termination: The error code (-1, -2, -3, -9, -10, -12, or -13) is stored.

For the error codes, refer to the following.

☞ Page 270 Error code list when using the internal device interface function

Precautions for using the GDev_Read function

■When to call the function

Call the Gdev_Read function while GT SoftGOT3000 is running.

■Device number when a bit device (GB or SGB) is specified

For bit devices (GB or SGB), specify the device number in multiples of 16.

■lpsDataTable area

The size of the area reserved for lpsDataTable must be equal to or larger than the data size specified with lDataSize.

If the area is insufficient, an error such as application error may occur.

■Range of devices that can be specified for lDataSize

Specify the maximum number of read points for devices that can be specified for lDataSize within the following range.

- For bit device (GB/SGB) specification: Start device number + (Number of read points × 16) - 1 ≤ Maximum valid device number
- For word device (GD/GS/SGD) specification: Start device number + Number of read points - 1 ≤ Maximum valid device number

Device specification method

■For bit device (GB/SGB) specification

Ex.

Reading 1-word (16-bit) data from the devices starting from GB64

Variable name	Device name ID (sDevNameID)	Start device number (lDevNum)	Number of read points (lDataSize)	Source device
lpsDataTable[0]	0	64	1	GB64 to GB79

Ex.

Reading 3-word (48-bit) data from the devices starting from GB80

Variable name	Device name ID (sDevNameID)	Start device number (lDevNum)	Number of read points (lDataSize)	Source device
lpsDataTable[0]	0	80	3	GB80 to GB95
lpsDataTable[1]				GB96 to GB111
lpsDataTable[2]				GB112 to GB127

■For word device (GD/GS/SGD) specification

Ex.

Reading 3-word data from the devices starting from GD5

Variable name	Device name ID (sDevNameID)	Start device number (lDevNum)	Number of read points (lDataSize)	Source device
lpsDataTable[0]	1	5	3	GD5
lpsDataTable[1]				GD6
lpsDataTable[2]				GD7

Ex.

Reading 1-word data from GS500

Variable name	Device name ID (sDevNameID)	Start device number (lDevNum)	Number of read points (lDataSize)	Source device
lpsDataTable[0]	2	500	1	GS500

23.2.7 GDev_Write

The following shows the details of the GDev_Write function.

Function

Writes data to GOT internal devices.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)
- SoftGOT bit registers (SGB)
- SoftGOT data registers (SGD)

Format (64-bit version)

■For Visual C++

lReturn = GDev_Write(ULONG_PTR ulMapPointer, short sDevNameID, long lDevNum, INT_PTR* lpsDataTable, long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	long	Return value	Output
ulMapPointer	ULONG_PTR	Shared memory address	Input
sDevNameID	short	Device name ID • 0: GB device • 1: GD device • 2: GS device	Input
lDevNum	long	Device number	Input
lpsDataTable	INT_PTR*	Device value to be written*1	Input
lDataSize	long	Number of write points	Input

*1 Specify the short (Int16) type for the area, and cast the value before calling a function.

■For Visual C#

lReturn = GDev_Write(UInt64 ulMapPointer, Int16 sDevNameID, Int32 lDevNum, IntPtr* lpsDataTable, Int32 lDataSize)

Variable name	Variable type	Description	I/O
lReturn	Int32	Return value	Output
ulMapPointer	UInt64	Shared memory address	Input
sDevNameID	Int16	Device name ID • 0: GB device • 1: GD device • 2: GS device	Input
lDevNum	Int32	Device number	Input
lpsDataTable	IntPtr*	Device value to be written*1	Input
lDataSize	Int32	Number of write points	Input

*1 Specify the short (Int16) type for the area, and cast the value before calling a function.

■For Excel VBA

lReturn = GDev_Write(LongPtr ulMapPointer, Integer sDevNameID, Long lDevNum, LongPtr lpsDataTable, Long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	Long	Return value	Output
ulMapPointer	LongPtr	Shared memory address	Input
sDevNameID	Integer	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device • 4: SGD device	Input
lDevNum	Long	Device number	Input
lpsDataTable	LongPtr	Device value to be written*1	Input
lDataSize	Long	Number of write points	Input

*1 Specify the short (Int16) type for the area, and cast the value before calling a function.

Format (32-bit version)

■For Visual C++

lReturn = GDev_Write(unsigned long ulMapPointer, short sDevNameID, long lDevNum, short* lpsDataTable, long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	long	Return value	Output
ulMapPointer	unsigned long	Shared memory address	Input
sDevNameID	short	Device name ID • 0: GB device • 1: GD device • 2: GS device	Input
lDevNum	long	Device number	Input
lpsDataTable	short*	Device value to be written*1	Input
lDataSize	long	Number of write points	Input

*1 Specify the short (Int16) type for the area, and cast the value before calling a function.

■For Visual C#

lReturn = GDev_Write(UInt32 ulMapPointer, Int16 sDevNameID, Int32 lDevNum, Int16* lpsDataTable, Int32 lDataSize)

Variable name	Variable type	Description	I/O
lReturn	Int32	Return value	Output
ulMapPointer	UInt32	Shared memory address	Input
sDevNameID	Int16	Device name ID • 0: GB device • 1: GD device • 2: GS device	Input
lDevNum	Int32	Device number	Input
lpsDataTable	Int16*	Device value to be written*1	Input
lDataSize	Int32	Number of write points	Input

*1 Specify the short (Int16) type for the area, and cast the value before calling a function.

■For Excel VBA

lReturn = GDev_Write(unsigned long ulMapPointer, short sDevNameID, long lDevNum, short sDataTable(0), long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	long	Return value	Output
ulMapPointer	unsigned long	Shared memory address	Input
sDevNameID	short	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device (settable for Excel VBA only) • 4: SGD device (settable for Excel VBA only)	Input
lDevNum	long	Device number	Input
sDataTable(n)	short	Device value to be written*1	Input
lDataSize	long	Number of write points	Input

*1 Specify the short (Int16) type for the area, and cast the value before calling a function.

Explanation

This function accesses the shared memory of the specified devices, and writes data to the devices by batch. The shared memory address, the devices, and the amount of data to be written are specified with ulMapPointer, sDevNameID and lDevNum, and lDataSize.

The device values to be written are stored in lpsDataTable or sDataTable.

Specify the shared memory address that has been obtained by the GDev_OpenMapping function.

Variable

Variable name	Description
ulMapPointer	• When reading the values of GB, GD, and GS devices: Specify the shared memory address obtained by the Gdev_OpenMapping function. • When reading the values of SGB or SGD device: Specify the shared memory address obtained by the sgt_GDevOpenMapping function.
sDevNameID	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device • 4: SGD device
lDevNum	Start device number
lpsDataTable	Stores the device values to be written.
lDataSize	Number of write points ☞ Page 251 Precautions for using the GDev_Write function

Return value

- Normal termination: 0
- Abnormal termination: The error code (-1, -2, -3, -9, -10, -12, or -13) is stored.

For the error codes, refer to the following.

☞ Page 270 Error code list when using the internal device interface function

Precautions for using the GDev_Write function

■When to call the function

Call the GDev_Write function while GT SoftGOT3000 is running.

■Device number when a bit device (GB or SGB) is specified

For bit devices (GB or SGB), specify the device number in multiples of 16.

■lpsDataTable area

The size of the area reserved for lpsDataTable must be equal to or larger than the data size specified with lDataSize.

If the area is insufficient, an error such as application error may occur.

■Range of devices that can be specified for lDataSize

Specify the maximum number of write points for devices that can be specified for lDataSize within the following range.

- For bit device (GB/SGB) specification: Start device number + (Number of write points × 16) - 1 ≤ Maximum valid device number
- For word device (GD/GS/SGD) specification: Start device number + Number of write points - 1 ≤ Maximum valid device number

Device specification method

■For bit device (GB/SGB) specification

Ex.

Writing 1-word (16-bit) data to the devices starting from GB64

Variable name	Device name ID (sDevNameID)	Start device number (lDevNum)	Number of write points (lDataSize)	Destination device
lpsDataTable[0]	0	64	1	GB64 to GB79

Ex.

Writing 3-word (48-bit) data to the devices starting from GB80

Variable name	Device name ID (sDevNameID)	Start device number (lDevNum)	Number of write points (lDataSize)	Destination device
lpsDataTable[0]	0	80	3	GB80 to GB95
lpsDataTable[1]				GB96 to GB111
lpsDataTable[2]				GB112 to GB127

■For word device (GD/GS/SGD) specification

Ex.

Writing 3-word data to the devices starting from GD5

Variable name	Device name ID (sDevNameID)	Start device number (lDevNum)	Number of write points (lDataSize)	Destination device
lpsDataTable[0]	1	5	3	GD5
lpsDataTable[1]				GD6
lpsDataTable[2]				GD7

Ex.

Writing 1-word data to GS500

Variable name	Device name ID (sDevNameID)	Start device number (lDevNum)	Number of write points (lDataSize)	Destination device
lpsDataTable[0]	2	500	1	GS500

23.2.8 GDev_CloseUnMapping

The following shows the details of the GDev_CloseUnMapping function.

Function

Unmaps and closes the shared memory of the GOT internal device.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)

Format (64-bit version)

■For Visual C++

```
GDev_CloseUnMapping(HANDLE* lphMapFile, ULONG_PTR ulMapPointer)
```

Variable name	Variable type	Description	I/O
lphMapFile	HANDLE*	Shared memory handle	Input
ulMapPointer	ULONG_PTR	Shared memory address	Input

■For Visual C#

```
GDev_CloseUnMapping(IntPtr* lphMapFile, UInt64 ulMapPointer)
```

Variable name	Variable type	Description	I/O
lphMapFile	IntPtr*	Shared memory handle	Input
ulMapPointer	UInt64	Shared memory address	Input

■For Excel VBA

```
GDev_CloseUnMapping(LongPtr lphMapFile, LongPtr ulMapPointer)
```

Variable name	Variable type	Description	I/O
lphMapFile	LongPtr	Shared memory handle	Input
ulMapPointer	LongPtr	Shared memory address	Input

Format (32-bit version)

■For Visual C++

GDev_CloseUnMapping(HANDLE hMapFile, unsigned long ulMapPointer)

Variable name	Variable type	Description	I/O
hMapFile	HANDLE	Shared memory handle	Input
ulMapPointer	unsigned long	Shared memory address	Input

■For Visual C#

GDev_CloseUnMapping(IntPtr hMapFile, UInt32 ulMapPointer)

Variable name	Variable type	Description	I/O
hMapFile	IntPtr	Shared memory handle	Input
ulMapPointer	UInt32	Shared memory address	Input

■For Excel VBA

GDev_CloseUnMapping(HANDLE hMapFile, unsigned long ulMapPointer)

Variable name	Variable type	Description	I/O
hMapFile	HANDLE	Shared memory handle	Input
ulMapPointer	unsigned long	Shared memory address	Input

Explanation

This function performs unmapping on the shared memory address specified with ulMapPointer, and releases the shared memory handle specified with hMapFile.

Specify the shared memory address and shared memory handle obtained by the GDev_OpenMapping function.

Variable

Variable name	Description
lphMapFile, hMapFile	Shared memory handle obtained by the GDev_OpenMapping function
ulMapPointer	Shared memory address obtained by the GDev_OpenMapping function

Return value

None

Precautions for using the GDev_CloseUnMapping function

After the GDev_OpenMapping function has completed the required processing, make sure to call the GDev_CloseUnMapping function.

Not doing so may result in a memory leak and an application error or other errors.

23.2.9 sgt_GDevOpenMapping

The following shows the details of the sgt_GDevOpenMapping function.

Function

Opens and maps the shared memory of the GOT internal device.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)
- SoftGOT bit registers (SGB)
- SoftGOT data registers (SGD)

Format

■For Visual C++

```
lReturn = sgt_GDevOpenMapping(STMAPINFO* lpstMapInfo, short sGotNo)
```

Variable name	Variable type	Description	I/O
ulMapPointer	ULONG_PTR	Return value (shared memory address)	Output
lpstMapInfo	STMAPINFO*	Shared memory handle and shared memory address	Output
sGotNo	short	GT SoftGOT3000 module No. (1 to 32767)	Input

■For Visual C#

```
lReturn = sgt_GDevOpenMapping(STMAPINFO* lpstMapInfo, Int16 sGotNo)
```

Variable name	Variable type	Description	I/O
lReturn	Int32	Return value	Output
lpstMapInfo	STMAPINFO*	Shared memory handle and shared memory address	Output
sGotNo	Int16	GT SoftGOT3000 module No. (1 to 32767)	Input

■For Excel VBA

```
lReturn = sgt_GDevOpenMapping(STMAPINFO* lpstMapInfo(0), Integer sGotNo)
```

Variable name	Variable type	Description	I/O
lReturn	Long	Return value (shared memory address)	Output
lpstMapInfo(n)	STMAPINFO*	Shared memory handle	Output
sGotNo	Integer	GT SoftGOT3000 module No. (1 to 32767)	Input

Explanation

This function obtains the shared memory handle for accessing the internal devices of the GT SoftGOT3000 module specified with sGotNo, and performs mapping on the handle.

The shared memory handle and shared memory address that have been obtained are stored in lpstMapInfo.

Variable

Variable name	Description
lpstMapInfo	Pointer to the structure for storing the shared memory handle and shared memory address ☞ Page 256 How to specify the shared memory handle and shared memory address
sGotNo	GT SoftGOT3000 module No. (1 to 32767)

Return value

- Normal termination: 1
- Abnormal termination: The error code (0) is stored.

For the error codes, refer to the following.

☞ Page 270 Error code list when using the internal device interface function

Precautions for using the sgt_GDevOpenMapping function

■When to call the function

The sgt_GDevOpenMapping function must be called after GT SoftGOT3000 is started.

■lpstMapInfo area

Reserve a 4-word or more area for lpstMapInfo.

If the area is insufficient, an error such as application error may occur.

■After calling the function

After the sgt_GDevOpenMapping function has completed the required processing, make sure to call the sgt_GDevCloseUnMapping function.

Not doing so may result in a memory leak and an application error or other errors.

Also, if exiting GT SoftGOT3000 while calling the sgt_GDevOpenMapping function, make sure to call the sgt_GDevCloseUnMapping function immediately.

After exiting GT SoftGOT3000, if restarting GT SoftGOT3000 without calling the sgt_GDevCloseUnMapping function, GT SoftGOT3000 may not operate normally.

If GT SoftGOT3000 does not operate normally, call the sgt_GDevCloseUnMapping function, then exit GT SoftGOT3000.

How to specify the shared memory handle and shared memory address

Ex.

Specifying a 4-word area with lpstMapInfo

Variable name	Structure member	Description
lpstMapInfo[0]	hMapFile	Shared memory handle for accessing GB/GD/GS devices
	ulMapPointer	Shared memory address for accessing GB/GD/GS devices
lpstMapInfo[1]	hMapFile	Shared memory handle for accessing SGB/SGD devices
	ulMapPointer	Shared memory address for accessing SGB/SGD devices

23.2.10 sgt_GDevCloseUnMapping

The following shows the details of the sgt_GDevCloseUnMapping function.

Function

Unmaps and closes the shared memory of the GOT internal device.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)
- SoftGOT bit registers (SGB)
- SoftGOT data registers (SGD)

Format

■For Visual C++

```
sgt_GDevCloseUnMapping(STMAPINFO* lpstMapInfo)
```

Variable name	Variable type	Description	I/O
lpstMapInfo	STMAPINFO*	Shared memory handle and shared memory address	Input

■For Visual C#

```
sgt_GDevCloseUnMapping(STMAPINFO* lpstMapInfo)
```

Variable name	Variable type	Description	I/O
lpstMapInfo	STMAPINFO*	Shared memory handle and shared memory address	Input

■For Excel VBA

```
sgt_GDevCloseUnMapping(STMAPINFO* lpstMapInfo(0))
```

Variable name	Variable type	Description	I/O
lpstMapInfo(n)	STMAPINFO*	Shared memory handle	Input

Explanation

This function performs unmapping on the shared memory address and releases the shared memory handle, which are specified with lpstMapInfo.

Variable

Variable name	Description
lpstMapInfo	Pointer to the structure for storing the shared memory handle and shared memory address

Return value

None

Precautions for using the sgt_GDevCloseUnMapping function

After the sgt_GDevOpenMapping function has completed the required processing, make sure to call the sgt_GDevCloseUnMapping function.

Not doing so may result in a memory leak and an application error or other errors.

23.2.11 sgt_ReadDeviceRandom

The following shows the details of the sgt_ReadDeviceRandom function.

Function

Reads data from individual GOT internal devices.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)
- SoftGOT bit registers (SGB)
- SoftGOT data registers (SGD)

Format

■For Visual C++

```
lReturn = sgt_ReadDeviceRandom(STMAPINFO* lpstMapInfo, STDEVINFO* lpstDevInfo, long lDataSize)
```

Variable name	Variable type	Description	I/O
lReturn	long	Return value	Output
lpstMapInfo	STMAPINFO*	Shared memory handle and shared memory address	Input
lpstDevInfo	STDEVINFO*	Device name ID, device number, value read from the device, and error code	Input/Output
lDataSize	long	Number of read points	Input

■For Visual C#

```
lReturn = sgt_ReadDeviceRandom(STMAPINFO* lpstMapInfo, STDEVINFO* lpstDevInfo, int32 lDataSize)
```

Variable name	Variable type	Description	I/O
lReturn	int32	Return value	Output
lpstMapInfo	STMAPINFO*	Shared memory handle and shared memory address	Input
lpstDevInfo	STDEVINFO*	Device name ID, device number, value read from the device, and error code	Input/Output
lDataSize	int32	Number of read points	Input

■For Excel VBA

```
lReturn = sgt_ReadDeviceRandom(STMAPINFO* lpstMapInfo(0), STDEVINFO* lpstDevInfo(0), Long lDataSize)
```

Variable name	Variable type	Description	I/O
lReturn	Long	Return value	Output
lpstMapInfo(n)	STMAPINFO*	Shared memory handle and shared memory address	Input
lpstDevInfo(n)	STDEVINFO*	Device name ID, device number, value read from the device, and error code	Input/Output
lDataSize	Long	Number of read points	Input

Explanation

This function accesses the shared memory of the specified devices, and reads the device values. The shared memory address, the devices, and the amount of data to be read are specified with lpstMapInfo, lpstDevInfo, and lDataSize.
Values read from the device and error codes are stored in lpstDevInfo.
If any of the lpstDevInfo structure members has an invalid value, an error code is stored into lpstDevInfo.
A value indicating an abnormal termination is returned in the above case.
If all the lpstDevInfo structure members have valid values, the values read from the device are stored in lpstDevInfo.

Variable

Variable name	Description
lpstMapInfo	• Pointer to the structure for storing the shared memory handle and shared memory address • Specify the shared memory address and shared memory handle obtained by the sgt_GDevOpenMapping function.
lpstDevInfo	Pointer to the structure for storing device information ☞ Page 260 Device specification method
lDataSize	Number of read points (1 to 1024) ☞ Page 259 Precautions for using the sgt_ReadDeviceRandom function

Structure member

The variable lpstDevInfo has structure members.
The following shows the structure members.

Structure member	Description
lDevNameID	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device • 4: SGD device
lDevNum	Device number
lplDataValue	Value read from the device
lError	Error code • 0: Successful read • -1: The specified device name ID is invalid. • -4: The specified device number is invalid. • -5: The address of the specified device value is invalid.

For information on the structures, refer to the following.
☞ Page 271 Structure

Return value

- Normal termination: 0
- Abnormal termination: The error code (-9, -10, -11, -12, or -13) is stored.

For the error codes, refer to the following.
☞ Page 270 Error code list when using the internal device interface function

Precautions for using the sgt_ReadDeviceRandom function

■When to call the function

Call the sgt_ReadDeviceRandom function while GT SoftGOT3000 is running.

■lpstDevInfo area

For lpstDevInfo, reserve an area equal to or greater than lDataSize.
If the area is insufficient, an error such as application error may occur.

Device specification method

Ex.

When GB64, GB80, SGB90, SGB600, GD50, GD5, GS500, SGD60, or an invalid device name ID or device number is specified

The number of read points of the variable (lDataSize) is set to 10.

The following shows other variables.

When the following arguments are specified, -11 will be returned to lReturn.

Variable name	Device name (lDevNameID)	Device number (lDevNum)	Value read from the device (lplDataValue)	Error code (lError)	Source device
	Input	Input	Output	Output	
lpstDevInfo[0]	0	64	1	0	GB64
lpstDevInfo[1]	0	80	0	0	GB80
lpstDevInfo[2]	3	90	0	0	SGB90
lpstDevInfo[3]	6	100	0	-1	—
lpstDevInfo[4]	3	600	1	0	SGB600
lpstDevInfo[5]	1	50	30	0	GD50
lpstDevInfo[6]	1	5	500	0	GD5
lpstDevInfo[7]	2	500	0	0	GS500
lpstDevInfo[8]	4	60	900	0	SGD60
lpstDevInfo[9]	2	6000	0	-4	GS6000

23.2.12 sgt_WriteDeviceRandom

The following shows the details of the sgt_WriteDeviceRandom function.

Function

Writes data to individual GOT internal devices.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)
- SoftGOT bit registers (SGB)
- SoftGOT data registers (SGD)

Format

■For Visual C++

lReturn = sgt_WriteDeviceRandom(STMAPINFO* lpstMapInfo, STDEVINFO* lpstDevInfo, long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	long	Return value	Output
lpstMapInfo	STMAPINFO*	Shared memory handle and shared memory address	Input
lpstDevInfo	STDEVINFO*	Device name ID, device number, device value to be written, and error code	Input/Output
lDataSize	long	Number of write points	Input

■For Visual C#

lReturn = sgt_WriteDeviceRandom(STMAPINFO* lpstMapInfo, STDEVINFO* lpstDevInfo, int32 lDataSize)

Variable name	Variable type	Description	I/O
lReturn	int32	Return value	Output
lpstMapInfo	STMAPINFO*	Shared memory handle and shared memory address	Input
lpstDevInfo	STDEVINFO*	Device name ID, device number, device value to be written, and error code	Input/Output
lDataSize	int32	Number of write points	Input

■For Excel VBA

lReturn = sgt_WriteDeviceRandom(STMAPINFO* lpstMapInfo(0), STDEVINFO* lpstDevInfo(0), Long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	Long	Return value	Output
lpstMapInfo(n)	STMAPINFO*	Shared memory handle and shared memory address	Input
lpstDevInfo(n)	STDEVINFO*	Device name ID, device number, device value to be written, and error code	Input/Output
lDataSize	Long	Number of write points	Input

Explanation

This function accesses the shared memory of the specified devices, and writes data to the devices. The shared memory address, the devices, and the amount of data to be written are specified with lpstMapInfo, lpstDevInfo, and lDataSize.
The error codes are stored in lpstDevInfo.
If any of the lpstDevInfo structure members has an invalid value, an error code is stored into lpstDevInfo.
A value indicating an abnormal termination is returned in the above case.
If all the lpstDevInfo structure members have valid values, the device values are correctly written to lpstDevInfo.

Variable

Variable name	Description
lpstMapInfo	• Pointer to the structure for storing the shared memory handle and shared memory address • Specify the shared memory address and shared memory handle obtained by the sgt_GDevOpenMapping function.
lpstDevInfo	Pointer to the structure for storing device information ☞ Page 263 Device specification method
lDataSize	Number of write points (1 to 1024) ☞ Page 262 Precautions for using the sgt_WriteDeviceRandom function

Structure member

The variable lpstDevInfo has structure members.
The following shows the structure members.

Structure member	Description
lDevNameID	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device • 4: SGD device
lDevNum	Device number
lplDataValue	Device value to be written
lError	Error code • 0: Successful write • -1: The specified device name ID is invalid. • -4: The specified device number is invalid. • -5: The address of the specified device value is invalid. • -6: The specified device value is invalid.

For information on the structures, refer to the following.
☞ Page 271 Structure

Return value

- Normal termination: 0
- Abnormal termination: The error code (-9, -10, -11, -12, or -13) is stored.

For the error codes, refer to the following.
☞ Page 270 Error code list when using the internal device interface function

Precautions for using the sgt_WriteDeviceRandom function

■When to call the function

Call the sgt_WriteDeviceRandom function while GT SoftGOT3000 is running.

■lpstDevInfo area

For lpstDevInfo, reserve an area equal to or greater than lDataSize.
If the area is insufficient, an error such as application error may occur.

Device specification method

Ex.

When GB64, GB80, SGB90, SGB600, GD50, GD5, GS500, SGD60, or an invalid device name ID or device number is specified

The number of write points of the variable (lDataSize) is set to 10.

The following shows other variables.

When the following arguments are specified, -11 will be returned to lReturn.

Variable name	Device name (lDevNameID)	Device number (lDevNum)	Device value to be written (lplDataValue)	Error code (lError)	Destination device
	Input	Input	Input	Output	
lpstDevInfo[0]	0	64	1	0	GB64
lpstDevInfo[1]	0	80	0	0	GB80
lpstDevInfo[2]	3	90	0	0	SGB90
lpstDevInfo[3]	6	100	0	-1	—
lpstDevInfo[4]	3	600	1	0	SGB600
lpstDevInfo[5]	1	50	30	0	GD50
lpstDevInfo[6]	1	5	500	0	GD5
lpstDevInfo[7]	2	500	0	0	GS500
lpstDevInfo[8]	4	60	900	0	SGD60
lpstDevInfo[9]	2	6000	0	-4	GS6000

23.2.13 sgt_ReadDeviceBlock

The following shows the details of the sgt_ReadDeviceBlock function.

Function

Reads data from consecutive GOT internal devices.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)
- SoftGOT bit registers (SGB)
- SoftGOT data registers (SGD)

Format

■For Excel VBA

lReturn = sgt_ReadDeviceBlock(STMAPINFO* lpstMapInfo(0), STDEVINFO* lpstDevInfo(0), Long lDataSize)

Variable name	Variable type	Description	I/O
lReturn	Long	Return value	Output
lpstMapInfo(n)	STMAPINFO*	Shared memory handle and shared memory address	Input
lpstDevInfo(n)	STDEVINFO*	Device name ID, device number, value read from the device, and error code	Input/Output
lDataSize	Long	Number of read points	Input

Explanation

This function accesses the shared memory of the specified devices, and reads the device values. The shared memory address, the devices, and the amount of data to be read are specified with lpstMapInfo, lpstDevInfo, and lDataSize.

Values read from the device and error codes are stored in lpstDevInfo.

If any of the lpstDevInfo structure members has an invalid value, an error code is stored into lpstDevInfo.

A value indicating an abnormal termination is returned in the above case.

If all the lpstDevInfo structure members have valid values, the values read from the device are stored in lpstDevInfo.

Variable

Variable name	Description
lpstMapInfo	• Pointer to the structure for storing the shared memory handle and shared memory address • Specify the shared memory address and shared memory handle obtained by the sgt_GDevOpenMapping function.
lpstDevInfo	Pointer to the structure for storing device information ☞ Page 266 Device specification method
lDataSize	Number of read points ☞ Page 265 Precautions for using the sgt_ReadDeviceBlock function

Structure member

The variable lpstDevInfo has structure members.

The following shows the structure members.

Structure member	Description
lDevNameID	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device • 4: SGD device
lDevNum	Start device number
lplDataValue	Variable that stores values read from the device
lError	Error code • 0: Successful read • -1: The specified device name ID is invalid. • -2: The specified start device is outside the range. • -3: The specified end device is outside the range. • -5: The address of the specified device value is invalid.

For information on the structures, refer to the following.

☞ Page 271 Structure

Return value

- Normal termination: 0
- Abnormal termination: The error code (-9, -10, -11, -12, or -13) is stored.

For the error codes, refer to the following.

☞ Page 270 Error code list when using the internal device interface function

Precautions for using the sgt_ReadDeviceBlock function

■When to call the function

Call the sgt_ReadDeviceBlock function while GT SoftGOT3000 is running.

■Device number when a bit device (GB or SGB) is specified

For bit devices (GB or SGB), specify the device number in multiples of 16.

■lplDataTable area

For lplDataTable, reserve the area for lDataSize or more.

If the area is insufficient, an error such as application error may occur.

■Range of devices that can be specified for lDataSize

Specify the maximum number of read points for devices that can be specified for lDataSize within the following range.

- For bit device (GB/SGB) specification: Start device number + (Number of read points × 16) - 1 ≤ Maximum valid device number
- For word device (GD/GS/SGD) specification: Start device number + Number of read points - 1 ≤ Maximum valid device number

Device specification method

■For bit device (GB/SGB) specification

Ex.

Reading 1-word (16-bit) data from the devices starting from GB64

Variable name	Device name ID (IDevNameID)	Start device number (IDevNum)	Number of read points (IDataSize)	Source device
lplDataValue[0]	0	64	1	GB64 to GB79

Ex.

Reading 3-word (48-bit) data from the devices starting from GB80

Variable name	Device name ID (IDevNameID)	Start device number (IDevNum)	Number of read points (IDataSize)	Source device
lplDataValue[0]	0	80	3	GB80 to GB95
lplDataValue[1]				GB96 to GB111
lplDataValue[2]				GB112 to GB127

■For word device (GD/GS/SGD) specification

Ex.

Reading 1-word data from GS500

Variable name	Device name ID (IDevNameID)	Start device number (IDevNum)	Number of read points (IDataSize)	Source device
lplDataValue[0]	2	500	1	GS500

Ex.

Reading 3-word data from the devices starting from GD5

Variable name	Device name ID (IDevNameID)	Start device number (IDevNum)	Number of read points (IDataSize)	Source device
lplDataValue[0]	1	5	3	GD5
lplDataValue[1]				GD6
lplDataValue[2]				GD7

23.2.14 sgt_WriteDeviceBlock

The following shows the details of the sgt_WriteDeviceBlock function.

Function

Writes data to consecutive GOT internal devices.

The following shows the target devices.

- GOT bit registers (GB)
- GOT data registers (GD)
- GOT special registers (GS)
- SoftGOT bit registers (SGB)
- SoftGOT data registers (SGD)

Format

■For Excel VBA

```
lReturn = sgt_WriteDeviceBlock(STMAPINFO* lpstMapInfo(0), STDEVINFO* lpstDevInfo(0), Long lDataSize)
```

Variable name	Variable type	Description	I/O
lReturn	Long	Return value	Output
lpstMapInfo(n)	STMAPINFO*	Shared memory handle and shared memory address	Input
lpstDevInfo(n)	STDEVINFO*	Device name ID, device number, device value to be written, and error code	Input/Output
lDataSize	Long	Number of write points	Input

Explanation

This function accesses the shared memory of the specified devices, and writes data to the devices. The shared memory address, the devices, and the amount of data to be written are specified with lpstMapInfo, lpstDevInfo, and lDataSize.

The error codes are stored in lpstDevInfo.

If any of the lpstDevInfo structure members has an invalid value, an error code is stored into lpstDevInfo.

A value indicating an abnormal termination is returned in the above case.

If all the lpstDevInfo structure members have valid values, the device values are correctly written to lpstDevInfo.

Variable

Variable name	Description
lpstMapInfo	• Pointer to the structure for storing the shared memory handle and shared memory address • Specify the shared memory address and shared memory handle obtained by the sgt_GDevOpenMapping function.
lpstDevInfo	Pointer to the structure for storing device information ☞ Page 269 Device specification method
lDataSize	Number of write points ☞ Page 268 Precautions for using the sgt_WriteDeviceBlock function

Structure member

The variable lpstDevInfo has structure members.

The following shows the structure members.

Structure member	Description
lDevNamID	Device name ID • 0: GB device • 1: GD device • 2: GS device • 3: SGB device • 4: SGD device
lDevNum	Start device number
lplDataValue	Stores the device values to be written.
lError	Error code • 0: Successful write • -1: The specified device name ID is invalid. • -2: The specified start device is outside the range. • -3: The specified end device is outside the range. • -5: The address of the specified device value is invalid. • -6: The specified device value is invalid.

For information on the structures, refer to the following.

☞ Page 271 Structure

Return value

- Normal termination: 0
- Abnormal termination: The error code (-9, -10, -11, -12, or -13) is stored.

For the error codes, refer to the following.

☞ Page 270 Error code list when using the internal device interface function

Precautions for using the sgt_WriteDeviceBlock function

■When to call the function

Call the sgt_WriteDeviceBlock function while GT SoftGOT3000 is running.

■Device number when a bit device (GB or SGB) is specified

For bit devices (GB or SGB), specify the device number in multiples of 16.

■lplDataTable area

For lplDataTable, reserve the area for lDataSize or more.

If the area is insufficient, an error such as application error may occur.

■Range of devices that can be specified for lDataSize

Specify the maximum number of write points for devices that can be specified for lDataSize within the following range.

- For bit device (GB/SGB) specification: Start device number + (Number of write points × 16) - 1 ≤ Maximum valid device number
- For word device (GD/GS/SGD) specification: Start device number + Number of write points - 1 ≤ Maximum valid device number

Device specification method

■For bit device (GB/SGB) specification

Ex.

Writing 1-word (16-bit) data to the devices starting from GB64

Variable name	Device name ID (IDevNameID)	Start device number (IDevNum)	Number of write points (IDataSize)	Destination device
lplDataValue[0]	0	64	1	GB64 to GB79

Ex.

Writing 3-word (48-bit) data to the devices starting from GB80

Variable name	Device name ID (IDevNameID)	Start device number (IDevNum)	Number of write points (IDataSize)	Destination device
lplDataValue[0]	0	80	3	GB80 to GB95
lplDataValue[1]				GB96 to GB111
lplDataValue[2]				GB112 to GB127

■For word device (GD/GS/SGD) specification

Ex.

Writing 1-word data to GS500

Variable name	Device name ID (IDevNameID)	Start device number (IDevNum)	Number of write points (IDataSize)	Destination device
lplDataValue[0]	2	500	1	GS500

Ex.

Writing 3-word data to the devices starting from GD5

Variable name	Device name ID (IDevNameID)	Start device number (IDevNum)	Number of write points (IDataSize)	Destination device
lplDataValue[0]	1	5	3	GD5
lplDataValue[1]				GD6
lplDataValue[2]				GD7

23.2.15 Error code list when using the internal device interface function

The following lists error codes that may occur when the internal device interface function is used.

Error code	Cause	Corrective action
1	Succeeded	—
0	Opening or mapping of the shared memory was failed. (Access to internal devices disabled)	• Start GT SoftGOT3000. • Specify a valid GT SoftGOT3000 module number (1 to 32767). • Exit unnecessary applications to secure memory space. • Restart the personal computer.
-1	The specified device name ID is invalid.	• Specify a valid device name ID.
-2	The specified start device is outside the range.	• Specify a valid device number.
-3	The specified end device is outside the range.	• Specify the number of devices within the valid device range.
-4	The specified device number is invalid.	• Specify a valid device number.
-5	The address of the specified device value is invalid.	• Secure the device value storage area and specify the start address of the value read from the device. • Secure the device value storage area and specify the start address of the device value to be written.
-6	The specified device value is invalid.	• Specify a valid device value.
-9	The specified shared address is illegal.	• Specify the shared memory address obtained by the GDev_OpenMapping function. • Specify the shared memory address obtained by the sgt_GDevOpenMapping function.
-10	The specified number of devices is invalid.	• Specify the number of devices within the range.
-11	The specified argument is invalid.	• Check the error code value (IError) in the structure for storing device information, check the relevant corrective action, and then specify the correct argument.
-12	GT SoftGOT3000 is not monitoring.	• Monitor a project with the specified GT SoftGOT3000 module.
-13	A user with device read/write permissions is not logged in to use the GT SoftGOT3000 operator authentication function.	• Log in as a user with device read/write permissions to use the GT SoftGOT3000 operator authentication function.

23.2.16 Structure

The following shows the details of the structures of the internal device interface functions.

For information on how to specify a structure, refer to sample programs.

☞ Page 272 Sample program

Structure for storing the shared memory handle and shared memory address

■For 64-bit

```
typedef struct _STMAPINFO{
 HANDLE          hMapFile;       Shared memory handle
 unsigned long   ulMapPointer;   Shared memory address
} STMAPINFO, *LPSTMAPINFO;
```

■For 32-bit

```
typedef struct _STMAPINFO{
 HANDLE          hMapFile;       Shared memory handle
 ULONG_PTR       ulMapPointer;   Shared memory address
} STMAPINFO, *LPSTMAPINFO;
```

Structure for storing device information

■For 64-bit

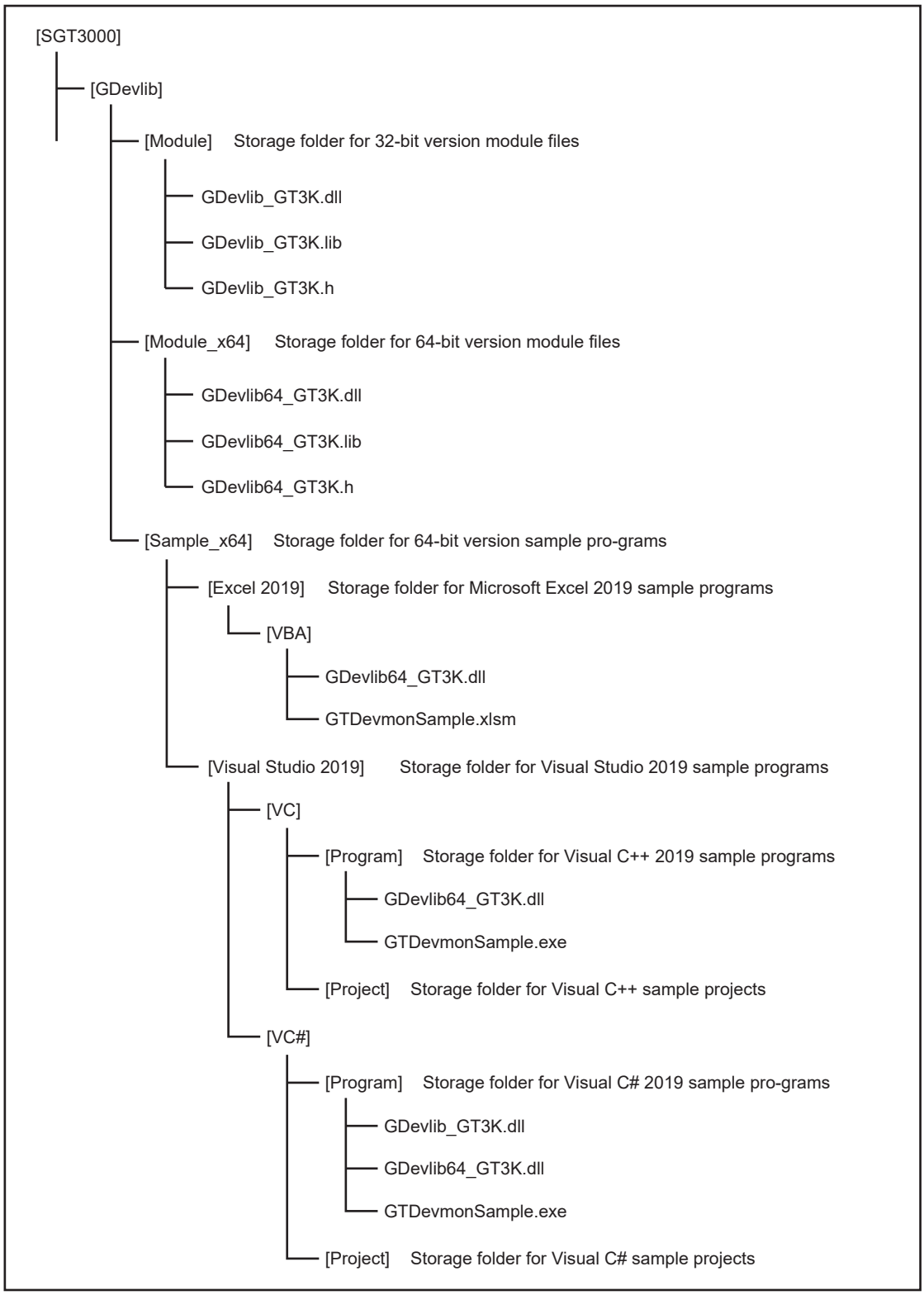
```
typedef struct _STDEVINFO{
 long        lDevNameID;     Device name ID
 long        lDevNum;        Device number
 long*       lplDataValue;   Device value
 long        lError;         Error code
} STDEVINFO, *LPSTDEVINFO;
```

■For 32-bit

```
typedef struct _STDEVINFO{
 long        lDevNameID;     Device name ID
 long        lDevNum;        Device number
 LONG_PTR*   lplDataValue;   Device value
 long        lError;         Error code
} STDEVINFO, *LPSTDEVINFO;
```

23.2.17 Sample program

Use the sample program as a reference when creating an application using the internal device interface function.
For details on sample programs, contact your local sales office.
The following shows folders storing the sample programs.



The following shows the development environment for the sample programs and the accessible internal devices.

Development environment			Readable and writable device	Specification of the access destination module number	Sample program
Language	Creation environment				
C++	Microsoft Visual C++ 2019	64-bit	• GB • GD • GS	Unavailable*1	☞ Page 274 Visual Studio 2019 (C++), Visual Studio 2019 (C#)
C#	Microsoft Visual C# 2019	64-bit	• GB • GD • GS	Unavailable*1	☞ Page 274 Visual Studio 2019 (C++), Visual Studio 2019 (C#)
Microsoft Excel VBA	Microsoft Excel 2019	64-bit	• GB • GD • GS • SGB • SGD	Available	☞ Page 275 Microsoft Excel 2019 (VBA)

*1 The sample programs can be accessed only through GT SoftGOT3000 module No. 1.

Precautions

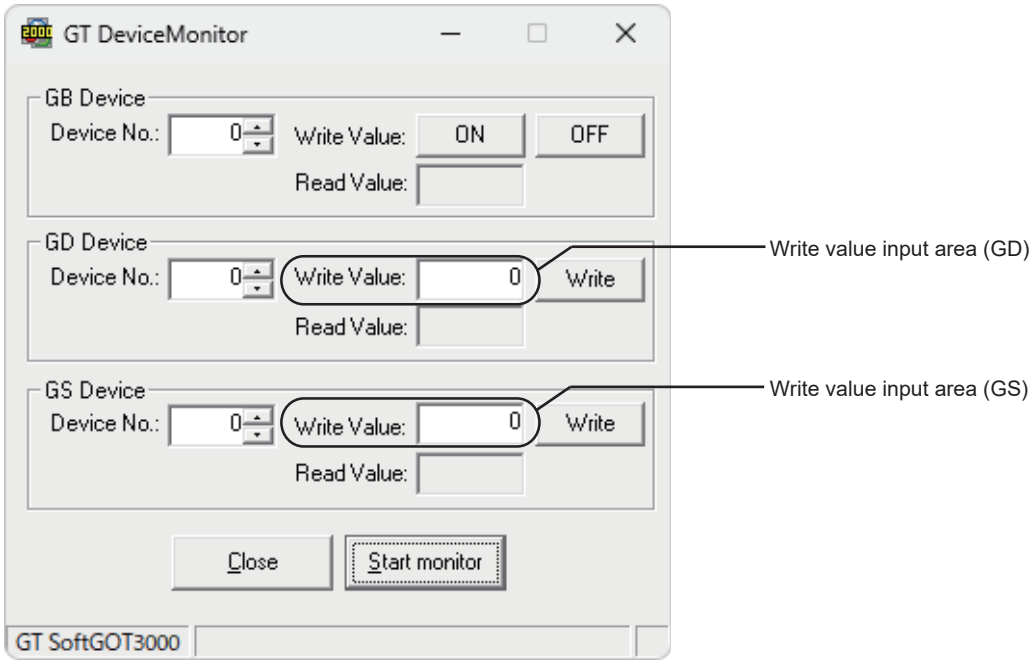
To use the sample programs, store GDevlib64_GT3K.dll (64-bit version) in the same folder as the application and Excel files depending on the usage environment.

Visual Studio 2019 (C++), Visual Studio 2019 (C#)

The sample programs are designed to be read or written to the internal devices (GB, GD, GS) of GT SoftGOT3000 (module No. 1) during monitoring.

Ex.

Sample program for Visual Studio 2019 (C++)



Item			Description
[GB Device]	[Device No.]		Specify a device number (GB0 to GB65535).
	[Write Value]	[ON]	Turns on the device specified by [Device No.].
		[OFF]	Turns off the device specified by [Device No.].
	[Read Value]		Displays the value read from the specified device. The value is updated only while monitoring is performed. Bit device status • [1]: ON • [0]: OFF
[GD Device]	[Device No.]		Specify a device number (GD0 to GD65535).
	[Write Value]	Write value input area (GD)	Set the value to be written to the device specified by [Device No.]. Input format: Signed decimal number (-32768 to 32767)
		[Write]	Writes the specified value to the specified device.
	[Read Value]		Displays the value read from the specified device. The value is updated only while monitoring is performed. Display format: Signed decimal number (-32768 to 32767) The value of the internal device is read in conjunction with [Device No.].
[GS Device]	[Device No.]		Specify a device number (GS0 to GS2047).
	[Write Value]	Write value input area (GS)	Set the value to be written to the device specified by [Device No.]. Input format: Signed decimal number (-32768 to 32767)
		[Write]	Writes the specified value to the specified device.
	[Read Value]		Displays the value read from the specified device. The value is updated only while monitoring is performed. Display format: Signed decimal number (-32768 to 32767) The value of the internal device is read in conjunction with [Device No.].
[Start monitor] button			Starts monitoring.
[Stop monitor] button			Stops monitoring.
[Close] button			Closes the sample program window.

Microsoft Excel 2019 (VBA)

The sample programs are designed to read from and write to the internal devices (GB, GD, GS, SGB, SGD) of GT SoftGOT3000 (specified module) during monitoring.

Item			Description
[Module No.]			Enter the GT SoftGOT3000 module number (1 to 32767) to read its internal devices.
[GB Device]	[Device No.]		Specify a device number (GB0 to GB65535).
	[Write Value]	[ON]	Turns on the device specified by [Device No.].
		[OFF]	Turns off the device specified by [Device No.].
	[Read Value]		Displays the value read from the specified device. The value is updated only while monitoring is performed. Bit device status • [1]: ON • [0]: OFF
[GD Device]	[Device No.]		Specify a device number (GD0 to GD65535).
	[Write Value]	Write value input area (GD)	Set the value to be written to the device specified by [Device No.]. Input format: Signed decimal number (-32768 to 32767)
		[Write]	Writes the specified value to the specified device.
	[Read Value]		Displays the value read from the specified device. The value is updated only while monitoring is performed. Display format: Signed decimal number (-32768 to 32767) The value of the internal device is read in conjunction with [Device No.].
[GS Device]	[Device No.]		Specify a device number (GS0 to GS2047).
	[Write Value]	Write value input area (GS)	Set the value to be written to the device specified by [Device No.]. Input format: Signed decimal number (-32768 to 32767)
		[Write]	Writes the specified value to the specified device.
	[Read Value]		Displays the value read from the specified device. The value is updated only while monitoring is performed. Display format: Signed decimal number (-32768 to 32767) The value of the internal device is read in conjunction with [Device No.].

Item			Description
[SGB Device]	[Device No.]		Specify a device number (SGB0 to SGB65535).
	[Write Value]	[ON]	Turns on the device specified by [Device No.].
		[OFF]	Turns off the device specified by [Device No.].
	[Read Value]		Displays the value read from the specified device. The value is updated only while monitoring is performed. Bit device status • [1]: ON • [0]: OFF
[SGD Device]	[Device No.]		Specify a device number (SGD0 to SGD65535).
	[Write Value]	Write value input area (SGD)	Set the value to be written to the device specified by [Device No.]. Input format: Signed decimal number (-32768 to 32767)
		[Write]	Writes the specified value to the specified device.
	[Read Value]		Displays the value read from the specified device. The value is updated only while monitoring is performed. Display format: Signed decimal number (-32768 to 32767) The value of the internal device is read in conjunction with [Device No.].
[Start monitor]			Starts monitoring.
[Stop monitor]			Stops monitoring.

Precautions

Microsoft Excel 2019 (VBA) does not support the copying of multiple cells from other applications.

How to use the sample programs

This section explains how to read and write internal devices using a sample program.

Operating procedure

1. Start GT SoftGOT3000 and a sample program.

If the project used for monitoring is set to security mode 2, log in to GT SoftGOT3000 as an operator who has the operation rights for [Reading/writing a device from an external device].

2. If the GT SoftGOT3000 module number for reading or writing internal devices can be specified in the sample program, enter the target module number in the [Module No.] field.

3. Start monitoring with GT SoftGOT3000.

4. Click the [Start monitor] button of the sample program to start monitoring.

5. To read the value of an internal device, enter the device number in [Device No.] of the corresponding device.

The value read from the specified device is displayed in [Read Value].

6. To write the value of an internal device, perform the following procedure.

- For a bit device, click the [ON] or [OFF] button.
- For a word device, enter the value to be written in the [Write Value] input area and click the [Write] button.

7. To stop monitoring with the sample program, click the [Stop monitor] button.

8. When the monitoring with the sample program is stopped, the monitoring with GT SoftGOT3000 is stopped.

9. Exit the sample program and GT SoftGOT3000.

Precautions

If internal devices are read or written from the sample program after GT SoftGOT3000 is exited, the internal devices may not be read or written normally.

Also, if restarting GT SoftGOT3000 in this state, GT SoftGOT3000 may not operate normally.

Make sure to stop monitoring the sample program before exiting GT SoftGOT3000.

PART 8 Troubleshooting

24 GT SoftGOT3000 error messages

25 GOT error code list

24 GT SoftGOT3000 error messages

The following shows the error messages, causes, and corrective actions displayed when GT SoftGOT3000 is used.

☞ Page 278 Error messages displayed at startup
☞ Page 279 Error messages displayed when starting monitoring
☞ Page 281 Error messages displayed when stopping or ending monitoring
☞ Page 281 Error massages displayed during communication
☞ Page 282 Error messages related to the license
☞ Page 282 Error massages displayed when an email is sent
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☞ Page 283 Error messages related to the external application start trigger settings
☞ Page 283 Error messages displayed during OPC UA connection

24.1 Error messages displayed at startup

The following shows the error messages, causes, and corrective actions displayed when GT SoftGOT3000 is started.

Error message	Error code	Cause	Corrective action
Cannot set up the operating environment. Insufficient disk space or memory may be the cause. Please do the following and retry. • Exit unnecessary applications. • Increase the free space of the hard disk. • Restart the personal computer.	0x1103	• There is Insufficient memory. • The hard disk space is insufficient. • GT SoftGOT3000 was terminated incorrectly last time. • Illegal process is running.	• Exit unnecessary applications. • Increase the free space of the hard disk. • Restart GT SoftGOT3000. • Restart the personal computer, and then restart GT SoftGOT3000.
Failed to set up an operating environment. Check the followings and retry the operation. • Free disk space. • Access privileges to the environment file. • Validity of environment files (invalid files or files not found).	0x1104	• The hard disk space is insufficient. • You do not have access privileges to the file. • There is Insufficient memory.	• Increase the free space of the hard disk. • Check the access privilege for a file. • Uninstall GT SoftGOT3000, and then reinstall it.
	0x1200 to 0x1204		
	0x1206		
	0x120A		
	0x2601		
	0x2700		
	0x9103 to 0x9104		
	0x9161		
	0x9181		

24.2 Error messages displayed when starting monitoring

The following shows the error messages, causes, and corrective actions displayed when starting monitoring with GT SoftGOT3000.

Error message	Error code	Cause	Corrective action
GT SoftGOT3000 is not installed properly. Please do the following. • After restarting the personal computer, restart GT SoftGOT3000. • Uninstall GT SoftGOT3000, and then reinstall it.	0x2201 0x2401 0x2403 0x2600 0x2A00 0x3700 0x3800	• Configuring the execution environment for GT SoftGOT3000 has failed. • GT SoftGOT3000 is not installed properly.	• Restart the personal computer, and then restart GT SoftGOT3000. • Uninstall GT SoftGOT3000, and then reinstall it.
Initialization for reading the project data from GOT failed. Check the following and retry. • Close the dialog if it is displayed. • Wait for several seconds and retry the operation.	0x2500 0x2501	• The message is displayed on the screen. • An internal process is awaiting completion.	Remove the message on the screen and execute the reading again.
Reading has failed. Check the following and retry. • The project data size and data count • Available disk space • Access privileges to the project file • The project data is invalid or does not exist • The project password is invalid or not entered	0x3101 0x3165 to 0x318C 0x31FD 0x31FF 0x3201 0x3265 to 0x328C 0x32FD 0x32FF 0x3301 0x3401 0x3465 to 0x348C 0x34FD 0x34FF 0x9103 0x9104 0x9161 0x9181	—	• Reduce the project data size to 256 MB or less. • Increase the free space of the hard disk. • Check the access privilege for a file. • Check that the project data has no problems, or use an uncorrupted project. • Check that the project exists.
GOT type of the project data is different from the one specified in GT SoftGOT3000. Change the GOT type of the project data to GT SoftGOT3000. [Project data settings] GOT Type: GT**-*	0x3500	The GOT type of the read project is not set to GT SoftGOT3000.	Change the GOT type of the project to GT SoftGOT3000.
The GOT type (resolution) of the project data is different from the setting in GT SoftGOT3000. [Project data settings] GOT type: GT37**-X (*** × ***) [GT SoftGOT3000 settings] Resolution: ### × ### If the resolution differs between the project data being monitored and the project data you are trying to open, please exit GT SoftGOT3000 and reopen the project data.	0x3501	The GOT type (resolution) of the read project is different from the GT SoftGOT3000 setting.	Match the GOT type (resolution) of the project created with GT Designer3 with the resolution of GT SoftGOT3000.

Error message	Error code	Cause	Corrective action
The major versions of the specified project data and GT SoftGOT3000 standard monitor OS do not match. Project data: Ver. ##.## GT SoftGOT3000 Standard monitor OS: Ver. ##.## Specify the project data of the same version.	—	The following OS major versions do not match. • OS of GT Designer3 used to create the project to be read • GT SoftGOT3000 standard monitor OS	• Install GT SoftGOT3000 with the same version as GT Designer3 that is used to create the project, and retry reading. • Create a project with GT Designer3 of the same version as GT SoftGOT3000, and retry reading.
GT SoftGOT3000 is not installed properly. Please reinstall it.	—	• Easysocket is not installed properly. • The Easysocket version is not compatible with the version of the installed GT SoftGOT3000.	Uninstall GT SoftGOT3000, and then reinstall it.
The controller setting (I/F) of the project data is different from the one specified in MELSOFT GT SoftGOT3000. If the controller monitors different project data, exit MELSOFT GT SoftGOT3000, then read the applicable project data again.	0x3600	[I/F] set in [Controller Setting] of the project is different from the one specified in GT SoftGOT3000.	• Change [I/F] set in [Controller Setting] of the project. • Restart GT SoftGOT3000, then open the project again.
The controller setting (type) of the project data is different from the one specified in MELSOFT GT SoftGOT3000. Check the settings and retry. [Project data settings] CH1 : #### CH2 : #### CH3 : #### CH4 : #### [MELSOFT GT SoftGOT3000 settings] CH1 : ####(####) CH2 : ####(####) CH3 : ####(####) CH4 : ####(####)	0x3601	[Controller Type] set in [Controller Setting] of the project is different from the one specified in GT SoftGOT3000.	[Controller Type] in [Controller Setting] of the project must be the same as the controller type set in GT SoftGOT3000.
Failed to delete resource data. • Close user data if it is open. • Check the file access privileges.	0x3801	• The resource data is open in another application. • You do not have access privileges to the file.	• If the resource data is open by another application, close the file. • Check the access privilege for a file.

24.3 Error messages displayed when stopping or ending monitoring

The following shows the error messages, causes, and corrective actions displayed when ending monitoring with GT SoftGOT3000 or exiting GT SoftGOT3000.

Error message	Error code	Cause	Corrective action
Exit the GT SoftGOT3000 before you logoff or exit Windows.	—	The logoff or shutdown process of Windows is executed before GT SoftGOT3000 is exited.	Execute the Windows logoff or shutdown process after exiting GT SoftGOT3000.
Cannot stop monitoring. Close the dialog on monitor screen and retry the operation.	—	GT SoftGOT3000 cannot exit normally because a message such as [This function is unavailable.] is displayed on the screen.	Select [OK] in the dialog to clear the message on the screen, then exit GT SoftGOT3000 again.
	—	Problems occur internally and the software cannot be closed.	Select [OK] in the dialog, and exit GT SoftGOT3000 again after a while.

24.4 Error massages displayed during communication

The following shows the error messages, causes, and corrective actions displayed during communication with GT SoftGOT3000.

Error message	Error code	Cause	Corrective action
A Communication error occurred. • Retry: Executes communication again. • Cancel: Cancels all communication. To retry communication, restart the GT SoftGOT3000. <ES:0x########>	—	• Cable was disconnected. • Cable was broken. • Transmission speed (Baud rate) is incorrect. • The PLC CPU type is different from that of the project setting.	After checking for the left causes, select the button in the displayed dialog. [Retry] Restarts communication. [Cancel] After Cancel is selected, all communications will not be made. To perform monitoring, restart GT SoftGOT3000.

24.5 Error messages related to the license

The following shows the error messages, causes, and corrective actions related to the GT SoftGOT3000 license.

Error message	Error code	Cause	Corrective action
License not registered. MELSOFT GT SoftGOT3000 will close.	—	The GT SoftGOT3000 license has not been registered.	Register the GT SoftGOT3000 license. ☞ Page 46 Registering or deregistering the license
License registration failed. Check the following and retry. • Confirm that the selected file is correct.	—	An incorrect activation file was selected.	Select the correct activation file.
License registration failed. Check the following and retry. • Run GT SoftGOT3000 as administrator • Access privileges to C drive	—	• GT SoftGOT3000 is not started with administrator privileges. • Access privilege for drive C is not granted.	• Start GT SoftGOT3000 with administrator privileges. • Check the access privilege for drive C.
The license cannot be registered because multiple modules of GT SoftGOT3000 are active. Please close the other GT SoftGOT3000 module(s) and retry.	—	Multiple GT SoftGOT3000 modules are running.	Start only one GT SoftGOT3000 module.
License registration failed. Check the following and retry. • Run GT SoftGOT3000 as administrator • Access privileges to C drive	—	• GT SoftGOT3000 is not started with administrator privileges. • Access privilege for drive C is not granted.	• Start GT SoftGOT3000 with administrator privileges. • Check the access privilege for drive C.
The license cannot be cancelled because multiple modules of GT SoftGOT3000 are active. Please close the other GT SoftGOT3000 module(s) and retry.	—	Multiple GT SoftGOT3000 modules are running.	Start only one GT SoftGOT3000 module.

24.6 Error massages displayed when an email is sent

The following shows the error messages, causes, and corrective actions displayed when an email is sent with GT SoftGOT3000.

Error message	Error code	Cause	Corrective action
Incorrect e-mail address. Specify your email address using no more than 64 one-byte alphanumeric characters and symbols.	—	• An email address is longer than 64 characters. • An invalid email address has been specified.	• Reduce the email address length to 64 characters or less. • Use a valid email address format.
The number of email addresses exceeds the limit of 32. Check the settings.	—	• The configured email addresses exceed the limit of 32.	• Ensure that the configured email addresses do not exceed 32.

24.7 Error messages related to the snapshot

The following shows the error messages, causes, and corrective actions displayed when a snapshot of the GT SoftGOT3000 monitor screen is captured.

Error message	Error code	Cause	Corrective action
Failed to take a snap shot. Possible causes are as follows: • There is not enough free memory or hard disk space. • You do not have access privileges to the file. • GT SoftGOT3000 was terminated incorrectly last time, or an incorrect processing is activated. Restart GT SoftGOT3000 and try again.	—	• There is Insufficient memory. • The hard disk space is insufficient. • You do not have access privileges to the file. • GT SoftGOT3000 was terminated incorrectly last time. • Illegal process is running.	• Exit unnecessary applications. • Increase the free space of the hard disk. • Check the access privilege for a file. • Restart GT SoftGOT3000. • Restart the personal computer, and then restart GT SoftGOT3000.

24.8 Error messages related to the external application start trigger settings

The following shows the error messages, causes, and corrective actions displayed when the external application start trigger settings are configured.

Error message	Error code	Cause	Corrective action
The specified trigger devices overlap. Change the setting.	—	The same combination of [Device] and [bit] exists in the assignment setting table.	Configure the settings so that the same combination of [Device] and [bit] does not exist.

24.9 Error messages displayed during OPC UA connection

The following shows the error messages, causes, and corrective actions displayed during OPC UA connection with GT SoftGOT3000.

Error message	Error code	Cause	Corrective action
The GT OPC UA Client Setting Tool is not properly installed. Install the GT OPC UA Client Setting Tool and retry.	—	The GT OPCUA Client Setting Tool is not properly installed.	Reinstall the GT OPCUA Client Setting Tool.

25 GOT error code list

For information on the system alarms detected by the GOT, refer to the following manual.
GOT3000 Series User's Manual (Utility & Maintenance Functions)

Appendices

Appendix 1 Open source software

This section describes various types of open source software included in GT SoftGOT3000 and their respective licenses.

☞ Page 286 libjpeg-turbo
☞ Page 289 OpenSSL
☞ Page 292 JQuery
☞ Page 293 JQuery Marquee
☞ Page 294 CreateJS
☞ Page 295 Prism Library 8.1.97
☞ Page 296 .NET 5.0
☞ Page 297 JQuery UI
☞ Page 298 jsSHA
☞ Page 299 Web Font Loader
☞ Page 302 PCRE
☞ Page 303 SharpZipLib
☞ Page 304 OpenJPEG
☞ Page 305 Little cms color engine
☞ Page 306 Pdfium
☞ Page 307 freetype
☞ Page 310 Microsoft.Xaml.Behaviors.Wpf
☞ Page 311 Unity.Abstractions
☞ Page 314 Unity.Container

Appendix 1.1 libjpeg-turbo

libjpeg-turbo Licenses
==========

libjpeg-turbo is covered by two compatible BSD-style open source licenses:

- The IJG (Independent JPEG Group) License, which is listed in
README.ijg

This license applies to the libjpeg API library and associated programs, including any code inherited from libjpeg and any modifications to that code. Note that the libjpeg-turbo SIMD source code bears the [zlib License](https://opensource.org/licenses/Zlib), but in the context of the overall libjpeg API library, the terms of the zlib License are subsumed by the terms of the IJG License.

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==========

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Why Two Licenses?
==========

The zlib License could have been used instead of the Modified (3-clause) BSD License, and since the IJG License effectively subsumes the distribution conditions of the zlib License, this would have effectively placed libjpeg-turbo binary distributions under the IJG License. However, the IJG License specifically refers to the Independent JPEG Group and does not extend attribution and endorsement protections to other entities. Thus, it was desirable to choose a license that granted us the same protections for new code that were granted to the IJG for code derived from their software.

Appendix 1.2 OpenSSL

Apache License
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Appendix 1.11 PCRE

```
/*************************************************
*   Perl-Compatible Regular Expressions    *
*************************************************/

/* This is the public header file for the PCRE library, second API, to be
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```

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```
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Appendix 1.17 Microsoft.Xaml.Behaviors.Wpf

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Revisions

*The manual number is given on the bottom left of the back cover.

Revision date	*Manual number	Description
April 2025	SH(NA)-082594ENG-A	First edition
December 2025	SH(NA)-082594ENG-B	Compatible with GT SoftGOT3000 Version 1.410C • Windows Server 2022 are supported. • Support ended: Windows Server 2019 and Windows Server 2016 • Supported: Serial connection with Mitsubishi Electric products and microcomputers • Supported: Ethernet connection with EYENCE, LS ELECTRIC, OMRON, YASKAWA, YOKOGAWA, MODBUS, and OPC products • Supported: CC-Link IE Field Network connection • Supported: Connection with MELSOFT Mirror • Supported: SoftGOT-GOT link function • The GOT network interaction function is supported. • Supported: SoftGOT diagnostics function • Supported: Email sending • Supported: Importing and exporting
April 2026	SH(NA)-082594ENG-C	Compatible with GT SoftGOT3000 Version 1.412E • Some corrections

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Warranty

Please check the following product warranty details before using this product.

■1. Gratis Warranty Term and Gratis Warranty Range

If any faults or defects (hereinafter "Failure") found to be the responsibility of Mitsubishi occurs during use of the product within the gratis warranty term, the product shall be repaired at no cost via the sales representative or Mitsubishi Service Company.
However, if repairs are required onsite at domestic or overseas location, expenses to send an engineer will be solely at the customer's discretion.
Mitsubishi shall not be held responsible for any re-commissioning, maintenance, or testing on-site that involves replacement of the failed module.

(1) Gratis Warranty Term

The gratis warranty term of the product shall be for thirty-six (36) months after the date of purchase or delivery to a designated place.
Note that after manufacture and shipment from Mitsubishi, the maximum distribution period shall be six (6) months, and the longest gratis warranty term after manufacturing shall be forty-two (42) months.
The gratis warranty term of repair parts shall not exceed the gratis warranty term before repairs.

(2) Gratis Warranty Range

(a) The customer shall be responsible for the primary failure diagnosis unless otherwise specified.
If requested by the customer, Mitsubishi Electric Corporation or its representative firm may carry out the primary failure diagnosis at the customer's expense.
The primary failure diagnosis will, however, be free of charge should the cause of failure be attributable to Mitsubishi Electric Corporation.

(b) The range shall be limited to normal use within the usage state, usage methods, and usage environment, etc., which follow the conditions and precautions, etc., given in the instruction manual, user's manual and caution labels on the product.

(c) Even within the gratis warranty term, repairs shall be charged in the following cases.

- Failure occurring from inappropriate storage or handling, carelessness or negligence by the user.
  Failure caused by the user's hardware or software design.
- Failure caused by unapproved modifications, etc., to the product by the user.
- When the Mitsubishi product is assembled into a user's device, Failure that could have been avoided if functions or structures, judged as necessary in the legal safety measures the user's device is subject to or as necessary by industry standards, had been provided.
- Failure that could have been avoided if consumable parts designated in the instruction manual had been correctly serviced or replaced.
- Replacing consumable parts such as a battery
- Failure caused by external irresistible forces such as fires or abnormal voltages, and Failure caused by force majeure such as earthquakes, lightning, wind and water damage.
- Failure caused by reasons that could not be predicted by scientific technology standards at the time of shipment from Mitsubishi.
- Any other failure found not to be the responsibility of Mitsubishi or that admitted not to be so by the user.

■2. Onerous repair term after discontinuation of production

(1) Mitsubishi shall accept onerous product repairs for seven (7) years after production of the product is discontinued.
Discontinuation of production shall be notified with Mitsubishi Technical Bulletins, etc.

(2) Mitsubishi shall not accept a request for product supply (including spare parts) after production is discontinued.

■3. Overseas service

Overseas, repairs shall be accepted by Mitsubishi's local overseas FA Center.
Note that the repair conditions at each FA Center may differ.

■4. Exclusion of loss in opportunity and secondary loss from warranty liability

Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to:

(1) Damages caused by any cause found not to be the responsibility of Mitsubishi.

(2) Loss in opportunity, lost profits incurred to the user by Failures of Mitsubishi products.

(3) Special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for damages to products other than Mitsubishi products.

(4) Replacement by the user, maintenance of on-site equipment, start-up test run and other tasks.

■5. Changes in product specifications

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