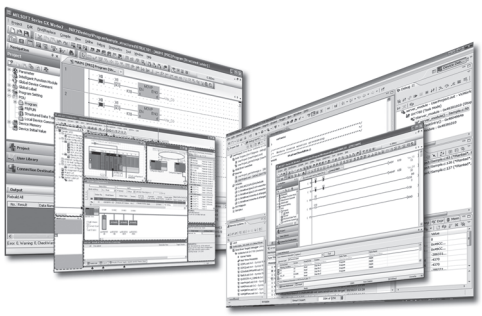
MITSUBISHI ELECTRIC

Engineering Software

Setting/Monitoring Tools for the C Controller Module Version 4 Operating Manual

-SW4PVC-CCPU-E



●SAFETY PRECAUTIONS●

(Read these precautions before using this product.)

Before using this product, please read this manual and the relevant manuals carefully and pay full attention to safety to handle the product correctly.
The instructions given in this manual are concerned with this product only. For the safety instructions of the programmable controller system, please read the CPU module user's manual.

In this manual, the safety precautions are classified into two 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.

Under some circumstances, failure to observe the precautions given under "⚠ CAUTION" may lead to serious consequences.
Observe the precautions of both levels because they are important for personal and system safety.

Make sure that the end users read this manual and then keep the manual in a safe place for future reference.

[Design Precautions]

⚠WARNING

- Configure safety circuits external to the C Controller module to ensure that the entire system operates safely even when a fault occurs in the external power supply or the C Controller module. For the following controls, configure an interlock circuit in the user program to ensure that the entire system will always operate safely.
  (1) Changing data of the running C Controller module from the development environment (personal computer) connected
  (2) Changing the operating status
  (3) Operating from the development environment (personal computer)
  Especially, in the case of control from an external device to a remote C Controller module, immediate action cannot be taken for a problem on the C Controller module due to a communication failure. To prevent this, configure an interlock circuit in the user program, and determine corrective actions to be taken between the external device and C Controller module in case of a communication failure.

[Security Precautions]

⚠WARNING

- To maintain the security (confidentiality, integrity, and availability) of the C Controller module and the system against unauthorized access, denial-of-service (DoS) attacks, computer viruses, and other cyberattacks from external devices via the network, take appropriate measures such as firewalls, virtual private networks (VPNs), and antivirus solutions.

[Setup and Maintenance Precautions]

⚠WARNING

- Configure safety circuits external to the C Controller module to ensure that the entire system operates safely even when a fault occurs in the external power supply or the C Controller module. For the following controls, configure an interlock circuit in the user program to ensure that the entire system will always operate safely.
  (1) Changing data of the running C Controller module from the development environment (personal computer) connected
  (2) Changing the operating status
  (3) Operating from the development environment (personal computer)
  Especially, in the case of control from an external device to a remote C Controller module, immediate action cannot be taken for a problem on the C Controller module due to a communication failure. To prevent this, configure an interlock circuit in the user program, and determine corrective actions to be taken between the external device and C Controller module in case of a communication failure.

⚠CAUTION

- Before performing online operations (especially, program modification, forced output, and operation status change) for the running C Controller module from the peripheral connected, read relevant manuals carefully and ensure the safety.
  Improper operation may damage machines or cause accidents.

●CONDITIONS OF USE FOR THE PRODUCT●

(1) MELSEC programmable controller ("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")
Prohibited Applications include, but not limited to, the use of the PRODUCT in;
- 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 programmable controller trouble and system trouble caused by DoS attacks, unauthorized access, computer viruses, and other cyberattacks.

INTRODUCTION

Thank you for purchasing the C Controller module.
Before using this product, please read this manual carefully and develop familiarity with the functions and performance of the C Controller module to handle the product correctly.
Note that the menu names and operating procedures may differ depending on an operating system in use and its version. When reading this manual, replace the names and procedures with the applicable ones as necessary.

RELEVANT MANUALS

The following manuals are relevant to this product.
Order each manual as needed, referring to the table below.

Manual name <Manual number, code>	Description
MELSEC-Q C Controller Module User's Manual <SH-081130ENG, 13JZ75>	The manual describes the system configuration, specifications, functions, handling instructions, wiring, troubleshooting, and programming and function of C Controller module (Q24DHCCPU-V, Q24DHCCPU-VG, Q24DHCCPU-LS, Q26DHCCPU-LS, and Q12DCCPU-V (Extended mode)).
C Controller Module User's Manual (Hardware Design, Function Explanation) <SH-080766ENG, 13JZ17>	The manual describes the system configuration, specifications, functions, handling instructions, wiring, and troubleshooting of Q12DCCPU-V (Basic mode) and Q06CCPU-V.
C Controller Module User's Manual (Utility Operation, Programming) <SH-080767ENG, 13JZ18>	The manual describes the installation/uninstallation, utility operation, instructions, and programming of SW3PVC-CCPU.
CW Workbench Operating Manual <SH-080982ENG, 13JU71>	The manual describes the system configuration, specifications, functions, and troubleshooting of CW Workbench.
CW-Sim Operating Manual <SH-081159ENG, 13JU77>	The manual describes the system configuration, specifications, functions, and troubleshooting of CW-Sim.

Remark

Manuals in printed form are sold separately for single purchase. Order a manual by quoting the manual number (model code) listed in the table above.

Memo

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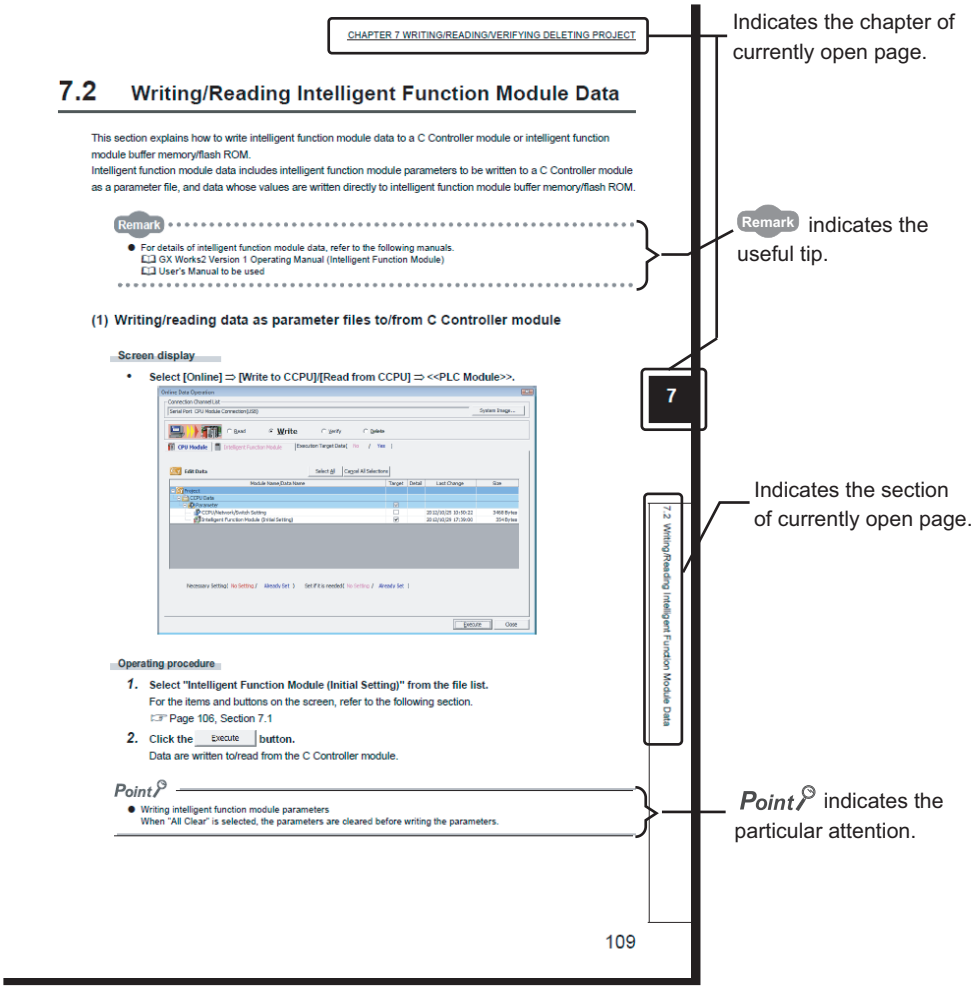
HOW TO READ THIS MANUAL

The following explains the page composition and symbols in this manual.
The content of the example page used here are different from the actual content for the intention of explaining how to use this manual.



Operating procedure

Three types of descriptions are used in this manual as below:

(1) When the operation is performed with a single step

- **Select [Project] ⇒ [Intelligent Function Module] ⇒ [New Module].**

(2) When the operation is performed with multiple steps

1. **Select the intelligent function module to be deleted from the Project view.**
2. **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Delete Module].**
   The selected intelligent function module is deleted.

(3) When the operation can be performed by more than one method

- **Select "Project" menu ⇒ "Intelligent Function Module".**
- **Select Project view ⇒ "Intelligent Function Module".**

The following shows the symbols for the operations used in this manual.

Symbol	Description	Example
[ ]	Menu name on a menu bar	[Diagnostics]
" "	Screen name, item name on a screen	"parameter"
<< >>	Tab name on a screen	<<Multiple CPU Setting>>
OK	Button on a screen	OK
	Keyboard key	F2
☞	Reference page	–
🕮	Reference manual	–

GENERIC TERMS AND ABBREVIATIONS

This manual uses the generic terms and abbreviations listed in the following table unless otherwise noted.

Generic term/abbreviation	Description
C Controller module	Generic term for Q24DHCCPU-V, Q24DHCCPU-VG, Q24DHCCPU-LS, Q26DHCCPU-LS and Q12DCCPU-V In principle, 'C Controller module' indicates Q24DHCCPU-V, Q24DHCCPU-VG, Q24DHCCPU-LS, Q26DHCCPU-LS and Q12DCCPU-V. When the classification is needed for such as comparison with other C Controller modules, 'Q24DHCCPU-V', 'Q24DHCCPU-VG', 'Q24DHCCPU-LS', 'Q26DHCCPU-LS' and 'Q12DCCPU-V' is mentioned.
Q24DHCCPU-V	Abbreviation for Q24DHCCPU-V C Controller module
Q24DHCCPU-VG	Abbreviation for Q24DHCCPU-VG C Controller module
Q24DHCCPU-LS	Abbreviation for Q24DHCCPU-LS C Controller module
Q26DHCCPU-LS	Abbreviation for Q26DHCCPU-LS C Controller module
Q12DCCPU-V	Abbreviation for Q12DCCPU-V C Controller module In principle, 'Q12DCCPU-V' indicates Q12DCCPU-V (Extended mode). When the classification is needed for such as comparison with other modes, 'Q12DCCPU-V (Basic mode)' and 'Q12DCCPU-V (Extended mode)' are mentioned.
Q12DCCPU-V (Basic mode)	Status that Q12DCCPU-V is initialized with the basic mode For Q12DCCPU-V (Basic mode), refer to the following manual. 📖 C Controller Module User's Manual (Hardware Design, Function Explanation)
Q12DCCPU-V (Extended mode)	Status that Q12DCCPU-V is initialized with the extended mode
C Controller system	Generic term for the system where the C Controller module is mounted
Setting/monitoring tools for the C Controller module	Abbreviation for Setting/monitoring tools for the C Controller module (SW4PVC-CCPU) In principle, 'Setting/monitoring tools for the C Controller module' indicates SW4PVC-CCPU. When the classification is needed for such as comparison with other tools, 'SW4PVC-CCPU' is mentioned.
SW3PVC-CCPU	Abbreviation for Setting/Monitoring Tools for the C Controller Module for Q12DCCPU-V (Basic mode)
VxWorks	Product name of the real-time operating system manufactured by Wind River Systems, Inc.
CW Workbench	Generic term for the engineering tools for C Controller shown below • Q24DHCCPU-V and Q24DHCCPU-VG SW1DND-CWWLQ24-E, SW1DND-CWWLQ24-EZ, SW1DND-CWWLQ24-EVZ • Q12DCCPU-V SW1DND-CWWLQ12-E, SW1DND-CWWLQ12-EZ, SW1DND-CWWLQ12-EVZ
Q series	Abbreviation for Mitsubishi Electric programmable controllers, MELSEC-Q series
L series	Abbreviation for Mitsubishi Electric programmable controllers, MELSEC-L series
AnS series	Abbreviation for Mitsubishi Electric programmable controllers, compact MELSEC-A series
Base unit	Generic term for the main base unit and extension base unit.
Extension cable	Generic term for QC05B, QC06B, QC12B, QC30B, QC50B, and QC100B extension cables
Power supply module	Generic term for Q series power supply module Q61P-A1, Q61P-A2, Q61P, Q61P-D, Q62P, Q63P, Q64P, Q64PN, Q63RP, Q64RP
CPU module	Generic term for C Controller module, QCPU, and Motion CPU
QCPU	Generic term for Basic model QCPU, High Performance model QCPU, Process CPU, and Universal model QCPU
Basic model QCPU	Generic term for Q00CPU and Q01CPU
High Performance model QCPU	Generic term for Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU
Process CPU	Generic term for Q02PHCPU, Q06PHCPU, Q12PHCPU, and Q25PHCPU

Universal model QCPU	Generic term for Q00UJCPU, Q00UCPU, Q01UCPU, Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU, Q10UDHCPU, Q13UDHCPU, Q20UDHCPU, Q26UDHCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, and Q26UDVCPU
Motion CPU	Generic term for Mitsubishi Motion Controller Q172DCPU, Q173DCPU, Q172DCPU-S1, Q173DCPU-S1, Q172DSCPU, and Q173DSCPU
I/O module	Generic term for MELSEC-Q series and AnS series I/O modules
Intelligent function module	Generic term for MELSEC-Q series and AnS series module which have functions other than input and output, such as an A/D or D/A converter module
Multiple CPU system	Control system where multiple CPU modules are mounted on the main base unit
Control CPU	CPU module that controls I/O modules and intelligent function modules mounted on the main base unit and extension base units
Controlled module	I/O module and intelligent function module controlled by a control CPU. For example, if a module that is mounted to slot No. 3 is controlled by programmable controller CPU No. 2, programmable controller CPU No. 2 is the control CPU of slot No. 3, and the module of slot No. 3 is the controlled module of programmable controller CPU No. 2.
Network module	Generic term for the CC-Link IE Controller Network module, MELSECNET/H module, CC-Link IE Field Network module and CC-Link module
CC-Link IE Controller Network module	Generic term for the CC-Link IE Controller Network module QJ71GP21-SX, QJ71GP21S-SX
MELSECNET/H module	Generic term for the MELSECNET/H network module QJ71LP21-25, QJ71LP21S-25, QJ71LP21G, QJ71LP21GE, QJ71BR11
CC-Link IE Field Network master/local module	Generic term for the CC-Link IE Field Network master/local module QJ71GF11-T2
CC-Link module	Generic term for the CC-Link system master/local module QJ61BT11N, QJ61BT11, and CC-Link/LT master module QJ61CL12
Ethernet board	Generic term for Ethernet cards for personal computer and Ethernet interface boards
GOT	Abbreviation for the Mitsubishi Electric Graphic Operation Terminal
GX Configurator-QP	The product name of the software package for MELSEC programmable controllers
Gateway function communication	Abbreviation for communication with programmable controller CPU and third-party programmable controllers using the gateway functions of GOT
Windows® 10 or later	Generic term for Windows® 10 and Windows® 11.

MEANINGS AND DEFINITIONS OF TERMS

The terms used in this manual have the following meanings and definitions.

Term	Description
Dedicated function library	Generic term for Bus interface function, MELSEC data link function, and C Controller module dedicated function
Bus interface function	Dedicated function library offered by C Controller module This function is used when executing the following: • Input from or output to I/O modules controlled by the C Controller module • Access to the buffer memory of an intelligent function module • The readout or control of the C Controller module status
MELSEC data link function	Dedicated function library offered by C Controller module This function is used when writing to/reading from a device of other programmable Controller CPUs connected via network or configured with multiple CPUs.
C Controller module dedicated function	Dedicated function library that controls C Controller module This function is used when reading the C Controller module status, controlling LED, and accessing to resources such as time and battery backup RAM.
SD memory card	The memory card that satisfies the SD Association standards
CompactFlash card (CF card)	A storage card regulated by the 'CF+ and CompactFlash Specification' issued by the CompactFlash Association.

PRODUCT ORGANIZATION

The following shows the C Controller-compatible software.

○: Applicable, ×: Not applicable

Supported software	C Controller			
	Q24DHCCPU-V Q24DHCCPU-VG Q24DHCCPU-LS Q26DHCCPU-LS	Q12DCCPU-V		
	-	"15102" or later*1		Earlier than "15102"*1
	-	Extended mode	Basic mode*2	
SW4PVC-CCPU	○	○	×	×
SW3PVC-CCPU	×	×	○	○

*1 : First five digits of serial number

*2 : For Q12DCCPU-V earlier than "15102", the mode cannot be changed. Q12DCCPU-V earlier than "15102" is regarded as the basic mode in this manual.

CHAPTER 1 OVERVIEW

Setting/monitoring tools for the C Controller module is the software package that is installed to a personal computer and connected to the C Controller module.
This chapter explains the overview of Setting/monitoring tools for the C Controller module.

1.1 Product Overview

Setting/monitoring tools for the C Controller module is the software package dedicated to parameter settings and monitoring of C Controller module.

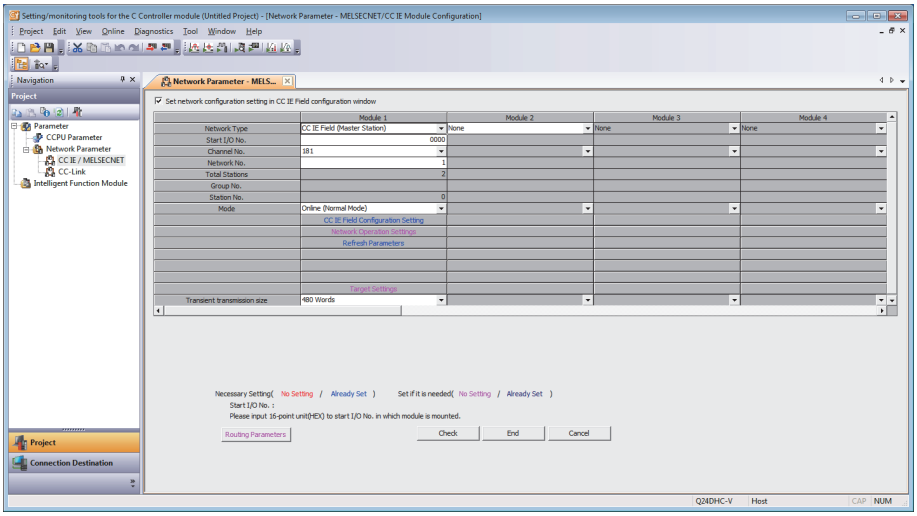
1.2 Features

This section explains the features of Setting/monitoring tools for the C Controller module.

(1) Simple setting of parameters

The parameters of C Controller module and following network modules controlled by C Controller module can simply be set on the GUI screen of Windows®.

- CC-Link module
- MELSECNET/H module
- CC-Link IE Controller Network module
- CC-Link IE Field Network master/local module



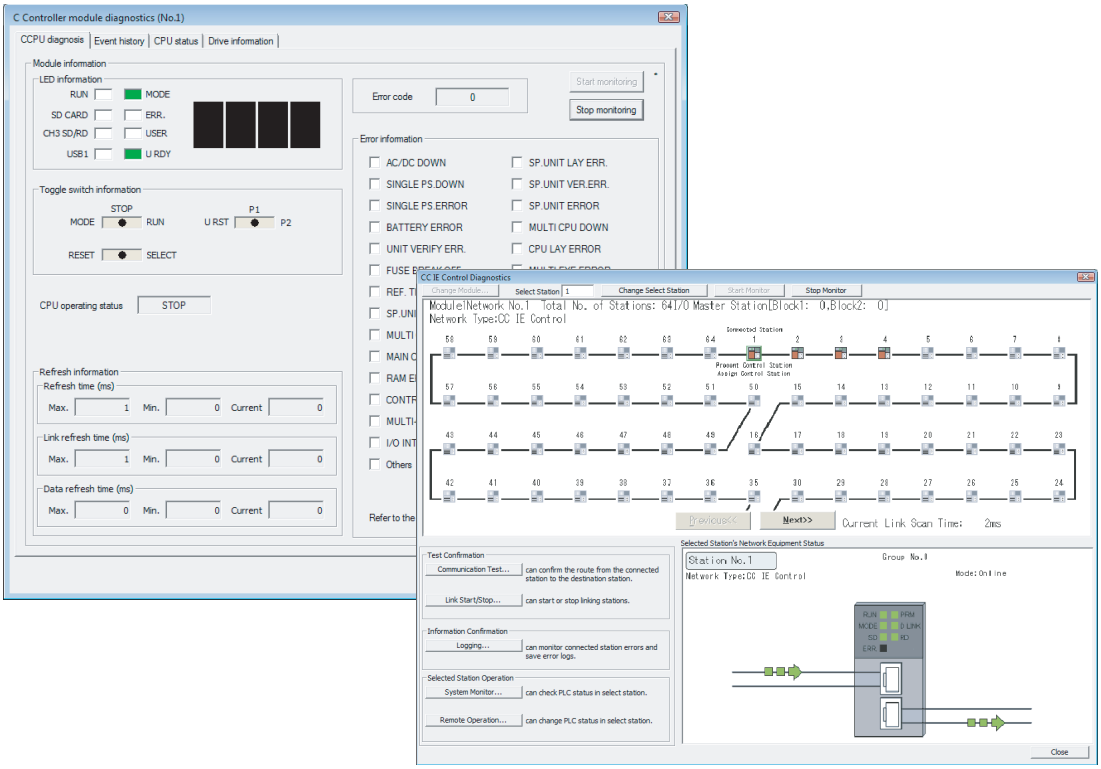
(2) Utilization of existing parameters

The parameter setting files saved in SW3PVC-CCPU can be read from SW4PVC-CCPU.
Utilizing existing parameters improves the development efficiency.

(3) Simple diagnose of C Controller system condition

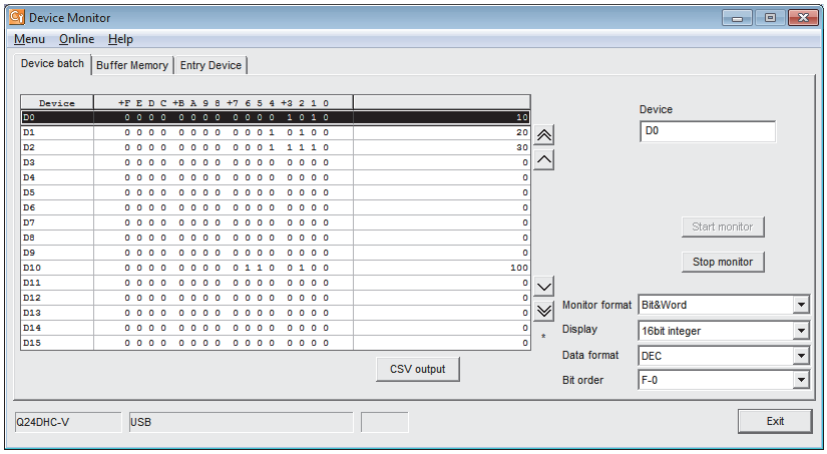
The condition of C Controller module and following network modules controlled by C Controller module can simply be diagnosed on the GUI screen of Windows®.

- CC-Link module
- MELSECNET/H module
- CC-Link IE Controller Network module
- CC-Link IE Field Network master/local module



(4) Simple monitoring of device/buffer memory

The device/buffer memory of access target (programmable controller CPU/C Controller module) can simply be monitored on the GUI screen of Windows®.



1.3 List of Functions

This section shows the list of functions of Setting/monitoring tools for the C Controller module.

○:Supported, ×:Not supported

Project		CPU module					Reference
		Q24DHC			Q26DHC -LS	Q12DC -V	
		-V	-VG	-LS			
New	Create a new project.	○	○	○	○	○	Page 40, Section 4.2.1
Open	Open an existing project.	○	○	○	○	○	Page 41, Section 4.2.2
Close	Close the open project.	○	○	○	○	○	Page 48, Section 4.2.6
Save	Save the project.	○	○	○	○	○	Page 43, Section 4.2.3
Save As	Name and save the project.	○	○	○	○	○	
Compress/Unpack(M)		○	○	○	○	○	–
Compress	Compress and save a project.	○	○	○	○	○	Page 45, Section 4.2.4
Unpack	Decompress a compressed project.	○	○	○	○	○	
Delete	Delete an existing project.	○	○	○	○	○	Page 48, Section 4.2.5
Verify	Verify between two project data.	○	○	○	○	○	Page 49, Section 4.2.7
Change CPU Type	Change the CPU type.	○	○	○	○	○	Page 51, Section 4.2.8
Object		○	○	○	○	○	–
New	Add data to the project.	○	○	○	○	○	Page 52, Section 4.3.1
Rename	Rename the selected data.	○	○	○	○	○	Page 54, Section 4.3.3
Delete	Delete the selected data.	○	○	○	○	○	Page 54, Section 4.3.4
Copy	Copy the selected data.	○	○	○	○	○	Page 53, Section 4.3.2
Paste	Paste the copied data.	○	○	○	○	○	
Set as Default Connection	Specify data in selected connection destination as a connection destination for regular use.	○	○	○	○	○	Page 113, Section 6.1.3
Property	Display the selected data properties.	○	○	○	○	○	Page 55, Section 4.3.5
Intelligent Function Module		○	○	○	○	○	Page 105, Section 5.3
New Module	Add new intelligent function module.	○	○	○	○	○	Page 105, Section 5.3 (1)
Delete Module	Delete intelligent function module.	○	○	○	○	○	
Property	Set the properties of the intelligent function module.	○	○	○	○	○	
Intelligent Function Module Parameter List	Display a list of set parameters of all the intelligent function modules.	○	○	○	○	○	
Open Another Format Data		○	○	○	○	○	–
Open Parameter Setting File	Open parameter setting file created with SW3PVC-CCPU.	○	○	○	○	○	Page 56, Section 4.4
(Recently used files 1 to 4)	Display the recently used project paths and open the selected project.	○	○	○	○	○	–
Exit	Exit Setting/monitoring tools for the C Controller module.	○	○	○	○	○	Page 25, Section 3.1

○:Supported, ×:Not supported

Edit		CPU module					Reference
		Q24DHC			Q26DHC -LS	Q12DC -V	
		-V	-VG	-LS			
Undo	Restore the previous processing status.	○					–
Redo	Restore the processing deleted with [Undo].						
Cut	Cut the selected data.						
Copy	Copy the selected data.						
Paste	Paste the cut or copied data at the cursor position.						

○:Supported, ×:Not supported

View			CPU module					Reference
			Q24DHC			Q26DHC -LS	Q12DC -V	
			-V	-VG	-LS			
Toolbar			○					–
	Toolbar name	Display/hide each toolbar.						Page 27, Section 3.2.2
Statusbar		Display/hide the status bar.						Page 37, Section 3.2.6
Docking Window								–
	Navigation Window	Display/hide the Navigation window.						Page 36, Section 3.2.5
	Intelligent Function Module Monitor							–
		Intelligent Function Module Monitor 1 to 10	Display/hide the Intelligent Function Module Monitor window.					Page 105, Section 5.3

○:Supported, ×:Not supported

Online		CPU module					Reference
		Q24DHC			Q26DHC -LS	Q12DC -V	
		-V	-VG	-LS			
Read from CCPU	Read data from the C Controller module/intelligent function module.	○	○	○	○	○	Page 121, Section 7.1 Page 123, Section 7.2
Write to CCPU	Write data to the C Controller module/intelligent function module.						
Verify with CCPU	Verify a project being edited against the data on the C Controller module/ intelligent function module.						Page 126, Section 7.3 Page 127, Section 7.4
Delete CCPU Data	Delete data on the C Controller module.						Page 128, Section 7.5
Remote Operation	Remotely control RUN/PAUSE/STOP/ RESET of the C Controller module from Setting/monitoring tools for the C Controller module.						Page 152, Section 9.1
Set Clock	Set the clock on the C Controller module.						Page 154, Section 9.2
Device Monitor	Start monitoring the device. (Monitoring for multiple devices can be started.)						Page 129, Section 8.1
Battery Backup RAM Monitor	Monitor the battery backup RAM.						Page 140, Section 8.3
Data Refresh Memory Monitor	Monitor the data refresh memory.					×	Page 143, Section 8.4
Watch						○	Page 145, Section 8.5
Start Watching	Start monitoring the intelligent function module.						
Stop Watching	Stop monitoring the intelligent function module.						
Login	Enter the user name and the password of account, and log in to the C Controller module.						Page 78, Section 5.1 (10)
Logout	Log out from the C Controller module.						–

○:Supported, ×:Not supported

Diagnostics		CPU module					Reference
		Q24DHC			Q26DHC -LS	Q12DC -V	
		-V	-VG	-LS			
CCPU Diagnostics	Diagnose the operating status of the C Controller module.	○					Page 155, Section 10.1
Event History	Display/save the event history occurred on the C Controller module.						Page 157, Section 10.2
CPU Status	Check the operating status, switch status, and the error that is currently occurring of the C Controller module and CPU module.						Page 159, Section 10.3
Drive Information	Display the drive information of the C Controller module.	○		×	×	○	Page 160, Section 10.4
CC IE Control Diagnostics	Diagnose CC-Link IE Controller Network.	○					Page 162, Section 10.5
CC IE Field Diagnostics	Diagnose CC-Link IE Field Network.						Page 171, Section 10.6
MELSECNET Diagnostics	Diagnose MELSECNET/10(H).						Page 184, Section 10.7
CC-Link Diagnostics	Diagnose CC-Link and CC-Link/LT.						Page 199, Section 10.8
System Monitor	Monitor the system status of the C Controller module.						Page 210, Section 10.9

○:Supported, ×:Not supported

Tool			CPU module					Reference
			Q24DHC			Q26DHC	Q12DC	
			-V	-VG	-LS	-LS	-V	
Options		Specify the display range of QD75 positioning data and set the operation settings of QD75 positioning module.	○	○	○	○	○	Page 105, Section 5.3
Intelligent Function Module Tool			○	○	○	○	○	–
	Analog Module	–	○	○	○	○	○	GX Works2 Operating Manual (Intelligent Function Module)*1
		Offset/Gain Setting	Configure the offset/gain setting of the analog module.	○	○	○	○	○
		Q61LD Two-Point Calibration Setting	Perform the two-point calibration to use Q61LD as a measuring device.	○	○	○	○	○
		Q61LD Default Setting	Batch-restore the Q61LD parameters to the factory default settings.	○	○	○	○	○
	Temperature Input Module	–	○	○	○	○	○	○
		Offset/Gain Setting	Configure the offset/gain setting of the temperature input module.	○	○	○	○	○
	Temperature Control Module	–	○	○	○	○	○	○
		Auto Tuning	Perform the automatic tuning of the temperature control module.	○	○	○	○	○
	Counter Module	–	○	○	○	○	○	○
		Preset	Perform the preset function of counter module.	○	○	○	○	○
	QD75 Positioning Module	–	○	○	○	○	○	○
		Positioning Monitor	Execute the positioning monitoring of QD75 positioning module.	○	○	○	○	○
		Positioning Test	Perform the positioning test of QD75 positioning module.	○	○	○	○	○
		Wave Trace	Perform the wave trace of QD75 positioning module.	○	○	○	○	○
		Location Trace	Perform the location trace of QD75 positioning module.	○	○	○	○	○
	Serial Communication Module	–	○	○	○	○	○	–
		Circuit Trace	Trace the communication data and communication control signals of the communication with the device controller.	○	○	○	○	–
Request of Parameter Initialization/Flush ROM Write Request		Initialize the buffer memory data and apply it to the flash ROM. Write the buffer memory data to the flash ROM.	○	○	○	○	○	Page 125, Section 7.2 (3)

*1 : The following functions are not supported by Setting/monitoring tools for the C Controller module.
- Wave output data creation of analog module
- Sensor correction function of temperature control module
- Predefined protocol support function of serial communication module

○:Supported, ×:Not supported

Window		CPU module					Reference
		Q24DHC			Q26DHC -LS	Q12DC -V	
		-V	-VG	-LS			
Cascade	Cascade windows.	○					Page 29, Section 3.2.3
Tile Vertically	Tile windows vertically.						
Tile Horizontally	Tile windows horizontally.						
Arrange Icons	Arrange the icons at the bottom of the window.						
Close All	Close all open windows.						
(Switch to other window)	Display the open window.						
Window	Display the list of open windows. Also open or arrange specified windows.						

○:Supported, ×:Not supported

Help		CPU module					Reference
		Q24DHC			Q26DHC -LS	Q12DC -V	
		-V	-VG	-LS			
Manual		○					–
(manual name)	Indicate Setting/Monitoring Tools for the C Controller Module Operating Manual and MELSEC-Q C Controller Module User's Manual.						Page 38, Section 3.3.1
Function Help		○		×		○	–
C Controller Module Function Help	Display the function help of Bus interface function, MELSEC data link function, and C Controller module dedicated function.						Page 38, Section 3.3.2
Version Information	Check the version of Setting/ monitoring tools for the C Controller module.	○					Page 38, Section 3.3.3

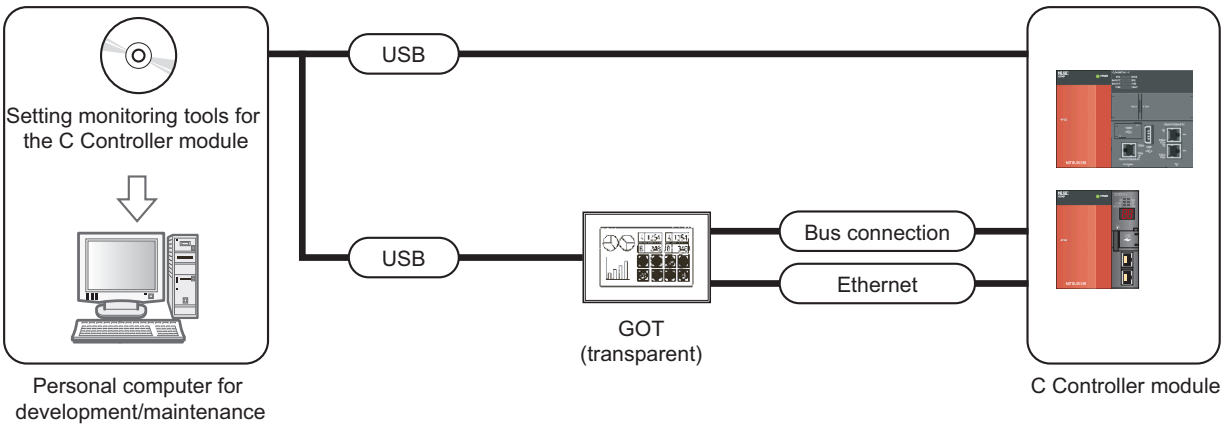
CHAPTER 2 SYSTEM CONFIGURATION

This chapter explains the system configurations using C Controller module.

2.1 Connection from USB Port

The following shows the possible system configuration for connecting to the C Controller module using the USB port of a personal computer.

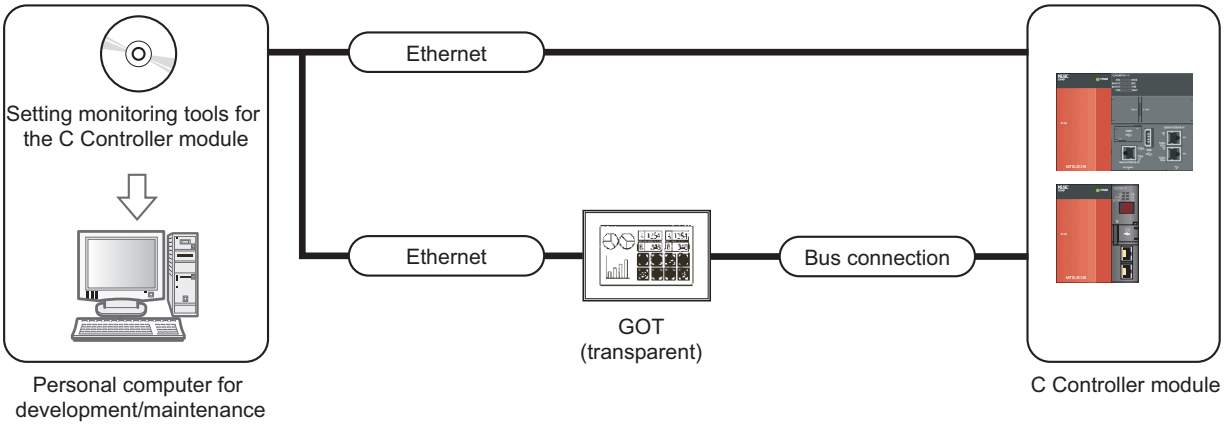
- USB direct connection
- GOT (bus connection) via transparent
- GOT (Ethernet) via transparent



2.2 Connection from Ethernet Port

The following shows the system configuration for connecting to the C Controller module using the Ethernet board that is built-in or installed on the personal computer.

- Ethernet direct connection
- GOT (bus connection) via transparent



2.3 Modules connectable from USB port, Ethernet board

(1) Modules connectable from USB port

The following table shows the modules that can be connected from the USB port.

Series	Module name	Module model
Q series	C Controller module	Q24DHCCPU-V, Q24DHCCPU-VG, Q24DHCCPU-LS, Q26DHCCPU-LS, Q12DCCPU-V

(2) Modules connectable from Ethernet board

The following table shows the modules that can be connected from the Ethernet board.

I/F board model	Series	Module name	Module model
Ethernet board built-in a personal computer or commercially available	Q series	C Controller module	Q24DHCCPU-V*1, Q24DHCCPU-VG*1, Q24DHCCPU-LS*1, Q26DHCCPU-LS*1, Q12DCCPU-V

*1 : Connectable from S CH1 only (cannot be connected from CH1, CH2)

Remark

For details of the connection with a personal computer, refer to the following manual.
MELSEC-Q C Controller Module User's Manual

CHAPTER 3 SCREEN CONFIGURATION AND BASIC OPERATIONS

This chapter explains the screen configuration and basic operations of Setting/monitoring tools for the C Controller module.

3.1 Starting and Exiting

This section explains how to start/exit Setting/monitoring tools for the C Controller module.

(1) Starting Setting/monitoring tools for the C Controller module

Start Setting/monitoring tools for the C Controller module.

Operating procedure

- **Select Setting/monitoring tools for the C Controller module from "MELSEC" in Windows Start.**

Point

- When Setting/monitoring tools for the C Controller module cannot be executed, check the 'mode' of Windows® Data Execution Prevention function (DEP) (Windows® security function).
  When the 'mode' is "AlwaysOn", set another mode and restart the operating system.
  For details of Data Execution Prevention function (DEP) and mode check/change, refer to Microsoft® support page.
- Setting/monitoring tools for the C Controller module can be executed by double-clicking a file (extension ".CP4" and ".CSC") created in Setting/monitoring tools for the C Controller module.
- Exiting Windows®
  Windows® cannot be exited when Setting/monitoring tools for the C Controller module is running.
  Exit Windows® after exiting Setting/monitoring tools for the C Controller module.

(2) Exiting Setting/monitoring tools for the C Controller module

Exit Setting/monitoring tools for the C Controller module.

Operating procedure

- **Select [Project] ⇒ [Exit].**

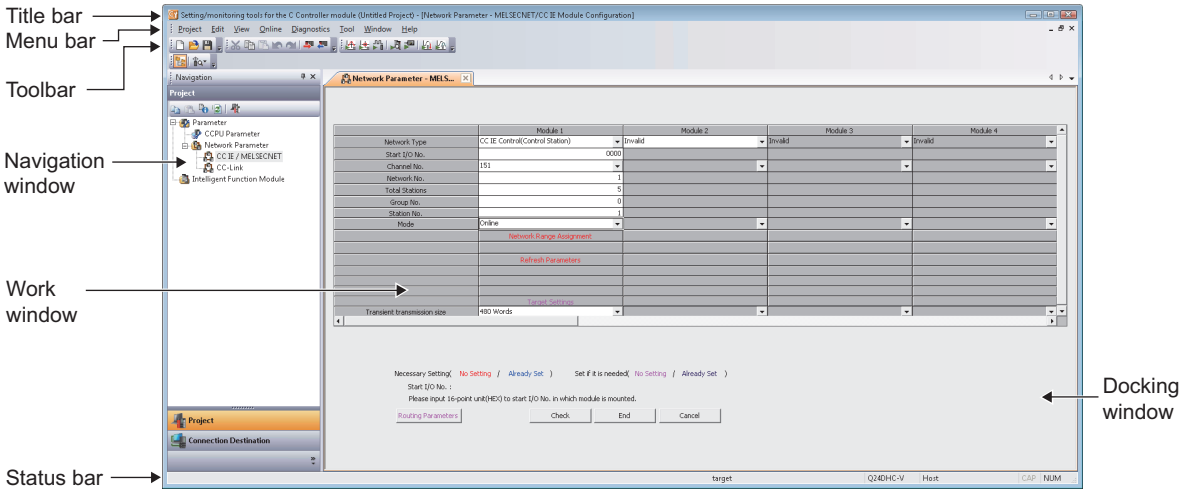
3.2 Screen Configuration and Basic Operations

This section explains the main frame (basic screen) of Setting/monitoring tools for the C Controller module that is displayed when it is started.

3.2.1 Main frame configuration

The following screen shows a main frame configuration on which a work window and docked windows are displayed.

Screen display



Display contents

Name	Description	Reference
Title bar	Display a project name.	–
Menu bar	Display menu options for executing each function.	–
Toolbar	Display tool buttons for executing each function.	Page 27, Section 3.2.2
Work window	A main screen used for operations such as parameter setting, and monitoring.	Page 29, Section 3.2.3
Docking window	A sub screen to support operations performed on a work window.	Page 34, Section 3.2.4
Navigation window	Display contents of a project in tree format.	Page 36, Section 3.2.5
Status bar	Display information about a project being edited.	Page 37, Section 3.2.6

Point

- When the focus point is not indicated on the screen
  To display the focus point, set the Windows Control Panel settings.
  ① Open "Ease of Access Center" from Windows Control Panel.
  ② Select "Make the keyboard easier to use".
  ③ Select "Underline keyboard shortcuts and access keys".

3.2.2 Toolbars

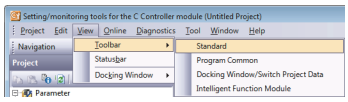
A toolbar is a block of on-screen buttons for executing frequently-used functions included in a menu.
(☞ Page 225, Appendix 1)
The toolbars to be displayed and their display positions on the screen can be set by the user.

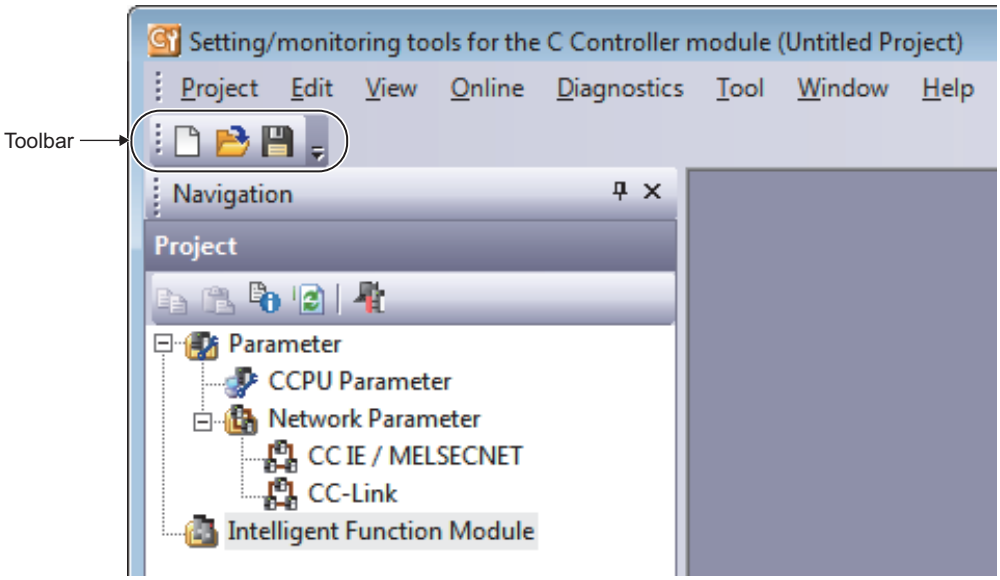
(1) Displaying/hiding toolbars

Select a toolbar to be displayed.

Operating procedure

- **Select [View] ⇒ [Toolbar] ⇒ [(toolbar name)].**
  The selected toolbar is displayed on the screen.



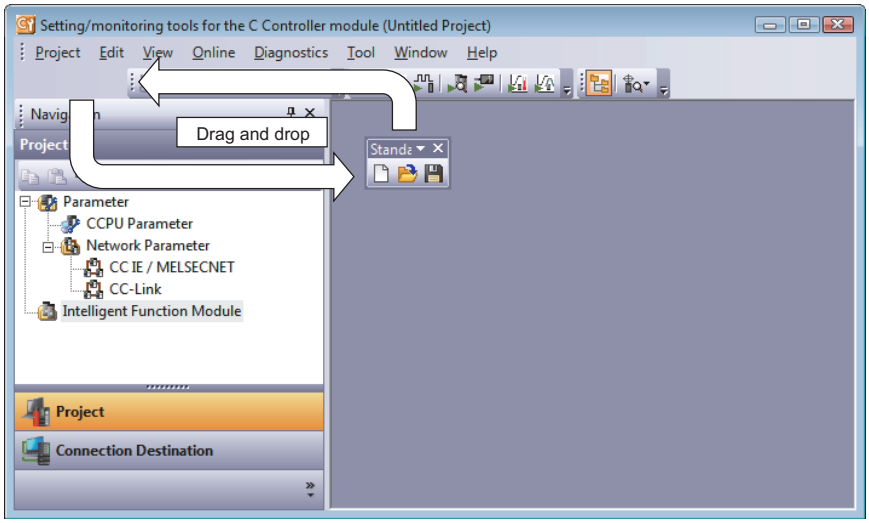


(2) Docking/floating toolbars

Switch the display format (docked/floating) of a toolbar.

Operation

- **Drag a docked toolbar to the desired position for floating display.**
- **Drag the title bar of a floating toolbar and drop it in the main frame.**



Point

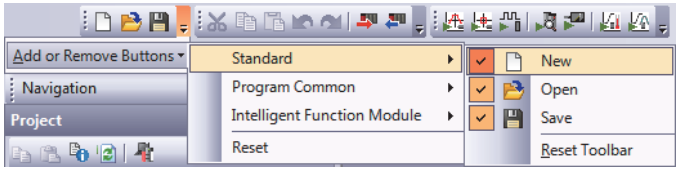
- Method for docking a toolbar at the original position
  To dock a floating toolbar back at the original position, double-click on the title bar of the toolbar.

(3) Customizing toolbars

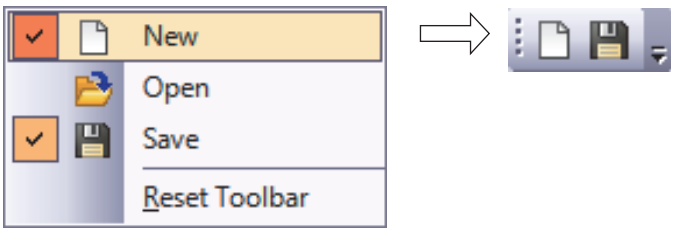
Set the types of tool buttons to be displayed on each toolbar.

Operating procedure

1. **Select the Toolbar options button ( ) ⇒ [Add or Remove Buttons].**
   A list of tool buttons is displayed.



2. **Select the checkbox in front of the tool button to be displayed on the screen.**
   The selected tool buttons are displayed on the screen.

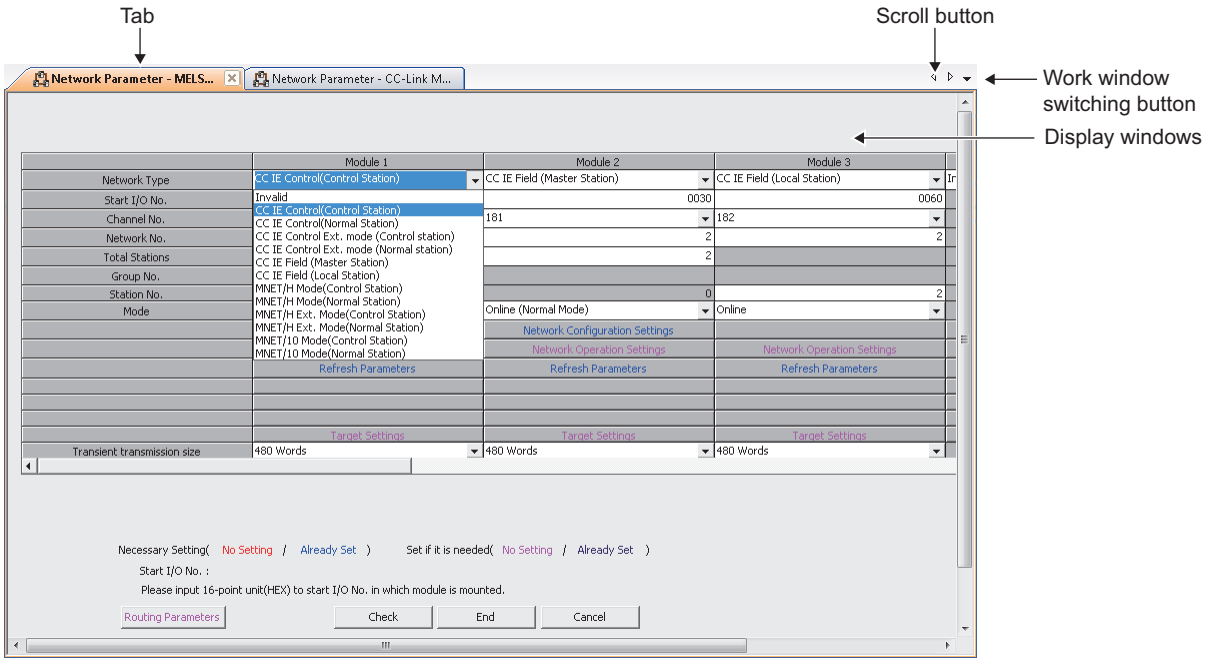


The toolbar configuration returns to the default when [Reset Toolbar] is selected.

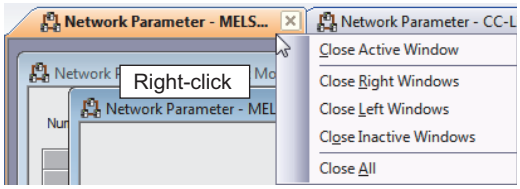
3.2.3 Work windows

A work window is a main screen used for operations such as programming, parameter setting, and monitoring in Setting/monitoring tools for the C Controller module.

Screen display



Display contents

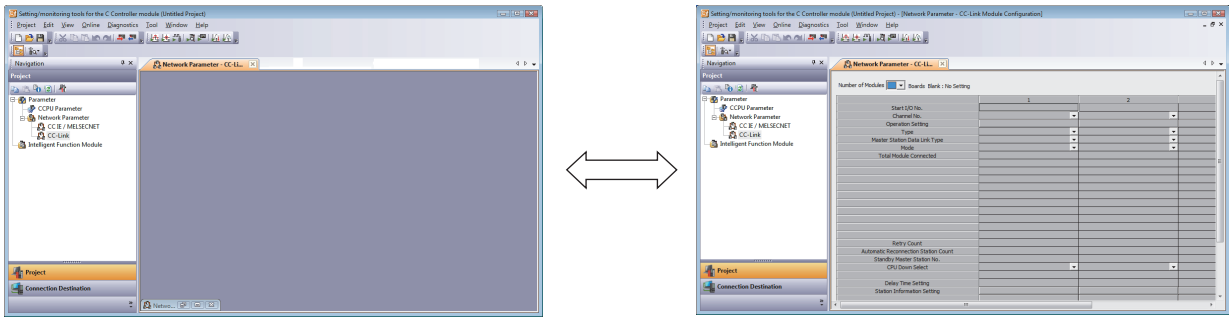
Item	Description
Tab	Become active when selected. The tab order can be changed by dragging and dropping tabs. The window(s) can be closed from the menu displayed by right-clicking the tab. In the other way, the active window can be closed by clicking ✕ on the tab. 
Tool hint	Display a brief explanation when the cursor is placed on the selected tab.
Scroll button	Scroll the tab display to the left and right. Display hidden tabs.
Work window switching button	Display the list of windows being displayed. Select a data name displayed on the list to display its corresponding window on the top.
Display windows	Display screens such as parameter setting screen and monitoring screen.

(1) Maximizing/minimizing screens

Maximize/minimize the screen size on the work window.

Operation

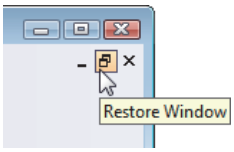
- **Click the Maximize button ( ).**
- **Click the Minimize button ( ).**



Point

- Restoring the screen size

  Click to return the maximized/minimized screen to its previous size.



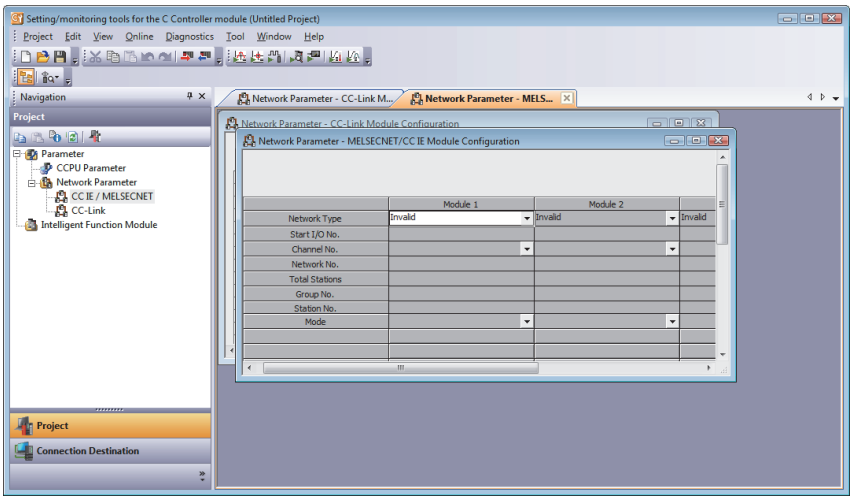
(2) Arranging screens

Arrange screens to display on the work window.

(a) Cascading screens

Operation

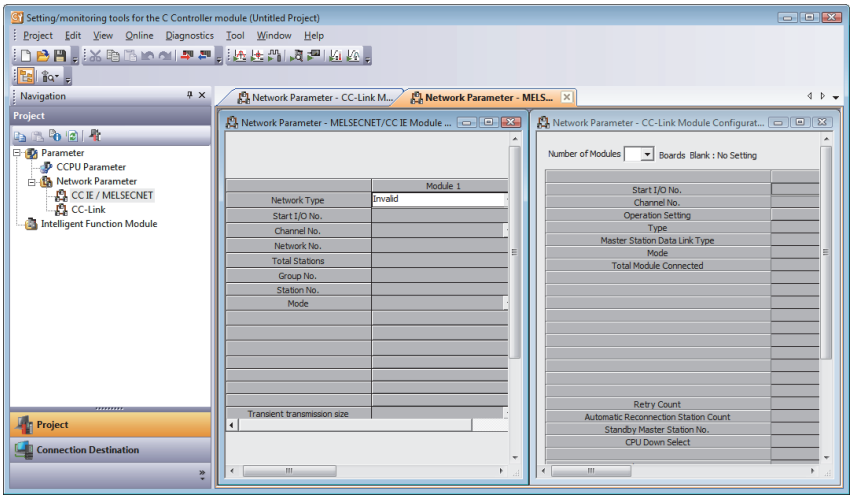
- **Select [Window] ⇒ [Cascade].**



(b) Tiling screens vertically

Operation

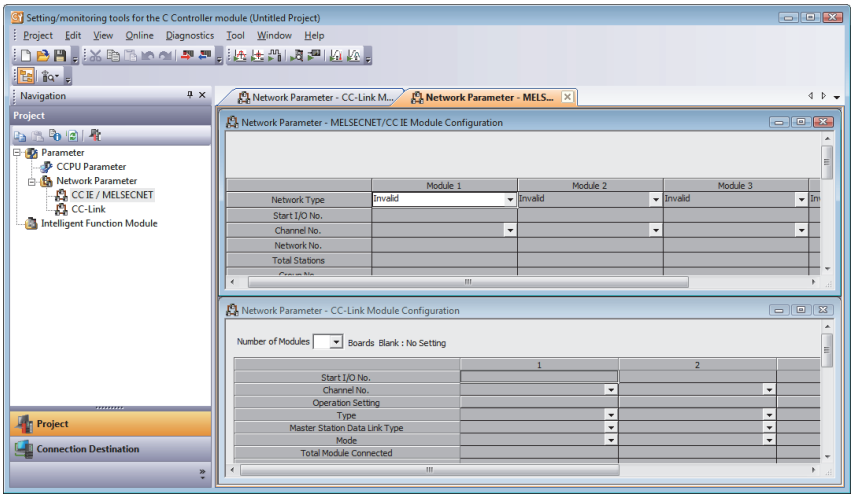
- **Select [Window] ⇒ [Tile Vertically].**



(c) Tiling screens horizontally

Operation

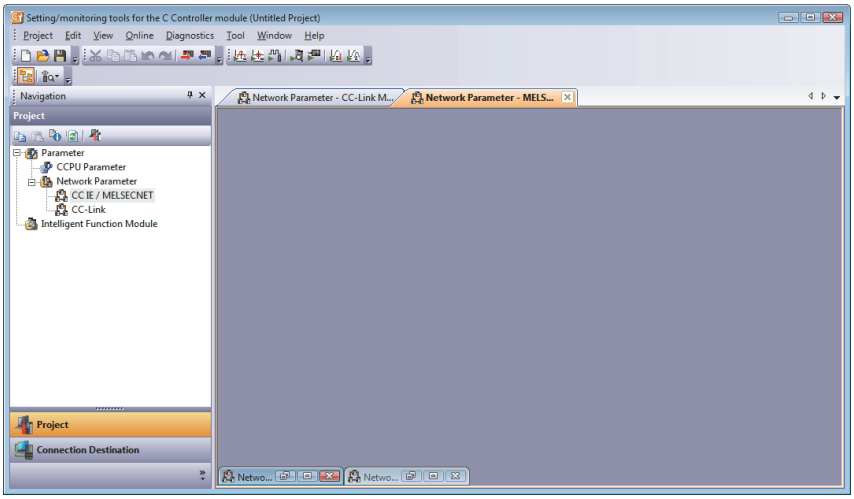
- **Select [Window] ⇒ [Tile Horizontally].**



(d) Arranging icons (minimized windows) at the bottom of the work window

Operation

- **Select [Window] ⇒ [Arrange Icons].**

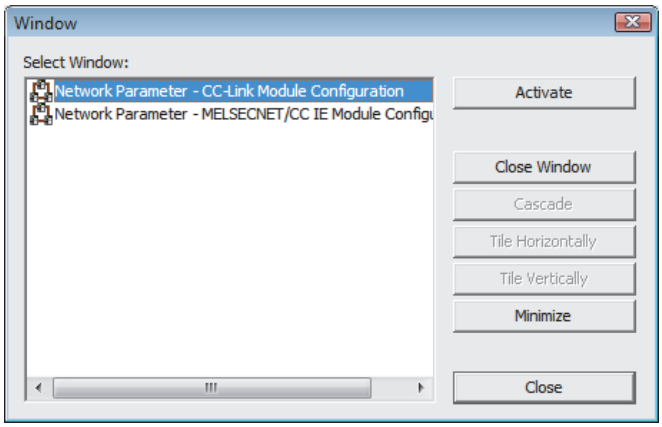


(3) Arranging/displaying windows

Display a list of open windows, and also open and arrange specified windows.
This function is useful to display the desired window efficiently when multiple windows are open.

Screen display

- **Select [Window] ⇒ [Window].**



3.2.4 Docking windows

This section explains the operations common to docking windows.

(1) Displaying/Hiding dockable windows

Display/hide a dockable window.

Operating procedure

- **Select [View] ⇒ [Docking Window] ⇒ [(target item)].**

(2) Docking/floating dockable windows

Switch the display format of a dockable window.

(a) Docked display

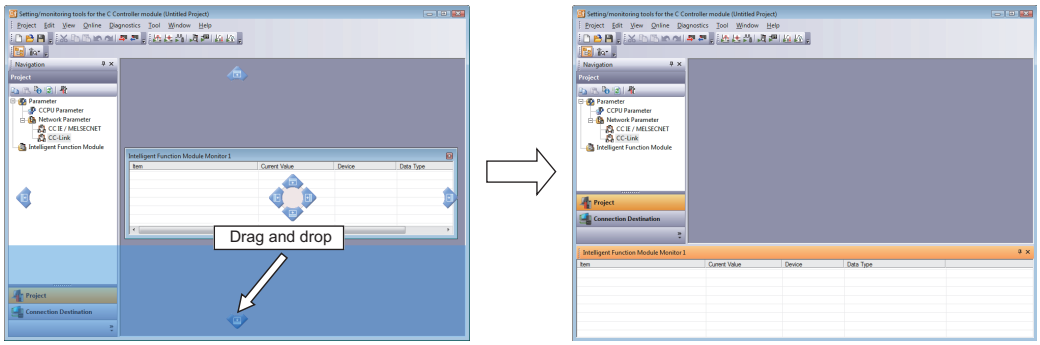
Display a dockable window docked to the main frame.

(b) Floating display

Display a dockable window floating from the main frame.

Operation

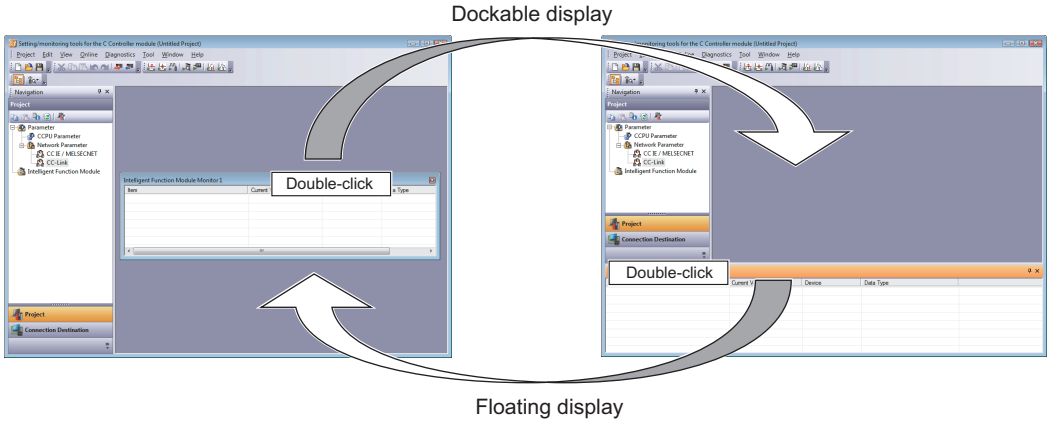
- **Drag the title bar of a floating dockable window and drop it to the guidance in the main frame.**



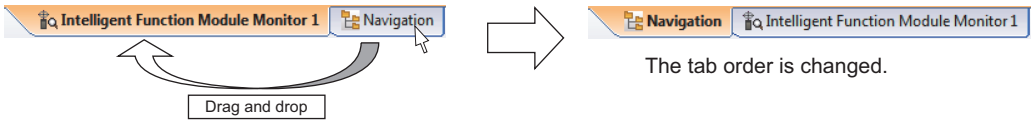
The docked window is floated by dragging the title bar to the desired position.

Point

- Operation of dockable windows
  Docked windows can be switched from docked to floating or vice versa by double-clicking the title bar.



- Changing the tab order
  The tab order can be changed by dragging and dropping the desired tab to the left or right when multiple dockable windows are docked.



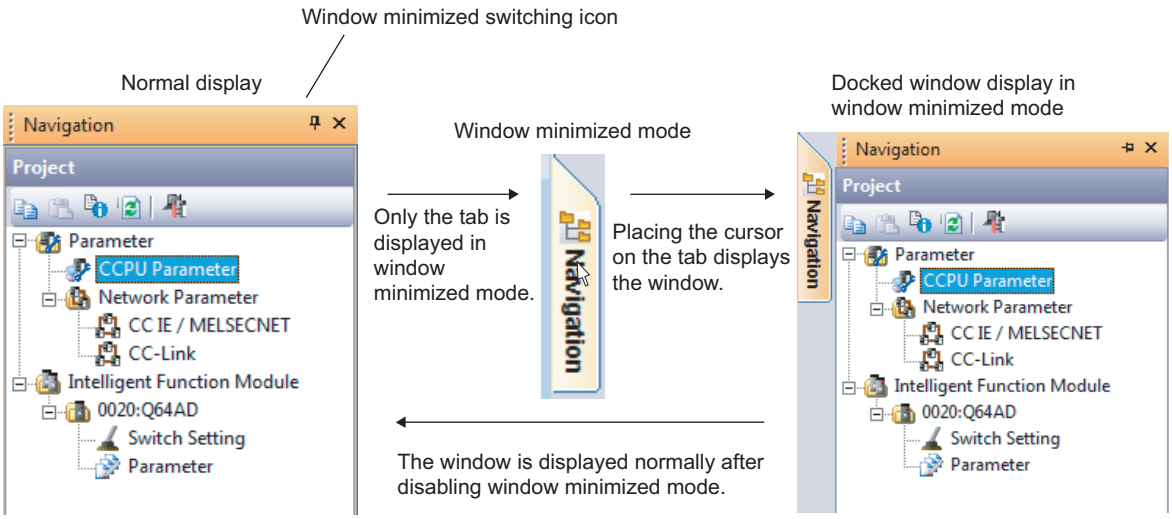
(3) Window minimized mode

Minimize a docked window as a tab.

The window minimized mode can be set and disabled by the following procedure.

Operating procedure

- **Click the window minimized mode switching icon (/).**

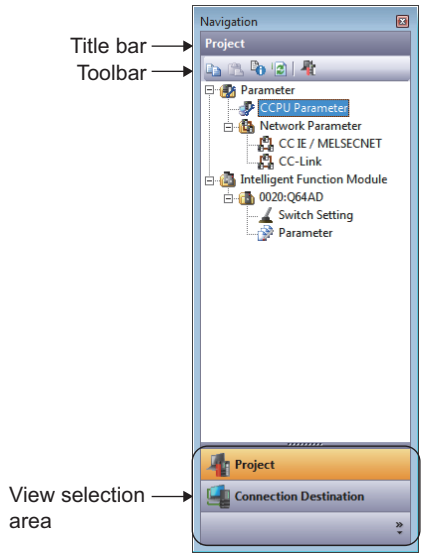


3.2.5 Navigation window

This section explains the Navigation window that displays the contents of a project in tree format.
Operations such as displaying the parameter setting screen can be performed on the Navigation window.
(☞ Page 39, CHAPTER 4)

Screen display

- **Select [View] ⇒ [Docking Window] ⇒ [Navigation Window].**

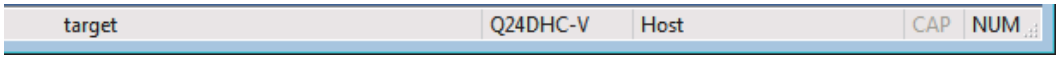


Display contents

Name		Description	Reference
Title bar		Display a title of a view being displayed.	–
Toolbar		Display tool buttons of functions to be executed on each view.	Page 225, Appendix 1
View selection area		Area for selecting a view to display.	–
	Project	Display the Project view.	Page 40, Section 4.2.1 (1)
	Connection Destination	Display the Connection Destination view.	Page 110, Section 6.1.1

3.2.6 Status bar

The status bar displays information about the current project at the bottom of the screen.



Security information	CPU type	Connection destination	Caps Lock	Num Lock

The following shows the information to be displayed.

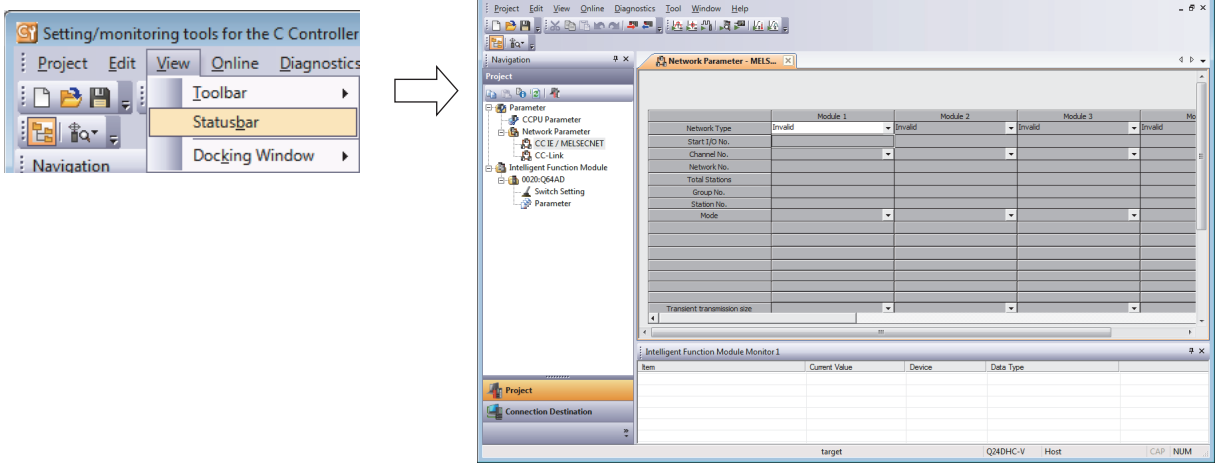
Item	Description
Security information	Display the current login user name of C Controller module.
CPU type	Display the CPU type of the project.
Connection destination	Display the set content of the "Transfer Setup" screen.
Caps Lock	Display the effective status of the Caps Lock.
Num Lock	Display the effective status of the Num Lock.

(1) Displaying/hiding status bar

Display/hide the status bar.

Operating procedure

- **Select [View] ⇒ [Statusbar].**
  A check mark is appended in front of the menu option and the status bar is displayed on the screen.



3.3 Help Function

This function displays such as method for using Bus interface function, MELSEC data link function, and C Controller module dedicated function.

3.3.1 Displaying manuals

Display Setting/Monitoring Tools for the C Controller Module Operating Manual, MELSEC-Q C Controller Module User's Manual.

Screen display

- **Select [Help] ⇒ [Manual] ⇒ [(manual name)].**

3.3.2 Displaying function help

Display the detailed description of Bus interface function, MELSEC data link function, and C Controller module dedicated function.

Screen display

- **Select [Help] ⇒ [Function help] ⇒ [C Controller module function help].**

3.3.3 Checking version of Setting/monitoring tools for the C Controller module

Display information such as the software version of Setting/monitoring tools for the C Controller module.

Screen display

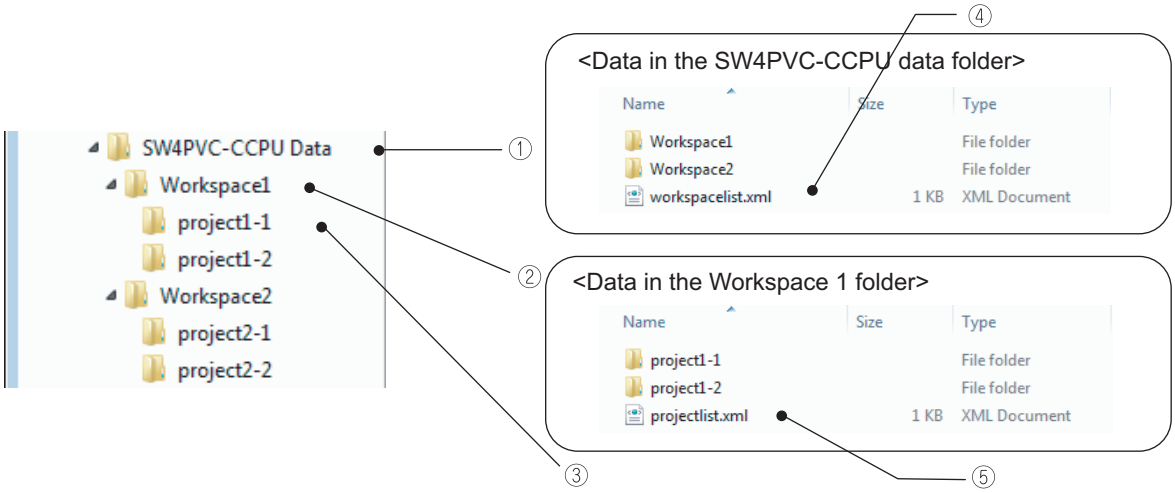
- **Select [Help] ⇒ [Version information].**

CHAPTER 4 PROJECT MANAGEMENT

This chapter explains basic operations and management of projects.

4.1 Configuration of Workspace/Project of Setting/ Monitoring Tools for the C Controller Module

The following explains the configuration of workspace/project of Setting/monitoring tools for the C Controller module.



① Save destination folder · · · A folder specified for the save folder path when the project is saved.
② Workspace name folder · · · A folder corresponds to the workspace name specified when the project is saved.
③ Project name folder · · · A folder corresponds to the project name specified when the project is saved.
④ workspacelist.xml · · · A file created automatically when the project is saved.
⑤ projectlist.xml · · · A file created automatically when the project is saved.

4.2 Basic Operations of Project

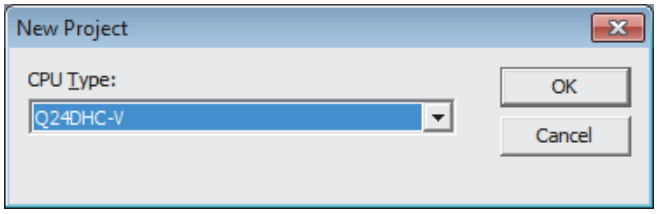
This section explains basic operations of Setting/monitoring tools for the C Controller module such as creating, opening, and saving projects.

4.2.1 Creating projects

Create a new project.

Screen display

- **Select [Project] ⇒ [New].**



Operating procedure

- **Set the items on the screen.**

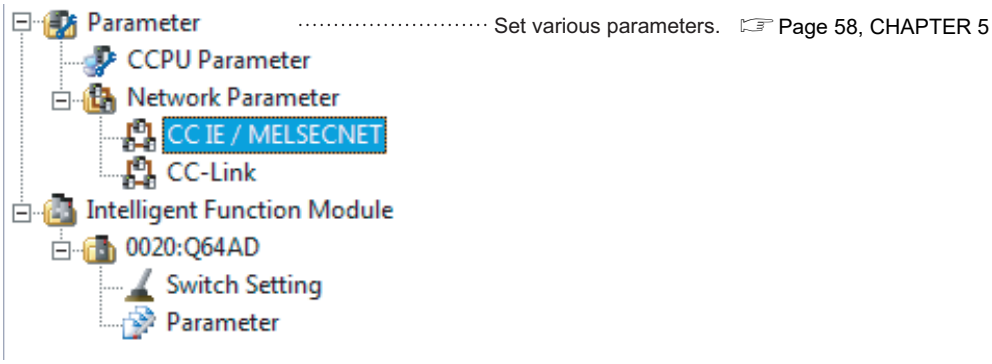
Item	Description
CPU Type	Select the CPU type used for the project.

Point

- Creating new projects with parameters read from CCPU
  A new project can be created with parameters read from a C Controller module when the Read from CCPU function is executed without creating a new project. (☞ Page 121, Section 7.1)
- Creating new projects
  Do not change the storage location and names of folders/files of a created workspace/project using the application such as Windows® Explorer.

(1) Project view

Project contents displayed on the Project view in tree format are as shown below.

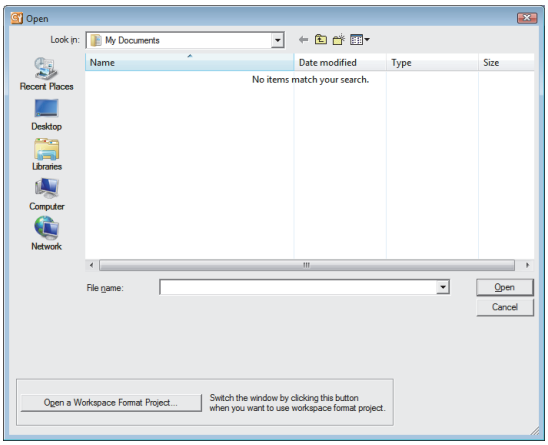


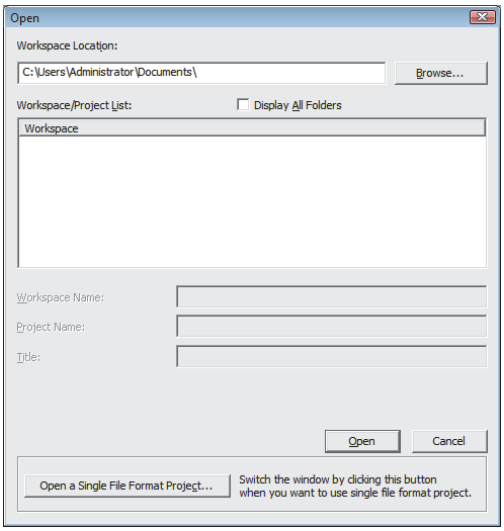
4.2.2 Opening existing projects

Read a project saved on a personal computer or another data storage device.

Screen display

- **Select [Project] ⇒ [Open].**





Operating procedure

1. **Set the items on the screen.**

Item	Description
Save Folder Path	Enter the folder (drive/path) where the workspace is saved. The folder can be selected in the "Browse For Folder" screen by clicking the Browse... button.
Workspace/Project List	Select the workspace or project. The display is switched to the project list by double-clicking "Workspace".
Display all folders	Select this to display workspace folders and project folders copied/moved by the application such as Windows® Explorer.
Workspace Name	Display the selected workspace name.
Project Name	Display the selected project name.
Title	Display the title of the selected project.

2. **Click the Open button.**
The specified project is displayed.

Screen button

- Browse...
  Displays the "Browse For Folder" screen
- Open a Single File Format Project...
  Switches to the Open screen in the single file format.
- Open a Workspace Format Project...
  Switches to the Open screen in the workspace format.

Point

- Open screen
  The Open screen with the initial setting opens a project in the single file format.
  - If the file save destination path is long, the "Look in" field may be left blank when opening a project in the single file format. Even with the blank field, the selected folder/file can be opened normally.

  Switch the screen by clicking the Open a Workspace Format Project... button to open the existing project in the workspace format.
- Single file format
  Single file format is a format to handle project files as a single file. By saving projects in the single file format, projects are managed without being aware of the folder configuration and the file configuration, and operations such as: changing project names, copying and pasting projects, and sending and receiving data, can easily be performed.
- Workspace
  A workspace is a special folder of Setting/monitoring tools for the C Controller module dedicated to managing multiple projects under the same name.
  Do not change the workspace configuration using the application such as Windows® Explorer.
- Opening projects being edited by other users
  The project being edited can be opened by other users as a read-only project. Note that the following function cannot be used.
  - Saving projects

4.2.3 Saving projects

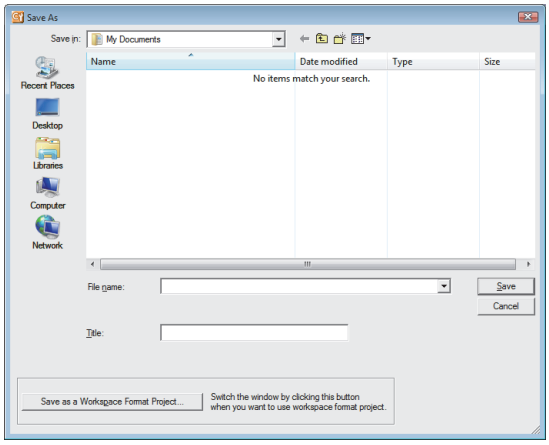
Save a project on a personal computer or another data storage device.

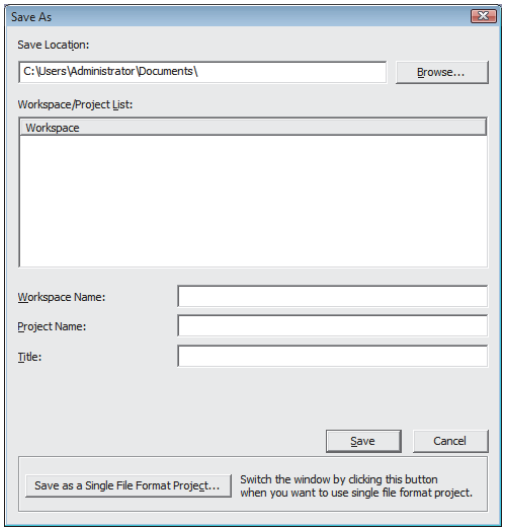
(1) Saving projects under the specified name

Save the open project under the specified name.

Screen display

- **Select [Project] ⇒ [Save As].**





Operating procedure

1. **Set the items on the screen.**

Item	Description
Save Folder Path	Enter the folder (drive/path) where the workspace is saved. The folder can be selected in the "Browse For Folder" screen by clicking the Browse... button.
Workspace/Project List	Select the workspace or project. The display is switched to the project list by double-clicking "Workspace".
Workspace Name	Enter the workspace name.
Project Name	Enter the project name.
Title	Enter the title of the project.

2. **Click the Save button.**

The project is saved in the specified folder under the specified workspace name, project name, and title.

Screen button

- Browse...
  Displays the "Browse For Folder" screen
- Save as a Single File Format Project...
  Switches to the Save as screen in the single file format.
- Save as a Workspace Format Project...
  Switches to the Save as screen in the workspace format.

Point

- Save As screen
  The Save As screen with the initial setting saves a project in the single file format.
  - If the file save destination path is long, the "Save in" field may be left blank when saving a project in the single file format. Even with the blank field, the selected folder/file can be saved normally.

  Switch the screen by clicking the Save as a Workspace Format Project... button to save the project in the workspace format.
- Single file format
  Single file format is a format to handle project files as a single file. By saving projects in the single file format, projects are managed without being aware of the folder configuration and the file configuration, and operations such as: changing project names, copying and pasting projects, and sending and receiving data, can easily be performed.
- Workspace
  A workspace is a special folder of Setting/monitoring tools for the C Controller module dedicated to managing multiple projects under the same name.
  Do not change the workspace configuration using the application such as Windows® Explorer.
- Saving projects in an existing destination
  When saving the project in an existing destination (workspace or project), the destination folder can be selected from the "Workspace/Project List".
- Number of characters used for workspace name, project name, and title
  The total number of characters used for the workspace folder path, workspace name, and project name should not exceed 200 characters.
  A title can be entered within 128 characters.
- The project files created in SW4PVC-CCPU cannot be used in SW3PVC-CCPU.

(2) Saving projects

Overwrite and save the project being edited.

Operating procedure

- **Select [Project] ⇒ [Save].**

  The data to be saved is overwritten on the existing project data.

4.2.4 Saving projects with compression/decompressing projects

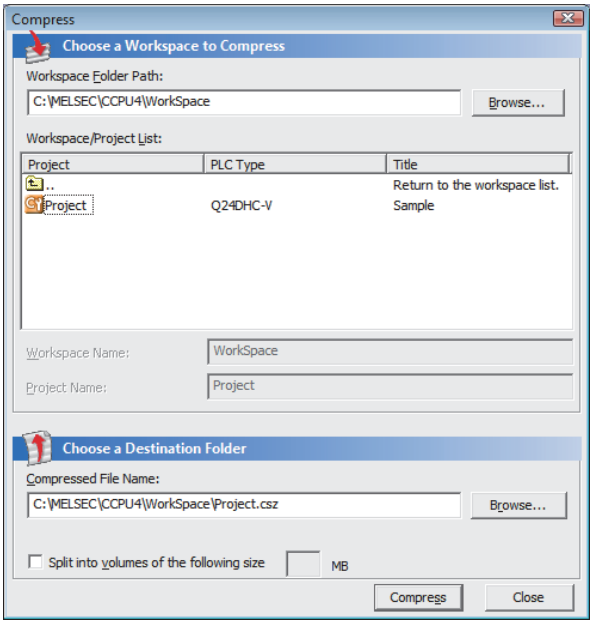
Save projects with compression, and decompress projects saved with compression.
These functions produce easier project data passing.
These functions are not compatible with commercially available file compression and decompression tools.

(1) Saving projects with compression

Save a desired project with compression.

Screen display

- **Select [Project] ⇒ [Compress/Unpack] ⇒ [Compress].**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Project to be Compressed		
	Workspace Folder Path	Enter the folder (drive/path) where the workspace is saved. The folder can be selected in the "Browse For Folder" screen by clicking the Browse... button.
	Workspace/Project List	Select the workspace and project.
	Workspace Name	Display the selected workspace name.
	Project Name	Display the selected project name.
Compress Destination Setting		
	Compressed File Name	Enter the folder where the compressed file is saved, and the compressed file name. The compressed file name can be specified in the "Compressed File Name" screen by clicking the Browse... button.
	File is divided	Select this to save data in multiple compressed files. Specify the split size in the range from 1 to 999MB.

2. **Click the** Compress **button.**

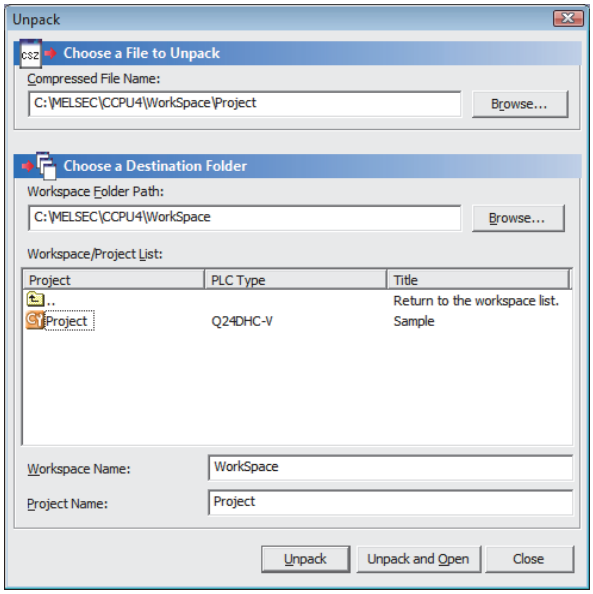
The compressed project file (*.csz) is saved in the specified folder.

(2) Decompressing projects saved with compression

Decompress a project saved with compression.

Screen display

- **Select [Project] ⇒ [Compress/Unpack] ⇒ [Unpack].**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Unpack Source Setting		
	Compressed File Name	Enter the folder (drive/path) in which the compressed file to be decompressed is saved, and the compressed file name. The compressed file name can be specified in the "Compressed File Name" screen by clicking the Browse... button.
Unpack Destination Project		
	Workspace Folder Path	Enter the folder (drive/path) to which the project to be decompressed is saved. The folder can be selected in the "Browse For Folder" screen by clicking the Browse... button.
	Workspace/Project List	Select the workspace and project.
	Workspace Name	Enter the name of the workspace to which the decompressed project is saved.
	Project Name	Enter the name of the project to which the decompressed project is saved.

2. **Click the** Unpack **button.**

The compressed project file is decompressed and saved in the specified folder.

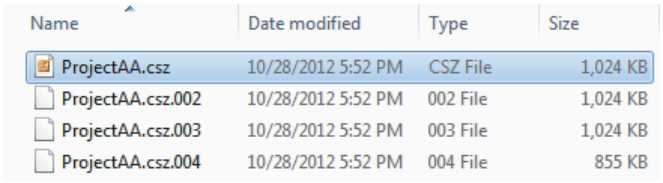
Screen button

- Unpack and Open

  Decompresses a compressed project file and opens the project.

Point

- Decompressing compressed files
  A compressed file can also be decompressed on the "Unpack" screen which is displayed by double-clicking the compressed file (*.csz) on Windows® Explorer.
- Names of divided compressed files
  When a project is saved in divided compressed files, a number is automatically added after the extension in each name of the second or later compressed files as follows.



· · · · · · Name of the first file
· · · · · · Name of the second file
· · · · · · Name of the third file
· · · · · · Name of the fourth file

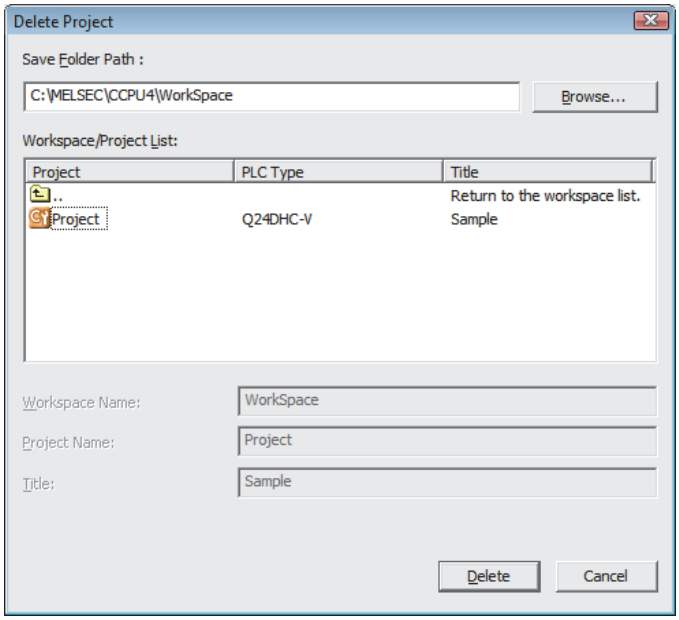
- Decompressing divided compressed files
  Select the first file (*.csz) when decompressing a series of divided compressed files. To be decompressed, all of a series of divided files must be in the same folder.

4.2.5 Deleting projects

Delete a project saved on a personal computer or another data storage device.

Screen display

- **Select [Project] ⇒ [Delete].**



Operating procedure

1. **Select the project to be deleted.**
2. **Click the** Delete **button.**
   The selected project is deleted.

Point

- Deleting projects
  - Once a project is deleted, it cannot be restored again.
  - The open project cannot be deleted. Delete the project after closing it.

4.2.6 Closing projects

Close an open project.

Operating procedure

- **Select [Project] ⇒ [Close].**

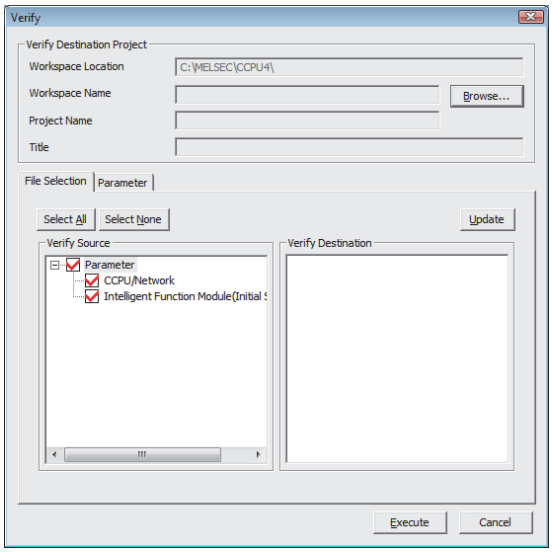
4.2.7 Verifying project data

Verify data of an open project against data of another project.
This function is used to compare the content of two projects or to locate program changes made in projects.
To verify data against parameters on the C Controller module, use the Verify with CCPU function.
(☞ Page 126, Section 7.3)

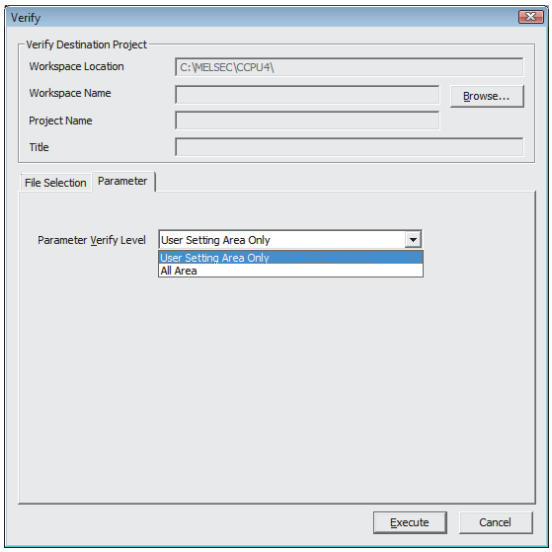
Screen display

- **Select [Project] ⇒ [Verify].**

<<File Selection>> tab



<<Parameter>> tab



Operating procedure

1. **Click the Browse... button to set the verify destination project.**

Item		Description
Verify Destination Project	Workspace Folder Path	Display the path to the workspace of the verify destination.
	Workspace Name	Display the workspace name of the verify destination.
	Project Name	Display the project name of the verify destination.
	Title	Display the project title of the verify destination.

2. **Select the verification target file on the <<File Selection>> tab.**

Item		Description
Parameter	CCPU/Network	Select the verification target parameter.
	Intelligent Function Module (Initial Setting)	

3. **Select the parameter verification level on the <<Parameter>> tab.**

The following table shows the verification details for each setting item.

Item	Description
User Setting Area Only	Verify only the parameter area set by the user.
All Area	Verify all the area including the parameter area set by the system.

4. **Click the** Execute **button.**

The verification result is displayed on the "Verify Result" screen.

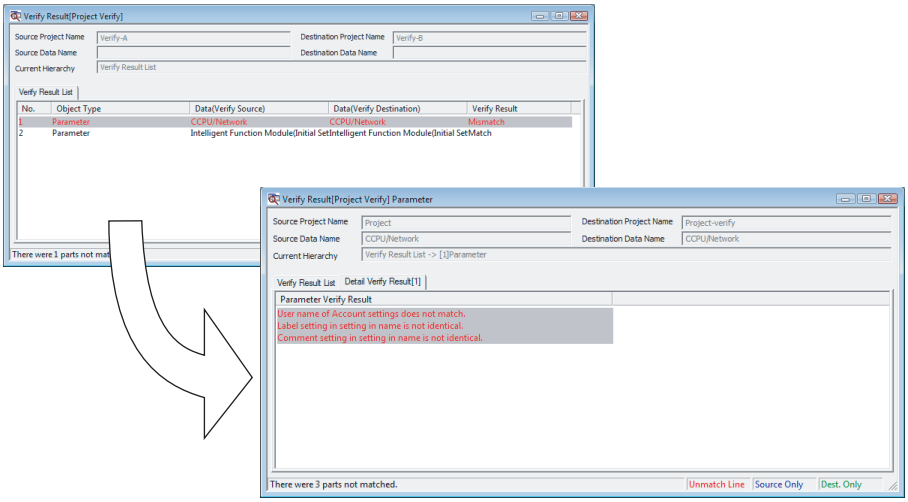
(☞ Page 50, (1) in this section)

(1) Checking verification result details

Details of mismatched data can be checked in the <<Verify Result List>> tab on the "Verify Result" screen.

Operating procedure

- **Double-click the row of the data to display the details on the "Verify Result" screen.**



(a) Mismatch in the system setting area

When a mismatch is detected in the parameter area set by the system in the verification set to "All Area", either of the following messages is displayed.

Take corrective action according to the message.

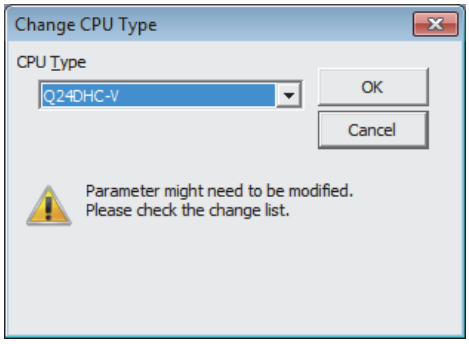
Message	Corrective action
The header information of the parameter blocks is inconsistent.	A mismatch is detected in other than user setting area. Take one of the following corrective actions. • Reset the mismatch part of the parameter. For block number (parameter number), refer to the following manual. 📖 MELSEC-Q C Controller Module User's Manual • Rewrite the parameters having been written to the C Controller module. When a mismatch is detected on the block number AFFF, perform the following operation to reset the area which is set by the system. • Select Project view ⇒ Parameter ⇒ Network Parameter ⇒ Ethernet/CCIE/MELSECNET. Click the End button on the displayed MELSECNET/CCIE/Ethernet Module Configuration screen and write the parameters to the C Controller module. If the mismatch is not resolved, please consult your local Mitsubishi service center or representative, explaining the details of the problem.

4.2.8 Changing CPU type of projects

Change the CPU type of a project being edited.

Display contents

- **Select [Project] ⇒ [Change CPU Type].**



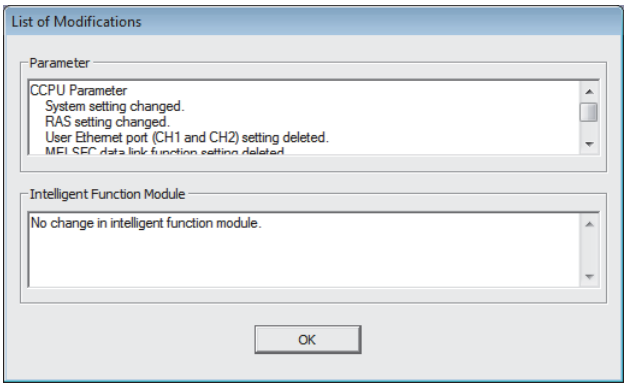
Operating procedure

1. **Set the items on the screen.**

Item	Description
CPU Type	Select the CPU type after change.

2. **Click the [OK] button.**

The CPU type of the project is changed to the specified CPU type.
After the Change CPU Type function is completed, the following List of Modifications screen is displayed, and the changes of the parameters can be checked.



Point

The items can be copied and pasted to the text file using the Ctrl+C and Ctrl+V keys.

4.3 Operations of Project Data

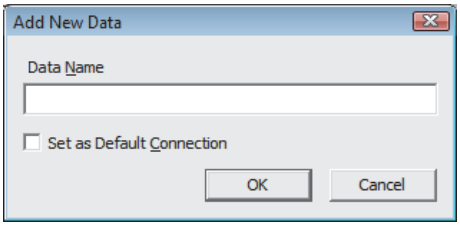
This section explains how to operate data when the connection destination is selected on the Navigation window.

4.3.1 Adding new data (connection destination) to project

Add new data (connection destination) to a project.
The data that can be added is connection destination only.

Screen display

- **Select [Project] ⇒ [Object] ⇒ [New].**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Data Name	Enter the name of the data to be created.
Set as Default Connection	Select this to specify the connection destination to be created for regular use.

2. **Click the** OK **button.**

The created connection destination is added to "All Connections" on the Connection Destination view.

Point

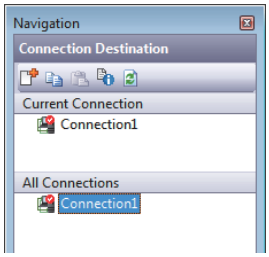
- Maximum number of characters that can be entered for data name
  The maximum number of characters that can be entered for data name is 32.
- Maximum number of data that can be created
  The maximum number of data that can be created is 128.

4.3.2 Copying/pasting data in projects

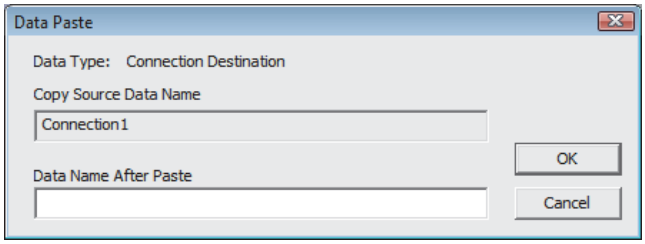
Utilize data of a connection destination being edited or in other projects.

Operating procedure

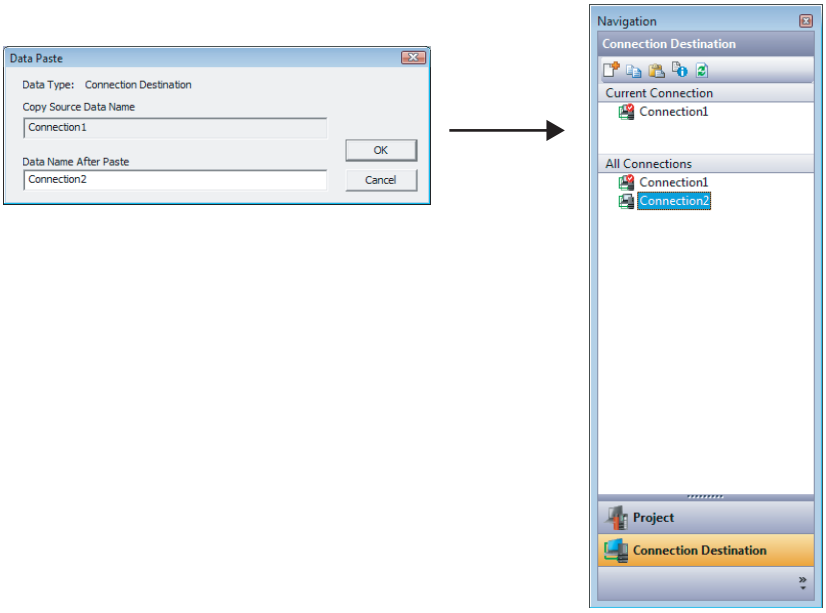
1. **Select the data name of connection destination.**
2. **Select [Project] ⇒ [Object] ⇒ [Copy].**
   The selected connection destination data is copied.



3. **Select the folder to paste the connection destination data.**
4. **Select [Project] ⇒ [Object] ⇒ [Paste].**
   If the same data name exists in the folder where the data is to be pasted, the "Data Paste" screen is displayed.



5. **Enter a new name in the "Data Name After Paste" field, and click the** OK **button.**
   The connection destination data is pasted.



Point

- Copying/pasting data
  - Data can be pasted only to the data that is of the same type as copied data.
  - Multiple data can be copied by holding the Shift or Ctrl key and selecting the data.
  - Data can be copied/pasted by right-clicking data to be copied/folder to be pasted and selecting [Copy]/[Paste] from the shortcut menu, or by dragging and dropping the data from the data to be copied to the folder to be pasted.
  - Copying and pasting only CCPU parameter or Network parameter are not possible. If it is copied individually, the whole parameter files are copied and the files in the folder where the data is to be pasted are overwritten.

4.3.3 Changing project data names

Change the data name of open project.

Operating procedure

1. **Select the data name to be changed on the Project view.**
2. **Select [Project] ⇒ [Object] ⇒ [Rename].**
3. **Change the data name.**
4. **Press the Enter key.**
   The selected data name is changed.

4.3.4 Deleting project data

Delete data in an open project.

Operating procedure

1. **Select the data name to be deleted on the Project view.**
2. **Select [Project] ⇒ [Object] ⇒ [Delete].**
   The selected data is deleted.

Point

- Deleting data
  - Multiple data can be selected and deleted.

4.3.5 Displaying/editing properties

Display data properties of parameters. A title and/or comment can be set to each data.

Screen display

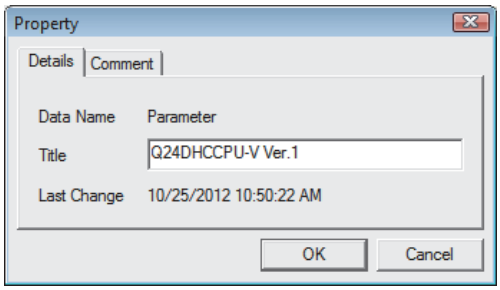
- **For property of project**

  Click on the Project view.

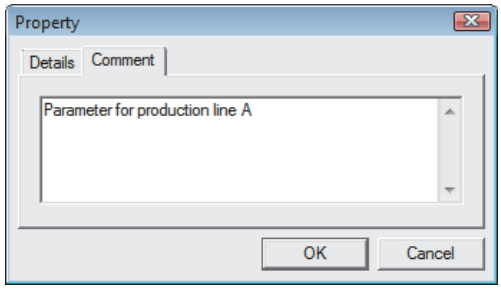
- **For property of each data**

  Select [Project] ⇒ [Object] ⇒ [Property].

<<Detail>>



<<Comment>>



Operating procedure

- **Set the items on the screen.**

Item	Description
Data Name	Display the data name.
Title	Set a title for the data. (The number of applicable characters is 128 for a project and 32 for other data.)
Last Change	Display the date when the data was updated.
Comment	Set a comment for the data. Press the Ctrl and the Enter keys for a line feed. (The number of applicable characters is 5,120.)

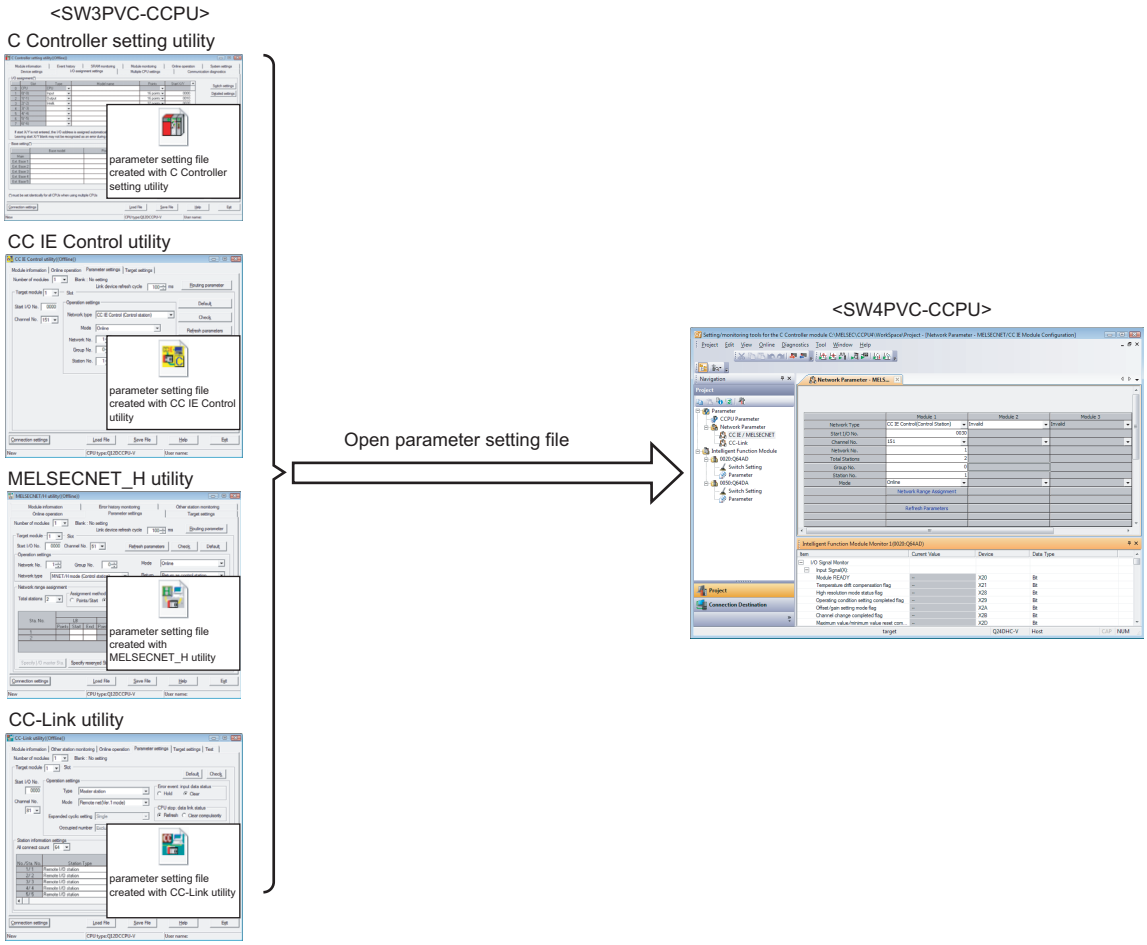
4.4 Utilizing Parameters of Earlier Version

This section explains how to utilize parameter setting file created with SW3PVC-CCPU in SW4PVC-CCPU.

(1) Utilizing parameter setting files

The parameter setting files created with SW3PVC-CCPU can be utilized in SW4PVC-CCPU with [Open parameter setting file].

(☞ Page 57, (1)(a) in this section)



Point

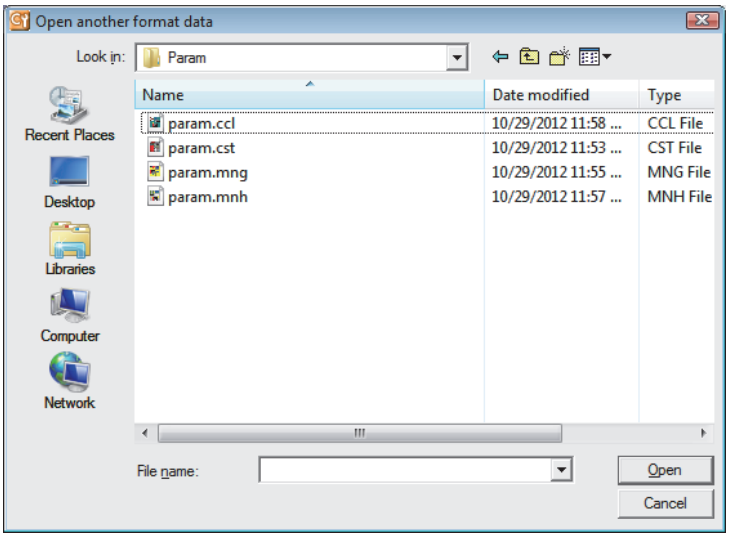
When the parameter setting files created with SW3PVC-CCPU is opened in SW4PVC-CCPU, only the parameters set on each utility are applied to SW4PVC-CCPU. (When the parameters that are already set exist, the read parameters are overwritten.)

(a) Opening parameter setting files

Open the parameter setting files created with SW3PVC-CCPU in SW4PVC-CCPU.

Screen display

- **[Project] ⇒ [Open another format data] ⇒ [Open parameter setting file]**



Operating procedure

- **Select the parameter setting file, and click the Open button.**
  Select "*.cst", "*.mng", "*.mnh", "*.ccl" for a parameter setting file.
  The content of selected parameter setting file is applied to the project.

Point

- Location to which the content of each parameter setting file is applied
  The content of each parameter setting file is applied to the location shown in table below.

Parameter setting file of SW3PVC-CCPU	Location to which SW4PVC-CCPU data is applied.
Setting/monitoring tools for the C Controller module (File name: "*.cst")	CCPU parameter
CC IE Control utility (File name: "*.mng")*1	Network parameter
MELSECNET/H utility (File name: "*.mnh")	
CC-Link utility (File name: "*.ccl")	

*1 : When parameters setting file of CC IE Control utility is opened, parameter settings of CC-Link IE Field Network on SW4PVC-CCPU are overwritten.

CHAPTER 5 SETTING PARAMETERS

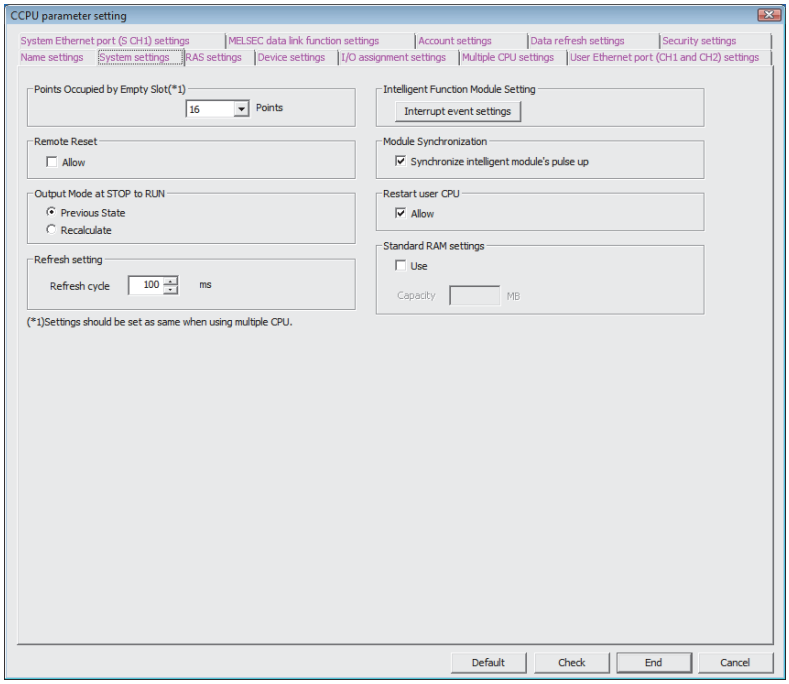
This chapter explains the setting items, operations on the setting screens, and common notes on parameter settings. For necessary information and details of settings, refer to the manuals of each module to be used.

5.1 Setting C Controller Module Parameters

This section explains how to set parameters on the "CCPU parameter setting" screen.

Screen display

- **Select Project view ⇒ "Parameter" ⇒ "CCPU Parameter".**



Display contents

Item	Description
Tab	The setting items are categorized under tabs according to their purpose. • The parameter setting status is displayed by different font colors of the tab names. **Font color / Setting status** Red: Status that data is not set under the tab (Data must be set under the tab for operation.) Blue: Status that data is set under the tab (A red tab name changes to blue after data is set.) Magenta: Default values (The user setting has not set under the tab.) Dark blue: Values other than default values (A magenta tab name changes to dark blue after data is set.) • For details of the setting items, refer to the following section. ☞ Page 59, Section 5.1.1

Screen button

- Default
  Resets all setting items on the screen being open to their defaults.
- Check
  Checks whether the user-set parameters on the screen being open are correct.

5.1.1 C Controller module parameter item list

The following shows the list of CCPU parameter setting items.
For details of each item, refer to the following manual.
MELSEC-Q C Controller Module User's Manual

Setting tab name	Reference
Name settings	Page 59, (1) in this section
System settings	Page 60, (2) in this section
RAS settings	Page 62, (3) in this section
Device settings	Page 63, (4) in this section
I/O Assignment settings	Page 64, (5) in this section
Multiple CPU settings	Page 69, (6) in this section
User Ethernet port (CH1 and CH2) settings*1	Page 73, (7) in this section
System Ethernet port (S CH1) settings*2 Built-in Ethernet port (CH1 and CH2) settings*3	Page 74, (8) in this section
MELSEC data link function settings	Page 77, (9) in this section
Account settings	Page 78, (10) in this section
Data refresh settings*1	Page 80, (11) in this section
Security settings	Page 83, (12) in this section

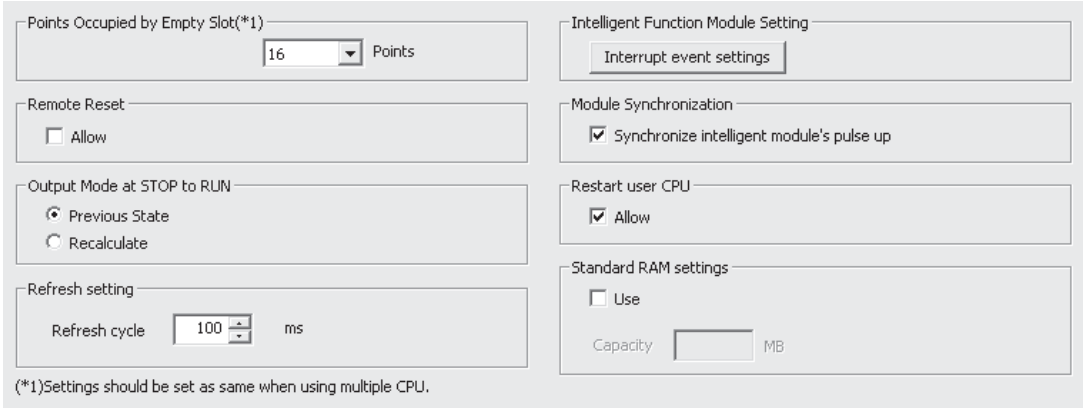
*1 : Not supported by Q12DCCPU-V.
*2 : Tab name for Q24DHCCPU-V/-VG/-LS and Q26DHCCPU-LS.
*3 : Tab name for Q12DCCPU-V.

(1) Name settings

Item	Description
Label	Set a label (name and application) of the C Controller module. (Maximum of 10 characters)
Comment	Set a comment for the C Controller module. (Maximum of 64 characters)

(2) System settings

Set to use the C Controller module.



Item	Description
Points Occupied by Empty Slot[*1]	Set the number of points occupied by empty slots (select from 0, 16, 32, 64, 128, 256, 512, 1024) for the main base unit/extension base unit.
Remote Reset	–
Allow	Select this to allow a remote reset operation from Setting/monitoring tools for the C Controller module.
Output Mode at STOP to RUN	Set the status of output (Y) when the programmable controller is switched from STOP to RUN.
Refresh setting	Set the refresh cycle (0, 10 to 2000ms).[*2]
Intelligent Function Module Setting	Display "Intelligent Function Module Interrupt Event Setting" screen by clicking the Interrupt event settings button. (☞ Page 61, (2)(a) in this section)
Module Synchronization	–
Synchronize intelligent module's pulse up	Select this to synchronize the start-up of the C Controller module with that of the intelligent function module.
Restart user CPU[*3]	–
Allow	Select this to allow restarting the user CPU.
Standard RAM settings[*4]	–
Use	Select this to use standard RAM.
Capacity	Set the capacity of standard RAM. • Q24DHCCPU-V/-VG: 1 to 4MB • Q12DCCPU-V: 1 to 3MB

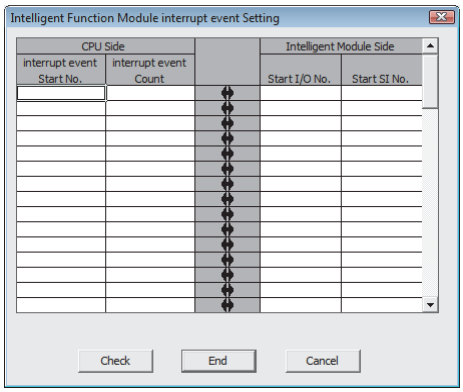
*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : The refresh function is not executed when '0' is specified.
*3 : Not supported by Q12DCCPU-V.
*4 : Not supported by Q24DHCCPU-LS and Q26DHCCPU-LS.

(a) Intelligent Function Module Interrupt Event Setting screen

Set the interrupt event data of intelligent function module.

For interrupt events from the intelligent function module, refer to the following manual.

MELSEC-Q C Controller Module User's Manual



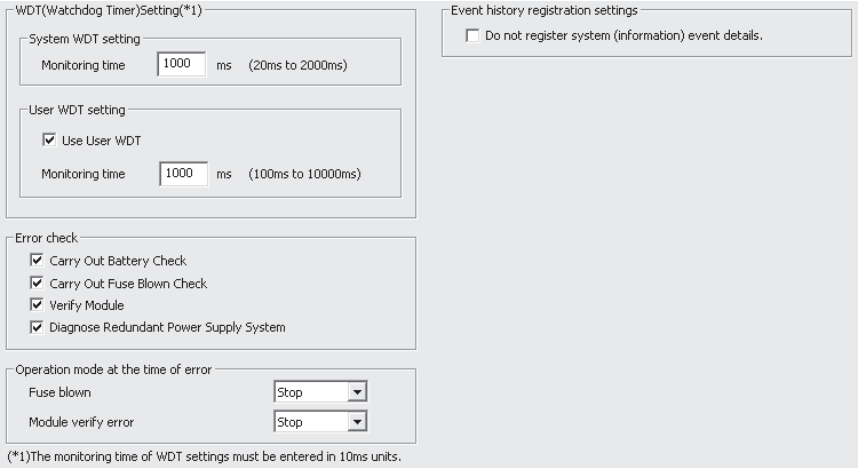
Item		Description
CPU Side		-
	interrupt event Start No.	Set the start number of the interrupt event occurred by interruption from the intelligent function module (50 to 255).
	interrupt event Count	Set the number of the interrupt events occurred by interruption from the intelligent function module (1 to 16).
Intelligent Module Side		-
	Start I/O No.	Set the start I/O number of the intelligent function module (0000H to 0FF0H, 3E00H to 3E30H).
	Start SI No.	Set the start SI number of the intelligent function module (1 to 15).

Point

The following shows the list for interrupt event numbers and interrupt factors.

Interrupt event No.	Interrupt factor	
0	Interruption by interrupt module	1st point
1		2nd point
2		3rd point
3		4th point
4		5th point
5		6th point
6		7th point
7		8th point
8		9th point
9		10th point
10		11th point
11		12th point
12		13th point
13		14th point
14		15th point
15		16th point
16 to 49	Not used	
50 to 255	Intelligent function module interrupt	Specify which intelligent function module is used in parameters.

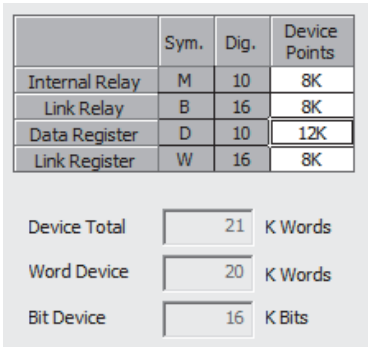
(3) RAS settings



Item			Description
WDT (Watchdog Timer) Setting			–
	System WDT setting		Set the values relating to system WDT (Watch dog timer).
		Monitoring time	Set the monitoring time of system WDT (Watch dog timer) (20 to 2000).
	User WDT Setting*1, *2		Set the values relating to user WDT (Watch dog timer).
		Use user WDT	Select this to use user WDT (Watch dog timer).
		Monitoring time	Set the monitoring time of user WDT (Watch dog timer) (100 to 10000).
Error check			–
	Carry Out Battery Check		Select this to detect a battery error.
	Carry Out Fuse Blown Check		Select this to detect a fuse blow
	Verify Module		Select this to detect an I/O module verification error.
	Diagnose Redundant Power Supply System		Select this to detect a redundant power supply module fault.
Operation mode at the time of error			–
	Fuse blown		Select this for the operation (stop/continue) when a fuse blow is detected.
	Module verify error		Select this for the operation (stop/continue) when a module verification error is detected.
Event history registration settings			–
	Do not register system (information) event details.		Select this when a system (information) event is not registered to event history.

*1 : Not supported by Q24DHCCPU-LS and Q26DHCCPU-LS.
*2 : Q12DCCPU-V cannot be set using Setting/monitoring tools for the C Controller module.

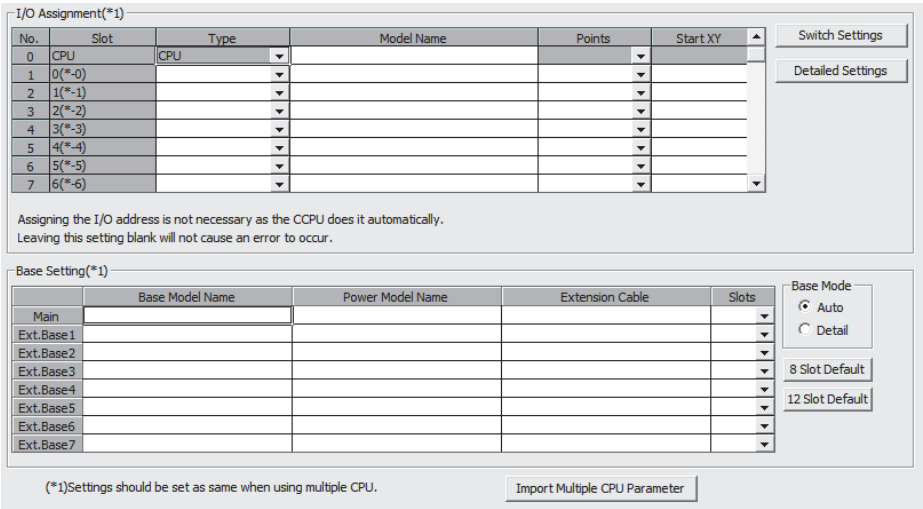
(4) Device



Item		Description
Device Points*1 *2		–
	Internal Relay	Set the number of points (0 to 60K) used for internal relay (M).
	Link Relay	Set the number of points (0 to 640K) used for link relay (B).
	Data Register	Set the number of points (0 to 4086K) used for data register (D).
	Link Register	Set the number of points (0 to 1024K) used for link register (W).
Device Total		Display the total size of the set devices.
	Word Device	Display the size of the set word devices.
	Bit Device	Display the size of the set bit devices.

*1 : Set in units of words.
*2 : For bit device (M, B), count 16 points as one point.

(5) I/O Assignment



Item		Description
I/O Assignment*1		–
	Slot	The slot number and what number of the slot on what number of the stage are displayed for each slot. When the base unit is set in the Auto mode, "*" indicates the base unit stage number and the slot number counted from slot 0 of the main base unit is displayed
	Type	Set the type of module being mounted.
	Model Name*2	Set the mounted module model name. (Maximum of 16 characters)
	Points	Set the points of each slot (select from 0, 16, 32, 64, 128, 256, 512, 1024).
	Start XY	Set the start I/O number of each slot.
Base Setting*1		–
	Base Model Name*2	Set the model name of the used main base unit or extension base unit. (Maximum of 16 characters)
	Power Model Name*2	Set the model name of the power supply module mounted on the main base unit or extension base unit. (Maximum of 16 characters)
	Extension Cable*2	Set the extension cable model name. (Maximum of 16 characters)
	Slots	Set the number of slots of the main base unit or extension base unit (select from 2, 3, 5, 8, 10, 12). Set the number of slots for all base units.
	Base Mode*3	Set the base mode.

*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : C Controller module does not use the specified model name. (It is used as a user's memo or for parameter printing)
*3 : For the base mode, refer to the following manual.
MELSEC-Q C Controller Module User's Manual

Screen button

- Switch Settings

  Opens the "Switch Settings for I/O and Intelligent Function Module" screen.
  (☞ Page 67, (5)(a) in this section)
- Detailed Settings

  Opens the "Intelligent Function Module Detailed Settings" screen.
  (☞ Page 68, (5)(b) in this section)
- 8 Slot Default

  Batch-sets each base unit to 8 slots.
- 12 Slot Default

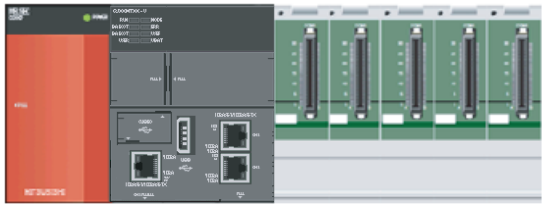
  Batch-sets each base unit to 12 slots.
- Import Multiple CPU Parameter

  (☞ Page 68, (5)(c) in this section)

Point

The following shows the setting example of "Type" and "Points" for I/O assignment of CPU mounting slot.

<Example 1>



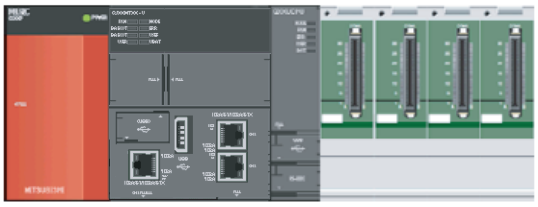
No.1

I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	CPU		
1	0(*-0)	Empty		0 Point
2	1(*-1)	Empty		0 Point
3	2(*-2)			
4	3(*-3)			
5	4(*-4)			
6	5(*-5)			
7	6(*-6)			

- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 1.
- Set Type to "Empty", Points to "0 Point" for No.1 and No.2.

<Example 2>



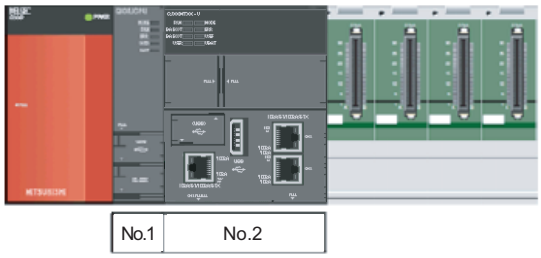
No.1 | No.4

I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	No.1		
1	CPU	CPU(Empty)		
2	CPU	CPU(Empty)		
3	CPU	No.4		
4	3(*-3)			
5	4(*-4)			
6	5(*-5)			
7	6(*-6)			

- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 4.
- Set Type to "CPU(Empty)" for No.1 and No.2.

<Example 3>

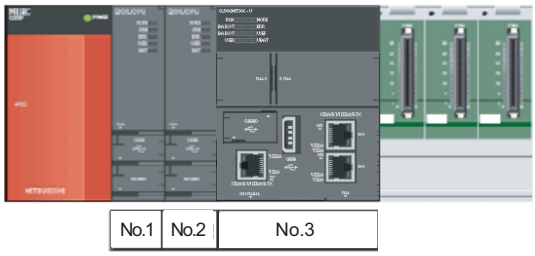


I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	No.1		
1	CPU	No.2		
2	CPU	CPU(Empty)		
3	CPU	CPU(Empty)		
4	3(*-3)			
5	4(*-4)			
6	5(*-5)			
7	6(*-6)			

- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 4.
- Set Type to "CPU(Empty)" for No.2 and No.3.

<Example 4>

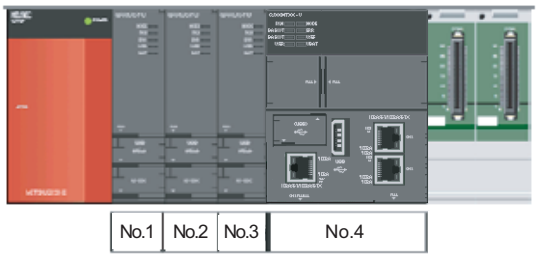


I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	No.1		
1	CPU	No.2		
2	CPU	No.3		
3	CPU	CPU(Empty)		
4	3(*-3)	Empty		0 Point
5	4(*-4)			
6	5(*-5)			
7	6(*-6)			

- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 4.
- Set Type to "CPU(Empty)" for No.3, and set Type to "Empty", Points to "0 Point" for No.4.

<Example 5>

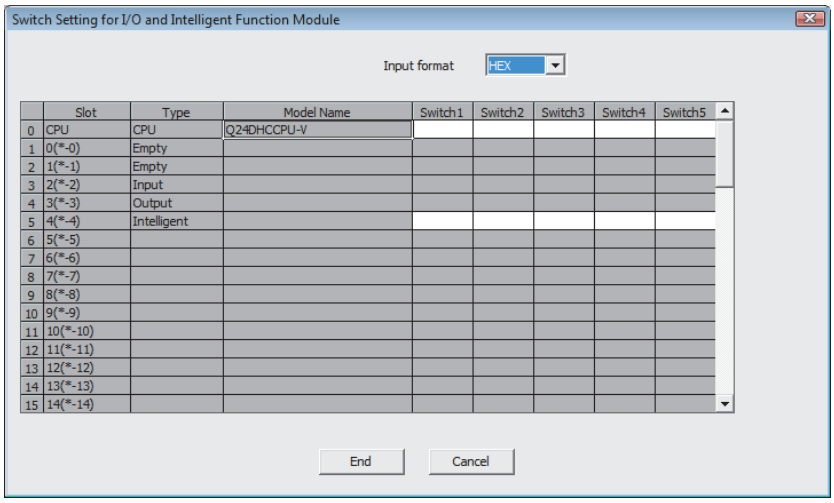


I/O Assignment(*1)

No.	Slot	Type	Model Name	Points
0	CPU	No.1		
1	CPU	No.2		
2	CPU	No.3		
3	CPU	No.4		
4	3(*-3)	Empty		0 Point
5	4(*-4)	Empty		0 Point
6	5(*-5)			
7	6(*-6)			

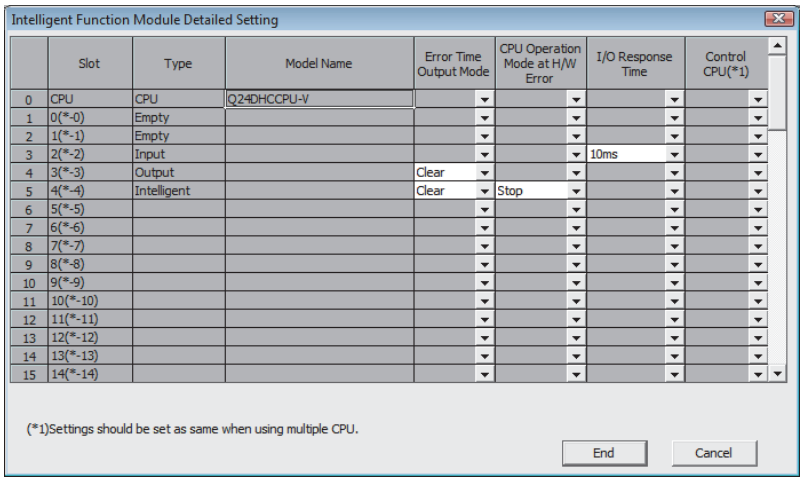
- Set "No. of CPU" on the <<Multiple CPU Setting>> tab to 4.
- Set Type to "Empty", Points to "0 Point" for No.4 and No.5.

(a) Switch setting screen



Item		Description
Input format		Select the input format (binary/decimal/hexadecimal) for switch 1 to 5.
Switch Setting		-
	Type	Display the type set on the I/O Assignment.
	Model Name	Display the model set on the I/O Assignment.
	Switch1 to 5	Set the switch of the CPU module or the intelligent function module (0000 to FFFF).

(b) Detail setting screen



Item	Description
Error Time Output Mode	Set the output mode (Clear/Hold) for error detection.
CPU Operation Mode at H/W Error	Set the CPU operation mode (Stop/Continue) for H/W error detection.
I/O Response Time	Set the I/O response time (ms). High-speed input, interrupt: select from 0.1, 0.2, 0.4, 0.6, 1. Input, I/O combined: select from 1, 5, 10, 20, 70.
Control CPU*1	Set the control CPU (1 to 4).

*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.

(c) Utilizing existing data to set parameters of multiple CPU system

Parameters for multiple CPU system can be set by utilizing existing data by clicking the

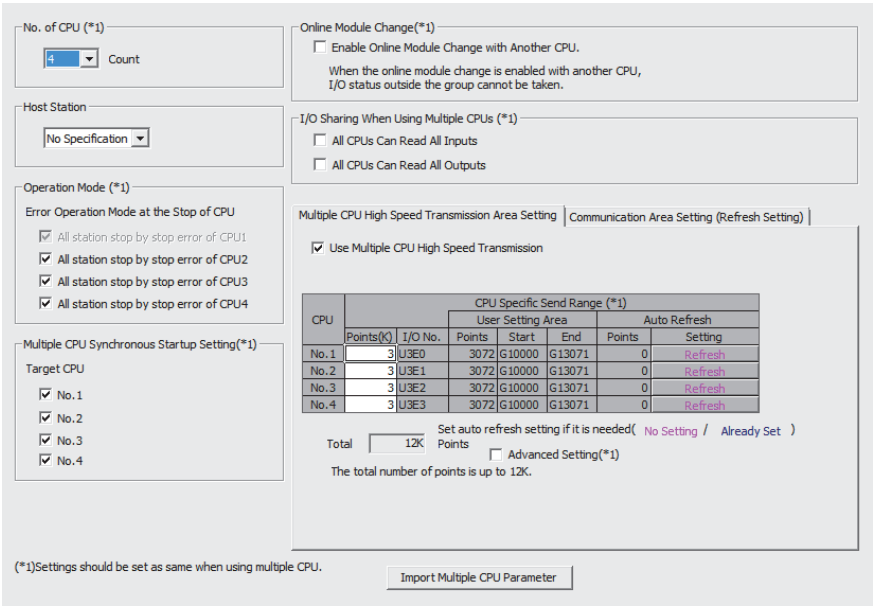
Import Multiple CPU Parameter button on the <<I/O Assignment>>/<<Multiple CPU Setting>> tab.

Point

The data that can be utilized are as follows.

- Setting/monitoring tools for the C Controller module (workspace format/single file format)
- GX Works2 (workspace format/single file format)

(6) Multiple CPU Setting



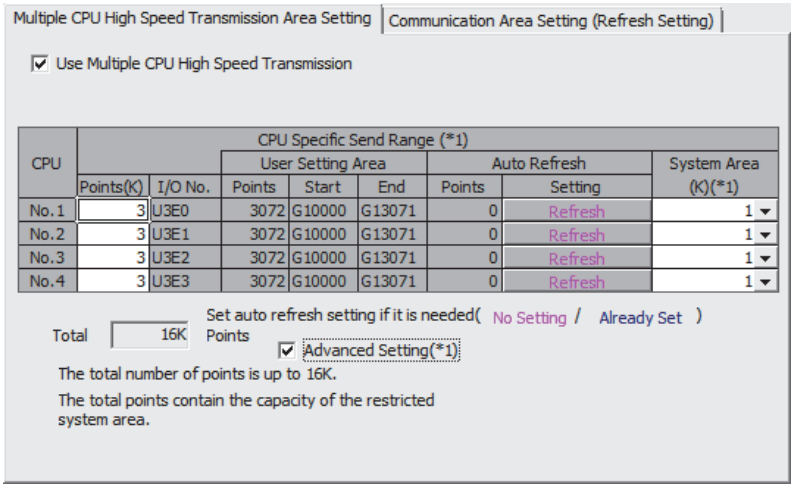
Item	Description
No. of CPU*1	Set the number of CPU modules (1 to 4) used in the multiple CPU system.
Host Station	Set the CPU number (not specified, No.1 to No.4) for the host CPU.
Operation Mode*1,*2	Set the operation mode of the multiple CPU system when a stop error occurs in any of the programmable controller CPU No. 2 to No. 4. The multiple CPU system stops when a stop error occurs in the CPU No. 1.
Multiple CPU Synchronous Startup Setting*1,*2	Select the CPU modules to be started up synchronously.
Online Module Change*1	–
Enable Online Module Change with Another CPU.	Select this to allow the Online module change in the multiple CPU system.
I/O Sharing When Using Multiple CPUs*1	–
All CPUs Can Read All Inputs	Select this to import the input status of the I/O module or intelligent function module controlled by another CPU.
All CPUs Can Read All Outputs	Select this to import the output status of the I/O module or intelligent function module controlled by another CPU.
<<Multiple CPU High Speed Transmission Area Setting>>*3	Set the user setting area, auto refresh, and system area. (☞ Page 70, (6)(a) in this section)
<<Communication Area Setting (Refresh Setting)>>*3	Set the CPU shared memory to enable data sharing among multiple CPUs. (☞ Page 72, (6)(c) in this section)

*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : Clear the CPU modules that are not assigned on the I/O assignment setting.
*3 : For the CPU modules that are not assigned on the I/O assignment setting, set "Points" to '0'.

Screen button

- Import Multiple CPU Parameter
  (☞ Page 68, Section 5.1 (5)(c))

(a) Multiple CPU High Speed Transmission Area Setting

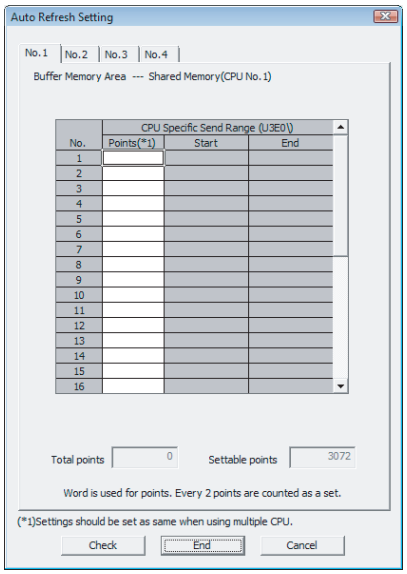


Item		Description
Use Multiple CPU High Speed Transmission		Select this when using multiple CPU high-speed transmission.
CPU Specific Send Range*1		-
	Points*2	Set the points of data to be sent and received between CPUs.
	User Setting Area	Display the content (Points, Start, End) calculated by send range for CPU and points of auto refresh with utility.
	Auto Refresh	Set the points of the multiple CPU high-speed transmission area where each CPU module performs auto refresh. Open "Auto Refresh Setting" screen by clicking the Refresh button. (☞ Page 71, (6)(b) in this section)
	System Area	Set size (K) for the system area that is used as the multiple CPU high-speed transmission area.
Total		Display the send range for each CPU and total points of auto refresh.
Advanced Setting*1		Select this to use the system area.

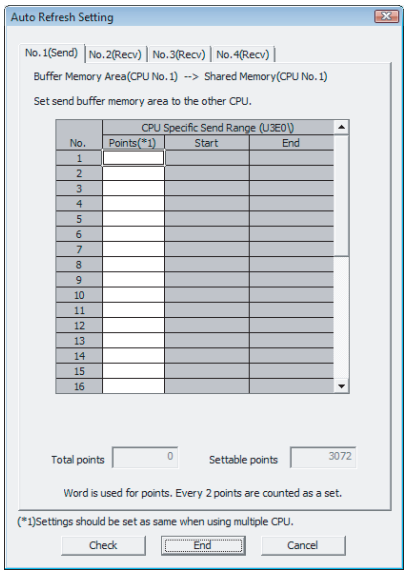
*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : For "Points" of CPUs that are not assigned the number, set to '0'.

(b) Auto Refresh Setting

<When the CPU number is not specified for the host CPU>



<When the CPU number (No.1 to No.4) is specified for the host CPU>

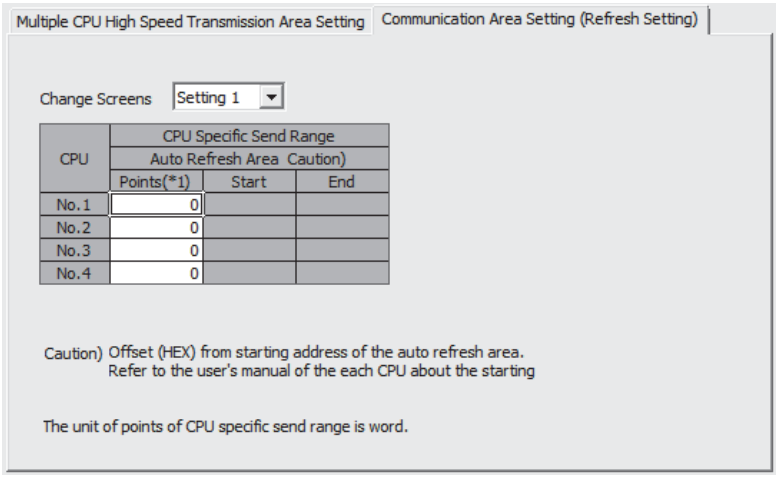


Item	Description
CPU No. tab*1	Display the tabs for the number of CPUs set on the "Multiple CPU settings" screen.
No.	Display the set number of auto refresh.
CPU Specific Send Range*2	-
Points	Set the points of data update by auto refresh between CPUs. Display "Start" and "End" with automatic calculation.
Total points	Display the total points set in auto refresh.
Settable points	Display the maximum points that can be set in auto refresh.

*1 : This is not displayed when "Number of CPUs" is set to '1'.

*2 : Settings of each CPU are required to be the same ones in the multiple CPU system.

(c) Communication Area Setting (Refresh Setting)



Item		Description
Change Screens		Set the target (Setting 1 to Setting 4) to be set the range.
CPU Specific Send Range*1		-
	Points*2	Set the points of the auto refresh area for the data to be updated by auto refresh between CPUs. Display "Start" and "End" with automatic calculation.

*1 : Settings of each CPU are required to be the same ones in the multiple CPU system.
*2 : For "Points" of CPUs that are not assigned the number, set to '0'.

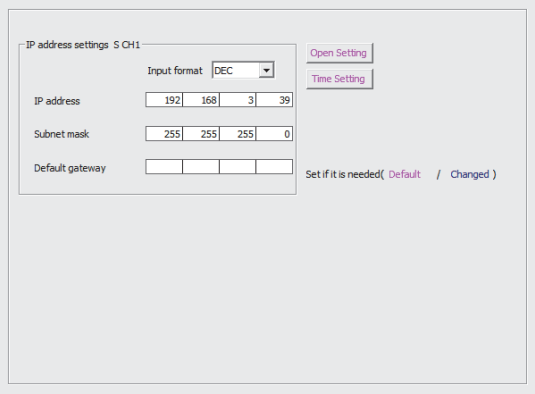
(7) User Ethernet port (CH1 and CH2) settings

Item		Description
User Ethernet port CH1*1		Set whether to enable or disable the 10BASE-T/100BASE-TX/1000BASE-T interface of CH1.
	Input format	Set the input format (decimal/hexadecimal) of the IP address.
	IP address	Set the IP address for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH1.
	Subnet mask	Set the subnet mask for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH1.
	Default gateway	Set the IP address of the default gateway for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH1.
User Ethernet port CH2*1		Set whether to enable or disable the 10BASE-T/100BASE-TX/1000BASE-T interface for CH2.
	Input format	Set the input format (decimal/hexadecimal) of the IP address.
	IP address	Set the IP address for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH2.
	Subnet mask	Set the subnet mask for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH2.
	Default gateway	Set the IP address of the default gateway for the 10BASE-T/100BASE-TX/1000BASE-T interface of CH2.

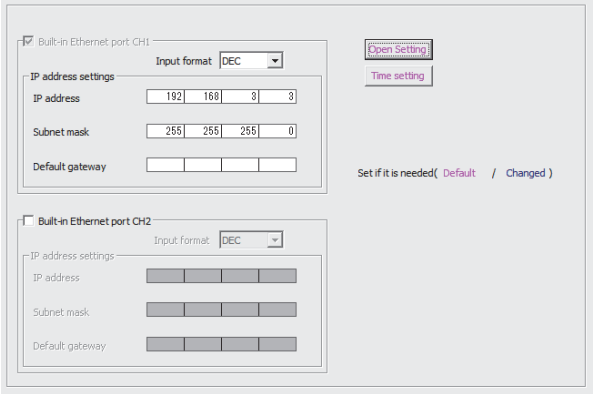
*1 : Not supported by Q24DHCCPU-LS and Q26DHCCPU-LS.

(8) System Ethernet port (S CH1) / Built-in Ethernet port (CH1 and CH2) settings

< Q24DHCCPU-V/-VG/-LS and Q26DHCCPU-LS >



< Q12DCCPU-V >



< Q24DHCCPU-V/-VG/-LS and Q26DHCCPU-LS >

Item		Description
IP address setting S CH1		–
	Input format	Set the input format (decimal/hexadecimal) of the IP address.
	IP address	Set the IP address for the 10BASE-T/100BASE-TX interface of S CH1.
	Subnet Mask	Set the subnet mask for the 10BASE-T/100BASE-TX interface of S CH1.
	Default gateway	Set the IP address of the default gateway for the 10BASE-T/100BASE-TX interface of S CH1.

< Q12DCCPU-V >

Item		Description
Built-in Ethernet port CH1		Set whether to enable or disable the 10BASE-T/100BASE-TX interface of CH1.
	Input format	Set the input format (decimal/hexadecimal) of the IP address.
	IP address	Set the IP address for the 10BASE-T/100BASE-TX interface of CH1.
	Subnet Mask	Set the subnet mask for the 10BASE-T/100BASE-TX interface of CH1.
	Default gateway	Set the IP address of the default gateway for the 10BASE-T/100BASE-TX interface of CH1.
Built-in Ethernet port CH2		Set whether to enable or disable the 10BASE-T/100BASE-TX interface of CH2.
	Input format	Set the input format (decimal/hexadecimal) of the IP address.
	IP address	Set the IP address for the 10BASE-T/100BASE-TX interface of CH2.
	Subnet Mask	Set the subnet mask for the 10BASE-T/100BASE-TX interface of CH2.
	Default gateway	Set the IP address of the default gateway for the 10BASE-T/100BASE-TX interface of CH2.

Screen button

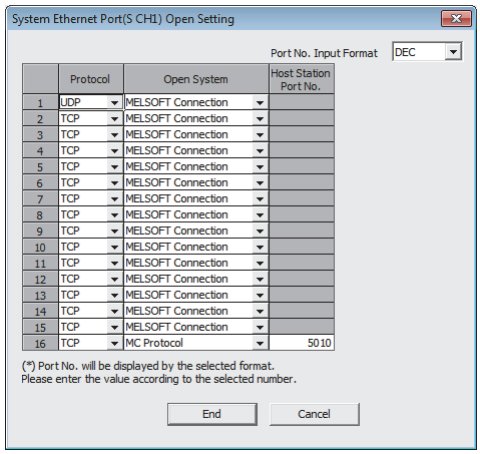
- Open Setting

  Sets the protocol, open system, and host station port number.
  (☞ Page 75, (8)(a) in this section)
- Time Setting

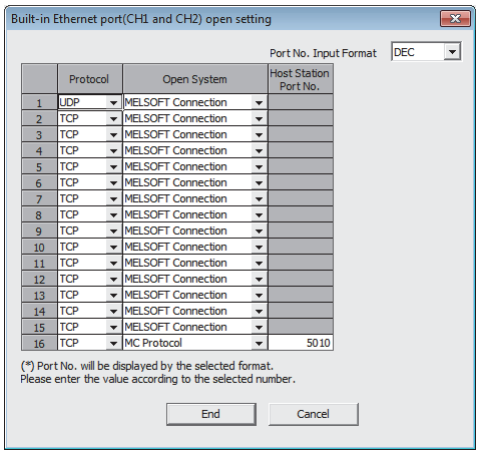
  Sets whether to use the SNTP function, and set the timing of the time setting.
  (☞ Page 76, (8)(b) in this section)

(a) System Ethernet Port / Built-in Ethernet port Open Setting screen

< Q24DHCCPU-V/-VG/-LS and Q26DHCCPU-LS >



< Q12DCCPU-V >



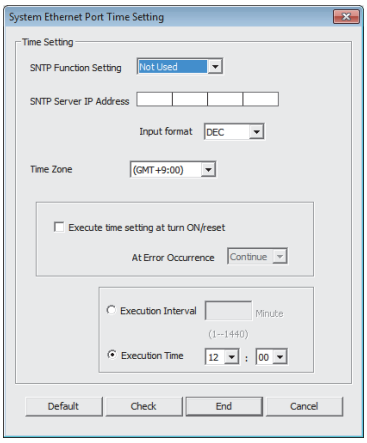
Item	Description
Protocol	Sets the TCP/IP protocol (TCP/UDP).
Open System	Sets the open system (MC Protocol/MELSOFT Connection).
Host Station Port No.	When "MC Protocol" is selected for "Open System", enter the host station port number in the following range. Decimal: 1025 to 4999, 5010 to 65534 Hexadecimal: 0401H to 1387H, 1392H to FFFEH
Port No. Input Format	Select the input format (decimal/hexadecimal) of the host station port number.

Point

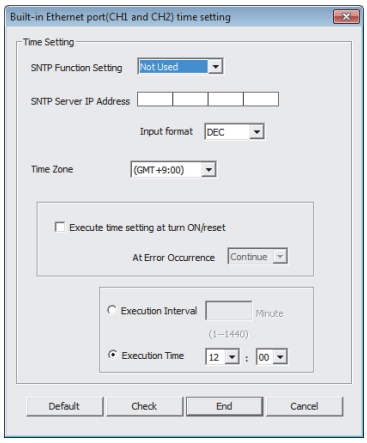
Select "MELSOFT Connection" for "Open System" when connecting to Setting/monitoring tools for the C Controller module or the MELSOFT product (such as GX Works2).

(b) System Ethernet Port / Built-in Ethernet port Time Setting screen

< Q24DHCCPU-V/-VG/-LS and Q26DHCCPU-LS >



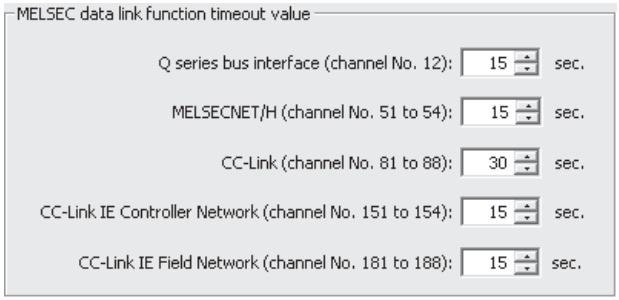
< Q12DCCPU-V >



Item	Description
SNTP Function Setting	Set whether to use this function.
SNTP Server IP Address	Set the SNTP server IP address.
Input format	Select the input format (decimal/hexadecimal) of the SNTP server IP address.
Time Zone	Set the time zone in which the time is to be synchronized.
Execute time setting at turn ON/reset	Select this to execute the time setting function when the C Controller module is powered ON or reset.
At Error Occurrence	Set for the operation (Continue/Stop) for a time setting error occurrence when the C Controller module is powered ON or reset.
Execution Interval*1	Select this to execute the time setting function at a specified time interval, and set in minute unit.
Execution Time*1	Select this to execute the time setting function at a specified time, and set in 30-minute unit.

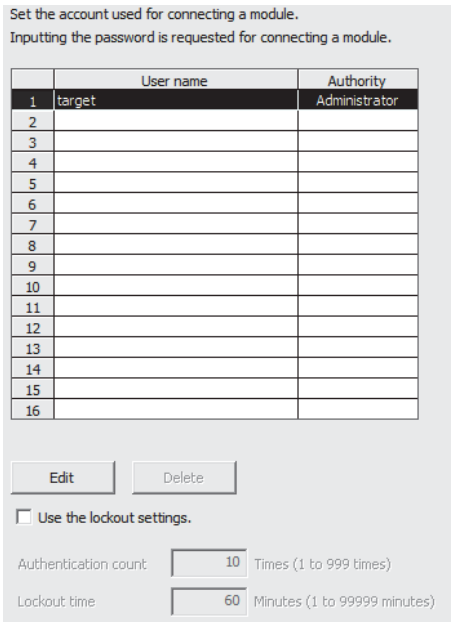
*1 : For Execution Interval and Execution time, either of two options must be selected.

(9) MELSEC data link function settings



Item	Description
Q series bus interface (channel No. 12)	Set the timeout value (second) of the communications performed by MELSEC data link function via Q series bus interface (channel No.12).
MELSECNET/H (channel No. 51 to 54)	Set the timeout value (second) of the communications performed by MELSEC data link function via MELSECNET/H (channel No.51 to 54).
CC-Link (channel No. 81 to 88)	Set the timeout value (second) of the communications performed by MELSEC data link function via CC-Link (channel No. 81 to 88).
CC-Link IE Controller Network (channel No. 151 to 154)	Set the timeout value (second) of the communications performed by MELSEC data link function via CC-Link IE Controller Network (channel No. 151 to 154).
CC-Link IE Field Network (channel No. 181 to 188)	Set the timeout value (second) of the communications performed by MELSEC data link function via CC-Link IE Field Network (channel No. 181 to 188).

(10)Account settings



Item		Description
Use the lockout settings.		Select this to use the lockout setting of account.
	Authentication count*1	Set the number of retry times for activation before being lockout status.
	Lockout time*1	Set the lockout duration (minute) when the number of retry times for activation exceeds the set times.

*1 : Available only when "Use the lockout settings." is selected.

Screen button

- Edit

  Opens the "Account settings" screen to edit the selected account settings by selecting the account to be edited.

  (☞ Page 79, (10)(a) in this section)

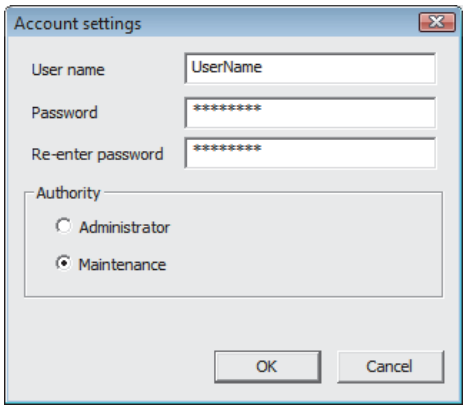
- Delete

  Deletes the selected account.

(a) Account settings screen

A maximum of 16 accounts can be set.

More than one administrator authority account is required.



Item	Description
User name*1,*2	Set a user name (with 1 to 20 characters).
Password*1,*2	Set a password (with 8 to 16 characters).
Re-enter password*1,*2	Re-enter the password.
Authority*1	Select from Administrator and Maintenance.

*1 : The user with User name: target, Password: password Re-enter password: password, Authority: Administrator is set by default.

*2 : Applicable characters are one-byte alphanumeric characters and one-byte special characters. (Case-sensitive)
Inapplicable characters for user name are (space, " , :), for password (space, ", @).

Point

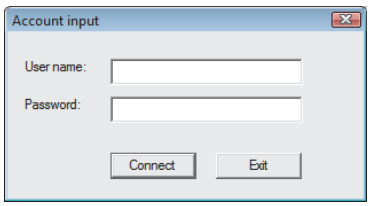
Take measures at user's discretion if security of the C Controller module requires to be maintained against unauthorized access from external devices.
Set an account (user name and password) to prevent it from being leaked.

- Avoid a simple setting composed of alphanumeric characters only.
- Include such as symbols ($&?) to make the user name and password complicated.

(b) Account input screen

When an operation restricted by account is performed, the following dialog is displayed at the first connection.

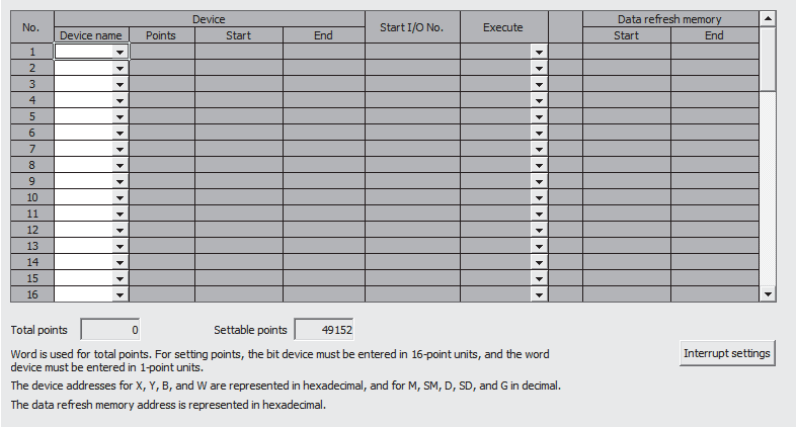
Enter the user name and password to enable the operations.



For the list of operations restricted by account, refer to the following manual.

MELSEC-Q C Controller Module User's Manual

(11)Data refresh settings



Item		Description
Device		–
	Device name	Set the name of device to be refreshed.
	Points*1	Set the points of device (in units of words) to be refreshed.
	Start	Set the start number of device to be refreshed.
	End	Display the end number of device to be refreshed by automatic calculation.
Start I/O No.		Set the start I/O number of corresponding module when an intelligent function module or multiple CPU shared memory is set to a device. For start I/O number, refer to the following manual. MELSEC-Q C Controller Module User's Manual
Execute		Select from Read/Write.
Data refresh memory		-
	Start	Set automatically by Device name, Start.
	End	Set automatically by Device name, Start, Points.
Total points*2		Display the total of set data refresh points (in units of words).
Settable points*2		Display the maximum points of data refresh that can be set (in units of words).

*1 : For bit device (X, Y, M, B, SM), set in 16-point units.
*2 : For bit device (X, Y, M, B, SM), count 16 points as one point.

Screen button

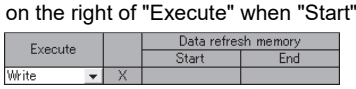
- Interrupt settings

  Displays the "Data refresh interrupt settings" screen. (☞ Page 81, (11)(a) in this section)

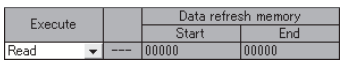
Point

Setting devices that perform refresh

- "X" is displayed on the right of "Execute" when "Start" column is not set properly.

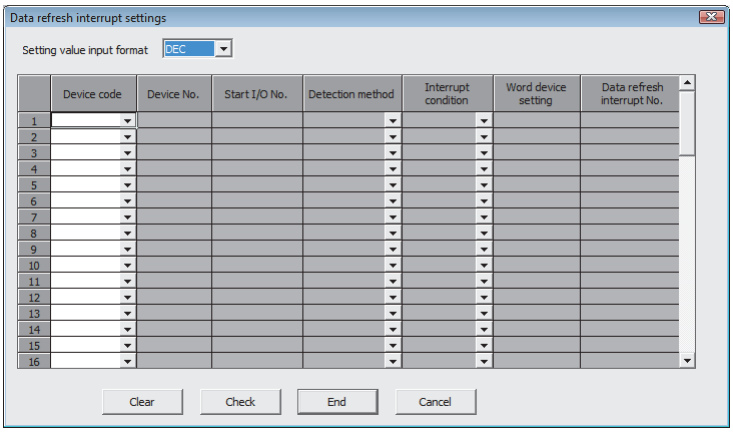


- "---" is displayed on the right of "Execute" when "Start" column is set properly.



Set for "Start" column and check that "---" is displayed on the right of "Execute".

(a) Data refresh interrupt settings



Item	Description
Setting value input format	Select the input format (decimal/hexadecimal) of word device setting value.
Device code	Set the device to be interrupt trigger. For devices that can be specified, refer to the following manual. MELSEC-Q C Controller Module User's Manual
Device No.	Set the device number to be interrupt trigger.
Start I/O No.	Specify the I/O position of such as network module that executes data refresh.
Detection method	Select from Level detection, Edge detection, Change.
Interrupt condition	See table below.
Word device setting	Set the device value to compare as interrupt condition when the word device is specified for device name.
Data refresh interrupt No.	Set the interrupt number (0 to 63) occurred when the conditions are satisfied.

Detection method	Interrupt condition	
	Bit device	Word device
Level detection	ON, OFF	Unequal, Equal
Edge detection		
Change	Not selectable	Not selectable

Point

- Duplicated settings of refresh device
  The devices with the same range can be set as refresh device as long as the operations selected in "Execute" are different.
  - Example Data refresh setting

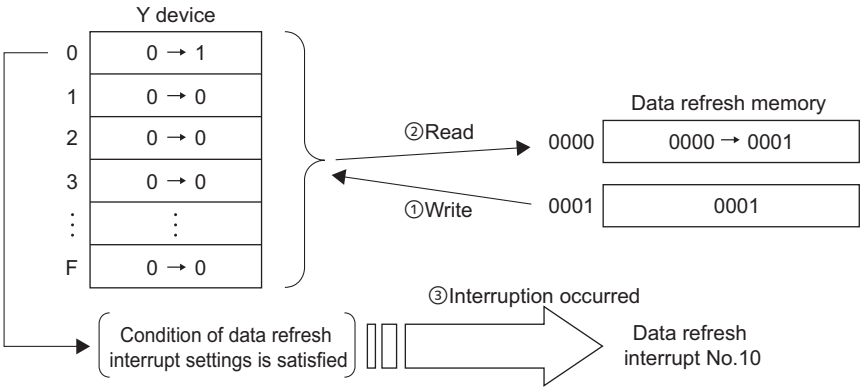
No.	Device				Start I/O No.	Execute		Data refresh memory	
	Device name	Points	Start	End				Start	End
1	Y	16	0	F		Read	---	00000	00000
2	Y	16	0	F		Write	---	00001	00001

- Operation when refresh device settings are duplicated
  Refreshing operation is performed in the following order regardless of the No.:

  ①The "Write" processing set to "Execute" is executed.
  (Data is stored from the data refresh memory to the devices.)
  ②The "Read" processing set to "Execute" is executed.
  (Data is stored from the devices to the data refresh memory.)
  ③If interrupt conditions are satisfied, an interrupt of the data refresh interrupt No. occurs.

  - Example Data refresh interrupt settings

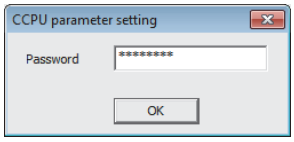
	Device code	Device No.	Start I/O No.	Detection method	Interrupt condition	Word device setting	Data refresh interrupt No.
1	Y	0		Level detection	ON		10



(12)Security settings

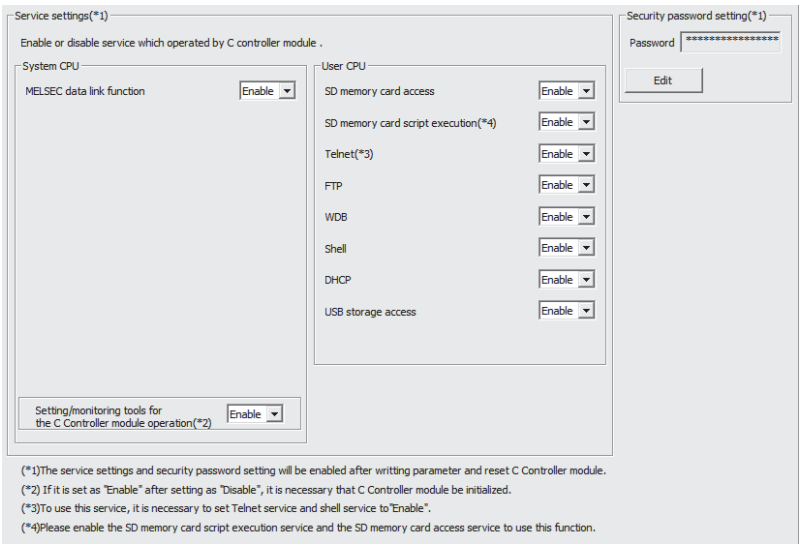
Point

To display the "Security setting" screen, enter the security password (initial setting: "password") in the <<Security settings>> tab on the "CCPU parameter setting" screen.

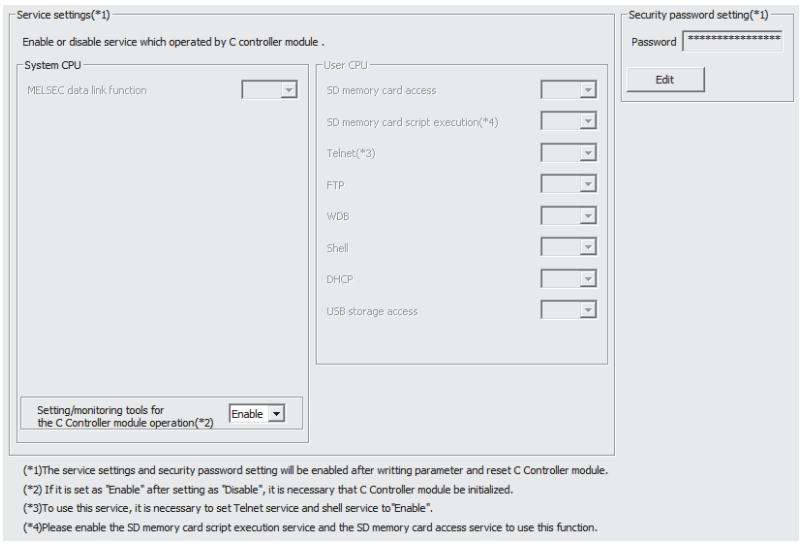


- The password can be changed on the "Security password setting" screen. (☞ Page 85, (12)(a) in this section)
- The entered password is valid until the End button or the Cancel button is clicked.

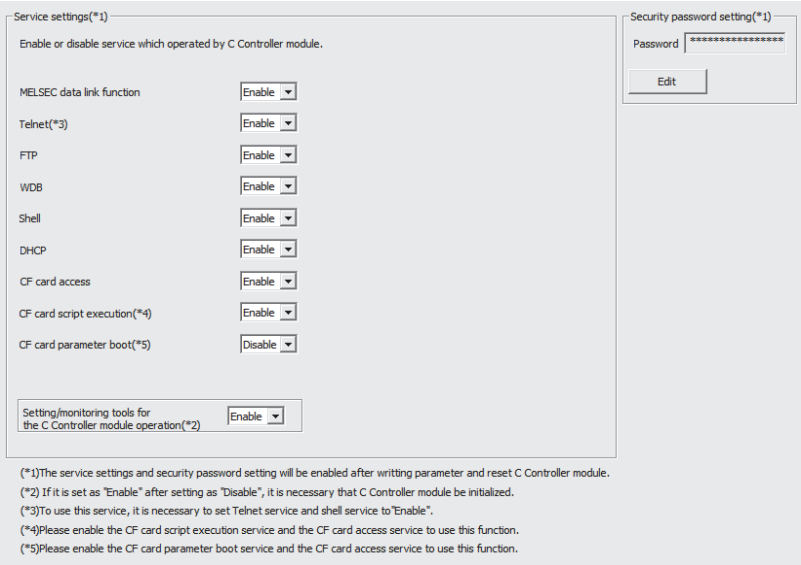
< Q24DHCCPU-V/-VG >



< Q24DHCCPU-LS and Q26DHCCPU-LS >



< Q12DCCPU-V >



Item		Description
Service settings		For details of each setting, refer to the following manual. MELSEC-Q C Controller Module User's Manual
	MELSEC data link function	Set whether to enable the MELSEC data link function service.
	Setting/monitoring tools for the C Controller module	Set whether to enable the service of Setting/monitoring tools for the C Controller module.
	SD memory card access*1	Set whether to enable the SD memory card access service.
	SD memory card script execution*1	Set whether to enable the SD memory card script execution service.
	CF card access*2	Set whether to enable the CompactFlash card access service.
	CF card Script execution*2	Set whether to enable the CompactFlash card script execution service.
	CF card parameter boot*2	Set whether to enable the CompactFlash card parameter boot service.
	Telnet	Set whether to enable the Telnet service.
	FTP	Set whether to enable the FTP service.
	WDB	Set whether to enable the WDB service.
	Shell	Set whether to enable the Shell service.
	DHCP	Set whether to enable the DHCP service.
	USB storage access*1	Set whether to enable the USB storage access service.
Security password setting		–
	Password	Set a password required for the file access restriction function and to display the "Security settings" screen.

*1 : Not supported by Q12DCCPU-V.
*2 : Not supported by Q24DHCCPU-V/-VG/-LS and Q26DHCCPU-LS.

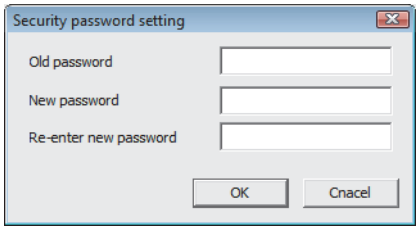
Screen button

- Edit

  Displays the "Security password setting" screen. (Page 85, (12)(a) in this section)

(a) Security password setting screen

Set a password required for the file access restriction function and to display the "Security settings" screen.



Item	Description
Old password*1	Enter the current password. (Default: "password")
New password*1	Set a password (8 to 16 characters).
Re-enter new password*1	Re-enter the password.

*1 : Applicable characters are one-byte alphanumeric characters and one-byte special characters. (Case-sensitive)
Inapplicable characters for the password: space, ", @

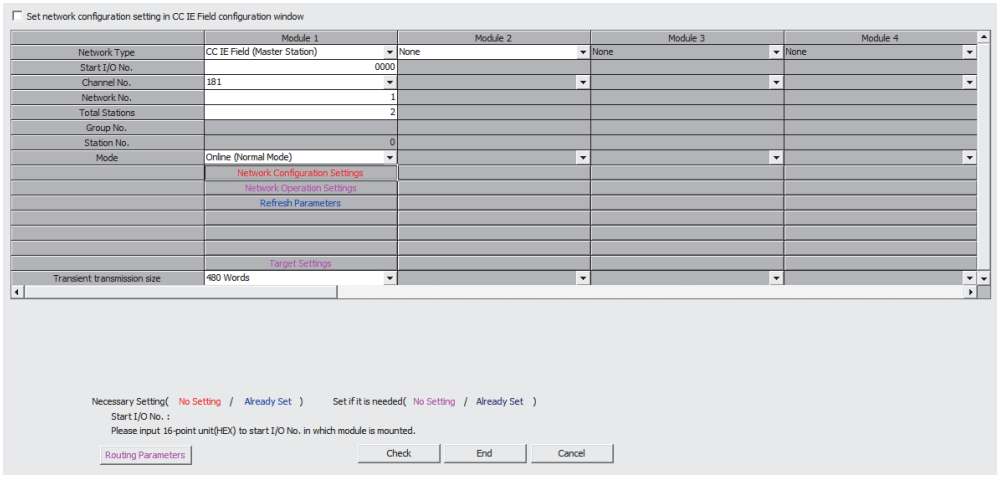
5.2 Setting Network Parameters

This section explains how to set the network parameters.

(1) CC-Link IE/MELSECNET parameter setting

Screen display

- **Select Project view ⇒ "Parameter" ⇒ "Network Parameter" ⇒ "CC IE/MELSECNET"**



Screen button

- Routing Parameters

  Displays the "Routing parameters setting" screen.
  (☞ Page 94, Section 5.2.1 (5))

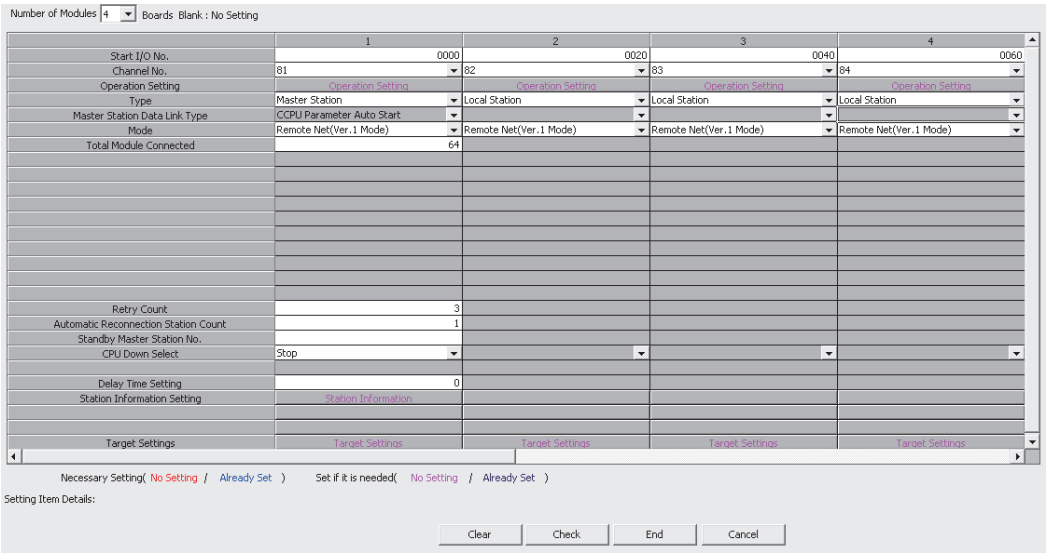
- Check

  Checks whether the set parameters are correct.

(2) CC-Link parameter setting

Screen display

- **Select Project view ⇒ "Parameter" ⇒ "Network Parameter" ⇒ "CC-Link".**



Screen button

- Clear

  Deletes the set parameters.

- Check

  Checks whether the set parameters are correct.

5.2.1 Network parameter item list

The following table shows the list of parameter setting items for network.

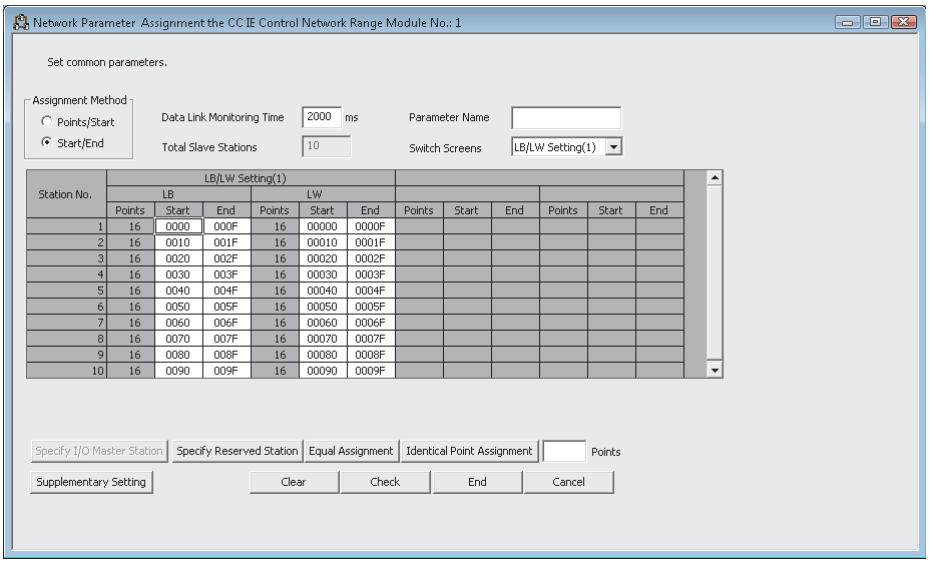
Item	Reference
CC-Link IE Controller Network setting	Page 88, (1) in this section
CC-Link IE Field Network setting	Page 91, (2) in this section
MELSECNET/H setting	Page 92, (3) in this section
CC-Link setting	Page 93, (4) in this section
Routing parameter setting	Page 94, (5) in this section
Refresh parameter setting	Page 94, (6) in this section

(1) CC-Link IE Controller Network setting

Item	Description
Network Type	Specify the network type (CC-Link IE Control) whose parameters are to be set.
Start I/O No.	Set the start I/O number (0000 to 0FE0) in 16-point unit.
Channel No.	Set the channel number (151 to 154) used for MELSEC data link function.
Network No.	Set the network number (1 to 239).
Total Stations	Set the total number of (slave) stations (2 to 120).
Group No.	Set the group number (1 to 32). Set to '0' when a group is not specified.
Station No.	Enter the station number (1 to 120) of module.
Mode	Set the mode.
Network Range Assignment	To the control station, assign each station's send range required for cyclic transmission and configure supplementary settings for data communication. (☞ Page 89, (1)(a) in this section)
Refresh Parameters	Set the link devices of the CC-Link IE Controller Network module and C Controller module, and the range of transfer between internal user devices. (☞ Page 94, (6) in this section)
Target settings	Set the network number, station number and target CPU accessed as logical station number. (☞ Page 90, (1)(b) in this section)
Transient transmission size*1	Set the maximum transmission size (480 words/960 words) when executing the transient transmission via other network numbers with MELSEC data link function.

*1 : When the data that exceeds the maximum size set for "Transient transmission size" is specified in MELSEC data link function, the data is divided and sent. Note that in SEND function of the mdSendEx function, the data that exceeds the maximum size set for "Transient transmission size" cannot be sent.

(a) Network range assignment screen



Item	Description
Assignment Method	Select from Points/Start or Start/End.
Data Link Monitoring Time	Set the data link monitoring time (ms).
Parameter Name	Set the name of parameter.
Total Slave Stations	Display the number of total slave stations.
Switch Screens	Switch the screens between LB/LW or LX/LY.
LB/LW or LX/LY Setting	Assign each station of cyclic data LB/LW or LX/LY.

Screen button

- Specify I/O Master Station

  Specify the I/O master station.
- Specify Reserved Station

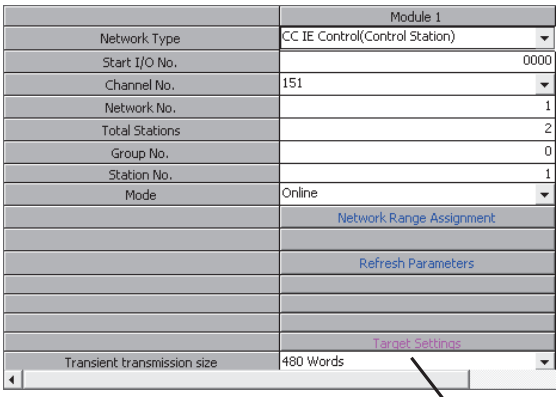
  Specify the reserved station.
- Equal Assignment

  Assign the number of link device points of all stations equally.
- Identical Point Assignment

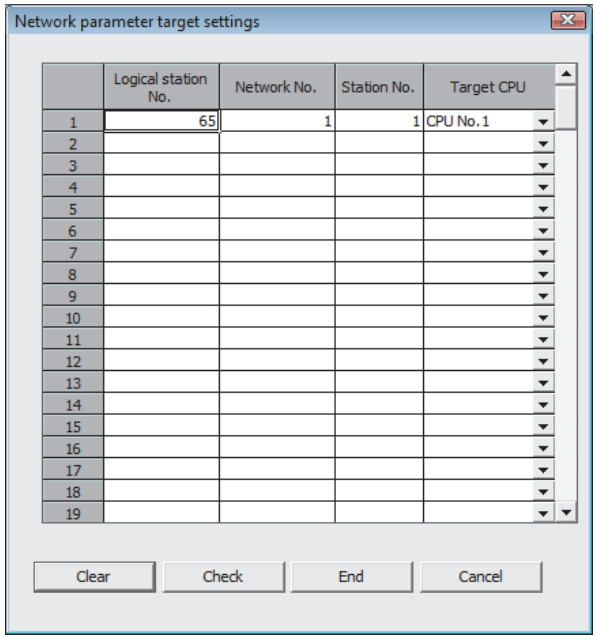
  Assign the same number of link device points based on the total number of set stations.
- Supplementary Setting

  Set such as the block data assurance per station setting and the transient settings.

(b) Target setting screen



Click "Target settings" to display the "Target settings" screen.



On "Target settings", set "Network No.", "Station No.", "Target CPU" for specifying "Logical station No.".
Set "Logical station No." within the range of 65 to 239.
The maximum number of "Logical station No." is 175.

(2) CC-Link IE Field Network setting

Item	Description
Set the network configuration setting in the CC IE Field Configuration window	Enable the CC IE Field Configuration window.*1 Select this to set the network configuration settings on the CC IE Field Configuration window.
Network Type	Specify the network type (CC IE Field) whose parameters are to be set.
Start I/O No.	Set the start I/O number in 16-point unit.
Channel No.	Set the channel number (181 to 188) used in MELSEC data link function.
Network No.	Set the network number.
Total Stations	Set the total number of (slave) stations. When CC IE Field Configuration window is enabled, the content set on the CC IE Field Configuration window is displayed.
Group No.	Set the group number.
Station No.	Set the station number of a module. When CC IE Field Configuration window is enabled, the content set on the CC IE Field Configuration window is displayed.
Mode	Set the mode.
CC IE Field Configuration Setting	When CC IE Field Configuration window is enabled, CC IE Field Configuration window is displayed. (☞ Page 95, Section 5.2.2)
Network Configuration Setting	When CC IE Field Configuration window is disabled, Network configuration window is displayed.
Equal Assignment	Assign the number of link device points of all stations equally.
Identical Point Assignment	Assign the same number of link device points based on the total number of set stations.
Supplementary Setting	Set the settings such as the link scan mode setting*2, loopback function setting, and block data assurance per station.
Network Operation Setting	Set the settings such as parameter name, data link faulty station setting, and output setting during CPU STOP.
Refresh Parameters	Set the link devices of the CC-Link IE Field Network module, and set the link devices and the range of transfer between internal buffers of C Controller module. (☞ Page 94, (6) in this section)
Target settings	Set the network number, station number and target CPU accessed as logical station number. (☞ Page 90, (1)(b) in this section)
Transient transmission size*3	Set the maximum transmission size (480 words/960 words) when executing the transient transmission via other network numbers with MELSEC data link function.

*1 : Master station only
*2 : Asynchronous only
*3 : When the data that exceeds the maximum size set for "Transient transmission size" is specified in MELSEC data link function, the data is divided and sent. Note that in SEND function of the mdSendEx function, the data that exceeds the maximum size set for "Transient transmission size" cannot be sent.

(3) MELSECNET/H setting

Item	Description
Network Type	Specify the network type (MELSECNET/10 mode or MELSECNET/H mode) whose parameters are to be set.
Start I/O No.	Set the start I/O number.
Channel No.	Set the channel number (51 to 54).
Network No.	Set the network number.*1
Total Stations	Set the total number of (slave) stations.
Group No.	Set the group number.
Mode	Set the mode.
Network Range Assignment	Set the I/O master station, reserved station, link devices, transient setting, and low-speed cyclic.
Refresh Parameters	Set refresh parameters.*2 (☞ Page 94, (6) in this section)
Target settings	Set the network number, station number and target CPU accessed as logical station number. (☞ Page 90, (1)(b) in this section)
Transient transmission size*3	Set the maximum transmission size (480 words/960 words) when executing the transient transmission via other network numbers with MELSEC data link function.

*1 : The same network number cannot be set.
*2 : The status of transient transmission error history cannot be set.
*3 : When the data that exceeds the maximum size set for "Transient transmission size" is specified in MELSEC data link function, the data is divided and sent. Note that in SEND function of the mdSendEx function, the data that exceeds the maximum size set for "Transient transmission size" cannot be sent.

Screen button

- Specify I/O Master Station
  Set the I/O master station.
- Specify Reserved Station
  Specify the reserved station.
- Equal Assignment
  Assign the number of link device points of all stations equally.
- Identical Point Assignment
  Assign the same number of link device points based on the total number of set stations.
- Supplementary Setting
  Set the settings such as transient setting and low-speed cyclic setting.

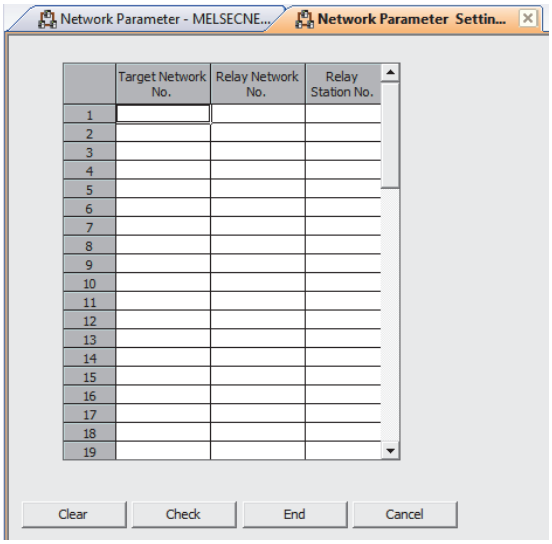
(4) CC-Link setting

Item	Description
Number of Modules	Set the number of CC-Link modules.
Start I/O No.	Set the start I/O number.
Channel No.	Set the channel number (81 to 88).
Operation Setting	Set the Parameter Name, Data Link Disorder Station, Case of CPU Stop Setting, Number of Exclusive Station, Expanded Cyclic Setting, and Block Data Assurance per Station.
Type	Set the master station or local station.
Master Station Data Link Type	The setting is fixed to "PLC Parameter Auto Start" for the master station.
Mode*1	Set the mode. Select the mode from Ver.1 Mode, Ver.2 Mode, Additional mode, Offline.
Total Module Connected	Set the total number of remote stations, local stations, intelligent device stations, and/or standby master stations connected to the master station.
Retry Count	Set the number of retries in case a communication error occurs.
Automatic Reconnection Station Count	Set the number of remote stations, local stations, intelligent device stations, and/or standby master stations can be returned to the system in one link scan.
Standby Master Station No.	Specify the station number of the standby master station.
CPU Down Select	Specify the data link status when an error occurs in the programmable controller CPU (programmable controller CPU, C Controller module) on the master station.
Delay time Setting	Set the link scan interval delay time.
Station Information Setting	Set the settings such as station type and exclusive counts.
Target settings	Set the station number and target CPU accessed as logical station number. (☞ Page 90, (1)(b) in this section)

*1 : The remote I/O network mode is not available.

(5) Routing parameter setting

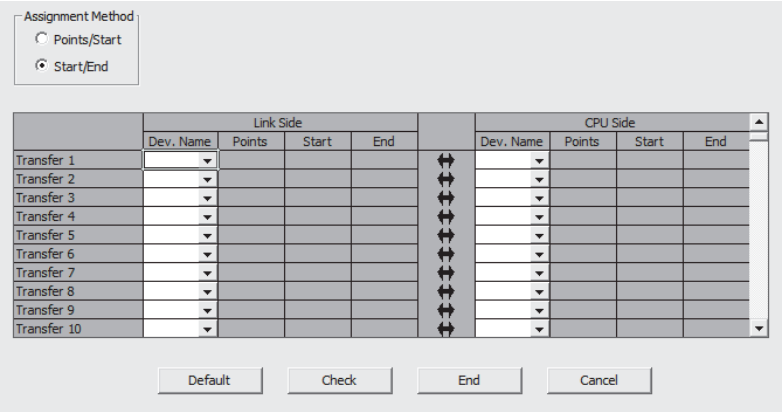
Display "Routing parameter setting" screen as shown below by clicking the Routing Parameters button.
This setting is common to MELSECNET/H, CC-Link IE Controller Network, and CC-Link IE Field Network.



Item	Description
Target Network No.	Set the network number (1 to 239) of other networks.
Relay Network No.	Set the network number (1 to 239) of local network.
Relay Station No.	Set the relay station number (1 to 120) of local network.

(6) Refresh parameter setting

The following screen is displayed when the refresh parameter is specified on the network parameter setting.



Item		Description
Assignment Method		Select from Points/Start or Start/End.
Link Side	Dev.name	Select the device of link side. Applicable devices: • CC-Link IE Controller Network, MELSECNET/H: LX, LY, LB, LW • CC-Link IE Field Network: RX, RY, RWw, RWr
CPU Side	Dev.name	Select the device of CPU side. Applicable devices: B, W

5.2.2 Setting parameters on CC IE Field Configuration window

Network configuration and equipment configuration of CC-Link IE Field Network can be set when "CC IE Field (Master Station)" is set in the CC-Link IE Field Network parameter.

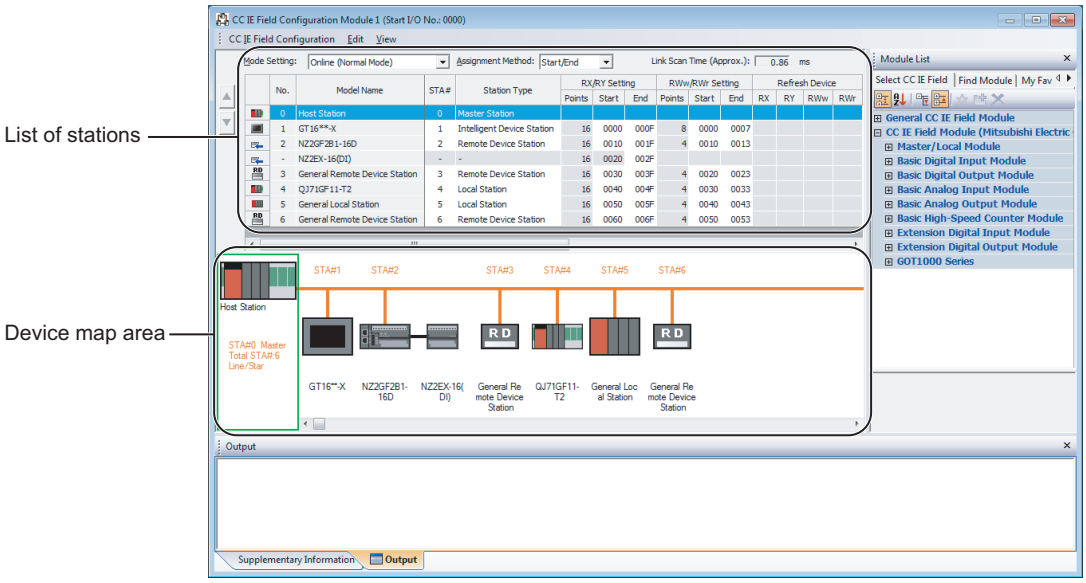
Point

Select "Set the network configuration setting in the CC IE Field Configuration window" on the CC-Link IE/MELSECNET Module Configuration screen in advance.

(1) CC IE Field Configuration window

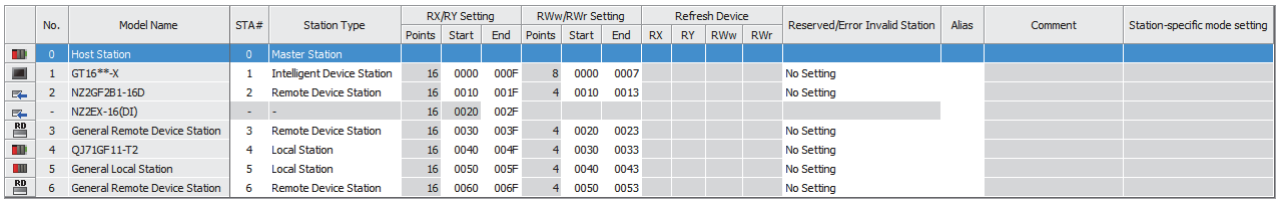
Screen display

- **Click the [CC IE Field Configuration Setting] button on the "CC-Link IE/MELSECNET Module Configuration" screen.**



Item	Description
Mode Setting	Select the mode by clicking.
Assignment Method	Select the assignment method of link device.
Link Scan Time (Approx.)	Display the approximate value of link scan time.
▲ / ▼	Move the position of the slave module selected in the 'list of stations' up/down. The station number does not change even when the position of the module is moved.
List of stations	Display the list of stations which configure CC-Link IE Field Network. (☞ Page 96, (1)(a) in this section)
Device map area	Display the equipment configuration of CC-Link IE Field Network graphically.
Module List	Display the CC IE Field modules in the list.
Supplementary Information window	Display the supplementary information of the refresh devices.
Output	Display the messages or errors occurred on the CC IE Field Configuration window.

(a) List of stations



No.	Model Name	STA#	Station Type	RX/RY Setting			RWw/RWr Setting			Refresh Device				Reserved/Error Invalid Station	Alias	Comment	Station-specific mode setting
				Points	Start	End	Points	Start	End	RX	RY	RWw	RWr				
0	Host Station	0	Master Station														
1	GT16**-X	1	Intelligent Device Station	16	0000	000F	8	0000	0007					No Setting			
2	NZ2GF2B1-16D	2	Remote Device Station	16	0010	001F	4	0010	0013					No Setting			
-	NZ2EX-16(DI)	-	-	16	0020	002F											
3	General Remote Device Station	3	Remote Device Station	16	0030	003F	4	0020	0023					No Setting			
4	QJ71GF11-T2	4	Local Station	16	0040	004F	4	0030	0033					No Setting			
5	General Local Station	5	Local Station	16	0050	005F	4	0040	0043					No Setting			
6	General Remote Device Station	6	Remote Device Station	16	0060	006F	4	0050	0053					No Setting			

Item	Description
Module No.	'0' is displayed for master station, and 'order of every slave station' is displayed for slave station.
Model Name	Display the module type of master station/slave station. When the module information does not exist, "Module without profile" is displayed. Set this item after registering the profile.
Station No. (STA#)	Set the station number of the master station/slave station in the range from 1 to 120.
Station Type	Display the station type of master station/slave station. Click the cell and select the station type displayed by clicking .
RX/RY Setting	Set the RX/RY assignment for each slave station. Set RX/RY in 16-point unit.
RWw/RWr Setting	Set the RWw/RWr assignment for each slave station. Set RWw/RWr in 4-point unit.
Refresh Device	Display devices of the CPU module to which link devices of master/local module are linkrefreshed. This item is displayed only when the refresh parameter is set.
Reserved/Error Invalid Station	Display the setting status of reserved station/error invalid station for slave station. Click the cell and select the reserved station/error invalid station displayed by clicking .
Alias	Display the device name.
Comment	Display the information set to comment 1 on the Property screen.
Station-specific mode setting	Display the station-specific mode of the module.

Operating procedure

1. **Select the module from the module list, and drag and drop it to the 'list of stations' or 'device map area'.**
   The slave station is added to the 'list of stations'. The added module is displayed on the 'device map area'.
2. **Set the parameters by following the screen items on the CC IE Field Configuration window.**
3. **Select [CC IE Field Configuration] ⇒ [Close with Reflecting the Setting].**
   Exit the settings of the CC-Link Configuration window.

Point

- Considerations when the selected status of "Set the network configuration setting in the CC IE Field configuration window" is changed
  The following are the considerations when editing the network configuration by changing selected/cleared status.
  - Selecting the item
    The network configuration of "CC IE Field (Master Station)" set on the CC-Link IE/MELSECNET Module Configuration screen is set on the CC IE Field Configuration window automatically.
    Note that, all modules of the network configuration are changed to general-purpose CC IE Field modules. The file size of parameter to be written to the C Controller module increases.
  - Clearing the item
    The network configuration set on the CC IE Field Configuration window is set on the CC-Link IE/MELSECNET Module Configuration screen automatically.
- Setting general-purpose CC IE Field modules
  When a non-Mitsubishi module or a module which is not displayed on the module list is used, drag and drop a generalpurpose CC IE Field module.
  A general-purpose CC IE Field module can be replaced with a specific module.
- Display of module name on the 'device map area'
  "Object Name" on the Properties screen is displayed for each module name on the 'device map area'.

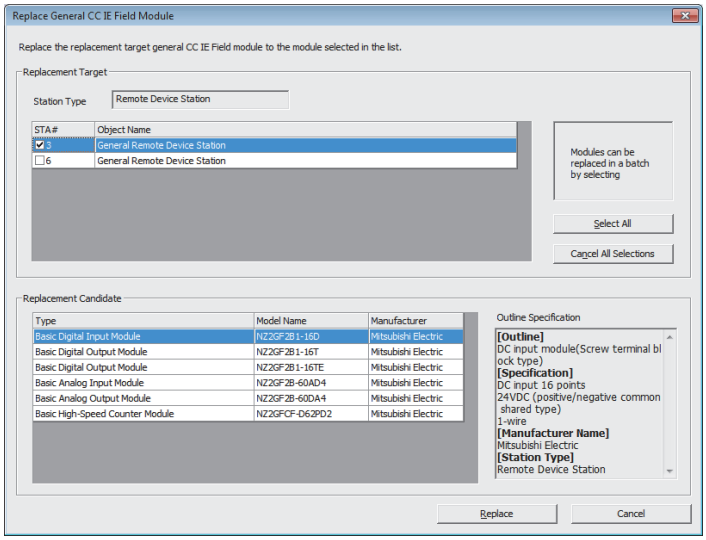
(2) Replacing general-purpose CC IE Field module

(a) Replace a general-purpose CC IE Field module with a specific module.

Replace a general-purpose CC IE Field module of slave station with a specific module.

Screen display

1. **Select the general-purpose CC IE Field module to be replaced in the 'list of stations' on the CC IE Field Configuration window.**
2. **Select [CC IE Field Configuration] ⇒ [Change Module] ⇒ [Replace General CC IE Field Module].**



Item		Description
Replacement Target		-
	Station Type	Display the station type selected on the CC IE Field Configuration window.
	List of modules to be replaced	Display the modules with the same condition as the one selected for “Replacement Target. Select the check box(es) on the "Station Number" column of the module to be replaced. (Two or more modules can be selected.)
Replacement Candidate		Select the module to be replaced with.

Operating procedure

- **Set the items on the screen, and click the** Replace **button.**

  The general-purpose CC IE Field module in the list of stations is replaced with the module selected for "Replacement Candidate".

  The general-purpose CC IE Field module displayed on the 'device map area' is replaced with the module selected for "Replacement Candidate".

Screen button

- Select All

  Selects all modules displayed on "Replacement Target".

- Cancel All Selections

  Cancels the selected status of all modules selected for "Replacement Target".

(b) Replacing to general-purpose CC IE Field module

Replace a module of slave station to a general-purpose CC IE Field module.

Operating procedure

1. **Select a module to be replaced in the 'list of stations' on the CC IE Field Configuration window.**
2. **Select [CC IE Field Configuration] ⇒ [Change Module] ⇒ [Change to General CC IE Field Module].**
   The module is changed to the corresponding general-purpose CC IE Field module.

(3) Changing transmission path method

Change the transmission path method to line / star or ring.

Operating procedure

- **Select [CC IE Field Configuration] ⇒ [Change Transmission Path Method] ⇒ [Line/Star] / [Ring].**
  The transmission path method is changed to the selected transmission path method.

Point

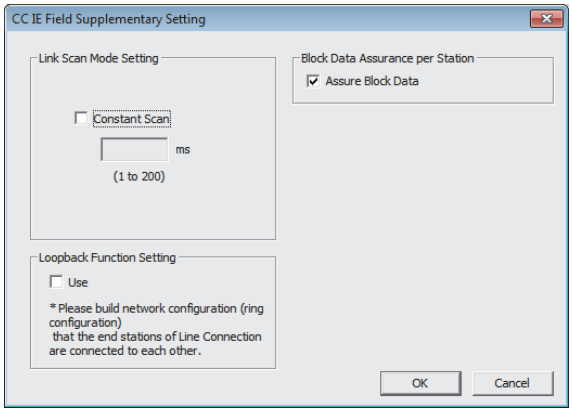
- Transmission path method and loopback function setting
  The change of transmission path method and the loopback function setting on the CC IE Field Supplementary Setting screen are linked.
  - When line/star is selected, the loopback function setting is disabled.
  - When ring is selected, the loopback function setting is enabled.

(4) Setting supplementary functions

Set the link scan mode setting, loopback function setting, and block data assurance per station.

Screen display

- **Select [CC-IE Field Configuration] ⇒ [Supplementary Setting].**



Item	Description
Link Scan Mode Setting	Set the constant scan time.
Loopback Function Setting	Set whether to use the loopback function. Select this item when the transmission path method is ring.
Block Data Assurance per Station	Set whether to assure block data per station for link refreshes between the CPU module and the master/local module. Select this when including a remote device station in the network configuration.

Operating procedure

- **Set the items on the screen, and click the [OK] button.**
  The settings are applied to the CC IE Field Configuration window.

Point

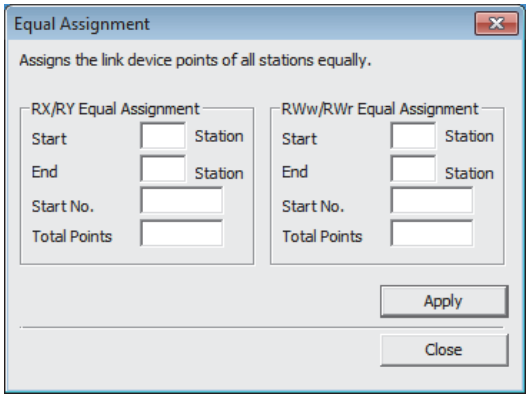
- Transmission path method and loopback function setting
  The change of transmission path method and the loopback function setting on the CC IE Field Supplementary Setting screen are linked.
  - When "Use" is cleared for the loopback function setting, line/start is selected for the setting under [CC IE Field Configuration] ⇒ [Change Transmission Path Method].
  - When "Use" is selected for the loopback function setting, ring is selected for the setting under [CC IE Field Configuration] ⇒ [Change Transmission Path Method].

(5) Assigning link devices equally

Assign link device points of all stations equally.

Screen display

- **Select [CC IE Field Configuration] ⇒ [Equal Assignment].**



Item		Description
RX/RY Equal Assignment		
	Start Station	Set the start station number to be assigned equally.
	End Station	Set the last station number to be assigned equally.
	Start No.	Set the start number of the link device to be assigned equally.
	Total Points Assigned	Set the total number of link device points to be assigned equally.
RWw/RWr Equal Assignment		
	Start Station	Set the start station number to be assigned equally.
	End Station	Set the last station number to be assigned equally.
	Start No.	Set the start number of the link device to be assigned equally.
	Total Points Assigned	Set the total number of link device points to be assigned equally.

Operating procedure

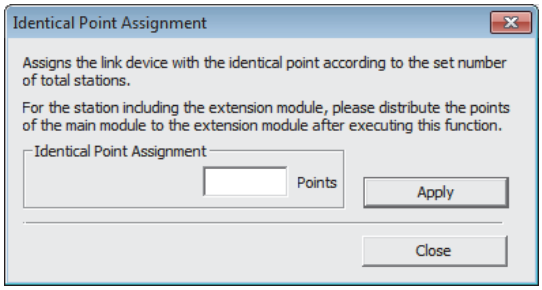
- **Set the items on the screen, and click the** Apply **button.**
  The settings are applied to the CC IE Field Configuration window.

(6) Assign the equal number of link device points

Assign the equal number of link device points based on the total number of set stations.

Screen display

- **Select [CC IE Field Configuration] ⇒ [Identical Point Assignment].**



Operating procedure

- **Enter the number of points to be assigned, and click the** Apply **button.**
  The equal number of points is assigned per stations.

(7) Checking system configuration of CC-Link IE Field Network

Check whether the equipment configuration of CC IE Field is correct after setting the network configuration on the CC IE Field Configuration window.

Operating procedure

- **Select [CC IE Field Configuration] ⇒ [Check] ⇒ [System Configuration].**
  The system configuration of CC-Link IE Field Network is checked.
  Check the result of the system configuration check on the Output window.

(8) Performing parameter processing of slave station

Perform the processing relates to parameters of slave stations.

The applicable parameter processing differs according to the target slave station.

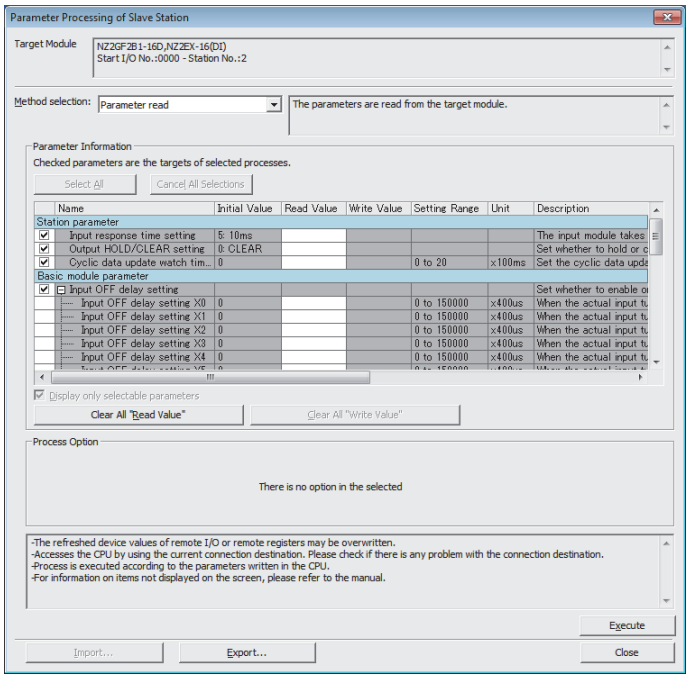
The setting status and setting values of the Parameter Processing of Slave Station screen can be saved in the CSV file format.

Point

- Considerations when performing parameter processing
  Check the following before performing the parameter processing.
  - The C Controller module set as a connection target is in STOP status.
  - The network parameter of master station matches with the start I/O number of CCPU parameter.
  - The network parameter of C Controller module matches with the actual CC IE Field configuration.

Screen display

1. **Select a module to which parameters are applied from the 'list of stations' on the CC IE Field Configuration window.**
2. **Select [CC IE Field Configuration] ⇒ [Parameter Processing of Slave Station].**



Item	Description
Target Module Information	Display the slave stations on which the parameter processing is performed.
Method selection	Select a processing to be performed from the list displayed by clicking.
Parameter Information	Display the parameters of the slave station. The selected parameters are the targets of the selected process to be executed.
Process Option	Set this for the processing selected for "Method selection".

Operating procedure

- **Set the items on the screen, and click the Execute button.**
  The parameter processing is performed.

Screen button

- Clear All "Read Value"
  Deletes all values displayed in the "Read Value" column of "Parameter Information".
- Clear All "Write Value"
  Deletes all values displayed in the "Write Value" column of "Parameter Information".
- Import...
  Imports the selected status and writing values of "Parameter Information" saved in the CSV file format in advance.
- Export...
  Saves the selected status and writing values of "Parameter Information" in the CSV file format.

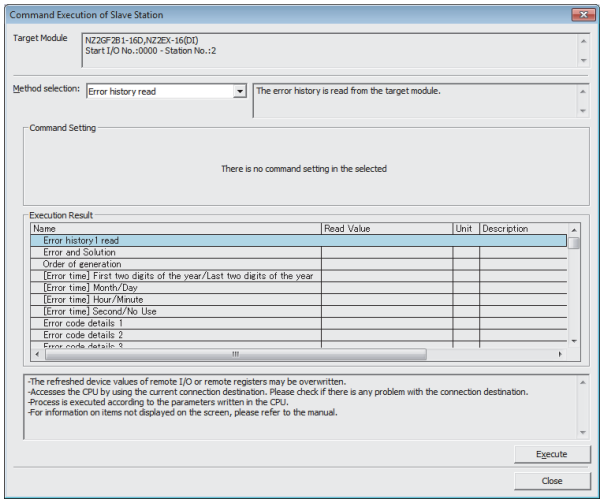
(9) Performing commands for slave stations

Perform commands for slave stations.

Applicable commands differ according to the target slave station.

Screen display

1. **Select a module on which a command is performed from the 'list of stations' on the CC IE Field Configuration window.**
2. **Select [CC IE Field Configuration] ⇒ [Command Execution of Slave Station].**



Item	Description
Target Module Information	Display the information of target module on which the command is performed.
Method selection	Select a processing to be performed from the list displayed by clicking.
Command Setting	Set the writing values set for the processing selected for "Method selection". For details, refer to the manual of the slave station being used.

Operating procedure

- **Set the items on the screen, and click the Execute button.**

  The command processing is performed.

  The result of the processing is displayed on "Execution Result".

5.3 Setting Intelligent Function Module Parameter

This section explains how to set the intelligent function module parameters.

Screen display

Operations from the menu and the project view are available.

- **"Project" menu ⇒ "Intelligent Function Module"**
- **Project view ⇒ "Intelligent Function Module"**

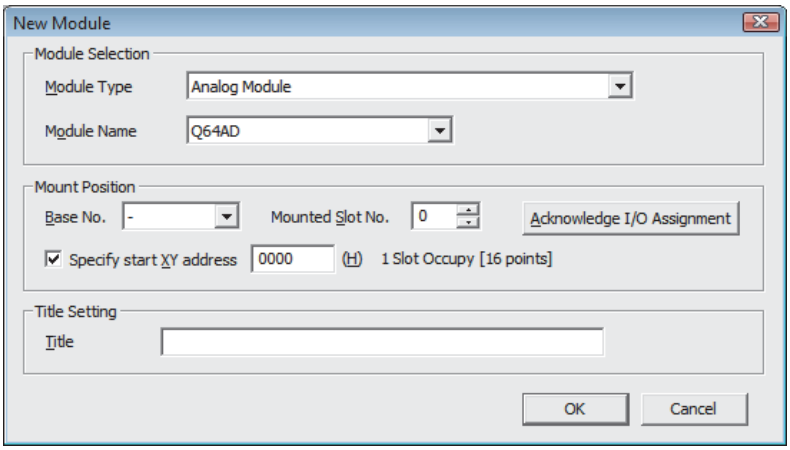
(1) Operations from the menu of "Intelligent Function Module"

(a) Adding modules

Add the intelligent function module.

Screen display

- **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Add New Module].**



(b) Deleting modules

Delete an intelligent function module.

Operating procedure

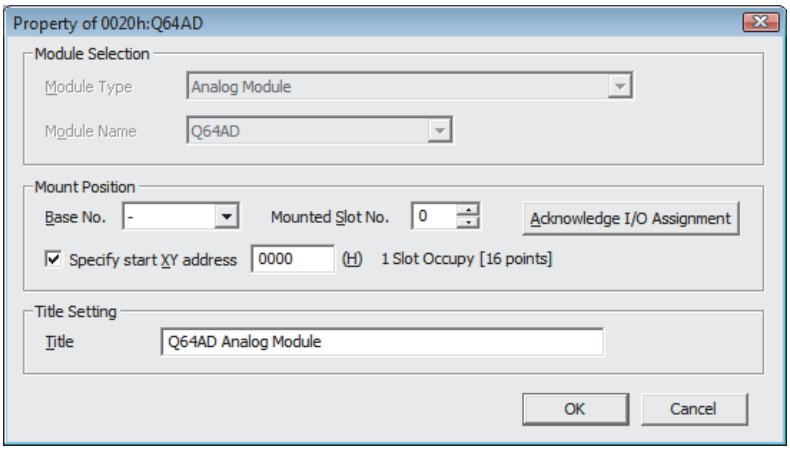
1. **Select the intelligent function module to be deleted from the Project view. (☞ Page 40, Section 4.2.1 (1))**
2. **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Delete Module].**
   The selected intelligent function module is deleted.

(c) Property

Set the properties of the intelligent function module.

Screen display

- **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Property].**

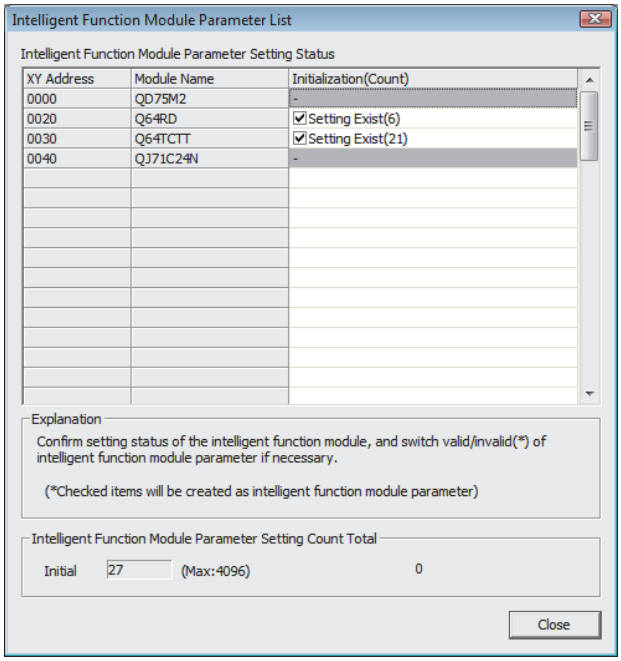


(d) Intelligent function module parameter list

Display the list of parameter setting status of all intelligent function modules.

Screen display

- **Select [Project] ⇒ [Intelligent Function Module] ⇒ [Intelligent Function Module Parameter List].**



(2) Operations from the project view

(a) Operations from the menu displayed by right-clicking "Intelligent Function Module".

Item	Description
New Module	Add an intelligent function module.
Paste	Paste the copied data of the intelligent function module.
Intelligent Function Module Parameter List	Display the list of parameter setting status of all intelligent function modules.
Read GX Configurator-QP Data	Read the data from the parameter file created in GX Configurator-QP.
Property	Check the modified date of parameters.

(b) Operations from the menu displayed by right-clicking each module.

Item	Description
Copy	Copy the intelligent function module data.
Delete	Delete the intelligent function module.
Register to Intelligent Function Module Monitor	Open the intelligent function module monitor window of selected module.
Property	Set the properties of the intelligent function module.

Point

- For settings of intelligent function module parameter, refer to the following manual.
  User's manual of each module to be used
- The auto refresh function of intelligent function module is not supported by C Controller module.
- The intelligent function modules without setting items cannot be added in Setting/monitoring tools for the C Controller module.
- When setting MODBUS® Interface Module, consider the terms displayed on the screen as the following terms.

The term displayed on the screen	Term
PLC	CPU
PLC CPU	C Controller module

(3) Operations from Simple Motion Module Setting Tool

Parameters and positioning data of simple motion modules are set by Simple Motion Module Setting Tool.

Screen display

- **Select Project view ⇒ "Intelligent Function Module" ⇒ "(module)", and double-click "Simple Motion Module Setting".**

Operating procedure

- **For the operating method of Simple Motion Module Setting Tool, refer to the following manual.**
  ☞ "Help" on the Simple Motion Module Setting Tool

Point

- C Controller module is not supported by L series simple motion modules (LD77MH4, LD77MH16).
- When using Simple Motion Module Setting Tool, replace the terms on the screen as follows.

Term on the screen	Term after the replacement
GX Works2	Setting/monitoring tools for the C Controller module
MELSOFT Application	MELSEC
GX Works2 Version 1 Operating Manual	Setting/Monitoring Tools for the C Controller Module Operating Manual
GX Works2 Version 1 Operating Manual (Common)	
PLC CPU	C Controller module
Device/Buffer Memory batch Monitor	Device Monitor

CHAPTER 6 SETTING C CONTROLLER MODULE CONNECTION DESTINATION

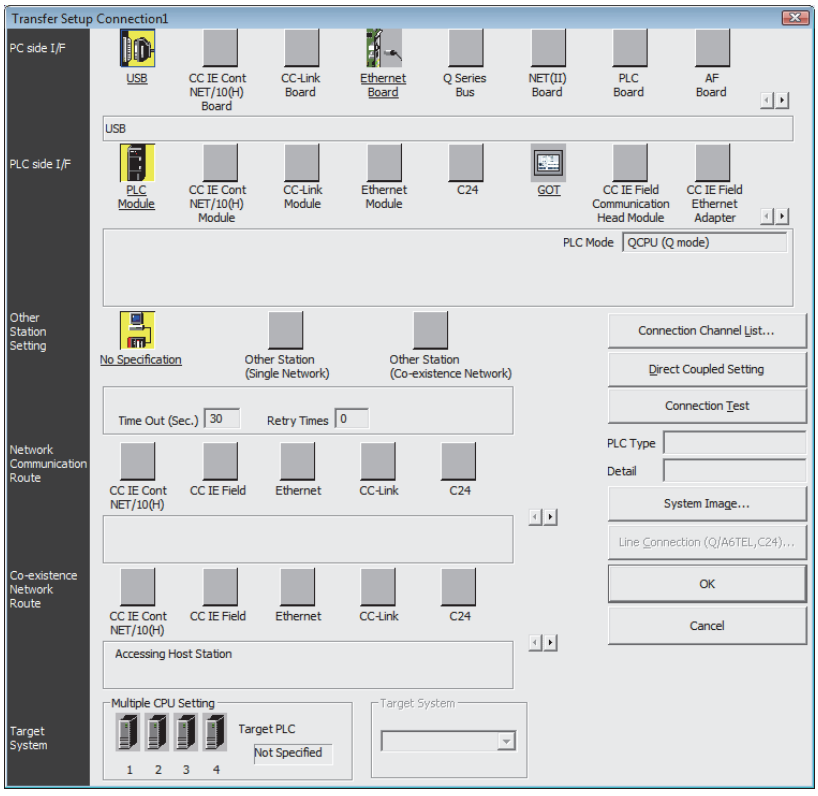
This chapter explains how to set a connection destination for accessing a C Controller module from Setting/monitoring tools for the C Controller module.

6.1 Setting Connection Destinations

This section explains how to set communication routes, including the interfaces both on the personal computer and programmable controller CPU and the routing networks, for accessing a C Controller module.
Multiple connection destinations can be set in Setting/monitoring tools for the C Controller module. To set multiple connection destinations, create data for each connection destination on the "New Data" screen. (☞ Page 112, Section 6.1.2)

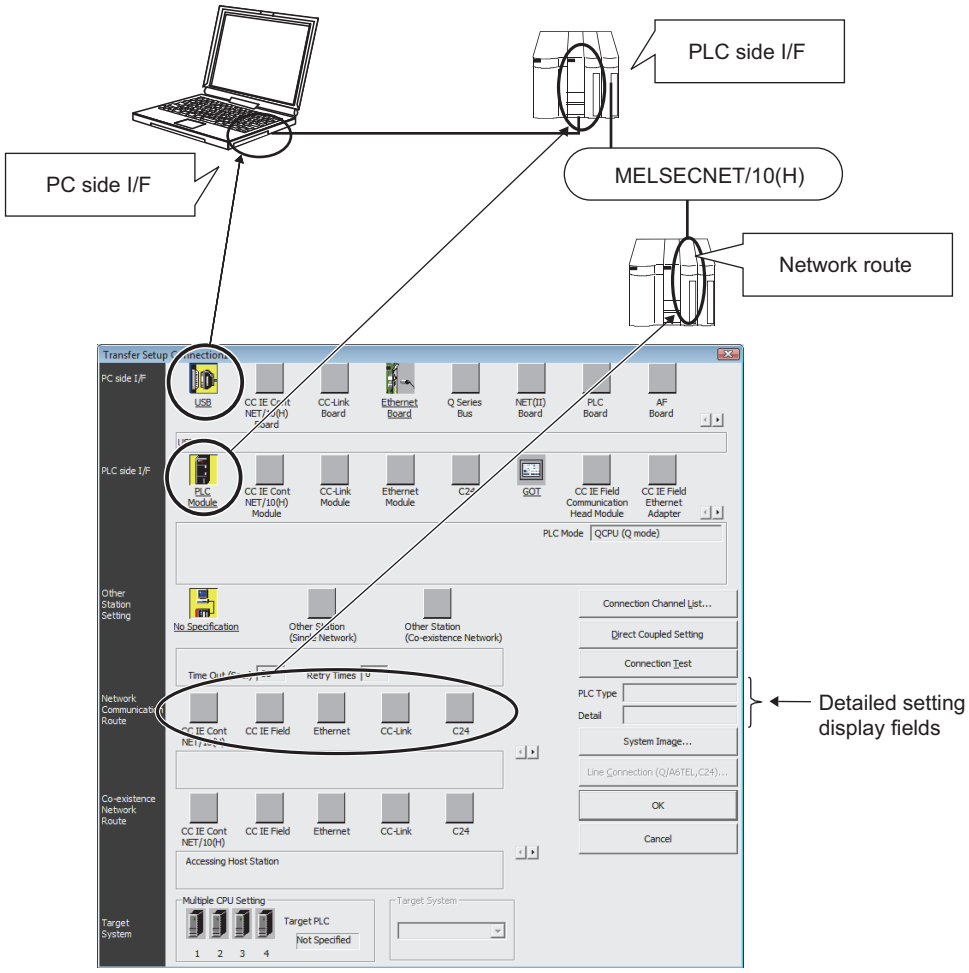
Screen display

- **Select Navigation window ⇒ Connection Destination view ⇒ "(connection destination data name)".**



6.1.1 Transfer setup screen

Interfaces are displayed on the "Transfer Setup" screen as shown below and detailed settings of each interface can be configured.



Detailed settings can be set for underlined items on the screen. Double-click these items to set the details.
The items whose icons are displayed in yellow are items that have been already set.

- **PC side I/F**

  Set the interface of the personal computer.
- **PLC side I/F**

  Set the interface of the C Controller module connected to the personal computer.
- **Other Station Setting**

Item	Description
No Specification	Specify this to access the C Controller module directly connected to a personal computer.

- **Target system**

  Specify the access target in the multiple CPU system
  Only "No Specification" can be selected for "Other Station Setting".

Screen button

- Connection Channel List...

  Displays the "Connection Channel List" screen.
  The connection destination can be set while checking network routes on the "Connection Channel List" screen.
  Since the route selected on the "Connection Channel List" screen is set automatically on the "Transfer Setup" screen, the setting is easy even for a complex system.
  (☞ Page 111, (1) in this section)

- Direct Coupled Setting

  Changes the connection destination setting for the setting that connects a personal computer directly to the C Controller module to be accessed.
  This function is useful to change the station specification from another station to host station.

- Connection Test

  Tests if the target C Controller module set on the "Transfer Setup" screen can be accessed normally.
  If accessed normally, the model of the target C Controller module is displayed on the "PLC Type" field, one of the detailed setting display fields. In addition, for the multiple CPU system, the CPU number of the connection destination is displayed on the "Detail" field.

- System Image...

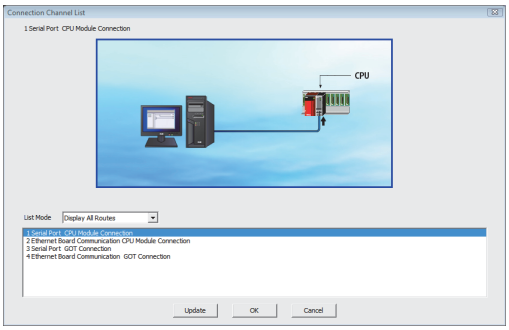
  Displays the set connection channel in an illustration.

(1) Connection channel list

Operating procedure

1. **Select a route on the "Connection Channel List" screen.**
2. **Click the** Update / OK **button.**

   The selected route is displayed on the "Transfer Setup" screen. Set the settings such as network number and station number depending on the access target.



- "List mode"

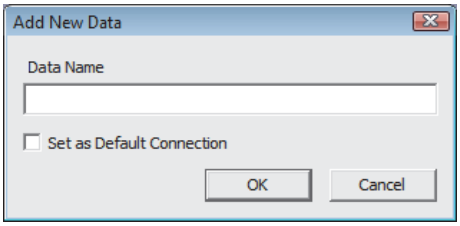
List mode	Description
Display All Routes	Display all routes supported by Setting/monitoring tools for the C Controller module.
Display Selected Routes	Specify the interfaces for "PC side I/F" and "PLC side I/F" on the "Transfer Setup" screen and select "Display Selected Routes" to display only accessible communication routes.

6.1.2 Creating connections

Create a new connection.
Select Navigation window ⇒ Connection Destination view, and perform the following operation.

Screen display

- **Select [Project] ⇒ [Object] ⇒ [New] ( ).**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Data Name	Enter the name of the connection to be created.
Set as Default Connection	Select this to specify the connection destination to be created for regular use.

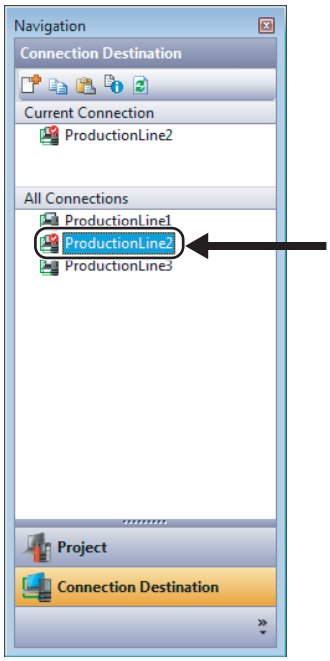
2. **Click the OK button.**
The created connection target is added to "All Connections" in the Connection Destination view.

6.1.3 Specifying connection destination for regular use

Specify the connection destination for regular use when multiple connection destinations are set.

Operating procedure

1. **Select the connection destination data to be specified for regular use from the "All Connections" on the Connection Destination view.**
2. **Select [Project] ⇒ [Object] ⇒ [Set as Default Connection].**
   The name of the selected connection destination data is set as the connection destination for regular use, and displayed on "Current Connection".



is appended to the icon of data specified as the connection destination for regular use.

Point

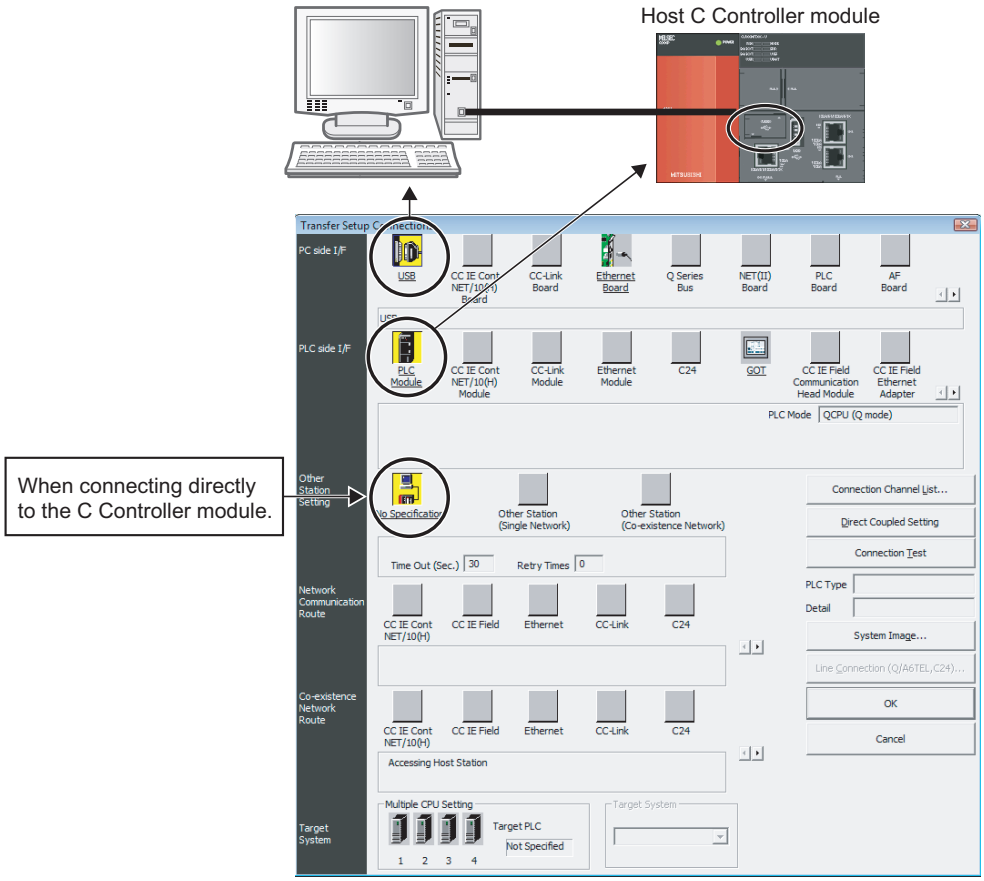
- Connection destination setting
  The connection destination data can also be specified for regular use by dragging and dropping it from "All Connections" to "Current Connection".

6.2 Accessing C Controller Module Directly

This section explains how to access the C Controller module directly connected to a personal computer.

6.2.1 Connecting with USB cable

The following explains the setting for accessing the host C Controller module from Setting/monitoring tools for the C Controller module with USB cable.

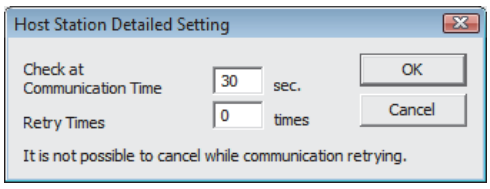


Operating procedure

1. **Set "Serial USB" for "PC side I/F" on the "Transfer Setup" screen.**

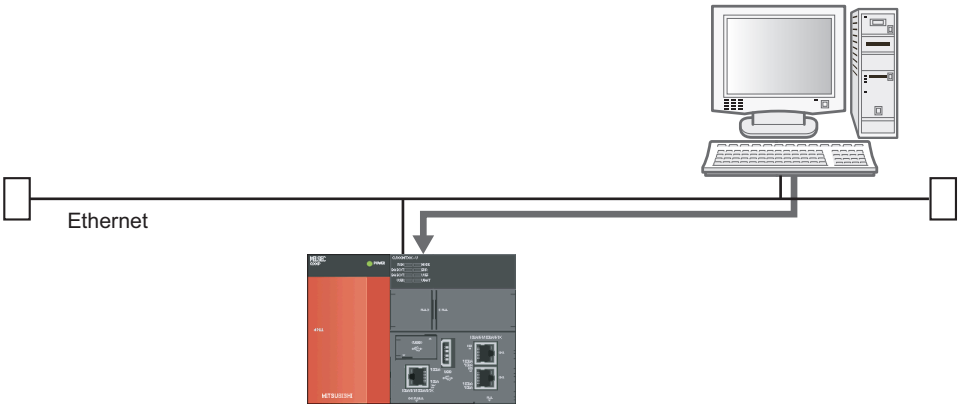
2. **Set "PLC Module" for "PLC side I/F" on the "Transfer Setup" screen.**

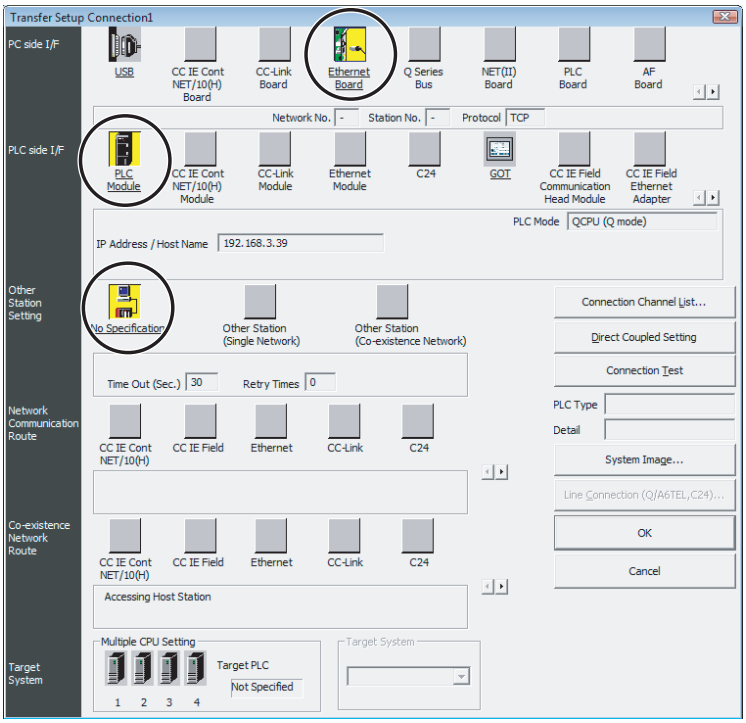
3. **Double-click the "No Specification" icon for "Other Station Setting" on the "Transfer Setup" screen to display the screen as shown on the right.**
   Set "Check at communication time" and "Retry times" as necessary.
   Click the OK button.



6.2.2 Accessing by Ethernet

Access the C Controller module from Setting/monitoring tools for the C Controller module by Ethernet.

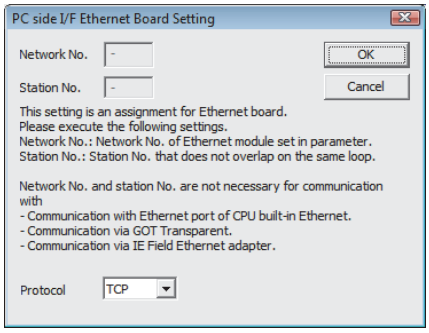




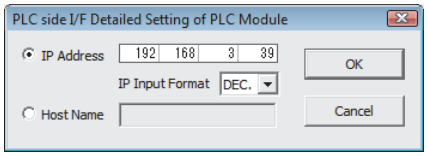
Operating procedure

1. **Double-click the "Ethernet Board" icon for "PC side I/F" on the "Transfer Setup" screen to display the screen as shown on the right.**

   Select the protocol, and click the [OK] button.

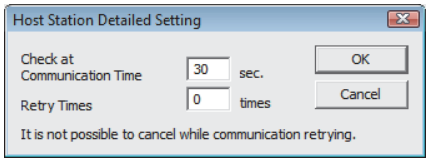


2. **Double-click the "PLC Module" icon for "PLC side I/F" on the "Transfer Setup" screen to display the screen as shown on the right.**
   Set the IP address or the host name, and click the [OK] button.



3. **Double-click the "No Specification" icon for "Other Station Setting" on the "Transfer Setup" screen to display the screen as shown on the right.**
   Set "Check at communication time" and "Retry times" as necessary.

   Click the [OK] button.



6.3 Accessing C Controller Module in Multiple CPU System

This section explains how to access the C Controller module (host CPU) directly connected to the personal computer or other CPUs in the multiple CPU system.

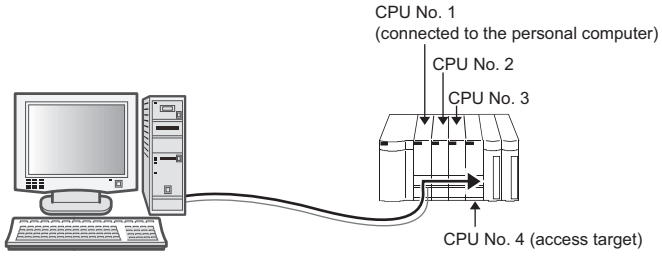
(1) Accessing host CPU

The setting for accessing the host CPU is the same as that for accessing the C Controller module on the host station. (☞ Page 114, Section 6.2)

(2) Accessing other CPUs

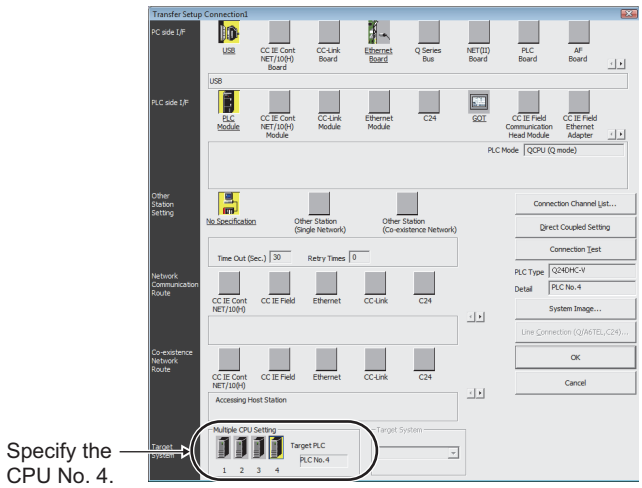
In the multiple CPU system, specify the CPU number of the access target at "Multiple CPU Setting" when accessing a C Controller module that is not directly connected to the personal computer.

The following shows a setting example when accessing the CPU No.4 by connecting the personal computer to the CPU No.1.



Operating procedure

1. **Set "PC side I/F" and "PLC side I/F".**
   (☞ Page 110, Section 6.1.1)
2. **Set the access target CPU number at "Multiple CPU Setting" for "Target System".**



6.4 Setting for Access via GOT (GOT Transparent Function)

This section explains how to access the C Controller module from Setting/monitoring tools for the C Controller module via GOT using the GOT transparent function.

Point

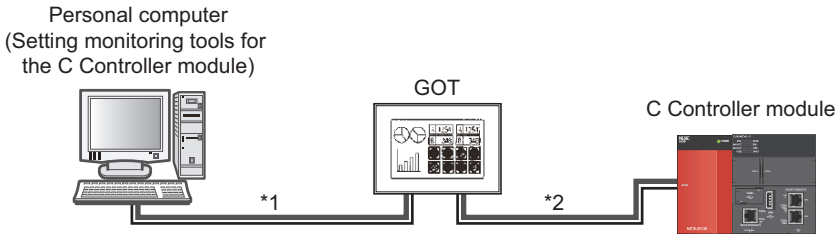
- Considerations on executing online operations from Setting/monitoring tools for the C Controller module
  Do not execute online operations from GT Designer3 to GOT (such as downloading project data) when online operations are being executed from Setting/monitoring tools for the C Controller module to the C Controller module using the GOT transparent function.
- When GOT does not monitor normally
  The GOT transparent function cannot be used in the following cases.
  - When GOT does not monitor normally due to C Controller module errors or communication errors between the C Controller module and GOT
  - During the period of time between turning ON the C Controller module or GOT and the start of GOT monitoring
  - During the period of time between resetting the C Controller module or GOT and the start of GOT monitoring

Check the following items if GOT does not monitor normally.

Item	Description
Does the C Controller module operates normally?	Refer to the user's manual of the C Controller module used.
Is the C Controller module connected to GOT normally?	Refer to the user's manual of the GOT to be used. GOT1000 Series Connection Manual GOT2000 Series Connection Manual

6.4.1 Accessing C Controller module via GOT

Access the C Controller module via GOT.



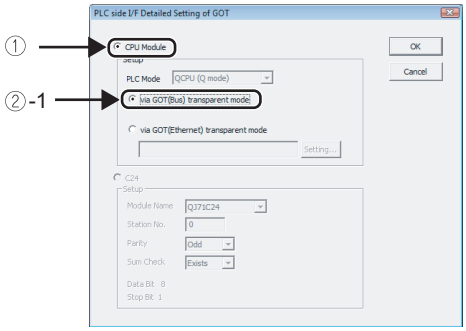
*1 : The following table shows the connection between the personal computer and GOT.
*2 : For cables connecting GOT with the C Controller module, GOT settings, and considerations, refer to the manual of the GOT connected.
GOT1000 Series Connection Manual
GOT2000 Series Connection Manual

Connection	GOT			
	GOT2000 series	GOT1000 series	GOT-A900 series	GOT-F900 series
USB connection	○	○	–	–
Ethernet connection	○	○	–	–

○: Connectable

Operating procedure

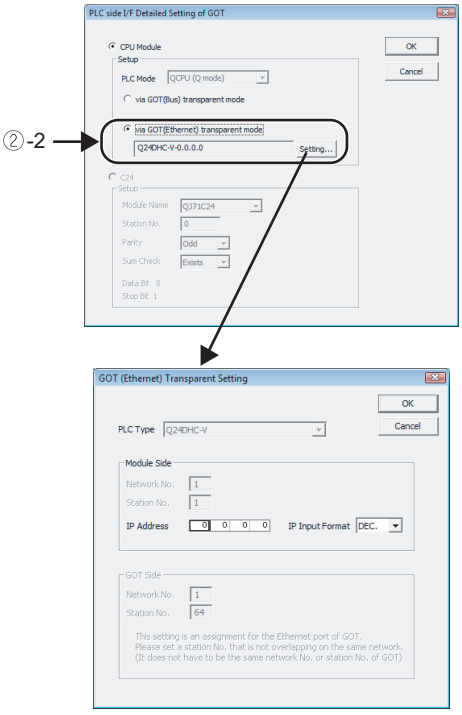
1. Double-click the "GOT" icon for "PLC side I/F" on the "Transfer Setup" screen to display the "PLC side I/F Detailed Setting of GOT" screen.



① Select "PLC Module".
Set the following setting according to the setting method between a GOT and a C Controller module when "Serial USB" is set for "PC side I/F".

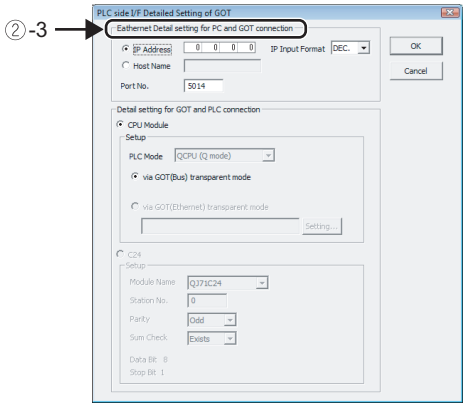
②-1 Bus connection:
Select "via GOT (Bus) transparent mode" for "Setup".

②-2 Ethernet connection:
Select "via GOT (Ethernet) transparent mode" for "Setup", click the Setting... button, and set the settings for "Module Side" on the "GOT (Ethernet) Transparent Setting" screen.



Set the following setting when "Ethernet Board" is set for "PC side I/F".

②-3 Ethernet connection:
Set the settings for "Ethernet Detail setting for PC and GOT connection".



2. Set "Other Station Setting" depending on a route to the connection destination.
(☞ Page 110, Section 6.1.1)

Point

- A C Controller module and a GOT cannot be connected with Ethernet.

6.5 Considerations of Communication with C Controller Module

This section explains the considerations of communication with the C Controller module.
Refer to POINT and Restrictions described in each section as well as the descriptions in this section.

(1) Considerations of communication with the C Controller module using a USB cable

(a) Connecting and disconnecting a USB cable, resetting the C Controller module, and turning the power ON/OFF

A communication error may occur and operation may not be recovered if connecting and disconnecting a USB cable, resetting the C Controller module, or turning the power ON/OFF is performed frequently during communication with the C Controller module.

Be sure to set Setting/monitoring tools for the C Controller module to offline[*1] as much as possible during these operations.

When operation is not recovered from an error, remove the USB cable. Then, connect it again after five or more seconds. (Even after this operation, an error may occur at initial communication. However, communication will be successful after that.)

*1 : The offline indicates the status other than indicated below.
- Write to CCPU, Read from CCPU, Monitor, and CCPU diagnostics

(b) Combination of personal computers and USB cables

A communication error may occur depending on the combination of personal computers and USB cables.
If an error occurs, take appropriate actions according to the message displayed on the screen.

(2) Other considerations

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

A communication error may occur during communication with the C Controller module when the resume function, suspend function, power saving function, or standby mode is set to the personal computer.
Disable these settings for communication with the programmable controller CPU.

(b) Communication errors for Setting/monitoring tools for the C Controller module

When the line is busy, the occurrence of communication error (timeout error) for Setting/monitoring tools for the C Controller module increases.
When the error occurs, reset the connection destination.

CHAPTER 7 WRITING/READING/VERIFYING DELETING PROJECT

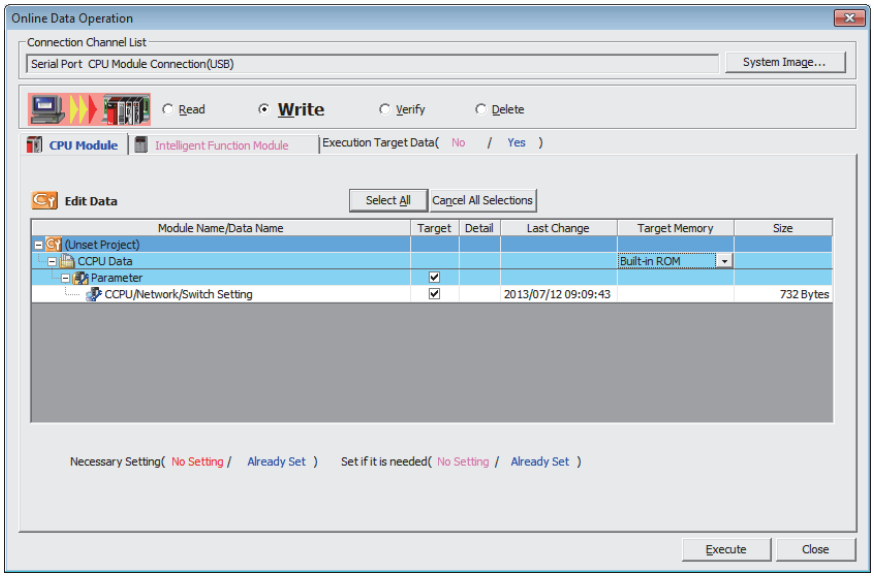
This chapter explains the project data operations (write/read/verify/delete) performed on a C Controller module.

7.1 Writing or Reading Project to/from C Controller Module

Write project data to the C Controller module, or read data from the C Controller module to the project.

Screen display

- **Select [Online] ⇒ [Write to CCPU]/[Read from CCPU] ⇒ <<CPU Module>>.**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Connection Channel List		Display the information of the connection destination setting.
Target module tab		Switch the setting target module. Characters on the tab are displayed in blue when data to be written/read exist.
	CPU Module	Set the data to be written/read.
	Intelligent Function Module	
File list		Select the data to be written/read.
Target Memory*1		Select the target memory.

*1 : Q24DHCCPU-V/-VG/-LS and Q26DHCCPU-LS cannot be selected.

2. **Click the** Execute **button.**

The data are written to/read from the C Controller module.

Screen button

- System Image...

  Displays the "System Image" screen.
  The connection channel can be checked graphically.
- Select All

  Selects all data displayed in the list.
- Cancel All Selections

  Cancels the selection status of all data selected in the list.

Point

- Writing data to C Controller module
  The written data (parameters) are validated when power cycling or after resetting the C Controller module.

7.2 Writing/Reading Intelligent Function Module Data

This section explains how to write intelligent function module data to a C Controller module or intelligent function module buffer memory/flash ROM.
Intelligent function module data includes intelligent function module parameters to be written to a C Controller module as a parameter file, and data whose values are written directly to intelligent function module buffer memory/flash ROM.

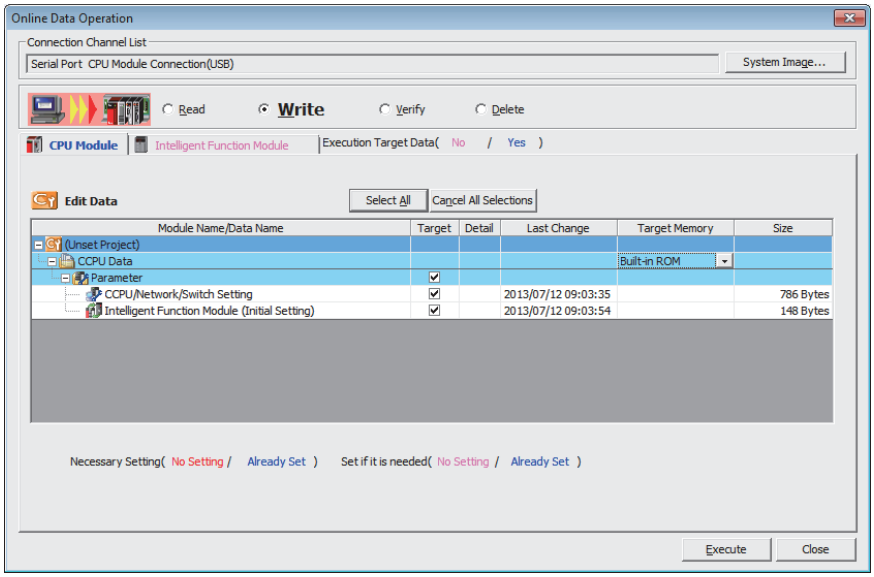
Remark

- For details of intelligent function module data, refer to the following manuals.
  GX Works2 Version 1 Operating Manual (Intelligent Function Module)
  User's Manual to be used

(1) Writing/reading data as parameter files to/from C Controller module

Screen display

- **Select [Online] ⇒ [Write to CCPU]/[Read from CCPU] ⇒ <<CPU Module>>.**



Operating procedure

1. **Select "Intelligent Function Module (Initial Setting)" from the file list.**
   For the items and buttons on the screen, refer to the following section.
   ☞ Page 121, Section 7.1
2. **Click the [Execute] button.**
   Data are written to/read from the C Controller module.

(2) Writing/reading data to/from intelligent function module buffer memory/flash ROM

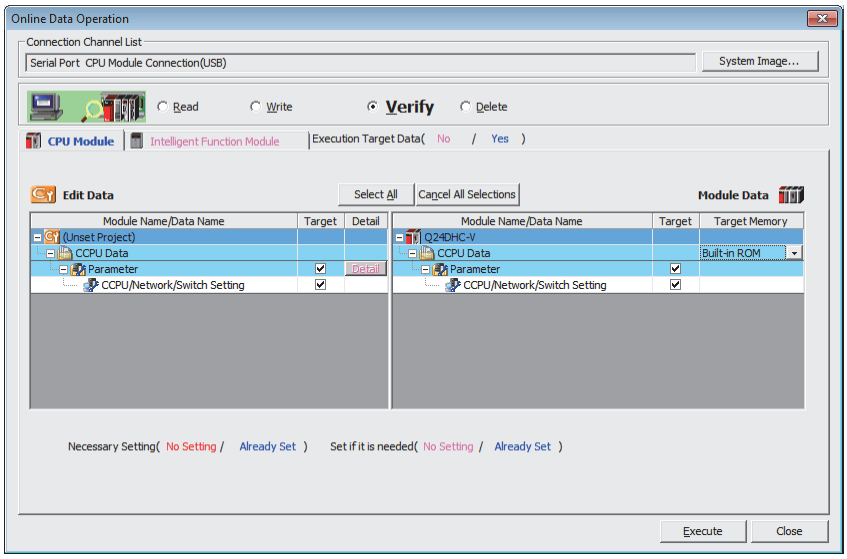
Write/read the set intelligent function module data to/from the buffer memory/flash ROM of the intelligent function module via a C Controller module.

Use the operation for changing the data temporarily during debugging.

If a module does not have initial settings for intelligent function module parameters, this function can directly write data such as initial values to the intelligent function module buffer memory/flash ROM.

Screen display

- **Select [Online] ⇒ [Write to CCPU]/[Read from CCPU] ⇒ <<Intelligent Function Module>>.**



The items in Detail may differ depending on the module.

Operating procedure

1. **Select "Valid" for write/read target module and "Target" for each item.**

   Set details such as a write/read range and write target by clicking the Detail button.

   For the items and buttons on the screen, refer to the following section.

   ☞ Page 121, Section 7.1

2. **Click the Execute button.**

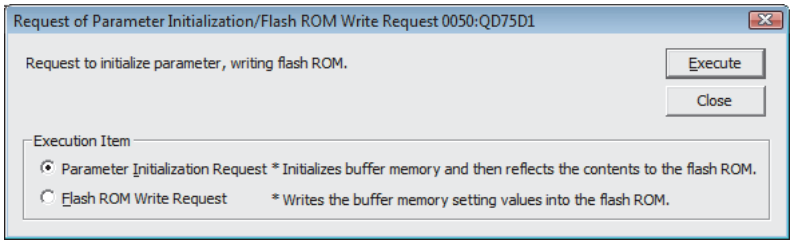
   The set data are written to/read from the buffer memory/flash ROM of the intelligent function module.

(3) Requesting parameter initialization and flash ROM write on QD75 positioning module

Request a buffer memory data write from the QD75 positioning module to the flash ROM. Buffer memory data can be initialized and applied to the flash ROM.
Parameters, servo parameters, positioning data, and block start data (including condition data) of all ranges are written in batch from the buffer memory to the flash ROM.

Screen display

- **Select [Tool] ⇒ [Request of Parameter Initialization/Flash ROM Write Request].**



Operating procedure

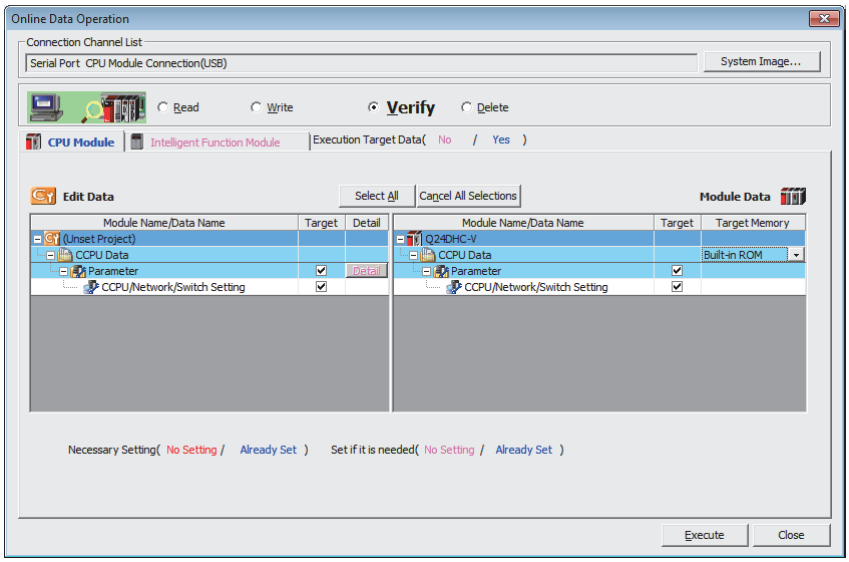
1. **Select an item under "Execution Item".**
2. **Click the** Execute **button.**
   The request of the selected item is executed.

7.3 Verifying Data on C Controller Module against Data on Personal Computer

This section explains how to verify the open project against the data on the C Controller module.
The verification function is used to compare the content of two projects or to locate program changes.

Screen display

- **Select [Online] ⇒ [Verify with CCPU] ⇒ <<CPU Module>>.**



Operating procedure

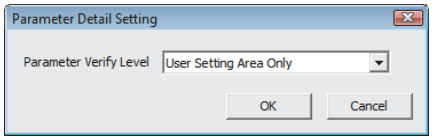
1. **Select data to verify from the file list.**
   For the items and buttons on the screen, refer to the following section.
   ☞ Page 121, Section 7.1
2. **Click the** Execute **button.**
   The data are verified.

Point

The following explains the verification levels that can be selected for verifying parameters.

Screen display

- **Select the parameter and click the** Detail **button.**



The following table shows the setting items for parameter verification.

Item	Description
User Setting Area Only	Verify only the parameter area set by the user.
All Areas	Verify all area including the parameter area set by the system.

Operating procedure

- **When a mismatched point is detected in the verification**
  The following message is displayed.
  Take corrective action according to the message.

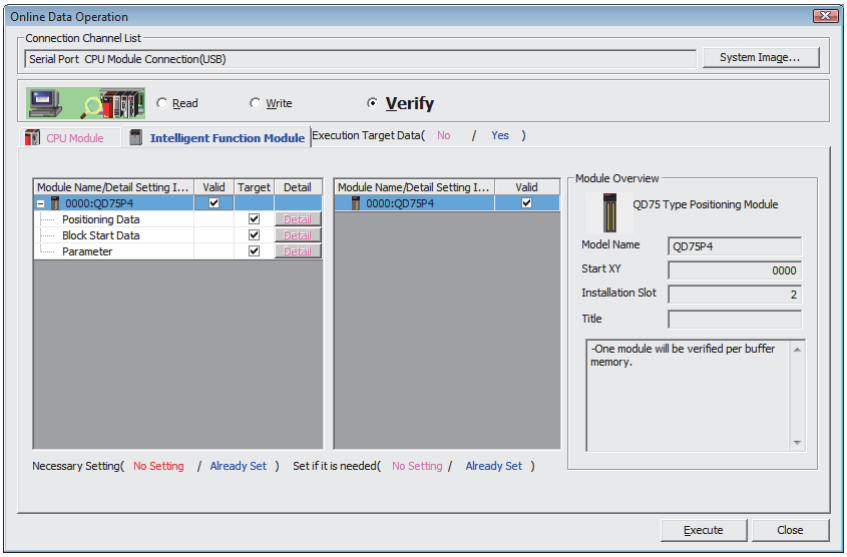
Message	Corrective action
The header information of the parameter block is inconsistent.	A mismatch exists in area other than the user setting area. Take one of the following corrective actions. • Reset the mismatch part of the parameter For block number (parameter number), refer to the following manual. MELSEC-Q C Controller Module User's Manual • Rewrite the parameters having been written to the C Controller module. If the mismatch is not resolved, please consult your local Mitsubishi service center or representative, explaining the details of the problem.

7.4 Verifying Data on Intelligent Function Module against Data on Personal Computer

This section explains how to verify the open project against the data on the QD75 positioning module.
The verification function is used to compare the content of two projects or to locate program changes on the QD75 positioning module.

Screen display

- **Select [Online] ⇒ [Verify with CCPU] ⇒ <<Intelligent Function Module>>.**



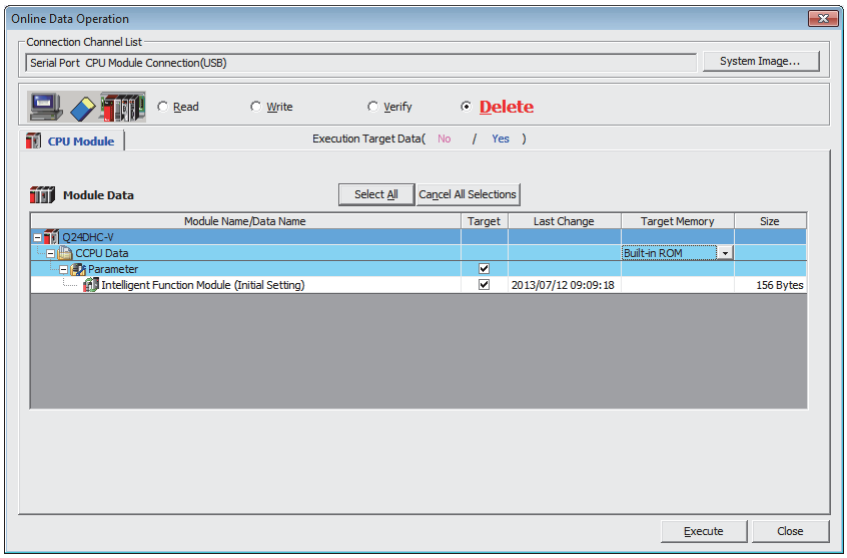
Operating procedure

1. **Select data to verify from the file list.**
   For the items and buttons on the screen, refer to the following section.
   ☞ Page 121, Section 7.1
2. **Click the** Execute **button.**
   The data are verified.

7.5 Deleting C Controller Module Data

This section explains how to delete data on the C Controller module.

- **Select [Online] ⇒ [Delete CCPU Data].**



Operating procedure

1. **Select the data to delete from the file list.**
   For the items on the screen, refer to the following section.
   ☞ Page 121, Section 7.1
2. **Click the** Execute **button.**
   The selected data are deleted.

Point

Since "CCPU/Network/Switch Setting" cannot be deleted, this item is not displayed on the file list.

CHAPTER 8 MONITORING

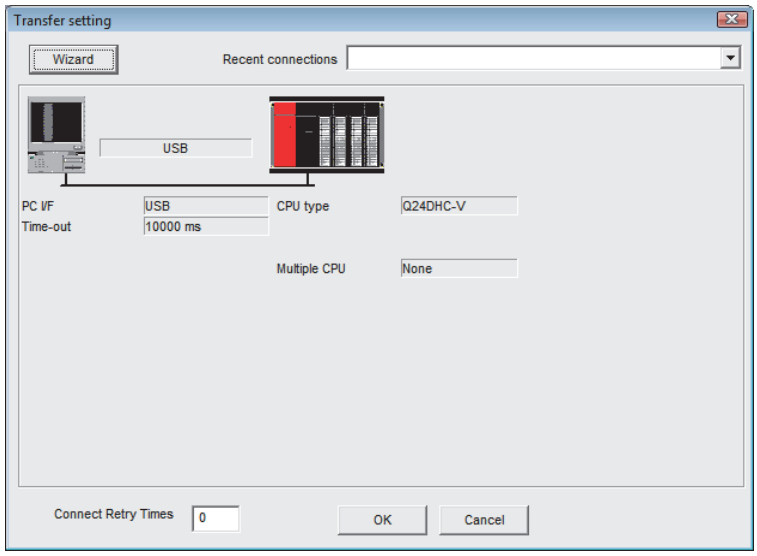
This chapter explains how to monitor the programmable controller CPU and the C Controller module which is connected to the personal computer.

8.1 Setting Connection Destinations

The connection destination needs to be set before executing the device monitoring (☞ Page 131, Section 8.2) if it is not set with Setting/monitoring tools for the C Controller module.

Operating procedure

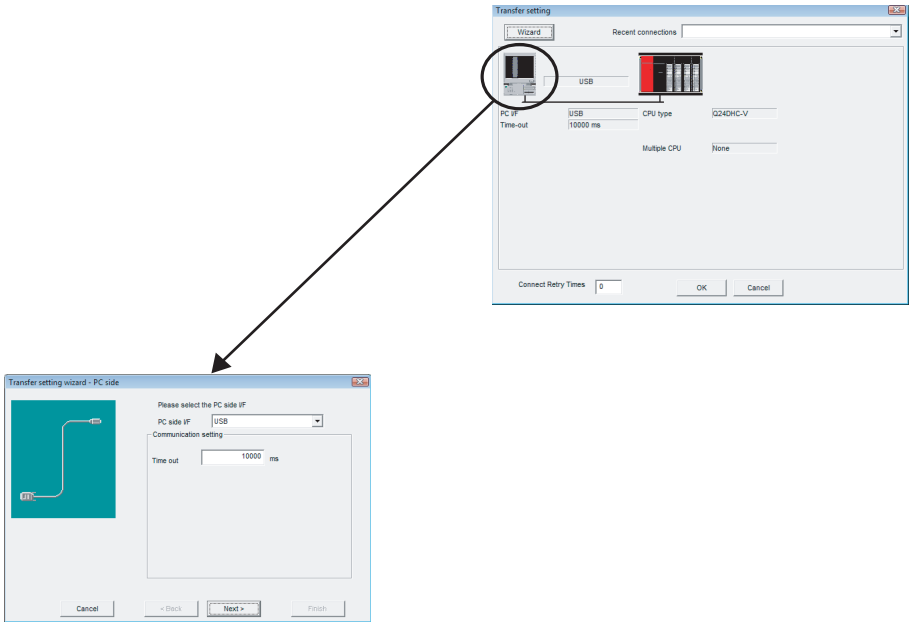
1. **Select the following function without setting the connection destination.**
   Select [Online] ⇒ [Device monitor].
2. **The "Transfer setting" screen is displayed.**



3. **To change the current connection destination, click the [Wizard] button, and set "PC side I/F", "PLC side I/F", and "Network Communication Route" by following the displayed instruction.**
4. **Click the [OK] button.**

Point

- Logical station numbers
  Logical station numbers cannot be specified.
- Changing connection destination without using the Wizard function
  The setting screen is displayed by clicking the illustration of personal computer or module on the "Transfer setting wizard" screen.



- When the CPU type specified on the "Transfer setting" screen is different from the actually-connected CPU type
  The CPU type displayed on the column for the device monitoring target CPU is different from the actually-connected CPU type; however, the monitoring can be performed if the CPU series is the same.

8.2 Monitoring Devices and Buffer Memory

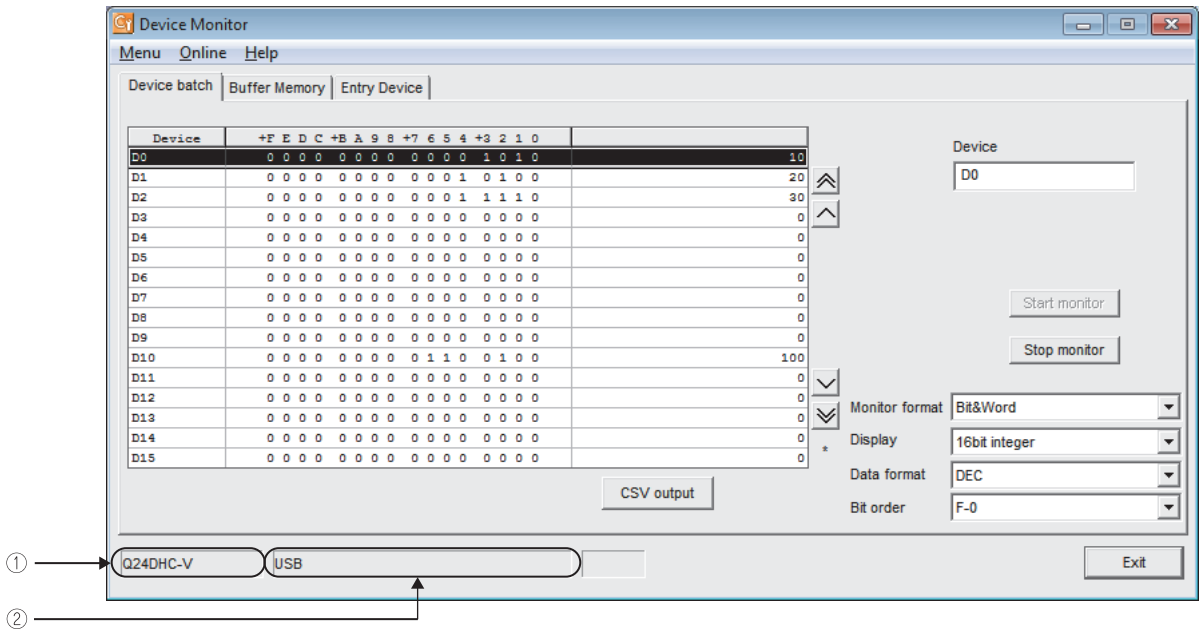
This section explains how to monitor devices.

Screen display

- **Select [Online] ⇒ [Device monitor].**

Screen button

- Start monitor / Stop monitor
  Starts/stops the monitoring.
- CSV output
  Output and save the data being monitored in a CSV format. (☞ Page 137, (5) in this section)



Display contents

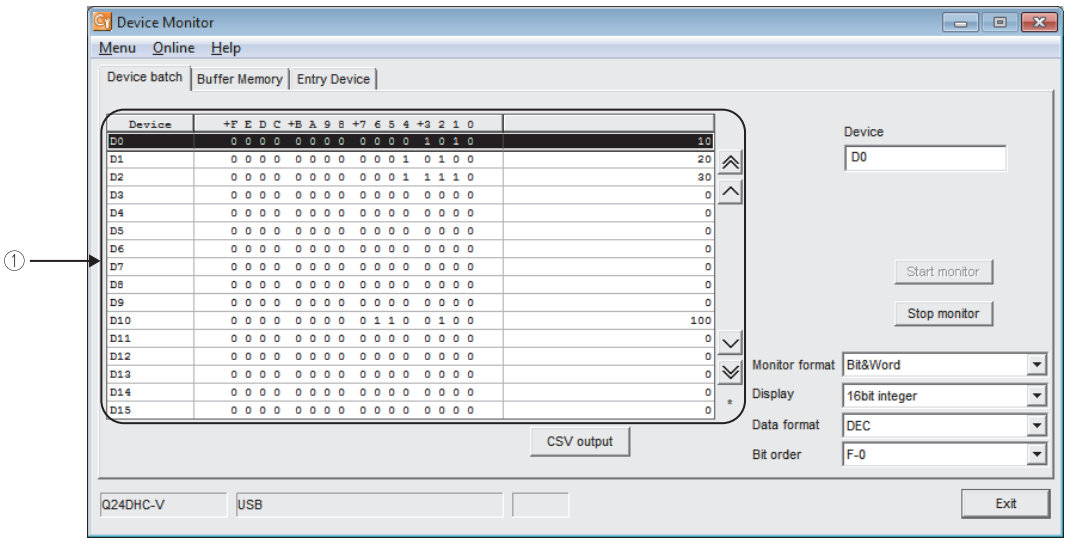
Item	Description
① (Target CPU name)	Display the CPU name of the communication target specified on the "Transfer setting" screen. (☞ Page 110, Section 6.1.1 or ☞ Page 129, Section 8.1)
② (Communication route information)	Display such information as the network type, network number, start I/O address, and station number.

Point

- In order to monitor link devices (RX, RY, RWr, RWw), link special relays (SB), and link special registers (SW) stored on the buffer memory of CC-Link module, specify the address of the buffer memory on the <<Buffer Memory>> tab. (☞ Page 133, (2) in this section)
  For the list of buffer memory of CC-Link module, refer to the following manual.
  📖 MELSEC-Q CC-Link System Master/Local Module User's Manual
- ZR devices cannot be monitored in C Controller module.

(1) Operations on device batch screen

Monitor only the specified one type of devices.



Operating procedure

1. Set the items on the screen.

Item	Description
Device	Enter the device name to be batch-monitored.
Monitor format	Set the monitor format. **Item** / **Description** Bit & Word: Set the monitor screen to the bit and word display. Bit: Set the monitor screen to the bit display only. Word: Set the monitor screen to the word display only.
Display	Set the display format of the device values to be displayed when the monitor format is "Bit & Word" or "Word".
Data format	Set the radix (decimal/hexadecimal) when the display format is "16 bit integer" or "32 bit integer".
Bit order	Set the order in which the bit devices being monitored are arranged. **Item** / **Description** F-0: Arranged in order of F, E, ... 1, 0 from left to right. 0-F: Arranged in order of 0, 1, ... E, F from left to right.

Display contents

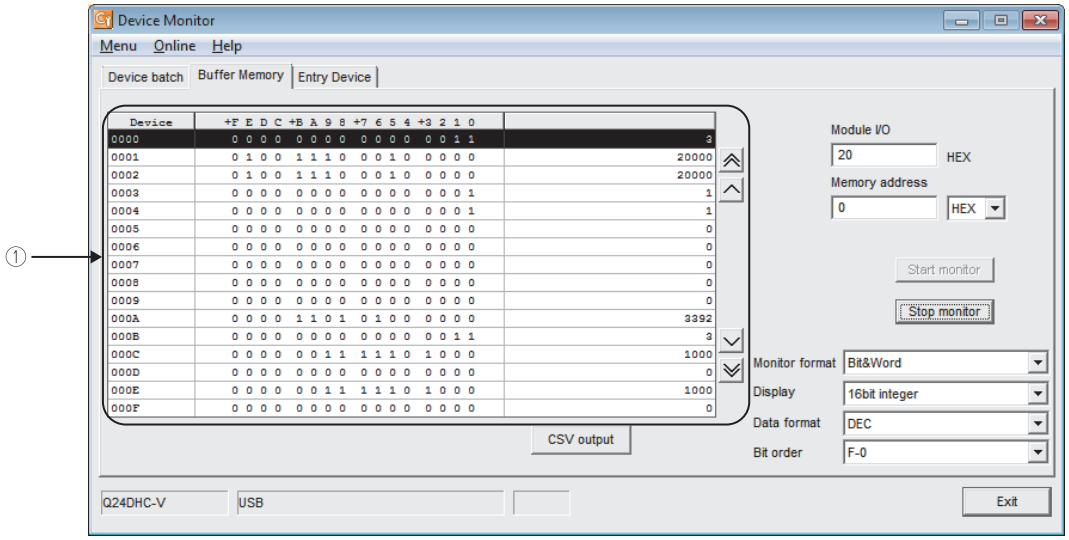
Item	Description
① (Monitor screen)	Display the device status. Double-click the device name to display the "Write to Device" screen. (☞ Page 136, (4) in this section)

Point

- For the bit device status, 1 indicates an ON status and 0 indicates an OFF status.
- Bit devices are monitored in units of 16 points.
  If any device outside the range supported by the programmable controller CPU is included in the 16 points, its value is displayed as "0".
- Specifying the device memory in the U*\G format enables the buffer memory to be monitored.
- When monitoring the set values of the timers and counters, indirectly specify the data registers.
- Devices cannot be monitored if the connection destination is not established.
- During monitoring, the transfer setting cannot be performed.
- During monitoring, "*" flashes under the scroll button.

(2) Operations on buffer memory screen

Monitor only the specified one type of buffer memory.



Operating procedure

1. **Set the items on the screen.**

Item	Description
Module I/O	Enter the first address of the module to be monitored.
Memory address	Enter the address of the buffer memory to be monitored in hexadecimal or decimal.
Monitor format	Set the monitor format. Bit & Word: Set the monitor screen to the bit and word display. Bit: Set the monitor screen to the bit display only. Word: Set the monitor screen to the word display only.
Display	Set the display format of the device values to be displayed when the monitor format is "Bit & Word" or "Word".
Data format	Set the radix (decimal/hexadecimal) when the display format is "16 bit integer" or "32 bit integer".

Item	Description
Bit order	Set the order in which the bit devices being monitored are arranged. **Item** / **Description** F-0 / Arranged in order of F, E, ... 1, 0 from left to right. 0-F / Arranged in order of 0, 1, ... E, F from left to right.

Display contents

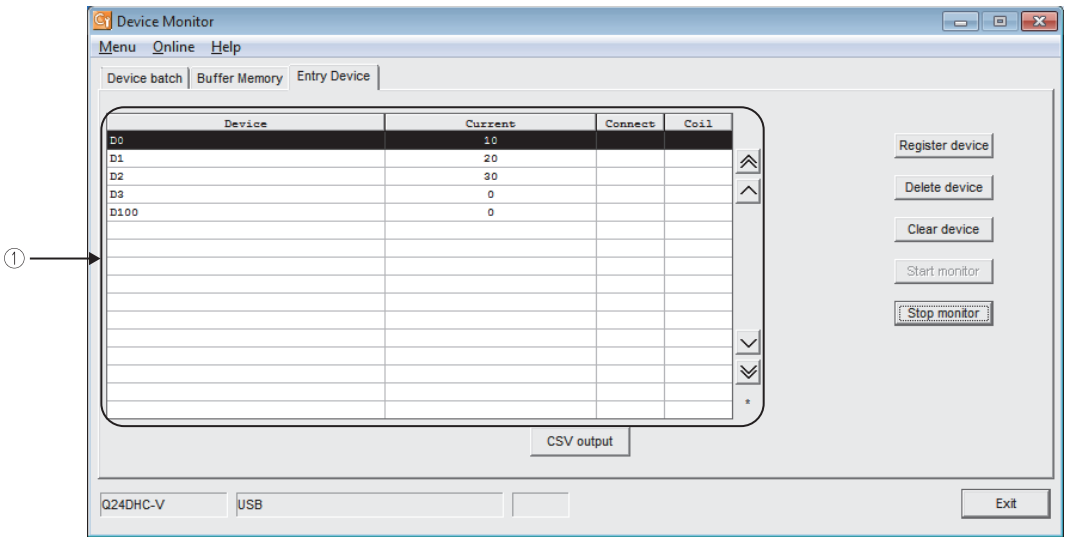
Item	Description
① (Monitor screen)	Display the buffer memory status.

Point

- For the bit device status, 1 indicates an ON status and 0 indicates an OFF status.
- Devices cannot be monitored if the connection destination is not established.
- During monitoring, the transfer setting cannot be performed.
- During monitoring, "*" flashes under the scroll button.
- During gateway function communication, devices cannot be monitored.

(3) Operation on entry device screen

Monitor the specified devices on a single screen at the same time.



Display contents

Item	Description
① (Monitor screen)	Display the device status. Double-click the device name to display the "Write to Device" screen. (☞ Page 136, (4) in this section)

Screen button

- Register device

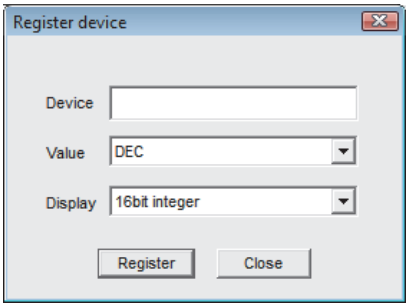
  Displays the "Register device" screen. (☞ Page 135, (3)(a) in this section)
- Delete device

  Deletes the device to be monitored.
- Clear device

  Deletes all devices registered in device entry monitor from the monitor screen.

(a) Register device

Register the device to be monitored.



Operating procedure

1. **Set the items on the screen.**

Item	Description
Device	Enter the device to be registered.
Value	Set the value to be entered when a word device is specified.
Display	Set the display format when a word device is specified.

Screen button

- Register

  Registers the device.

Point

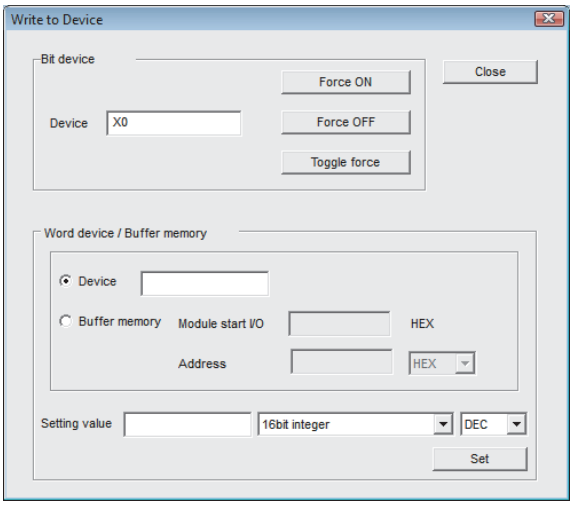
- When monitoring the set values of the timers and counters, indirectly specify the data registers.
- Devices cannot be monitored if the connection destination is not established.
- During monitoring, the transfer setting cannot be performed.
- During monitoring, "*" flashes under the scroll button.

(4) Writing devices

Change the ON/OFF of a bit device or the current value of a word device or buffer memory.

Point

- Do not specify file registers (ZR) when reading/writing data from/to C Controller module.
  Doing so may result in a malfunction caused by the data writing to data registers (D) and link registers (W).



Operating procedure

1. Set the items on the screen.

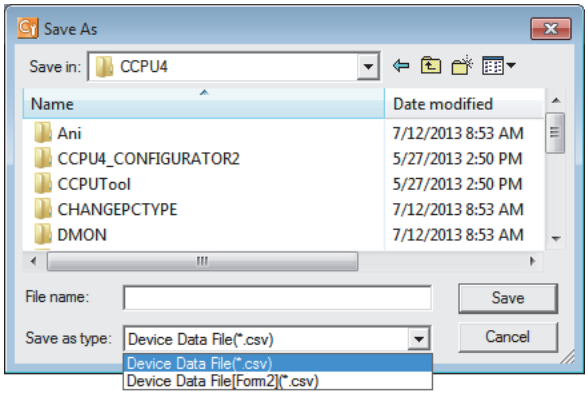
Item		Description
Bit device		–
	Device	Enter the device name.
Word device/Buffer memory		–
	Device	Select "Device" to enter the word device to be written.
	Buffer memory	Select "Buffer memory" to enter the module's start I/O and buffer memory address.
	Setting value	Enter the value to be written, select the data type, and select decimal or hexadecimal.

Screen button

- Force ON
  Forcibly changes the specified device to the ON status.
- Force OFF
  Forcibly changes the specified device to the OFF status.
- Toggle force
  Forcibly changes the specified device from the ON to OFF status or from the OFF to ON status.
- Set
  Writes set data to the word device/buffer memory.

(5) Format for data to be saved

The format for data to be saved can be selected from "Save as type" on the "Save As" screen.



Point

Input the file name within 255 characters including the path and extension
The following extension cannot be used as a file name.

- Symbols that cannot be used for file names
  /, \, *, ?, <, >, |
- Period at the start of a file name (.test, for example)

(a) Device Data File(*.csv)

This file type is used to utilize the saved file data in programs such as user programs.

- Device batch monitor

```
Device batch monitor
Monitor format,Bit&Word
Display,16bit integer
Data format,DEC
Bit order,F-0

Device,+F E D C +B A 9 8 +7 6 5 4 +3 2 1 0,
D0,  0 0 0 0  0 0 0 0  0 0 0 0  1 0 1 0 ,10
D1,  0 0 0 0  0 0 0 0  0 0 0 1  0 1 0 0 ,20
D2,  0 0 0 0  0 0 0 0  0 0 0 1  1 1 1 0 ,30
D3,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 0 ,0
```

- Buffer memory monitor

```
Buffer memory monitor
Module I/O,20
Monitor format,Bit&Word
Display,16bit integer
Data format,DEC
Bit order,F-0

Device,+F E D C +B A 9 8 +7 6 5 4 +3 2 1 0,
0000,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 1 1 ,3
0001,  0 1 0 0  1 1 1 0  0 0 1 0  0 0 0 0 ,20000
0002,  0 1 0 0  1 1 1 0  0 0 1 0  0 0 0 0 ,20000
0003,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 1 ,1
0004,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 1 ,1
0005,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 0 ,0
0006,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 0 ,0
0007,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 0 ,0
0008,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 0 ,0
0009,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 0 ,0
000A,  0 0 0 0  1 1 0 1  0 1 0 0  0 0 0 0 ,3392
000B,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 1 1 ,3
000C,  0 0 0 0  0 0 1 1  1 1 1 0  1 0 0 0 ,1000
000D,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 0 ,0
000E,  0 0 0 0  0 0 1 1  1 1 1 0  1 0 0 0 ,1000
000F,  0 0 0 0  0 0 0 0  0 0 0 0  0 0 0 0 ,0
```

- Entry device monitor

```
Entry device monitor

Device,Current
D0,10
D1,20
D2,30
D3,0
D100,0
```

(b) Device Data File [Form2] (*.csv)

This file type is used to open the saved file data in an application such as Microsoft® Excel.

- Device batch monitor

	A	B	C
1	[Device batch monitor]		
2	[Monitor format]	[Bit&Word]	
3	[Display]	[16bit integer]	
4	[Data format]	[DEC]	
5	[Bit order]	[F-0]	
6			
7	[Device]	[+F E D C +B A 9 8 +7 6 5 4 +3 2 1 0]	[ ]
8	[D0]	[0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0]	[10]
9	[D1]	[0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 0]	[20]
10	[D2]	[0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 0]	[30]
11	[D3]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
12	[D4]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
13	[D5]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
14	[D6]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
15	[D7]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
16	[D8]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
17	[D9]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
18	[D10]	[0 0 0 0 0 0 0 0 0 1 1 0 0 1 0 0]	[100]
19	[D11]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
20	[D12]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
21	[D13]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
22	[D14]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
23	[D15]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]

- Buffer memory monitor

	A	B	C
1	[Buffer memory monitor]		
2	[Module I/O]	[20]	
3	[Monitor format]	[Bit&Word]	
4	[Display]	[16bit integer]	
5	[Data format]	[DEC]	
6	[Bit order]	[F-0]	
7			
8	[Device]	[+F E D C +B A 9 8 +7 6 5 4 +3 2 1 0]	[ ]
9	[0000]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1]	[3]
10	[0001]	[0 1 0 0 1 1 1 0 0 0 1 0 0 0 0 0]	[20000]
11	[0002]	[0 1 0 0 1 1 1 0 0 0 1 0 0 0 0 0]	[20000]
12	[0003]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1]	[1]
13	[0004]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1]	[1]
14	[0005]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
15	[0006]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
16	[0007]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
17	[0008]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
18	[0009]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
19	[000A]	[0 0 0 0 1 1 0 1 0 1 0 0 0 0 0 0]	[3392]
20	[000B]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1]	[3]
21	[000C]	[0 0 0 0 0 0 1 1 1 1 1 0 1 0 0 0]	[1000]
22	[000D]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]
23	[000E]	[0 0 0 0 0 0 1 1 1 1 1 0 1 0 0 0]	[1000]
24	[000F]	[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]	[0]

- Entry device monitor

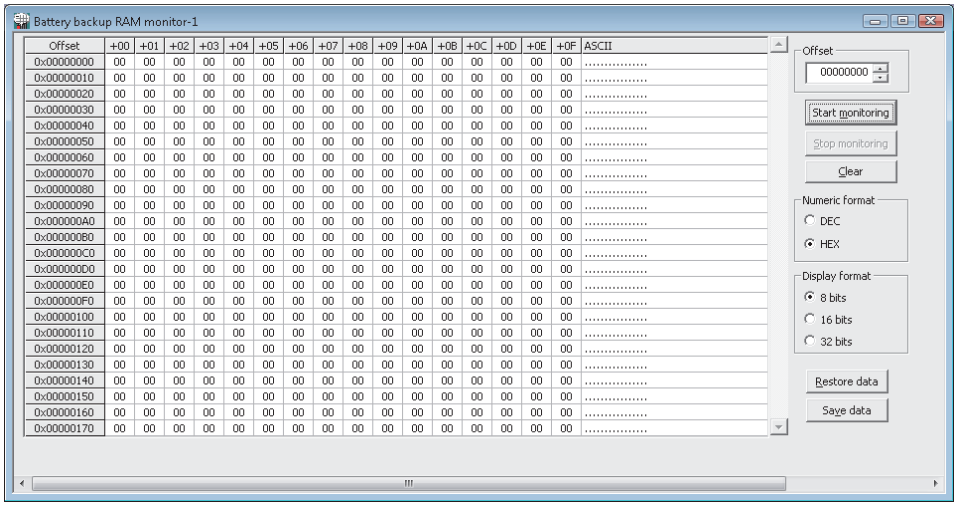
	A	B
1	[Entry device monitor]	
2		
3	[Device]	[Current]
4	[D0]	[10]
5	[D1]	[20]
6	[D2]	[30]
7	[D3]	[0]
8	[D100]	[0]

8.3 Monitoring Battery Backup RAM

This section explains how to monitor the battery backup RAM.

Screen display

- **Select [Online] ⇒ [Battery backup RAM monitor].**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Offset	Enter the offset of the battery backup RAM to be monitored in 16-byte unit.
Numeric format	Select a numeric format for the battery backup RAM monitoring.
Display format	Select a display format of battery backup RAM monitoring.
Modify value (numeric display)	Display the "Input" screen by double-clicking the data. (☞ Page 141, (1) in this section)

Screen button

- Start monitoring / Stop monitoring

  Starts or stops monitoring the C Controller module.
  "*" flashes in the upper right of the button during monitoring.

- Clear

  Changes all battery backup RAM data to 0.

Point

● Clear of the Battery backup RAM monitor screen
Clearing the Battery backup RAM monitor screen using Q24DHCCPU-VG when RAM ERROR occurred will initialize the following data.
- Event history
- Battery backup RAM
- Standard RAM
- Resolution
- Keyboard

- Restore data

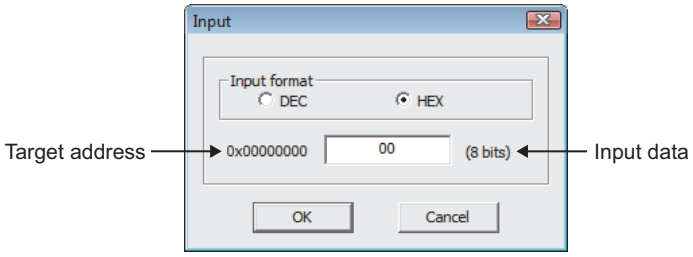
  Restores all battery backup RAM data (binary format only) stored on a personal computer to the C Controller module.

- Save data

  Stores all battery backup RAM data in CSV format or binary format.
  (☞ Page 142, (2) in this section)

(1) Data setting screen

Enter data to the battery backup RAM.



Operating procedure

1. **Set the items on the screen.**

Item	Description
Input format	Select a format of the value (decimal/hexadecimal) to be entered for 'input data'. (Default: "Numeric format" selected on the Battery backup RAM monitor screen)
Target address	Display the address of the battery backup RAM where the data are to be entered.
Input data	Enter data to be entered to the battery backup RAM.

Screen button

- OK

  Enters the value specified for 'input data' to the battery backup RAM, and closes the "Input" screen.

- Cancel

  Closes the "Input" screen without entering the value specified for 'input data' to the battery backup RAM.

Point

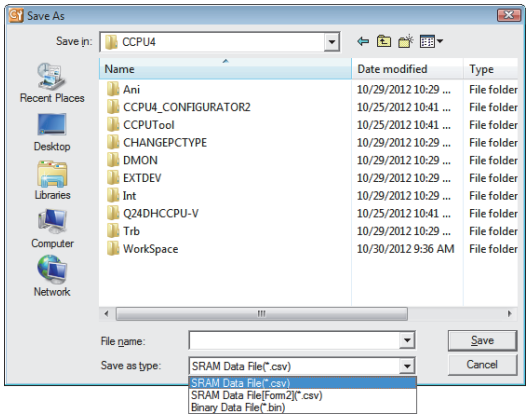
- The applicable setting ranges for data to be entered are as follows.

Display Mode	Decimal number	Hexadecimal number
8 bit	-128 to 127	0 to FF$_H$
16 bit	-32768 to 32767	0 to FFFF$_H$
32 bit	-2147483648 to 2147483647	0 to FFFFFFFF$_H$

- Monitoring and data change/save of battery backup RAM cannot be performed while the user CPU is being restarted.

(2) Format for data to be saved

The format for data to be saved can be selected from "Save as type" on the "Save As" screen.



Point

Input the file name within 255 characters including the path and extension
The following extension cannot be used as a file name.

- Symbols that cannot be used for file names
  /, \, *, ?, <, >, |
- Period at the start of a file name (.test, for example)

(a) SRAM Data File (*.csv)

This file type is used to utilize the saved file data in programs such as user programs.

Connection route

```
Battery backup RAM data,USB
offset,[+00],[+01],[+02],[+03],[+04],[+05],[+06],[+07],[+08],[+09],[+0A],[+0B],[+0C],[+0D],[+0E],[+0F]
0x00000000,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000010,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000020,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000030,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000040,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000050,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000060,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000070,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
0x00000080,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00
```

(b) SRAM Data File [Form2] (*.csv)

This file type is used to open the saved file data in an application such as Microsoft® Excel.

Connection route

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	[Battery backup RAM data]	[USB]															
2	[Offset]	[+00]	[+01]	[+02]	[+03]	[+04]	[+05]	[+06]	[+07]	[+08]	[+09]	[+0A]	[+0B]	[+0C]	[+0D]	[+0E]	[+0F]
3	[0x00000000]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
4	[0x00000010]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
5	[0x00000020]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
6	[0x00000030]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
7	[0x00000040]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
8	[0x00000050]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
9	[0x00000060]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
10	[0x00000070]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]
11	[0x00000080]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]	[00]

(c) Binary Data File (*.bin)

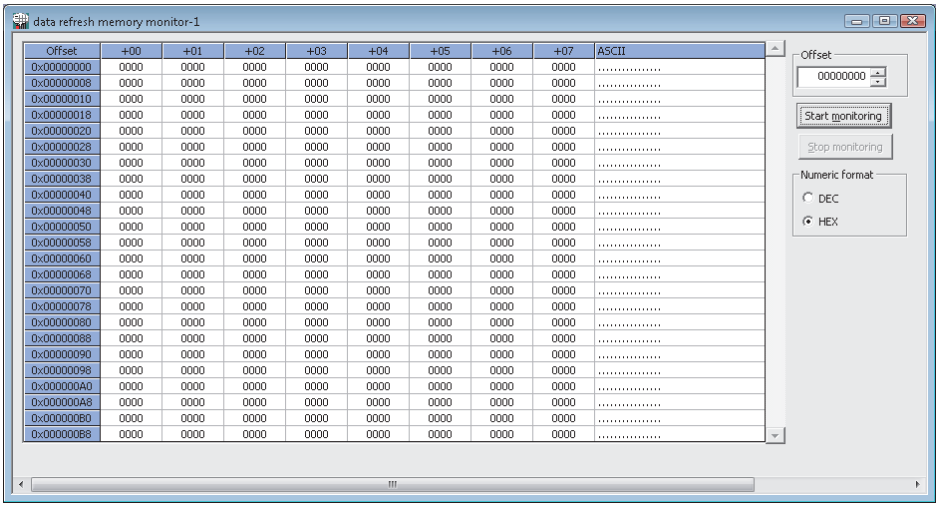
This file type is used to restore the saved file data to a C Controller module.

8.4 Monitoring Data Refresh Memory

This section explains how to monitor the data refresh memory.

Screen display

- **Select [Online] ⇒ [Data refresh memory monitor].**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Offset	Enter the offset of the data refresh memory to be monitored (0 to BF38H) in 8-word unit.
Numeric format	Select the format of the value (decimal/hexadecimal) for the data refresh memory monitoring.
Modify value (numeric display)	Display the "Input" screen by double-clicking the data. (☞ Page 144, (1) in this section)

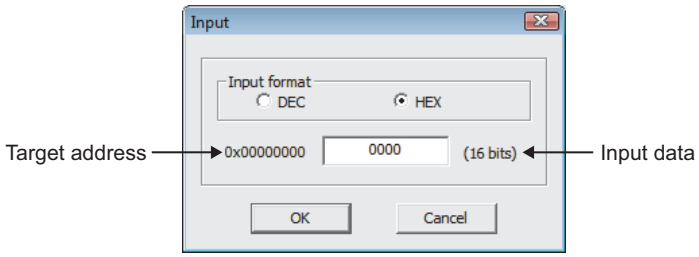
Screen button

- Start monitoring / Stop monitoring

  Starts or stops monitoring the C Controller module.
  "*" flashes in the upper right of the button during monitoring.

(1) Input screen

Enter data to the data refresh memory.



Operating procedure

1. Set the items on the screen.

Item	Description
Input format	Select a format of the value to be entered for "Input data". (Default: The numeric format selected on the "Data refresh memory monitor" screen.)
Target address	Display the address of the data refresh memory where the data are to be entered.
Input data	Enter data to be entered to the data refresh memory.

Screen button

- OK

  Enters the value specified for 'input data' to the data refresh memory, and closes the "Input" screen.
- Cancel

  Closes the "Input" screen without entering the value specified for 'input data' to the data refresh memory.

Point

- The applicable setting ranges for data to be entered are as follows.

Decimal number	Hexadecimal number
-32768 to 32767	0 to FFFFH

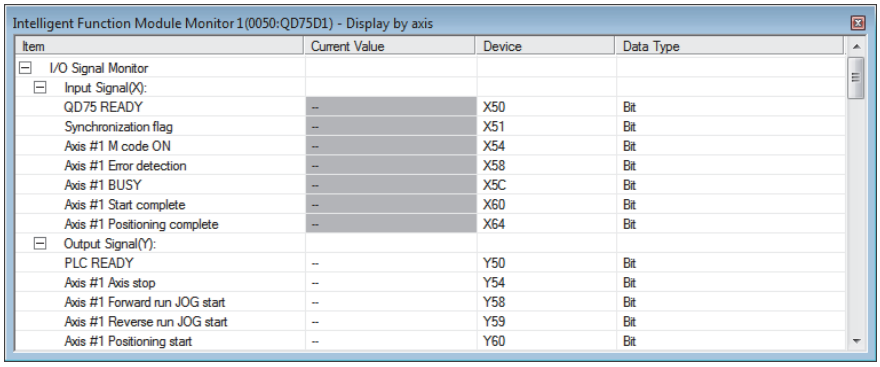
8.5 Monitoring Intelligent Function Modules

This section explains how to monitor input/output signals and buffer memory of an intelligent function module.

(1) Registering and monitoring intelligent function modules

Screen display

- **Select [View] ⇒ [Docking Window] ⇒ [Intelligent Function Module Monitor] ⇒ [Intelligent Function Module Monitor 1] to [Intelligent Function Module Monitor 10].**



Operating procedure

1. **Register the intelligent function module to be monitored.**
   For the registration method, refer to the following section.
   ☞ Page 148, (2) in this section
2. **Select [Online] ⇒ [Monitor] ⇒ [Start Watching].**
   The current values of the registered intelligent function module are displayed on the window.

Display contents

Item	Description
Item	Display the name of the module information. When "Data Type" is 'Detail Dialog'/'Error Code' or 'Warning Code', an icon is displayed at the head of each item.
Current value	Display the current value of the module information. Display character strings such as ON/OFF.
Device	Display the device assigned to the module information.
Data Type	Display the data type of the module information. For 'Detail Dialog'/'Error Code'/'Warning Code', details of each item can be confirmed. For details, refer to Point in this section.

(a) Customizing monitoring items

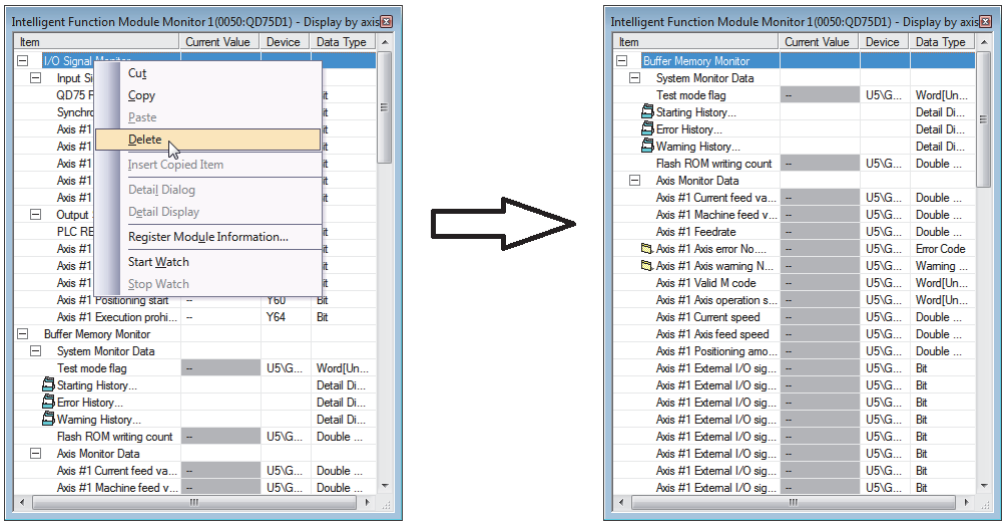
The module information registered to the Intelligent Function Module Monitor window can be customized by cutting/copying/pasting/deleting unnecessary items.

The customized settings are saved along with the project.

Note that the operations to 'undo' the customized items cannot be performed.

Operating procedure

- **Select an unnecessary item on the Intelligent Function Module Monitor window, right-click it and select [Cut]/[Copy]/[Paste]/[Delete] from the shortcut menu.**

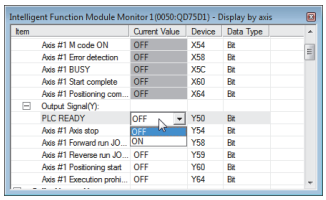


Point

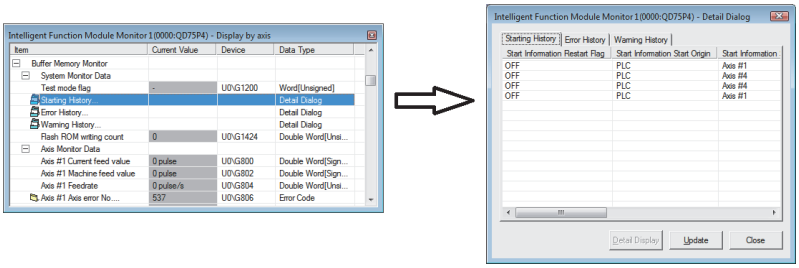
- Paste
  The cut/copied items can be pasted in the same project on the same window only.

Point

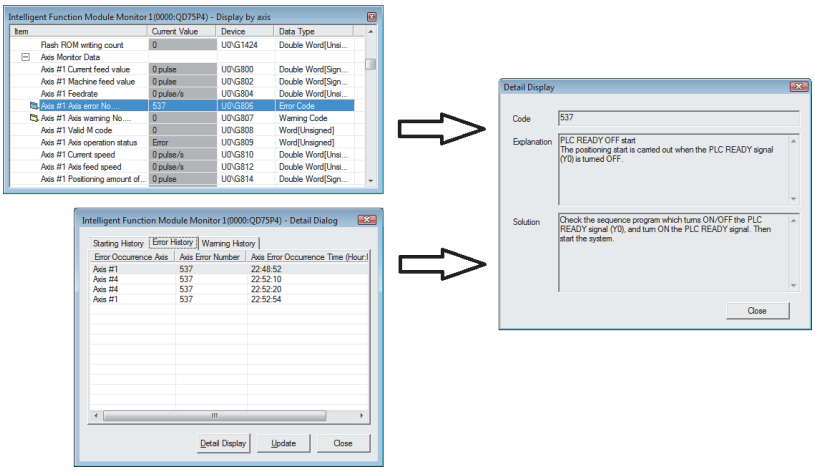
- Changing current value
  The current value can be changed by entering a value directly in the "Current value" column during monitoring.
  When the current value to be changed is displayed in character strings such as ON/OFF, available choices are shown in a combo box. The current value that cannot be changed is displayed in gray background.



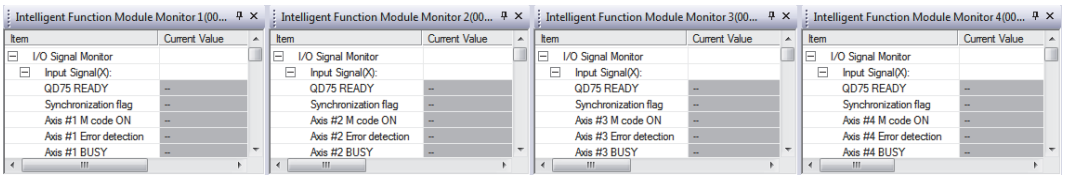
- Detailed display of history information
  For the analog module, QD75 type positioning module, and FL-net (OPCN-2) interface module, details of the history information can be displayed during the monitoring.
  To display details of the history information, double-click a row in which 'Detail Dialog' is displayed in the "Data Type" column, or right-click it and select [Detail Dialog] from the shortcut menu.
  The following shows the "Detail Dialog" screen for QD75P4.



- Detailed display of error code/warning code
  Details of the error code/warning code can be displayed from the Intelligent Function Module Monitor windows or the screen of error/warning history.
  To display details of the error code/warning code, double-click a row in which an error code/warning code is displayed, or right-click it and select [Detail Display] from the shortcut menu.
  The following shows the "Detail Display" screen of error code for QD75P4.



- Using multiple Intelligent Function Module Monitor windows
  Each axis of positioning module can be monitored by activating multiple Intelligent Function Module Monitor windows and customizing the settings of each window.



(2) Registering intelligent function modules

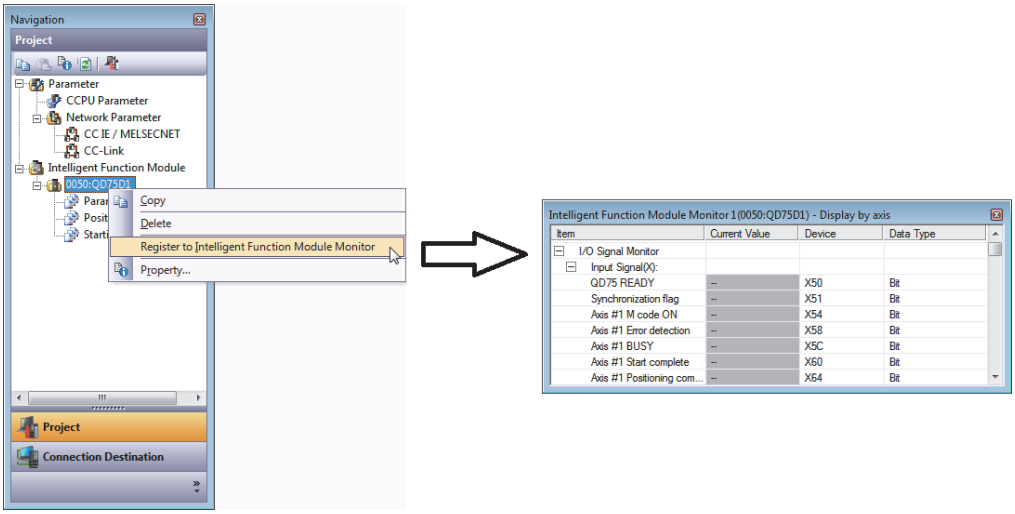
Register an intelligent function module to the Intelligent Function Module Monitor window.

(a) Registering intelligent function modules using shortcut menu from Project view

Register an intelligent function module using the shortcut menu from the Project view.

Operating procedure

1. **Select a module to be registered to the Intelligent Function Module Monitor window from the Project view.**
2. **Right-click and select [Register to Intelligent Function Module Monitor] in the shortcut menu.**
   The module is registered to the Intelligent Function Module Monitor window.

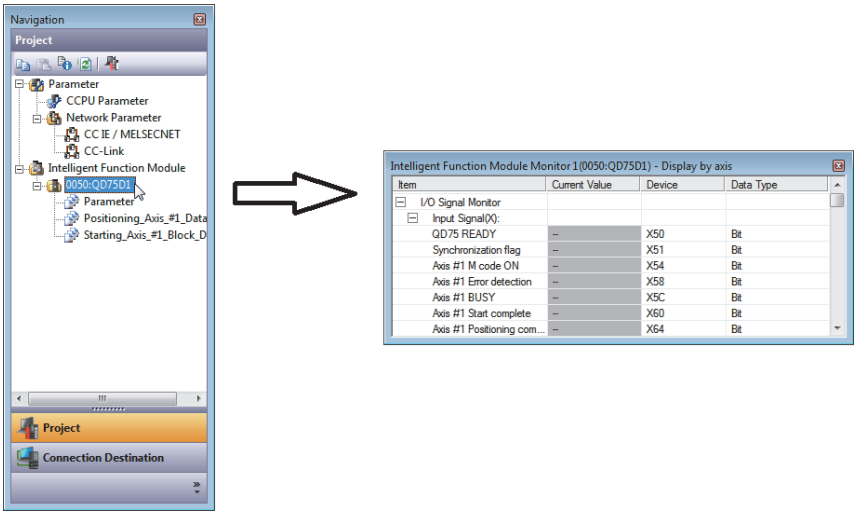


(b) Registering intelligent function modules using drag-and-drop operation

Register an intelligent function module using the drag-and-drop operation from the Project view.

Operating procedure

1. **Select a module to be registered from the Project view.**
2. **Drag and drop it to the Intelligent Function Module Monitor window.**
   The module is registered.



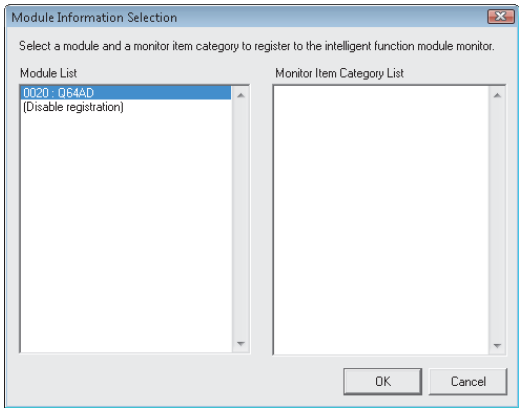
(c) Registering intelligent function modules using shortcut menu from Intelligent Function Module Monitor window

Register an intelligent function module using the shortcut menu from the Intelligent Function Module Monitor window.

Operating procedure

1. Right-click on the Intelligent Function Module Monitor window and select [Register Module Information] from the shortcut menu.

The "Module Information Selection" screen is displayed.

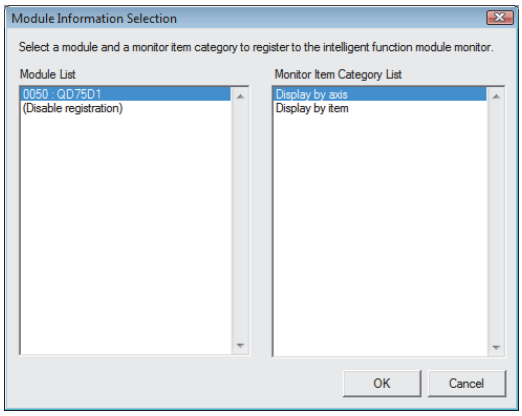


2. Select a module to be registered from "Module List" and click the OK button.

The module is registered to the Intelligent Function Module Monitor window.

When selecting the positioning module or FL-net (OPCN-2) interface module in "Module List", select an item displayed on "Monitor Item Category List".

[Example] Positioning module



Point

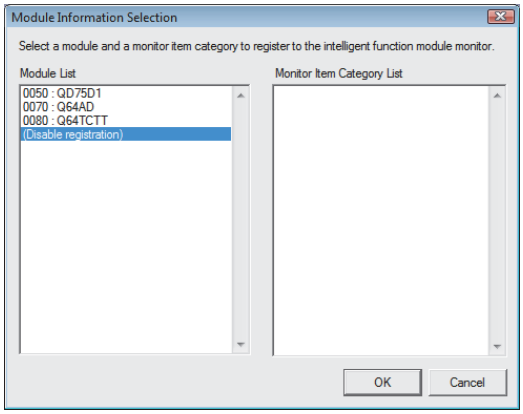
- Customizing monitoring items
  The registered intelligent function module information can be customized by right-clicking the desired module information on the Intelligent Function Module Monitor window and selecting [Cut]/[Copy]/[Paste]/[Delete] in the shortcut menu.
  (☞ Page 146, (1)(a) in this section)
- Copying module information
  Module information can be copied by right-clicking a desired module information and selecting [Copy] from the shortcut menu on the Intelligent Function Module Monitor window, and pasted to such as text files.

(3) Canceling registration of intelligent function modules

Cancel the registration of the module information which is registered to the Intelligent Function Module Monitor window.

Operating procedure

1. **On the Intelligent Function Module Monitor window on which the registration is to be canceled, right-click and select [Register Module Information] in the shortcut menu.**
   The "Module Information Selection" screen is displayed.

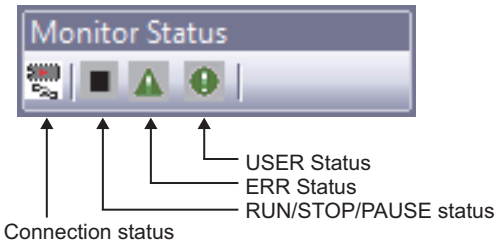


2. **Select "(Disable registration)" and click the OK button.**
   The registration of the module is canceled.

(4) Checking monitoring status

Screen display

- **The monitoring status is displayed when the monitoring on the intelligent function module starts, and hidden when the monitoring stops.**



Display contents

Item	Description
Connection status	Display the connection status between the C Controller module and the personal computer.
	When connected to the C Controller module
RUN/STOP/PAUSE status	Display the C Controller module status operated by the key switch on the C Controller module or the remote operation from Setting/monitoring tools for the C Controller module.
	RUN
	STOP
	PAUSE
ERR Status	Display the ERR. LED status of the C Controller module. The "CCPU Diagnostics" screen is displayed when the icon is clicked.
	ERR. is OFF.
	ERR. is ON.
	ERR. is flashing.
USER Status	Display the USER LED status of the C Controller module. The "CCPU Diagnostics" screen is displayed when the icon is clicked.
	USER is OFF.
	USER is ON.
	USER is flashing.

CHAPTER 9 OPERATING C CONTROLLER MODULE

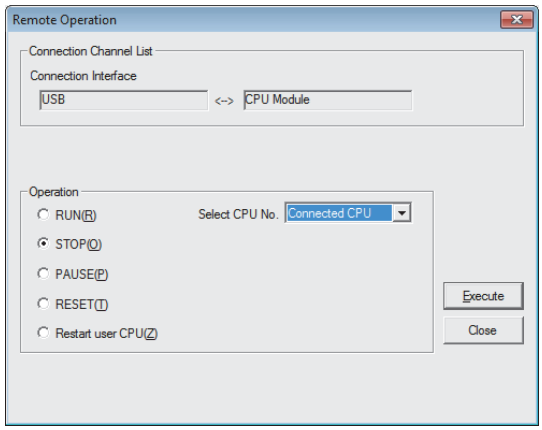
This chapter explains how to change the execution status and set the clock of the CPU module (programmable controller CPU/C Controller module) from Setting/monitoring tools for the C Controller module.

9.1 Remote Operation of C Controller Module

This section explains how to switch the RUN/STOP status of the C Controller module from Setting/monitoring tools for the C Controller module.

Screen display

- **Select [Online] ⇒ [Remote Operation].**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Connection Channel List		Display the information of the connection destination.
Select		Select the target CPU module for the remote operation.
	Connected CPU	Select this to set the host CPU as a target CPU.
	No.1 to No.4	Select this to set the other CPUs as a target CPU.
Operation		Select the operation details.
	RUN	Select this to switch the operating status of the CPU module to RUN/STOP/PAUSE.
	STOP	
	PAUSE	
	RESET*1	Select this to reset the C Controller module.
	Restart user CPU*2	Select this to restart the user CPU of the C Controller module.

*1 : The reset operation cannot be performed on Q06CCPU-V (-B), Q12DCCPU-V (Basic mode) with a serial number whose first five digits are "12041" or lower from Setting/monitoring tools for the C Controller module. Use the switch operation or the "QBF_ControlEx" function.

*2 : Not supported by Q12DCCPU-V.

2. **Click the** Execute **button.**

Point

- Remote operation and RUN/STOP switch
  When operation to the programmable controller CPU differs among controls by the remote operation and RUN/STOP switch, the C Controller module operates according to the priority shown below.

Operation to the CPU module	Priority
STOP	1
RUN	2
PAUSE	3

The following table shows the operation of CPU module RUN/STOP switch after the execution of the remote operation.

–		CPU module switch*3	
		RUN	STOP
Remote operation	RUN	RUN	STOP
	STOP	STOP	STOP
	PAUSE	PAUSE	STOP
	RESET*1	Inoperable*2	RESET

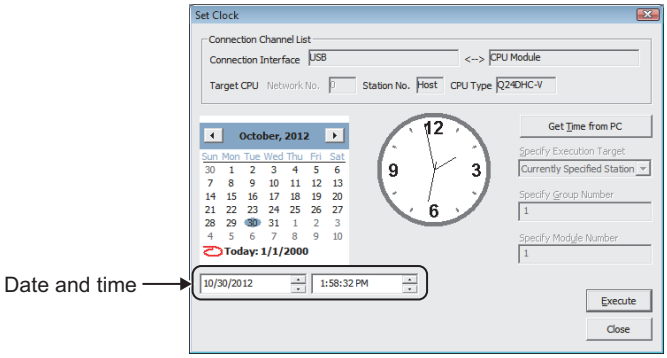
*1 : Parameters need to be written with the remote reset setting set to "Permit" on the <<System settings>> tab of CCPU parameter or on the <<PLC System>> tab of PLC parameter.
*2 : Operable when the C Controller module is set to STOP by remote operation.
*3 : The remote operation can be performed even when the RUN/STOP switch is set to STOP. Therefore, when the RUN/STOP switch is set from STOP to RUN, the remote operation is performed in the status of the last operation.

9.2 Setting Clock on C Controller Module

This section explains how to set the clock on a C Controller module.

Screen display

- **Select [Online] ⇒ [Set Clock].**



Operating procedure

1. **Set the items on the screen.**

Item	Description
Connection Channel List	Display the information of the connection destination.
Date and time	Set the date and time.

2. **Click the** Execute **button.**

The C Controller module clock is set.

Screen button

- Get Time from PC

  Applies the time of personal computer to the 'date and time' boxes.

Point

- Considerations of the clock setting
  In the clock setting, a time-lag error may appear due to the span of transfer.

CHAPTER 10 DIAGNOSING C CONTROLLER MODULE

This chapter explains how to display system status and error codes of the C controller module.

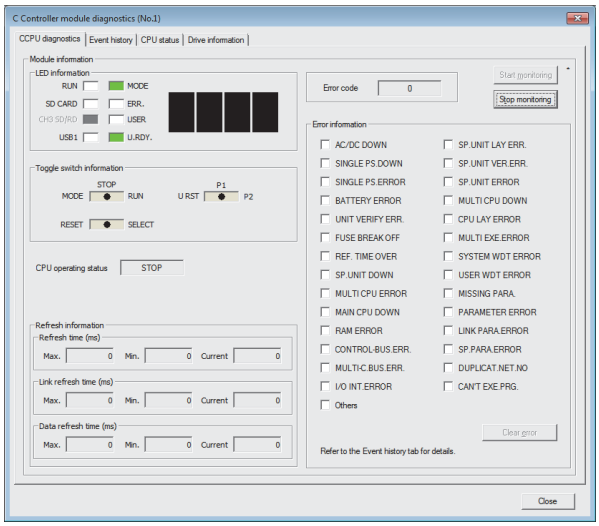
10.1 Diagnosing C Controller Module

Display the status and the error code of the C controller module.

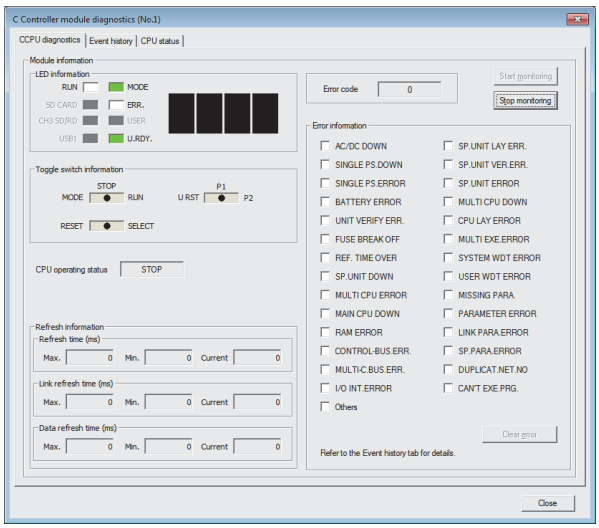
Screen display

- **Select [Diagnostics] ⇒ [CCPU Diagnostics].**

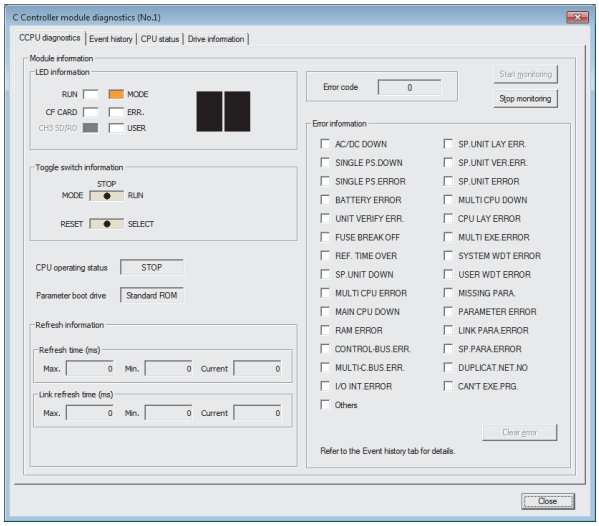
< Q24DHCCPU-V/-VG >



< Q24DHCCPU-LS and Q26DHCCPU-LS >



< Q12DCCPU-V >



Display contents

Item		Description
Module information		Display the system status and error codes of the C controller module.
	LED information	Display the LED status.
	Toggle switch information	Display the status of the RUN/STOP/MODE switch, the RESET/SELECT switch, and the U RST/P1/P2 switch.
	CPU operating status	Display the operating status.
	Parameter boot drive*1	Display the parameter boot drive.
	Error code	Display the most recent error code.
	Error information	The color of the box in front of the item corresponding to the stop error/continuation error turns from white to red.
Refresh information		Display the maximum/minimum/current values of the refresh time, the link refresh time, and the data refresh time.

*1 : Not supported by Q24DHCCPU-V/-VG/-LS and Q26DHCCPU-LS.

Screen button

- Start monitoring / Stop monitoring

  Starts/stops monitoring.
- Clear error

  Clears the continuation error.
- Update

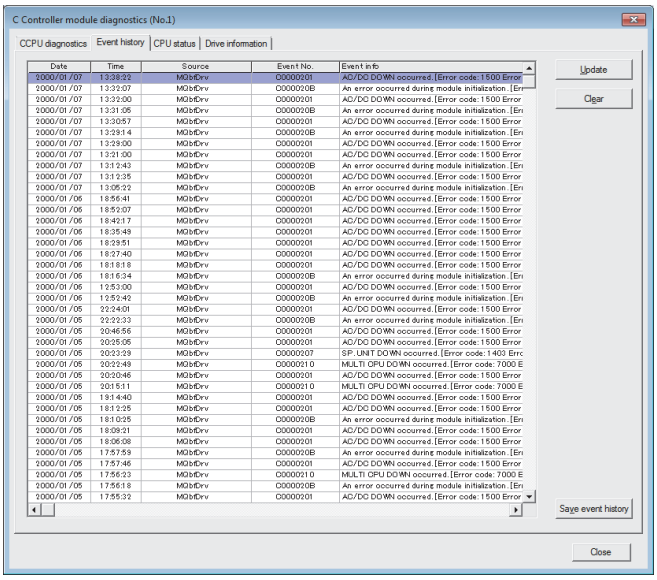
  Updates the drive information.

10.2 Displaying/Saving Event History Occurred on C Controller Module

This section explains how to display the event history occurred on a C Controller module. The event history can be saved as CSV format file.

Screen display

- **Select [Diagnostics] ⇒ [Event history].**



Display contents

Item		Description
Event history		Display the event history occurred on the C Controller module.
	Date	Display the date of the event occurrence.
	Time	Display the time of the event occurrence.
	Source	Display the source of the event occurrence.
	Event No.	Display the event occurrence number.
	Event info	Display the event information corresponds to the event occurrence number.

Screen button

- Update

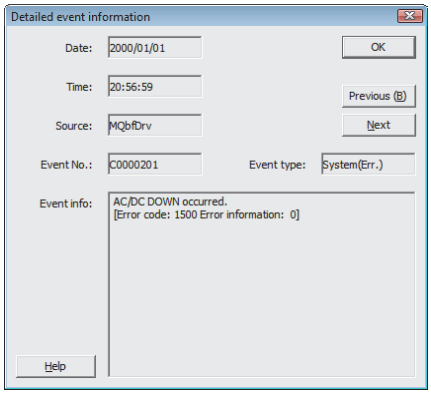
  Displays the most recent event history.
- Clear

  Deletes the event history.
- Save enent history

  Saves the displayed event history as CSV format file.
  (☞ Page 158, (1) in this section)

Point

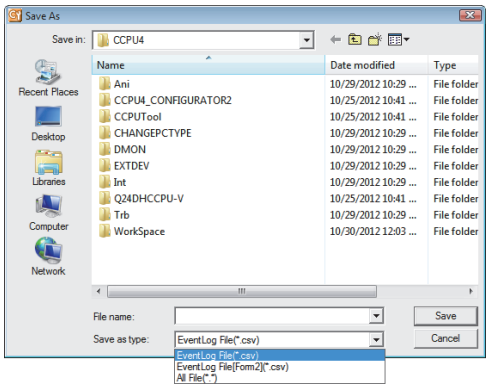
- Displaying the "Detailed event information" screen
  The following "Detailed event information" screen is displayed by double-clicking the event item on the event history column.



  - The page of the manual corresponding to the error code is displayed by clicking the Help button on the "Detailed event information" screen. (If the manual is already opened, the corresponding page will not be displayed.)
  - "Detail No." (Internal Code) may be displayed on the "Event info" field depending on the error.

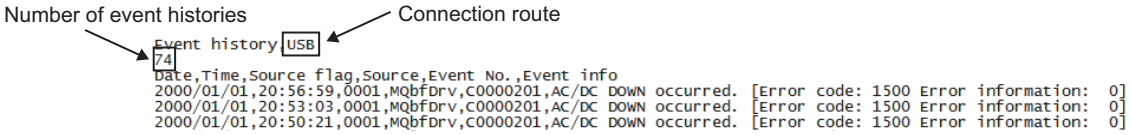
(1) Format for data to be saved

The format for data to be saved can be selected from "Save as type" on the "Save As" screen.



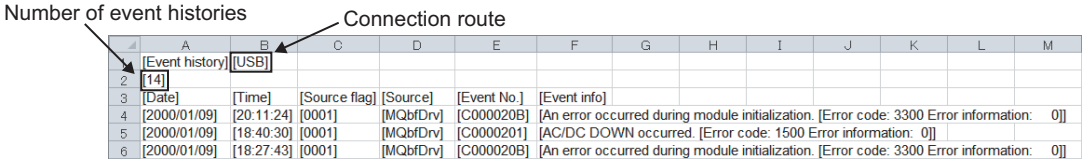
(a) EventLog File (*.csv)

This file type is used to utilize the saved file data in programs such as user programs.



(b) EventLog File [Form2] (*.csv)

This file type is used to open the saved file data in an application such as Microsoft® Excel.



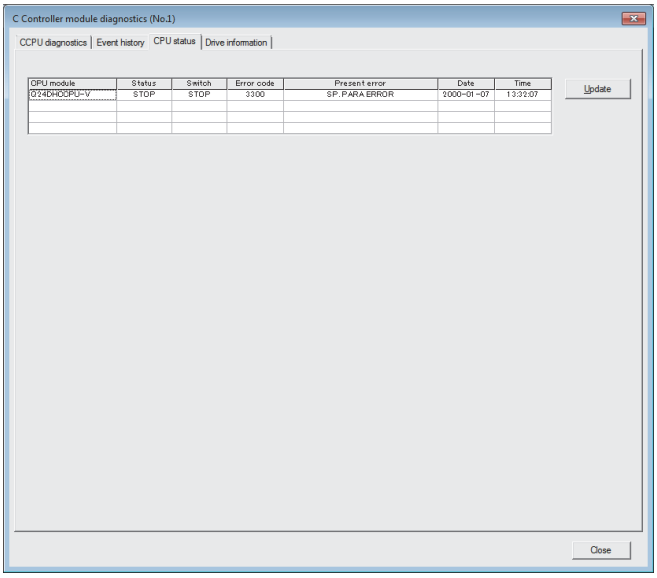
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	[Event history]	[USB]											
2	[14]												
3	[Date]	[Time]	[Source flag]	[Source]	[Event No.]	[Event info]							
4	[2000/01/09]	[20:11:24]	[0001]	[MQbfDrv]	[C000020B]	[An error occurred during module initialization. [Error code: 3300 Error information: 0]]							
5	[2000/01/09]	[18:40:30]	[0001]	[MQbfDrv]	[C0000201]	[AC/DC DOWN occurred. [Error code: 1500 Error information: 0]]							
6	[2000/01/09]	[18:27:43]	[0001]	[MQbfDrv]	[C000020B]	[An error occurred during module initialization. [Error code: 3300 Error information: 0]]							

10.3 Checking CPU Module Status

This section explains how to check the operating status, the switch status, and the current errors of a C Controller module and CPU modules.

Screen display

- **Select [Diagnostics] ⇒ [CPU status].**



Display contents

Item		Description
CPU status		Display the operating status, the switch status, and the current errors of the C Controller module and CPU modules.
	CPU module	Display the model of the C Controller module and CPU modules.
	Status	Display the operating status of the C Controller module and CPU modules.
	Switch	Display the switch status of the C Controller module and CPU modules.
	Error code	Display the error code of the most recent stop error/continuation error among the errors being occurring on the C Controller module and CPU modules.
	Present error	Display the error message for the error code.
	Date	Display the date of the error occurrence.
	Time	Display the time of the error occurrence.

Screen button

- Update

  Displays the most recent CPU status.

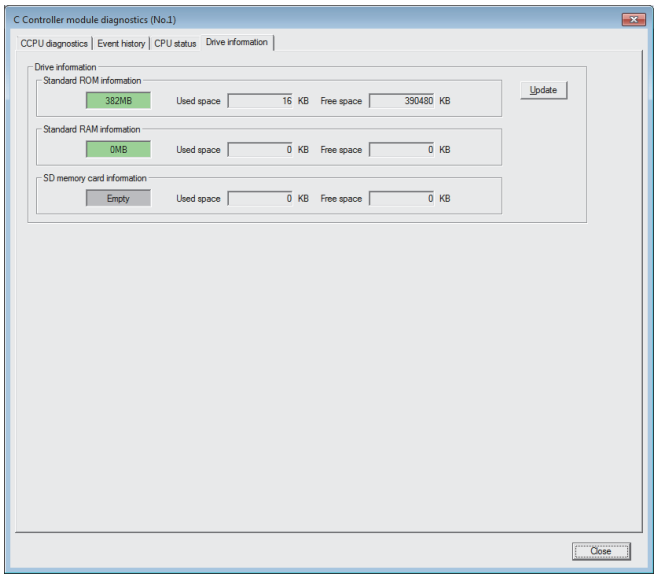
10.4 Checking Drive Information of C Controller Module

This section explains how to display the drive information of the C Controller module.

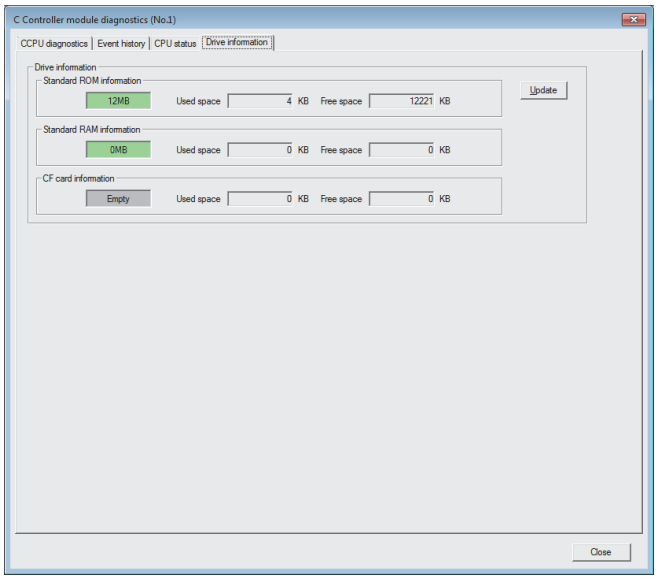
Screen display

- **Select [Diagnostics] ⇒ [Drive information].**

< Q24DHCCPU-V/-VG >



< Q12DCCPU-V >



Display contents

Item		Description
Drive information*1		Display the drive information of the C Controller module.
	Standard ROM information	Display the size and used/free space of the standard ROM.
	Standard RAM information	Display the size and used/free space of the standard RAM. "0" is displayed when the standard RAM is not set.
	SD memory card information*2	Display the size and used/free space of the SD memory card. "Empty" is displayed when the SD memory card is not installed.
	CF card information*3	Display the size and used/free space of the CompactFlash card. "Empty" is displayed when the CompactFlash card is not installed.

*1 : This item is not displayed when using Q24DHCCPU-LS and Q26DHCCPU-LS
*2 : This item is displayed when using Q24DHCCPU-V/-VG
*3 : This item is displayed when using Q12DCCPU-V

Screen button

- Update

  Displays the most recent drive information.

10.5 Diagnosing CC-Link IE Controller Network

This section explains how to check the CC-Link IE Controller Network status of a selected module.

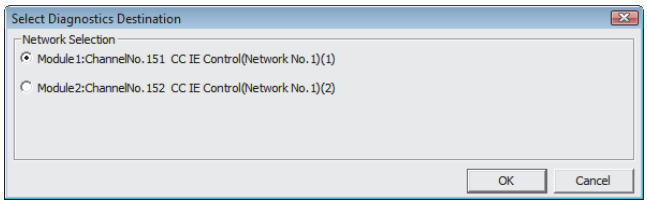
Point

- Details of CC-Link IE Controller Network diagnostics
  Refer to CC-Link IE Controller Network Reference Manual.

(1) Selecting the diagnostics target

When two or more CC-Link IE Controller Network modules are connected to the connected station, the "Select Diagnostics Destination" screen as shown below is displayed before starting diagnostics.

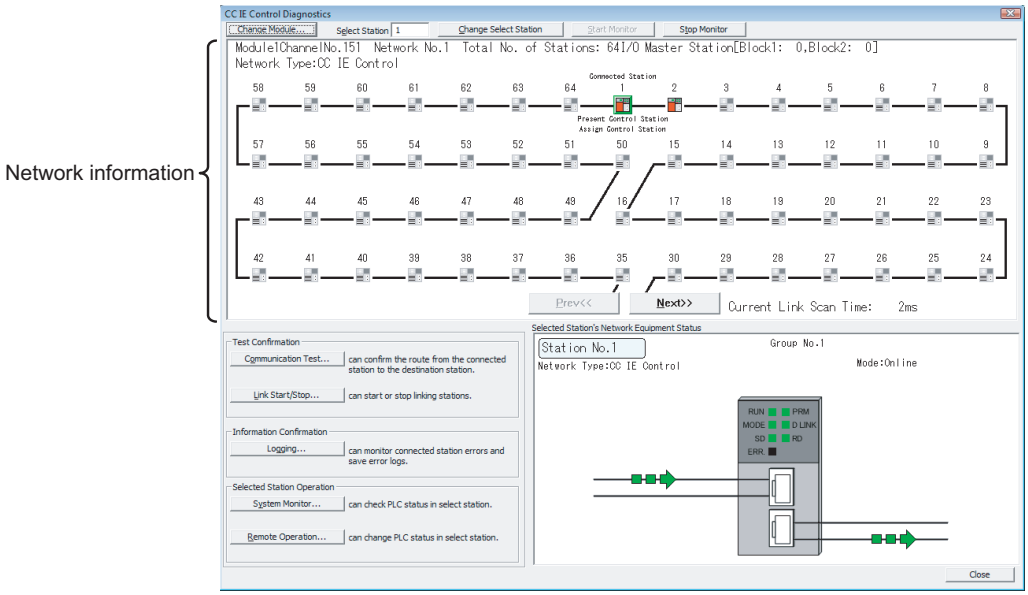
Select a network to be diagnosed and click the OK button.



(2) Diagnostics screen

Screen display

- **Select [Diagnostics] ⇒ [CC IE Control Diagnostics].**



Display contents

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>Network information</td><td>Display the network information of the selected module. The status is displayed by icons shown below.
<table>
<tr><th colspan="2">Icon</th><th rowspan="2">Station status</th></tr>
<tr><th>Module</th><th>Board</th></tr>
<tr><td>  </td><td>  </td><td>Normally operating station</td></tr>
<tr><td>  </td><td>  </td><td>Focusing (icon enclosed by dotted line)</td></tr>
<tr><td>  </td><td>  </td><td>Selected station</td></tr>
<tr><td>  </td><td>  </td><td>Error (cyclic transmission stopped)</td></tr>
<tr><td>  </td><td>  </td><td>Warning (Although cyclic transmission is executed, an error occurred with a module and/or a cable)</td></tr>
<tr><td>  </td><td>  </td><td>Module whose shared group is different</td></tr>
<tr><td>  </td><td>–</td><td>Reserved station (gray)</td></tr>
<tr><td>  </td><td>–</td><td>Disconnected station (black)</td></tr>
<tr><td> 
</td><td>–</td><td>Current connected station, specified in the connection destination setting</td></tr>
<tr><td> 
</td><td>–</td><td>Number unspecified station (Although "Specify Station No. by Program" is selected in parameter (normal station only), a station number is not set in the program.)</td></tr>
</table>
Clicking an icon sets the corresponding station as the selected station and displays the details in "Selected Station's Network Equipment Status". The selected station can also be determined by moving the focus with the right and left arrow keys and pressing the Space or Enter key.
Double-clicking an icon displays the "System Monitor" screen (☞ Page 210, Section 10.9) of the corresponding station.</td></tr>
<tr><td>Selected Station's Network Equipment Status</td><td>Display the status of the CC-Link IE Controller Network module in the station selected in the network information display field and the status of the connecting cable.</td></tr>
</table>

Screen button

- Change Module...

  Displays the "Select Diagnostics Destination" screen. The diagnostic target module can be changed.
- Change Select Station

  Changes the selected station to the station to which the station number specified in "Select Station" is assigned. The status of the selected station is displayed in "Selected Station's Network Equipment Status".
- Prev<< / Next>>

  Switches the screen display of the network information when the total number of station is 61 or more.
- Communication Test...

  Displays the "Communication Test" screen. The communication route from the connected station to the specified destination station can be confirmed. (☞ Page 166, Section 10.5.1)

- Link Start/Stop...

  Displays the "Link Start/Stop" screen. The data link start/stop can be performed to the specified station. (☞ Page 167, Section 10.5.2)
- Logging...

  Displays the "Logging" screen. The communication route switch information and the transient transmission error of the connected station can be monitored. The monitor information can be saved in a file.
  (☞ Page 169, Section 10.5.3)
- System Monitor...

  Displays the "System Monitor" screen. The system status of the selected station can be confirmed.
  (☞ Page 210, Section 10.9)
- Remote Operation...

  Displays the "Remote Operation" screen. The remote operation can be performed to the programmable controller CPU of the selected station and remote device station.*1 (☞ Page 152, Section 9.1)

  *1 : For remote device stations, only remote reset can be performed.

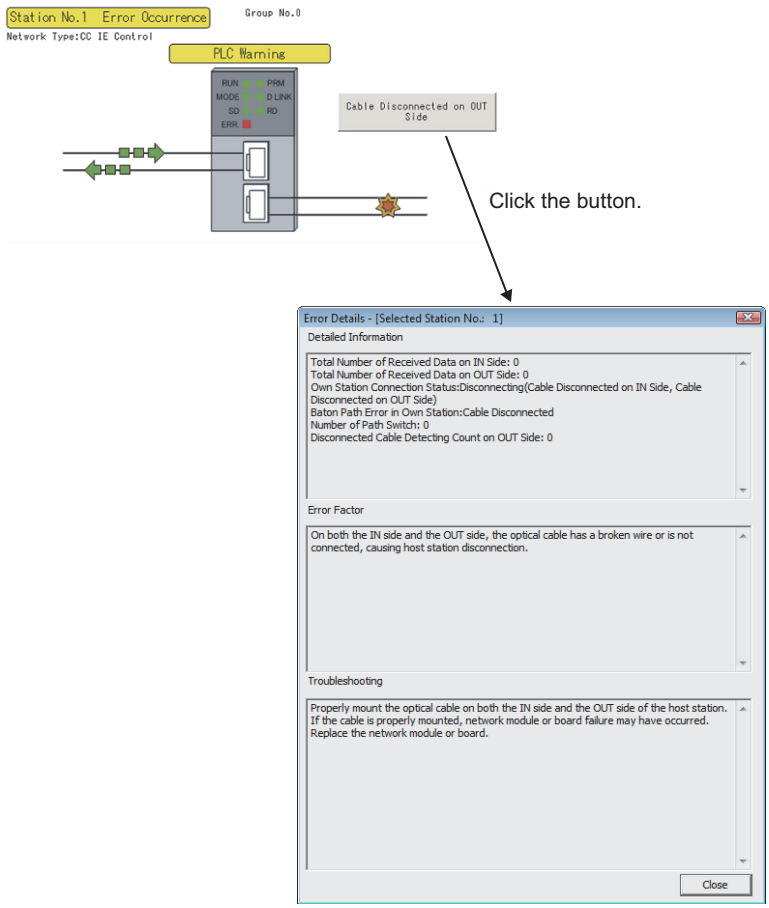
Point

- Connection destination for executing CC-Link IE Controller Network diagnostics
  The communication test, the link start/stop, the system monitor, and the remote operation can be executed only when the connected station is selected.
- When an unsupported CPU module is specified as the selected station, or a CC-Link IE Controller Network interface board is specified as the selected station
  The "System Monitor" screen and "Remote Operation" screen cannot be displayed when an unsupported CPU module is specified as the selected station. The "System Monitor" screen cannot be displayed when a CC-Link IE Controller Network interface board is specified as the selected station.
- When the total number of stations is set to 65 or more
  In a case where the total number of stations is set to 65 or more and High Performance model QCPU is specified as the connected station, an error occurs when a station whose station number is 65 or more is selected. The error, however, does not occur where Universal model QCPU is connected with a cable in a multiple CPU configuration.
- Communication test and link start/stop
  To execute the communication test or link start/stop, a target station must be connected using a USB cable.

(3) Display on the "Selected Station's Network Equipment Status" field when an error occurs

When an error occurs on a CC-Link IE Controller Network module or connection cable, the button is displayed on the "Selected Station's Network Equipment Status" field as shown below. The detailed information, error factor, and troubleshooting can be displayed by clicking the button.

The icon ( ) is displayed as shown below when a destination station is disconnected.

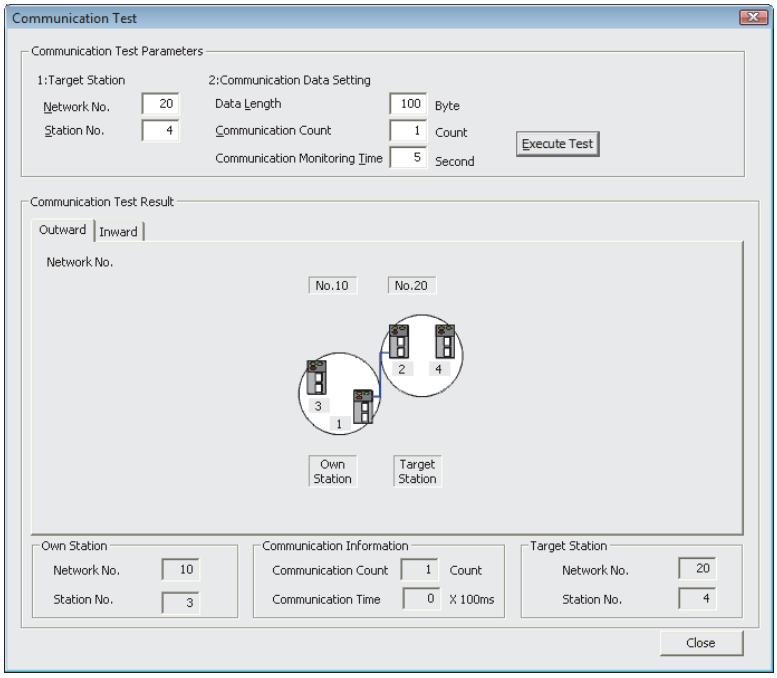


10.5.1 Communication test

Perform the communication test on CC-Link IE Controller Network.

Screen display

- **Click the Communication Test... button on the "CC IE Control Network Diagnostics" screen.**



Operating procedure

1. **Set the items on the screen.**

Item		Description
Communication Test Content		Set the items to execute the test.
	Target Station	Set the network number and station number.
	Communication Data Setting	Set the data length (1 to 900 bytes), the number of communications (1 to 100 times), and monitoring time (1 to 100 seconds) to execute the test.

2. **Click the Execute Test button.**

The communication test is executed according to the settings.

Display contents

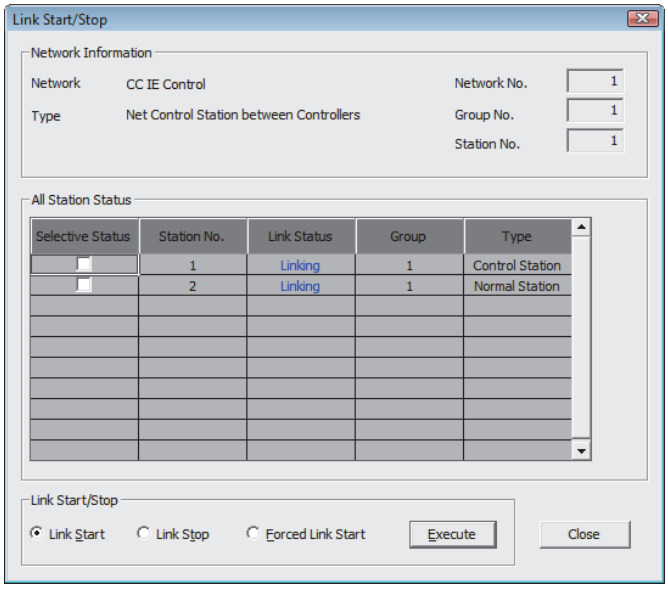
Item	Description
Communication Test Result	Display the result of inter-network communication test. Networks and stations routed from the own station (connected station) to the target station are displayed on the <<Outward>> tab and those routed from the target station to the own station (connected station) are displayed on the <<Inward>> tab.

10.5.2 Link start/stop

Start/stop the data link of individual stations on CC-Link IE Controller Network.

Screen display

- **Click the** Link Start/Stop... **button on the "CC IE Control Network Diagnostics" screen.**



Display contents

Item	Description
Network Information	Display the network information of the connected station.

Operating procedure

1. **Set the items on the screen.**

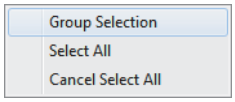
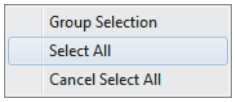
Item		Description
All Station Status		Display the link status of all stations on the same network which are performing the data link with the connected station. Target stations of the link start/stop operation can be selected in "Selective Status".
Link Start/Stop		–
	Link Start	Select this to start the data link.
	Link Stop	Select this to stop the data link.
	Forced Link Start	Select this to forcibly start the data link of a station which has been stopped by another station or a special relay/special register.

2. **Click the** Execute **button.**

   The link start/stop is executed for all selected stations at once.

Point

- Selection of link start/stop
  The target stations of the link start/stop operation can also be selected by the following methods.

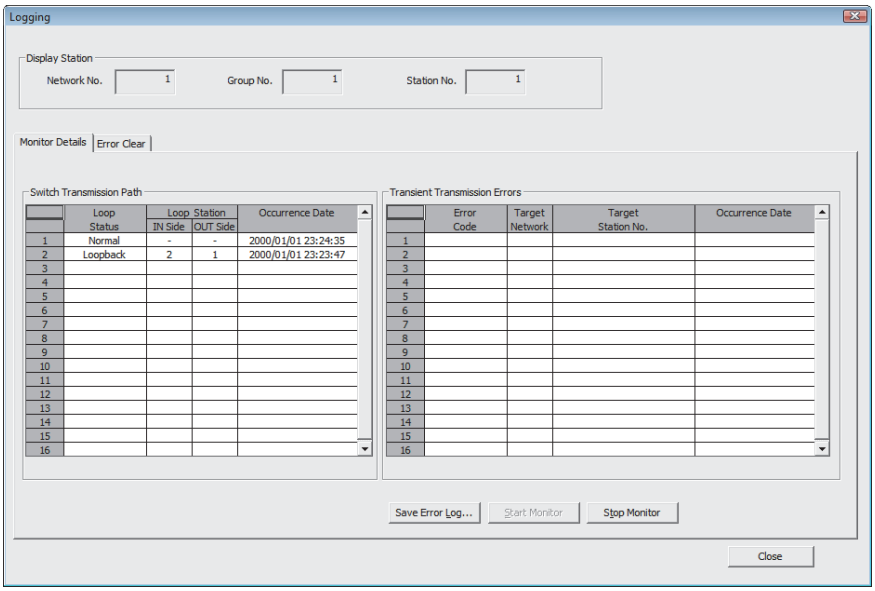
Selection	Operating procedure
Group Selection	Right-click on the "Group" column of a station and select "Group Selection" from the shortcut menu. Stations which have the same group number as the selected line become selected. When the "Group" column whose value is '0' is right-clicked, this shortcut menu cannot be selected. 
Select All	Right-click the "Station No." column of a station and select "Select All" from the shortcut menu. 

10.5.3 Logging

Display the communication route switch information and transient transmission error information of the selected station.

Screen display

- **Select the** Logging... **button on the "CC IE Control Network Diagnostics" screen.**



Display contents

Item	Description
Display Station	Display the network information of the currently selected station.

(1) Displaying the communication route switch information and transient transmission error information

The <<Monitor Details>> tab displays the communication route switch information and transient transmission error information.

Maximum 100 logs can be displayed. If the number of logs exceeds 100, the logs are deleted from the oldest one.

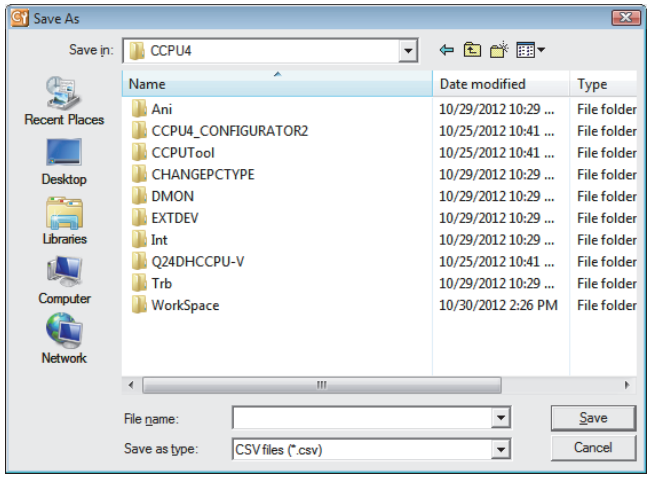
Display contents

Item	Description
Switch Transmission Path	Display the loop status of communication route, the number of station where loopback occurred, and the date when communication route switching occurred.
Transient Transmission Errors	Display the error code, network number and station number of the transient request target, and the date of error occurrence if transient transmission error occurs.

Screen button

- Save Error Log...

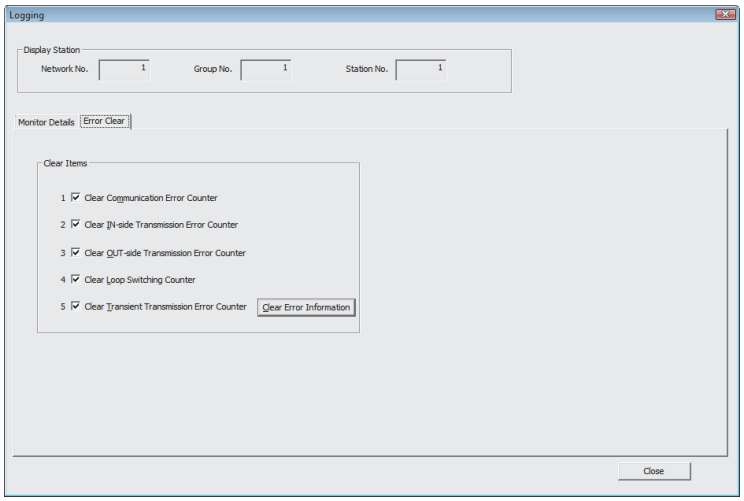
  Displays the "Save As" screen and the contents displayed on the <<Monitor Details>> tab can be saved in a CSV file.



(2) Clearing errors

Clear the errors of the currently selected station using the <<Error Clear>> tab.

Screen display



Operating procedure

1. **Select the item to be cleared.**
2. **Click the** Clear Error Information **button.**

10.6 Diagnosing CC-Link IE Field Network

This section explains how to check the CC-Link IE Field Network status of a selected module.

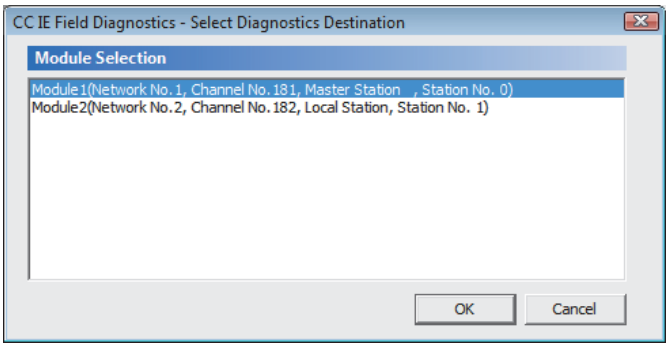
Point

- Details of CC-Link IE Field Network diagnostics
  Refer to the User's Manual of each module.

(1) Selecting the diagnostics target

When two or more CC-Link IE Field Network modules are connected to the connected station, the "Select Diagnostics Destination" screen as shown below is displayed before starting diagnostics.

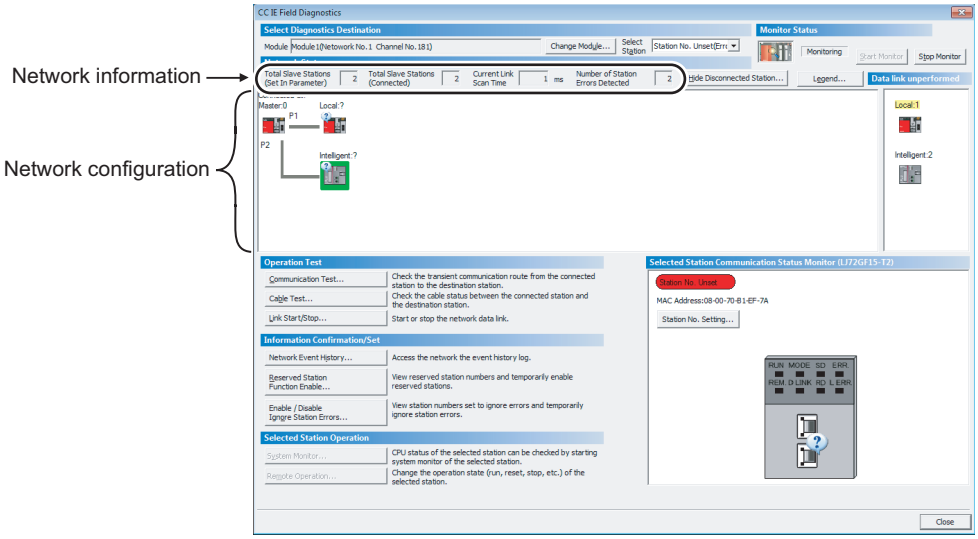
Select a network to be diagnosed and click the OK button.



(2) Diagnostics screen

Screen display

- **Select [Diagnostics] ⇒ [CC IE Field Diagnostics].**



Display contents

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td colspan="2">Select Diagnostics Destination</td><td>–</td></tr>
<tr><td></td><td>Module</td><td>Display the module and network number of the diagnostics target.</td></tr>
<tr><td></td><td>Select Station</td><td>Display the station number of the station selected in the network information.</td></tr>
<tr><td colspan="2">Network Status</td><td>–</td></tr>
<tr><td></td><td>Network information</td><td>Display the total number of slave stations, the link scan time (in units of ms), and the number of error-detected stations on the network being displayed.</td></tr>
<tr><td></td><td>Network configuration</td><td>Display the state of the network. The status of each station is displayed by icons shown below.
<table>
<tr><th colspan="2">Icon</th><th rowspan="2">Station status</th></tr>
<tr><th>Master station/ local station</th><th>Head module</th></tr>
<tr><td>  </td><td>  </td><td>Normally operating station</td></tr>
<tr><td>  </td><td>  </td><td>Focusing (icon enclosed by dotted line)</td></tr>
<tr><td>  </td><td>  </td><td>Selected station</td></tr>
<tr><td>  </td><td>  </td><td>Error (data link stopped)</td></tr>
<tr><td>  </td><td>  </td><td>Warning (Although data link is executed, an error occurred with a module)</td></tr>
<tr><td>  </td><td>  </td><td>Disconnected station (black)</td></tr>
<tr><td>  </td><td>  </td><td>Number unspecified station</td></tr>
<tr><td>  </td><td>–</td><td>Incorrect loop connection</td></tr>
</table>
Clicking an icon sets the corresponding station as the selected station and displays the details in "Selected Station Communication Status Monitor". The selected station can also be determined by moving the focus with the right and left arrow keys and pressing the Space or Enter key.</td></tr>
<tr><td colspan="2">Selected Station Communication Status Monitor*1</td><td>Display the communication status of the own station.</td></tr>
<tr><td colspan="2">Data link unexecuted station monitor</td><td>Display stations on which the data link is not established among the stations set to the parameter</td></tr>
</table>

*1 : Not displayed when the connected station is an Ethernet adapter module.

Screen button

- Change Module... **(Not supported by communication head module)**

  Displays the "Select Diagnostics Destination" screen. The diagnostic target module can be changed. (☞ Page 171, (1) in this section)

- Communication Test...

  Displays the "Communication Test" screen. The communication route from the connected station to the communication target station can be confirmed. (☞ Page 176, Section 10.6.1)

- Cable Test...

  Displays the "Cable Test" screen. The cable connection status can be tested. (☞ Page 177, Section 10.6.2)

- Link Start/Stop... **(Not supported by communication head module)**

  Displays the "Link Start/Stop" screen. The data link start/stop can be performed to the specified station. (☞ Page 178, Section 10.6.3)

- Network Event History... **(Not supported by communication head module)**

  Displays the "Network Event History" screen. Displays the history of events that have occurred on the own station and the network, and the various network information. (☞ Page 179, Section 10.6.4)

- Reserved Station Function Enable... **(Not supported by communication head module)**

  Displays the "Reserved Station Function Enable" screen. The reserved stations can temporarily be disabled, and the temporarily disabled reserved stations can be enabled. (☞ Page 181, Section 10.6.5)

- Enable / Disable Ignore Station Errors... **(Not supported by communication head module)**

  Displays the "Temporary Error Invalid Station Setting/Restore" screen. The temporary error invalid stations can be set, and the registered temporary error invalid stations can be canceled. (☞ Page 182, Section 10.6.6)

- System Monitor... **(Not supported by Ethernet adapter module)**

  Displays the "System Monitor" screen. The system status of the selected station can be confirmed. (☞ Page 210, Section 10.9)

- Remote Operation... **(Not supported by Ethernet adapter module)**

  Displays the "Remote Operation" screen. The remote operation can be performed to the programmable controller CPU of the selected station. (☞ Page 152, Section 9.1)

- Station No. Setting...

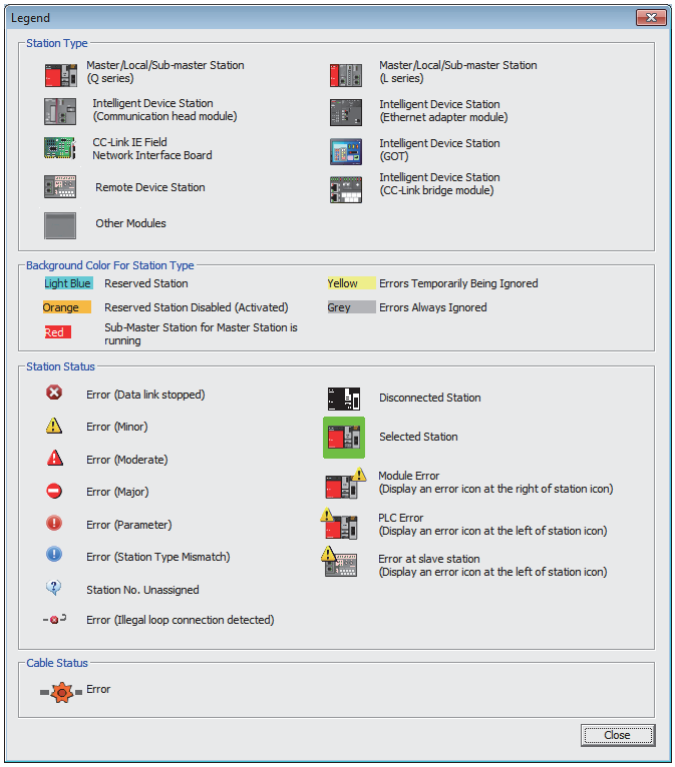
  Displays the "Set Station No." screen. Set the station number of the selected station. (☞ Page 183, Section 10.6.7)

- Hide Disconnected Station...

  Deletes the disconnected station from the network configuration.

- Legend...

  Displays the explanation for icons displayed on the diagnostics screen.



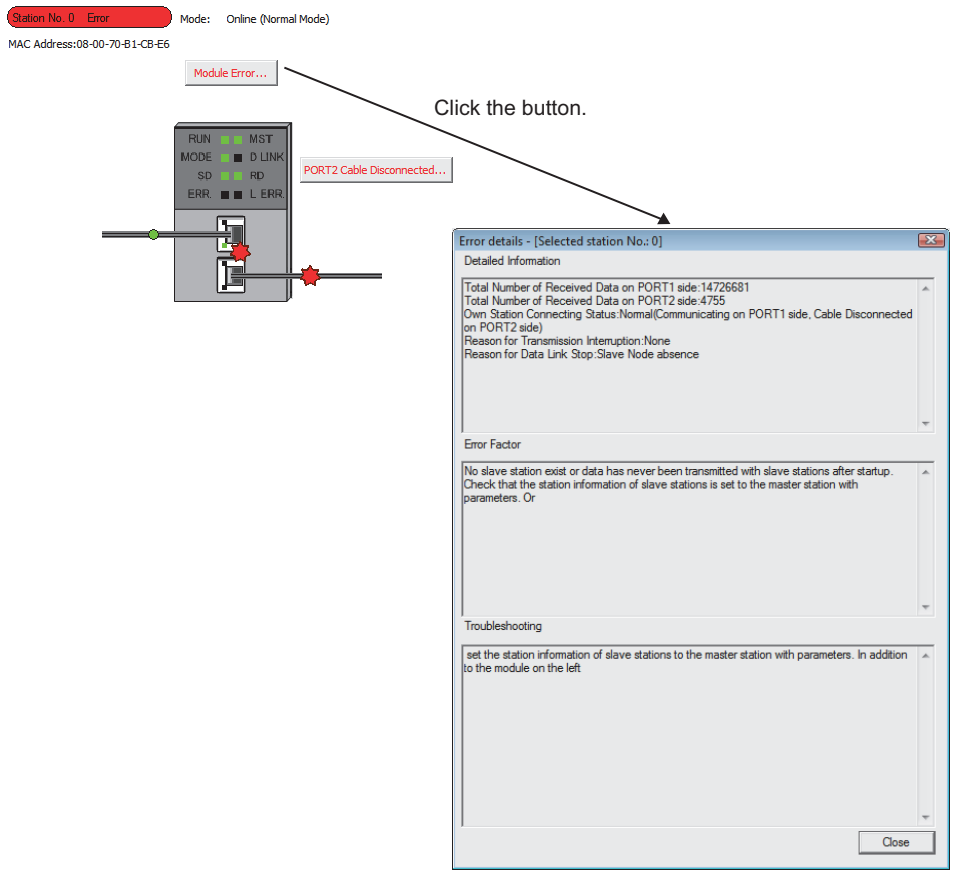
Point

- Connection destination for executing CC-Link IE Field Network diagnostics
  The communication test and the link start/stop can be executed only when the connected station is selected.
- When an unsupported CPU module is specified as the selected station
  The "System Monitor" screen and "Remote Operation" screen cannot be displayed when an unsupported CPU module is specified as the selected station.
- Communication test and link start/stop
  To execute the communication test or link start/stop, a target station must be connected using a USB cable.

(3) Display on the "Selected Station Communication Status Monitor" field

The button as shown below is displayed on the "Selected Station Communication Status Monitor" field when an error occurs on a CC-Link IE Field Network module or on a connection cable.
The detailed information, error factor, and troubleshooting can be displayed by clicking the button.

The icon ( ) is displayed as shown below when a destination station is disconnected.



Point

- When the station number of the selected station is unspecified

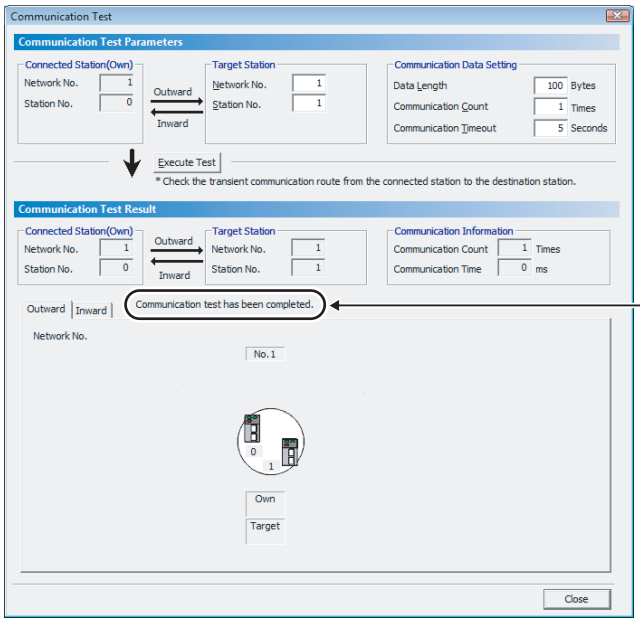
  When the station number of the selected station is unspecified, the Station No. Setting... button is displayed on "Selected Station Communication Status Monitor" field.
  To specify the station number, click this button and display the "Set Station No." screen.

10.6.1 Communication test

Perform the communication test on CC-Link IE Field Network.

Screen display

- **Click the Communication Test... button on the "CC IE Field Diagnostics" screen.**



Presence or absence of errors on the communication test

Operating procedure

1. Set the items on the screen.

Item		Description
Communication Test Contents		Set the items to execute the test.
	Connected Station (Own)	Display the network number and station number of the connected station.
	Target Station	Set the network number and station number.
	Communication Data Setting	Set the data length (1 to 900 bytes), the number of communications (1 to 100 times), and monitoring time (1 to 100 seconds) to execute the test.

2. Click the Execute Test button.

The communication test is executed according to the settings.

Display contents

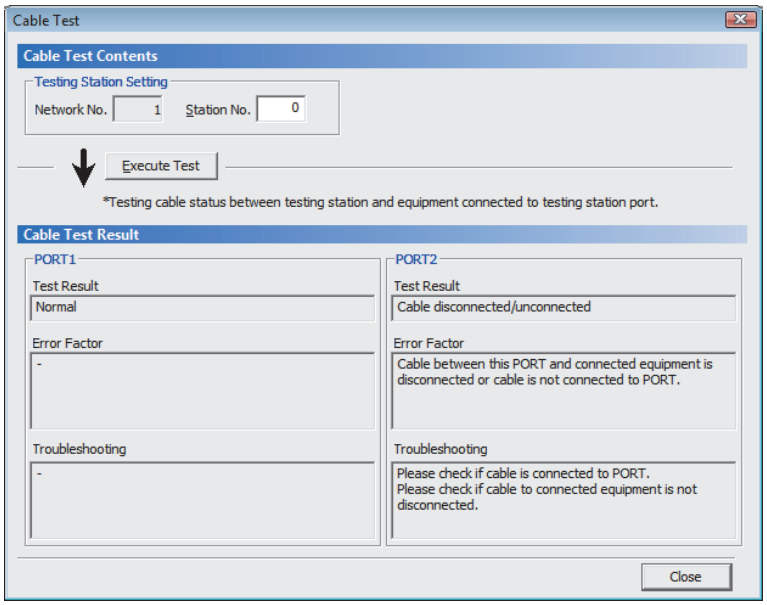
Item	Description
Communication Test Result	Display the result of inter-network communication test. Also in 'Presence or absence of errors on the communication test', display whether the communication test has been executed normally. Networks and stations routed from the own station (connected station) to the target station are displayed on the <<Outward>> tab and those routed from the target station to the own station (connected station) are displayed on the <<Inward>> tab.

10.6.2 Cable test

Test the status of the cable connections between the testing station and the devices connected to the ports of the testing station.

Screen display

- **Click the** Cable Test... **button on the "CC IE Field Diagnostics" screen.**



Display contents

Item	Description
Cable Test Result	Display the cable test result, error factor, and troubleshooting of each port.

Operating procedure

1. **Set the items on the screen.**

Item		Description
Cable Test Contents		–
	Testing Station Setting	Set the network number and station number of the station which executes the cable test.

2. **Click the** Execute Test **button.**

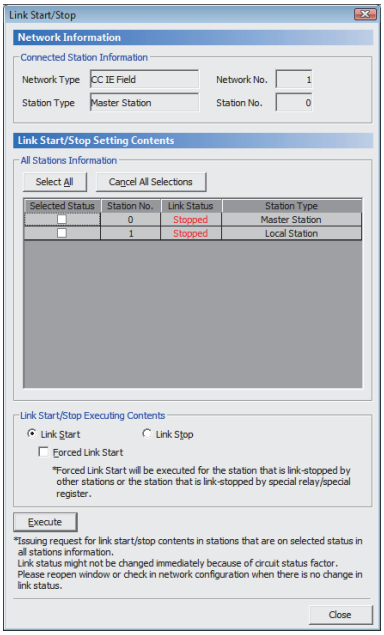
The cable test is executed on the testing station.

10.6.3 Link start/stop

Start/stop the data link of a specified station. This function can be used for debugging purposes to stop the station from receiving data from other stations and sending its own data.

Screen display

- **Click the [Link Start/Stop...] button on the "CC IE Field Diagnostics" screen.**



Display contents

Item		Description
Network Information		–
	Connected Station Information	Display the network information of the connected station.

Operating procedure

1. **Set the items on the screen.**

Item		Description
Link Start/Stop Setting Contents		–
	All Stations Information	Display the link status of all stations on the same network which are performing the data link with the connected station. Target stations of the link start/stop operation can be selected in "Selective Status".
	Link Start/Stop Executing Contents	Select "Link Start"/"Link Stop". To forcibly start the data link of a station which has been stopped by another station or a special relay/special register, select "Forced Link Start".

2. **Click the [Execute] button.**
   The link start/stop is executed for all selected stations at once.
   When the process is completed, "Selected Status" are cleared and the contents of "Link Status" are updated.

Screen button

- Select All

  Selects all stations displayed in the list.
- Cancel All Selections

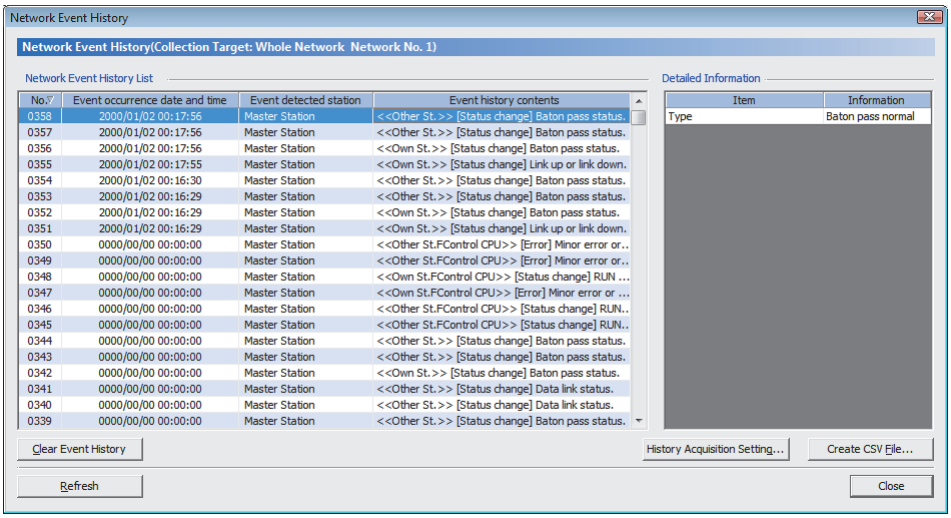
  Cancels the selection status of all stations selected in the list.

10.6.4 Network event history

Display the list of event history occurred on the own station and on the network.

Screen display

- **Click the Network Event History... button on the "CC IE Field Diagnostics" screen.**



Display contents

Item	Description
Network Event History List	Display the list of network event history. Each column can be sorted in ascending/descending order by clicking on the column header.
Detailed Information	Display the detailed information of an event selected in "Network Event History List".

Screen button

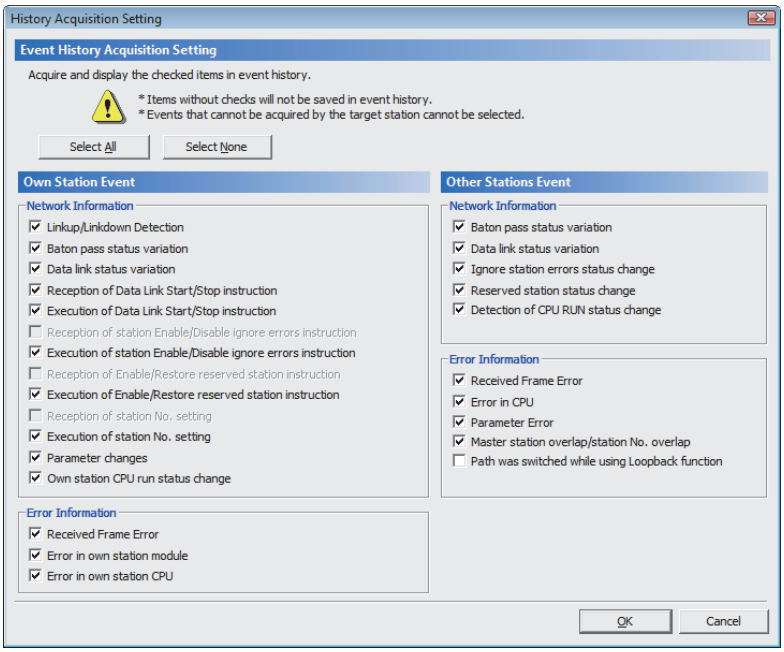
- Clear Event History

  Clears the network event history.

- History Acquisition Setting...

  Displays the "History Acquisition Setting" screen.

  Select events to be acquired.



  - All events displayed in the list are selected by clicking the Select All button.
  - The selection status of all events selected in the list are canceled by clicking the Select None button.

- Create CSV File...

  Saves the network event history in CSV file format.

- Refresh

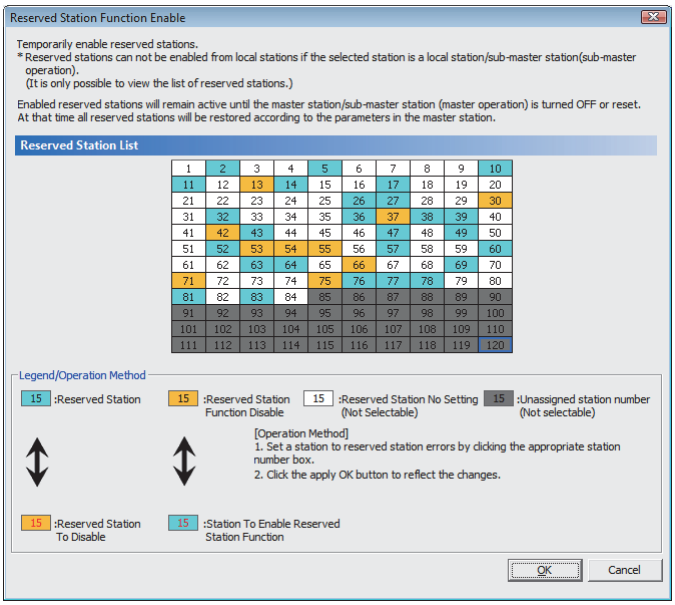
  Updates the "Network Event History List".

10.6.5 Reserved station function enable

Disable the reserved stations temporarily, and enabling the temporarily disabled reserved station.
This function cannot be performed when the connected station is a local station.

Screen display

- **Click the** Reserved Station Function Enable... **button on the "CC-Link IE Field Diagnostics" screen.**



Operating procedure

1. **Select reserved stations to be disabled temporarily/enabled from "Reserved Station List".**
2. **Click the** OK **button.**
   The selected reserved stations are disabled temporarily/enabled.
   When the process is completed, the contents of "Reserved Station List" are updated.

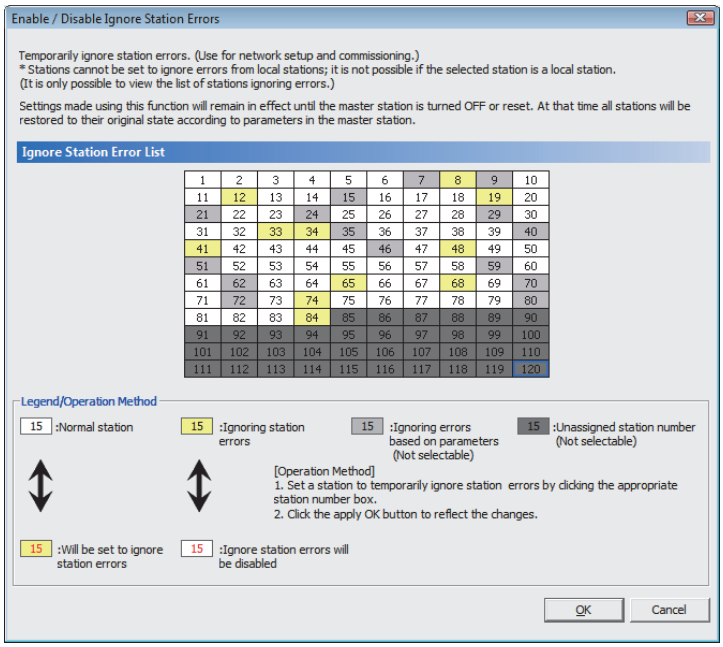
10.6.6 Temporary error invalid station setting/restore

Set/cancel temporary error invalid stations.

This function cannot be performed when the connected station is a local station.

Screen display

- **Click the** Enable / Disable Ignore Station Errors... **button on the "CC-Link IE Field Diagnostics" screen.**



Operating procedure

1. **Select stations to be set/canceled as temporary error invalid stations from "Error Invalid Station List".**
2. **Click the** OK **button.**

   The temporary error invalid stations are set/canceled.

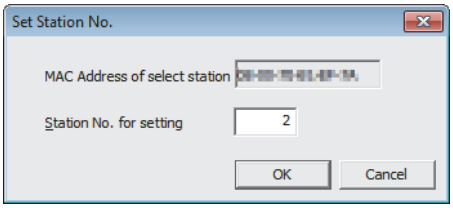
   When the process is completed, the contents of "Error Invalid Station List" are updated.

10.6.7 Setting the station number

Set the station number.

Screen display

- **Click the [Station No. Setting...] button on the "CC IE Field Diagnostics" screen.**



Operating procedure

1. **Enter the station number to "Station No. for setting".**
2. **Click the [OK] button.**

10.7 Diagnosing MELSECNET

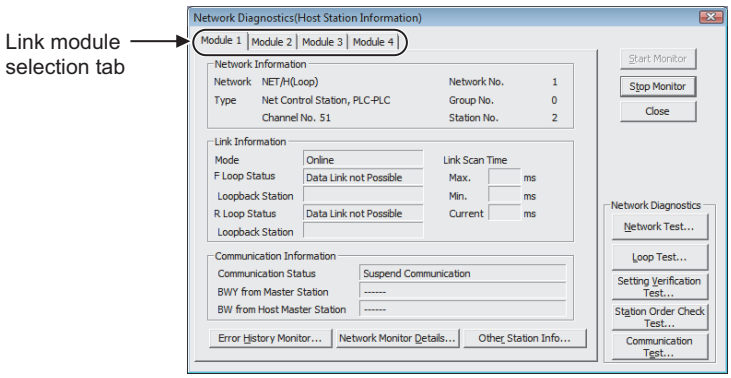
This section explains how to check the MELSECNET/10(H) status connected to the selected module.

Point

- Network to be diagnosed
  To change a network to be diagnosed, change the target station in the connection destination setting.
- Connecting via Ethernet
  The functions of network diagnostics can not be executed. Connect with a USB cable.
- MELSECNET/H (bus) connection
  - The loop test and station order test cannot be executed with the MELSECNET/H (bus) connection with the coaxial cable.
  - The loop test, setting verification test, and station order test cannot be executed with the MELSECNET/H (bus) connection with the twisted pair cable.
- Details of MELSECNET diagnostics
  Refer to the following manual.
  Q Corresponding MELSECNET/H Network System Reference Manual (PLC to PLC network)

Screen display

- **Select [Diagnostics] ⇒ [MELSECNET Diagnostics].**



Display contents

Item	Description
Link module selection tab	Switch the MELSECNET diagnostics result display screen for each link modules from 1 to 4. The information whether a link module is mounted or not is acquired from the mounted status.
Network Information	Display the network information of the selected module.
Link Information	Display the network status.
Communication Information	Display the communication status of the target network

Screen button

- Network Test...

  Displays the "Network Test" screen. (☞ Page 186, Section 10.7.1)
- Loop Test...

  Displays the "Loop Test" screen. (☞ Page 188, Section 10.7.2)
- Setting Verification Test...

  Displays the "Setting Confirmation Test" screen. (☞ Page 189, Section 10.7.3)
- Station Order Check Test...

  Displays the "Station Order Check Test" screen. (☞ Page 191, Section 10.7.4)
- Communication Test...

  Displays the "Communication Test" screen. (☞ Page 192, Section 10.7.5)
- Error History Monitor...

  Displays the "Error History Monitor" screen. (☞ Page 194, Section 10.7.6)
- Network Monitor Details...

  Displays the "Network Monitor Details" screen. (☞ Page 196, Section 10.7.7)
- Other Station Info...

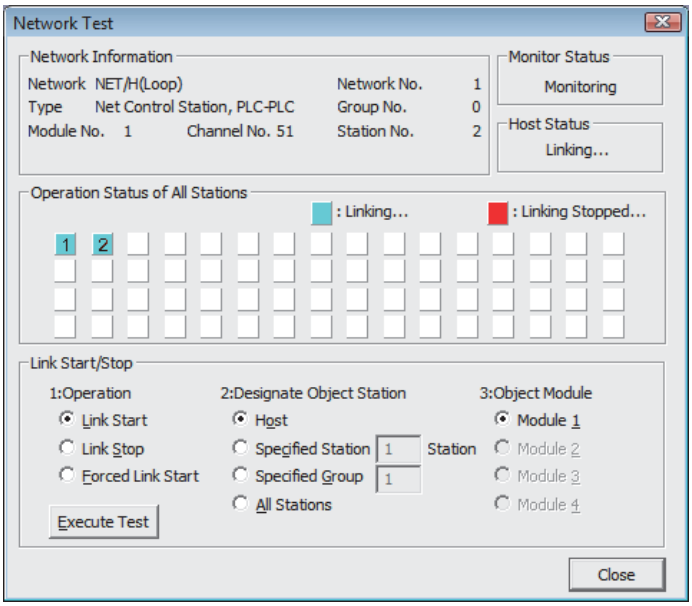
  Displays the "Other Station Information" screen. (☞ Page 197, Section 10.7.8)

10.7.1 Network test

Perform link start/stop (cyclic transmission stop/restart) on the host station, specified station, and all stations in MELSECNET/10(H).
Use this function to avoid receiving data from another stations or to avoid sending data from host station when starting up (debugging) the system.

Screen display

- **Click the** Network Test... **button on the "MELSECNET Diagnostics" screen.**



Display contents

Item	Description
Network Information	Display the network information on the host station of the selected module.
Monitor Status	Display the current monitor status.
Host Status	Display the operating status of the host station for the selected module.
Operation Status of All Stations	Display the link status of all stations on the tested network.

Operating procedure

1. **Set the items on the screen.**

Item			Description
Link Start/Stop			Set the items to execute the test.
	Operation	Link Start	• Select this to start the station that was stopped by the host station. • The station that was stopped by another station cannot be started.
		Link Stop	Select this to stop a station from the host/another station.
		Forced Link Start	• Select this to forcibly perform the link start on a station stopped by the host station or another station, or to forcibly perform the link start on a station to which the link stop is performed by special relay/special register. However, forced start in units of stations is not possible while all stations are stopped. • To check whether the station is stopped by stop specification of all stations, check SW0000. • This function cannot be executed when the MELSECNET/10(H) board is used. • The route via A series-compatible E71/QE71 is not supported by Setting/monitoring tools for the C Controller module.
	Designate Object Station		Specify the object station of the network test.
	Object Module		Select the object module of the network test.

2. **Click the** Execute Test **button.**

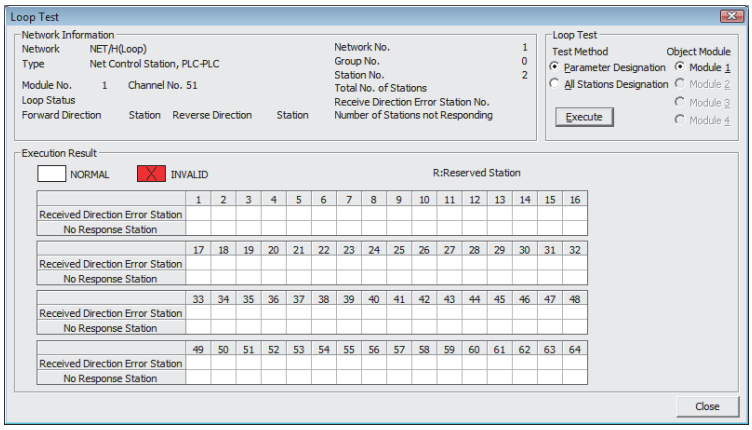
The network test is executed according to the settings.

10.7.2 Loop test

Check the loop status of MELSECNET/10(H).
Use this function to perform the loop test in the forward loop/reverse loop status with the completion of the optical loop system wiring.
Wiring status of data link cables (IN/OUT) can be checked.

Screen display

- **Click the [Loop Test...] button on the "MELSECNET Diagnostics" screen.**



Display contents

Item	Description
Network Information	Display the network information on the host station of the selected module.
Execute Results	Display the number of stations and the result (normal/invalid, reserved station: R) of loop test.

Operating procedure

1. **Set the items on the screen.**

Item			Description
Loop Test			Set the items to execute the test.
	Test Method	Parameter Designation	Select this to test all the (slave) stations specified by the network parameter (except for reserved stations). All stations are tested, if network parameter does not exist.
		All Stations Designation	Select this to test all stations.
	Object Module		Select the module for which loop test is executed.

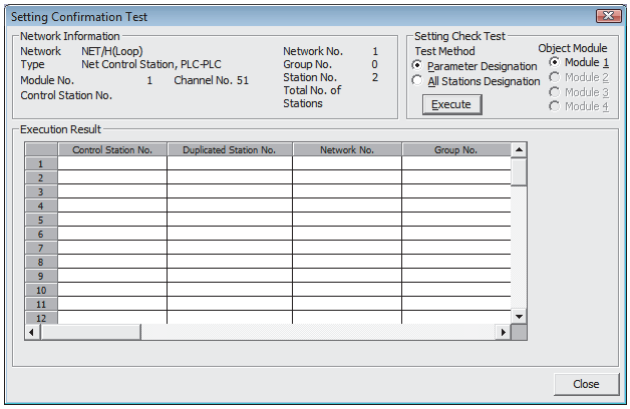
2. **Click the [Execute] button.**
The loop test is executed according to the settings.

10.7.3 Setting verification test

Check the status of the station number, network number, and group number set for each station.
Use this function to check overlaps of control stations or station numbers, or whether the network number set to the station to which Setting/monitoring tools for the C Controller module is connected matches with the network number set in the network parameter of host station.

Screen display

- **Click the Setting Verification Test... button on the "MELSECNET Diagnostics" screen.**



Display contents

Item		Description
Network Information		Display the network information on the host station of the selected module.
Execute Results		Display the test result.
	Station No.	Display the station number of the stations for which the setting verification test was executed. Up to 64 stations are displayed.
	Control Station No.	Display "○" symbol at the target station if control station is set at two or more places.
	Duplicated Station No.	Display "○" symbol at the target station if the same station number is set at two or more places.
	Network No.	Display the network number of the stations for which the setting verification test was executed. If the network number differs from that of the host station, it is identified by red.
	Group No.	Display the group number of the stations for which the setting verification test was executed. The station in error is blank.
	Reserved Station	Display "○" symbol for the station reserved by parameter setting. (When "Parameter Designation" is set in the test execution method.)
	Error Station	Display "○" symbol for the station when it is reserved by parameter setting or if a module is faulty in all station specification.
	Network Type Error Station	Display "○" symbol for the station where the parameter setting and the actual connection type disagree.

Operating procedure

1. **Set the items on the screen.**

Item			Description
Setting Check Test			Set the items to execute the test.
	Test Method	Parameter Designation	Select this to test all the (slave) stations specified by the network parameter (except for reserved stations). All stations are tested, if network parameter does not exist.
		All Stations Designation	Select this to test all stations.
	Object Module		Select the module for which setting verification test is executed.

2. **Click the** Execute **button.**

The setting verification test is executed according to the settings.

Point

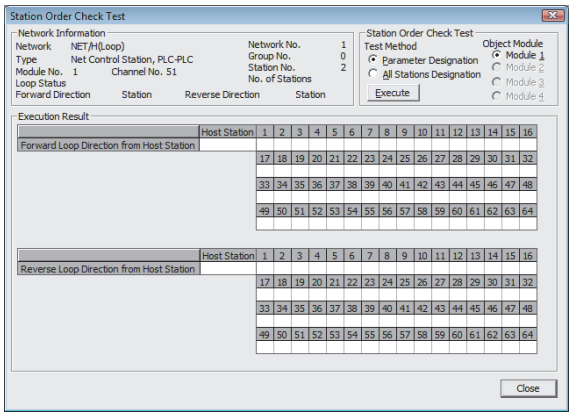
- Considerations for executing the test
  The test cannot be executed to multiple stations simultaneously.
  If executed, cyclic transmission stops.

10.7.4 Station order check test

Check the station number of the connected stations in the optical loop system of MELSECNET/10(H).

Screen display

- **Click the [Station Order Check Test...] button on the "MELSECNET Diagnostics" screen.**



Display contents

Item	Description
Network Information	Display the network information on the host station of the selected module. The loop status indicates the forward/reverse loop, forward loop, reverse loop or loopback status. "No. of Stations" indicates the number of stations that have been checked, including the reserved station.
Execute Results	Display the station number in "Forward Loop Direction from Host Station" and "Reverse Loop Destination from Host Station". In the loopback status, the test is executed only in "Forward Loop Direction from Host Station". The number for the reserved station is not displayed.

Operating procedure

1. **Set the items on the screen.**

Item			Description
Station Order Check Test			Set the items to execute the test.
	Test Method	Parameter Designation	Select this to test all the (slave) stations specified by the network parameter (except for reserved stations). All stations are tested, if network parameter does not exist.
		All Stations Designation	Select this to test all stations.
	Object Module		Select the module for which station order check test is executed.

2. **Click the [Execute] button.**

The station order check test is executed according to the settings.

Point

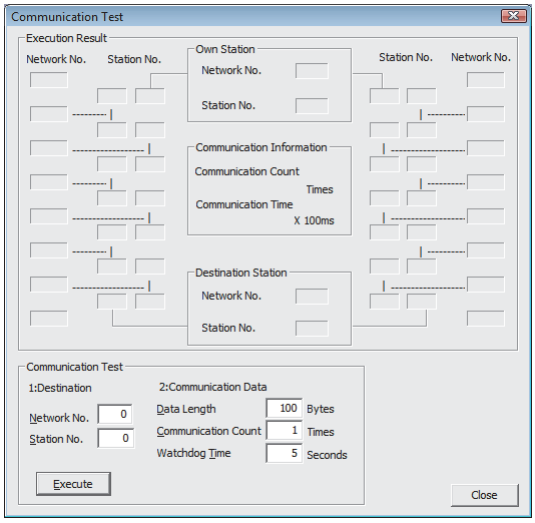
- Considerations for executing the test
  The test cannot be executed to multiple stations simultaneously.
  If executed, cyclic transmission stops.

10.7.5 Communication test

Perform the communication test between networks on MELSECNET/10(H).
Use this function to check whether communication can be performed between the host station and the communication target.
Especially, when the communication target is located on another network, the routing parameter setting can be checked by the relayed network numbers and station numbers displayed on the screen.

Screen display

- **Click the [Communication Test...] button on the "MELSECNET Diagnostics" screen.**



Display contents

Item	Description
Execute Results	Display the result of communication test executed between networks.

Operating procedure

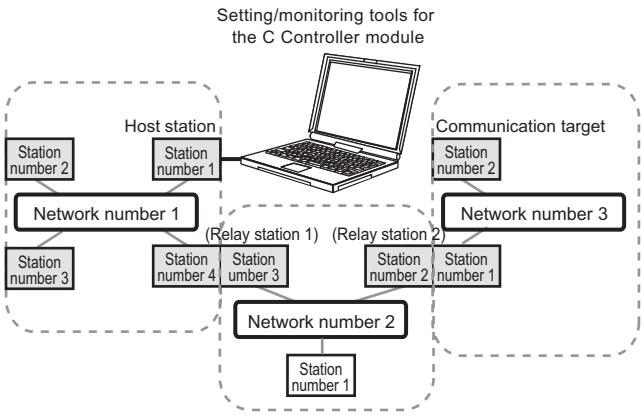
1. **Set the items on the screen**

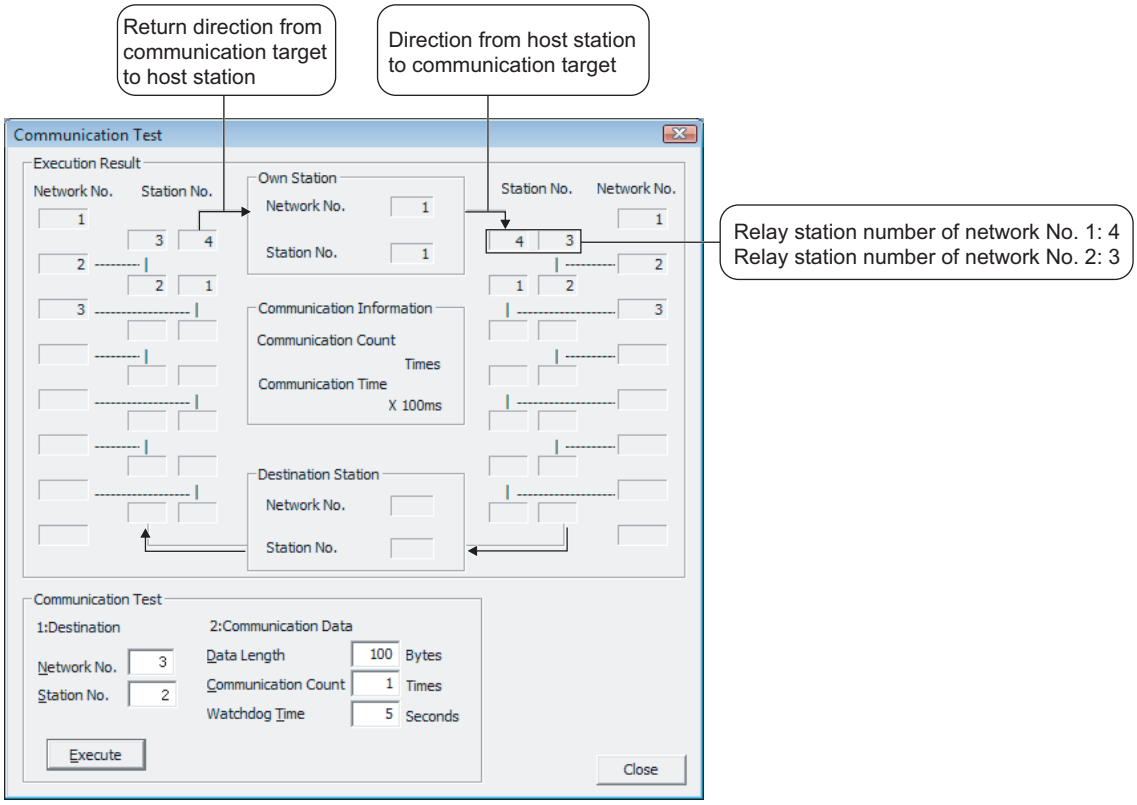
Item		Description
Communication Test		Set the items to execute the test.
	Destination	Set the network number and station number.
	Communication Data	Set the data length (1 to 900 bytes), number of communications (1 to 100 times), and monitoring time (1 to 100 seconds) to execute the test.

2. **Click the [Execute] button.**
The communication test is executed according to the settings.

(1) Example of communication test

The following shows an example of the communication test between the host station (network number 1, station number 1) and the communication target (network number 3, station number 2) with the network configuration described below.



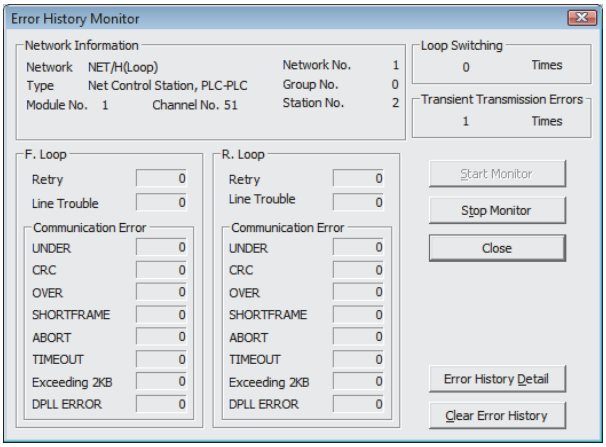


10.7.6 Error history monitoring

Display the error history of MELSECNET/10(H).

Screen display

- **Click the** Error History Monitor... **button on the "MELSECNET Diagnostics" screen.**



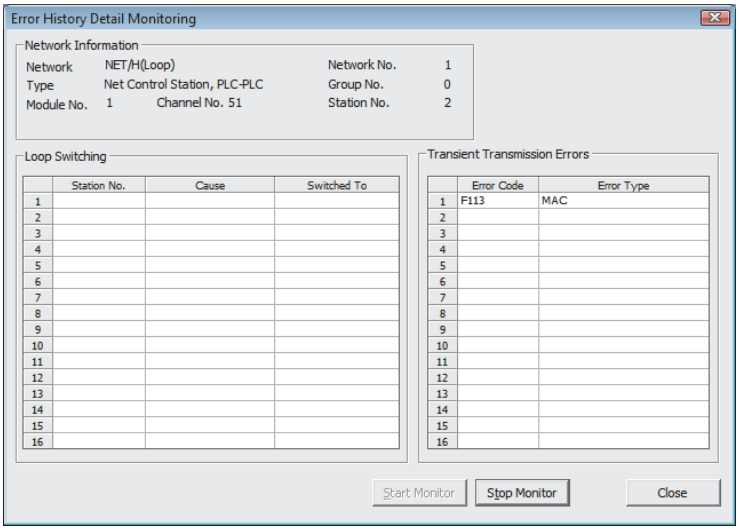
Display contents

Item	Description
Network Information	Display the network information of the selected host station.
Loop Switching	Display the number of times that the loop is switched.
Transient Transmission Errors	Display the number of occurrences of transient transmission error.
F.Loop/R.Loop	Display the items during monitoring.

Screen button

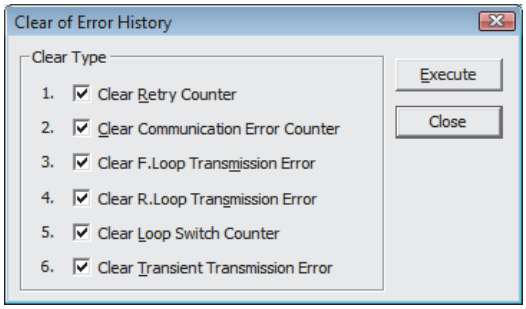
- Error History Detail

Displays the "Error History Detail Monitoring" screen that lists the details of loop switching and transient transmission error.



- Clear Error History

Displays the "Clear of Error History" screen. Select the items to be cleared and click the Execute button.

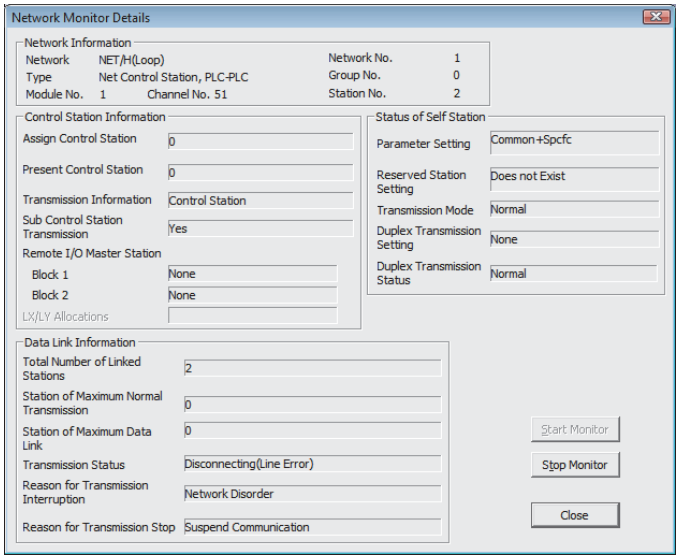


10.7.7 Network monitor details

Display the network line status of MELSECNET/10(H).

Screen display

- **Click the Network Monitor Details... button on the "MELSECNET Diagnostics" screen.**



Display contents

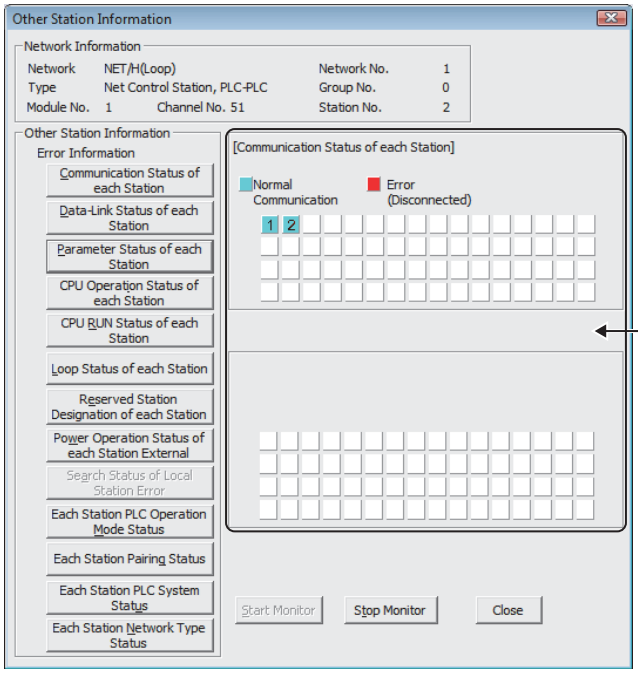
Item	Description
Network Information	Display the network information of the selected host station.
Control Station Information	Display the control station information.
Data Link Information	Display the data link information.
Status of Self Station	Display the host station status.

10.7.8 Monitoring other station information

Monitor other station connected to MELSECNET/10(H).

Screen display

- **Click the** Other Station Info... **button on the "MELSECNET Diagnostics" screen.**



Display contents

Item	Description
Network Information	Display the network information of the selected host station.
Other Station Information	Display detailed information on the error details display field when an item button is clicked. • "ERR" is displayed on the error information display field if a faulty station or a stop station is detected. • "RSV" is displayed on the error information display field if a reserved station exists. • "PWR" is displayed on the error information display field if a power is supplied to a module with external power supply.
Error details display field	Display the status of each station for the items selected in "Other Station Information".

The table below shows the items that can be selected in "Other Station Information".

	PLC to PLC network				Remote I/O network	
	Control station		Normal station		Master station	
	Loop	Bus	Loop	Bus	Loop	Bus
Communication Status of each Station	○	○	○	○	○	○
Data-Link Status of each Station	○	○	○	○	○	○
Parameter Status of each Station	○	○	×	×	○	○
CPU Operation Status of each Station	○	○	○	○	○	○
CPU RUN Status of each Station	○	○	○	○	×	×
Loop Status of each Station	○	×	○	×	○	×
Reserved Station Designation of each Station	○	○	○	○	○	○
Power Operation Status of each Station External	○	×	○	×	○	×
Search Status of Local Station Error	×	×	×	×	×	×
Each Station PLC Operation Mode Status	○	○	○	○	×	×
Each Station Pairing Status	○	○	○	○	×	×
Each Station PLC System Status	○	○	○	○	×	×
Each Station Network Type Status	○	○	○	○	×	×

○: Applicable ×: Not applicable (grayed out)

10.8 Diagnosing CC-Link and CC-Link/LT

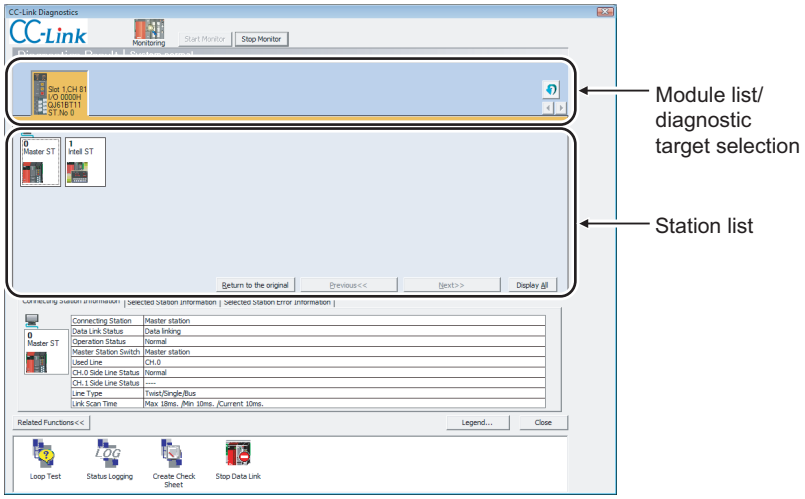
This section explains how to monitor the network information of each station, diagnosing the network status, and testing.

10.8.1 Monitoring line (host station/other stations)

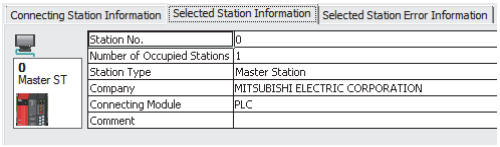
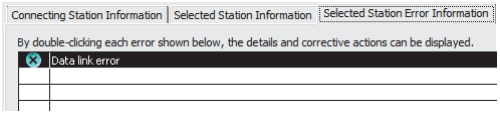
Monitor host station line/another station line in CC-Link or CC-Link/LT.

Screen display

- **Select [Diagnostics] ⇒ [CC-Link Diagnostics].**



Display contents

Item	Description
Diagnostics Result	Display the number of all errors/warnings being occurring in the modules.
Module list/diagnostic target selection	Display CC-Link and CC-Link/LT modules exist in the connected station. The number of errors (errors and warnings) is also displayed. The diagnostic target can be changed by clicking a desired module.
Station list	Display the icons of stations configuring the CC-Link network. In the detail display, the 33rd station and later are displayed by clicking the Next>> button. The display can be switched by the Display All / Detail Display button. The information of all stations are displayed on the screen at once in the all-station display. Click the Legend... button to check the description of each icon.
<<Connecting Station Information>>	Display such as the data link status of the connecting station (host station).
<<Selected Station Information>>	Display such as the data link status of the station (another station) selected in the station list. For details of the company name, refer to the following section. ☞ Page 203, (2) in this section 
<<Selected Station Error Information>>	Display the error information of the station selected in the station list. 

Screen button

- 

  Updates the module list/diagnostic target list.

- 

  Switches modules to be displayed in units of eight modules.

- Return to the original

  Reset the icon layout in the station list to the station number order.
  For the layout edit of the station list, refer to Point in this section.

- Previous<< / Next>>

  Switches the screen of the station list.
  When an error or warning exists on each screen, the icon indicating the error information is displayed on the button.

- Display All / Detail Display

  Switches the all-station display and detail display.

- Related Functions<< / Related Functions>>

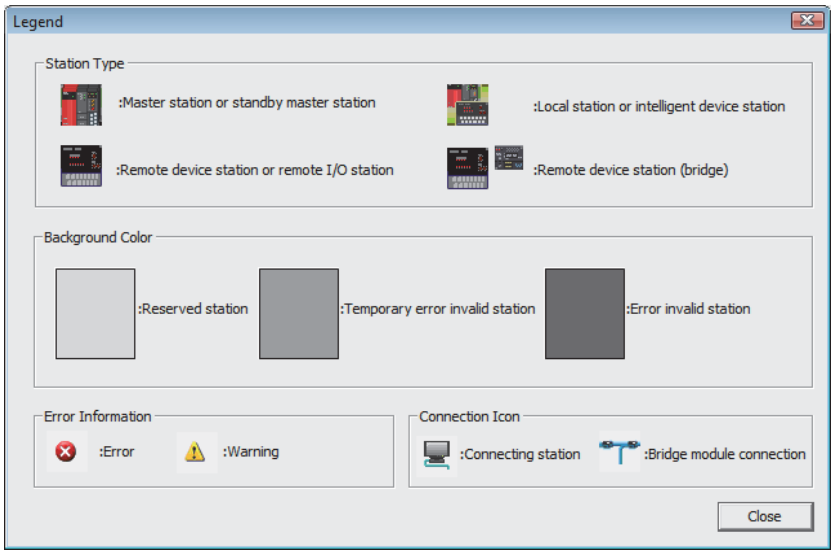
  Displays/hides the related function buttons.
  For details of related functions, refer to the following sections.

  - Loop Test*1 ☞ Page 204, Section 10.8.2
  - Status Logging ☞ Page 205, Section 10.8.3
  - Create Check Sheet ☞ Page 207, Section 10.8.4
  - Start Data Link/Stop Data Link*1 ☞ Page 209, Section 10.8.5

*1 : Not supported by remote I/O module.

- Legend...

  Displays the explanation for icons displayed on the diagnostics screen.
  For setting/canceling the temporary error invalid station being displayed, refer to the following section.
  ☞ Page 203, (1) in this section

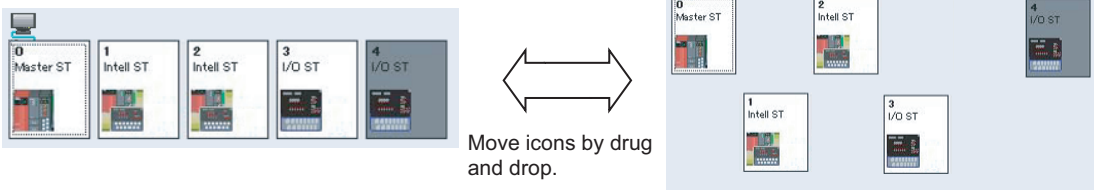


Point

- Update of the number of errors and warnings displayed in "Diagnostics Result"
  During the monitoring, the number of errors/warnings being occurring on the network of a module selected in "Module list/diagnostic target selection" is only updated.

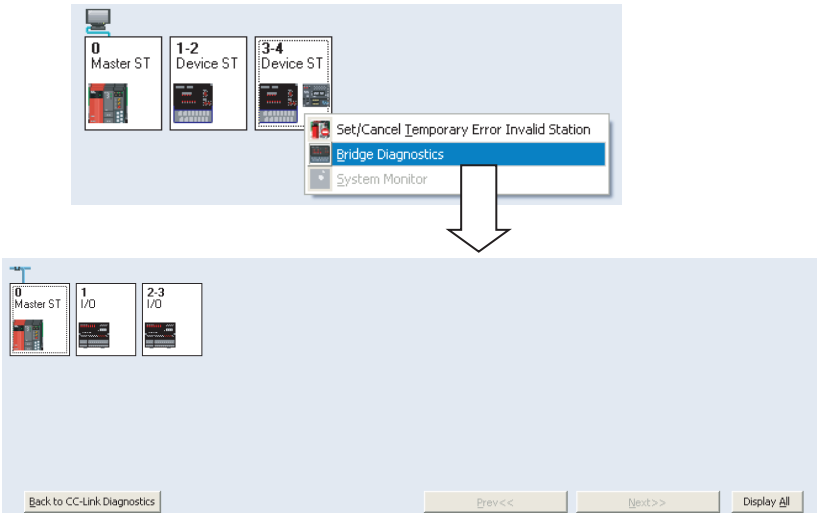
  To also update the number of errors/warnings on other modules, update the module list using  .

- Editing layout of station list
  Icons in the station list can be moved and allocated freely by the drag-and-drop operation.



- Diagnostic target modules
  In the CC-Link system configuration, only QJ61BT11 and QJ61BT11N are diagnosed.
  In the CC-Link/LT system configuration, only QJ61CL12 is diagnosed.

- Diagnosing CC-Link bridge modules
  When a CC-Link bridge module is selected in the station list, the bridge diagnostics can be executed by right-clicking it and selecting [Bridge Diagnostics] from the shortcut menu.



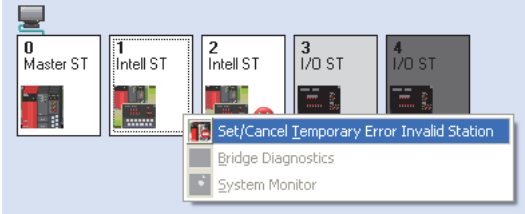
  To return to the "CC-Link Diagnostics" screen, click the Back to CC-Link Diagnostics button.

- Considerations for executing each function
  Do not execute the following functions by a sequence program and peripheral at the same time. If executed, they may not be executed correctly.
  - Start data link/stop data link
  - Set/cancel temporary error invalid station
  - Loop test
  - Obtain transmission speed setting (including the acquisition of the transmission speed setting in the Check Sheet Creation Wizard (Page 207, Section 10.8.4))

- Restrictions on bridge diagnostics, loop test, and check sheet creation
  Bridge diagnostics, loop test, and check sheet creation can be performed only when the connected station is a master station.

(1) Setting/canceling temporary error invalid station

Replacing a module in online is possible without detecting an error in the corresponding remote station.
To set the temporary error invalid station, select the desired station in the station list and right-click it, and select [Set/Cancel Temporary Error Invalid Station] from the shortcut menu.
If multiple stations are set as occupied stations, specify the start station number of each occupied station for the temporary error invalid station. If setting is made for a station that is not the start station in actual assignment, invalid setting is ignored.
In addition, do not set the temporary error invalid station by a sequence program or peripheral at the same time. If set, the temporary error invalid station may not be set correctly.



(2) Company names in other station information

(a) The field displays the company name or manufacturer code of the device connected in CC-Link.

(b) The field displays the manufacturer code if company name is not entered in the manufacturer code list.

(c) The manufacturer code list (partner.dat) is saved in the following folder and can be edited using text editor available in market.

C:/MELSEC/CCPU4/DnaviZeroCCPU/DnaviSatellite/CCLink

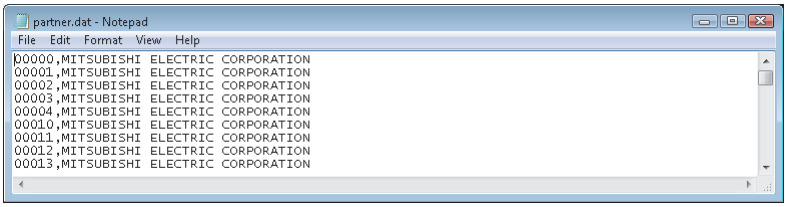
(d) The company names can be edited on the diagnostics screen, however, changes are not applied to partner.dat.

For some manufacturers, manufacturer codes are not listed. Edit the file according to the following file format specifications.

	Manufacturer code	Company name
Max. number of characters	5	255
Usable characters*1	0 to 9	• Alphanumeric characters • Symbols
Remarks	Manufacturer code other than 5 digits is ignored.	Display differs depending on the screen width. With small fonts, up to 75 characters are displayed, characters exceeding the limit are not displayed.

*1 : If "," is used in a company name, enclose the company name by double quotations (" ").
Example: "xxxxx Co., Ltd"

The following is an example of partner.dat displayed using a text editor.



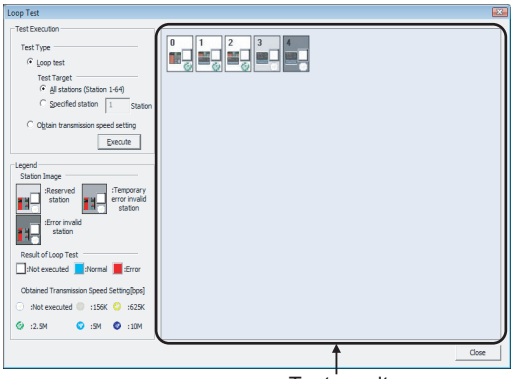
10.8.2 Loop test/transmission speed test

Check operating status of lines for all stations or specified stations, and checking the transmission speed settings of all stations.

Screen display

- **Double-click** 

on the "CC-Link Diagnostics" screen.



Test result

Operating procedure

1. **Set the items on the screen.**

Item		Description
Test Execution		–
	Loop Test	Execute the loop test according to the specification of "All Stations" or "Selected Station No.". Setting is not possible when CC-Link/LT is selected. All Stations: Select this to execute the test for all 64 stations. Selected Station No.: Select this to execute the test for the specified stations. To specify a station, specify the start address of an occupied station. <Example> When four occupied stations and two occupied stations are connected 4 stations occupied 2 stations occupied 1 2 3 4 5 6 7 · · · · · "1" is specified "5" is specified If 2, 3, 4, or 6 is specified, the station becomes faulty station.
	Obtain transmission speed setting	Obtain transmission speed settings of all stations.

2. **Click the** Execute **button.**

The loop test/acquisition of the transmission speed setting is executed and the result is displayed in the 'Test result'.

Check 'Legends' for the descriptions of the icons displayed in the 'Test result'.

Point

- Considerations for executing the test
  Do not execute the loop test/acquisition of the transmission speed setting by a peripheral at the same time. If executed, the loop test/acquisition of the transmission speed setting may not be executed correctly.
  In addition, when executing the acquisition of the transmission speed setting, do not execute the acquisition of the transmission speed setting in the Check Sheet Creation Wizard (Page 207, Section 10.8.4) at the same time.

10.8.3 Displaying logs of station information (status logging)

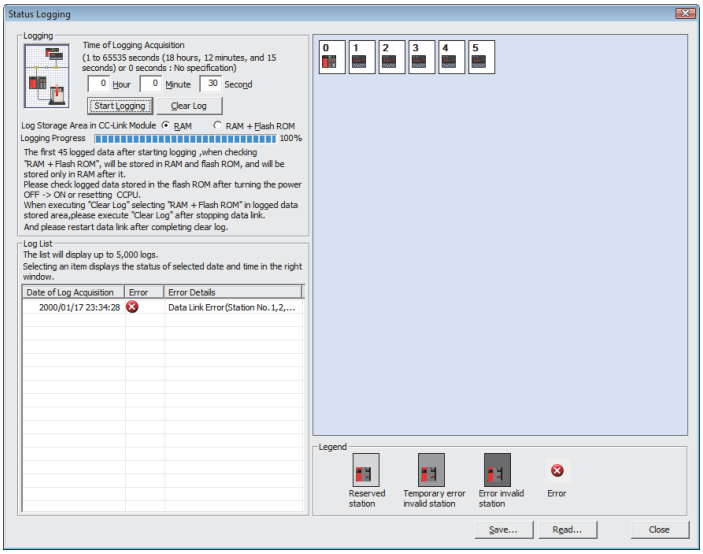
Collect logs of the station information (the data link status of other stations, date of acquisition).

Screen display

- **Double-click** 

on the "CC-Link Diagnostics" screen.

<With a serial number whose first five digits are "12032" or higher>



←Log data display area

Operating procedure

1. **Set the items on the screen.**

Item	Description
Logging Sampling Time	Specify the period of time to collect the log on the second time scale. The log is collected during the time of period between when the logging starts and when the specified time elapses.
Logging Storage Area in CC-Link Module*1	Specify the logging storage destination. The logs stored in the RAM of the CC-Link module are deleted when the C Controller module is power-cycled or reset. Select "RAM + Flash ROM" to leave the logs. The logs stored on the flash ROM of the CC-Link module are not deleted even when the C Controller module is power-cycled or reset.

*1 : This item is not displayed for modules with a serial number whose first five digits are "12031" or lower.

2. **Click the** Start Logging **button.**

The log is collected during the specified log collection time and displayed in "Log List".
The log displayed in "Log List" is read out from the RAM.
The log collection stops when the number of log records reaches 5000.
As to indicate the logging processing time, the elapsed time against the specified log collection time is displayed.

When '0' is specified, the log collection continues until the Stop Logging button is clicked or the number of log records reaches 5000.
The status as of the date selected in "Log List" is displayed in the "Log data display area".
Check "Legends" for the descriptions of the icons displayed in the "Log data display area".

Screen button

- Clear Log

  Clears the log in the CC-Link module.
  Also clears the log stored on a flash ROM when "RAM + Flash ROM" is selected.

- Save... / Read...

  Saves information of the log list in CSV format. Also reads out a log file saved in CSV format and displays in "Log List".

Point

- Log collection when "RAM + Flash ROM" is selected
  When "RAM + Flash ROM" is selected, the first 45 logs after starting the logging are stored in the RAM and the flash ROM of the CC-Link module, and the rest of logs are stored in the RAM only.
- Checking logs stored on a flash ROM of the CC-Link module
  The log stored on a flash ROM is transferred to a RAM when the C Controller module is turned from OFF to ON or reset.
  The log stored on the flash ROM can be displayed in "Log List" by reopening the "Status Logging" screen.
- Log collection
  In the case where Setting/monitoring tools for the C Controller module cannot always be connected, select "RAM + Flash ROM".
  The log (up to 45 records) stored on a flash ROM can be displayed when Setting/monitoring tools for the C Controller module is reconnected after the logging.
  In the case where Setting/monitoring tools for the C Controller module can always be connected, up to 5000 records of the log can be collected whichever "RAM" or "RAM + Flash ROM" is selected.

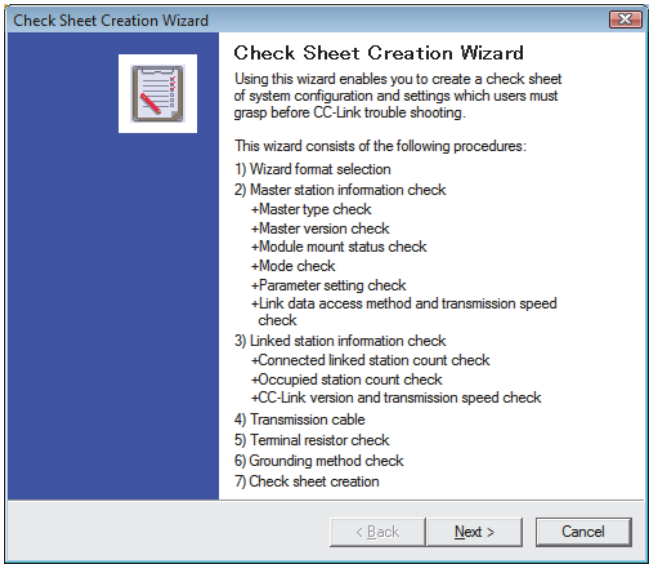
10.8.4 Creating check sheets

Create a check sheet for troubleshooting by the wizard.

Operating procedure

1. **Double-click** 

on the "CC-Link Diagnostics" screen.



2. **Set the items according to terms on the screens.**

For details of setting items, refer to the following guide.

Open Field Network CC-Link Troubleshooting Guide

The created check sheet is saved in Excel format.

Point

- Considerations for checking the transmission speed
  Do not execute the check (acquisition) of the transmission speed setting by a peripheral at the same time.
  If executed, the check (acquisition) of the transmission speed setting may not be executed correctly.
- Check sheets
  "System Configuration" can be output when Excel 2000 or later is installed.

Example of a check sheet:

The following shows an example of a check sheet in case where Excel 2000 or later is installed.

	Confirmation Item		Contents	
1.	Master Station	[1]Master Type	Programmable Controller	Q24DHCCPU-V
			Master Module	QJ61BT11
		[2]Master Version	Programmable Controller	S030000000000000B
			Master Module	030820000000000B
		[3]Module Mount Status	I/O Address:	0050H
		[4]Other Network Modu	Other Network Module:	QJ61CL12
		[5]Mode	Mode Setting:	[*]Remote Net Mode([*]Ver.1/ [ ]Additional /[ ]Ver.2) / [ ]Remote I/O Net Mo
			Scan Mode:	[ ]Synchronous/[*]Asynchronous Mode
			Module Mode:	[ ]I/O mode / [ ]intelligent mode (SW8:A Series Only)
		[6]Parameter	Checking the parameter matching status between the specification and PLC	
			Parameter	Setting
			Number of PLCs	5Count
			Standby Master Station S	None
			CPU Down Drive Specific	[*]Stop/[ ]Continue
			Reserved Station	None
			Error Invalid Station	None
			Station Information	Written in the system configuration
		[7]Parameter Setting	[*]Setting/monitoring tools for the C Controller module/ [ ]Dedicated Instruction/ [ ]FROM/TO Instruction	
		[8]Link Start Method	[ ]Startup by Buffer Memory:Y6 / [ ]Startup by E2PROM:Y8 (Only QnA, A, FX Series)	
		[9]Link Data Access	[*]Auto Refresh/ [ ]Dedicated Instruction/ [ ]FROM/TO Instruction	
		[10]Transmission Speed	[ ]10M/ [ ]5M / [ ]2.5M / [ ]625k / [*]156kbps	
2.	Linked Station	[11]Connected Count	64Count	
	*:The details have been describ	[12]Station Type*	Remote I/O Station:64Count, Remote Device Station:0Count, Intelligent Device Station:0Count	
		[13]Number of Occupied	[ ]Number of occupied stations of each station(Please check it when you confirm it.)	
		[14]CC-Link Version*	[*]Ver.1 / [ ]Ver2(Expanded Cyclic Setting:[ ]1Times, [ ]2Times, [ ]4Times, [ ]8Times)	
		[15]Transmission Speed	[ ]10M/ [ ]5M / [ ]2.5M / [*]625k / [ ]156kbps	
3.	Transmission Cable	[16]Cable Type	Cable Model Name:	
		[17]Transmission Distanc	Total Extension Distance	m
		[18]Inter-Station Distanc	Distance between Short	m
4.	Terminal Resistor	[19]Resistance Value	[*]110ohm / [ ]130ohm / [ ]Not Exist	
		[20]Connected Terminal	[ ]Connection between DA-DB of terminal resistor(Please check it when you confirm it.)	
5.	Grounding	[21]FG Terminal	[ ]Grounding of FG terminal of each station(Please check it when you confirm it.)	
			Describe the installation status to "6.System Configuration" when it is not set up in each station.	

10.8.5 Starting/stopping data link

Start/stop the data link.

Operating procedure

1. **Double-click** 

on the "CC-Link Diagnostics" screen.

The data link is stopped. In addition, the icon is switched to 

.

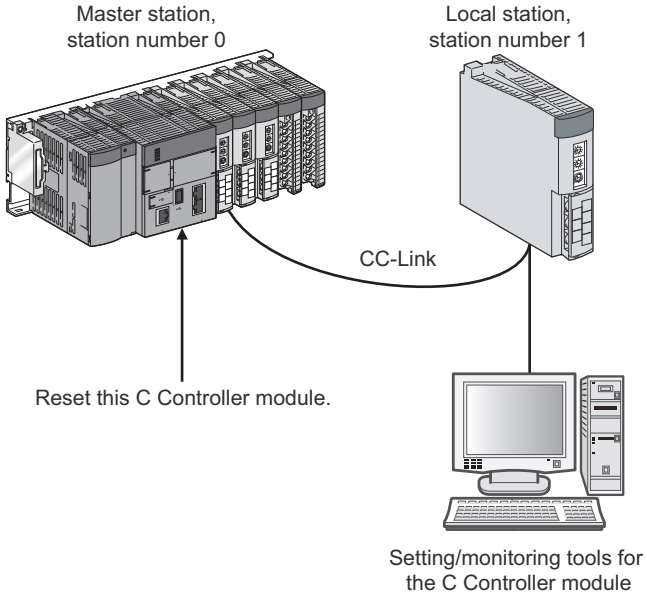
To start the data link, click 

.

(1) Considerations of data link stop

Performing 'data link stop' disables data transmission from Setting/monitoring tools for the C Controller module when the personal computer is connected to a master station via CC-Link as shown in the system configuration below.

To re-establish the connection to send data from Setting/monitoring tools for the C Controller module, reset the CPU module (programmable controller CPU/C Controller module) to which the data link stop is performed and restart the data link.

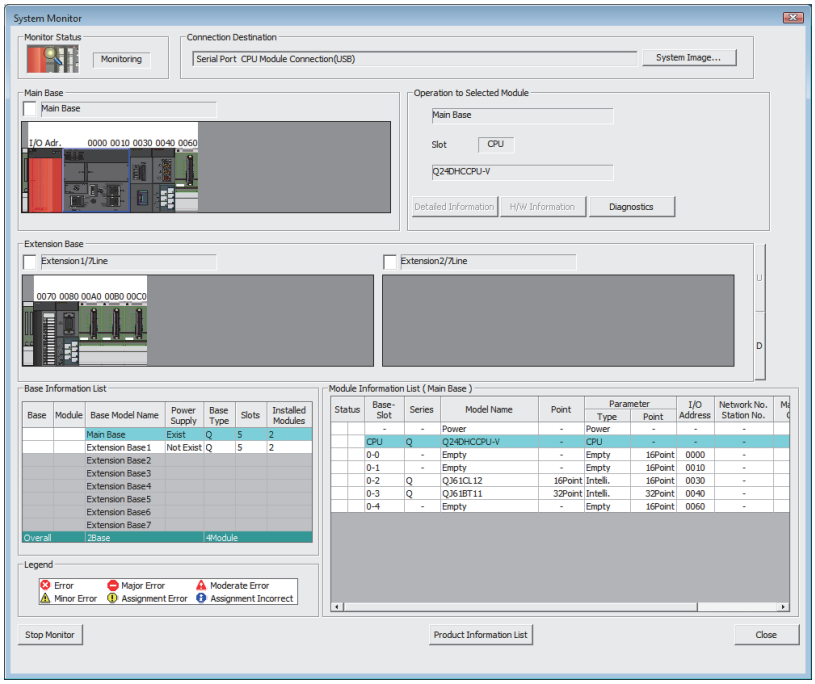


10.9 Checking System Status and Error History

This section explains how to check the error history and the status of modules that configure the system.

Screen display

- **Select [Diagnostics] ⇒ [System Monitor].**
  <With extension base unit>



Display contents

Item			Description
Monitor Status			Display the current monitor status.
Connection Channel List			Display the information of the route to the connection destination.
Main Base			Display the operating status of the module, and I/O address.
Operation to Selected Module			Display the name, slot number, and model name of the base unit to which the selected module is mounted.*1
Extension Base*2			Display the extension base unit in every two rows. The third row and later are displayed by pressing the arrow button on the right. The base unit, operating status of the module, and I/O address are displayed.
Base Information List			Display the status of each base unit.
	Base		Display the status of the base unit.
	Module		Display the error status of each module mounted to the base unit.
	Base Model Name		Display the base name set to the parameter on the C Controller module. If the parameter is not set, "Main Base", "Extension Base 1" to "Extension Base 7" are displayed.
	Power Supply		Display whether there is power supply.
	Base Type		Display the type of the base unit.
	Slots		Display the slot number.
	Installed Modules		Display the number of modules mounted to the base unit.
Module Information List			Display the information of module on the base unit where the selected module is mounted.
	Status		Display the status of each module.
	Base-Slot		Display the slot number of each module.
	Series*1		Display the series of each module.
	Model Name*1		Display the model name of each module.
	Point*1		Display the number of occupied I/O points of each module.
	Parameter	Type	Display the type of each module set to the parameter on the C Controller module. If the parameter is not set, the type of the mounted module is displayed.
		Point*1	Display the points of each module set to the parameter on the C Controller module. If the parameter is not set, the number of I/O points of the mounted module is displayed.
	I/O Address*1		Display the I/O address of each module set to the parameter on the C Controller module.
	Network No. Station No.*1		Display the network number and the station number set to each module.
	Master PLC		Display the CPU modules (programmable controller CPU, C Controller CPU) which control the other modules in the multiple CPU configuration. Other CPU modules (programmable controller CPU, C Controller CPU) and empty slots are displayed as "-".
Legend			Display the legend of the icon displayed on the screen.

*1 : "******", "–", and "**" are displayed if the module is not mounted or the parameter is different with the mounting status.

*2 : Displayed only when an extension base unit exists.

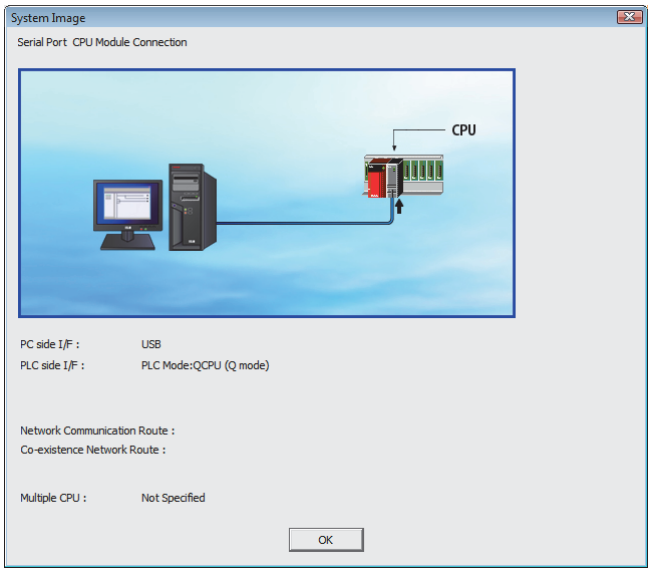
Point

- Connection Channel List
  In "Connection Channel List", the route information of the connection destination setting is displayed at all times.

Screen button

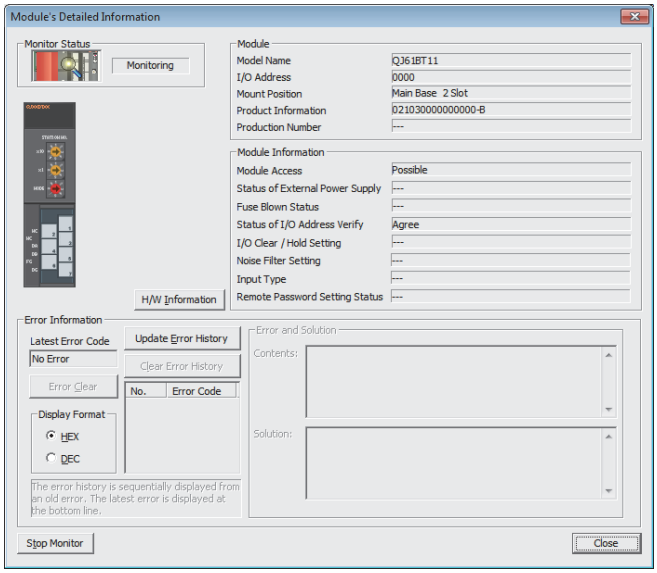
- System Image...

  Displays the illustration of the connection route.
  (☞ Page 110, Section 6.1.1)



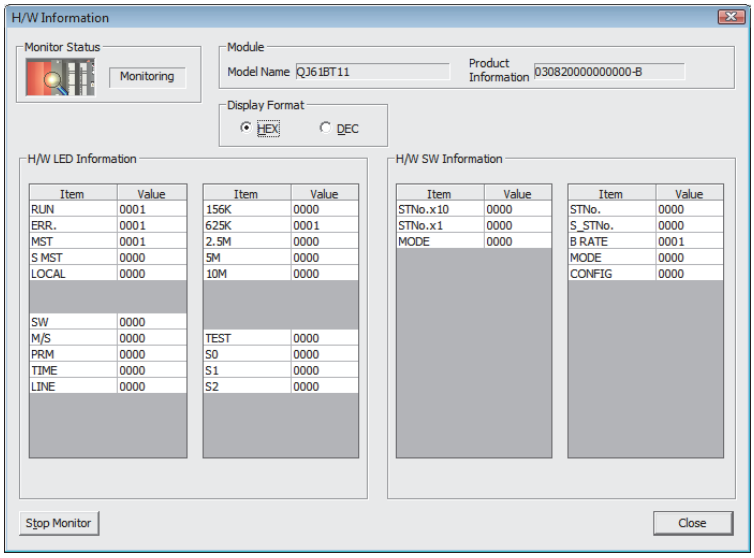
- Detailed Information

  Displays the module information of the selected module.
  The following is an example of the "Module's Detailed Information" screen when QJ61BT11 is selected.
  (☞ Page 216, Section 10.9.1)



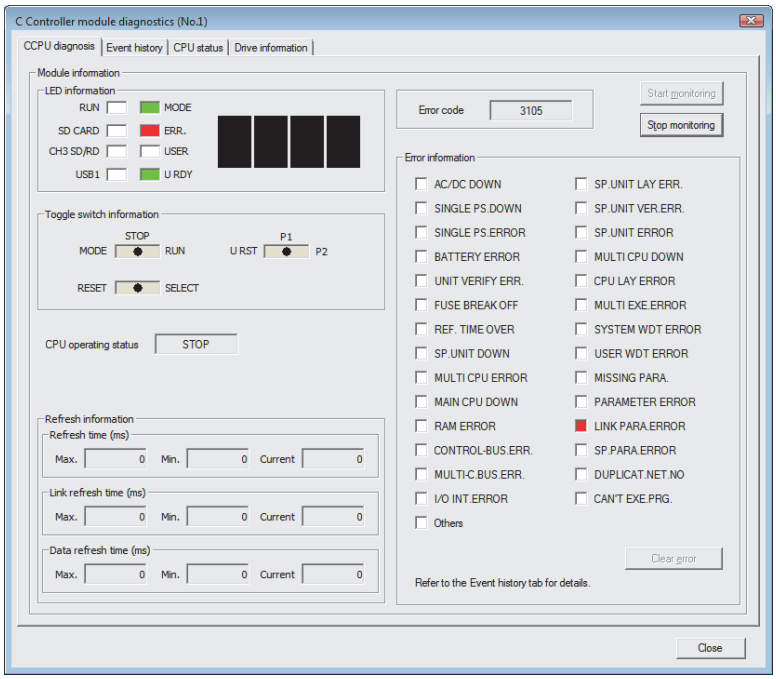
- H/W Information

Displays the hardware LED information and the hardware switch information.
The display contents of the H/W Information differ according to module version.
For details, refer to the User's Manual of each module.



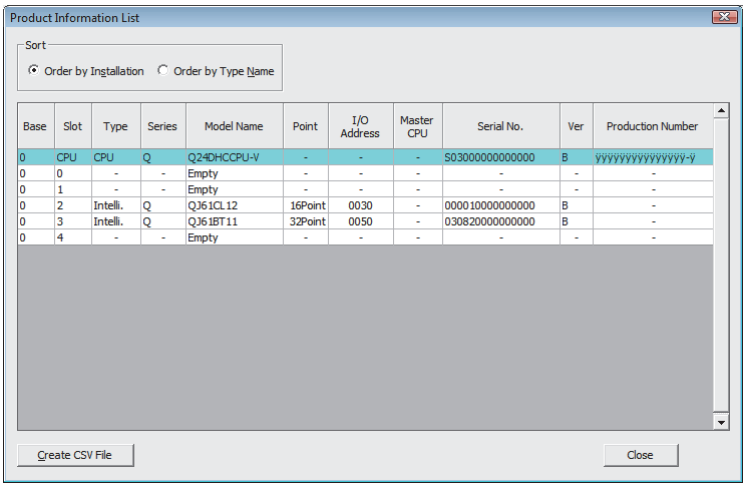
- Diagnostics

Displays the diagnostic information of the selected module.
The following is an example of the “CCPU Diagnostics" screen when the C Controller module is selected.
(☞ Page 155, Section 10.1)



- Product Information List

  Displays the product information of each module mounted to the base unit.

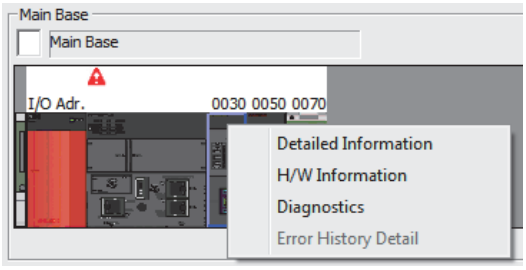


  - Clicking the Create CSV File button saves the product information data in CSV file format.

Point

- Operation to selected module

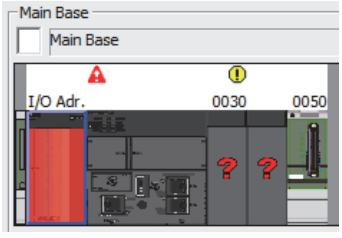
  The functions of "Operation to Selected Module" can also be executed from the shortcut menu by selecting modules from "Main Base" or "Extension Base".



- Displaying module status

  The following screen is displayed if the mounting status of the module cannot be obtained due to the incorrect parameter settings.

  Execute the system monitor function again after adjusting the parameter to the mounting status.



(1) Error icons

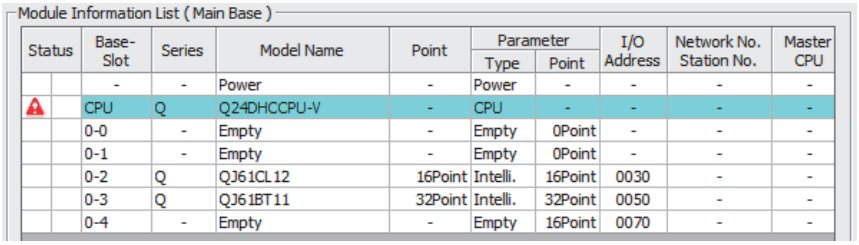
The following table shows the details of the error status icons of the CPU module (programmable controller CPU, C Controller module) and other modules.

Module	Icon		Error	Programmable controller CPU status
CPU module		Serious error	MAIN CPU down	RESET and others
		Moderate error	Stop error	Error in parameter and others
		Minor error	Error allowing operation	Errors in battery
		Assignment error	Assignment error	Errors such as multiple CPU setting is not set
Module		Error	H/W error	H/W errors in the base or the power supply
		Serious error	Module system error	H/W errors in modules
		Moderate error	Module error	No appropriate environment for executing the functions of modules
		Minor error	Module warning	Impropriety in programs or user's operations
		Assignment error	Assignment error	The assigning status of the module is different with the mounting status of the module. (The status that the module type and points cannot be obtained.)
		Illegal assignment	Illegal assignment	The assigning status of the module is different with the mounting status of the module. (The status that the module type and points can be obtained.)

(2) Display when mounted modules do not match with the I/O assignment setting on CCPU parameter

The following shows the "Module Information List" on the System monitor function according to the I/O assignment on CCPU parameter. If module mounting status does not match with the I/O assignment, change "I/O Assignment" of the I/O assignment setting to match with the mounting status.

"Empty", "-", and "Points Occupied by Empty Slot" are displayed if the module is not mounted, and "****", "-", and "**" are displayed if the parameter is different with the mounting status.

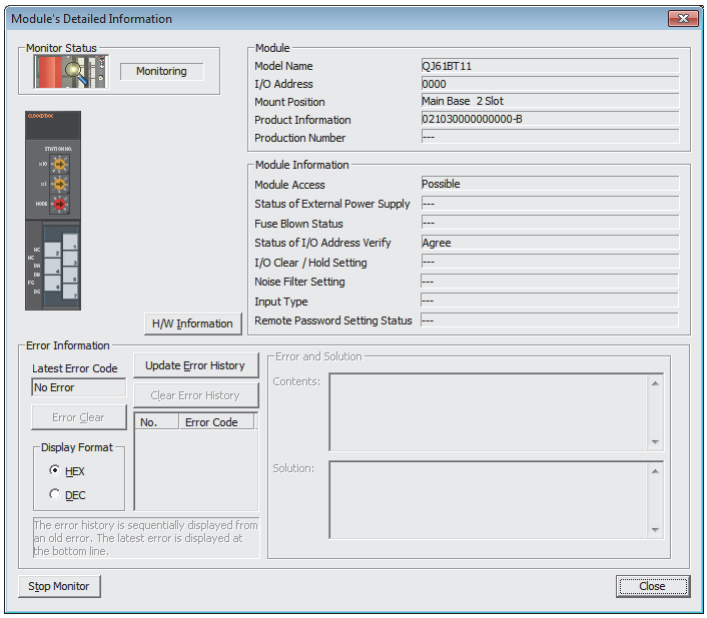


10.9.1 Checking module's detailed information

Display the module information of the selected module.

Screen display

Select a module on the "System Monitor" screen and click the Detailed Information button.
The following is an example of the "Module's Detailed Information" screen when QJ61BT11 is selected.



Screen button

- H/W Information

  Displays the hardware LED information and the hardware switch information. (Page 210, Section 10.9)
- Update Error History

  Updates the error history of the module.
- Error Clear

  Clears the error displayed in "Latest Error Code".

CHAPTER 11 SAMPLE PROGRAMS

Sample programs are provided as a reference used for creating user programs.
Use the sample programs at user's own discretion.

11.1 List of Sample Programs

The sample programs are registered in the following folder configuration when Setting/monitoring tools for the C Controller module is installed in a development environment (personal computer).

- <User-specified folder>-<CCPU4>-<CCPUTool>-<Sample>-<Q24DHCCPU-V>
- <User-specified folder>-<CCPU4>-<CCPUTool>-<Sample>-<Q12DCCPU-V_ModeEx>

11.1.1 Sample Programs for Q24DHCCPU-V/-VG

The following table shows the list of sample programs registered in <Q24DHCCPU-V>.

Folder name		File name	Description
QBFtest	SDChange	SDChange.c	For unmounting an SD memory card when X0 turns on
	EntryWDTInt	EntryWDTInt.c	For user watchdog timer error interrupt registration
	MotionLink	MotionLink.c	The linkage with the Motion CPU is utilized for this sample program
	QBFMessage	QBFMessage.c	For sending messages via MELSECNET/H or CC-Link IE Controller Network
Script	ROMFormat	STARTUP.CMD	Sample script file for standard ROM formatting
	RAMFormat	STARTUP.CMD	Sample script file for standard RAM formatting
	Backup*1	STARTUP.CMD	Sample script file for backup
		BackupRestore.out	Execution file for backup/restoration
	Restore*1	STARTUP.CMD	Sample script file for restore
		BackupRestore.out	Execution file for backup/restoration
Others	FTPGet	FTPGet.c	For FTP communication
	MakeRAMDisk	MakeRAMDisk.c	For RAM disk creation
	QPParamSet	QPParamSet.c	For automatic transfer of the parameter file created in GX Configurator-QP to a positioning module
	QD75Status	QD75Status.c	For 1-shot monitoring of the positioning module status (current feed value, axis error No., and axis warning No.)
	SDTaskPrioritySet	SDTaskPrioritySet.c	For priority (default: 50) change of the system task (XBD service task) which operates when accessing to an SD memory card
	DispErrorCode	DispErrorCode.c	For displaying an error code on the dot matrix LED when an error occurs
	CCIEField	LocalStation.c	For performing cyclic transmission with the master station in the CC-Link IE Field Network
		MasterStation_LocalStation.c	For performing cyclic transmission with the local station in the CC-Link IE Field Network
		MasterStation_RemoteIO.c	For performing cyclic transmission with the intelligent device station in the CC-Link IE Field Network

*1 : The sample programs can be used for Q24DHCCPU-V with a serial number whose first five digits are '15102' or higher and Q24DHCCPU-VG.
Set the following settings to No.16 in "CCPU Parameter" ⇒ <<System Ethernet port(S CH1)setting>> ⇒ "Open Setting"
Protocol : TCP, OpenSystem : MC Protocol, Host Station Port No. : 5010

Folder name		File name	Description
MDtest	DevAccess	DevAccessChanCCIEC.c	For accessing the following modules using MELSEC data link functions • A CC-Link IE Controller Network module (own station) controlled by the C Controller module • CC-Link IE Controller Network modules or programmable controller CPUs on other stations via a CC-Link IE Controller Network module controlled by the C Controller module
		DevAccessChanCCIEF.c	For accessing the following modules using MELSEC data link functions • A CC-Link IE Field Network master/local module (own station) controlled by the C Controller module • CC-Link IE Field Network master/local modules or programmable controller CPUs on other stations via a CC-Link IE Field Network master/local module controlled by the C Controller module
		DevAccessChanCCL.c	For accessing the following modules using MELSEC data link functions • A CC-Link module (own station) controlled by the C Controller module • CC-Link modules or programmable controller CPUs on other stations via a CC-Link module controlled by the C Controller module
		DevAccessChanMNH.c	For accessing the following modules using MELSEC data link functions • A MELSECNET/H module (host station) controlled by the C Controller module • MELSECNET/H modules or programmable controller CPUs on other stations via a MELSECNET/H module controlled by the C Controller module
		DevAccessChanQBF.c	For accessing the following modules using MELSEC data link functions • CPU No.1 mounted together with the C Controller module in a multiple CPU system

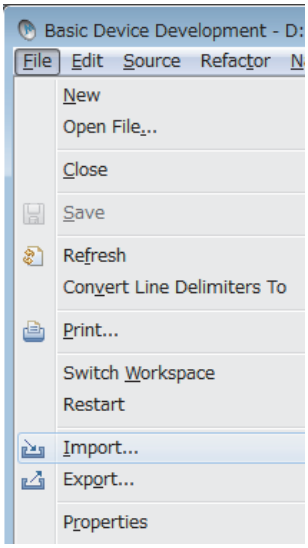
11.1.2 Sample Programs for Q12DCCPU-V (Extended mode)

The following table shows the list of sample programs registered in <Q12DCCPU-V_ModeEx>.

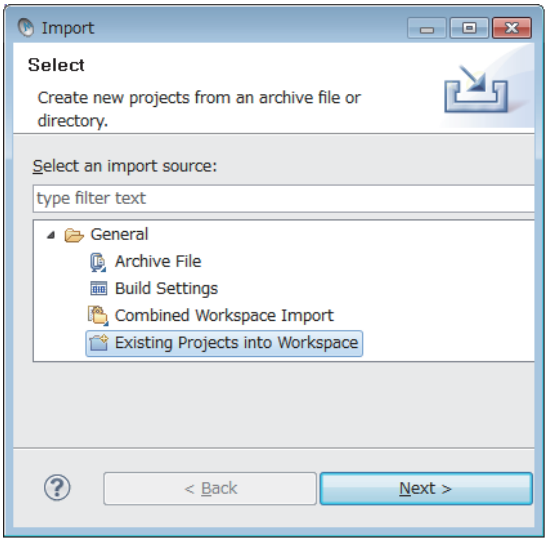
Folder name		File name	Description
QBFtest	CFChange	CFChange_ModeEx.c	For unmounting a CompactFlash card when X0 turns on
	EntryWDTInt	EntryWDTInt_ModeEx.c	For user watchdog timer error interrupt registration
	MotionLink	MotionLink_ModeEx.c	The linkage with the Motion CPU is utilized for this sample program
		MotionSyncInt_ModeEx.c	Sample program for interrupt processing synchronized with the multiple CPU synchronous interrupt between Q12DCCPU-V (Extended mode) and iQ Platform-compatible motion CPU.
	QBFMessage	QBFMessage_ModeEx.c	For sending messages via MELSECNET/H or CC-Link IE Controller Network
Script	ROMFormat	STARTUP.CMD	Sample script file for standard ROM formatting
	RAMFormat	STARTUP.CMD	Sample script file for standard RAM formatting
	ParamBackUp	STARTUP.CMD	Sample script file for parameter backup
	ParamRestore	STARTUP.CMD	Sample script file for parameter restore
Others	FTPGet	FTPGet_ModeEx.c	For FTP communication
	MakeRAMDisk	MakeRAMDisk_ModeEx.c	For RAM disk creation
	QPParamSet	QPParamSet_ModeEx.c	For automatic transfer of the parameter file created in GX Configurator-QP to a positioning module
	QD75Status	QD75Status_ModeEx.c	For 1-shot monitoring of the positioning module status (current feed value, axis error No., and axis warning No.)
	CFTaskPrioritySet	CFTaskPrioritySet_ModeEx.c	For priority (default: 50) change of the system task (XBD service task) which operates when accessing to a CompactFlash card
	CCIEField	LocalStation_ModeEx.c	For performing cyclic transmission with the master station in the CC-Link IE Field Network
		MasterStation_LocalStation_ModeEx.c	For performing cyclic transmission with the local station in the CC-Link IE Field Network
		MasterStation_RemoteIO_ModeEx.c	For performing cyclic transmission with the intelligent device station in the CC-Link IE Field Network
MDtest	DevAccess	DevAccessChanCCIEC_ModeEx.c	For accessing the following modules using MELSEC data link functions • A CC-Link IE Controller Network module (own station) controlled by the C Controller module • CC-Link IE Controller Network modules or programmable controller CPUs on other stations via a CC-Link IE Controller Network module controlled by the C Controller module
		DevAccessChanCCIEF_ModeEx.c	For accessing the following modules using MELSEC data link functions • A CC-Link IE Field Network master/local module (own station) controlled by the C Controller module • CC-Link IE Field Network master/local modules or programmable controller CPUs on other stations via a CC-Link IE Field Network master/local module controlled by the C Controller module
		DevAccessChanCCL_ModeEx.c	For accessing the following modules using MELSEC data link functions • A CC-Link module (own station) controlled by the C Controller module • CC-Link modules or programmable controller CPUs on other stations via a CC-Link module controlled by the C Controller module
		DevAccessChanMNH_ModeEx.c	For accessing the following modules using MELSEC data link functions • A MELSECNET/H module (host station) controlled by the C Controller module • MELSECNET/H modules or programmable controller CPUs on other stations via a MELSECNET/H module controlled by the C Controller module
		DevAccessChanQBF_ModeEx.c	For accessing the following modules using MELSEC data link functions • CPU No.1 mounted together with the C Controller module in a multiple CPU system

11.2 Procedure for Opening Sample Programs

This section explains how to open sample programs when Setting/monitoring tools for the C Controller module is installed in "C:\MELSEC".
When installing Setting/monitoring tools for the C Controller module in folders other than "C:\MELSEC", create a new project with reference to the following procedure. Copying the content of the sample program to the source file enables the compiling.
📖 CW Workbench Operating Manual



↓



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① Start Workbench.
② Select [File] → [Import].

③ Select [General] → "Existing Projects into Workplace", and click the Next > button.

(From the previous page)

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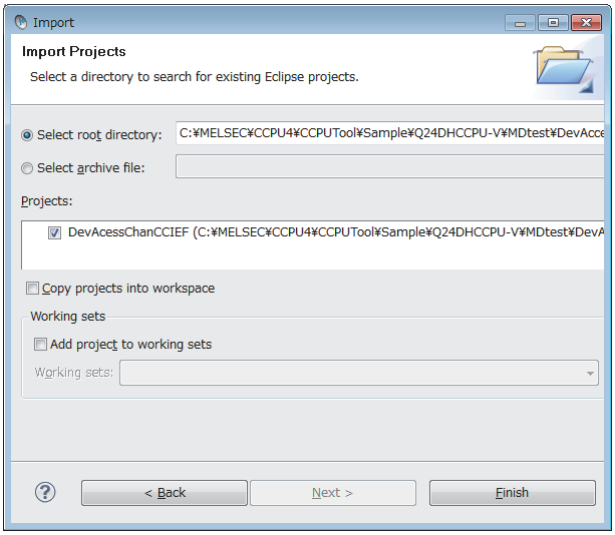
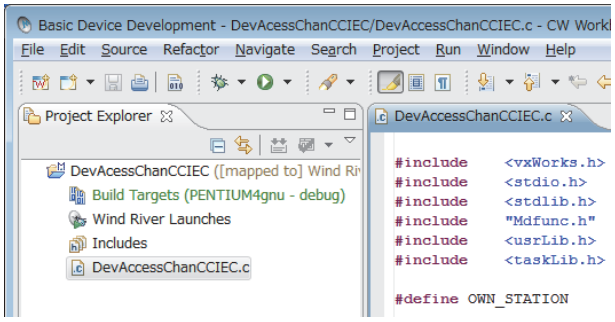


④ Specify the name of the directory in which the source file of the sample program is stored for "Select root directory".
Confirm the sample program for "Projects" is selected, and click the Finish button.

↓



⑤ The sample program can be opened by double-clicking the file name of the sample program of the imported project.

↓

(Completed)

CHAPTER 12 TROUBLESHOOTING

This chapter explains the troubleshooting for errors occurred in Setting/monitoring tools for the C Controller module.

(1) When the performance of Setting/monitoring tools for the C Controller module is unstable

Check item	Corrective action
Setting/monitoring tools for the C Controller module is used on the highly-loaded personal computer.	Use Setting/monitoring tools for the C Controller module after reducing the load on the personal computer. • Terminate unnecessary applications. • Close the unnecessary windows opened in Setting/monitoring tools for the C Controller module (or stop monitoring).
Setting/monitoring tools for the C Controller module is used on Windows® 10 or later.	.NET Framework 3.5 (including .NET 2.0 or 3.0) may be disabled. Search for "Turn Windows features on or off" on the control panel, and enable the .NET Framework 3.5 (including .NET 2.0 or 3.0). For the countermeasures when .NET Framework 3.5 (including .NET 2.0 or 3.0) is disabled, refer to the following document. TECHNICAL BULLETIN No.FA-A-0207

(2) When the display of Setting/monitoring tools for the C Controller module is corrupted

Check item	Corrective action
The graphic driver installed on the personal computer is old.	Use the most recent graphic driver.

(3) When Simple Motion Module Setting Tool cannot start up

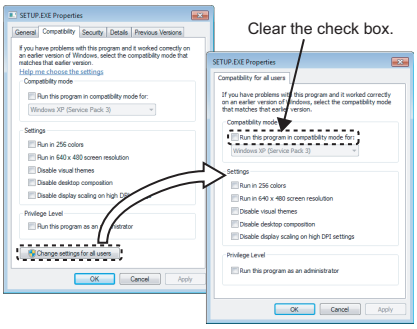
Check item	Corrective action
GX Works2 has been uninstalled.	When uninstalling GX Works2 Version 1.98C or earlier, Simple Motion Module Setting Tool is uninstalled as well. Install Setting/monitoring tools for the C Controller module again.

Point

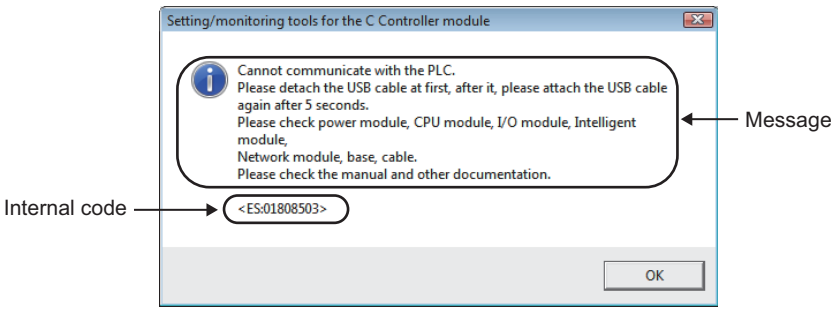
When using Setting/monitoring tools for the C Controller module and GX Works2 on the same personal computer, use the combination of the following versions.

Software	Version
Setting/monitoring tools for the C Controller module	4.06G or later
GX Works2	1.492N or later

(4) When the installation for 64-bit operating system failed

Check item	Corrective action
The Windows XP compatibility mode is selected.	Clear the Windows XP compatibility mode by following the procedure, and reinstall Setting/monitoring tools for the C Controller module. **1. Right-click on the setup.exe icon of the installation target in the Windows explorer, and open the "SETUP.EXE Properties" screen.** **2. Select the <<Compatibility>> tab and click the Change settings for all users button.** **3. Clear the "Run this program in compatibility mode for:" check box of compatibility mode in the <<Compatibility for all users>> tab, and click the OK button.** **4. Click the OK button on the "SETUP.EXE Properties" screen.** **5. Install the product again.** 

(5) Message box



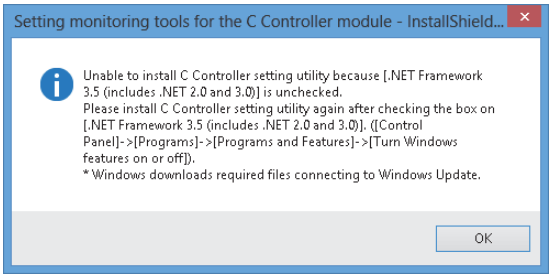
Item	Description	Corrective action
Message	Display the current situation and the troubleshooting.	Follow the instruction.
Internal code	Display the internal code.	If the similar message is displayed even after the troubleshooting is performed, please consult your local Mitsubishi service center or representative, explaining the details of the problem. (Provide the internal code.)

(6) The icon of Setting/monitoring tools for the C Controller module is displayed with a generic icon.

Check item	Corrective action
Setting/monitoring tools for the C Controller module has already been installed on Windows® 10 or later.	By following the procedure in Step 1 to 4, delete the IConCache.db file and change the displayed color. The problem may be solved only by setting the Step 3. ***1.*** **Change the display settings of the hidden attribute file.** ① : Select [Appearance and Personalization] ⇒ [File Explorer Options] ⇒ [View] in the control panel of Windows. ② : Select the option button on "Show hidden files, folders, and drives" in "Advanced settings". ***2.*** **Delete the "IConCache.db" file in the Local folder completely (Shift + Delete)** The Local folder is stores under the following path. • %systemdrive%\User\<logon user name>\AppData\Local ***3.*** **Change the displayed color.** ① : Select and right-click "CCPU4.exe"*1, then select [Properties] from the shortcut menu. ② : Select the checkbox of "Reduced color mode" on the [Compatibility] tab, and click the [Apply] button. ③ : Unselect the checkbox of "Reduced color mode" on the [Compatibility] tab, and click the [Apply] button. ***4.*** **Restart the Windows® operating system.**

*1 : CCPU4.exe is stored in the folder where Setting/monitoring tools for the C Controller module has been installed.

(7) The product cannot be installed because .NET Flamework 3.5 (including .NET2.0 and 3.0) is disabled

Check item	Corrective action
During the installation, the following message is displayed and the installation is suspended. 	.The message is displayed when .NET Framework 3.5 (including .NET 2.0 or 3.0) is disabled. Search for "Turn Windows features on or off" on the control panel, and enable the .NET Framework 3.5 (including .NET 2.0 or 3.0), and then reinstall the product. For the countermeasures when .NET Framework 3.5 (including .NET 2.0 or 3.0) is disabled, refer to the following document. TECHNICAL BULLETIN No.FA-A-0153

APPENDIX

Appendix 1 Considerations of Installation

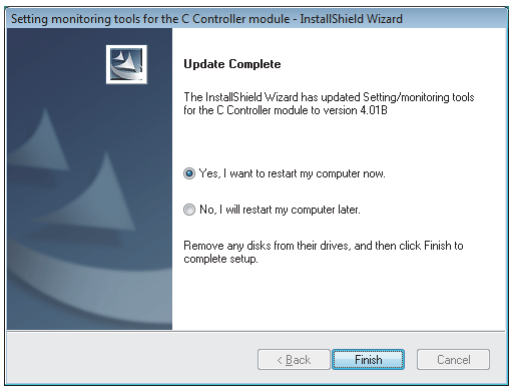
This section explains the considerations of installation.

Appendix 1.1 Considerations when installing Setting/monitoring tools for the C Controller module or MELSOFT products

The following explains the considerations when installing Setting/monitoring tools for the C Controller module or other MELSOFT products.

(1) Procedure for continuing installation when it is not completed correctly

When the installation of a MELSOFT product or another software is not completed correctly, the following screen is displayed and the installation cannot continue unless the personal computer is restarted.
In this case, restart the personal computer and start the installation again.



Appendix 1.2 USB driver installation

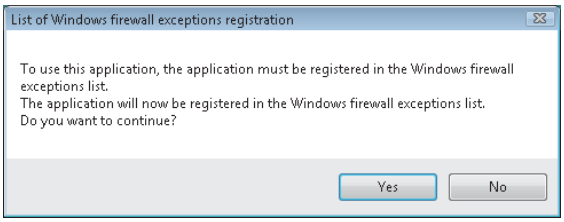
In order to communicate with a programmable controller CPU via USB, a USB driver needs to be installed.
The following explains the procedure of USB driver installation.

Operating procedure

1. **Connect the personal computer and the programmable controller CPU with a USB cable, and then turn on the programmable controller CPU.**
2. **Right-click "Unknown device" or "Universal USB Driver (Sequencer CPU)" and click "Update Driver Software" in Windows Device Manager.**
3. **The "Update Driver Software" screen is displayed.**
   Select "Browse my computer for driver software" and specify "Easysocket\USBdrivers" in the folder where Setting/monitoring tools for the C Controller module has been installed on the displayed screen. If multiple MELSOFT products are installed previously, refer to their installed location.

Appendix 1.3 Setting Windows® Firewall

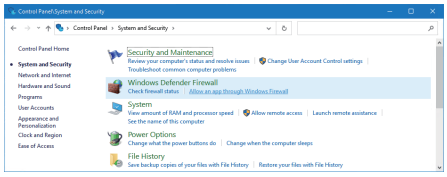
Windows® Firewall needs to be set to connect a personal computer with a C Controller module.
The following screen is displayed during the installation of Setting/monitoring tools for the C Controller module.



- **Click the "YES" button to set the firewall at once.**
  The program is automatically registered as an allowed program.
  If Windows® Firewall is set to block the connection of exceptions, set Windows® Firewall manually.
- **Click the "No" button to set the firewall after the installation.**
  Windows® Firewall must be set manually after the installation.

If Windows® Firewall was not set during the installation, set it by following the procedure below.

↓



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1. **Open Windows® Control Panel.**
Click "System and Security".

2. **Click "Allow an app through Windows Firewall".**

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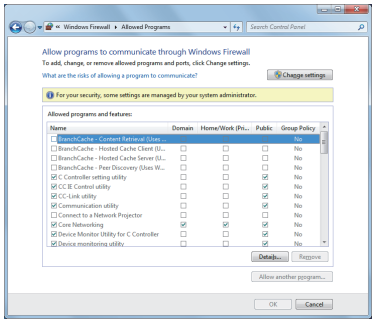
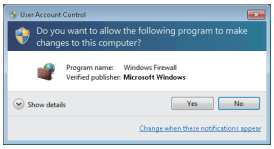
↓



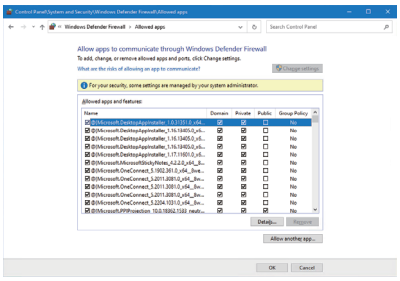
3. **Click the "Change settings" button.**

↓



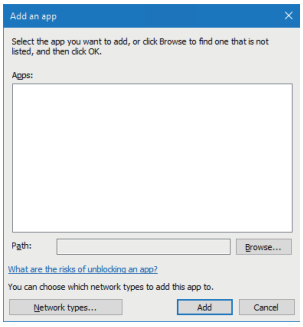
4. **When the screen as shown on the left is displayed, click the "Yes" button.**

↓



5. **The list of allowed apps and features is displayed. Check if "Setting/monitoring tools for the C Controller module" is included.**

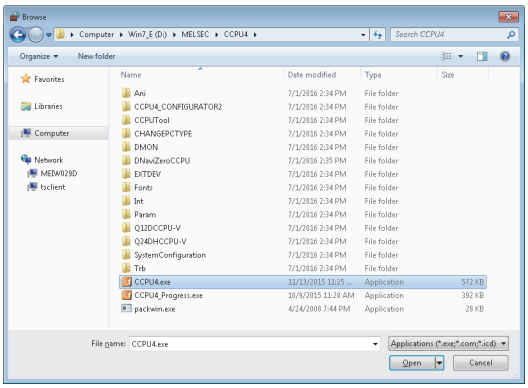
↓



6. **When "Setting/monitoring tools for the C Controller module" is not in the list, click the "Allow another app" button to display the screen as shown on the left.**

7. **Click the "Browse" button.**

↓



8. **Select "CCPU4.exe" in the folder where Setting/monitoring tools for the C Controller module has been installed, and click the "Open" button.**

↓

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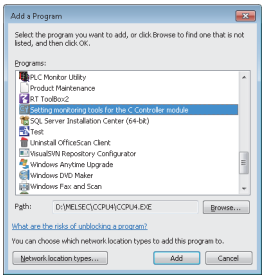
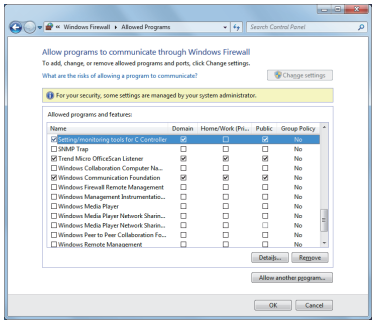
↓



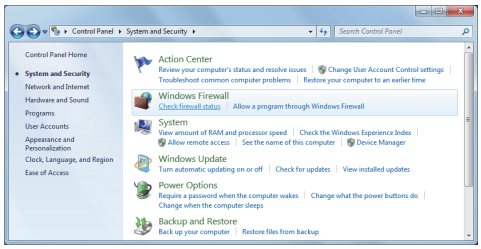
↓

9. **Select "Setting/monitoring tools for the C Controller module", and click the "Add" button.**



↓

10. **Select "Name" and "Public" of "Setting/monitoring tools for the C Controller module".**
Click the "OK" button.

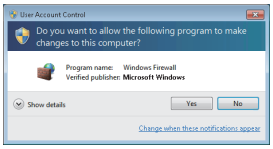


↓

11. **Click "Check firewall status".**

↓

12. **Click "Turn Windows Defender Firewall on or off".**



↓

13. **When the screen as shown on the left is displayed, click the "Yes" button.**

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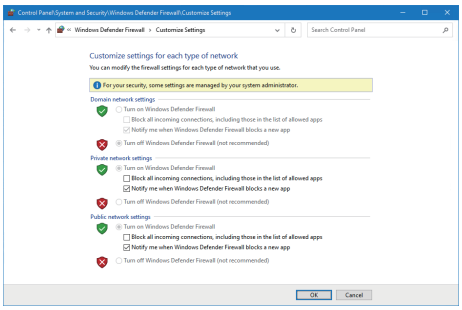

↓

(Complete)

14. **Check if the checkbox of "Block all incoming connections, including those in the list of allowed apps" is cleared.**
Click the "OK" button.
If the checkbox is selected, clear the checkbox and click the "OK" button.

Appendix 2 Functions Added Since Previous Versions

This section shows major functions added/changed with upgrade.

Version	Major function added/changed	Description	Reference
Version 4.01B	Intelligent function module	The following modules are supported. • QD75 Type Positioning Module (QD75P1N, QD75P2N, QD75P4N, QD75D1N, QD75D2N, QD75D4N)	Page 105, Section 5.3
	System monitor	The following modules are supported. • QD75 Type Positioning Module (QD75P1N, QD75P2N, QD75P4N, QD75D1N, QD75D2N, QD75D4N)	Page 210, Section 10.9
Version 4.02C	Intelligent function module	The following modules are supported. • QD70 Type Positioning Module (QD73A1) • Analog Module (Q64ADH, Q64DAH, Q68CT) • Energy Measuring Module (QE81WH, QE81WH4W, QE82LG, QE83WH4W, QE84WH) • MODBUS® Interface Module (QJ71MT91, QJ71MB91) • AS-i Master Module (QJ71AS92)	Page 105, Section 5.3
	System monitor	The following modules are supported. • High-speed Universal model QCPU (Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU) • High Speed Data Communication Module (QJ71DC96) • QD70 Type Positioning Module (QD73A1) • Analog Module (Q64ADH, Q64DAH, Q68CT) • Energy Measuring Module (QE81WH, QE81WH4W, QE82LG, QE83WH4W, QE84WH) • MODBUS® Interface Module (QJ71MT91, QJ71MB91) • AS-i Master Module (QJ71AS92)	Page 210, Section 10.9
	Device monitor	The following modules are supported. • High-speed Universal model QCPU (Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU)	Page 131, Section 8.2
	Project	A project can be saved in the single file format.	Page 41, Section 4.2.2 Page 43, Section 4.2.3
	II/O assignment	Parameters for multiple CPU can be utilized from projects in the single file format.	Page 68, Section 5.1.1 (5)(c)
	Multiple CPU setting		
	System Ethernet port (S CH1) settings	The open setting function is supported.	Page 75, Section 5.1.1 (8)(a)
	Security	The security setting function is supported.	Page 83, Section 5.1 (12)
	Diagnosing CC-Link IE Field Network	L series-compatible CC-Link IE Field Network is supported. Intelligent device station (GOT) is supported.	Page 171, Section 10.6
Version 4.03D	CPU type	The following modules is supported. • Q24DHCCPU-LS	Page 40, Section 4.2.1
	Change CPU type	The following modules is supported. • Q24DHCCPU-LS	Page 51, Section 4.2.8
	System monitor	The following modules is supported. • Q24DHCCPU-LS	Page 210, Section 10.9
	Device monitor	The following modules is supported. • Q24DHCCPU-LS	Page 131, Section 8.2

Version	Major function added/changed	Description	Reference
Version 4.06G	CPU type	The following module is supported. • Q12DCCPU-V (Extended mode)	Page 40, Section 4.2.1
	Intelligent function module	The following modules are supported. • Simple Motion Module (QD77MS2, QD77MS4, QD77MS16, QD77GF16)	Page 105, Section 5.3
	System monitor	The following modules are supported. • Q12DCCPU-V (Extended mode) • Simple Motion Module (QD77MS2, QD77MS4, QD77MS16, QD77GF16)	Page 210, Section 10.9
	Device monitor	The following module is supported. • Q12DCCPU-V (Extended mode)	Page 131, Section 8.2
	Change CPU type	The following module is supported. • Q12DCCPU-V (Extended mode)	Page 51, Section 4.2.8
Version 4.07H	Operating environment	Windows® 8 and Windows® 8.1 are supported.	-
	Parameter	Data refresh settings • The devices with the same range can be set as refresh device as long as the operations selected in "Execute" are different.	Page 80, Section 5.1.1 (11)
Version 4.09K	CPU type	The following module is supported. • Q24DHCCPU-VG	Page 40, Section 4.2.1
	System monitor	The following module is supported. • Q24DHCCPU-VG	Page 210, Section 10.9
	Device monitor	The following module is supported. • Q24DHCCPU-VG	Page 131, Section 8.2
	Change CPU type	The following module is supported. • Q24DHCCPU-VG	Page 51, Section 4.2.8
Version 4.11M	CPU type	The following module is supported. • Q26DHCCPU-LS	Page 40, Section 4.2.1
	System monitor	The following module is supported. • Q26DHCCPU-LS	Page 210, Section 10.9
	Device monitor	The following module is supported. • Q26DHCCPU-LS	Page 131, Section 8.2
	Change CPU type	The following module is supported. • Q26DHCCPU-LS	Page 51, Section 4.2.8
Version 4.12N	Operating environment	Windows® 10 is supported.	-
Version 4.14Q	Operating environment	Windows® 11 is supported.	-
		Windows XP®, Windows Vista®, Windows® 7, Windows® 8, and Windows® 8.1 are no longer supported.	-

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REVISIONS

*The manual number is given on the bottom left of the back cover.

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Japanese manual version SH-081076-H

Memo

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MODEL: SW4PVC-CCPU-O-E
MODEL CODE: 13JU76

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