MX Component Version 3

Operating Manual

MITSUBISHI





MELSOFT Integrated FA Software

SW3D5C-ACT-E

• SAFETY PRECAUTIONS •

(Always read these instructions before using this equipment.)

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

The instructions given in this manual are concerned with this product. For the safety instructions of the programmable controller system, please read the CPU module user's manual.

In this manual, the safety instructions are ranked as "AWARNING" and "ACAUTION".



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

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

[Design Instructions]

• When performing data changes or status control from the personal computer to the running CPU module, configure up an interlock circuit outside the CPU module system to ensure that the whole system will operate safely.

In addition, predetermine corrective actions for the system so that you can take measures against any communication error caused by a cable connection fault or the like in online operations performed from the peripheral device to the CPU module.

• Read the manual carefully before performing the online operations (especially forced output and operating status change) which will be executed with the personal computer connected to the running CPU module.

Not doing so can damage the machine or cause an accident due to incorrect operation.

• CONDITIONS OF USE FOR THE PRODUCT •

(1) Mitsubishi 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 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'S USER, 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 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 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 representative in your region.

REVISIONS

* The manual number is given on the bottom left of the back cover.

Print Date	* Manual Number	Revision
Apr., 2002	SH (NA)-080271-A	First edition
Jun., 2002	SH (NA)-080271-8	Correction
00111, 2002		Operating Instructions, Section 6.12.1
		Addition
		Section 6.12.2
Sep., 2002	SH (NA)-080271-C	Correction
		Section 6.12.1, Section 6.12.2, Appendix 2.3
Nov., 2003	SH (NA)-080271-D	Correction
,		Operating Instructions, Section 1.1, Section 2.1.6, Section 2.2.1,
		Section 2.2.2, Section 6.1.1, Section 6.2.2, Section 6.7.2, Section 8.2.1,
		Section 8.2.2, Section 8.3.1, Section 8.3.2, Section 8.4.2, Section 8.5.2,
		Section 8.6.2, Section 8.9.1, Section 8.10.2
		Addition
		Generic Terms and Abbreviations, Section 8.9.2
Dec., 2003	SH (NA)-080271-E	Correction
		Operating Instructions, Meaning and Definitions of Terms, Section 1.1,
		Section 2.2.1, Section 6.1.2, Section 6.2.2, Section 6.3.1, Section 6.8.1,
		Section 6.8.2, Section 6.13, Section 6.14.2, Section 6.15.1, Section 8.2.1, Section 8.2.2
		Addition
		Generic Terms and Abbreviations, Section 2.2.2, Section 6.1.1,
		Appendix 3.4
Jun., 2004	SH (NA)-080271-F	Model Addition
		Q12PRHCPU, Q25PRHCPU, FX3UcCPU
		New Addition
		Appendix 7
		Correction
		Section 6.1.1, Section 6.9.1, Section 6.12.2, Appendix 1, Appendix 3.4
		Addition
		Generic Terms and Abbreviations, Section 2.1.3, Section 2.1.4,
		Section 2.1.5, Section 2.1.6, Section 2.1.7, Section 2.2.2, Section 2.3,
		Section 2.4, Section 3.2, Section 8.2, Section 8.3, Section 8.4,
		Section 8.5, Section 8.6, Section 8.7, Section 8.8, Section 8.9, Section 8.10, Section 8.12
Aug., 2004	SH (NA)-080271-G	
, lug., 200 i		New Addition Section 8.14
		Addition
		Operating Instructions, Manuals, Section 2.2.1, Section 2.2.2,
		Section 2.3, Section 6.1.1, Chapter 8
Oct., 2004	SH (NA)-080271-H	Correction
,		Manuals, Chapter 1, Section 6.2.2, Section 8.14.1
	1	, , , , , , , , , , , , , , , , , , , ,

Print Date	* Manual Number	Revision
Aug., 2005	SH (NA)-080271-I	Model Addition FX ₃ UCPU Addition
		Generic term and Abbreviations, Section 2.2.1, Section 2.2.2, Section 2.3, Section 2.4, Section 5.1.4, Section 8.2.1, Section 8.2.2, Section 8.3.1, Section 8.3.2, Section 8.4.1, Section 8.5.1, Section 8.6.2, Section 8.6.2, Section 8.7.1, Section 8.8.1, Section 8.9.1, Section 8.10.1, Section 8.10.2, Section 8.12.1, Section 8.12.2
Nov., 2006	SH (NA)-080271-J	Correction Section 1.1, Section 2.1.6, Section 2.1.7, Section 2.2, Section 2.2.1, Section 2.2.2
Oct., 2007	SH (NA)-080271-K	Model Addition Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU New Addition Section 2.1.8, Section 6.13, Section 8.13, Appendix 8 Correction
		Section 6.13 to 6.15 changed to Section 6.14 to 6.16, Section 8.13 changed to Section 8.14 Addition Operating Instructions, Manuals, Generic term and Abbreviations, Section 2.1.1 to 2.1.7, Section 2.2, Section 2.3, Section 2.4, Section 3.2.1, Section 3.2.2, Section 4.1, Section 5.1.2, Section 5.1.6, Section 5.2.2 to 5.2.5, Section 6.4.1, Chapter 7, Section 8.2 to 8.12, Section 8.15 to 8.17,
Jun., 2008	SH (NA)-080271-L	Appendix 2.2 to 2.5, Appendix 7 Model Addition Q13UDHCPU, Q26UDHCPU
		Correction Operating Instructions, Manuals, Generic term and Abbreviations, Section 2.1.1 to 2.1.8, Section 2.2.1, Section 2.2.2, Section 2.3, Section 2.4, Section 4.1, Section 5.1.2, Section 5.1.6, Section 6.4.1, Section 6.11, Section 6.11.1, Chapter 7, Section 8.2.1 to 8.11.2, Section 8.13.1, Section 8.13.2, Appendix 2.2 to 2.5, Appendix 3.4, Appendix 8, Appendix 8.1, Appendix 8.2
Sep., 2008	SH (NA)-080271-M	Model AdditionQ02PHCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q06PHCPU, Q13UDEHCPU, Q26UDEHCPU, QS001CPUNew AdditionSection 6.3, Section 8.3.3CorrectionOperating Instructions, Generic term and Abbreviations, Section 1.1, Section 2.1.2 to 2.1.7, Section 2.2.1, Section 2.2.2, Section 2.4, Section 5.2.5 to 5.2.7, Section 6.2, Section 6.4.1 to 6.15.1, Chapter 7, Section 8.2.1 to 8.15.2, Appendix 5, Appendix 7

Print Date	* Manual Number	Revision
Dec., 2008	SH (NA)-080271-N	Model Addition
		Q00UCPU, Q00UJCPU, Q01UCPU, Q10UDHCPU, Q10UDEHCPU,
		Q20UDHCPU, Q20UDEHCPU, FX3GCPU
		New Addition
		Appendix 9
		Correction
		Operating Instructions, Generic term and Abbreviations, Section 2.2.1,
		Section 2.2.2, Section 2.3, Section 2.4, Section 5.1.2, Section 6.1.1,
		Chapter 7, Section 8.2.1, Section 8.2.2, Section 8.3.1, Section 8.3.2,
		Section 8.3.3, Section 8.4.1, Section 8.4.2, Section 8.5.1, Section 8.5.2, Section 8.6.1, Section 8.7.1, Section 8.8.1, Section 8.9.1,
		Section 8.10.1, Section 8.11.1, Section 8.12.1, Section 8.13.1,
		Appendix 3.4
Dec., 2009	SH (NA)-080271-O	Model Addition
		L02CPU, L26CPU-BT
		Correction
		SAFETY PRECAUTIONS,
		CONDITIONS OF USE FOR THE PRODUCT, Operating Instructions,
		Manuals, Generic Terms and Abbreviations, Section 2.2.1, Section 2.2.2, Section 2.2.4, Section 5.2.6, Section 6.1.1,
		Section 8.2 to 8.13, Section 8.15, Section 8.17, Appendix 8.1
May, 2010	SH (NA)-080271-P	Model Addition
		Q50UDEHCPU, Q100UDEHCPU, Q12DCCPU-V
		New Addition
		Section 6.11, Section 6.11.1, Section 6.17, Section 6.17.1,
		Section 8.16 to 8.17.2
		Correction
		Section 6.11 to 6.15 changed to Section 6.12 to 6.16
		Addition
		SAFETY PRECAUTIONS, MANUALS,
		GENERIC TERMS AND ABBREVIATIONS, Section 1.1,
		Section 2.1.1 to 2.1.8, Section 2.2.1 to 2.4, Section 4.1, Section 5.1.2, Section 5.1.6, Section 6.5.1, Chapter 7, Section 8.2.1, Section 8.2.2,
		Section 8.3.1 to 8.3.3, Section 8.4.1, Section 8.4.2, Section 8.5.1,
		Section 8.5.2, Section 8.6.1, Section 8.6.2, Section 8.7.1, Section 8.8.1,
		Section 8.8.2, Section 8.9.1, Section 8.9.2, Section 8.10.1,
		Section 8.10.2, Section 8.11.1, Section 8.11.2, Section 8.13.1, Section 8.12.2, Section 8.15.2, Appendix 2.2 to 2.5, Appendix 7
		Section 8.13.2, Section 8.15.2, Appendix 2.2 to 2.5, Appendix 7, Appendix 8, Appendix 9.3 to 9.5
Nov., 2010	SH (NA)-080271-Q	Correction
		Section 2.2.1, Section 6.3.1, Section 8.3.3, Section 8.17.1

* Manual Number	Revision
SH (NA)-080271-R	New Addition
	Section 2.1.9, Section 6.4, Section 6.15, Section 8.3.4, Section 8.12
	Correction
	Section 6.4 to 6.13 changed to Section 6.5 to 6.14,
	Section 6.14 to 6.17 changed to Section 6.16 to 6.19, Chapter 7,
	Section 8.2.1, Section 8.2.2, Section 8.3.1, Section 8.3.2, Section 8.3.3,
	Section 8.4.1, Section 8.4.2, Section 8.5.1, Section 8.5.2, Section 8.7.1, Section 8.7.2, Section 8.8.1, Section 8.8.2, Section 8.9.1, Section 8.9.2,
	Section 8.12.1, Section 8.12.2, Section 8.13.1, Section 8.13.2,
	Section 8.12 to 8.17 changed to Section 8.13 to 8.18, Section 8.14.1,
	Section 8.14.2, Section 8.18.1, Section 8.18.2, Appendix 9
	Addition
	GENERIC TERMS AND ABBREVIATIONS, Section 2.1.1,
	Section 2.1.2, Section 2.1.3, Section 2.1.4, Section 2.1.5, Section 2.1.6,
	Section 2.1.7, Section 2.1.8, Section 2.2.1, Section 2.2.2, Section 2.3, Section 5.1.6, Section 8.18.2, Appendix 2.5
SH (NA)-080271-S	Correction
、 <i>`</i>	Section 6.1.1, Section 6.1.2, Section 6.9.1, Section 6.17.1,
	Section 6.17.2

Japanese Manual Version SH-080274-S

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OPERATING INSTRUCTIONS

This section gives explanation of instructions in the following order.

- 1) Instructions for used OS and personal computer
- 2) Instructions for installation and uninstallation
- 3) Programmable controller CPU-related instructions
- 4) Instructions for the use of other MELSOFT products
- 5) Instructions for the use of Ethernet modules
- 6) Instructions for the use of CC-Link modules
- 7) Instructions for the use of MELSECNET(II), MELSECNET/10 and MELSECNET/H
- 8) Instructions for the use of computer link and serial communication modules
- 9) Instructions for modem communication
- 10) Instructions for programming
- 11) Instructions for the use of Microsoft[®] Excel
- 12) Instructions for the use of Microsoft® Access
- 13) Instructions for the use of VBScript and ASP function

Instructions for used OS and personal computer

(1) When using Microsoft[®] Windows NT[®] Workstation Operating System Version 4.0, Microsoft[®] Windows[®] 2000 Professional Operating System, Windows[®] XP, Windows Vista[®] or Windows[®] 7

Note that the following restrictions apply when a user without Administrator's authority operates MX Component.

- (a) Communication Setup Utility
 - The logical station number cannot be created, changed or deleted.
 - Target settings cannot be imported.
 - This utility cannot be started up if the communication settings have been made using MX Component earlier than Version 3.00A. *1
- (b) PLC Monitor Utility
 - This utility cannot be started up if the communication settings have been made using MX Component earlier than Version 3.00A. *1
 - Device registration cannot be performed on "Entry Device" tab.
- (c) Communication board
 - Various settings cannot be made on the CC-Link IE Controller Network, MELSECNET/H, MELSECNET/10, MELSECNET(II), CC-Link, AF and CPU board utilities.
- *1: If the following error message appears, start up and close the utility as a user with Administrator's authority, once. This operation enables a user without Administrator's authority to start up the utility.

PLC Moni	tor Utility 🔀
\otimes	Reading the system information data failed. There is a possibility that the operating environment of the application is corrupt. Re-install the application and try again.
	ОК

- (2) About Ethernet communication, computer link communication and CPU COM communication on Microsoft[®] Windows[®] 95 Operating System
 - (a) Making Ethernet communication using TCP/IP and UDP/IP on Windows[®] 95 of the version older than OSR2 will cause a memory leak. When performing continuous operation on Windows[®] 95, use Windows[®] 95 OSR2 or later.

- (b) On Windows[®] 95, communication using the COM port, e.g. computer link communication or CPU COM communication, will cause a memory leak. Therefore, do not perform continuous operation.
- Precautions for the use of Microsoft[®] Windows[®] Millennium Edition Operating System
 It is not recommended to use MX Component with the "system restoring function" made invalid by the operating system.
 If the free space of the system drive becomes less than 200MB, the "system restoring function" is made invalid by the operating system. When using Windows[®] Me, reserve a 200MB or more free space for the system drive.
- (4) About the resume and other functions of personal computer A communications error may occur if communications are made with the programmable controller CPU after setting the resume function, suspend setting, power-saving function and/or standby mode of the personal computer. Therefore, do not set the above functions when making communications with the programmable controller CPU.
- (5) Restrictions by DEP (Data Execution Prevention) Note that restrictions by DEP may apply when using Windows[®] XP Service Pack2 or later, Windows Vista[®] or Windows[®] 7. For details, refer to "Appendix 9 Restrictions by DEP function".

Instructions for installation and uninstallation

- (1) About installation
 - (a) When performing overwrite installation, install the software in the folder where it had already been installed.
 - (b) If you install the MELSEC board driver or GX Developer into the personal computer where MX Component has already been installed, communication using a specific path (e.g. ASCII packet of the AJ71E71) may result in a receive, device number or other error. If any of these phenomena has occurred, perform overwrite installation of MX Component again.
- (2) Precautions for performing installation and uninstallation on a dual boot machine where two different operating systems are installed in a single IBM-PC/AT compatible personal computer

On a dual boot machine having Windows NT[®] Workstation 4.0 (hereafter referred to as OS1) and Windows[®] 95 or Windows[®] 98 (hereafter referred to as OS2), note the following points when MX Component was installed on OS1 first and MX Component was then installed over the same folder on OS2.

(a) If MX Component is uninstalled first on the OS2 side, uninstallation does not delete the control DLLs and ACT folders, and they remain within the IBM-PC/AT compatible.

To delete the control DLLs and ACT folders, perform uninstallation also on the OS1 side.

- (b) If MX Component is uninstalled first on the OS1 side, the control DLLs and ACT folders are deleted.
 In this case, MX Component may not operate properly or cannot be uninstalled on the OS2 side.
 Install MX Component again on the OS2 side to operate MX Component properly or uninstall it on the OS2 side.
- (3) About start menu

When you have uninstalled MX Component, the item may remain in the start menu.

In that case, restart the IBM-PC/AT compatible personal computer.

Programmable controller CPU-related instructions

- (1) About transmission speed
 As the transmission speed of the QCPU(Q mode), LCPU and QCPU(A mode), you can set 9600bps, 19200bps, 38400bps, 57600bps or 11520bps.
 For the QnACPU of version 9707B or later, you can set the transmission speed of 9600bps, 19200bps or 38400bps.
 For the QnACPU of other versions, you can set 9600bps or 19200bps.
 The transmission speeds of the ACPU (except A2USHCPU-S1), FXCPU and motion controller CPU are fixed to 9600bps. (The A2USHCPU-S1 may be set to 19200bps.)
- (2) Precautions for USB communication Frequently disconnecting/reconnecting the USB cable or resetting or powering ON/OFF the programmable controller CPU during communications with the programmable controller CPU may cause a communications error which cannot be recovered.

If it is not recovered, completely disconnect the USB cable once and then reconnect it after 5 or more seconds have elapsed.

(If this error occurs at the initial communication after the above operation, the function will be performed properly in and after the second communications.)

- (3) About clock data of the programmable controller CPU
 - (a) For the ACPU (including the motion controller CPU), clock data setting may be made only when the programmable controller CPU is in the STOP status. For the QCPU (Q mode), LCPU, QCPU (A mode), QnACPU and FXCPU, clock data setting may be made if the programmable controller CPU is in the RUN status.
 - (b) For the A0J2HCPU, A2CCPU and A2CJCPU, setting cannot be made as they do not have the clock function.
 - (c) For the ACPU, setting can be made independently of whether the clock setting special relay "M9028" is ON or OFF. (Note that the special relay "M9028" turns OFF after execution.)
 For the QCPU (Q mode), LCPU, QCPU (A mode) and QnACPU, setting can be made independently of whether the clock setting device "SM1028" is ON or OFF.
 - (d) Among the FXCPUs, setting may be made for only the FX1N (clock built-in), FX1NC (clock built-in), FX1s (clock built-in), FX2N (clock built-in), FX2NC (when RTC cassette is fitted), FXU (when RTC cassette is fitted), FX2C (when RTC cassette is fitted) and FX3G (clock built-in).
 - (e) Note that an error for transfer time will be produced in clock setting.

- (4) Precautions for the use of Q4ARCPU The redundant function cannot be used.
- (5) Restrictions on use of the FXCPU
 - (a) When the FXCPU is used, access to the TN devices (timer present values) or CN devices (counter present values) is not permitted if the device numbers specified are split across 199 or earlier and 200 or later.
 - (b) As the FXCPU does not have a PAUSE switch as the programmable controller CPU, an error is returned if remote pause is specified in SetCpuStatus.
 - (c) Note that specifying the first I/O number of a non-existing module and executing the WriteBuffer() method will not return an error.
 - (d) For the index registers (Z, V) of the FXCPU, data cannot be written to 2 or more consecutive points using WriteDeviceBlock(). (Data may be written to only one point.)
- (6) Serial communication function of Q00UJ/Q00/Q00U/Q01/Q01U/Q02U/CPU*1 When the following conditions are all satisfied, communication between the personal computer and the serial communication function compatible CPU is made at 9600bps speed.
 - *1: In this paragraph, "serial communication function compatible CPU" indicates Q00UJ/Q00/Q00U/Q01/Q01U/Q02UCPU.
 - 1) The serial communication function of the connected CPU is valid.
 - 2) The personal computer side transmission speed setting differs from the serial communication function compatible CPU side transmission speed setting.

To increase the communication speed, match the personal computer side transmission speed with the serial communication function compatible CPU side transmission speed.

- (7) Precautions for the use of Built-in Ethernet port CPU If you reset the programmable controller CPU during TCP/IP connection setting (during opening) using MX Component, a communication or receive error will occur at the time of communication after that. In that case, close the application that uses MX Component and then perform open processing again.
- (8) Precautions for the use of QSCPU In order to protect the safety programmable controller system, functions writing to buffer memory, writing and setting devices and writing clock data cannot be executed.

Instructions for use of other MELSOFT products

- About simultaneous use of MX Component and GX Developer When using GX Developer and MX Component together for the same E71 module to make Ethernet communication, make the following settings.
 - (a) Set the protocol of the communication setting wizard screen to "UDP/IP".
 - (b) Set "SW2" of the communications setting switches of the E71 module to OFF (binary).

(2) Precautions for GX Simulator communication Before executing the monitor utility, communication setting utility or user program, make sure that GX Simulator and GX Developer are operating. In addition, do not terminate the GX Simulator and GX Developer while the user program is running. If you do so, you will not be able to terminate the user program normally.

Instructions for use of Ethernet modules

 Resetting the programmable controller CPU during TCP/IP connection establishment
 When resetting the programmable controller CPU during TCP/IP connection establishment (during opening) using MX Component, a communication error or receive error occurs at communication after that. In that case, perform close

receive error occurs at communication after that. In that case, perform close processing in the application that uses MX Component and then perform open processing again.

(2) About target existence check starting interval*1 of Ethernet module If close processing (Close) is executed from the IBM-PC/AT compatible, the Ethernet module may not perform close processing (Close). One of its causes is the open cable.

If open processing (Open) is executed from the IBM-PC/AT compatible with the Ethernet module not performing close processing (Close), open processing (Open) from the IBM-PC/AT compatible is not terminated normally until the Ethernet module makes a target existence check and executes close processing (Close).

If you want to terminate open processing (Open) early from the IBM-PC/AT compatible, shorten the target existence check starting interval setting of the Ethernet module.

(The target existence check starting interval setting of the Ethernet module defaults to 10 minutes.)

*1: It can be set for the E71 of AJ71E71-S3 or later.

(3) Replacement of Ethernet module If you changed the Ethernet module during Ethernet communication due to debugging, failure or like, the other node (IBM-PC/AT compatible) must be restarted.

(Since the Ethernet addresses (MAC addresses) differ between devices)

- (4) Simultaneous access when using Q series-compatible Ethernet module The following conditions should be satisfied when communication is to be made simultaneously from multiple IBM-PC/AT compatibles to the same module using the TCP/IP protocol.
 - Q series-compatible E71 module (except QJ71E71-100) whose first five digits of the serial number is "02122" or later and whose function version is B or later.
 - Using GX Developer Version 6.05F or later, set "MELSOFT connection" in the Ethernet parameter [open system].

(5) Unlocking password when using QJ71E71

The range where the password can be unlocked by remote operation is up to the connection target station.

If the password is set also on the lower layer, communication cannot be made with the programmable controller CPU on the lower layer.



1) Unlocking QJ71E71 password enables access to Programmable controller CPUs in this range.

- (6) About use of the Q4ARCPU When using the UDP/IP protocol of Ethernet communication, use the Q4ARCPU whose year and month of manufacture is "0012" or later and whose function version is B or later.
- (7) About Ethernet communication
 - (a) When access is made to the QnACPU, AnUCPU, QCPU (A mode) or motion controller CPU via the E71, the device range is equivalent to that of the AnACPU.
 - (b) When making access to the programmable controller CPU through Ethernet communication, the functions may not be executed depending on the programmable controller CPU status.
 - When the protocol is TCP/IP (target module: E71, QE71) The functions can be executed only when the communication target programmable controller CPU is in the RUN mode. An error is returned if the programmable controller CPU is in other than the RUN mode.
 - 2) When the protocol is UDP/IP (target module: E71, QE71) The functions cannot be executed until the communication target programmable controller CPU is RUN once. An error is returned if the programmable controller CPU has not been RUN once.
 - (c) The communication line is broken if the CPU becomes faulty or the Ethernet module is reset during Ethernet communication (when the protocol is TCP/IP). In that case, perform line close processing (Close) and then execute reopen processing (Open).

(d) When two different communication systems (protocols) are used to make access from one IBM-PC/AT compatible to one Q series-compatible E71, two station numbers, i.e. for TCP/IP and for UDP/IP, must be set. However, it is not required to set different station numbers for TCP/IP and UDP/IP when using MX Component Version 3 or later and Q series-compatible E71 with serial No. 05051 or later.





Set different station numbers as the (TCP/IP) station number for MX Component and (UDP/IP) station number for GX Developer. If they are set to the same station number, an error will occur on the Ethernet module side.

(8) About switch settings of E71 and QE71

If the four lower digits of the error code that occurred during Ethernet communication using the E71 or QE71 is not indicated in the E71 or QE71 manual, check the DIP switch (SW2) setting of the E71 or QE71.

If the DIP switch is not set correctly, a difference has occurred in the packet format (ASCII/binary) and therefore the error code returned from the module cannot be recognized correctly.

Instructions for use of CC-Link modules

- Software version of CC-Link master/local module
 As the CC-Link master/local module used in CC-Link communication or CC-Link G4 communication (only when the AJ65BT-G4 is used), use the module of software version "N" or later.
 The module of software version "M" or earlier will not operate properly.
- (2) Software version of CC-Link G4 module As the CC-Link G4 module used in CC-Link G4 communication (only when the AJ65BT-G4 is used), use the module of software version "D" or later. The module of software version "C" or earlier will not operate properly.

Instructions for the use of MELSECNET(II), MELSECNET/10 and MELSECNET/H

- About relaying from the MELSECNET/10 loaded station When the module is loaded to the AnNCPU or AnACPU, it is recognized as a MELSECNET(II) module.
 When the connected station is the AnNCPU or AnACPU, set the relayed network as MELSECNET(II).
 In addition, set the station number to "0" when making access to the control station.
- (2) Instructions for relaying the MELSECNET(II) When access is made to the QnACPU, AnUCPU, QCPU (A mode) or motion controller CPU via the MELSECNET(II), the device range is equivalent to that of the AnACPU.

Instructions for use of computer link and serial communication modules

- (1) About computer link communication
 - (a) If the connected station CPU is the AnUCPU and the computer link module is the UC24 for computer link connection, remote operation will result in an error when access is made to the AnNCPU, AnACPU or QnACPU via the MELSECNET/10.
 - (b) On any computer link modules other than the UC24 and C24, remote "PAUSE" operation will result in an error for all connections.
 - (c) For the QC24, note that the illegal case of specifying the first I/O number of a non-existing module and reading/writing U*\G will not return an error if the software version of the module is "k" or earlier.
 - (d) In any connection form (direct coupling, relaying) where the target station of the UC24 or C24 is the QnACPU, an error is returned if clock data read/write is executed.
 - (e) The FX extended port is required when performing the computer link communication using FX_{0N}, FX_{1S}, FX_{1N(C)}, FX_{3G}, FX_{3U(C)}CPU.

(2) Precautions for connecting personal computer and serial communication module

- (a) When QJ71C24-R2 of function version A is used An MX Component application can use only either of CH1 and CH2. When the MELSOFT product, such as GX Developer or GOT, is using one channel, the application cannot use the other channel. When the QJ71C24-R2 of function version B is used, the application can use both channels.
- (b) When AJ71QC24-R2 or A1SJ71QC4-R2 or AJ71QC24N-R2 or A1SJ71QC24N-R2 is used The MX Component application can use only CH1. It cannot use CH2.

Instructions for modem communication

- (1) Simultaneous modem communications
 It is not allowed to simultaneously perform modem communications using MX
 Component and other application such as GX Developer.
 Do not perform a modem communication using other applications during a modem communication using MX Component.
 If modem communications are simultaneously performed using MX Component and other application, this will result in a communication error, disconnection of telephone line or similar problem.
- (2) Instructions for the use of telephone line
 - (a) Do not use the call-waiting phone line. On the call-waiting phone line, data corruption, telephone line disconnection or similar may occur due to interrupt reading sounds.
 - (b) Do not connect the line to master/slave phones. If the handset of the slave phone is lifted while the telephone line is connecting to the master/slave phones, the telephone line may be disconnected.
 - (c) Use an analog 2 wire type telephone line.
 When using a digital line, use a terminal adaptor.
 When the telephone line is of 4 wire type, the line may not be connected depending on the wiring type of the modular jack.
 For the 4 wire type, conduct connection tests in advance to check for connection.
- (3) Instructions for the use of cellular phone
 - (a) Modem for radio communication using a cellular phone Although the modem name is different depending on the maker, the modem is generically referred to as the cellular phone communication unit in this manual.

Select the model of the cellular phone communication unit according to the cellular phone used.

For details, contact the company of your cellular phone.

 (b) Cellular phone without auto answer function For the cellular phone without auto answer function, use a cellular phone communication unit that has the ANS/ORG/TEL select switch. If the cellular phone communication unit does not have the ANS/ORG/TEL select switch, it is impossible to connect the line. The line connection procedure is different depending on the cellular phone company and cellular phone model. For details, context the maker of your cellular phone

For details, contact the maker of your cellular phone.

Instructions for programming

- (1) About sample programs, test programs and sample sequence programs
 - (a) Sample programs, test programs
 The sample programs are attached for your reference to create user programs.
 The test programs are attached to conduct communication tests.
 Use these programs on your own responsibility.
 - (b) Sample sequence programs
 The sample sequence programs attached to MX Component must be modified depending on the system configuration and parameter settings. Modify them to be best for the system.
 Please note that it is user's responsibility to use the same sequence programs.
- (2) About forced termination of processes during communication If communication is being made with the same type of control open for multiple processes, forcing one process to be terminated by Task Manager or the like may stop the other processes at the communication function execution area.
- (3) About error at communication start
 A communication error may occur within the preset time-out period at a communication start, e.g. when the communication diagnostic button is pressed, at a monitor start, or at the execution of any function.
 These errors are assumed to be detected before a time-out error.
 (Example: Connection cable not connected, at programmable controller power-off)
- (4) CheckDeviceString Do not use the CheckDeviceString method of each ACT control.
- (5) About ActUMsg control, ActUWzd control, ActMnet2BD control and ActAFBD control Installing MX Component registers the ActUMsg control, ActUWzd control, ActMnet2BD control and ActAFBD control, but do not use them.
- (6) Precautions for the use of Act(ML)QJ71E71TCP, Act(ML)AJ71QE71TCP and Act(ML)AJ71E71TCP controls
 - (a) Provide an interval longer than the sequence scan time of the Ethernet module loaded station from when the Open method is executed until the Close method is executed.
 - (b) Provide an interval of at least 500ms from when the Close method is executed until the Open method is executed again.
- (7) Instructions for execution of Disconnect If execution of Disconnect cannot disconnect the telephone line for some reason, power off the modem used to make a call to forcibly disconnect the telephone line.

Instructions for use of Microsoft® Excel

- (1) Precautions for starting multiple Excel files on Windows[®] Me Note that Windows[®] Me has been confirmed to stop if you run multiple Excel files which use many control objects.
 - * This phenomenon is not attributable to this product.
 - (a) Conditions on which this phenomenon has been confirmed to occur Graphic driver : Matrox make MGA Mystique display driver
 - OS : Windows® Me (English version)
 - Number of controls pasted to Excel files

: A total of 150 or more controls used in the whole BOOK

<Other devices checked by Mitsubishi (reference)> CPU : Pentium® 166MHz

CPU	: Pentium®
Memory	: 64MB

- Hard disk : 8GB (free space 6GB)
- (b) Cause

The phenomenon has been confirmed to occur when the Matrox make MGA Mystique graphic card display driver is used.

This is because Version 4.12 of the MGA Mystique graphic card display driver is not compatible with Windows[®] Me.

- (c) How to judge whether the phenomenon is the same or not After changing the used graphic driver for the standard VGA driver, delete the temporary data (*.emf) left in the temporary folder. After that, try starting multiple Excel files. The phenomenon seems to be the same if it does not occur by changing the driver for the standard VGA driver.
- (d) Corrective action

If this phenomenon occurs, the temporary data (*.emf) will be left in the temporary folder of the system.

You have to delete the remaining temporary data (*.emf) manually.

The temporary folder of the system is normally in "C:\Temp".

- After that, take either of the following actions.
- 1) Use the graphic card and display driver which support Windows® Me.
- 2) Reduce the number of control objects pasted to the Excel files.
- (2) Precautions for the use of EXCEL VBA Do not set the page feed preview function in the application that uses EXCEL VBA. Doing so can cause a memory leak or OS basic operation (file operation, printing or other) fault.
- (3) Precautions for the use of Microsoft[®] Excel
 - (a) If you paste the control to Excel, it may sometimes not be pasted. This phenomenon occurs if the cache file (temporary file) of Excel remains. In such a case, perform operation in the following procedure.
 1) Close Excel.
 - 2) Delete "*.exd" in the Excel 8.0 folder of the temp folders. *1, *2
 - 3) Restart Excel.
 - *1: The temp folder is located depending on the OS.
 - *2: When the corresponding folder and file are not displayed, Make the settings in folder option setting. So that all files and folders will be displayed.
 - (b) Excel allows ACT control resizing, which does not affect the operation of MX Component.

To restore the size, set the Height and Width properties of ACT control to "24" again.

Instructions for use of Microsoft® Access

- (1) Precautions for the use of Microsoft[®] Access
 - (a) When you paste the ACT control to an Access form and double-click the ACT control or select the custom control in the property, the following error message will appear but this does not affect the operation of ACT control. (Other error message may appear.)

Microsoft	Access X
_	The operation on the MITSUBISHI ActACPU Control object failed.
	The OLE server may not be registered.
	To register the OLE server, reinstall it.
	(OK)

- (b) When you paste the ACT control and display the properties, the property names displayed may be broken.As this phenomenon occurs for only the property indication, there will be no problem in the property functions.
- (c) Access allows ACT control resizing, which does not affect the operation of MX Component.

To restore the size, set the Height and Width properties of ACT control to "24" again.

Instructions for use of VBScript and ASP function

- Security of the Internet/intranet when using VBScript MX Component does not have the Internet/intranet security function. When you need the security function, make setting on the user side.
- (2) Precautions for making CPU COM communication, computer link communication, CC-Link G4 communication or Ethernet (TCP/IP) communication on ASP page and application*1 when Windows® 2000 Professional is used. If the ASP page opens CPU COM, computer link, CC-Link G4 or Ethernet (TCP/IP) communication earlier than the application, communication in the same path cannot be made on the application until the ASP page is closed. Therefore, note the following points.
 - (a) CPU COM, computer link, CC-Link G4 or Ethernet (TCP/IP) communication should be opened on the application earlier.
 After it has been opened on the application, communication can be made on both the application and ASP page until it is closed.
 - (b) When CPU COM, computer link, CC-Link G4 or Ethernet (TCP/IP) communication has been opened on the ASP page, always close the communication.
 - *1: The application indicates any of the user applications created using the MX series and MELSOFT products.

INTRODUCTION

Thank you for choosing the Mitsubishi MELSOFT series Integrated FA software. Read this manual and make sure you understand the functions and performance of MELSOFT series thoroughly in advance to ensure correct use.

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MANUALS

The following lists the manuals for this software package. Refer to the following table when ordering manuals.

Related Manuals

Manual Name	Manual Number (Model Code)
MX Component Version 3 Operating Manual (Startup) Explains procedures for installing and uninstalling MX Component and for browsing the operating manual. (Sold separately)	SH-080270 (13JU31)
MX Component Version 3 Programming Manual Explains the programming procedures, detailed explanations and error codes of the ACT controls. (Sold separately)	SH-080272 (13JF66)
Type A70BDE-J71QLP23/A70BDE-J71QLP23GE/A70BDE-J71QBR13/A70BDE-J71QLR23 MELSECNET/10 Interface Board User's Manual (For SW3DNF-MNET10) Explains the features, specifications, part names and setting of the MELSECNET/10 board, and the installation, uninstallation and others of the driver. (Sold separately)	IB-0800035 (13JL93)
Type A80BDE-J61BT11 Control & Communication Link System Master/Local Interface Board User's Manual (For SW4DNF-CCLINK-B) Explains the features, specifications, part names and setting of the CC-Link master board, and the installation, uninstallation and others of the driver. (Sold separately)	IB-0800175 (13JR28)
Type A80BDE-J61BT13 Control & Communication Link System Local Interface Board User's Manual (For SW4DNF-CCLINK-B) Explains the features, specifications, part names and setting of the CC-Link local board, and the installation, uninstallation and others of the driver. (Sold separately)	IB-0800176 (13JR29)
Type Q80BD-J61BT11N/Q81BD-J61BT11 CC-Link System Master/ Local Interface Board User's Manual (For SW1DNC-CCBD2-B) Explains the system configuration, software package installation, uninstallation and each utility's operation method, accessible range, devices and troubleshooting. (Sold separately)	SH-080527ENG (13JR77)
Type A80BDE-A2USH-S1 programmable controller CPU Board User's Manual (For SW1DNF-ANU-B) Explains the features, specifications, part names and setting of the CPU board, and the installation, uninstallation and others of the driver. (Sold separately)	IB-0800174 (13JR27)
MELSECNET/H Interface Board User's Manual (For SW0DNC-MNETH-B) Explains the features, specifications, part names and setting of the MELSECNET/H board, and the installation, uninstallation and others of the driver. (Sold separately)	SH-080128 (13JR24)
CC-Link IE Controller Network Interface Board User's Manual (For SW1DNC-MNETG-B) Explains system configuration, installation/uninstallation of the software package, operating methods of each utility, accessible range, devices, and troubleshooting of the CC-Link IE Controller Network board. (Sold separately)	SH-080691ENG (13JZ02)
GX Simulator Version 7 Operating Manual Explains the setting and operating method for monitoring the device memory and simulating the machine side operations using GX Simulator. (Sold separately)	SH-080468ENG (13JU51)
GX Works2 Version 1 Operating Manual (Common) Explains the system configuration of GX Works2 and the functions common to a Simple project and Structured project such as parameter setting, operation method for the online function. (Sold separately)	SH-080779ENG (13JU63)

Note: The MX Component Version 3 Operating Manual (Startup) and MX Component Version 3 Programming Manual are stored on the CD-ROM of the corresponding software package in PDF format. When you want to purchase the manual alone, it is optionally available as the printed matter of the manual number (Model code) in the above table.

HOW TO USE THIS MANUAL

"HOW TO USE THIS MANUAL" is given purpose-by-purpose for the use of MX Component. Refer to the following outlines and use this manual.

- (1) To know the features (Section 1.1) Section 1.1 gives the features.
- (2) To know the system configurations (Sections 2.1, 2.2) The system configurations using MX Component are provided.
- (3) To know the MX Component operating environment and usable programmable controller CPUs (Sections 2.3, 2.4) Section 2.3 gives the operating environment of MX Component and Section 2.4 indicates usable programmable controller CPUs.
- (4) To know the MX Component operating procedures (Chapter 3) Chapter 3 provides the operation procedures of MX Component.
- (5) To know how to operate the utilities (Chapters 4, 5)
 Chapter 4 describes operations common to the utilities, and Chapter 5 explains how to operate the utilities.
 Read these chapters when using the utilities.
- (6) To know the communication setting examples of the utility setting type (Chapter 6)Chapter 6 gives the setting example of each communication path using the utility setting type.
- (7) To know the communication setting examples of the program setting type (Chapter 7)
 Chapter 7 provides the setting example of each communication path using the program setting type.
- (8) To know the accessible devices and ranges (Chapter 8)Chapter 8 contains the accessible devices and accessible ranges.

GENERIC TERMS AND ABBREVIATIONS

Unless otherwise started, this manual uses the following abbreviations and terms for the explanation of MX Component.

Generic Term/Abbreviation	Description
MX Component	Generic product name for SWnD5C-ACT-E and SWnD5C-ACT-EA (n: version)
	-EA means a volume-license product.
IBM-PC/AT compatible	Abbreviation for IBM PC/AT or its compatible personal computer
PC CPU module	Abbreviation for MELSEC-Q series compatible PC CPU module
	(CONTEC CO., LTD. make)
	Generic product name for SWnD5C-GPPW-E, SWnD5C-GPPW-EA,
GX Developer	SWnD5C-GPPW-EV, and SWnD5C-GPPW-EVA (n: version)
	-EA means a volume-license product, and -EV an updated product.
GX Works2	Generic product name for SWnDNC-GXW2 (n: version)
	Generic product name for SWnD5C-LLT-E, SWnD5C-LLT-EA, SWnD5C-LLT-EV, and
GX Simulator	SWnD5C-LLT-EVA (n: version)
	-EA means a volume-license product, and -EV an updated product.
MELSECNET/10 board	Abbreviation for Type A70BDE-J71QLP23/A70BDE-J71QLP23GE/A70BDE-J71QBR13/
	A70BDE-J71QLR23 MELSECNET/10 interface board
MELSECNET/H board	Abbreviation for Type Q80BD-J71LP21-25/Q81BD-J71LP21-25/
	Q80BD-J71LP21S-25/Q80BD-J71LP21G/Q80BD-J71BR11 MELSECNET/H board
CC-Link IE Controller Network	Abbreviation for Type Q80BD-J71GP21-SX/Q80BD-J71GP21S-SX CC-Link IE
board	Controller Network interface board
CC-Link IE Field Network	Abbreviation for Type Q81BD-J71GF11-T2 CC-Link IE Field Network interface board
board	
	Generic term for Type A80BDE-J61BT11 CC-Link system master/local interface board,
CC-Link board	Type A80BDE-J61BT13 CC-Link interface board, and Type Q80BD-J61BT11N/
	Q81BD-J61BT11 CC-Link system master/local interface board
CPU board	Abbreviation for Type A80BDE-A2USH-S1 programmable controller CPU board
	Generic term for A0J2HCPU, A1SCPU, A1SCPU-S1, A1SCPUC24-R2, A1SHCPU,
AnNCPU	A1SJCPU, A1SJHCPU, A1NCPU, A2CCPU, A2CCPUC24, A2CCPUC24-PRF,
	A2CJCPU, A2NCPU, A2NCPU-S1, A2SCPU, A2SCPU-S1, A2SHCPU, A2SHCPU-S1,
	A3NCPU and A1FXCPU
AnACPU	Generic term for A2ACPU, A2ACPU-S1, A2ACPUP21/R21, A2ACPUP21-S1, A3ACPU
AnUCPU	Generic term for A2UCPU, A2UCPU-S1, A2USCPU, A2USCPU-S1, A2ASCPU, A2ASCPU-S1, A2ASCPU-S30, A2USHCPU-S1, A3UCPU and A4UCPU
	Generic term for Q2ACPU, Q2ACPU-S1, Q2ASCPU-S1, Q2ASCPU-S1, Q2ASHCPU,
QnACPU	Q2ASHCPU-S1, Q3ACPU, Q4ACPU and Q4ARCPU
ACPU	Generic term for AnNCPU, AnACPU and AnUCPU
QCPU (A mode)	Generic term for Q02CPU-A, Q02HCPU-A and Q06HCPU-A
QCPU (Q mode)	Generic term for Q00JCPU, Q00UJCPU, Q00CPU, Q00UCPU, Q01CPU, Q01UCPU, Q02CPU, Q02HCPU, Q02PHCPU, Q02UCPU, Q03UDCPU, Q03UDECPU,
	Q04UDHCPU, Q04UDEHCPU, Q06HCPU, Q06PHCPU, Q06UDHCPU,
	Q06UDEHCPU, Q10UDHCPU, Q10UDEHCPU, Q12HCPU, Q12PHCPU,
	Q12PRHCPU, Q13UDHCPU, Q13UDEHCPU, Q20UDHCPU, Q20UDEHCPU,
	Q25HCPU, Q25PHCPU, Q25PRHCPU, Q26UDHCPU, Q26UDEHCPU,
	Q50UDEHCPU and Q100UDEHCPU
	Generic term for Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDHCPU,
Built-in Ethernet port QCPU	Q10UDEHCPU, Q13UDEHCPU, Q26UDEHCPU, Q50UDEHCPU and Q100UDEHCPU
LCPU	Generic term for L02CPU, L26CPU-BT
Built-in Ethernet port CPU	Generic term for built-in Ethernet port QCPU and LCPU

Generic Term/Abbreviation	Description
QSCPU	Abbreviation for a safety CPU module (QS001CPU)
FXCPU	Generic term for FX0CPU, FX0sCPU, FX0NCPU, FX1CPU, FX1NCPU, FX1NCCPU, FX1sCPU, FX0CPU, FX2sCPU, FX2nCPU, FX2nCPU, FX3gCPU, FX3uCPU and FX3uCCPU
Motion controller CPU	Generic term for A171SHCPU, A172SHCPU, A173UHCPU, A173UHCPU-S1, A273UHCPU and A273UHCPU-S3
C Controller CPU	Abbreviation for Q12DCCPU-V
Programmable controller CPU	Generic term for QCPU(Q mode), LCPU, QSCPU, QCPU(A mode), QnACPU, ACPU, FXCPU, motion controller CPU and C Controller CPU
C24	Generic term for A1SCPUC24-R2, A1SJ71C24-PRF, A1SJ71C24-R2, A1SJ71C24-R4, A2CCPUC24, A2CCPUC24-PRF, AJ71C24-S6 and AJ71C24-S8
UC24	Generic term for AJ71UC24, A1SJ71UC24-R2, A1SJ71UC24-R4 and A1SJ71UC24-PRF
QC24	Generic term for AJ71QC24, AJ71QC24-R2, AJ71QC24-R4, A1SJ71QC24-R2 and A1SJ71QC24-R2
QC24N	Generic term for AJ71QC24N, AJ71QC24N-R2, AJ71QC24N-R4, A1SJ71QC24N and A1SJ71QC24N-R2
QC24(N)	Generic term for QC24 and QC24N
Q series-compatible C24	Generic term for QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2 and QJ71C24N-R4
L series-compatible C24	Generic term for LJ71C24, LJ71C24-R2
FX extended port	Generic term for FX0N-485ADP, FX2NC-485ADP, FX1N-485-BD, FX2N-485-BD, FX3G-485-BD, FX3U-485-BD and FX3U-485ADP
Computer link module (Serial communication module)	Generic term for C24, UC24, QC24(N), Q series-compatible C24, L series-compatible C24 and FX extended port Described as the serial communication module especially to indicate QC24(N) or Q series-compatible C24, L series-compatible C24.
E71	Generic term for AJ71E71, AJ71E71-S3, A1SJ71E71-B2, A1SJ71E71-B5, A1SJ71E71-B2-S3, A1SJ71E71-B5-S3, AJ71E71N-T, AJ71E71N-B5, AJ71E71N-B2, AJ71E71N-B5T, AJ71E71N3-T, A1SJ71E71N-T, A1SJ71E71N-B5, A1SJ71E71N-B2, A1SJ71E71N-B5T and A1SJ71E71N3-T
QE71	Generic term for AJ71QE71, AJ71QE71-B5, A1SJ71QE71-B2, A1SJ71QE71-B5, AJ71QE71N-T, AJ71QE71N-B5, AJ71QE71N-B2, AJ71QE71N-B5T, AJ71QE71N3-T, A1SJ71QE71N-T, A1SJ71QE71N-B5, A1SJ71QE71N-B2, A1SJ71QE71N-B5T and A1SJ71QE71N3-T
Q series-compatible E71	Generic term for QJ71E71, QJ71E71-B2, QJ71E71-B5 and QJ71E71-100
Ethernet module	Generic term for E71, QE71 and Q series-compatible E71
CC-Link G4 module	Generic term for AJ65BT-G4 GPP function peripheral connection module and AJ65BT-G4-S3 GPP function peripheral connection module
CC-Link IE Field Network Ethernet adapter module	Abbreviation for NZ2GF-ETB CC-Link IE Field Network Ethernet adapter module
A6TEL	Abbreviation for A6TEL modem interface module
Q6TEL	Abbreviation for Q6TEL modem interface module
GOT	Abbreviation for Graphic Operation Terminal
GOT1000	Abbreviation for Graphic Operation Terminal GOT1000 series

Generic Term/Abbreviation	Description
Computer link communication (Serial communication)	Abbreviation for communication with programmable controller CPU using the computer link module Described as serial communication especially in communication that uses QC24(N) or Q series-compatible C24, L series-compatible C24.
Ethernet communication	Abbreviation for communication by connecting the IBM-PC/AT compatible to Ethernet module or the built-in Ethernet port CPU
CPU COM communication	Abbreviation of communication made by connecting the IBM-PC/AT compatible to the RS-232 or RS-422 connector of programmable controller CPU
CPU USB communication	Abbreviation for communication by connecting IBM-PC/AT compatible to the USB connector of QCPU (Q mode), LCPU
MELSECNET/10 communication	Abbreviation for communication with programmable controller CPU using MELSECNET/10 board
MELSECNET/H communication	Abbreviation for communication with programmable controller CPU using MELSECNET/H board
CC-Link IE Controller Network communication	Abbreviation for communication with programmable controller CPU using CC-Link IE Controller Network board
CC-Link IE Field Network communication	Abbreviation for communication with programmable controller CPU using CC-Link IE Field Network board
CC-Link communication	Abbreviation for communication with programmable controller CPU using CC-Link board
CC-Link G4 communication	Abbreviation for communication with programmable controller CPU using CC-Link G4 module
CPU board communication	Abbreviation for communication with programmable controller CPU using CPU board
Q series bus communication	Abbreviation for communication with programmable controller CPU on the same base using PC CPU module
GX Simulator communication	Abbreviation for communication with GX Simulator
GX Simulator2 communication	Abbreviation for communication using the simulation functions of GX Works2
Modem communication	Abbreviation for communication with programmable controller CPU via modems using QC24N (except AJ71QC24N-R4), Q series-compatible C24, L series-compatible C24, A6TEL, Q6TEL or FXCPU
Gateway function communication	Abbreviation for communication with programmable controller CPU and third-party programmable controllers using the gateway functions of GOT
GOT transparent communication	Abbreviation for communication with programmable controller CPU using the GOT transparent functions of GOT
Utility setting type	Abbreviation for user program creation using the communication settings utility
Program setting type	Abbreviation for user program creation without using the communication settings utility
ACT controls	Generic term for ActiveX controls offered by MX Component
Redundant CPU	Generic term for Q12PRHCPU and Q25PRHCPU
Redundant type extension base unit	Abbreviation for Q65WRB extension base unit for redundant system

Generic Term/Abbreviation	Description
	Generic term for Microsoft [®] Windows [®] 7 Starter Operating System,
	Microsoft [®] Windows [®] 7 Home Premium Operating System,
	Microsoft [®] Windows [®] 7 Professional Operating System,
Windows [®] 7	Microsoft [®] Windows [®] 7 Ultimate Operating System and
	Microsoft [®] Windows [®] 7 Enterprise Operating System
	Note that the 32-bit version is designated as "32-bit Windows [®] 7", and the 64-bit
	version is designated as "64-bit Windows [®] 7".
	Generic term for Microsoft [®] Windows Vista [®] Home Basic Operating System,
	Microsoft [®] Windows Vista [®] Home Premium Operating System,
Windows Vista [®]	Microsoft [®] Windows Vista [®] Business Operating System,
	Microsoft [®] Windows Vista [®] Ultimate Operating System and
	Microsoft [®] Windows Vista [®] Enterprise Operating System
Windows [®] XP	Generic term for Microsoft [®] Windows [®] XP Professional Operating System and
	Microsoft [®] Windows [®] XP Home Edition Operating System
Visual Basic [®] .NET	Generic term for Visual Basic version Visual Studio [®] .NET 2003,
	Visual Studio [®] 2005, Visual Studio [®] 2008, and Visual Studio [®] 2010
Visual C++ [®] .NET	Abbreviation for creation of an application using .NET Framework

MEANINGS AND DEFINITIONS OF TERMS

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

(1) Logical station number

The connection target information necessary to open the communication line is combined into one data using the communication setup utility, and that data is provided with a logical number.

This number may be used with the utility setting type only.



(Example) For CPU COM communication

Target information up to CPU to communicate with is combined into one data, to which logical station number is assigned.

(2) Utility setting type

The communication setup utility (logical station number) is used to create a user program.

In the user program, the communication line can be connected easily by simply specifying the logical station number set on the communication setting wizard. Use ActEasyIF and ActMLEasyIF.

(3) Program setting type

A user program is created without using the communication setup utility. Make ACT control settings for the corresponding communication in the user program or on the property page or like of Visual Basic[®] or Visual C++[®]. The properties necessary to be set depend on the ACT control. Use the control other than ActEasyIF and ActMLEasyIF.

1 OVERVIEW

MX Component is a tool designed to implement communication from an IBM-PC/AT compatible personal computer to the programmable controller without any knowledge of communication protocols and modules.

Use of common functions has made it extremely easy to develop serial communication and Ethernet communication programs which had been troublesome and complex. When applying any of the following program examples to the actual system, make sure to examine the applicability and confirm that no problem will occur in the system control.

1.1 Features

MX Component has the following features.

(1) Support of a wide range of communication paths for programmable controller

A wide range of communication paths to the programmable controller are supported to enable the user to configure up a system as desired.

(2) Substantial improvement in user's development efficiency MX Component comes with the wizard type communication setup utility. By simply making interactive settings on the screen, the user can achieve communication settings to access the programmable controller CPU to communicate with.

Once the communication settings have been made, access can be made by merely specifying the logical station number of the programmable controller stored on the communication setup utility.

(3) Save and read of communication settings

MX Component has the functions to save and read the communication settings made on the communication setup utility.

You can move the set data easily from the IBM-PC/AT compatible used for development to the actually used IBM-PC/AT compatible.

Note: MX Component must have been installed in both the IBM-PC/AT compatible used for development and the actually used IBM-PC/AT compatible.



(4) Device monitor function

Utilizing the PLC monitor utility enables you to monitor the status of the specified device and change its data. *1



*1: Device data of the QSCPU cannot be changed.

(5) Access to buffer memory of special function module

Access can be made to not only the devices of the programmable controller CPU but also the buffer memory of an intelligent function or special function module.



- *2: Buffer memory data of the QSCPU cannot be written.
- (6) Read/write of programmable controller CPU clock data You can read and write the clock data of the programmable controller CPU connected to the IBM-PC/AT compatible. *3



*3: Clock data of the QSCPU cannot be written.

(7) Multithread communication

Access to the same communication path can be made from multiple threads at the same time.



 (8) GX Simulator or the simulator function of GX Works2 (GX Simulator2) for offline debugging *4

By using GX Developer and GX Simulator or the simulation function of GX Works2, you can perform debugging on a single IBM-PC/AT compatible without connecting the programmable controller.



*4: This function is not available with the QSCPU.

POINT

- GX Developer and GX Simulator are separately required to use the GX Simulator.
- GX Works2 is separately required to use GX Simulator2.
- The maximum of 4 projects can be simulated simultaneously.

- (9) A wide variety of programming languages supported MX Component supports VBScript and VBA as well as Visual Basic[®] and Visual C++[®].
 - (a) Creation of monitoring page using VBScript
 - Monitoring page can be created in HTML format Using the text editor, you can create a graphical monitoring home page (HTML format).

You need not purchase Visual Basic®, Visual C++® or like.



2) Using ASP function for monitoring via Internet/intranet Using the ASP function of VBScript to make public the Web pages on the factory side (side which monitors data using MX Component) enables the programmable controller device status or fault occurrence time remote operation to be performed from a remote location or business destination via the Internet/intranet by merely specifying the factory side URL on Internet Explorer.


(b) VBA-driven data collection and monitoring function

Programming using VBA allows Excel or Access functions to be utilized to create an application for providing a real-time graph display. You can log the device data of the programmable controller and collect/save the device data in real time.



- (10) Compatibility with multi-CPU system of QCPU (Q mode) Setting the communication setting utility or ACT control properties enables access to the multi-CPU system.
- (11) Operability on PC CPU module

Q series bus communication from the PC CPU module enables access to the QCPU (Q mode) on the same base.

Using the MELSECNET/H communication control and CC-Link communication control enables access to other stations via the MELSECNET/H module and CC-Link module controlled by the PC CPU module.



(12) Accessibility to gateway devices of GOT

Using the gateway function communication of MX Component can read/write the gateway device data of the GOT.

Reading/writing the gateway device data of the GOT can read/write the device data of the programmable controller CPU that is being monitored by the GOT.



(13) Compatibility with GOT transparent function Using the GOT transparent function, you can access the programmable controller CPU via GOT



(14) Reduction of error definition search time

The ActSupport control for troubleshooting function is supported. The error definition and corrective action appear within the user application by

only specifying the error code.

This eliminates the need to find the error definition or corrective action by referring to the programming manual, if an error occurs in ACT control. <Example of displaying error definition in message box>

ActSupport Error definition and corrective action are displa		
USB driver connect error Connection of the USB driver failed. The corrective action is as follows: Exit the program and restart the IBM-F Reinstall MX Component.	PC/AT compatible.	
<errorcode:1808502[hex]></errorcode:1808502[hex]>		
(OK]		

2 SYSTEM CONFIGURATIONS

This chapter explains the system configurations, operating environment and usable CPUs of MX Component.

2.1 System Configuration List

This section lists the systems that may be configured for each operating system.

2.1.1 When using Windows NT® Workstation Operating System Version 4.0

The following table lists the systems that may be configured for the use of Windows NT^{\otimes} Workstation 4.0.

Item	Description	
Computer link communication		0
Ethernet communication		0
CPU COM communication		0
CPU USB communication		× *1
		0
MELSECNET/10 communication	Usable board	MELSECNET/10 board
	Usable driver	SW2DNF-MNET10 or later
		0
MELSECNET/H communication	Usable board	MELSECNET/H board
	Usable driver	SW0DNC-MNETH-B or later
CC-Link IE Controller Network com	munication	×
CC-Link IE Field Network communication		×
		0
CC-Link communication	Usable board	CC-Link board
	Usable driver	SW2DNF-CCLINK or later
CC-Link G4 communication		0
		0
CPU board communication	Usable board	CPU board
	Usable driver	SW0DNF-ANU-B or later
Q series bus communication (only when PC CPU module is used	d)	0
GX Simulator communication		0
GX Simulator2 communication		×
Modem communication		0
Gateway function communication		0
	Serial	0
GOT transparent communication	USB	×
		O: Configurable X: Not configurable

*1: Does not support the used OS.

POINT Use GX Developer and GX Simulator of the following version or later when making GX Simulator communication.

• GX Developer Version 5 (SW5D5C-GPPW-E)

• GX Simulator (SW5D5C-LLT-E 10B)

2

2.1.2 When using Windows® 95 Operating System

The following table lists the systems that may be configured for the use of Windows $^{\circ}$ 95.

Item	Description		
Computer link communication		0	
Ethernet communication		0	
CPU COM communication		0	
CPU USB communication		× *1	
	_	0	
MELSECNET/10 communication	Usable board	MELSECNET/10 board	
	Usable driver	SW2DNF-MNET10 or later	
		0	
MELSECNET/H communication	Usable board	MELSECNET/H board	
	Usable driver	SW0DNC-MNETH-B or later	
CC-Link IE Controller Network com	×		
CC-Link IE Field Network communication		×	
		0	
CC-Link communication	Usable board	CC-Link board	
	Usable driver	SW2DNF-CCLINK or later	
CC-Link G4 communication		0	
CPU board communication		×	
Q series bus communication		×	
(only when PC CPU module is used	d)		
GX Simulator communication		0	
GX Simulator2 communication		×	
Modem communication		0	
Gateway function communication		0	
GOT transparent communication	Serial	0	
	USB	×	

 \bigcirc : Configurable \times : Not configurable

*1: Does not support the used OS.

POINT

- (1) On Windows[®] 95, a memory leak will occur if any of the following communications is made using the COM port. Therefore, do not perform continuous operation.
 Computer link communication
 - CPU COM communication
 - CC-Link G4 communication
 - Modem communication
- (2) Use GX Developer and GX Simulator of the following version or later when making GX Simulator communication.
 - GX Developer Version 5 (SW5D5C-GPPW-E)
 - GX Simulator (SW5D5C-LLT-E 10B)

2.1.3 When using Windows® 98 Operating System

The following table lists the systems that may be configured for the use of Windows[®] 98.

Item	Description		
Computer link communication		0	
Ethernet communication		0	
CPU COM communication		0	
CPU USB communication		0	
		0	
MELSECNET/10 communication	Usable board	MELSECNET/10 board	
	Usable driver	SW2DNF-MNET10 or later	
		0	
MELSECNET/H communication	Usable board	MELSECNET/H board	
	Usable driver	SW0DNC-MNETH-B or later	
CC-Link IE Controller Network communication		×	
CC-Link IE Field Network communication		×	
		0	
CC-Link communication	Usable board	CC-Link board	
	Usable driver	SW2DNF-CCLINK or later	
CC-Link G4 communication		0	
CPU board communication		×	
Q series bus communication		×	
(only when PC CPU module is used)		^	
GX Simulator communication		0	
GX Simulator2 communication		×	
Modem communication		0	
Gateway function communication		0	
GOT transparent communication		0	

 \bigcirc : Configurable \times : Not configurable

POINT

Use GX Developer and GX Simulator of the following version or later when making GX Simulator communication.

• GX Developer Version 5 (SW5D5C-GPPW-E)

• GX Simulator (SW5D5C-LLT-E 10B)

2.1.4 When using Windows® 2000 Professional Operating System

The following table lists the systems that may be configured for the use of Windows[®] 2000 Professional.

Item	Description		
Computer link communication		0	
Ethernet communication		0	
CPU COM communication		0	
CPU USB communication		0	
MELSECNET/10 communication		imes (Refer to POINT 2).)	
		0	
MELSECNET/H communication	Usable board	MELSECNET/H board	
	Usable driver	SW0DNC-MNETH-B or later	
CC Link IF Controller Natural		0	
CC-Link IE Controller Network communication	Usable board	CC-Link IE Controller Network board	
communication	Usable driver	SW1DNC-MNETG-B or later	
		0	
CC-Link IE Field Network communication	Usable board	CC-Link IE Field Network board	
	Usable driver	SW1DNC-CCIEF-J,	
		SW1DNC-CCIEF-B or later	
		0	
CC-Link communication	Usable board	CC-Link board	
	Usable driver	SW4DNF-CCLINK or later	
CC-Link G4 communication		0	
		0	
CPU board communication	Usable board	CPU board	
	Usable driver	SW1DNF-ANU-B or later	
Q series bus communication		×	
(only when PC CPU module is used)			
GX Simulator communication		0	
GX Simulator2 communication		0	
Modem communication		0	
Gateway function communication		0	
GOT transparent communication		0	

 \bigcirc : Configurable \times : Not configurable

POINT

- (1) Use GX Developer and GX Simulator of the following version or later when making GX Simulator communication.
 - GX Developer Version 7 (SW7D5C-GPPW-E)
 - GX Simulator Version 6 (SW6D5C-LLT-E)
- (2) Use the MELSECNET/H board (NET/10 mode), as the MELSECNET/10 board is incompatible.

2.1.5 When using Windows® Millennium Edition Operating System

The following table lists the systems that may be configured for the use of Windows $^{\ensuremath{\circledast}}$ Me.

Item	Description		
Computer link communication	0		
Ethernet communication	0		
CPU COM communication	0		
CPU USB communication	0		
MELSECNET/10 communication	×		
MELSECNET/H communication	×		
CC-Link IE Controller Network communication	×		
CC-Link IE Field Network communication	×		
CC-Link communication	×		
CC-Link G4 communication	0		
CPU board communication	×		
Q series bus communication (only when PC CPU module is used)	×		
GX Simulator communication	0		
GX Simulator2 communication	×		
Modem communication	0		
Gateway function communication	0		
GOT transparent communication	0		

 \bigcirc : Configurable \times : Not configurable

POINT

- (1) Use GX Developer and GX Simulator of the following version or later when making GX Simulator communication.
 - GX Developer Version 7 (SW7D5C-GPPW-E)
 - GX Simulator Version 6 (SW6D5C-LLT-E)
- (2) The ASP function of VBScript cannot be used.

2.1.6 When using Windows® XP Professional Operating System

The following table lists the systems that may be configured for the use of Windows[®] XP Professional.

Item		Description	
Computer link communication		0	
Ethernet communication		0	
CPU COM communication		0	
CPU USB communication		0	
MELSECNET/10 communication		imes (Refer to POINT.)	
MELSECNET/H communication		○ *1	
		0	
CC-Link IE Controller Network communication	Usable board	CC-Link IE Controller Network board	
communication	Usable driver	SW1DNC-MNETG-B or later	
		0	
CC-Link IE Field Network	Usable board	CC-Link IE Field Network board	
communication	Usable driver	SW1DNC-CCIEF-J,	
		SW1DNC-CCIEF-B or later	
CC-Link communication		○ *2	
CC-Link G4 communication		0	
CPU board communication		×	
Q series bus communication		×	
(only when PC CPU module is used)		^	
GX Simulator communication		0	
GX Simulator2 communication		0	
Modem communication		0	
Gateway function communication		0	
GOT transparent communication		0	

 \bigcirc : Configurable \times : Not configurable

- *1: Usable only when communication driver SW0DNC-MNETH-B Version 70H or later is used.
- *2: Usable only when communication driver SW4DNF-CCLINK-B Version 40E or later is used.

POINT

Use the MELSECNET/H board (NET/10 mode), as the MELSECNET/10 board is incompatible.

2.1.7 When using Windows® XP Home Edition Operating System

The following table lists the systems that may be configured for the use of Windows® XP Home Edition.

Item		Description	
Computer link communication		0	
Ethernet communication		0	
CPU COM communication		0	
CPU USB communication		0	
MELSECNET/10 communication		×	
MELSECNET/H communication		×	
		0	
CC-Link IE Controller Network communication	Usable board	CC-Link IE Controller Network board	
communication	Usable driver	SW1DNC-MNETG-B or later	
		0	
CC-Link IE Field Network	Usable board	CC-Link IE Field Network board	
communication	Usable driver	SW1DNC-CCIEF-J,	
	USADIE UTIVEI	SW1DNC-CCIEF-B or later	
CC-Link communication		×	
CC-Link G4 communication		0	
CPU board communication		×	
Q series bus communication		×	
(only when PC CPU module is used)		~	
GX Simulator communication		0	
GX Simulator2 communication		×	
Modem communication		0	
Gateway function communication		0	
GOT transparent communication		0	

 \bigcirc : Configurable \times : Not configurable

POINT	
The ASP funct	ion of VBScript cannot be used.

2.1.8 When using Windows Vista® Operating System

The following table lists the systems that may be configured for the use of Windows $\mathsf{Vista}^{\scriptscriptstyle (\! 8\!)}$.

Item	Description	
Computer link communication	0	
Ethernet communication	0	
CPU COM communication	0	
CPU USB communication	0	
MELSECNET/10 communication	×	
MELSECNET/H communication	0	
CC-Link IE Controller Network communication	0	
CC-Link IE Field Network communication	0	
CC-Link communication	0	
CC-Link G4 communication	0	
CPU board communication	×	
Q series bus communication (only when PC CPU module is used)	×	
GX Simulator communication	0	
GX Simulator2 communication	0	
Modem communication	0	
Gateway function communication	0	
GOT transparent communication	0	

 \bigcirc : Configurable \times : Not configurable

2.1.9 When using Windows® 7 Operating System

The following table lists the systems that may be configured for the use of Windows $^{\circ}$ 7.

Itom	Description		
Item	32-bit version	64-bit version	
Computer link communication	0	0	
Ethernet communication	0	0	
CPU COM communication	0	0	
CPU USB communication	0	0	
MELSECNET/10 communication	×	×	
MELSECNET/H communication	0	×	
CC-Link IE Controller Network communication	0	×	
CC-Link IE Field Network communication	0	×	
CC-Link communication	0	×	
CC-Link G4 communication	0	0	
CPU board communication	×	×	
Q series bus communication (only when PC CPU module is used)	×	×	
GX Simulator communication	0	0	
GX Simulator2 communication	0	0	
Modem communication	0	0	
Gateway function communication	0	0	
GOT transparent communication	0	0	

 \bigcirc : Configurable \times : Not configurable

2.2 System Configuration for the Use of Each Connection Form

This section provides the system configurations for the use of MX Component on a communication form basis.

For details and precautions on each communication form, refer to Section 2.2.2.

2.2.1 System configurations





2.2.2 Details of the communication forms

The table at top right of each communication format explanation indicates whether the communication format can be made up when the OSes are used.

(Example) Windows NT[®] Workstation 4.0, Windows[®] 95, and 64-bit Windows[®] 7 are not supported.

Windows[®] 98, Windows[®] 2000 Professional, Windows[®] Me, Windows[®] XP, Windows Vista[®] , and 32-bit Windows[®] 7 are supported.

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
\times	×	0	0	0	0	0	0	\times

NT: Windows NT[®] Workstation 4.0, 95: Windows[®] 95, 98: Windows[®] 98, 2000: Windows[®] 2000 Professional, Me: Windows[®] Me, XP: Windows[®] XP, Vista: Windows Vista[®],

7(32): 32-bit Windows® 7, 7(64): 64-bit Windows® 7

 \bigcirc : Configurable \times : Not configurable

(1) Computer link communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	0	0	0	0	0	0	0	0

For the way to make connection to the computer link module, refer to the manual of your computer link module.

(a) Precaution

Computer link communication made on Windows[®] 95 will cause a memory leak. Therefore do not perform continuous operation.

- (b) Usable modules
 - 1) Any of the following computer link modules may be used to access the programmable controller CPU.

	Usable Modules
C24	A1SCPUC24-R2*1, A1SJ71C24-PRF*2, A1SJ71C24-R2*2, A1SJ71C24-R4*2, A2CCPUC24*3, A2CCPUC24-PRF*3, AJ71C24-S6, AJ71C24-S8
UC24	AJ71UC24, A1SJ71UC24-R2, A1SJ71UC24-R4, A1SJ71UC24-PRF
QC24(N)	AJ71QC24, AJ71QC24-R2, AJ71QC24-R4, A1SJ71QC24, A1SJ71QC24-R2, AJ71QC24N, AJ71QC24N-R2, AJ71QC24N-R4, A1SJ71QC24N, A1SJ71QC24N-R2
Q series-compatible C24	QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71C24N-R4
L series-compatible C24	LJ71C24, LJ71C24-R2
FX extended port	FX0N-485ADP, FX2NC-485ADP, FX3U-485ADP, FX1N-485-BD, FX2N-485-BD, FX3G-485-BD, FX3U-485-BD

*1: Handled as equivalent to the UC24.

- *2: Modules of software version "M" or later are handled as equivalent to the UC24.
- *3: Modules of software version "K" or later are handled as equivalent to the UC24.

2) About connection of usable modules

When a computer link module is used to make access from the IBM-PC/AT compatible to the programmable controller CPU, note that three are restrictions on the modules connectable directly to the IBM-PC/AT compatible.

If the module cannot be connected directly to the IBM-PC/AT compatible, it may be used as the "n"th module of multidrop.

Time	late of a se	1:1	Mult	idrop
Туре	Interface	Connection	First module	"n"th module
A200001024	RS-232	0	0	×
A2CCPUC24 A2CCPUC24-PRF	RS-422	×	×	×
AZCCFUCZ4-FRF	RS-422/485	×	×	0
AJ71C24-S6	RS-232	0	0	×
AJ71C24-S8	RS-422	×	×	0
A1SCPUC24-R2 A1SJ71C24-PRF A1SJ71C24-R2	RS-232	0	×	×
A1SJ71C24-R4	RS-422/485	×	×	0
AJ71UC24	RS-232	0	0	×
A37 10024	RS-422/485	\times	×	0
A1SJ71UC24-R2 A1SJ71UC24-PRF	RS-232	0	×	×
A1SJ71UC24-R4	RS-422/485	×	×	0
AJ71QC24/AJ71QC24N	RS-232	0	0	×
A1SJ71QC24/A1SJ71QC24N	RS-422/485	×	×	0
AJ71QC24-R2 A1SJ71QC24-R2	RS-232(CH.1)	0	×	×
AJ71QC24N-R2 A1SJ71QC24N-R2	RS-232(CH.2)	×	×	×
AJ71QC24-R4	RS-422	×	×	×
AJ71QC24N-R4	RS-422/485	×	×	0
0 174 004/0 174 004N	RS-232	0	0	×
QJ71C24/QJ71C24N	RS-422/485	×	×	0
QJ71C24-R2/QJ71C24N-R2	RS-232(CH.1)	0	×	×
QJ71024-R2/QJ71024N-R2	RS-232(CH.2)	O *1	×	×
QJ71C24N-R4	RS-422/485(CH.1)	×	×	0
	RS-422/485(CH.2)	×	×	0
LJ71C24	RS-232	0	0	×
	RS-422/485	×	×	0
LJ71C24-R2	RS-232(CH.1)	0	×	×
LJ7 1024-NZ	RS-232(CH.2)	0	×	×
FX _{0N} -485ADP FX _{2NC} -485ADP FX _{3U} -485ADP FX _{1N} -485-BD FX _{2N} -485-BD FX _{3G} -485-BD	RS-422/485	0	0	0
FX3U-485-BD				

- (c) Switch settings of the computer link module For the switch settings for the use of MX Component, refer to "Section 6.1.1 Switch settings of computer link modules".
- (d) Cable for connection
 For the connection cable, refer to the manual of your computer link module.
 Refer to Appendix 3 for cable pin assignment.

POINT

Only the RS-232 connector may be used for connection of the IBM-PC/AT compatible and computer link (serial communication) module.

The RS-422 connector or RS-422/485 terminal block cannot be used.

(2) Ethernet communication

1) In case of using Ethernet interface modules

N	Т	95	98	2000	Me	XP	Vista	7(32)	7(64)
()	0	0	0	0	0	0	0	0

For the way to make connection to the Ethernet module, refer to the manual of your Ethernet module.

(a) Precaution

The accessible range for Ethernet communication is the same segment only. Access cannot be made beyond the router and gateway.

(b) Usable modules

Any of the following Ethernet modules may be used to access the programmable controller CPU.

For the FX series Ethernet module, refer to the user's manuals for the FX series.

	Usable Modules
E71 *1	AJ71E71, AJ71E71-S3, A1SJ71E71-B2, A1SJ71E71-B5, A1SJ71E71B2-S3, A1SJ71E71B5-S3, AJ71E71N-T, AJ71E71N-B5, AJ71E71N-B2, AJ71E71N-B5T, AJ71E71N3-T, A1SJ71E71N-T, A1SJ71E71N3-T, A1SJ71E71N-B5,
QE71 *2	A1SJ71E71N-B2, A1SJ71E71N-B5T AJ71QE71, AJ71QE71-B5, A1SJ71QE71-B2, A1SJ71QE71-B5, AJ71QE71N-T, AJ71QE71N-B5, AJ71QE71N-B2, AJ71QE71N3-T, AJ71QE71N-B5T, A1SJ71QE71N-T, A1SJ71QE71N3-T, A1SJ71QE71N-B5, A1SJ71QE71N-B2, A1SJ71QE71N-B5T
Q series-compatible E71	QJ71E71, QJ71E71-B2, QJ71E71-B5, QJ71E71-100

*1: Accessible as equivalent to the AnACPU when fitted to the AnUCPU.

*2: An error will occur if monitoring via QnA Ethernet and monitoring via other communication path are executed for the same CPU simultaneously.

(c) Switch settings of the Ethernet module

For the switch settings for the use of MX Component, refer to "Section 6.2.1 Switch settings of Ethernet modules".

2) In case of using Built-in Ethernet port QCPUs

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	0	0	0	0	0	0	0	0

For the way to make connection to the Built-in Ethernet port QCPU, refer to the manual of your Built-in Ethernet port QCPU.

(a) Precaution

The accessible range for the direct connection without specifying the IP address is the same segment only.

Access cannot be made beyond the router and gateway.

(3) CPU COM communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	0	0	0	0	0	0	0	0

(a) Precaution

CPU COM communication made on Windows[®] 95 will cause a memory leak. Therefore do not perform continuous operation.

(b) Cables for connection

1) Cable for connection of QCPU(Q mode), LCPU, and QCPU(A mode)

The following cable is needed to make communications between the IBM-PC/AT compatible and of QCPU(Q mode) and QCPU(A mode). RS232 adaptor (L6ADP-R2) is needed for the connection of LCPU. When communication is to be made at 115200bps or 57600bps, fast communication cannot be performed if the used IBM-PC/AT compatible does not support 115200bps or 57600bps communication speed.

If a communication error occurs, reduce the transmission speed setting and restart communication.



2) Cables for connection of ACPU, QnACPU or FXCPU The following cables are needed to make communications between the IBM-PC/AT compatible and ACPU, QnACPU or FXCPU.



*1: How to identify compatible product of F2-232CAB-1 cable Check the indication on the type label attached to the cable.

Incompatible product Indicates as a compatible product (with indication of F/FX/A)

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

- When connecting to the FX3GCPU, FX3UCPU or FX3UCCPU using the FX-232AWC-H, select any of 9600bps, 19200bps, 38400bps, 57600bps or 115200bps for the transmission speed.
 When connecting using the FX-232AWC or FX-232AW, select either 9600bps or 19200bps for the transmission speed.
- Cables for connection of motion controller CPU For communications between the IBM-PC/AT compatible and motion controller CPU, use the cables as indicated in 2).
- 4) Converter/Cable (FX CPU compatible) for connecting to the USB on personal computer
 - Applicable devices



 Above devices can be used when the driver included in the product (CD-ROM) has been installed into either of the following operating systems; Windows[®] 98, Windows[®] Me, Windows[®] 2000 Professional, Windows[®] XP, Windows Vista[®], and 32-bit Windows[®] 7.

- 5) USB cable and function expansion board (FX3U, FX3Uc compatible)
 - a) System configuration



 b) If "Operate communication setting" is checked on the <<PLC System (2)>> tab in the [FX Parameter] dialog box of GX Developer, the corresponding port cannot be used for communication with the programmable controller. In this case, write the setting, where the above setting has been removed, from the built-in programming port of the programmable controller.

X parameter		
Memory capacity Device PLC name	1/0 assignment F	PLC system(1) PLC system(2) Position Setting
Operate (Whe	n GX Developer trans neters and D8120 val	he parameters will be cleared. sfer the program to the communication board, ues in the PLC must be cleard upon program
Protocol	Ţ	Control line
Data length	T	H/W type
Parity	~	Control mode
Stop bit	Ţ	Sum sheck
Transmission speed-	(bps)	Transmission control procedure
☐ Header		Station number setting H (00H0FH)
Terminator		Time out judge time X10ms (1255)
	Default	

When the CPU type of the project is the FX_{3UC} , the channel specification (CH1/CH2) combo box is displayed. Set to CH1 and check the settings.

- c) When Windows[®] 98, Windows[®] Me, Windows[®] 2000 Professional, Windows[®] XP, Windows Vista[®], or 32-bit Windows[®] 7 is used, the USB cable and function expansion board are available if the driver on the CD-ROM packed with the FX-USB-AW or FX_{3U} -USB-BD has been installed.
- d) The USB cable and function expansion board are unavailable for Windows[®] 95 or Windows NT[®] Workstation 4.0.
- e) For the precautions and restrictions on use of the FX_{3U}-USB-BD, refer to the manual packed with the FX_{3U}-USB-BD.

Series	Function expansion board
FX3U, FX3UC	FX₃∪-422-BD
FX3G	FX3G-422-BD
FX2N	FX _{2N} -422-BD
FX1s, FX1N	FX1N-422-BD

If "Operate communication setting" is checked on the <<PLC system (2)>> tab in the "FX Parameter" dialog box of GX Developer, the corresponding port cannot be used for communication with the programmable controller. In this case, write the setting, where the above setting has been removed, from the built-in programming port of the programmable controller.

FX parameter	
Memory capacity Device PLC name 1/0 assignment P	LC system(1) PLC system(2) Position Setting
ALC OVER 1	ne parameters will be cleared.
communication parameters and D8120 value	fer the program to the communication board, ues in the PLC must be cleard upon program
setting transfer.)	
Protocol	
Data length	-H/W type
Parity	Control mode
Stop bit	
	Sum check
	Transmission control procedure
(bps)	
	- Station number setting
F Header	H (OOH-OFH)
	Time out judge time
Terminator	×10ms (1255)
Default	Check End Cancel
Default	CrieckCriuCancel

When the CPU type of the project is the FX_{3G} or FX_{3U(C)}, the channel specification (CH1/CH2) combo box is displayed. Set to CH1 and check the settings.

Serial port shape of personal computer	Series	Required function expansion board and special adaptor	RS-232 cable
	FX3U, FX3UC	FX3U-232-BD	FX-232CAB-1
	FA30, FA30C	Function expansion board (FX _{3U} -***-BD) + FX _{3U} -232ADP* ¹	- FA-232CAD-1
	FX3G	FX3G-232-BD	FX-232CAB-1
	FA3G	FX3G-CNV-ADP + FX3U-232ADP	FX-232CAD-1
		FX0N-232ADP + FX2N-CNV-BD	F2-232CAB-1
D sub 9 pin	FX _{2N}	FX2N-232-BD	
D Sub 9 pin		FX2NC-232ADP + FX2N-CNV-BD	FX-232CAB-1
		FX0N-232ADP	F2-232CAB-1
	FX1NC, FX2NC	FX2NC-232ADP	FX-232CAB-1
		FX0N-232ADP + FX1N-CNV-BD	F2-232CAB-1
	FX1s, FX1N	FX1N-232-BD	
		FX2NC-232ADP + FX1N-CNV-BD	FX-232CAB-1
	FX3U, FX3UC	, FX₃∪-232-BD	
		Function expansion board (FX _{3U} -***-BD) + FX _{3U} -232ADP* ¹	FX-232CAB-1
	EV	FX3G-232-BD	F0 0000AD 4
	FX3G	FX3G-CNV-ADP + FX3U-232ADP	F2-232CAB-1
		FX0N-232ADP + FX2N-CNV-BD	F2-232CAB
Daub 05 min	FX _{2N}	FX2N-232-BD	
D sub 25 pin		FX2NC-232ADP + FX2N-CNV-BD	FX-232CAB-1
		FX0N-232ADP	F2-232CAB
	FX1NC, FX2NC	FX2NC-232ADP	FX-232CAB-1
		FX0N-232ADP + FX1N-CNV-BD	F2-232CAB
	FX1s, FX1N	FX1N-232-BD	
		FX2NC-232ADP + FX1N-CNV-BD	FX-232CAB-1

7) RS-232 cable and function expansion board (special adaptor) for FXCPU

*1: *** of the function expansion board (FX $_{3\cup}$ -***-BD) indicates 232, 485, 422, USB or CNV.

Regarding FX_{3UC} series, only FX_{3UC}-32MT-LTCPU and FX_{3UC}-32MT-LT-2 CPU are connectable.

The computer link communication is also available for the FX_{3U} -485-BD. For setting for the computer link communication, refer to Section 6.1.1 (4).

If "Operate communication setting" is checked on the <<PLC System (2)>> tab in the "FX Parameter" dialog box of GX Developer, the corresponding port cannot be used for communication with the programmable controller.

In this case, write the setting, where the above setting has been removed, from the built-in programming port of the programmable controller.

Memory capacity Device PLC name I/D assignment PLC system(1) PLC system(2) Position Setting CH1 If the box is not checked, the parameters will be cleared (When BX Developer transfer the program to the communication board, parameters and D8120 values in the PLC must be cleared upon program transfer.) Protocol If the box is not checked, the parameters will be cleared Protocol Control ine Data length H/W Uype Parity Control mode Stop bit Control mode
Protocol
Protocol
Communication parameters and D8120 values in the PLC must be cleard upon program setting Protocol Control line Parity Parity Stop bit
Control line Control line Control mode C
Parity Control mode
Parity - Control mode - Invalid
Stop bit
Stop bit
Stop bit
Sum check
Transmission speed
[bps]
Station number setting
Time out judge time
Terminator X10ms (1-255)
Default Check End Cancel

When the CPU type of the project is the FX_{3G} or FX_{3U(C)}, the channel specification (CH1/CH2) combo box is displayed.

When using the FX₃U-232-BD or the first FX₃U-232ADP connected to the FX₃U-CNV-BD, set CH1 and check the settings.

When using the FX₃U-232ADP connected to other than the FX₃U-CNV-BD or the second FX₃U-232ADP connected to the FX₃U-CNV-BD, set CH2 and check the settings.

POINT

- Before handling the RS-422 interface conversion cable/converter, please read its specifications, precautions, etc. carefully in the manual of the corresponding product and handle it correctly.
- When disconnecting or reconnecting the conversion cable/converter that receives 5VDC power from the RS-422 interface, power off the programmable controller CPU before starting work.
- When disconnecting or reconnecting the peripheral device or conversion cable that does not receive 5VDC power from the RS-422 interface (whose power is supplied from an external power supply), be sure to use an earth band or touch a grounded metal object, etc. before starting work to discharge static electricity from the cable, human body, etc. After that, handle it in the following procedure.
 - 1) Power off the personal computer.
 - 2) Power off the conversion cable/converter. When it has an FG terminal, ground it.
 - 3) Connect/disconnect the conversion cable/converter between the personal computer and programmable controller CPU.
 - 4) Power on the conversion cable/converter.
 - 5) Power on the personal computer.
 - 6) Start up the software package.

(4) CPU USB communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
\times	\times	0	0	0	0	0	0	0

- (a) Precautions
 - 1) Windows[®] 98, Windows[®] 2000 Professional, Windows[®] Me, Windows[®] XP, Windows Vista[®], Windows[®] 7 may be used when the USB driver has been installed.
 - 2) When using Windows[®] 2000 Professional, Windows[®] XP, Windows Vista[®], Windows[®] 7, the user must install the USB driver.
- (b) About the USB cable (QCPU (Q mode) compatible)
 - 1) When the USB cable is used, only one programmable controller CPU may be connected.
 - Refer to "Operating Instructions" for the precautions for and restrictions on use of the USB cable to make communications.
- (c) Usable modules Refer to "Access Target" of the accessible device table in Section 8.5.1.

(5) MELSECNET/10 communication

I	NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
	0	0	0	\times	×	\times	\times	\times	\times

(a) Precautions

1) Always use any of the following communication drivers. Other communication drivers cannot be used.

Used OS	SW2DNF-MNET10	SW3DNF-MNET10
Windows NT [®] Workstation 4.0	0	0
Windows [®] 95	0	0
Windows [®] 98	0	0
Windows [®] 2000 Professional	×	×
Windows [®] Me	×	×
Windows [®] XP Professional	×	×
Windows [®] XP Home Edition	×	×
Windows Vista®	×	×
Windows [®] 7	×	×

 \bigcirc : Usable, \times : Unusable

(6) MELSECNET/H communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	0	0	0	×	0	0	0	×

(a) Precautions

 As the communication driver, always use SW0DNC-MNETH or later.

Any other communication driver is unusable.

- 2) For details of the supported operating system of the network board to be used for communication, refer to the manual of each network board.
- (7) CC-Link IE Controller Network communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
×	×	×	0	×	0	0	0	\times

- (a) Precautions
 - 1) As the communication driver, always use SW1DNC-MNETG-B or later.

Any other communication driver is unusable.

2) For details of the supported operating system of the network board to be used for communication, refer to the manual of each network board.

(8) CC-Link IE Field Network communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
\times	\times	\times	0	×	0	0	0	\times

- (a) Precautions
 - As the communication driver, always use SW1DNC-CCIEF-J, SW1DNC-CCIEF-B or later. Any other communication driver is unusable.
 - 2) For details of the supported operating system of the network board to be used for communication, refer to the manual of each network board.
- (9) CC-Link communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	0	0	0	×	0	0	0	\times

- (a) Precautions
 - 1) Always use any of the following communication drivers. Other communication drivers cannot be used.
 - 2) For details of the supported operating system of the network board to be used for communication, refer to the manual of each network board.

	A80BE	DE-J61BT11/A80BDE-	J61BT13	Q80BD- J61BT11N	Q81BD- J61BT11
Used OS	SW2DNF-CCLINK	SW3DNF-CCLINK	SW4DNF-CCLINK-B	SW1DNC	-CCBD2-B
Windows NT [®] Workstation 4.0	0	0	0	0	×
Windows [®] 95	0	0	0	×	×
Windows [®] 98	0	0	0	×	×
Windows [®] 2000 Professional	×	×	0	0	0
Windows [®] Me	×	×	×	×	×
Windows [®] XP Professional	×	×	O *1	0	0
Windows [®] XP Home Edition	×	×	×	0	0
Windows Vista®	×	×	×	O *2	O *2
32-bit Windows [®] 7	×	×	×	O *3	O *3

 \odot : Usable, \times : Unusable

- *1: Apply communication driver SW4DNF-CCLINK-B Version 40E or later to Windows[®] XP Professional.
- *3: Apply communication driver SW1DNC-CCBD2-B Version 1.08J or later to 32-bit Windows[®] 7.

3) The following are the CPUs that can be accessed by the communication drivers.

СРИ Туре	SW2DNF	SW2DNF-CCLINK		SW3DNF- CCLINK		-CCLINK-B	SW1DNC- CCBD2-B
	A to V *1	W to *2	A to V *1	W to *2	A to V *1	W to *2	-
ACPU (including motion controller CPU)	0	0	0	0	0	0	0
QCPU(A mode)	0	0	0	0	0	0	0
QnACPU	0	0	0	0	0	0	0
QCPU(Q mode)	×	×	×	0	×	0	0
LCPU	×	×	×	×	×	×	O ∗3

 \bigcirc : Accessible, imes : Inaccessible

- *1: For ROM versions "A" to "V" of CC-Link board
- *2: For ROM versions "W" and later of CC-Link board
- *3: For Version 1.07H or later
- 4) The CC-Link master station module used should be of software version "N" or later.

(10) CC-Link G4 communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	0	0	0	0	0	0	0	0

- (a) Precautions
 - Computer link communication made on Windows[®] 95 will cause a memory leak. Therefore do not perform continuous operation.
 - 2) The CC-Link G4 module used should be of software version "D" or later.
 - 3) The CC-Link master station module used should be of software version "N" or later.
- (b) Switch settings of the CC-Link G4 module For the switch settings for the use of MX Component, refer to "Section 6.7.1 Switch settings of CC-Link G4 module".
- (c) About cables
 Communications between the IBM-PC/AT compatible and CC-Link G4 module require the RS-232/RS-422 conversion cables as used in CPU COM communication.
 For more information, refer to "(3) (b) 2) Cables for connection of ACPU, QnACPU or FXCPU".

(11) CPU board communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	\times	\times	0	×	\times	\times	\times	\times

(a) Precautions

1) Always use any of the following communication drivers. Other communication drivers cannot be used.

Used OS	SW0DNF-ANU-B	SW1DNF-ANU-B
Windows NT [®] Workstation 4.0	0	0
Windows [®] 95	×	×
Windows [®] 98	×	×
Windows [®] 2000 Professional	×	0
Windows [®] Me	×	×
Windows [®] XP Professional	×	×
Windows [®] XP Home Edition	×	×
Windows Vista®	×	×
Windows [®] 7	×	×

 \bigcirc : Usable, \times : Unusable

- 2) Access to the QCPU (Q mode), LCPU and FXCPU cannot be made.
- (12) Q series bus communication (only when PC CPU module is used)

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	\times	\times	0	×	×	×	×	\times

(a) Precautions

 Use the MELSECNET/H communication and CC-Link communication controls to make access to other stations via the MELSECNET/H module and CC-Link module controlled by the PC CPU module.

(13) GX Simulator communication

ſ	NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
ſ	0	\times	\times	0	×	\times	\times	0	0

When making GX Simulator communication, use GX Developer and GX Simulator of the following versions or later.

Used OS	GX Developer	GX Simulator
Windows NT [®] Workstation 4.0		
Windows [®] 95	Version 5 (SW5D5C-GPPW-E) or later	Version 5 (SW5D5C-LLT-E 10B) or later
Windows [®] 98	oriater	or later
Windows [®] 2000 Professional	Version 7 (SW7D5C-GPPW-E)	Version 6 (SW6D5C-LLT-E)
Windows [®] Me	or later	or later
Windows [®] XP Professional		
Windows [®] XP Home Edition	Version 8 (SW8D5C-GPPW-E)	Version 7 (SW7D5C-LLT-E)
Windows Vista®	or later	or later
Windows [®] 7		

GX Developer and GX Simulator must be purchased separately.

(14) GX Simulator2 communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
\times	×	×	0	×	0	0	0	0

When making GX Simulator2 communication, use GX Works2 Version1 (SW1DNC-GXW2) or later.

GX Works2 must be purchased separately.

(15) Modem communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	0	0	0	0	0	0	0	0

- (a) Precautions
 - 1) When performing modem communication, make the setting in the parameters and sequence program for the connected module.

Use any of the following GX Developers to set the corresponding module.

Module	GX Developer
A6TEL, Q6TEL, FXCPU, QC24N	Version 3 (SW3D5C-GPPW-E/SW3D5F-GPPW-E) or later
Q series-compatible C24	Version 4 (SW4D5C-GPPW-E) or later

- 2) For modem communication using the FXCPU, only the FX1s, FX1N, FX1NC, FX2N, FX2NC, FX3G, FX3U, and FX3UC are applicable.
- Use the RS-232 cable supplied with the modem for connection between the personal computer and modem.

(b) Modem specifications

When performing modem communication, select the modem that satisfies the following specifications.

- 1) AT command compatibility (initialization command)
- Only the DR terminal can be turned ON (High) independently.
 (Example: The modem where the CD terminal turns ON when only the

DR terminal is turned ON is not applicable.)

 Communication Standards: ITU-T V.90/V.34/V.32bis/V.32/V.22BIS/V.22/V.21/V.FC Bell 212A/103

POINT

(1) MX Component is not compatible with manual line connection (connection via an operator).

Use a subscriber telephone line or private telephone line to perform modem communication.

- (2) It is required to set the COM port when performing modem communication by using modem built in the personal computer or the PC card (PCMCIA). For the COM port of the modem built in the personal computer or the PC card (PCMCIA), refer to the manual of the corresponding product.
- (3) For modem communication, the AT command, that is standard for some modems, is not executable.

If the line cannot be connected by selecting "Modem standard" for "AT command" within the communication settings utility, specify the AT command on the user side.

Refer to Section 5.1.7 for the setting of "AT command" within the communication settings utility.

(4) When using the callback function, use the Q Series Corresponding C24.

(16) Gateway function communication

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
0	0	0	0	0	0	0	0	0

- (a) Gateway function-compatible GOT For the gateway function-compatible GOT, refer to the Operating Manual (Gateway Functions) of the GOT.
- (b) About GOT setting and setting between GOT and programmable controller For the GOT setting and the setting between the GOT and programmable controller, refer to the Operating Manual (Gateway Functions) of the GOT.

(17) GOT transparent communication

ŀ

NT	95	98	2000	Me	XP	Vista	7(32)	7(64)
O*1	0	0	0	O*1	0	0	0	0

*1: Cannot be communicated via USB connection.

Communicable via GOT1000 series only.

For GOT setting and the setting between GOT and programmable controller, refer to the manual of GOT.

GOT1000 Series Connection Manual

2.3 Operating Environment

The following table summarizes the operating environment for MX Component.

Item		Description	
Computer	IBM PC/AT compatible personal computer	133MHz or more Pentium [®] *1 IBM PC/AT compatible personal computer where the OS operates.	
	PC CPU module	MELSEC-Q series compatible PC CPU module (CONTEC CO., LTD. make)	
Required m	emory	32MB or more *2	
Hard disk fr	ee space	100MB or more	
Disk drive		CD-ROM disk drive	
Display		Resolution 800 × 600 pixels or higher (1024 × 768 pixels or higher for Windows Vista $^{\circ}$)	
System Software		Microsoft® Windows® 2000 Professional Operating System (English version), Microsoft® Windows® Millennium Edition Operating System (English version), Microsoft® Windows® 95 Operating System (English version), Microsoft® Windows® 98 Operating System (English version), Microsoft® Windows® 98 Operating System (English version), Microsoft® Windows® XP Professional Operating System Version 4.0 (English version) *3, Microsoft® Windows® XP Professional Operating System (English version) *4, Microsoft® Windows® XP Home Edition (English version) *4, Microsoft® Windows Vista® Home Basic Operating System (English version), Microsoft® Windows Vista® Home Premium Operating System (English version), Microsoft® Windows Vista® Business Operating System (English version), Microsoft® Windows Vista® Ultimate Operating System (English version), Microsoft® Windows Vista® Enterprise Operating System (English version), Microsoft® Windows Vista® Thome Premium Operating System (English version), Microsoft® Windows Vista® Thereprise Operating System (English version), Microsoft® Windows Vista® Thereprise Operating System (English version), Microsoft® Windows® 7 Starter Operating System (English version), Microsoft® Windows® 7 Home Premium Operating System (English version), Microsoft® Windows® 7 Professional Operating System (English version), Microsoft® Windows® 7 Professional Operating System (English version), Microsoft® Windows® 7 Professional Operating System (English version), Microsoft® Windows® 7 Enterprise Operating System (English version),	

(To the next page)

- *1: Pentium[®] 150MHz or more is recommended for the use of Windows[®] Me, Pentium[®] 300MHz or more for the use of Windows[®] XP, and 1GHz or more is recommended for the use of Windows Vista[®] and Windows[®] 7.
- *2: 64MB or more is recommended for Windows[®] 2000 Professional, 128MB or more is recommended for Windows[®] XP, 1GB or more is recommended for Windows Vista[®] and 32-bit Windows[®] 7, and 2GB or more is recommended for 64-bit Windows[®] 7.
- *3: Service Pack 3 or more is needed for the use of Windows NT[®] Workstation 4.0.
- *4: MX Component cannot be used in the XP compatibility mode.

Item	Description		
	Programming language	Development software	
	Visual Basic®	Microsoft [®] Visual Basic [®] 6.0 (English version), Microsoft [®] Visual Basic [®] .NET 2003 (English version), Microsoft [®] Visual Studio [®] 2005 Visual Basic [®] (English version) *8, Microsoft [®] Visual Studio [®] 2008 Visual Basic [®] (English version) *9 or Microsoft [®] Visual Studio [®] 2010 Visual Basic [®] (English version) *10	
Programming language *5	Visual C++®	Microsoft [®] Visual C++ [®] 6.0 (English version), Microsoft [®] Visual C++ [®] .NET 2003 (English version), Microsoft [®] Visual Studio [®] 2005 Visual C++ [®] (English version) *8, Microsoft [®] Visual Studio [®] 2008 Visual C++ [®] (English version) *9 or Microsoft [®] Visual Studio [®] 2010 Visual C++ [®] (English version) *10	
	VBScript *6, *7	Text editor and commercially available HTML tool	
	VBA	Microsoft® Excel 2000 (English version), Microsoft® Excel 2002 (English version) *11, Microsoft® Excel 2003 (English version) *12, Microsoft® Excel 2007 (English version) *13 or 32-bit Microsoft® Excel 2010 (English version) *14 Microsoft® Access 2000 (English version), Microsoft® Access 2002 (English version) *11, Microsoft® Access 2003 (English version) *12, Microsoft® Access 2007 (English version) *13 or 32-bit Microsoft® Access 2010 (English version) *14	

*5: User programs created in the English environment may be used in the English environment only. They cannot be used in the Japanese environment.

- *6: To operate VBScript, use Internet Explorer (version 5.00.2919.6307 or later).
- *7: When Windows[®] Me or Windows[®] XP Home Edition is used, the ASP function is unusable.
- *8: Windows[®] 2000 Service Pack 4 or later, or Windows[®] XP Service Pack 2 or later is required for Visual Studio[®] 2005.

When using Visual Studio[®] 2005 on Windows Vista[®], Visual Studio[®] 2005 Service Pack 1 or Visual Studio[®] 2005 Service Pack 1 Update for Windows Vista[®] is required.

- *9: Windows[®] XP Service Pack 2, Windows Vista[®] or later is required for Visual Studio[®] 2008. When using Visual Studio[®] 2008 on Windows[®] 7, Visual Studio[®] 2008 Service Pack 1 is required.
- *10: For Visual Studio[®] 2010, Windows[®] XP Service Pack 3, Windows Vista[®] Service Pack 2 or higher, or Windows[®] 7 or later is required.
- *11 When using Excel 2002 or Access 2002 on Windows® 7, Windows® XP Service Pack 3 or later is required.
- *12: When using Excel 2003 or Access 2003 on Windows® 7, Windows® 2003 Service Pack 3 or later is required.
- *13: Windows® XP Service Pack 2 or later is required for Excel 2007 or Access 2007.
- *14: For 32-bit Excel 2010 and 32-bit Access 2010, Windows[®] XP Service Pack 3, Windows Vista[®] Service Pack 1 or higher, or Windows[®] 7 or later is required.

64-bit Excel 2010 and 64-bit Access 2010 are not supported.

Р	OINT		
(1)) When Windows [®] XP, Windows Vista [®] or Windows [®] 7 is used, the following		
	new functions cannot be used.		
	If any of the following new functions is used, this product may not operate		
	normally.		
	Start of	of application in Windows [®] compatible mode	
	Fast user switching		
	Remote desktop		
	Big fonts (Details setting of Screen properties)		
	64-bit Windows [®] XP and 64-bit Windows Vista [®] are not supported.		
(2)	When Windows $^{\ensuremath{ extsf{8}}}$ 7 is used, the following new functions cannot be used.		
	Windo	ows XP Mode	
	Windo	ows Touch	
(3)	When cre	eating a user program, select "x86" (32 bits) "Target CPU".	

2.4 Usable Programmable Controller CPUs

	Programmable controller CPU Types	
ACPU	A0J2HCPU, A1SCPU, A1SCPU-S1, A1SCPUC24-R2, A1SHCPU, A1SJCPU, A1SJHCPU, A1NCPU, A2CCPU, A2CCPUC24, A2CCPUC24-PRF, A2CJCPU, A2NCPU, A2NCPU-S1, A2SCPU, A2SCPU-S1, A2SHCPU, A2SHCPU-S1, A3NCPU, A1FXCPU, A2ACPU, A2ACPU-S1, A2ACPUP21/R21, A2ACPUP21/R21-S1, A3ACPU, A3ACPUP21/R21, A2UCPU, A2UCPU-S1, A2USCPU, A2USCPU-S1, A2ASCPU, A2ASCPU-S1, A2ASCPU-S30, A2USHCPU-S1, A3UCPU, and A4UCPU.	
QnACPU	Q2ACPU, Q2ACPU-S1, Q2ASCPU, Q2ASCPU-S1, Q2ASHCPU, Q2ASHCPU-S1, Q3ACPU, Q4ACPU, and Q4ARCPU.	
QCPU (A mode)	Q02CPU-A, Q02HCPU-A and Q06HCPU-A.	
QCPU (Q mode)	Q00JCPU, Q00UJCPU, Q00CPU, Q00UCPU, Q01CPU, Q01UCPU, Q02CPU, Q02HCPU, Q02PHCPU, Q02UCPU, Q03UDCPU, Q03UDECPU, Q04UDHCPU, Q04UDEHCPU, Q06HCPU, Q06PHCPU, Q06UDHCPU, Q06UDEHCPU, Q10UDHCPU, Q10UDEHCPU, Q12HCPU, Q12PHCPU, Q13UDHCPU, Q13UDEHCPU, Q20UDHCPU, Q20UDEHCPU, Q25HCPU, Q25PHCPU, Q26UDHCPU, Q26UDEHCPU, Q50UDEHCPU, and Q100UDEHCPU.	
LCPU	L02CPU, L26CPU-BT	
FXCPU	FX0CPU, FX0sCPU, FX0nCPU, FX1CPU, FX1nCPU, FX1ncCPU, FX1sCPU, FX0CPU, FX2cCPU, FX2nCPU, FX2nCCPU, FX3nCPU, FX3nCPU, and FX3ncCPU.	
Motion controller CPU	A171SHCPU, A172SHCPU, A173UHCPU, A173UHCPU-S1, A273UHCPU, and A273UHCPU-S3.	
QSCPU	QS001CPU.	
C controller CPU	Q12DCCPU-V	

*1: Cannot be used when the first five digits of the serial number is 12042 or later.

MEMO

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3 OPERATION PROCEDURES

This chapter explains the selection of the MX Component development type and the procedures for creating user applications.

3.1 Selecting the Development Type

When using MX Component to create user applications, choose the utility setting type or program setting type before creating a user application. The utility setting type and program setting type will be described.

(1) Utility setting type

Make communication settings using the communication setting wizard. Using the communication setup utility enables you to create a user program without being aware of the complicated parameters of any communication. In the user program, the communication line can be connected by simply setting the logical station number set on the communication setting wizard to the ACT control property or into a user program.

(2) Program setting type

A user program is created without using the communication setup utility. Make ACT control settings for the corresponding communication in the property window directly or within the user program.

The properties necessary to be set depend on the ACT control.

(3) Comparison

The following table compares the utility setting type and program setting type.

Setting Type Item	Utility Setting Type	Program Setting Type
Feature	Communication settings can be made easily using the communication setting wizard. In program creation, communication can be made by merely making the setting (logical station number) on the communication setting wizard. (The number of development processes can be reduced.)	All communication settings can be made in the user program. Communication settings can be changed flexibly in the user program.
Used ACT control	ActEasyIF, ActMLEasyIF	ACT control for corresponding communication
Whether communication setup utility is used or not	Used.	Not used.
How to connect PLC monitor utility	Choose the logical station number.	Change the settings every time you make connection. (Use the wizard)
3 OPERATION PROCEDURES

3.2 User Application Creating Procedures

3.2.1 When using Visual Basic® 6.0/Visual Basic® .NET

The following creation procedures assumes use of Visual Basic $^{\circ}$ 6.0/ Visual Basic $^{\circ}$.NET.



3.2.2 When using Visual C++® 6.0/Visual C++® .NET

The following creation procedures assumes use of Visual C++® 6.0/Visual C++® .NET.



3.2.3 When using VBA



The following creation procedures assumes use of VBA.

3.2.4 When using VBScript

The following creation procedures assumes use of VBScript.





3.3 PLC Monitor Utility Operating Procedure

The following is the PLC monitor utility operating procedure.



4 OPERATIONS COMMON TO UTILITIES

This chapter explains the operations common to the utilities.

4.1 Starting the Utility

Each utility can be started by clicking the corresponding icon in the [Start]-[Programs *1] -[MELSOFT Application]-[MX Component] menu.

For the registered icons, refer to the operating manual (startup).

*1: [All programs] appears when using Windows® XP, Windows Vista® or Windows® 7.



<Administrator authority when executing each utility on Windows Vista® >

- (1) Administrator authority
 - When user account control (UAC) is enabled All users including administrator are fixed at and operate as "standard user". To execute programs in administrator authority, specify "Run as administrator".
 - 2) When user account control (UAC) is disabled Programs can be executed by login user.
- (2) Operating procedure for administrator authority The following shows a procedure to execute Communication Setup Utility in administrator authority when UAC is enabled (The procedure also applies to PLC Monitor Utility).



 Select "Communication Setup Utility", right-click, and select "Run as administrator" for execution.

4

(From the previous page)

(
< Windows Vista [®] >	✓ Vindows [®] 7 >	2) The left screen appears for administrator
User Account Control An unidentified program wants access to your computer Den't un the program unless you know where it's from or you've used it before. AccComm.exe Unidentified Publisher Cancel I don't know where this program is from or what it's for. Allow Allow Itrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I know where it's from or I've used it before. Detrust this program. I kno	User Account Control Do you want to allow the following program from an unknown publisher to make changes to this computer? Program name: ActMon.exe Publisher: Unknown Publisher: Unknown Hard drive on this computer Show getails Yes: No Change when these notifications appear	users. Selecting "Allow" or Yes enables to execute a program in administrator authority. Selecting "Cancel" or No disables the execution.

(3) Setting to always execute programs as an administrator To always "execute programs as an administrator", set as follows. (The procedure also applies to PLC Monitor Utility).



1) Select "Communication Setup Utility", right-click, and select "Properties".

- PLC Monitor Utility Properties X Security Details Previous Versions Compatibility Shortcut General If you have problems with this program and it worked correctly on an earlier version of Windows, select the compatibility mode that matches that earlier version. Help me choose the settings Compatibility mode Run this program in compatibility mode for: Windows XP (Service Pack 3) -Settings 🔲 Run in 256 colors Run in 640 x 480 screen resolution Disable visual themes Disable desktop composition Disable display scaling on high DPI settings Privilege Level -Run this program as an administrator Change settings for all users OK Cancel Apply
- Select the <<Compatibility>> tab and check "Run this program as an administrator".

4

4.2 Exiting the Utility

To exit each utility, click Exit at bottom right of the screen. As the dialog box appears, click Yes to exit the utility.



4.3 Confirming the Version

To confirm the version of each utility, click the [Help]-[About] menu.



5 UTILITY OPERATIONS

This chapter provides how to operate the communication setup utility and PLC monitor utility.

Refer to "CHAPTER 6 COMMUNICATION SETTING EXAMPLES OF THE UTILITY SETTING TYPE" for communication setting examples using the communication setup utility.

5.1 Communication Setup Utility

This section describes how to operate and set the communication setup utility used to make communication with the utility setting type.

5.1.1 Operations on target setting screen

This screen is used to display the setting details of the logical station number set on the communication setting wizard and to edit.

	<u>M</u> enu <u>H</u> elp	ication Setup Uti	hty			×
	Logical stat	ion number 12:		•		Delete
	n		Serial		MNET/H	
1)	PC I/F	COM1	Module type	QJ71C24	CPU type	Q02(H)
	Time-out	10000 ms	Station No	1	Network No	1
			Transmission speed Parity	19200 bps	Station No	3
			Control	Odd DTR or RTS	Multiple CPU	None
				pintornito		
						E×it

Item	Description
Logical station number	Select to display the setting details and the logical station number to be edited set on the communication setting wizard.
Wizard	Used to start the communication setting wizard and set the logical station number.
Delete	Used to delete the preset logical station number.
1) (Connection image diagram)	Shows the connection image diagram of the selected logical station number. Clicking any sketch (personal computer, programmable controller CPU) in the connection image diagram starts the communication setting wizard, enabling you to change the settings.

REMARK

For details of the communication setting wizard, refer to "Section 5.1.6 Operations on the communication setting wizard screen".

5.1.2 Operations on list view screen

This screen is used to list the logical station numbers registered, edit the logical station number, and list the properties necessary for the program setting type.

	Comment	PC side I/F Wizard
1	C24 Sample	COM1
2	E71 Sample	Ethernet Delete
3	CPU COM Sample	COM1
4	CPU USB Sample	USB
5	NET10 Sample	MNET/10
6	CCLINK Sample	CC-Link
7	CCLINK G4 Sample	COM1
8	CPU Board Sample	CPU board
9	GX Simulator Sample	GX Simulator
10	NETH Sample	MNET/H
11	CC IE Control Sample	CC IE Control
12	Q bus Sample	Q Series Bus
13	Modern Sample	COM1
14	GOT Sample	Ethernet
17	QnUDE Sample	Ethernet Display
18	GX Simulator2_Sample	GX Simulator2
19	GOTtransparent_Sample	USB(via GOT)

Item	Description
1) (Property list)	Shows the settings of the registered logical station numbers. Double-clicking the logical station number starts the communication setting wizard.
Wizard	Used to start the communication setting wizard and set the logical station number.
Delete	Used to delete the preset logical station number.
Display	UtilityShows the settings made for the logical station numbers in 1) (Property list). ProgramShows the property list necessary for setting with the program setting type in 1) (Property list).
Save text	1) Used to save the settings of 1) (Property file) into a file in the txt format.

REMARK

For details of the communication setting wizard, refer to "Section 5.1.6 Operations on the communication setting wizard screen".

5.1.3 Operations on connection test screen

This screen is used to conduct a communication test on the logical station number registered.

Communication Setup Utility			
Menu Help Target setting List view Connection tes	t		
Logical station number 1:		•	Test
Communication diagnosis count	5		
Result			
Diagnosis count	0		
Result			
CPU name			
Mean time of communication	0 ms		
			E×it

	Description	
Select the logical station number on which a communication test will be made.		
Set how many times number. (Default: 5) Setting range: 1 to 32	the communication test will be repeated for the specified logical station	
Used to start (stop) th	ne communication test.	
selected, the following		
Shows the result of th	ne communication test.	
Item	Description	
Diagnosis count	Shows the number of connections made during the communication test.	
Result	Shows the test result. An error code appears at error occurrence. 0 appears at normal termination, or any value other than 0 appears at abnormal termination.	
CPU name Shows the connected CPU type.		
Mean time of communication	Shows the average time taken until one communication test is established. (Unit: ms)	
	Set how many times in number. (Default: 5) Setting range: 1 to 32 Used to start (stop) the When the logical states selected, the following When you have set the Password input Please enter the password when there is not a pass of the term of the liter of the Diagnosis count Result CPU name Mean time of the term of te	

5.1.4 Operations on com setup import screen

The communication settings saved in the file by the operations in Section 5.1.5 are reflected on the utility.

This screen is used when the communication settings made on the other IBM-PC/AT compatible are to be reflected on the IBM-PC/AT compatible being used.

(1) Selected menu item

Select the [Menu]-[COM setup import] on the menu bar.

🖳 Communication Setu	9
<u>M</u> enu <u>H</u> elp	
<u>T</u> arget setting	
<u>L</u> ist view	
<u>C</u> onnection test	
COM setup jmport 📐	Click!
COM setup <u>e</u> xport	
<u>₩</u> izard	
E <u>x</u> it	-

(2) Dialog box

Open					? ×
Look jn: 🔄) UK		• 🗈	2 4	***
🖸 ACT.act					
File <u>n</u> ame:					<u>O</u> pen
Files of <u>t</u> ype:	ACT Regist File	(*.act)		-	Cancel

Item	Description
Look in	Specify the place where the file to be imported exists.
File name	Enter the file name to be imported.
Files of type	Set the type of the file to be imported.
Open	Used to execute import.
Cancel	Used to cancel importing the communication settings.

POINT To import the communication settings, use MX Component of a version later than the one used for export. Using a MX Component version earlier than that may cause incorrect import.

5.1.5 Operations on com setup export screen

The communication settings being made on the IBM-PC/AT compatible are saved in a file. (The file where data are saved is called the ACT registered file.) This screen is used to reflect the communication settings on the other IBM-PC/AT compatible.

Uninstalling deletes all the settings within "Communication Setup Utility". To avoid this, export the file storing the settings.

(1) Selected menu item

Select the [Menu]-[COM setup export] on the menu bar.

-		
	🖳 Communication Setu	D
	<u>M</u> enu <u>H</u> elp	
	Target setting	1
	<u>L</u> ist view	
	Connection test	
	COM setup import	
	COM setup <u>e</u> xport	Click!
	<u>W</u> izard	
	E <u>x</u> it	

(2) Dialog box

Save As					?×
Save in: 🔂	9 U U		- 1	Ø ď	
💭 ACT.act					
File <u>n</u> ame:					<u>S</u> ave
Save as type:	ACT Regist File	: (*.act)		-	Cancel

Item	Description
Save in	Specify the place where the file will be exported.
File name	Enter the file name to be saved.
Save as type	Set the type of the file to be saved.
Save	Used to export the communication settings.
Cancel	Used to cancel exporting the communication settings.

5.1.6 Operations on communication setting wizard screens

These screens are used to set the logical station number necessary to make communication with the utility setting type.

(1) Outline of the communication setting wizard

The logical station number necessary to make communication with the utility setting type is set in the wizard format.

The places and descriptions of the settings made on the communication setting wizard screens will be given below.

For the wizard screen settings, refer to "(3) Explanation of the communication setting wizard screens".



Screen Name	Description
Wizard 1)	Used to set the logical station number.
Wizard 2)	Used to set the connected network between the IBM-PC/AT compatible and
Wizaru z)	connected station (programmable controller CPU and module).
Wizard 3)	Used to set the connected station (programmable controller CPU and module).
Wizard 4)	Used to set the relayed network between the connected station (programmable controller CPU and module) and relayed station (programmable controller CPU and module).
Wizard 5)	Used to set the relayed station programmable controller CPU.
Wizard 6)	Used to comment the logical station number.

(2) Starting procedure

Select the [Menu]-[Wizard] on the menu bar.

(You can also start by clicking Wizard displayed on the utility screen.)



(3) Explanation of the communication setting wizard screens Communication setting wizard screens are shown from wizard 1) to wizard 6) in the order.

The following explains the communication setting wizard screens in the displayed order.

POINT

- The displays or available setting items of the communication setting wizard screens change with the communication settings. Set all available setting items being displayed.
- (2) Some of the communication setting wizard screens may not appear depending on the settings.
- (3) If the communication setting wizard is repeatedly started, a memory shortage error may occur. This problem occurs due to MS-IME95 or MS-IME97 of Microsoft Corporation. If

the memory shortage error has occurred, change MS-IME95 or MS-IME97 for MS-IME2000.

Start the communication setting wizard.



(To the next page)

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↓ Wizard 2)

Lommunication Setting Wizard - PL s	ALC X
	Please select the PC side UF PC side UF Serial Connect port COM1 Time out D0000 ms
Cancel	<back finish<="" th=""></back>





2) Select the "PC side I/F" to communicate with. The items shown in "Communication setting" change with

the setting made in "PC side I/F". Set all available setting items and click Next>].

The choices corresponding to the communications in "PC side I/F" are indicated below.

Setting Item	Communication Name
USB	USB communication
USB(via GOT)	GOT transparent communication
Serial	Computer link communication, CPU COM communication, CC-Link G4 communication
Serial(via GOT)	GOT transparent communication
Ethernet board	Ethernet communication, Gateway function communication
Ethernet(via GOT)	GOT transparent communication
Modem	Modem communication
CC IE Control board	CC-Link IE Controller Network communication
MELSECNET/H board	MELSECNET/H communication
MELSECNET/10 board	MELSECNET/10 communication
CC IE Field board	CC-Link IE Field Network communication
CC-Link board	CC-Link communication
Q Series Bus	Q Series bus communication
GX Simulator2	GX Simulator2 communication
GX Simulator	GX Simulator communication
CPU board	CPU board communication

3) Wizard 3) differs in available setting items depending on the settings on Wizard 2).

Set all available setting items and click Next>.

REMARK

When via GOT is selected on Wizard 2, the following screen appears.

(Wizard 3) differs in available setting items depending on the settings on Wizard 2))

Set all available setting items and click Next>



(From the previous page)	
UVizard 4)	 Wizard 4) differs in available setting items depending on the settings on Wizard 2) and Wizard 3). Set all available setting items and click Next>.
Network MELSECNET/10(H)	REMARK When the modem is selected on Wizard 2), the line setting
Cancel < Back Next> Finish	screen appears on Wizard 3) and Wizard 4). For details of the line setting screen, refer to "Section 5.1.7 Operations on line setting screen".
Wizard 5)	
Communication Setting Wizard - Other station	5) Wizard 5) differs in available setting items depending on the settings on Wizard 2), Wizard 3) and Wizard 4).
Cither station setting	Set all available setting items and click Next>.
CPU type Q2A -	
Network No 5 Station No 5	
Cancel < Back Next> Finish	
↓ Wizard 6) Communication Setting Wizard - Finished	6) Comment the logical station number that was set.
The Communication wizard has finished collecting information. Please Finish to build the logical station number.	A comment may be entered using up to 32 characters. Enter a comment and click Finish.
Comment	When you do not need a comment, click Finish without entering it.
Cancel < Back Next > Finish	
\downarrow	

(Registration complete)

When the registration of the logical station number is completed on the communication setting wizard, the settings are displayed on the target setting screen.



5 - 11

5.1.7 Operations on line setting screen

This screen is used to make the telephone line settings necessary to set modem communication in the communication settings utility.

(1) Connect Line screen

Set the line connection system, telephone line, AT command, etc.

Communication Setting Wizard - Connect Line		X
Connect way Auto line connect		
Callback number	COM1 -	
Connection	Browse	
Name		
AT command		
C AT command setting Title	Browse	
Details	setting	
Cancel < Back Next >	Finish	

Item	Description		
	Set the line connection system. When the Q Series Corresponding C24 is used, any of the following items can be selected. (Fixed to "Auto line connect" when the A6TEL, Q6TEL, FXCPU or QC24N is used.)		
	Item Description		
	Auto line connect Select this item when the callback function has not been set.		
	Auto line connect (Callback fixation)		
Connect way	Auto line connect (Callback number specification)		
	Callback connect (Fixation)		
	Callback connect (Number specification)		
	Callback request (Fixation)		
	Callback request (Number specification)		
	Callback reception waiting		
	Set the telephone number used with the callback function of the O Series Corresponding C24		
Callback number	Set the telephone number used with the callback function of the Q Series Corresponding C24 This item can be set only when "Auto line connect (Callback number specification)", "Callback connect (Number specification)" or "Callback connect (Number specification)" is selected in the line connection system. Setting range: 62 characters		
	Setting characters: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -, *, #		

ltem		Description		
		Set the line type. (Default: Tone)		
		Item	Description	
		Pulse	Select this item when using dial line.	
	Line type	Tone	Select this item when using push button dial line.	
Line		ISDN	Select this item when using ISDN line.	
		Set the outside line accord	ess number.	
	Outside line number	Setting range: 10 chara	cters	
		Setting characters: 0, 1,	2, 3, 4, 5, 6, 7, 8, 9, -, *, #	
	Port	Set the COM port for modem communication. (Default: COM1)		
		-	nber of the connection target.	
		When the connection target has been selected on the phone book screen, the		
	Call number	telephone number of the connection target appears.		
Connection		Setting range: 50 characters		
target		Setting characters: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -, *, #		
larger	Name	The other end name of the connection target selected on the phone book screen		
		appears.		
	Browse	Used to display the phone book screen.		
		For details of the phone book screen, refer to "(2) Call book screen".		
	Modem standard	Select this item when us	sing the modem-standard AT command to connect the line.	
	AT command setting	Enter the AT command.		
		If the modem standard cannot be selected to connect the line, select this item and		
		enter the AT command.		
		If the AT command has	been selected on the AT command registration screen, the	
		data of the AT comman		
AT		Setting range: 70 chara		
command		Setting characters: ASC		
	Title	The title of the AT comn	nand selected on the AT command registration screen	
		appears.		
	Browse		command registration screen.	
		For details of the AT command registration screen, refer to "(4)" AT command		
		registration screen".		
	Help of AT command	Used to display the AT	command help.	
Details set	tina	Used to display the deta	ail setting screen.	
Details setting		For details of the detail setting screen, refer to "(6) Detail setting screen".		

1

(2) Call book screen

Set the telephone numbers used on the line setting screen.

A Factory Construction Painting B Factory	Close
► Construction Painting	New call number.
	New group
	Edit
	Copy
	Move group
	Delete
Display cursor position	Find
Call number	Select
Call number Outside line number	Select
	Select Read file

Item	Description
1) (Registered phone number display list)	Displays the group names and other end names.
Choice display	Displays the settings of the other end selected in the registered phone number display list.
Close	Used to update the edited data and close the call book screen.
Cancel	Used to discard the edited data and close the call book screen.
New call number	Used to display the new phone number setting screen of the other end selected in the registered phone number display list. For details of the new phone number setting screen, refer to "(3) New phone number setting, phone number editing screens".
New group	Used to create a new group. Setting range: 50 characters
Edit	Used to display the editing screen. For details of the phone number editing screen, refer to "(3) Call number setting, call number editing screens".
Сору	Used to copy the other end selected in the registered phone number display list to another group.
Move group	Used to move the other end selected in the registered phone number display list to another group.
Delete	Used to delete the other end in the group selected in the registered phone number display list. You cannot batch-delete a group. Delete a group after deleting all other ends in the group.
Find	Used to search the registered other end names or telephone numbers for data.
Select	Used to display on the line setting screen the other end selected in the registered phone number display list.
Read file	Used to read the settings of the phone book screen saved by file write.
Write file	Used to save the settings made on the phone book screen into a file.

POINT

MX Component enables read of the phone book created using GX Developer. The phone book of GX Developer is stored in the following folders. [User-specified folder] - [Gppw] (3) Call number setting, call number editing screens Set the telephone number to be registered to the phone book.

Call number setting	x
Group name	A Factory
Destination name	Construction
Call number	*****
Outside line number	0 •
🗆 For only line conne	ction
Password	****
A passwoi	rd input is necessary when the password is unset or when connecting to a line.
Comment	
ABCDEFGHIJKLMNC	PQRSTUWXYZ
	OK

Item	Description			
Group name	Displays the group name of the registration destination.			
Destination name	Enter the other end of the telephone number to be registered. Setting range: 50 characters			
Call number Set the telephone number. Setting range: 50 characters Setting characters: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -, *, #				
Outside line number	Set the outside line access number. Setting range: 10 characters Setting characters: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -, *, #			
For only line connection	When the password has been set to the A6TEL, Q6TEL, Q Series Corresponding C24, making this setting automatically starts password setting and connects the line. If the password has not been set, this setting is ignored. Setting range: 4 characters Setting characters: ASCII code			
Memo	Enter the memo for the registered data. Setting range: 60 characters			

1)

(4) AT command registration screen Set the AT commands used on the line setting screen.

Modem at MELSOFT application side	Close
Side:MELSOFT application Default	Cancel
+▶	New AT comman
	Edit
	Copy
	Move group
	Delete
	Select
	Read file
L	Write file
Display cursor position	
AT command	
AT&C1Q0V1\N3&D2&K3	

Item	Description				
1) (Registered AT command display list)	Displays a list of titles of the registered AT commands.				
Choice display	Used to display the registered data selected in the registered AT command display list.				
Close	Used to update the edited data and close the AT command registration screen.				
Cancel	Used to discard the edited data and close the AT command registration screen.				
New AT command	Used to display the new AT command registration screen. For details of the new AT command registration screen, refer to "(5) New AT command registration, AT command editing screens".				
Edit	Used to display the editing screen for the AT command selected in the registered AT command display list. For details of the AT command editing screen, refer to "(5) New AT command registration, AT command editing screens".				
Сору	Used to copy the registered AT command. Selecting the registered data to be copied in the registered AT command display list and clicking Copy displays the group designation dialog box. Select the copy destination group and click OK.				
Move group	Used to move the registered AT command to any other end. Selecting the registered data to be moved in the registered AT command display list and clicking Move group displays the group designation dialog box. Select the move destination group and click OK.				
Delete	Used to delete the AT command selected in the AT command display list.				
Select	Used to display the AT command selected in the AT command display list on the line setting screen.				
Read file	Used to read the settings of the AT command registration screen saved by file write.				
Write file	Used to save the settings made on the AT command registration screen into a file.				

POINT MX Component can the AT commands created using GX Developer. The AT commands of GX Developer are stored in the following folders. [User-specified folder] - [Gppw]

(5) New AT command registration, AT command editing screens Register a new AT command and edit the AT command.

AT command registration
Group name
Modem at MELSOFT application side
Title
****Corporation ****Type Modem
AT command
AT&C1Q0V1\N3&D2&K3
OK Cancel Help of AT command

Item	Description			
Group name	Displays the group name where the AT command to be registered.			
T :H -	Enter the title of the AT command to be registered.			
Title	Setting range: 60 characters			
	Enter the AT command for modem initialization.			
AT command	Setting range: 70 characters			
	Setting characters: ASCII code			
Help of AT command	Used to display the AT command help.			

(6) Detail setting screen

Set details for telephone line connection. Make settings according to the modem used.

Details setting	x
Line connection CD signal wait time	90 seconds.
Line connection modern report wait time	5 seconds.
Line disconnection CD signal wait time	5 seconds.
Line disconnection delay time	3 seconds.
Data transmission delay time	0 seconds.
AT command response wait time	1 seconds.
Password cancellation response wait time	5 seconds.
AT command/password cancellation retry times	3 times.
Line callback cancel wait time	90 seconds.
Call back delay time	20 seconds.
Call back reception waiting time-out	120 seconds.
	iL

Item	Description			
Line connection CD signal wait time	Set the line connection CD signal confirmation time. (Default: 90) Increase the set time if the CD signal does not turn ON within the set time depending on the line-connected region (example: overseas). Setting range: 1 to 999			
Line connection modem report waiting time	Set the line connection modem report wait time. (Default: 5) Increase the set time if the response speed of the modem is low. Setting range: 1 to 999			
Line disconnection CD signal wait time	Set the line disconnection CD signal confirmation time. (Default: 5) Increase the set time if the CD signal does not turn OFF within the preset time depending on the line-connected region (example: overseas). Setting range: 1 to 999			
Line disconnection delay time	Set the line disconnection delay time. (Default: 3) Increase the set time if the response speed of the modem is low. Setting range: 1 to 999			
Data transmission delay time	Set the data transmission delay time. (Default: 0) Increase the set time if the response speed of the modem is low. Setting range: 1 to 999			
AT command response wait time	Set the AT command response wait time. (Default: 1) Increase the set time if the response speed of the modem is low. Setting range: 1 to 999			
Password cancellation response wait time	Set the password cancellation response wait time. (Default: 5) Increase the set time if the quality of the line with the other end is low. Setting range: 1 to 999			

5 UTILITY OPERATIONS

Item	Description		
	Set the AT command/password cancellation retry count. (Default: 3)		
AT command/password	Increase the set count if the AT command cannot be sent or the password cannot be		
cancellation retry count	cancelled.		
	Setting range: 1 to 999		
	Set the Line callback cancel wait time. (Default: 90)		
Line callback cancel wait	Increase the set time if the line at the other end (Q series corresponding C24 side) is not		
time	disconnected within the set time depending on the line-connected region (example: overseas).		
	Setting range: 1 to 180		
	Set the callback delay time. (Default: 20)		
Call back datas time	Increase the set time if the device for relaying connection to the line (example: modem, etc.)		
Call back delay time	requires the set time for reconnection after line disconnection.		
	Setting range: 1 to 999		
Call back recention waiting	Set the callback reception waiting time-out. (Default: 120)		
Call back reception waiting	Increase the set time if a time-out occurs in a callback receive waiting status.		
time-out	Setting range: 1 to 3600		

5.2 PLC Monitor Utility

This section explains how to operate and set the PLC monitor utility.

5.2.1 Operations on transfer setting screen

This screen is used to set connection from the IBM-PC/AT compatible to the programmable controller CPU.

(1) Selected menu item

Select [Online]-[Transfer setup] on the menu bar.

(This screen also appears when the PLC monitor utility is started.)

- (2) Dialog box
 - (a) When choosing the utility setting type

ansfer setting	
Utility setting type	
Logical station number	11 : GX Simulator_Sample
Program setting type	Wizard
Connect Retry Times	OK Cancel

Item	Description				
Utility setting type	Select when using the logical station number set on the communication setup utility to make transfer setting.				
Logical station number	Select the logical station number set on the communication setup utility. When the logical station number where the modem communication data have been set is selected, the following screen appears after OK is clicked. When you have set the password, enter the password and click OK. Pessword input Please enter the password Please push OK as t is when there is not a password setting. OK Cancel				
Connect Retry Times	Set the number of retries to be made when an error occurs during monitoring with the PLC monitor utility. (default: 0) Setting range: 0 to 9				

POINT Before specifying the logical station number, confirm that the settings of the logical station number, such as the CPU type and station number, are correct on the communication setup utility. (b) When choosing the program setting type

Tran	sfer setting	1					×
0	Utility setting type						
	Logical station number 13 : GX Simulator_Sample				V		
۲	Program setting type VVizard						
		Serial		MNET/H			
	PC I/F	COM1	CPU type	Q02(H)	CPU type	Q02(H)	
	Time-out	10000 ms	Transmission speed	19200 bps	Network No	1	
			Control	DTR or RTS	Station No	5	
					Multiple CPU	None	
	Connect R	etry Times		ок	Cancel		

Item	Description	
Program setting type	Select when the program setting type is used to create programs.	
	Used to start the communication setting wizard and make transfer setting. When the logical station number where the modem communication data have been set is selected, the following screen appears after OK is clicked.	
Wizard	When you have set the password, enter the password and click OK.	
	Please enter the password Please push OK as it is when there is not a password setting.	
	OK Cancel	
Connect Retry Times	Set the number of retries to be made when an error occurs during monitoring with the PLC monitor utility. (default : 0) Setting range: 0 to 9	

POINT	
When the prog	gram setting type is selected, clicking the programmable controller or
personal comp	outer sketch enables you to change the details of the transfer setting.
	<pre>image: image: imag</pre>

5.2.2 Operations on device batch screen



This screen is used to monitor only the specified one type of devices.

Item	Description			
Device	Enter the device name to be batch-r	Enter the device name to be batch-monitored.		
Start monitor (Stop monitor)	Used to start (stop) monitor.			
	Set the monitor format. (Default: Bit & Word)			
	Item	Description		
Monitor format	Bit & Word	Sets the monitor screen to the bit and word display.		
	Bit	Sets the monitor screen to the bit display only.		
	Word	Sets the monitor screen to the word display only.		
	Word" or "Word". (Default: 16 bit inte			
	Word" or "Word". (Default: 16 bit inte	eger)		
Display	Word" or "Word". (Default: 16 bit inte Item 16 bit integer 32 bit integer	eger) Description		
Display	Word" or "Word". (Default: 16 bit inte Item 16 bit integer	eger) Description Sets to the 16-bit integer display.		
Display	Word" or "Word". (Default: 16 bit inte Item 16 bit integer 32 bit integer	eger) Description Sets to the 16-bit integer display. Sets to the 32-bit integer display.		
Display	Word" or "Word". (Default: 16 bit integer 16 bit integer 32 bit integer Real number (single precision)	eger) Description Sets to the 16-bit integer display. Sets to the 32-bit integer display. Sets to the real number (single precision) display.		
Display	Word" or "Word". (Default: 16 bit integer 16 bit integer 32 bit integer Real number (single precision) Real number (double precision) ASCII character	eger) Description Sets to the 16-bit integer display. Sets to the 32-bit integer display. Sets to the real number (single precision) display. Sets to the real number (double precision) display. Sets to the ASCII character string display.		
Display	Word" or "Word". (Default: 16 bit integer 16 bit integer 32 bit integer Real number (single precision) Real number (double precision) ASCII character	eger) Description Sets to the 16-bit integer display. Sets to the 32-bit integer display. Sets to the real number (single precision) display. Sets to the real number (double precision) display.		
Display	Word" or "Word". (Default: 16 bit integer 16 bit integer 32 bit integer Real number (single precision) Real number (double precision) ASCII character	eger) Description Sets to the 16-bit integer display. Sets to the 32-bit integer display. Sets to the real number (single precision) display. Sets to the real number (double precision) display. Sets to the ASCII character string display.		
Display Data format	Word" or "Word". (Default: 16 bit integer 16 bit integer 32 bit integer Real number (single precision) Real number (double precision) ASCII character Set the radix when the display is "16	Beger) Description Sets to the 16-bit integer display. Sets to the 32-bit integer display. Sets to the real number (single precision) display. Sets to the real number (double precision) display. Sets to the ASCII character string display. Bit integer" or "32 bit integer". (Default: DEC)		

Item	Description		
	Set the order in which the bit devices being monitored are arranged.		
Bit order	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.	
1) (Monitor screen)	Shows the device statuses. Clicking the device name shows the device write screen. For details of the device write screen, refer to "Section 5.2.5 Operations on device write screen".		
2) (Target CPU name)	Shows the communication target CPU name specified on the communication setting wizard screen.		
3) (Communication path information)	Shows such information as the network type, network number, first I/O address and station number.		
4) (Logical station number)	Shows the logical station number set for the utility setting type. This does not appear when the program setting type is used.		

POINT

- (1) For the bit device statuses, 1 indicates an ON status and 0 an OFF status.
- (2) 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 "0".
- (3) Specifying the device memory in the U*\G format enables the buffer memory to be monitored.
- (4) When monitoring the set values of the timers and counters, indirectly specify the data registers.
- (5) For the X and Y devices of the FXCPU, type their device numbers in octal.
- (6) For the C devices of the FXCPU, C0 to C199 (16 bit) and C200 and later (32 bit) are displayed separately.
- (7) Devices cannot be monitored if the connection destination is not established.
- (8) During monitoring, you cannot make transfer setting.
- (9) During monitoring, "*" flickers under the scroll button.

5.2.3 Operations on buffer memory screen



This screen is used to monitor only the specified one type of buffer memory.

Item	Description			
Module I/O	Type 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.			
Start monitor				
(Stop monitor)	Used to start (stop) monitor.			
	Set the monitor format. (Default: Bit & Word)			
	Item	Description		
Monitor format	Bit & Word	Sets the monitor screen to the bit and word display.		
	Bit	Sets the monitor screen to the bit display only.		
	Word	Sets the monitor screen to the word display only.		
	ltem	Description		
	Item	Description		
	16 bit integer	Sets to the 16-bit integer display.		
Display	32 bit integer	Sets to the 32-bit integer display.		
	Real number (single precision)	Sets to the real number (single precision) display.		
	Real number (double precision)	Sets to the real number (double precision) display.		
	ASCII character	Sets to the ASCII character string display.		
	Set the radix when the display is "16	bit integer" or "32 bit integer". (Default: DEC)		
Data format	Item	Description		
	DEC	Sets to the decimal display.		
	HEX	Sets to the hexadecimal display.		

Item	Description		
	Set the order in which the bit devices being monitored are arranged.		
Bit order	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.	
1) (Monitor screen)	Shows the buffer memory status.		
2) (Target CPU name)	Shows the communication target CPU name specified on the communication setting wizard screen.		
 (Communication path information) 	Shows such information as the network type, network number, first I/O address and station number.		
4) (Logical station number)	Shows the logical station number set for the utility setting type. This does not appear when the program setting type is used.		

POINT

(1) For the bit device statuses, 1 indicates an ON status and 0 an OFF status.

- (2) For access to the FXCPU, enter the block number of the special expansion equipment into Module I/O.
- (3) Devices cannot be monitored if the connection destination is not established.
- (4) During monitoring, you cannot make transfer setting.
- (5) During monitoring, "*" flickers under the scroll button.
- (6) During gateway function communication, devices cannot be monitored.

5.2.4 Operation on entry device screen

This screen is used to monitor the specified devices on a single screen at the same time.





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Item	Description
1) (Monitor screen)	Shows the device statuses. Clicking the device name shows the device write screen. For details of the device write screen, refer to "Section 5.2.5 Operations on device write screen".
2) (Target CPU name)	Shows the communication target CPU name specified on the communication setting wizard screen.
	Shows such information as the network type, network number, first I/O address and station number.
4) (Logical station number)	Shows the logical station number set for the utility setting type. This does not appear when the program setting type is used.

POINT

- (1) When monitoring the set values of the timers and counters, indirectly specify the data registers.
- (2) Devices cannot be monitored if the connection destination is not established.
- (3) During monitoring, you cannot make transfer setting.
- (4) During monitoring, "*" flickers under the scroll button.
5.2.5 Operations on device write screen

(1) Selected menu item

Select [Online]-[Device write] on the menu bar.

[Device write] cannot be chosen when the QSCPU is connected.

(2) Dialog box

This screen is used to change the ON/OFF of a bit device or the present value of a word device or buffer memory.

This screen is displayed by double-clicking the monitor screen of the corresponding tab.

Bit device				~
		Force ON	·	Close
Device		Force OFF		
		Toggle force		
Word device / Buffer m	emory			
Word device / Buffer m			HEX	
Device	Module start I/O Address		HEX	y

Item		Description					
	Device	Ente	Enter the device name.				
	Force ON	Use	Used to forcibly change the specified device to the ON status.				
Bit device	Force OFF	Use	ed to forcibly change t	the specified device to the OFF status.			
	Toggle force		ed to forcibly change t n the OFF to ON state	the specified device from the ON to OFF status or us.			
	Device		Choosing "Device" enables you to enter the word device to which write will be performed.				
	Buffer memory	Choosing "Buffer memory" enables you to enter the module's first I/O and buffer memory address.					
		Type the value to be written. The input range is as indicated below.					
			Item	Description			
Word device/Buffer			16 bit integer	-32768 to 32767			
memory	Setting value		32 bit integer	-2147483648 to 2147483647			
	Setting value		Real number (single precision) Real number (double precision)	-999999999999999999 to 99999999999999999			
	Set	Use	ed to write the set data	a.			

5.2.6 Operations on clock setting screen

This screen is used to read or change the clock data of the programmable controller.

- (1) Selected menu item Select [Online]-[Set time] on the menu bar.
- (2) Dialog box

1) When the QCPU (Q Mode) or LCPU is connected.

Time setting						x
PC Time						
2002 /	3 /	27	15 :	0:	12	Wednesday 💌
PLC Time						
2000 /	3 /	8	10 :	54 :	22	Wednesday 💌
			 1	01-		1
	R	egister	J	Clo	se]

2) When the QSCPU is connected

Clock data of the QSCPU cannot be changed.

Time setting		×
PC Time	1 31 15 : 46	: 16 Thursday 💌
PLC Time	7 / 31 15 : 46	: 16 Thursday 💌
	Redister	Close

Item	Description		
PC Time	nows the time of the personal computer. (Write disabled)		
PLC Time	Shows the time of the programmable controller CPU.		
Register	Used to write the "PLC Time" information to the programmable controller CPU.		
Close	Used to close the clock setting screen.		

POINT

Clock setting is not available when either of the following communications is selected.

- GX Simulator communication (only the time of the personal computer is displayed.)
- Gateway function communication (an error occurs.)

5.2.7 Operations on telephone line connection, disconnection screens

Connect and disconnect the telephone line for modem communication.

- (1) Menu to be selected
 - (a) Telephone line connection
 Select [Online] [Connect] on the menu bar.
 * [Connect] cannot be chosen when the QSCPU is connected.
 - (b) Telephone line disconnection
 Select [Online] [Disconnect] on the menu bar.
 * [Disconnect] cannot be chosen when the QSCPU is connected.
- (2) Dialog box for telephone line connection
 For telephone line connection, the following dialog box appears.
 Enter the password and click OK.

Password input	х
Please enter the password.Please push OK as it is when there is not a password setting.	
OK Cancel	

MEMO

	<u> </u>

This chapter explains the setting procedure and setting example of each communication path when the utility setting type is used for programming.

POINT

- For the settings other than "As set by user", set the value as shown in the table.
- Before attempting to communicate with MX Component for the first time, check if MX Component can communicate normally using GX Developer. It will help detecting errors when MX Component cannot communicate with the CPU module.
- For details of the settings for the module, refer to the manual of each module.

6.1 Computer Link Communication

This section provides the computer link communication procedure and its setting example using the utility setting type.

6.1.1 Settings of computer link modules

This section gives the switch settings of computer link modules for the use of MX Component.

The settings of MX Component should be the same as the module. The following figures are used to explain each module.

<When using C24, UC24, QC24(N), Q series compatible C24 or L series compatible C24>

(For 1:1 communication)

(For 1:n communication)



*1: Limited for use of only CH1



*2: Limited for use of both CH1 and CH2



<When using FX extended port>

	Switch ^{*1}		Settings			
			For 1:n communication			
		communication	Station 0	Station 1		
	Mode setting switch	1 (format 1)	A (format 1)	5 (format 1)		
Sta	tion number setting switches	0	0 (As set by user)	1 (As set by user)		
	Main channel setting	OFF (RS-232)	OFF (RS-232) ^{*2}	ON (RS-422)		
	Data bit setting	ON(8)	ON (8)			
	Transmission speed setting	9600bps/19200bps	9600bps			
Transmission	Parity bit yes/no setting	ON (yes)	ON	(yes)		
specifications	Even parity/odd parity setting	OFF (odd)	OFF	(odd)		
setting	Stop bit setting	OFF (1)	OFF	= (1)		
switches	Sum check yes/no setting	ON (yes)	ON (yes)			
	Online change enable/disable setting		OFF (disable) ^{*3}			
	Computer link/multidrop setting	ON	ON	ON		
		(computer link) ^{*4}	(computer link) ^{*4}	(computer link) ^{*4}		

(1) C24, UC24

*1: For switch numbers, refer to the manual of computer link module manual.

*2: Connect to RS-232 connector on a computer link module.

*3: Writing device data cannot be performed while the CPU module is in RUN.

*4: Set the computer link setting when using multi-drop connection.

(2) QC24(N)

			Settings				
Switch (Switch Number)		For 1:1		For 1:n communication			
	Switch (Switch Number)	communication		Station	n 0	Station 1	
		CH1 side	CH2 side	CH1 side	CH2 side	CH1 side CH2 side	
	Mode setting switch		5 nat 5)	0 or 5 (format 5)	5 (format 5)	5 (format 5)	
St	ation number setting switch	(C	0 (As set b	y user)	1 (As set by user)	
	Operation setting switch (SW01)		FF endent ation)	OFF (independent operation)	ON or OFF *1	OFF (independent operation)	
	Data bit setting (SW02)	ON (8 bit)					
	Parity bit yes/no setting (SW03)	ON (yes) ON (yes)			s)		
T	Even parity/odd parity setting (SW04)	OFF (odd) OFF (odd)					
Transmission specifications	Stop bit setting (SW05)	OFF (1 bit)					
setting	Sum check yes/no setting (SW06)	ON (yes)					
switches	Online change enable/disable setting (SW07)	ON (enable)					
	Setting change enable/disable setting (SW08)	ON (enable) ON (enable)		ble)			
	Transmission speed setting (SW09 to SW12)		19200bps	ops 9600bps		DS	
	— (SW13 to SW15)	All OFF					

*1: Set to ON if the CH1 side mode setting switch setting is 0 or to OFF if the setting is 5 (format 5).

(3) Q series-compatible C24, L series-compatible C24(a) For 1:1 communication

ltore	Sett	CatValua	
Item	b15 to b8	b7 to b0	Set Value
Switch 1	CH1 communication speed	CH1 transmission setting	0000н
Switch 2	_	CH1 communications protocol	0000н
Switch 3	CH2 communication speed	CH2 transmission setting	0000н
Switch 4	_	0000н	
Switch 5	Module sta	0000н	

When the communication protocol is set to 00H (GX Developer connection), the module operates with the setting value as shown in the table below. For details, refer to the following manuals.

- Q Corresponding Serial Communication Module User's Manual (Basic)
- MELSEC-L Serial Communication Module User's Manual (Fundamentals)

Transmission setting	Settings	
Data bit	8	
Parity bit	yes	
Odd/even parity	odd	
Stop bit	1	
Sum check code	yes	
Online change	enable	

(b) For 1:n communication

1) Station 0

Itom	Set	Set Value	
Item	b15 to b8	b7 to b0	Independent operation
Switch 1	CH1 communication speed	CH1 transmission setting	07Е6н
Switch 2	_	CH1 communications protocol	0008H
Switch 3	CH2 communication speed	CH2 transmission setting	07E7н
Switch 4	_	CH2 communications protocol	0000н
Switch 5	Module station number		0000н (As set by user)

2) Station 1

l to rea	Sett	ings	Set Value
Item	b15 to b8	b7 to b0	Synchronous operation
Switch 1	CH1 communication speed	CH1 transmission setting	Set to meat the application
Switch 2	_	CH1 communications protocol	of CH1.
Switch 3	CH2 communication speed	CH2 transmission setting	07E6н
Switch 4		CH2 communications protocol	0005н
Switch 5	Module stat	ion number	0001н (As set by user)

The module operates with the setting value as shown below.

Transmission	setting	Settings		
Operation setting	Station 0	synchronous		
Operation setting	Station 1	independent		
Data bit		8		
Parity bi	t	yes		
Odd/even p	arity	odd		
Stop bit		1		
Sum check	code	yes		
Online cha	nge	enable		
Transmission spe	ed setting	19200bps		

(4) FX extended port

Set the FXCPU parameters with GX Developer before using FX extended port to perform communication. Carry out either of the following two setting methods.

- To use the PLC parameters
- To write values to special data registers (D8120, D8121, D8129) in a sequence program. (For FXoNCPU, only this method is applicable.)

The following shows the setting items.

(a) Settings with PLC parameters

Start GX Developer and select [Parameter]-[PLC parameter] in the project list. And then, select the <<PLC system (2)>> tab.

FX parameter	×
Memory capacity Device PLC name I/O assignment PLC system(1) PLC system(2)	
Operate If the box is not checked, the parameters will be cleared. ✓ communication setting D8120 values in the PLC must be cleared upon program transfer.)	
Protocol Dedicated protocol Control line	
Data length H/W type RS-485	
Parity Control mode	
Stop bit	
Transmission control procedure 9600	
Station number setting 00 H (00H0FH)	
Time out judge time Terminator [1] X10ms (1255)	
Default Check Check Cancel	

Item	Setting value
Operate communication setting	Check the corresponding check box.
Protocol	Dedicated protocol
Data length	7/8
Parity	None/ Odd/ Even
Stop bit	1/2
Transmission speed	300bps/600bps/1200bps/2400bps/4800bps /9600bps/19200bps
H/W type	RS-485
Sum check	no/yes
Transmission control procedure	Form1
Station number setting	00H to 0FH
Time out judge time	1 to 255

POINT

- When communication setting is made, power the FXCPU again after writing to programmable controller.
- When performing multi-drop connection, make the same communication settings for the devices. However, make sure that the station No. is not overlapped.

			(b)						es to quenc				a reg	listers	s (D8	120,
				1) D8	3120 (Comn	nunica	tion f	ormat)							
-	b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
D8120																
			Bi	it	De	scriptio	on					ting de				
			b	C	Da	ta leng	jth					0:7b 1:8b				
			b	1								b2			b1	
						Parity			Nor Odd nu			0			0	
			bź	2					Even nu			1			1	
															•	
			b3	3	S	Stop bit	t					0:1b				
												1: 2 b	It			
			b4	4							b7	7	b6	b5	b4	ļ.
									300k	ops	0		0	1	1	
			b	5				-	600k		0		1	0	0	
						nsmiss	ion	-	1200		0		1	0	1	
			b6	6	:	speed			2400 4800		0		1 1	<u>1</u> 1	0	
									9600		1		0	0	0	
			b	7					19200		1		0	0	1	
											•					
			b8	3								0				
			b	9		_						0				
			b1	0								b11			b10	
			b1	1	H	/W typ	e		RS-4	185		0			0	
			b1	2		_						0				
			b1	3	Su	m che	ck					N/A Availa	able			
			b1	4		munica rotoco					1: Co	omput	er link			
			b1	5		nsmiss I proce					0	: Form	ו 1			



REMARK

The following shows an example of setting values to the special data registers by using GX Developer.

0	M8002	[MOY	H6080	D8120	Э
		[МОУ	HOC	D8121	Э
		[M0Y]	K20	D8129	Э

The following shows the setting details of each special data register in the above program.

(1) D8120

()		
	Transmission control procedure	: Form 1
	Communication protocol	: Computer link
	Sum check	: Available
	H/W type	: RS-485
	Transmission speed	: 9600bps
	Stop bit	: 1 bit
	Parity	: N/A
	Data length	: 7 bit
(2) D8	3121	
	Station No.	: 12
(3) D8	3129	
	Time out time	: 200ms

6.1.2 Accessing procedure

The procedure for making access to the programmable controller CPU using computer link communication will be explained in the following order.



(1) System examples

The following system examples are used in this section.



(2) Making the switch settings of the computer link module(a) For 1:1 communication

ltore	Sett	ings	Cet Velue
Item	b15 to b8	b7 to b0	Set Value
Switch 1	CH1 communication speed	CH1 transmission setting *1	0000н
Switch 2	_	CH1 communications protocol	0000н
Switch 3	CH2 communication speed	CH2 transmission setting *1	0000н
Switch 4		CH2 communications protocol	0000н
Switch 5	Module sta	tion number	0000н

*1: Settings of CH1 and CH2 are indicated below.



 *2: When the communication protocol is set to GX Developer connection (0H), the online change bit (b6) setting is made invalid to enable online change regardless of the online change setting.
 Refer to the Q series-compatible C24 manual for details.

			Settings		
	Switch (Switch Number)	Modu	ule 1)	Modu	ule 2)
		CH1 side	CH2 side	CH1 side	CH2 side
Mode setting sv	witch	0	5 (format 5)	5 (forr	mat 5)
Station number	setting switches		1	3	3
	Operation setting switch (SW01)	OFF (independent	ON (synchronous	OI	=F
		operation)	operation)	(independer	nt operation)
	Data bit setting (SW02)	ON (8 bit)	ON (8 bit)
	Parity bit yes/no setting (SW03)	ON	(yes)	ON (yes)
	Even parity/odd parity setting (SW04)	OFF	(odd)	OFF	(odd)
	Stop bit setting (SW05)	OFF	(1 bit)	OFF	(1 bit)
	Sum check yes/no setting (SW06)	ON	(yes)	ON (yes)
Transmission	Online change enable/disable setting (SW07)	ON (e	nable)	ON (e	nable)
specifications setting	Setting change enable/disable setting (SW08)	ON (e	nable)	ON (e	nable)
switches		9600	Obps	9600)bps
		SW	Setting	SW	Setting
	_	SW09	ON	SW09	ON
	Transmission speed setting (SW09 to SW12)	SW10	OFF	SW10	OFF
		SW11	ON	SW11	ON
		SW12	OFF	SW12	OFF
	— (SW13 to SW15)	All (OFF	All (DFF

(b) For 1:n communication

(3) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for 1:n communication.

	1) Start the communication setup utility and select the
	communication setting wizard.
Communication Setting Wizard - Introduction This Communication Setting Wizard will set the communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number.	2) Type "1" in Logical station number and click Next>.
Logical station number	
Cancel < Back Next > Finish	
↓	
Communication Setting Wizard - PC side X Please select the PC side IF	3) Make settings as indicated below and click Next>.
PC side l/F Serial	
Connect port COM1	PC side I/F : Serial
Time out 10000 ms	Connect port : COM1
	Time out : 10000
Cancel < Back Next > Finish	
\downarrow	
Communication Setting Wizard - PLC side	4) Make settings as indicated below and click Next>.
Please select the PLC side VF PLC side VF C24 module	
Communication setting Module type AJ710C24	PLC side I/F : C24 module
Station No 1 Transmission speed 9600 V bos	Module type : AJ71QC24
Transmission speed 9600 bps Parity Odd	Station No : 1
	Transmission speed : 9600
	Parity : Odd
Control DTR or RTS Control	Control : DTR or RTS Control
Cancel < Back Next > Finish	
↓	
(To the next page)	

(Fron	n the previous page)		
Communication Setting Wizard -	Network X Please select the Network Station type Other station V Network C24 V Network route Network type Multidrop(combine) V	5) Make settings a Station type Network Network type	as indicated below and click <u>Next></u> . : Other station : C24 : Multidrop(combine)
Cancel	< Back Next > Finish		
Communication Setting Wizard -	Other station Please select the Other station Other station setting CPU type Q2A Station No 3	6) Make settings a CPU type Station No	as indicated below and click <u>Next></u> . : Q2A : 3
Cancel	< Back Next > Finish		
Communication Setting Wizard -	Finished X The Communication w/zard has finished collecting information. Please Finish to build the logical station number. Comment C24_Sample	7) Enter a comme	nt and click Finish .
Cancel	<back next=""> Finish</back>		

(Registration complete)

(4) Checking the logical station number settings (Conducting a communication test)

Check whether the computer link communication settings are correct or not, using the logical station number set in (3).



 Display the "Target setting" tab screen and select the logical station number "1".
 Check whether the logical station number settings are correct or not.

Test
Test

2) Display the "Connection test" tab screen and set the logical station number "1".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurs, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.This logical station number is made applicable by user program creation and PLC monitor utility.

Collect device data, using this logical station number.

6.2 Ethernet Communication (In case of using Ethernet interface modules)

This section provides the procedure for Ethernet communication with the Ethernet interface module and its setting example using the utility setting type.

6.2.1 Switch settings of Ethernet modules

This section gives the switch settings of Ethernet modules for the use of MX Component.

POINT

When using MX Component, the settings other than "As set by user" in the tables are fixed as given in the tables.

- Q series-compatible E71 Set the Q series-compatible E71 in "MNET/10H Ethernet module count setting" of GX Developer.
- (2) QE71

		Setting				
Switc	h (Switch Number)	TCI	P/IP	UDP/IP		
Gwite		When ASCII packet is used	When binary packet is used	When binary packet is used		
Operation mode s	Operation mode setting switch		0 (o	nline)		
	Line processing selection for TCP time-out error (SW1)	OFF				
	Data code setting (SW2)	ON (ASCII code)	OFF (binary code)	As set by user		
Communications condition setting switches	Automatic start mode setting (SW3)	OI	FF	ON		
Switches	— (SW4 to SW6)			OFF		
	CPU communications timing setting (SW7)	ON				
	Initial timing setting (SW8)	OFF				

(3) E71

	Switch *1		Setting				
			P/IP	UDP/IP			
	Ownon 1	When ASCII	When binary	When ASCII	When binary		
		packet is used	packet is used	packet is used	packet is used		
Operation mode setting switch			0 (o	nline)			
	Line processing selection for TCP time-out error	OFF					
Communications	Data and notting	ON	OFF	ON	OFF		
condition setting	Data code setting	(ASCII code)	(binary code)	(ASCII code)	(binary code)		
switches	CPU communications timing setting)	ON					
	Initial timing setting	OFF					

*1: For switch numbers, refer to the E71 module manual.

6.2.2 Accessing procedure

The procedure for making access to the programmable controller CPU using Ethernet communication will be explained in the following order.



*1: You need not edit the HOSTS file when entering the IP address in the host name (IP Address) of the communication setting utility and the ActHostAddress property of the Ethernet communication control.

(1) System examples

The following system examples are used in this section.







(2) Making the switch settings of the Ethernet modules The switch setting examples in this section are the same as in "Section 6.2.1 Switch settings of Ethernet modules". For details, refer to "Section 6.2.1 Switch settings of Ethernet modules". (3) Making parameter setting
 Parameter setting may either be made from the network parameter
 "MELSECNET/ETHERNET setting screen" of GX Developer or from a sequence
 program.
 The network parameters of GX Developer must be used to set the Q series

compatible E71 (TCP/IP, UDP/IP) or QE71 (UDP/IP), or a sequence program used to set the QE71 (TCP/IP) or E71 (TCP/IP, UDP/IP).

(a) Q series-compatible E71 In the network parameters, set the network type, first I/O No., network No., station number, mode and operational settings.

CPU to Be Set	Setting Screen Example
	Ethernet parameters Network type Ethernet Control of the States States No. 2 1 1 Total autoros States No. 0 0 0 States No. 0 0 States No
CPU1	Submer
	Ethernet parameters
CPU2	Operational settings Ethernet operations Communication data code Initial liming Communication data code Communication Provide Send tame setting IP address DEC IP address ISE DO2 3 Communication setting Use the KeepAlve Comment Use the Ping End Cancel

(b) QE71

1) For TCP/IP

The QE71 requires an initial processing and communication line open processing sequence program for the use of TCP/IP. The sequence program example is given below.

The sequence program example is given below.

Setting Item	Set Value	Setting Item	Set Value
TCP/IP open system	8000н (TCP, fixed buffer send)	QE71's port number	500н
QE71's IP address	192.168.0.2		



↓ (To the next page)

POINT This sample sequence program is installed into the following folders after installation of MX Component. [User-specified folder]-[Act]-[Sample]-[Gppw]-[Qe71_tcp]

(From the previous page)



2) For UDP/IP

For the QE71, set the network type, first I/O No., network No., group No., station number and IP address on the Ethernet parameter setting screen of GX Developer when using UDP/IP.

CPU to Be Set	Setting Screen Example
	Ethernet parameters Network type Ethernet Module No 1 Module No 2 Module No 2
CPU1	Total atoms 0 Group No. 0 0 Station No. 2 1 IP addem0EC 192168.0.2 192188.0.1 EVEN State of Procession Station No. 2 IP addem0EC 192168.0.2 192188.0.1 EVEN State of Procession Station No. 10 FTP Parameters FTP Parameters FTP Parameters Route refere parameters Thouter refere parameters Thours refere parameters
	Operational settings
	IP Address X Input format DEC. Imput format IP address 192 168 0 IP address OK Cancel
	Ethernet parameters
CPU2	Module No.1 Module No.2 Start UD No. 0040 Network No. 2 Total atkons 0 Situat UD No. 2 Total atkons 0 Situat UD No. 3 Situat UD No. 0 Situat UD No. 0 Situat UD No. 0 Situation No. 0 Situation No. 3 IP addem0EC 152 168. 0. 3 For the parameters For the parameters For the parameters For the parameters
	Operational settings
	IP Address X Input format DEC. ▼ IP address 132 168 0 3 Cancel

(c) E71

The E71 requires an initial processing and communication line open processing sequence program.

The sequence program example is given below.

1) For TCP/IP

Setting Item	Set Value	Setting Item	Set Value
TCP/IP open system	8000н (TCP, fixed buffer send)	E71's port number	500н
E71's IP address	192.168.0.2		



↓ (To the next page)

POINT		
This sample sequence program is installed into the following folders after		
installation of MX Component.		
[User-specified folder]-[Act]-[Sample]-[Gppw]-[E71_tcp]		

 \downarrow \ast <Communication method set TCP/IP >M2 Unopenab le flag X10 X19 ⊣⊢ D110 Setting use purp ose -[MOVP H8000 56 D110 Setting use purp ose -[TOP HO K16 K1 * <Module port number 500H(1280) D111 E71 port number H500 -[MOVP D111 E71 port number -[тор но K24 K1 Y8 Open req uest No. 1 -[SET 7 * <Read open error code Y8 Open req uest No. 1 X18 X10 88 -[FROM HO K93 D101 K1 * <Turn OFF open request signal Y8 Open req uest No. 1 RST ко D101 ₽¢ ٦ * <Turn ON unopenable flag M2 Unopenab le flag -[set X10 107 ---[PLF MO * <Turn OFF open request signal MO Y8 Open req uest No. 1 111 -[RST -Î Î * <Turn ON unopenable flag -[SET M2 Unopenab le flag * <Timer until reopening(500ms) K5 M2 Unopenab le flag 114 -(T0 * <Turn OFF unopenable flag (500ms) TO M2 Unopenab le flag -[RST 118 -[END

(From the previous page)

2) For UDP/IP

Setting Item	Set Value
UDP/IP open system	100н (UDP, fixed buffer send)
E71's IP address	192.168.0.2
E71's port number	500н

Setting Item	Set Value
Other node IP address *1	FFFFFFFH
Other node port number * ¹	FFFFH



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			/					
				* <c< th=""><th>ommunicati</th><th>on method s</th><th>set UDP/IP</th><th>×</th></c<>	ommunicati	on method s	set UDP/IP	×
56	×10 →/T	×19 ──┤			—[MOVP	H100	D110 Setting use purp ose	3
			[TOP	HO	K16	D110 Setting use purp ose	K1	3
				* <m< td=""><td>odule port</td><td>number 500</td><td>)H(1280)</td><td>></td></m<>	odule port	number 500)H(1280)	>
					[MOVP	H500	D111 E71 port number	3
				* <s< td=""><td>etting sim</td><td>ultaneous t</td><td>proadcast</td><td>></td></s<>	etting sim	ultaneous t	proadcast	>
				[dmovp	HOFFFFFF	FF	D112 Other no de IP ad dress	
				* <s< td=""><td>etting sim</td><td>ultaneous b</td><td>proadcast</td><td>></td></s<>	etting sim	ultaneous b	proadcast	>
					[MOVP	HOFFFF	D114 Other no de port number] *1
			[тор	HO	К24	D111 E71 port number	K4	3
						-[set	Y8	
						- <u>1</u> 351	Open req uest No. 1	1
99							[END	3

In the communications enabled status, the E71's RUN LED is lit and the RDY LED flickers.

- *1: This sample sequence program represents a setting example for simultaneous broadcast. When the E71 on the programmable controller side is the AJ71E71 or A1SJ71E71-B2/B5, the "simultaneous broadcast" function is not supported. In such a case, specify the following address in "Communication address setting". Other node IP address: IP address of the personal computer where MX Component is running Other node port number: Port number of the personal computer where MX Component is running
 - (Example) Making "Communication address setting" for the E71 by specifying a personal computer of the following IP address and port number:
 - Other node IP address: 192.168.0.1(C0A80001н) Other node port number: 500 н
 - Change the "Setting simultaneous broadcast" parts in the above sample program as shown below.
 - DMOVP H0FFFFFFF D112 \rightarrow DMOVP HC0A80001 D112 MOVP H0FFFF D114 \rightarrow MOVP H0500 D114

POINT

This sample sequence program is installed into the following folders after installation of MX Component. [User-specified folder]-[Act]-[Sample]-[Gppw]-[E71_udp]

(4) Making routing parameter setting

(a) Q series-compatible E71
 Set the Q series-compatible E71 in "Ethernet parameter setting" of GX
 Developer.
 For the concept of the routing parameters, refer to "Appendix 1 Concept of

For the concept of the routing parameters, refer to "Appendix 1 Concept of the Routing Parameters".

CPU to Be Set	Setting Screen Example
CPU1	Transfer to network No.Intermediate network No.Intermediate station No.112222113
CPU2	Transfer to network No.Intermediate network No.Intermediate station No.11222112

(b) QE71

Set the QE71 in "Ethernet parameter setting" of GX Developer. For the concept of the routing parameters, refer to "Appendix 1 Concept of the Routing Parameters".

CPU to Be Set	Setting Screen Example
CPU1	Target Relay Relay Via networkNo. networkNo. StationNo. StationNo.
CFUT	
05140	Target Relay Relay Via networkNo. networkNo. StationNo. StationNo.
CPU2	

(5) Making communications check

After completion of preparations for Ethernet communication, execute ping in the MS-DOS mode to check connection before starting communications on MX Component.

When normal C:\>ping 192.168.0.2

Reply from 192.168.0.2:bytes=32 time<10ms TTL=32

When abnormal

C:\>ping 192.168.0.2

Request timed out.

If ping does not pass through, check module connections and Windows[®] side IP address and other settings.

(6) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for Q series-compatible E71.

1) Start the communication setup utility and select the

		communication set	ting wizard.
Communication Setting Wizard -	Introduction IX This Communication Setting Wizard will set the communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number.		station number and click Next>.
Cancel	Logical station number 2 💌		
Communication Setting Wizard • I	C side Please select the PC side UF C side UF Communication setting Communication setting Communication setting Vetwork No 1 Station No 2 Time out 60000 ms	3) Make settings as in PC side I/F Connect module Protocol Network No Station No Time out	dicated below and click Next>. : Ethernet board : QJ71E71 : TCP : 1 : 2 : 60000
Communication Setting Wizard - I	→ LC side X	4) Make settings as in	dicated below and click Next>.
Cancel	Please select the PLC side I/F PLC side I/F Ethernet module Communication setting Module type OJ/71E71 Host(P Address) 192.168.0.1 Network No 1 Station No 1	PLC side I/F Module type Host (IP Address) Station No	: Ethernet module : QJ71E71
Canodi		1	



(Fror	n the previous page)		
	\downarrow		
Communication Setting Wizard -	Network X Please select the Network Station type Other station T	5) Make settings a	as indicated below and click Next>.
	Network Ethernet	Station type Network	: Other station : Ethernet
Cancel	< Back Next > Finish		
	\downarrow		
Communication Setting Wizard -	Other station ×	6) Make settings a	as indicated below and click Next>.
	Cher station setting	CPU type Network No Station No	: Q02(H) : 2 : 3
	Network No 2 Station No 3	Multiple CPU	: None
	Multiple CPU None		
Cancel	< Back Finish		
	↓		
Communication Setting Wizard - Fin	Finished X The Communication w/zard has finished collecting information. Please Finish to build the logical station number.	7) Enter a comme	nt and click Finish .
	Comment E71_Sample		
Cancel	< Back Next > Finish		
	\downarrow		

(Registration complete)

(7) Checking the logical station number settings (Conducting a communication test)

Check whether the computer link communication settings are correct or not, using the logical station number set in (6).



 Display the "Target setting" tab screen and select the logical station number "2".
 Check whether the logical station number settings are

Check whether the logical station number settings are correct or not.

anu <u>H</u> elp			
arget setting List view Connection te	st		
ogical station number 2:E71_Same	le	-	Test
Communication diagnosis count	5		
-Result			
Diagnosis count	0		
Result			
CPU name			
Mean time of communication	0 ms		

2) Display the "Connection test" tab screen and set the logical station number "2".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.3 Ethernet Communication (In case of using Built-in Ethernet port CPUs)

This section provides the procedure for the Ethernet communication with the Built-in Ethernet port CPU and its setting example using the utility setting type.

6.3.1 Accessing procedure

The procedure for making access to the programmable controller CPU using Ethernet communication will be explained in the following order.



*1: You need not edit the HOSTS file when entering the IP address in the host name (IP address) of the communication setting utility and the ActHostAddress property of the Ethernet communication control.

(1) System example

The following system example is used in this section.



(2) Setting parameters (In case of connection by specified Host (IP address only)

Parameter setting may be made from the PLC parameter of GX Developer. Select the <<Built-in Ethernet port>> tab and make communication settings such as IP address

IP address	Input format	c 🖣	Open settings			
IP address Subnet mask pattern	10 97	19 177	FTP settings Time settings			
Default router IP add Communication data co			Set if it is neede	ad(Default / Cł	nanged)	
Disable direct con	nge (FTP, MC protocol) nection to MELSOFT search for CPU (Built-in E	(thernet port) on r	network			

(3) Making communications check

After completion of preparations for Ethernet communication, execute ping in the MS-DOS mode to check connection before starting communications on MX Component. When normal C:\>ping 192.168.0.2 Reply from 192.168.0.2:bytes=32 time<10ms TTL=32 When abnormal C:\>ping 192.168.0.2 Request timed out. If ping does not pass through, check module connections and Windows side IP address and other settings.

(4) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the example for using the Built-in Ethernet port CPU (Q04UDEH) system example for (1).


(From	the previous page)		
Communication Setting Wizard	J - PLC side	6) Make settings as ir	ndicated below and click Next>.
	Please select the PLC side UF PLC side UF Communication setting Ethernet port direct connection Host(P Address) Find CPU (Built-in Ethernet port) on network		box "Ethernet port direct connection".
Cancel	< Beck Next > Finish		
Communication Setting Wizard	I • Network Please select the Network Station type Host station CPU type OO4LDEH Multiple CPU None Image: State of the state of the	7) Make settings as ir Station type CPU type Multiple CPU	ndicated below and click <u>Next></u> . : Host station : Q04UDEH : None
Cancel	< Back Next > Finish		
	\downarrow		
Communication Setting Wizard	Finished The Communication wizerd has finished collecting Information. Please Finish to build the logical station number.	8) Enter a comment a	and click [Finish].
Cancel	Comment GnUDE Şample < Back Next > Finish		
		J	

(Registration complete)

Perform the Built-in Ethernet port CPU search on the following screen displayed by clicking the Find CPU (Built-in Ethernet port) on network when use it.

address	PLC type	Label	Comment	<u> </u>	
0.97.19.124	Q03UDECPU				ОК
0.97.19.177	Q04UDEHCPU				
					Cancel
					Cancer
				-	
1				- C	
ids CPU (Built-i nen the followi		e same networi	c. This cannot be perfor		vaiting time(sec
				response -	voluing uno(see

Choosing the target CPU from the list and clicking OK enables to reflect the IP address on the "Communication Setting Wizard – PLC side" setting.

* Built-in Ethernet port CPUs on the same network may be the target of the search.

(5) Checking the logical station number settings (Conducting a communication test)

Check whether the Ethernet communication settings are correct or not, using the logical station number set in (4).

Le Communication Setup Utility Meru Help Teget etitră List vew Connection test Logical station number 177 GrUDE Sample Utizard. Delete. Delete.	 Display the "Target setting" tab screen and select the logical station number "17". Check whether the logical station number settings are correct or not.
Communication Setup Utility Cerve Jake Terget setting List view Connection text Logical station number Tricent Secure Cerve number Cerve number Cerve number Cerve number Text Ext Ext	2) Display the "Connection test" tab screen and set the logical station number "17".
↓ ■ ■ ★ ■ ■ ■ ★ ■ ■ ■ ■	 3) Click Test to check that communication is being performed normally. If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.) Refer to the programming manual for error code details.
↓ (Communication test complete)	 4) Through the above steps, it is confirmed that the logical station number settings are correct. This logical station number is made applicable by user program creation and PLC monitor utility. Collect device data, using this logical station number.

6.4 Ethernet Communication

(In case of using CC-Link IE Field Network Ethernet adapter module)

This section provides the procedure for the Ethernet communication with the in case of using CC-Link IE Field Network Ethernet adapter module and its setting example using the utility setting type.

6.4.1 Accessing procedure

The procedure for making access to the programmable controller CPU using Ethernet communication will be explained in the following order.



(1) System example

The following system example is used in this section.



(2) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

1) Start the communication setup utility and select the





(From the previous page)	
\downarrow	
Communication Setting Wizard - Network	5) Make settings as indicated below and click Next>.
Please select the Network Station type Other station(Single)	Station type : Other station(Single)
Cancel <back next=""> Fridh</back>	
Cancel <back next=""> Finish</back>	
\downarrow	
Communication Setting Wizard - Other station	6) Make settings as indicated below and click Next>.
Please select the Other station	
Other station setting CPU type Q13UDH	CPU type : Q13UDH
CPU type Q13UDH	Network No : 1
Network No 1	Station No : 0
Station No 0	Multiple CPU : None
Multiple CPU None 👻	
,	
Cancel < Back Next > Finish	
\downarrow	
Communication Setting Wizard - Finished	7) Enter a comment and click Finish.
The Communication wizard has finished collecting information.	
Please Finish to build the logical station number.	
Comment Ethernet adapter Sample	
Cancel < Back Next > Finish	
\downarrow	

(Registration complete)

(3) Checking the logical station number settings (Conducting a communication test)

Check whether the computer link communication settings are correct or not, using the logical station number set in (2).

🖳 Communic	ation Setup Utility	/		
Menu Help				
Target setting	List view Connection	in test		
Logical station	number 12 Etherne	t adapter Sample	•	Wizard Delete
	Ethernet			
PC MF	Ethernet	CPU type	Q13UDH	-
Protocol	TCP	Module type	CC IE Field ADP	
Time-out	60000 ms	Host(IP Address)	192.168.3.30	
		Network No	1	
		Station No	þ	
		Multiple CPU	None	
				Exit

 Display the "Target setting" tab screen and select the logical station number "12".
 Check whether the logical station number settings are

Check whether the logical station number settings are correct or not.

	\downarrow	
a Communication Setup Utility		- DX
Menu Help	1	
Target setting List view Connection test	:	
Logical station number 12 Ethernet av	dapter Sample	Test
Communication diagnosis count		
Result		
Diagnosis count	0	
Result		
1000		
CPU name		
CPO hane	J	
Mean time of communication	0 ms	
		Exit

2) Display the "Connection test" tab screen and set the logical station number "12".

•	Test

Т

↓ (Communication test complete) 3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error.

The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.

This logical station number is made applicable by user program creation and PLC monitor utility.

Collect device data, using this logical station number.

6.5 CPU COM Communication

This section provides the CPU COM communication procedure and its setting example using the utility setting type.

6.5.1 Accessing procedure

The procedure for making access to the programmable controller CPU using CPU COM communication will be explained in the following order.



(1) System example

The following system example is used in this section.



6 - 39

6 - 39

(2) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

Communication Setting Wizard - Internet Sett	This Communication Setting Wizard will set the communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number.	communication set	cation setup utility and select the tting wizard. station number and click Next>.
Cancel	Logical station number 3 Sack Next> Finish		
Communication Setting Wizard - PC	side X Please select the PC side UF Communication setting Connect port COMMI Time out 10000 ms <back next=""> Finish</back>	3) Make settings as in PC side I/F Connect port Time out	ndicated below and click <u>Next></u> . : Serial : COM1 : 10000
Communication Setting Wizard - PLC	side Please select the PLC side UF PLC side UF CCPU module Communication setting Communication setting CCPU type	4) Make settings as ir PLC side I/F CPU type Transmission spee Control	ndicated below and click Next>. : CPU module : Q02(H) ed : 19200 : DTR or RTS Control
Cancel	< Back Finish		
	\downarrow		



(From	n the previous page)		
Communication Setting Wizard - N	Network Image: Constraint of the station Network MELSECNET/10(H) Network route MelsECNET/41	5) Make settings a Station type Network Mode	is indicated below and click <u>Next></u> . : Other station : MELSECNET/10(H) : MELSECNET/H
Cancel	< Back Finish		
Communication Setting Wizard - C	Please select the Other station Please select the Other station Cther station setting CPU type Q02(H) Network No 5 Station No 5	6) Make settings a CPU type Network No Station No Multiple CPU	is indicated below and click <u>Next></u> . : Q02(H) : 5 : 5 : None
Cancel	Mutiple CPU None		
Communication Setting Wizard - F	The Communication wizard has finished collecting information. Please Finish to build the logical station number. Comment CPU COM_Sample	7) Enter a comme	nt and click Finish.
Cancel	<back next=""> Finish</back>		

(Registration complete)

(3) Checking the logical station number settings (Conducting a communication test)

Check whether the CPU COM communication settings are correct or not, using the logical station number set in (2).



 Display the "Target setting" tab screen and select the logical station number "3".
 Check whether the logical station number settings are

Check whether the logical station number settings are correct or not.



 Display "Connection test" tab screen and set the logical station number "3".



(Communication test complete)

3) Click the Test to check that communication is being performed normally.

If an error occurs, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.6 CPU USB Communication

This section provides the CPU USB communication procedure and its setting example using the utility setting type.

6.6.1 Accessing procedure

The procedure for making access to the programmable controller CPU using CPU USB communication will be explained in the following order.





(2) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

			nunication setup utility and select the n setting wizard.
Communication Setting Wizard - In	This Communication Setting Wizard will set the communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number.		ical station number and click Next>.
Cancel	Logical station number 4		
Communication Setting Wizard - PC	C side Please select the PC side MF PC side MF Communication setting Time out 10000 ms	3) Make settings a PC side I/F Time out	as indicated below and click <u>Next></u> . : USB : 10000
Cancel	< Back Next > Finish		
Communication Setting Wizard - Pt	LC side Please select the PLC side UF PLC side UF Communication setting CPU type Q02(H)	4) Make settings a PLC side I/F CPU type	as indicated below and click <u>Next></u> . : CPU module : Q02(H)
Cancel	<back next=""> Finish</back>		

(To the next page)

(From the previous page)	
Communication Setting Wizard - Network Please select the Network Station type Other station Network MeLSECNET/10(H) Network Mode MeLSECNET/H	5) Make settings as indicated below and click Next>. Station type : Other station Network : MELSECNET/10(H) Mode : MELSECNET/H
Cancel <back finish<="" td=""><td></td></back>	
Communication Setting Wizard - Other station Please select the Other station Please select the Other station Cetter station setting CPU type Q02(H) CPU type Q02(H) Mutuple CPU Network No 1 Station No 8 Mutuple CPU None	 6) Make settings as indicated below and click Next>. CPU type : Q02(H) Network No : 1 Station No : 8 Multiple CPU : None
Cancel <back finish="" finish<="" td=""><td></td></back>	
Communication Setting Wizard - Finished X The Communication wizard has finished collecting information. Please Finish to build the logical station number.	7) Enter a comment and click Finish.
Conment CPU USB_Sample Cancel < Back Next > Finish	
·	

(Registration complete)

(3) Checking the logical station number settings (Conducting a communication test)

Check whether the CPU USB communication settings are correct or not, using the logical station number set in (2).



1) Display the "Target setting" tab screen and select the logical station number "4".

Check whether the logical station number settings are correct or not.



 Display the "Connection test" tab screen and set the logical station number "4".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.7 MELSECNET/10 Communication

This section provides the MELSECNET/10 communication procedure and its setting example using the utility setting type.

6.7.1 Accessing procedure

The procedure for making access to the programmable controller CPU using MELSECNET/10 communication will be explained in the following order.



(2) Checking the MELSECNET/10 board Check whether the IBM-PC/AT compatible is connected properly to the MELSECNET/10.



- 1) Click [Start]-[Program]-[Melsec]-[MELSECNET10 Utility] to start the MELSECNET/10 utility.
- 2) Display the "Card information" tab, set as indicated below, and then click Routing Param. Setting.

Channel : 51: MELSECNET10 (1 slot) Mode Setting : 1 On-line automatic return

3) Set the routing parameters and click Set.

Transfer Target networkNo.	: 2
Relay Target NetworkNo.	:1
Relay Target Sta.No.	: 2

After that, click the OK button to close the dialog box.

4) Click Routing Param. Transfer to transfer the routing parameters to the MELSECNET/10 board.



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hannel 61:MELSECNET10 (1 slot)	tory moniter Version
Own Statuon Information NetworkNo. CableNo. 1 0 1 Normal Sta.	Error Information Loop Information F Loop Normal R Loop Normal FLoop Back Sta
Mode Online Comm. Normal Status Namat Link Scan Maimum 10 ms Minimum 7 ms Current 8 ms	Loop Back Sta [RLoop Back Sta [Loop Back Not in executi Loop Back Not in executi Doubling data link Cause of Comm. Duting data link Cause of Comm. Datalink Stop Cause Normal comm.
	Exit Help

 Display the "Loop monitor" tab screen and make sure that the loop is normal.

(Check complete)

6) Click Exit to exit from the utility.

(3) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

1) Start the communication setup utility and select the



(To the next page)

(From the previous page)	
Communication Setting Wizard - Network Please select the Network Station type Other station(Single)	 4) Make settings as indicated below and click Next>. Station type : Other station(Single)
Cancel <beck finish<="" td=""><td></td></beck>	
Communication Setting Wizard - Other station Please select the Other station Cther station setting CPU type A2USH-S1 CPU type A2USH-S1 CPU	5) Make settings as indicated below and click Next>. CPU type : A2USH-S1 Network No : 2 Station No : 2
Communication Setting Wizard - Finished The Communication wizard has finished collecting information. Please Finish to build the logical station number. Comment NET10_Sample	■ 6) Enter a comment and click Finish.
Cancel < Back Next > Finish	

(Registration complete)

(4) Checking the logical station number settings (Conducting a communication test)

Check whether the MELSECNET/10 communication settings are correct or not, using the logical station number set in (3).

🖳 Communication Setup Utility	_ 🗆 ×
Menu Help	
Target setting List view Connection test	
Logical station number 5:NET10_Sample	Delete
MNET/10	
PC I/F MNET/10 CPU type A2USH-	S1
Board No No.1 Network No 2	
Station No 2	
	Exit

 Display the "Target setting" tab screen and select the logical station number "5".
 Check whether the logical station number settings are correct or not.

-	Test
	<u>.</u>
_	
	-

2) Display the "Connection test" tab screen and set the logical station number "5".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.8 CC-Link Communication

This section provides the CC-Link communication procedure and its setting example using the utility setting type.

6.8.1 Accessing procedure

The procedure for making access to the programmable controller CPU using CC-Link communication will be explained in the following order.



* Accessible to the FXCPU with CC-Link communication only via the serial/USB connection of the QCPU or via the Q series-compatible C24.

Supported CPUs and module in CC-Link communication to FXCPU are as follows.

CC-Link module	Compatible CPU	Station number
FX3U-64CCL	FX3G,FX3U(C)	1 to 63

(2) Checking the CC-Link board

Check whether the IBM-PC/AT compatible is connected properly to CC-Link.

CC-Link Ultity Information Board Information Network Manitor Statum's Link Status I argot MemoryUO Text Network Text Version Channel G1.CC-Link(1) Board Setting Cocupy St. Link EntX Data Board Setting Version Version Cocupy St. Link EntX Data Board Setting Version Versi
I
E SW F TEST F R MS F TEST F R FPRW F F R INNE F F LERR F R SD LERR F RD C Extension Setting
Device Monitor Exit Help
Ļ
Mode Seting
Online 🔽
Аррју

- 1) Click [Start]-[Program]-[Melsec]-[CC-Link Board Utility] to start the CC-Link utility.
- 2) Display the "Board Information" tab screen and set the channel to "81:CC-Link (1)", and set the own station.

Station No.	: 1
Station type	: Local station
Occupy St.	: 4 St.
Link Err X Data	: Clear
Baud Rate	: 10M

Set the mode to "Hardware test", click Apply, and check whether the CC-Link card is normal or not.

- 3) Set the mode to "Online" and click Apply.
- 🞬 CC-Link Utility _ 🗆 X Information | Board Information Network Monitor | Station's Link Status | Target | MemoryI/O Test | Network Test | Version | Network Monitor Link Scan Time(ms) Max Current Mir Data Link Status Error Status Channel St. Туре 81 1 Local Data linking 2 Normal 2 2 Device Monitor Exit Help ↓
 - (Check complete)

4) Display the "Network Monitor" tab screen and make sure that the loop of the own station is normal.

5) Click Exit to exit from the utility.

(3) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

Communication Setting Wizard - 1	Introduction Image: Communication Setting Wizard will set the communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number. Logical station number	 Start the communication setup utility and select the communication setting wizard. Type "6" in Logical station number and click Next>.
Cancel	< Back Next > Finish	
	<u> </u>	
Communication Setting Wizard - I	PC side X Please select the PC side I/F PC side I/F CC-Link board Communication setting Board No 1st module <back next=""> Finish</back>	3) Make settings as indicated below and click Next>. PC side I/F : CC-Link board Board No : 1st module
Communication Setting Wizard - N	Vetwork Please select the Network Station type Other station(Single)	4) Make settings as indicated below and click Next>. Station type : Other station(Single)
Cancel	< Back Finish	
	\downarrow	

(To the next page)

(Fron	n the previous page)		
Communication Setting Wizard •	\downarrow	5) Make settings a CPU type Station No Multiple CPU	: 5
Cancel	Multiple CPU None		
Communication Setting Wizard -	Finished X	6) Enter a comme	nt and click Finish .
Cancel	Coniment CCLINK_Sample < Back Next > Finish		
	\downarrow		
(Reg	gistration complete)		

(4) Checking the logical station number settings (Conducting a communication test)

Check whether the CC-Link communication settings are correct or not, using the logical station number set in (3).

Communication Set	up Utility			_ 🗆 ×
<u>M</u> enu <u>H</u> elp				
Target setting List view	V Connection test			
Logical station number	6:CCLINK_Sample	•	V%zard	Delete
	CC-Link			
PC I/F CC-Link	CPU type	Q02(H)		
Board No No.1	Station No	5		
	Multiple CPU	None		
-				
				E×it
			L	

 Display the "Target setting" tab screen and select the logical station number "6".
 Check whether the logical station number settings are

Check whether the logical station number settings are correct or not.



2) Display the "Connection test" tab screen and set the logical station number "6".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.9 CC-Link G4 Communication

This section provides the CC-Link G4 communication procedure and its setting example using the utility setting type.

6.9.1 Switch settings of CC-Link G4 module

This section gives the switch settings of the CC-Link G4 module for the use of MX Component in the following system configuration.

The settings of MX Component should be the same as the module.



POINT When using MX Component, the settings other than "As set by user" in the tables are fixed as given in the tables.

(1) AJ65BT-G4

Switch (Switch Number)		Setting		
		In QnA mode	In A mode	
Station number se	etting switches	1 (local starion)		
Data link transmission speed setting switch		4 (10Mbps) (match to the transmission speed of the CC-Link module)		
	Operation mode setting (SW1)	ON (QnA mode)	OFF (A mode)	
		1) 9600/ 2)19200/ 3)38400 bp	s yes, odd	
	Inter-peripheral transmission speed setting (SW2, SW3)	SW 1) 2) 3) SW2 OFF ON OFF SW3 OFF ON ON	SWSettingSW2OFFSW3OFF	
Operation setting DIP switches		yes, odd	yes, odd	
	Parity bit yes/no setting (SW4, SW5)	SWSettingSW4OFFSW5OFF	SWSettingSW4OFFSW5OFF	
	— (SW6)	OFF	OFF	
	— (SW7)	OFF	OFF	
	Test mode setting (SW8)	OFF (online mode)	OFF (online mode)	

Switch (Switch Number)		Setting		
Switch		In Q mode In QnA mode In A mode		
Station num	ber setting switches	1 (local starion)		
Data link tra	nsmission speed	4 (10Mbps)		
setting swite	h	(match to the transmission speed of the CC-Link module)		
	Operation mode Setting (SW1, SW6)	SWSettingSW1OFFSW6ON	SWSettingSW1OFFSW6ON	SWSettingSW1OFFSW6ON
Operation setting DIP switches	Inter-peripheral transmission speed setting (SW2, SW3)	Setting need not be made (Automatic setting)	1)9600/2)19200/3)38400 bps SW 1) 2) 3) SW2 OFF ON OFF SW3 OFF OFF ON	9600bps SW Setting SW2 OFF SW3 OFF
	Parity bit yes/no setting (SW4, SW5)	yes, odd SW Setting SW4 OFF SW5 OFF	yes, odd SW Setting SW4 OFF SW5 OFF	yes, odd SW Setting SW4 OFF SW5 OFF
	— (SW7)	OFF	OFF	OFF
	Test mode setting (SW8)	OFF (online mode)	OFF (online mode)	OFF (online mode)

(2) AJ65BT-G4-S3

(3) AJ61BT-11

Switch (Switch Number)	Setting
Station number setting switches	0
Data link transmission speed setting switch	4 (10Mbps)
Mode setting switch	0 (online)
Condition setting switch	All OFF

(4) AJQB11

Switch (Switch Number)	Setting
Station number setting switches	0
Data link transmission speed setting switch	4 (10Mbps)
Mode setting switch	0 (online)
Condition setting switch	All OFF

(5) QJ61QB11

Switch (Switch Number)	Setting
Station number setting switches	0
Data link transmission speed setting switch	4 (10Mbps)
Mode setting switch	0 (online)
Condition setting switch	All OFF

6.9.2 Accessing procedure

The procedure for making access to the programmable controller CPU using CC-Link G4 communication will be explained in the following order.



(2) Making switch settings of the CC-Link G4 module

The switch settings of the CC-Link G4 module are indicated below.

Swite	ch (Switch Number)	Sett	ing
Station number sett	ing switches	01 (station	number 1)
Data link transmissi	on speed setting switch	4 (10N	/lbps)
	Operation mode setting (SW1)	ON (Qn/	A mode)
		1920	0bps
	Inter-peripheral transmission	SW	Setting
	speed setting	SW2	ON
	(SW2, SW3)	SW3	OFF
Operation setting DIP switches	Parity bit yes/no setting (SW4, SW5)	SW SW4	Setting OFF
		SW5	OFF
	(SW6) *1	OF	Ŧ
	— (SW7)	OF	F
	Test mode setting (SW8)	OFF (onli	ne mode)

*1: This switch acts as the operation mode setting switch on the AJ65BT-G4-S3.

(3) Wiring the CC-Link G4 module

The diagram of wiring the CC-Link G4 module to the CC-Link module is shown below.



(4) Setting the network parameters

Parameter setting may either be made from the network parameter "CC-Link setting screen" of GX Developer or from a sequence program.

POINT

When using the CC-Link G4 module in the A mode, set the parameters in accordance with "(b) Making parameter setting in sequence program".

(a) Making parameter setting on CC-Link setting screen Set the first I/O No., type, total number of modules connected, and station information.

Set other setting items as required.

	1		2	3	A
Start I/O No		0000	-		*
Operational setting	Operational settings				
Type	Master station	-	*	*	
Master station data link type	PLC parameter auto start	-	-	*	
Mode	Remote net(Ver.1 mode)	-	-	*	
All connect count		1			
Remote input(RX)					
Remote output(RY)					
Remote register(RW/r)					
Remote register(RW/w)					
Ver.2 Remote input(RX)					
Ver.2 Remote output(RY)					
Ver.2 Remote register(RWr)					
Ver.2 Remote register(RWw)					
Special relay(SB)					
Special register(SW)					
Retry count		3			
Automatic reconnection station count		1			
Stand by master station No.		0			
PLC down select	Stop	v	*	*	
Scan mode setting	Asynchronous	v	•	*	
Delay information setting		0			
Station information setting	Station information				
Remote device station initial setting	Initial settings				
Interrupt setting	Interrupt settings				

<CC-Link parameter setting screen>

<Station information setting screen>

UU-Link st	ation information. Modul	e 1												<u>×</u>
			Expander		Exclusive station	_	Remote station		Reserve/invalid	Labella	ent buffer sek			
Station No.	Station type		cyclic setti		count		points		station select	Sen		Automatic	-	
	Intelligent device station				Exclusive station 1	Ţ		•	No setting 💌		64 64	128	Ŧ	
		Defa			Check	1	End	1	Cancel	1				
	_	2010		-	SHOCK	4		1						
				-		-		-					-	

After setting the CC-Link parameters, write them to the programmable controller CPU.

(b) Making parameter setting in sequence program The parameter setting items for data link and the sequence program example are given below.

<Parameter setting items>

Address	Item	Description	Set Value
1н	Number of connected modules	Set the number of modules on the remote/local stations connected.	1н
20н	Station information	AJ65BT-G4(-S3)	2101н

<Sequence program>



POINT	
This sample se	equence program is installed into the following folders after
installation of N	/IX Component.
[User-specified	l folder]-[Act]-[Sample]-[Gppw]-[Ccg4a]

(5) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

Communication Setting Wizard - Introduction This Communication Setting Wizard will set the communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number.	 1) Start the communication setup utility and select the communication setting wizard. 2) Type "7" in Logical station number and click Next>.
Logical station number 7	
Communication Setting Wizard - PC side Please select the PC side IF PC side IF Communication setting Connect port COMI Time out 10000 ms	 3) Make settings as indicated below and click Next>. PC side I/F : Serial Connect port : COM1 Time out : 10000
Cancel <back finish<="" th=""><th></th></back>	
Communication Setting Wizard - PLC side Please select the PLC side UF PLC side UF PLC side UF PLC side UF PLC side UF PLC side UF Communication setting Mode Control DTR or RTS Control Cancel Cancel Cancel Rest Rest Firsth	 A) Make settings as indicated below and click Next>. PLC side I/F : G4 module Mode : QnA Transmission speed : 19200 Control : DTR or RTS Control



(From	n the previous page)		
	\downarrow		
Communication Setting Wizard - N	Vetwork X Please select the Network Station Type Station type Host station CPU type Q2A	5) Make settings as inc	dicated below and click Next>.
	CC-Link module No 0	Station type	: Host station
		CPU type	: Q2A
		CC-Link module No	: 0
and 1			
Cancel	<back finish<="" td=""><td></td><td></td></back>		
	↓ 		
Communication Setting Wizard - F	The Communication wizard has finished collecting	6) Enter a comment ar	nd click Finish.
	information. Please Finish to build the logical station number.		
	Comment		
	CCLINK G4_Sample		
Cancel	< Back Next > Finish		
Currout	HUGH 2		
	\downarrow		
(Reg	gistration complete)		

(6) Checking the logical station number settings (Conducting a communication test)

correct or not.

Check whether CC-Link G4 communication settings are correct or not, using the logical station number set in (5).



 Display the "Target setting" tab screen and select the logical station number "7".
 Check whether the logical station number settings are

2) Display the "Connection test" tab screen and set the logical station number "7".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.10 CPU Board Communication

This section provides the CPU board communication procedure and its setting example using the utility setting type.

6.10.1 Accessing procedure

The procedure for making access to the CPU board using CPU board communication will be explained in the following order.



Logical station number of "8" is used.

(2) Checking and starting the CPU board Check whether the CPU board is connected to the IBM-PC/AT compatible properly and start the CPU board.

rd Operation Mem.	Protect Mem. 1/0 Test	Board Info.	Version Comm.	Diag
Diagnosis				
Memor I/O po	-	Count FFFh 2 2		
Status Normal			<u>S</u> tart	
evice Monitor	↓			_
J Utility	Protect Mem. I/D Test	Board Info.		<u>C</u> losi Diag
J Utility rd Operation Mem.		Board Info.		_
J Utility rd Operation Mem. Channel 71:AnU CP Communication	U Card <u>*</u>	Board Info.	Version Comm.	_
J Utility rd Operation Mem. Channel 71:AnU CP Communication Diagnosis Count Results Communication	U Card <u>*</u>	Board Info.	Version Comm.	_

- 1) Click [Start]-[Programs]-[Melsec]-[AnU Utility] to start the AnU utility.
- 2) Check whether the CPU board is operating properly. Display the memory I/O test screen and click Start to perform the test any number of times. Then, click Stop to stop the test and make sure that the CPU board is normal.

3) Display the communication diagnosis screen and click
Start to make sure that communication is made properly.
If an error has occurred, check the error code and remove the error.

Refer to the CPU board manual for error code details.

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<u>H</u>elp

Device Monitor



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4) In this section, you must perform setting to make the CPU board running on the board operation screen since access is made while the CPU board is running.



(Check complete)

- 5) Click the CPU operation key to select the unlock status. After choosing the unlock status, click RUN to make the CPU board running.
- 6) Click Close to store the AnU utility into the taskbar.
(3) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

Communication Setting Wizard = Intro	duction X This Communication Setting Wizard will set the communication information for ACT. You can press Back at any time to change your selections. Ylease click Next to begin. Please select the logical station number.	 Start the communication setup utility and select the communication setting wizard. Type "8" in Logical station number and click Next>.
Cancel	Logical station number 8 Kenter Rester Rest	
Communication Setting Wizard - PC t	Idea X Please select the PC side UF PC side UF PC side UF CPU board Image: C	3) Make settings as indicated below and click Next>. PC side I/F : CPU board
Communication Setting Wizard - Net	vork Please select the Network Station type Host station	4) Make settings as indicated below and click Next>. Station type : Host station
Cancel	< Beck Next> Finish	

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	\downarrow	
Communication Setting Wizard - Fr	nished × The Communication wizard has finished collecting information. Please Finish to build the logical station number. Please Finish to build the logical station number. Comment Comment	5) Enter a comment and click Finish.
Cancel	< Back Next > Finish	
	\downarrow	
(Reg	istration complete)	

(4) Checking the logical station number settings (Conducting a communication test)

Check whether CPU board communication settings are correct or not, using the logical station number set in (3).

Communi	ication Setu	ap Utility				_ []]
enu <u>H</u> elp						
Target settir	19 List view	V Connection test				
Logical stat	tion number	8:CPU Board_Samp	le	•	₩vivitard	Delete
PC I/F CPU type	CPU board A2USH-S					
					Γ	Exit

1) Display the "Target setting" tab screen and select the logical station number "8".

Check whether the logical station number settings are correct or not.



2) Display the "Connection test" tab screen and set the logical station number "8".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.11 GX Simulator Communication

This section provides the GX Simulator communication procedure and its setting example using the utility setting type.

6.11.1 Accessing procedure

The procedure for making access to the GX Simulator using ladder logic communication will be explained in the following order.



The following system example is used in this section.



Logical station number of "9" is used.

(2) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

Communication Setting Wizard - Int	Triduction X This Communication Setting Wizard will set the communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number.	communication	unication setup utility and select the setting wizard. ical station number and click <u>Next></u> .
Cancel	Logical station number 9 💽		
Communication Setting Wizard - PC	side X Please select the PC side I/F PC side I/F PC Side I/F OX Simulator Communication Settion Image: Communication Settion Station type Host station CPU type QO2(H) Time out 10000	3) Make settings a PC side I/F Station type CPU type Time out	as indicated below and click <u>Next></u> . : GX Simulator : Host station : Q02(H) : 10000
Cencel		4) Enter a comme	nt and click Finish.
Cancel	< Back Next> Finish		

(Registration complete)

(3) Checking the logical station number settings (Conducting a communication test)

Check whether GX Simulator communication settings are correct or not, using the logical station number set in (2).

Communi	ication Setup Utility			_ [] 2
enu <u>H</u> elp				
Target setti	ng List view Connection test			
Logical stat	tion number 9:GX Simulator_Sample	•	₩vilard	Delete
1				
PC I/F	GX Simulator			
CPU type Time-out	Q02(H) 10000 ms			
				Exit

 Display the "Target setting" tab screen and select the logical station number "9".
 Check whether the logical station number settings are correct or not.



2) Display the "Connection test" tab screen and set the logical station number "9".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.12 GX Simulator2 Communication

This section provides the GX Simulator2 communication procedure and its setting example using the utility setting type.

POINT

The simulation function of GX Works2 cannot be terminated even if stopped by GX Works2 while connecting to MX Component.

(The simulation function of GX Works2 cannot be terminated even if GX Works2 is terminated.)

The simulation function of GX Works2 can be terminated after disconnected to MX Component.

6.12.1 Accessing procedure

The procedure for making access to the GX Simulator using ladder logic communication will be explained in the following order.



Logical station number of "18" is used.

(2) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

Communication Setting Wizard - Introduction Image: Communication Setting Wizard will set the communication information for ACT. This Communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number. Logical station number 18 Cancel < Block	 Start the communication setup utility and select the communication setting wizard. Type "18" in Logical station number and click Next>
Communication Setting Wizard - PC side UF PC side UF PC side UF PC side UF Communication setting Target Simulator A Communication setting Cancel <back next=""> Friefri</back>	3) Make settings as indicated below and click Next>. PC side I/F : GX Simulator2 Target Simulator: Simulator A
Communication Setting Wizard - Finished Image: Communication wizard has finished collecting information. Please Finish to build the logical station number. Comment OX Simulator2_Sample Cancel < Back	4) Enter a comment and click Finish.

(Registration complete)

(3) Checking the logical station number settings (Conducting a communication test)

Check whether GX Simulator2 communication settings are correct or not, using the logical station number set in (2).

Communication Setu	ıp Utility				_ 🗆 ×
Menu Help	(
Target setting List view	· · ·				
Logical station number	18:GX Simulator2_Sample	-	[V9Zard]	Delete	
	Simulator2				
			[E×it]

 Display the "Target setting" tab screen and select the logical station number "18".
 Check whether the logical station number settings are correct or not.



2) Display the "Connection test" tab screen and set the logical station number "18".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.13 MELSECNET/H Communication

This section provides the MELSECNET/H communication procedure and its setting example using the utility setting type.

6.13.1 Accessing procedure

The procedure for making access to the programmable controller CPU using MELSECNET/H communication will be explained in the following order.



- (2) Checking the MELSECNET/H board Check whether the IBM-PC/AT compatible is connected properly to the MELSECNET/H.
 - 1) Click [Start]-[Program]-[Melsec]-[MELSECNETH Utility] to start the MELSECNET/H utility.
- 🗆 × 2) Display the "Board information" tab screen, make the Board list Board information Loop monitor Each sta.status Err history monitor Memory I/D Test Target following settings, and click Board Set . <u>Routing</u> Param.Setting

After that, click Routing Param. Setting.

Channel	: 51:MELSECNET/H (1 slot)
Mode	: Online (auto.reconnection)
Baud rate	: Any (10Mbps here)
NET mode	: MNET/H mode

3) Set the routing parameters and click Set

Target network No.	: 2
Intermediate Network	: 1
Intermediate Sta. No.	: 2

After that, click OK to close the dialog box.

4) Click Routing Param. Transfer to transfer the routing parameters to the MELSECNET/H board.





HELSECNET/H utility

- Own 9

Channel 51:MELSECNET/H (1 slot)

Network No. Group No. Sta.No.

tical fiber)

Control / Normal Sta Normal Sta

-

Board Set

Routing Param. Transfer

etting

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Communication Setting Wizard - Network Please select the Network Station type Other station(Single)	4) Make settings as indicated below and click Next>. Station type : Other station(Single)
Cancel <back finish<="" td=""><td></td></back>	
Communication Setting Wizard - Other station Please select the Other station Please select the Other station Other station setting CPU type OB6H CPU type OB6H CH + CPU Cencel Cence Cenc	5) Make settings as indicated below and click Next>. CPU type : Q06H Network No : 2 Station No : 2 Multiple CPU : No.2
Communication Setting Wizard - Finished The Communication wizard has finished collecting information. Please Finish to build the logical station number. Please Finish to build the logical station number. Comment MNETH_Sample Cancel < Back Next > Finish	6) Enter a comment and click Finish.
<u></u>	

(Registration complete)

(4) Checking the logical station number settings (Conducting a communication test)

Check whether the MELSECNET/H communication settings are correct or not, using the logical station number set in (3).

🖳 Communication Setup Utility			_ 🗆 ×
Menu Help			
Target setting List view Connection test			
Logical station number 10:MNETH_Sample	•	V9Izard.	Delete
MNETAH			
PC I/F MNET/H CPU type	QOEH		
Board No No.1 Network No	2		
Station No	2		
Multiple CPU	No.2		
			Exit

 Display the "Target setting" tab screen and select the logical station number "10".
 Check whether the logical station number settings are correct or not.

Communication Setup Utility nu <u>H</u> elp			_ □
arget setting List view Connection tes	t		
ogical station number 10:MNETH_S	•	•	Test
	5		
-Result			
Diagnosis count	0		
Result			
CPU name			
Mean time of communication	0 ms		

2) Display the "Connection test" tab screen and set the logical station number "10".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x00000000" appears in Result.)

Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.14 CC-Link IE Controller Network Communication

This section provides the CC-Link IE Controller Network communication procedure and its setting example using the utility setting type.

6.14.1 Accessing procedure

The procedure for making access to the programmable controller CPU using CC-Link IE Controller Network communication will be explained in the following order.



Board detail information

- (2) Checking the CC-Link IE Controller Network board Check whether the IBM-PC/AT compatible is connected properly to the CC-Link IE Controller Network.
 - Click [Start]-[Program]-[Melsec]-[CC IE Control Utility] to start the CC IE Control utility.
 - 2) The board list screen appears. Click Setting.

Network No. Group No. Station No. Channel No. Status Board detail information Г Network No. Group No. Station No. Channel No. Board detail information Г Status Diagnostics Setting Channel No. confirm Stop monitor Close ↓ Parameter setting Target board specification Routing parameter 🔽 Board 1 🗖 Board 2 🗖 Board 3 🗖 Board 4

Channel No. 151 Network No. 1 Group No. 0 Station No. 1

Start data linking

Network No. Group No. Station No.

🗟 CC IE Control utility

Control station Status

Status

Board 1

Туре

Channel No.

Г

The Parameter setting screen appears.
 Make the following settings, and click End.

Channel No.	: 151
Network type	: CC IE Control (Normal station)
Mode	: Online
Network No.	:1
Group No.	: 0
Station No.	:2

 Click Yes and write the parameter to the CC-Link IE Controller Network board.

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↓					
CC IE Control utility					
Writing parameter and reset Board2. Is that OK?					
<u>Y</u> es <u>N</u> o					
↓ (To the next page)					



(From the previous page)	
\downarrow	
CC Link IE Controller Network diagnostics result CC Link IE Controller Network diagnostics result Dange teles tation Stat norm Stat norm Stat norm Link scan time: 2ms Link scan time: 2ms	5) Click Diagnostics on the board list screen to check for the line.
Prev Next Test continuation Select ration reloved device ratios display Communication test can check the path term connected ration Link stat/stop Cannunication test Link stat/stop Cannunication Link stat/stop Cannunication Logging can ence there are no non-longing and ena to g in	
(Check complete)	6) Click Close to exit from the utility.

(3) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

 Start the communication setup utility and select the communication setting wizard.

2) Type	"11" in Logical station number and
click	Next>.

Communication Setting Wizard - In	troduction
	This Communication Setting Wizard will set the communication information for ACT.
	You can press Back at any time to change your selections.
	Please click Next to begin.
	Please select the logical station number.
	Logical station number
Cancel	< Back Finish
	\downarrow
(To the next page)

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(From the previous page)	
\downarrow	
Communication Setting Wizard - PC side Please select the PC side UF PC side UF Communication setting Board No 1st module	 3) Make settings as indicated below and click Next>. PC side I/F : CC IE Control board Board No : 1st module
Cancel < Back Next > Finish	
Communication Setting Wizard - Network Please select the Network Station type Host station	 4) Make settings as indicated below and click Next>. Station type : Host station
Cancel < Back Finish	
\downarrow	
Communication Setting Wizard - Finished	5) Enter a comment and click Finish.
The Communication wizard has finished collecting information. Please Finish to build the logical station number. Comment CC_JE_Control_Sample	
Cancel < Back Next > Finish	
↓ (Registration complete)	

_ 🗆 🗙

Test

•

(4) Checking the logical station number settings (Conducting a communication test)

Check whether the CC-Link IE Controller Network communication settings are correct or not, using the logical station number set in (3).

🖳 Communication Setup Utility	_ 🗆 ×
Menu Help	
Target setting List view Connection test	
Logical station number 11:CC_IE_Control_Sample	Wizard Delete
PC I/F CC IE Control	
Board No No.1	
	E×it

 Display the "Target setting" tab screen and select the logical station number "11". Check whether the logical station number settings are correct or not.

2) Display the "Connection test" tab screen and set the logical station number "11".

ommunication diagnosis count	
Result	
Diagnosis count	0
Result	
CPU name	
Mean time of communication	0 ms
	Exit
	\downarrow
	X
	Test Click!
0	_

 Click Test to check that communication is being performed normally. If an error occurred, check the error code and remove the error. The error code appears in Result. (At normal termination, "0x0000000" appears in Result.) Refer to the programming manual for error

4) Through the above steps, it is confirmed that

the logical station number settings are correct. This logical station number is made applicable by user program creation and PLC monitor

Collect device data, using this logical station

code details.

utility.

number.

(Communication test complete)

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🖳 Communication Setup Utility

Target setting List view Connection test

Logical station number 11:CC_IE_Control_Sample

1enu Help

6.15 CC-Link IE Field Network Communication

This section provides the CC-Link IE Field Network communication procedure and its setting example using the utility setting type.

6.15.1 Accessing procedure

The procedure for making access to the programmable controller CPU using CC-Link IE Field Network communication will be explained in the following order.



(2) Checking the CC-Link IE Field Network board Check whether the IBM-PC/AT compatible is connected properly to the CC-Link IE Field Network.



- Click [Start]-[Program]-[MELSEC] -[CC IE Field Board]-[CC IE Field Utility] to start the CC IE Field utility.
- The CC IE Field Utility screen appears. Select [Project]-[New].

 The Parameter setting screen appears. Make the following settings, and click End.

Network type: CC IE Field (Master station)Channel No.: 181Network No.: 1Total Stations: 1Mode: Online (Normal Mode)

4) Select [Online]-[Write to Board] and write the parameter settings of the project to the board.

Nebuch, Type C. E. Find (Vaster Station) to two where the large state st		Board 1		ard 2	Boar		Board	4
Method No. I I I Total States No. I I I I States No. I	Network Type	CC IE Field (Master Station) 👻	None	-	None	•	None	
Revert And Rations	Channel No.	181 🗸						
Note 0 0 Mode 0 0 0 Mode 0 + 0 0 0 0 Mode 0 + 0 0 0 0 0 Mode 0 + 0 0 0 0 0 0 Mode 0 + 0 0	Network No.							
Note: Over Othern Model • • • • • • • • • • • • • • • • • • •	Total Stations	1						
Node Onle (Durn Mode) Image: Control of the control of								
Method: Colly at 8th Setting Intervent Colly at 8th Setting Network Colly at 8th Setting Intervent Colly at 8th Setting Event Setting Intervent Colly at 8th Setting								_
Network Operators Setting Event Setting	Mode							
Event Setting								
		Network operation security						
		Event Setting						
Driver Setting								
		Driver Setting						
Target Setting		Target Setting	ļ					

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Board Diagnostics								
Nonitor Status Monitor Status Spect Mentor Spect Mentor Spect Mentor								
Board List								
							k Refresh(r	
Board No.	Channel No.	Network No.	Station No.	Transmission Status	Latest Error Code		Minimum	Current
1	181	1	0	Data Linking	No error	1	1	1
-	-	-	-	-	-	-	-	-
	-	-	-	-		-	-	-
Board Infor	-	-	-	-	-	-	-	-
Channel No. Model Nar Product Informatic	e Q618D-J71GF1			e Bus I/F Test		Agrt Test]	
Quarcetics CC III Field darphose screen display rotics of displayed.								

 \downarrow

(Check complete)

5) Select [Diagnostics]-[Board Diagnostics] to check for the line.

- 6) Click Close to exit from the utility.
- (3) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

 Start the communication setup utility and select the communication setting wizard.

×	Type "13" in Logical station number and
set the	click Next>.
nge your	

Communication Setting Wizard -	Introduction 🛛 🔀
	This Communication Setting Witzerd will set the communication information for ACT. You can press Back at any time to change your selections.
	Please click Next to begin. Please select the logical station number.
	Logical station number 13 💌
Cancel	< Back Next > Finish

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(From the previous page)		
	\downarrow	
Communication Setting Wizard	- PC side	
	Please select the PC side UF PC side UF Communication setting Board No 1st module	
Cancel	< Back Next > Finish	
	\downarrow	
Communication Setting Wizard	Network Please select the Network Station type (Ther station(Single)	
Cancel	e Back Next > Finish	

 Communication Setting Wizard - Other station

 Please select the Other station

 Other station setting

 CPU type

 Of 3UDH

 Network No

 1

 Station No

 1

 Multiple CPU

 None

 Cancel

 < Back</td>
 Net >

 Frilish

 \downarrow

↓ (Registration complete) Make settings as indicated below and click Next>.

PC side I/F : Board No :

F : CC IE Field board : 1st module

 Make settings as indicated below and click Next>.

Station type : Other station(Single)

5) Make settings as indicated below and click Next>.

CPU type : Q13UDH Network No : 1 Station No : 1 Multiple CPU : None



6) Enter a comment and click Finish.

Test

Exit

(4) Checking the logical station number settings (Conducting a communication test)

Check whether the CC-Link IE Field Network communication settings are correct or not, using the logical station number set in (3).

Ha Communica Menu Help	ation Setup Utility	,		
	List view Connectio	n test		
Logical station		E Field Sample	•	Vizard Delete
	CC IE Field			
PC I/F	CC IE Field	CPU type	Q13UDH	-
Board No	No.1	Network No	1	
		Station No	1	
		Multiple CPU	None	
				E×it

Communication Setup Utility

n number

CPU na

Mean time of communication

Connection test

5

0

 Display the "Target setting" tab screen and select the logical station number "13". Check whether the logical station number settings are correct or not.

2) Display the "Connection test" tab screen and set the logical station number "13".

	\downarrow
•	Test

i

(Communication test complete)

3) Click Test to check that communication is being performed normally.
If an error occurred, check the error code and remove the error.
The error code appears in Result. (At normal termination, "0x00000000" eppears in Result.)

termination, "0x0000000" appears in Result.) Refer to the programming manual for error code details.

 Through the above steps, it is confirmed that the logical station number settings are correct. This logical station number is made applicable by user program creation and PLC monitor utility.

Collect device data, using this logical station number.

6.16 Q Series Bus Communication

This section provides the Q series bus communication procedure and its setting example using the utility setting type.

6.16.1 Accessing procedure

The procedure for making access to the programmable controller CPU using Q series bus communication will be explained in the following order.



(1) System example

The following system example is used in this section.



(2) Setting the logical station number (Setting on communication setting wizard)

Logical station number setting will be described using the system example for (1).

communication setting wizard.

 2) Type "12" in Logical station number and click Next 2) Type "12" in Logical station number and click Next 2) Type "12" in Logical station number and click Next 2) Type "12" in Logical station number and click Next 2) Type "12" in Logical station number and click Next 2) Make settings as indicated below and click Next 2) PC side I/F : Q Series Bus 4) Make settings as indicated below and click Next 4) Make settings as indicated below and click Next 4) Make settings as indicated below and click Next 4) Make settings as indicated below and click Next 4) Make settings as indicated below and click Next 		
 creating the set of the	This Communication Setting Wizard will set the communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number.	2) Type "12" in Logical station number and click Next:
 (a) Make settings as indicated below and click (<u>Nexx</u>). (b) Make settings as indicated below and click (<u>Nexx</u>). (c) Make settings as indicated below and click (<u>Nexx</u>). (c) Make settings as indicated below and click (<u>Nexx</u>). 	Cancel < Brock Next > Finish	
 (a) Make settings as indicated below and click (<u>Nexx</u>). (b) Make settings as indicated below and click (<u>Nexx</u>). (c) Make settings as indicated below and click (<u>Nexx</u>). (c) Make settings as indicated below and click (<u>Nexx</u>). 		
PC side I/F : Q Series Bus Correct Correct <td>V Communication Setting Wizard - PC side X</td> <td>3) Make settings as indicated below and click Next>.</td>	V Communication Setting Wizard - PC side X	3) Make settings as indicated below and click Next>.
A manual distribution of the R-C DU through a MES.BORFH and the distribution of the PC du through on through on the PC du through on through on the PC du through on the PC du through on through on through on through on through on through on the PC du through on thr	PC side I/F Q Series Bus	
Concert whether CPU, years select (CCLink whether is the intervention of the (PC side IF). Concert whether is the intervention of the (PC side IF). Concert whether is the intervention of the (PC side IF). Concert whether is the intervention of the (PC side IF). Concert whether is the intervention of the (PC side IF). Concert whether is the intervention of the (PC side IF). Concert whether is the intervention of the (PC side IF). Concert whether is the intervention of the (PC side IF). Concert whether is the intervention of the (PC side IF). Concert whether is the intervention of the (PC side IF). CPU type : Q12H: Multiple CPU : No.3	that is controlled by computer CPU, please select	
4) Make settings as indicated below and click Next>. CPU type old Multiple CPU No.3 (4) Make settings as indicated below and click Next>. CPU type : Q12H Multiple CPU : No.3	controlled by computer CPU, please select [CC-Link	
4) Make settings as indicated below and click (Next>). CPU type 012H Multiple CPU No.3	Cancel < Back Next > Finish	
4) Make settings as indicated below and click (Next>). CPU type 012H Multiple CPU No.3	↓	
CPU type : Q12H Multiple CPU No.3		4) Make settings as indicated below and click Next>.
Multiple CPU No.3	CPU type Q12H 🖵	
Cancel < Back Finish	Multiple CPU No.3	
Cancel < Back Finish		
	Cancel < Back Next > Finish	



xt>.

1) Start the communication setup utility and select the



(3) Checking the logical station number settings (Conducting a communication test)

Check whether the Q series bus communication settings are correct or not, using the logical station number set in (2).

Ecommunication Setup Utility			_ 🗆 X
Target setting List view Connect	ion test		
Logical station number 12:Q_bus	_Sample	-	 Delete
G Series Bus			
PC I/F Q Series Bus	CPU type	Q12H	
	Multiple CPU	No.3	
			Exit

 Display the "Target setting" tab screen and select the logical station number "12".

Check whether the logical station number settings are correct or not.

	\downarrow		
Communication Setup Utility			_ 🗆 🗙
Menu Help			
Target setting List view Connection test]		
Logical station number 12.Q_bus_Sa	nple	•	Test
Communication diagnosis count			
Result			
Diagnosis count	0		
Result			
CPU name			
Mean time of communication	0 ms		
			Exit

1

2) Display the "Connection test" tab screen and set the logical station number "12".

	\checkmark	
	•	Test Click!
0		
	1	

(Communication test complete)

 Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error.

The error code appears in Result. (At normal termination, "0x00000000" appears in Result.) Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings are correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.17 Modem Communication

This section explains the modem communication procedures and setting examples for the utility setting type.

POINT

When performing modem communication for the first time on MX Component, check whether normal modem communication can be performed using GX Developer, and then start modem communication using MX Component.

6.17.1 Switch settings of A6TEL, Q6TEL, QC24N, Q Series Corresponding C24, L Series Corresponding C24

This section explains the switch settings of the modules for the use of MX Component. The settings of MX Component should be the same as the module.

(1) A6TEL

Switch	Setting		
	Switch Number	Setting	
	1	OFF (Telephone line connection mode)	
DIP switches	2	OFF (Notification processing execution mode)	
	3	OFF (Remote access enable mode)	
	4	OFF	

(2) Q6TEL

Switch	Setting				
Switch		A mode			QnA mode
A/QnA select switch		A (A mode)		Qı	nA (QnA mode)
MODEM/PLG select switch	MODEM (remote access) status			MODEM	(remote access) status
	Switch Number	Setting		Switch Number	Setting
	1	OFF (Telephone line connection mode)		1	OFF (Telephone line connection mode)
DIP switches	2	OFF (Notification processing execution mode)		2	OFF
	3	OFF (Remote access enable mode)		3	OFF
	4	OFF		4	OFF

Switch (Switch Number)		Setting
	Switch (Switch Number)	
Mode setting swit	ich	5 format (5)
Station number s	etting switch	0
	Operation setting switch (SW01)	OFF (Independent operation)
	Data bit setting (SW02)	ON (8)
	Parity bit presence/absence setting (SW03)	OFF (No)
Transmission	Even parity/odd parity setting (SW04)	OFF (Odd)
specification	Stop bit setting (SW05)	OFF (1bit)
setting switches	Sumcheck yes/no setting (SW06)	ON (Yes)
	Online change enable/disable setting (SW07)	ON (Enable)
	Setting change enable/disable setting (SW08)	Disable/Enable
	Transmission speed setting (SW09 to SW12)	19200bps
	- (SW13 to SW15)	All OFF

(3) QC24N

*1: Modem communication is available on the CH1 side only.

(4) Q Series Corresponding C24, L Series Corresponding C24 (When performing modem communication on CH1 side)

Item	Settings		Set Value
item	b15 to b8	b7 to b0	Set value
Switch 1	CH1 communication speed *1	CH1 transmission setting *2	*1, *2
Switch 2	_	CH1 communication protocol	0005н
Switch 3	CH2 communication speed	CH2 transmission setting	As set by user
Switch 4	—	CH2 communication protocol	As set by user
Switch 5	Module station number		0000н (As set by user)

*1: Make settings to meet the modem specifications.

*2: Transmission settings of CH1 are indicated below.

Transmission setting	Settings
Operation setting	Independent
Data bit	8
Parity bit	No
Odd/even parity	Odd
Stop bit	1
Sum check code	Yes
Online change	Disable/Enable

6.17.2 Access procedure

This section explains the procedure for accessing the programmable controller CPU using modem communication in the following flowchart.

<When A6TEL or Q6TEL is used>



Start When using the QC24N, set the mode setting and Refer to Section 6.17.2 (2). transmission setting switches. When using the Q series-compatible C24, L series-compatible C24 set the software switches. In the sequence program, set the following items. Refer to Section 6.17.2 (4). 1) Write the AT command (ATS0=1). 2) Set the initialization request. Start the communication setup utility and make Refer to Section 6.17.2 (5). setting on the communication setting wizard. On the communication test screen, check whether Refer to Section 6.17.2 (6). communication can be made properly. *1 *1: If normal communication cannot be made, refer to "Appendix 6 Flowchart for the Case Where Access End Cannot Be Made during Modem Communication" and take corrective action. (1) System example The following system example is used in this section. <When Q6TEL (QnA mode) is used> A2USH Q2ACPU CPU-S1 Q6TEL A6TEL. Q6TEL (A mode) (QnA mode) modem modem Æ ······

<When QC24N or Q series-compatible C24, L series-compatible C24 is used>



(2) Setting the Switch of A6TEL, Q6TEL, QC24N, Q Series Corresponding C24, L series-compatible C24

- (a) A6TEL, Q6TEL
 - The A6TEL and Q6TEL switch setting examples in this section are the same as in "Section 6.17.1 Switch settings of A6TEL, Q6TEL, QC24N, Q Series Corresponding C24, L Series Corresponding C24". For details, refer to "Section 6.17.1 Switch settings of A6TEL, Q6TEL, Q6TEL, QC24N, Q Series Corresponding C24, L Series Corresponding C24".

(b) QC24N

Switch (Switch Number)		Settings			
		CH1 side *1			
Mode setting switch		5 (format 5)			
Station number setting switch		0			
	Operation setting switch (SW01)	OFF (Independent operation)			
	Data bit setting (SW02)	ON (8)			
	Parity bit presence/absence setting (SW03)	OFF (No)			
	Even parity/odd parity setting (SW04)	OFF (Odd)			
	Stop bit setting (SW05)	OFF (1bit)			
Transmission specification setting switches	Sumcheck yes/no setting (SW06)	ON (Yes)			
	Online change enable/disable setting (SW07)	ON (Enable)			
	Setting change enable/disable setting (SW08)	OFF (Disable)			
	Transmission speed setting (SW09 to SW12)		19200bps		
			SW	Settings	
			SW09	OFF	
			SW10	ON	
			SW11	ON	
			SW12	OFF	
					-
	- (SW13 to SW15)	All OFF			

*1: Modem communication is available on the CH1 side only.

(c) Q series-compatible C24, L series-compatible C24 (When modem communication is made on CH1 side)

Item	Se	Set Value	
	b15 to b8	b7 to b0	Set value
Switch 1	CH1 communication speed	CH1 transmission setting *1	0762н
Switch 2	_	CH1 communication protocol	0005н
Switch 3	CH2 communication speed	unication speed CH2 transmission setting *1	
Switch 4	witch 4 – CH2 communication protocol		0000н
Switch 5	Module station number		0000н

*1: Settings of CH1 are indicated below.



- (3) Setting the A6TEL or Q6TEL data To use the A6TEL or Q6TEL, set the A6TEL or Q6TEL data. For the settings and setting methods, refer to the GX Developer Operating Manual.
- (4) Connect the FXCPU, QC24N, Q series-compatible C24 or L seriescompatible C24 and the modem.
 - (a) FXCPU

A sequence program is required for the use of the FXCPU.

	lization command is set in D1000-D1025. : ATEOSO=2Q1&D0&M4\Q0\J0&W is set.		
1	* <"A" (H41) is set in	n D1000. >
M8002	<u>г</u> моv	H41	D1000
	• <"T" (II54)	is set in	D1001, >
	Mov	H54	D1001
	* <"E"(H45)	is set in	D1002. >
	[MOV	H45	D1002
	* <"0"(H30)	is set in	D1003. >
	[MOV	H30	D1003]
	* < "S" (H53)	is set in	D1004. >
		H53	D1004
	* <"0"(H30)	is set in	D1005. >
	Mov	H30	D1005
	* <"=" (H3D)	is set in	D1006. >
		H3D	D1006]
	* <"2"(H32)	is set in	D1007, >
	Mov	Н32	D1007
	* <"Q" (H51)	is set in	D1008. >
	[MOV	Н51	D1008
	* < "1" (H31)	is set in	D1009. >
		H31	D1009
	* <"&" (H26)	is set in	D1010. >
	[MOV	H26	D1010
	+ <"D" (H44)	is set in	D1011. >
	Mov	H44	D1011
	+ <"0"(H30)	is set in	D1012. >
	LMov	H30	D1012
	2		1

 \downarrow

(To the next page)

POINT	
This sample se	equence program is installed into the following folders after
installation of MX Component.	
[User-specified folder]-[Act]-[Sample]-[Gppw]-[Fxcp Bit utel]	
	\downarrow
-------	-------------------------------
M8002	* <"&"(H26) is set in D1013.
	MOV H26 D1013
	• <"M"(H4D) is set in D1014.
	MOV H4D D1014
	* <"4"(H34) is set in D1015.
	MOV H34 D1015
	* <"\"(H5C) is set in D1016.
	MOV H5C D1016
	* <"Q"(H51) is set in D1017.
	MOV H51 D1017
	* <"0"(H30) is set in D1018.
	MOV H30 D1018
	* <"\"(H5C) is set in D1019.
	MOV H5C D1019
	• <"J"(H4A) is set in D1020.
	* <"0"(H30) is set in D1021.
	Мот нзо ртост
	* <"\$"(H26) is set in D1022.
	бмоч н26 D1022
	* <"W"(H57) is set in D1023.
	MOV H57 D1023
	* <"CR"(HOD) is set in D1024.
	[MOV HOD D1024
	* <"LF"(HOA) is set in D1025.
	MOV HOA D1025
	END

(From the previous page)

(b) QC24N

Using the QC24N requires a sequence program to set the following buffer memory addresses.

The following table indicates the buffer memory addresses that must be set and the sequence program.

Setting Item (Buffer Memory Address)	Settings	Setting in Sample Sequence Program
Modem connection channel designation (2E _H)	 0: Not connected (modem function is not used) 1: CH1 side interface 2: CH2 side interface 	1 (CH1)
Initialization data No. designation (34 _H) *1	0н: Send of initialization data specified in the sending user registration frame specifying area 7D0н to 7D4н: Initialization data No.	2000 (No. 2000)
Q6TEL connection designation (36н)	0: Does not make communication as Q6TEL.1: Makes communication as Q6TEL.	1 (Communicate as Q6TEL)
No-communication interval time designation (37н)	0: Unlimited waiting 1 to 120: No-communication interval time (line disconnection waiting time)	10 (10 minutes)

*1: The following initialization data are factor-registered to the QC24N. When the modem used corresponds to the initialization data (7D0+ to 7D4+), specify the following registration number.

When using the modem where the initialization data have not been registered, register the AT command to the E^2 PROM or buffer memory address (1B00H) of the QC24N.

Registration No.		Initialization Command	Corresponding Device			
Hexadecimal	Decimal	Maker		Туре		
7 D0н	2000	ATQ0V1E1X1\J0\Q2\V2\N3S0=1	Aiwa	PV-AF2881WW PV-BF288M2		
7D1н	2001	ATQ0V1E1X1\Q2\V2\N3S0=1	Micro General Laboratory	MC288XE MC288X1		
7D2н	2002	ATQ0V1E1X1&K3\N3S0=1	Microcom	DESKPORTE22.8S DESKPORTE33.6S		
7D3н	2003	ATQ0V1E1X1&H1&R2&A3&D2S0=1	Omron	ME3314B		
7D4 н	2004	ATQ0V1E1X1\J0\Q2\N3S0=1	Sun Electronic	MS336AF		



POINT

This sample sequence program is installed into the following folders after installation of MX Component.

[User-specified folder]-[Act]-[Sample]-[Gppw]-[AJ71QC24NTEL]



(c) Q series-compatible C24, L series-compatible C24 Using the Q series-compatible C24 or L series-compatible C24 requires a sequence program to set the following buffer memory addresses.

The following table indicates the buffer memory addresses that must be set and the sequence program. Setting Item (Buffer Memory Address)	Settings			
Modem connection channel designation (2EH)	 0: Not connected (modem function is not used) 1: CH1 side interface 2: CH2 side interface 			
Initialization data No. designation (34н) *1	0н: Send of initialization data specified in the sending user registration frame specifying area 7D0н to 7D4н: Initialization data No.			
GX Developer connection designation (36н)	0: Not connected 1: Connected.			
Callback function designation (2001н)	0н: Auto line connect 1н: Callback connect (Fixation) 3н: Callback connect (Number specification) 7н: Callback connect (Number specification (max. 10 units)) 9н: Auto line connect (Callback fixation) Вн: Auto line connect (Callback number specification) FH: Auto line connect (Callback number specification (max. 10 units))			

1: The following initialization data are factor-registered to the Q seriescompatible C24.

When the modem used corresponds to the initialization data (7D0 $\!\!\!$ to 7DAH), specify the following registration number.

When using the modem where the initialization data have not been registered, register the AT command to the buffer memory address (1B00H) of the Q series-compatible C24.

Registration No.		Initialization Command	Correspondir	ig Device
Hexadecimal	Decimal	initialization command	Maker	Туре
7D0н	2000	ATQ0V1E1X1\J0\Q2\V2\N3S0=1	Aiwa	PV-AF2881WW PV-BF288M2
7D1н	2001	ATQ0V1E1X1\Q2\V2\N3S0=1	Micro General Laboratory	MC288XE MC288X1
7D2н	2002	ATQ0V1E1X1&K3\N3S0=1	Microcom	DESKPORTE22.8S DESKPORTE33.6S
7 D3н	2003	ATQ0V1E1X1&H1&R2&A3&D2S0=1	Omron	ME3314B
7D4 н	2004	ATQ0V1E1X1\J0\Q2\N3S0=1	Sun Electronic	MS336AF
7D5н	2005	ATE1Q0V1&C1&D2&H1&I0&R2&S0S0=1	Omron	ME5614B
	2006		Sun Electronic	MS56KAF
7D6 н		ATE1Q0V1&C1&D2&K3&S0S0=1	Micro General Laboratory	MRV56XL
			Matsushita Electric	VS-2621A
7D7 н	2007	ATE1Q0V1&C1&D2&K3&S1S0=1		VC-173
7 D8н	2008	ATE1Q0V1&C1&D2&K3&S0S0=1	Omron	MT128B -D
7D9н	2009	ATE1Q0V1&C1&D1\Q2&S0S0=1	Sun Electronic	TS128JX
7DAн	2010	ATE1Q0V1&C1&D2\Q3&S0S0=1	Sharp	DN-TA1
7DCн	2012	AT&S0S0=1	General *Use this device for operation	
7DDн	2013	ATX1&S0S0=1	If the device does not oper initialization command, whi modem specifications, on t	ch matches the

Setting Item (Buffer Memory Address) Settings		Setting Item (Buffer Memory Address)	Settings
Modem connection channel designation (2EH) 1 (CH1)		GX Developer connection designation (36 _H)	1 (Connected.)
Initialization data No. designation (34н)	2006 (No.2006)	Callback function designation (2001н)	_



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Setting Item (Buffer Memory Address)	Settings	Setting Item (Buffer Memory Address) Settings
Modem connection channel designation (2EH)	1 (CH1)	GX Developer connection designation (36H) 1 (Connected.)
Initialization data No. designation (34н)	2012 (No.2012)	Callback function designation (2001н) (Auto line connec (Callback fixation)

2) When "Auto line connect (Callback fixation)" is used as callback function

X1E 0	XIF 					QJ71C24 accessi le
	M3 X10 X12 X13 Y10			<turn in<="" on="" th=""><th>itializat:</th><th>ion enable</th></turn>	itializat:	ion enable
accessib le	M3 X10 X12 X13 Y10 Initiali Initiali Connecti Abnormal Initiali action c zation c on in pr complet zation r ompletio ompletio ogress ion equest n flag n					(M30 Initial zation nabled
мо				<set (<="" modem="" td=""><td>connection</td><td>n channel</td></set>	connection	n channel
43 QJ71C24 accessib le		TOP	HO	H2E	к1	К1
				<set dev<="" gx="" td=""><td>eloper com</td><td>nection</td></set>	eloper com	nection
		TOP	HO	Н36	к1	К1
				<set callba<="" td=""><td>ck functio</td><td>on</td></set>	ck functio	on
		[то	HO	H2001	я9	К1
				<set data="" f<="" td=""><td>or callba</td><td>c k</td></set>	or callba	c k
		[то	Н0	H2101	H8001	K1
				<set regist:<="" td=""><td>ration dat</td><td>a bytes</td></set>	ration dat	a bytes
		[то	HO	H1B00	K80	Кl
				<set td="" teleph<=""><td></td><td></td></set>		
		\$MOV	"00	0000	"	
				<set "no="" ex<="" td=""><td></td><td></td></set>		
		<u> </u>	<u></u>	{MOV	K255	D10
				<set line="" t<="" td=""><td></td><td></td></set>		
				[MOV <writes td="" the<=""><td>K1</td><td>D11</td></writes>	K1	D11
		T0	нo		DO	K40
	alization command into pulse	1 10	no	11001	20	NAA
SM400	arización command fito pulse			<initializa< td=""><td>tion comm</td><td>and into p</td></initializa<>	tion comm	and into p
217 Turning on alway s					[PLS	M31 Initia nation ommand nto pu

POINT This sample sequence program is installed into the following folders after installation of MX Component. [User-specified folder]-[Act]-[Sample]-[Gppw]-[QJ71C24Callback]



	-	
Setting Item (Buffer Memory Address)	Settings	Setting Item (Buffer Memory Address) Settings
Modem connection channel designation (2E _H)	1 (CH1)	GX Developer connection designation (36H) 1 (Connected.)
Initialization data No. designation (34н)	2012 (No.2012)	FH (Auto line connect Callback function designation (2001н) (Callback number specification (max. 10 units)))

3) When "Auto line connect (Callback number specification (max. 10 units))" is used as callback function



POINT This sample sequence program is installed into the following folders after installation of MX Component. [User-specified folder]-[Act]-[Sample]-[Gppw]-[QJ71C24CallbackNumber]

мо				<set modem="" o<="" th=""><th></th><th></th></set>		
71C24 cessib		TOP	HO	H2E	K1	K1
				<set deve<="" gx="" td=""><td>eloper co</td><td>nnection</td></set>	eloper co	nnection
		TOP	НO	Н36	к1	КI
		_		<set auto="" mo<="" td=""><td></td><td></td></set>		
	<u> </u>	[TO	НO	H2007	K1	К1
		-		<set callbac<="" td=""><td></td><td></td></set>		
		TO	НÛ	H2001		
		-		<set dat<="" td="" the=""><td></td><td></td></set>		
	····	то	H0	H2101		
		F		<set dat<="" td="" the=""><td></td><td></td></set>		
		[то	80	H2102		
		Г.,		<set dat<="" td="" the=""><td></td><td></td></set>		
		[TO	но	H2103		
		Fma		<set regist:<="" td=""><td></td><td></td></set>		
		[то		H1B00		
		Fever		<set td="" telepho<=""><td></td><td></td></set>		
	· · · · · · · · · · · · · · · · · · ·	[\$МОV		<set "no="" ext<="" td=""><td></td><td></td></set>		
				[MOV		
				<set line="" td="" ty<=""><td></td><td>210</td></set>		210
				MOV		D11
				<writes td="" the<=""><td></td><td></td></writes>		
		[то	но	H1B01		
		L		<set registr<="" td=""><td>ation da</td><td>ta bytes</td></set>	ation da	ta bytes
	<u></u>	то	110	Н1В29	K80	К1
		-		<set td="" telepho<=""><td>one numbe</td><td>r</td></set>	one numbe	r
·		{\$MOV	"2		н	D1
		-		<set "no="" ext<="" td=""><td>ernal-li</td><td>ne"</td></set>	ernal-li	ne"
	<u></u>			MOV	K255	D10
				<set line="" td="" ty<=""><td></td><td></td></set>		
				[MOV	K 1	D11
				<writes td="" the<=""><td></td><td></td></writes>		
		то		H1B2A		

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(5) Setting the Logical station number (Setting on communication setting wizard)

This section describes the setting of the logical station number using the Q series-compatible C24 system example.

- communication setting wizard. nication Setting Wizard - Introduct × nunication Setting Wizard ation information for ACT You can press Back at any time to change you Please click Next to begin ect the logical station number 13 • Logical station numb Next > Cancel 1 .[n Setting Wizard - PC : X Please select the PC side I/F • Modern PC side I/F PC side I/F : Modem odule QJ71C24 • Connect module : QJ71C24 0000 ms Time out : 10000 Next > Finish Cancel < Back ↓ n Setting ₩izard - Co ct Line Connect way Auto line connect • Callback number -Line Line type TONE Outside line number Port COM1 -Г Line type : Tone -Connection Outside line number: None Call number Browse... Name Port : COM1 -AT command . ******** Call number Help of AT command... Modern standard C AT command setting (Enter the programmable Title controller side phone number.) Details setting AT command : Modem standard Next > Cancel ↓ (To the next page)
- 1) Start the communication setup utility and select the
 - 2) Type "13" in Logical station number and click Next>.

3) Make settings as indicated below and click Next>.

4) Make settings as indicated below and click Next>.

(From the previous page)	
Communication Setting Wizard - PLC side Plcs select the PLC side UF PLC side UF PLC side UF PLC side UF Communication setting Module type QU71C24 Station No Communication speed 19200 bps Firster	5) Make settings as indicated below and click Next>. PLC side I/F : Modem Module type : QJ71C24 Station No : 0 Transmission speed: 19200
Communication Setting Wizard - Network Please select the Network Flease select the Network Station type CPU type Q25H Multiple CPU None	 6) Make settings as indicated below and click Next>. Station type : Host station CPU type : Q25H Multiple CPU : None
Cancel < Back Next> Finish	7) Enter a comment and click Finish.
Cancel < Back Next > Finish	

(Registration complete)

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(6) Checking the logical station number settings (Conducting a communication test)

Check whether modem communication settings are correct or not, using the logical station number set in (5).

🗄 Communical	tion Setup Utility						
Menu Help							
Target setting	List view Connection	in test					
Logical station	number 13:Modem_	Sample	-		ard	Delete	
	Modern						
PCI/F	COMI	Module type	QJ71C24	_			
Time-out	10000 ms	CPU type	Q25H	_			
		Transmission speed	19200 bps				
		Station No	þ				
		Multiple CPU	None				
Connect way	Auto line connect						
Line type	Tone						
Call number	****						
					Γ	E×it	1
					_		_
			1				

1) Display the "Target setting" tab screen and select the logical station number "13".

Check whether the logical station number settings are correct or not.

Communication Setup Utility	_				_ 🗆 🗙
jenu <u>H</u> elp		 			
Target setting List view Connection test]				
Logical station number 13:Modem_Sa	mple		•	Test	
Communication diagnosis count					
Resut					
Diagnosis count	0				
Result					
CPU name		 			
Mean time of communication	0	 ms			

2) Display the "Connection test" tab screen and set the logical station number "13".



(Communication test complete)

 Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error.

The error code occurs in Result. (At normal termination, "0x00000000" appears in Result.) Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings were correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.18 Gateway Function Communication

This section describes the gateway function communication procedure and setting example for the utility setting type.

6.18.1 Access procedure

This section explains the procedure for accessing the GOT using gateway function communication in the following flowchart.



*1: The HOSTS file need not be edited when the IP address is entered into the host name (IP Address) of the communication settings utility and the ActHostAddress property of the gateway function communication control.

(1) System examples

The following system examples are used in this section.



(2) Checking communication

After completion of preparations for making gateway function communication, execute ping in the MS-DOS mode before starting communication using MX Component.

When normal

C:\>ping 192.168.0.1

Reply from 192.168.0.1 : bytes=32 time<10ms TTL=32

When abnormal

C:\>ping 192.168.0.1

Request timed out.

If ping does not pass through, check the settings of the GOT and the settings of the Windows[®] side IP address and others.

(3) Setting the Logical station number (Setting on communication setting wizard)

This section describes the setting of the logical station number using (1) system example.

- nication Setting Wizard Introducti × nunication Setting Wizard ation information for ACT. will set the You can press Back at any time to change you Please click Next to begin 14 ¥ Logical station numb Next > Cancel n Setting Wizard - PC sid Please select the PC side I/F Ethernet board • PC side I/F `ommunication PC side I/F : Ethernet board -Connect module GOT : GOT Connect module Port No : 5011 Time out : 60000 Port No Time out 60000 ms Cancel < Back Next ≍ Finish Ţ ion Setting Wizard - PLC side Please select the PLC side I/F PLC side I/F Ethernet module • GOT • 192.168.0.1 st(IP Address) Next > Cancel < Back J
 - (To the next page)

- 1) Start the communication setup utility and select the communication setting wizard.
- 2) Type "14" in Logical station number and click Next>.

3) Make settings as indicated below and click Next>.

4) Make settings as indicated below and click Next>.

PLC side I/F	: Ethernet board
Module type	: GOT
Host (IP Address)	: 192.168.0.1



(4) Checking the logical station number settings (Conducting a communication test)

Check whether gateway function communication settings are correct or not, using the logical station number set in (3).

🖳 Communi	cation Setup Utility					. 🗆 🗙
Menu Help						
Target settin	g List view Conner	ction test				
Logical stati	on number 44:00T	Sample	•	TV9Zara	Delete	
	Ethernet					
PC I/F Port No	Ethernet 5011	CPU type	GOT GOT			
Time-out	60000 ms	Module type Host(IP Address)	192.168.0.1			
					Exit	

1) Display the "Target setting" tab screen and select the logical station number "14".

Check whether the logical station number settings are correct or not.



T

2) Display the "Connection test" tab screen and set the logical station number "14".

\mathbf{v}			
		_ 🗆 X	
	•	Test	Click!
0			
Ļ			

(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error.

The error code occurs in Result. (At normal termination, "0x00000000" appears in Result.) Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings were correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

6.19 GOT Transparent Communication

This section describes the GOT transparent communication procedure and setting example for the utility setting type.



6.19.1 Access procedure

This section explains the procedure for accessing the GOT using GOT transparent communication in the following flowchart.



(1) System examples

The following system examples are used in this section.



(2) Setting the Logical station number (Setting on communication setting wizard)

This section describes the setting of the logical station number using (1) system example.

1) Start the communication setup utility and select the

- communication setting wizard. unication Setting Wizard - Introducti Com × 2) Type "19" in Logical station number and click Next>. nunication Setting Wizard ation information for ACT. will set the You can press Back at any time to change you Please click Next to begin 19 ¥ Logical station numbe Next > Cancel Communication Setting Wizard - PC sid 3) Make settings as indicated below and click Next>. Please select the PC side I/F USB(via GOT • PC side I/F nunication setting -PC side I/F : USB(via GOT) 10000 ms Time out : 10000 Cancel < Back Next > Ţ etting Wizard - GOT side 4) Make settings as indicated below and click Next>. GOT - PLC I/F GOT-PLC I/F • Serial -GOT-PLC I/F Connect module CPU module : Serial Connect module : CPU module Next > Cancel < Back ↓
 - (To the next page)

(From	the previous page)			
Communication Setting Wizard - PLC	side X Please select the PLC side I/F PLC side I/F CPU module Y Communication setting CPU type 0002(H) Y	5)	Make settings as in PLC side I/F CPU type	dicated below and click <u>Next></u> . : CPU module : Q02(H)
Cancel	< Back Next > Finish			
Communication Setting Wizard - Net	vork X Please select the Network Station type Other station V	6)	Make settings as in	dicated below and click Next>.
	Network MELSECNET/10(H)		Station type Network Mode	: Other station : MELSECNET/10(H) : MELSECNET/H
Cancel	< Back Next > Finish			
Communication Setting Wizard - Oth	Please select the Other station -Other station setting	7)		dicated below and click Next>.
	CPU type Q02(H) Network No Station No Multiple CPU None		CPU type Network No Station No Multiple CPU	: Q02(H) : 1 : 8 : None
Cancel	< Back Next> Finish			
Communication Setting Wizard - Finis	thed X The Communication wizard has finished collecting information. Please Finish to build the logical station number.	8)	Enter a comment a	nd click Finish.
	Comment GOTtransparent_Sample			
Cancel	< Back Next > Finish			

(3) Checking the logical station number settings (Conducting a communication test)

Check whether GOT transparent communication settings are correct or not, using the logical station number set in (2).



 Display the "Target setting" tab screen and select the logical station number "19".

Check whether the logical station number settings are correct or not.



2) Display the "Connection test" tab screen and set the logical station number "19".



(Communication test complete)

3) Click Test to check that communication is being performed normally.

If an error occurred, check the error code and remove the error.

The error code occurs in Result. (At normal termination, "0x00000000" appears in Result.) Refer to the programming manual for error code details.

4) Through the above steps, it is confirmed that the logical station number settings were correct.
This logical station number is made applicable by user program creation and PLC monitor utility.
Collect device data, using this logical station number.

7 COMMUNICATION SETTING EXAMPLES OF THE PROGRAM SETTING TYPE

To make communication using the program setting type, you must set the properties of the corresponding ACT controls.

For the properties of the corresponding ACT controls, directly enter them in the property window or change their settings in the user program. the user program. Refer to the MX Component programming manual for details of the properties which must be set for the corresponding ACT controls.

Refer to the following sections for the settings of the modules for the use of MX Component.

- Computer link communication : Section 6.1
- Ethernet communication (In case of using Ethernet interface modules)

<Property setting changing procedure>

- : Section 6.2
- CC-Link G4 communication : Section 6.9
- Modem communication : Section 6.17

REMARK

On MX Component, the following property setting method is available for those who are not familiar with property setting.



- Specify the communication path where you want to make property setting using the "Communication Setting Wizard" on the communication setup utility. For details of the communication setting wizard, refer to "Section 5.1.6 Operations on communication setting wizard screen".
- 2) Display the "List view" screen of the communication setup utility.

For details of the "List view" screen, refer to "Section 5.1.2 Operations on list view screen".

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7 COMMUNICATION SETTING EXAMPLES OF THE PROGRAM SETTING TYPE MELSOFT



Directly enter properties in property window or change property setting in user program.

- Select "Program" in "Display" on the "List view" screen.
- 4) Control the scroll bar on the "List view" screen to confirm the properties.

The "List view" screen shows the properties that are needed for setting using the program setting type.

Clicking Save text on the "List view" screen enables you to save the data into a file in the txt format.

5) When creating a user program, directly enter the confirmed property values into Properties of the property window or change the property setting in the user program.

The screen shown left uses Visual $\textsc{Basic}^{\mbox{\tiny \ensuremath{\mathbb{R}}}}$.

8 ACCESSIBLE DEVICES AND RANGES

This chapter describes the accessible devices and accessible ranges in each communication form.

8.1 Precautions for Device Access

- About accessible devices
 For accessible devices, the devices not given or devices marked × (inaccessible) in the accessible device list indicated in Sections 8.2 and later are not supported by MX Component.
 Do not specify the inaccessible devices.
- (2) Precautions for making access to extended file registers It is possible (depending on the type of memory cassette mounted on the programmable controller CPU) that no errors will occur even when a device is read and written by specifying a block number which does not exist. In such a case, the data read is not correct. Further, writing to that device may destroy the user memory of the programmable controller CPU. Make sure to use the function described here, after fully confirming the kind of memory cassette, details of parameter setting, etc.

For details, refer to the AnACPU and AnUCPU User's Manual.

8.2 For Computer Link Communication

This section provides the accessible devices and accessible ranges for computer link communication.

8.2.1 Accessible devices

The following table indicates the accessible devices for computer link communication.

							A	ccess Targe	et				
	Device vice Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Function	on input (FX)	\times	×	×	\times	\times	0		0	×	×	×	×
Functio	on output (FY)	\times	\times	×	\times	\times	(0	×	×	×	×
Function	n register (FD)	\times	×	×	\times	\times	0)	0	×	×	×	×
Specia	al relay (SM)	0	0	0	0	0	()	0	0	×	×	0
Special register (SD)		\bigcirc	0	0	\circ	0	(-	0	0	×	×	0
Input relay (X)		0	0	0	0	0	C	-	0	0	\times	O *1	0
Outp	ut relay (Y)	0	0	0	0	0	(0	0	\times	O *1	0
Intern	nal relay (M)	0	0	0	0	0	()	0	0	\times	O *1	0
Lato	h relay (L)	0	0	0	0	0	()	0	\times	\times	\times	0
Annı	unciator (F)	0	0	0	0	0	C)	0	\times	\times	\times	0
Edg	e relay (V)	\times	\times	\times	\times	\times	C)	\bigcirc	\times	\times	\times	\times
Linl	k relay (B)	0	0	0	0	0	()	0	\times	×	×	0
Data	register (D)	0	0	0	0	0	C)	0	0	\times	O *1	0
Link ı	register (W)	0	0	0	0	0	0		\bigcirc	\times	\times	\times	0
	Contact (TS)	0	0	0	0	0	C)	0	\times	\times	O *1	0
Timer	Coil (TC)	0	0	0	0	\bigcirc	C	\mathbf{D}	\bigcirc	\times	\times	\times	0
(T)	Present value (TN)	0	0	0	0	0	C		0	×	×	O *1	0
	Contact (CS)	0	0	0	0	0	C)	0	\times	\times	O *1	0
Counter	Coil (CC)	0	0	0	0	0	()	0	×	×	×	0
(C)	Present value (CN)	0	0	0	0	0	C)	0	×	×	0 *1	0
Detentive	Contact (SS)	\times	×	×	\times	\times	()	0	×	×	×	×
Retentive timer	Coil (SC)	\times	×	×	\times	\times	()	0	×	\times	\times	×
(ST)	Present value (SN)	×	×	×	×	×	C		0	×	×	×	×
Link spe	ecial relay (SB)	×	×	×	\times	×	C)	0	×	×	×	×
Link speci	ial register (SW)	\times	×	×	\times	×	()	0	×	×	×	×
Ste	p relay (S)	0	0	0	0	0	>	<	×	×	×	O *1	0
Direc	t input (DX)	×	×	×	\times	×	>	<	×	×	×	×	×
Direct	output (DY)	\times	×	×	\times	\times	>	<	×	×	×	×	×
Accu	mulator (A)	×	×	×	×	\times	>	<	\times	×	×	×	×

*1: Accessible to FX0NCPU, FX1sCPU, FX1N(C)CPU, FX2N(C)CPU, FX3GCPU, FX3U(C)CPU only when using the FX extended port.

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								ŀ	Access Targe	et				
(Device (Device Name) Index register		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Inde	ex register	(Z)	\times	×	×	×	×	0		0	×	×	O *1*2	\times
	SK TOGIOLOI	(V)	\times	×	×	\times	\times		~	×	×	\times	○ *1*2	×
File	e register	(R)	0	0	0	0	0	○ *3		0	×	×	○ *4	0
	0	(ZR)	\times	×	×	\times	\times	0	*3	0	×	×	\times	×
Ext	Extended file register (ER * \R)		0	0	0	0	0	>	~	×	×	×	×	0
	Link inp (J * ∖X		×	×	×	×	×	(\supset	0	0	×	×	×
	Link out (J * \Y	•	×	×	×	×	×	0		0	0	×	×	×
Direct	Link rel (J * ∖B		×	×	×	×	×	(C	0	0	×	×	×
link	Link specia (J * \SI		×	×	×	×	×	(C	0	0	×	×	×
	Link regi: (J * \W		×	×	×	×	×	()	0	0	×	×	×
	Link special (J * \S\	•	×	×	×	×	×	(C	0	0	×	×	×
Special	l direct buffer r (U * \G)	nemory	×	×	×	×	×	0	*5	0	0	0	×	×

*1: Accessible to FX_{0N}CPU, FX_{1S}CPU, FX_{1N(C)}CPU, FX_{2N(C)}CPU, FX_{3G}CPU, FX_{3U(C)}CPU only when using the FX extended port.

*2: It is not possible to write to more than 2 points successively using WriteDeviceBlock or WriteDeviceBlock2. (Writing to only 1 point is allowed.)

*3: Disabled for the use of Q00JCPU or Q00UJCPU.

*4: When accessing to FX series CPU other than FX_{3G}CPU and specify FX_{3U(C)}CPU, specify the data register. The file register (R) can be specified only when accessing to FX_{3G}CPU or FX_{3U(C)}CPU.

*5: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed. In addition, write to the shared memory cannot be performed independently of the host or other CPU.

8.2.2 Accessible ranges

This section indicates the accessible ranges for computer link communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

C	Connected Station					4. R	elay Target	CPU			
1. CPU	2. Connected module (Usable control name)	3. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
		CC IE Control CC IE Field	0	○ *2	○ *7	○ *2	×	×	×	×	×
		MELSECNET/H	0	0	\times	0	\times	\times	×	\times	\times
		MELSECNET/10	0	0	\times	0	0	0	0	\times	0
Q series-compatible C2		MELSECNET(II)	×	\times	\times	\times	\times	×	\times	\times	\times
QCPU	•	Ethernet	○ *3	\times	\times	0	\times	○ *3	×	\times	\times
(Q mode) (ActQJ71C24, ActMLQJ71C24)		Computer link	○ *4	\times	0	\times	\times	0	×	\times	\times
	ActMLQJ/1C24)	CC-Link	0	0	0	\times	0	0	0	○ *5	0
		Multidrop (Independent mode)	○ *4	×	0	×	×	0	×	×	×
		Multidrop (Synchronous mode) *6	○ *4	×	0	×	×	×	×	×	×
		CC IE Field *7	0	×	0	×	×	×	×	×	×
		MELSECNET/H	×	×	×	\times	×	×	\times	\times	×
		MELSECNET/10	×	×	\times	\times	×	×	\times	\times	×
		MELSECNET(II)	×	\times	\times	\times	×	×	\times	\times	×
	L series-compatible C24	Ethernet	×	\times	\times	\times	×	×	\times	\times	\times
LCPU	(ActLJ71C24,	Computer link	○ *4	\times	0	\times	\times	0	\times	\times	\times
	ActMLLJ71C24)	CC-Link	0	0	0	\times	0	0	0	\times	0
		Multidrop (Independent mode)	○ *4	×	0	×	×	0	×	×	×
		Multidrop (Synchronous mode)	O *4	×	0	×	×	×	×	×	×

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*2: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

 *3: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

*4: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*5: Accessible to FX3GCPU, FX3U(C)CPU only.

*6: Make sure to enable the sum check in the software switch settings.

*7: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

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8 ACCESSIBLE DEVICES AND RANGES

Connected	I Station					4. F	Relay Targe	t CPU			
1. CPU	2. Connected module (Usable control name)	3. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
		CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
		MELSECNET/H	\times	\times	\times	\times	×	\times	\times	\times	×
		MELSECNET/10	×	\times	\times	\times	×	\times	\times	\times	×
	QC24(N)	MELSECNET(II)	\times	\times	\times	\times	\times	\times	\times	\times	×
QnACPU	(ActAJ71QC24,	Ethernet	\times	\times	\times	\times	×	○ *3	\times	×	\times
	ActMLAJ71QC24)	Computer link	\times	\times	\times	\times	×	0	\times	×	×
	/ total le lor recourt)	CC-Link	\times	\times	\times	\times	×	0	\times	×	×
		Multidrop (Independent mode)	×	×	×	×	×	0	×	×	×
		Multidrop (Synchronous mode)	×	×	×	×	×	0	×	×	×
		CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
		MELSECNET/H	×	×	×	×	×	×	×	×	×
QCPU (A mode),	UC24	MELSECNET/10	×	×	×	×	0	○ *8	0	×	0
QnACPU *8,			×	×	×	×	0	0 *8	0	×	0
ACPU,	$(ActAJ71UC24, MELSECNET(II) \times \times \times \times \cup \cup \times *8$ $(ActMI A I71UC24) Ethermot \times \times$	×	×	×	×						
motion controller CPU	, , ,	Computer link	×	×	\times	×	×	×	×	×	×
		CC-Link	×	×	\times	×	×	×	×	×	×
		Multidrop	×	\times	\times	×	0	0 *8	0	×	0
		CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
		MELSECNET/H	×	\times	\times	×	×	×	\times	×	×
QCPU (A mode) *9,	C24	MELSECNET/10	×	×	×	×	0 *9	○ *9	○ *9	×	0 *9
QnACPU *10, ACPU *9,	(ActAJ71C24,	MELSECNET(II)	×	\times	\times	\times	0 *9	○ *9	○ *9	×	○ *9
motion controller CPU *9	ActMLAJ71C24)	Ethernet	\times	\times	\times	\times	×	\times	\times	\times	×
		Computer link	\times	\times	\times	\times	×	\times	\times	\times	×
		CC-Link	×	\times	\times	\times	×	\times	\times	\times	×
		Multidrop	\times	\times	\times	\times	○ *9	○ *10	○ *9	\times	○ *9
		CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
		MELSECNET/H	×	\times	\times	\times	×	×	×	×	×
	FX extended port	MELSECNET/10	×	\times	\times	\times	×	×	×	\times	×
FXCPU	(ActFX485BD,	MELSECNET(II)	×	\times	\times	\times	×	×	\times	\times	×
	ActMLFX485BD)	Ethernet	×	\times	\times	\times	×	×	×	\times	×
		Computer link	×	×	\times	×	×	×	×	O *11	×
		CC-Link	×	×	\times	×	×	×	×	×	×
		Multidrop	\times	\times	\times	\times	\times	\times	\times	O *11	×

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*3: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

*8: Operates as the one equivalent to AnACPU. (except type character string)

Access can be made within the AnACPU device range except the following devices.

• File register(R), accumulator (A), index register (V), index register (Z).

• The following devices, latch relay (L) and step relay (S) make access to the internal relay (M).

*9: For AnUCPU, QCPU (A mode), A173UHCPU (-S1) and A273UHCPU (-S3) Operates as the one equivalent to AnACPU. (except type character string) Access can be made within the AnACPU device range except the following devices.

• Accumulator (A), index register (V), index register (Z).

*10: Operates as the one equivalent to AnA.

Access can be made within the AnACPU device range except the following devices.

• File register(R), accumulator (A), index register (V), index register (Z).

• The following devices, Latch relay (L) and Step relay (S) make access to the internal relay (M).

*11: Accessible to FX0NCPU, FX1sCPU, FX1N(C)CPU, FX2N(C)CPU, FX3GCPU, FX3U(C)CPU only.

8.3 For Ethernet Communication

This section provides the accessible devices and accessible ranges for Ethernet communication.

8.3.1 Accessible devices

The following table indicates the accessible devices for Ethernet communication.

							A	ccess Targe	et				
	Device ⁄ice Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU *1	FXCPU *2	Motion controller CPU
Function	on input (FX)	\times	×	×	\times	\times	○ *3		0	×	×	×	×
Functio	Function output (FY)		×	×	\times	\times	0	*3	0	×	×	\times	×
Function	Function register (FD)		×	×	\times	\times		*3	0	×	×	\times	×
Specia	al relay (SM)	0	0	0	0	0	C)	0	0	0	\times	0
Special	l register (SD)	0	0	0	0	0	(0	0	0	\times	0
Inpu	ut relay (X)	0	0	0	0	0	C		0	0	0	0	0
Outp	out relay (Y)	0	0	0	\bigcirc	0	C	-	0	0	0	0	0
Intern	nal relay (M)	0	0	0	0	0	(0	0	0	0	0
Lato	ch relay (L)	0	0	0	0	0	0		0	×	×	×	0
Annu	unciator (F)	0	0	0	0	0	C)	0	×	0	\times	0
Edg	e relay (V)	\times	×	×	\times	\times	C		0	×	0	\times	×
Link	k relay (B)	0	0	0	0	0	C		0	×	0	\times	0
Data	register (D)	0	0	0	0	0	(0	0	0	0	0
Link r	register (W)	0	0	0	0	0	0		0	×	0	\times	0
-	Contact (TS)	0	0	0	0	0	(-	0	×	0	0	0
Timer	Coil (TC)	0	0	0	0	0	()	0	×	0	0	0
(T)	Present value (TN)	0	0	0	0	0	C)	0	×	0	0	0
	Contact (CS)	0	0	0	0	0	C)	0	\times	0	0	0
Counter	Coil (CC)	0	0	0	0	0	C)	0	×	0	0	0
(C)	Present value (CN)	0	0	0	0	0	C)	0	×	0	0	0
Dotontive	Contact (SS)	\times	×	×	\times	\times	C)	0	×	0	\times	×
Retentive timer	Coil (SC)	\times	\times	×	\times	\times	C)	0	×	0	\times	\times
(ST)	Present value (SN)	×	×	×	×	×	C	0		×	0	×	×
Link spe	ecial relay (SB)	\times	×	×	\times	\times	C)	0	×	0	×	×
Link speci	ial register (SW)	\times	×	×	\times	\times	C		0	×	0	×	×
Step	p relay (S)	0	0	0	0	0	>	<	×	×	×	0	0
Direc	t input (DX)	\times	×	×	\times	\times	>	<	×	×	×	×	×
Direct	toutput (DY)	\times	×	×	\times	×	>	<	\times	×	×	×	×
Accu	imulator (A)	0	0	0	0	0	>	<	×	×	×	×	0

*1: Write to device data cannot be performed.

*2: For the supported FXCPU and devices, refer to the manuals of your Ethernet module and setting software.

*3: Disabled when QE71 (TCP/IP) is used.

(To the next page)

								A	Access Targe	t				
(Device (Device Name)		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU *1	FXCPU *2	Motion controller CPU
Inde	ex register	(Z)	0	0	0	0	0	()	0	×	×	0	0
inde	skregiotor	(V)	0	0	0	0	0		<	\times	×	\times	0	0
File	e register	(R)	0	0	0	0	0	○ *4		0	×	×	0	0
	(ZR)		\times	×	×	\times	\times	○ *4		0	×	×	\times	×
Exte	Extended file register (ER * \R)		0	0	0	0	0	>	K	×	×	×	×	0
	Link inp (J * ∖X		×	×	×	×	×	(\supset	0	0	×	×	×
	Link outp (J * ∖Y		×	×	×	×	×	0		0	0	×	×	×
Direct	Link rela (J * ∖B		×	×	×	×	×	()	0	0	×	×	×
link	Link special (J * \SE		×	×	×	×	×	(\supset	0	0	×	×	×
	Link regis		×	×	×	×	×	()	0	0	×	×	×
	Link special r (J *\SV	•	×	×	×	×	×	()	0	0	×	×	×
	ecial direct but nemory (U * \C		×	×	×	×	×	0	*5	0	0	0	0	×

*1: Write to device data cannot be performed.

*2: For the supported FXCPU and devices, refer to the manuals of your Ethernet module and setting software.

*4: Disabled for the use of Q00JCPU or Q00UJCPU.

*5: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed. In addition, write to the shared memory cannot be performed independently of the host or other CPU.

8.3.2 Accessible ranges (For the use of Ethernet interface modules)

This section indicates the accessible ranges for Ethernet communication using the Ethernet interface modules.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not.

The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible)

or imes (inaccessible).

Connected Station			4. Relay Target CPU								
1. CPU	2. Connected module (Usable control name)	3. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
QCPU (Q mode), QSCPU *2		CC IE Control CC IE Field	0	○ *3	0 *7	○ *3	×	×	×	×	×
	Q series-	MELSECNET/H *4	0	0	\times	0	×	×	\times	×	×
	compatible E71	MELSECNET/10 *4	0	0	\times	0	0	0	0	×	0
	(ActQJ71E71TCP,	MELSECNET(II)	\times	\times	×	\times	×	×	\times	×	×
	ActMLQJ71E71TCP)	Ethernet	○ *5	\times	×	0	×	○ *5	\times	×	×
	,	Computer link	○ *6	×	0	×	×	×	\times	×	×
		CC-Link	0	0	0	\times	0	0	0	×	0
QCPU (Q mode), QSCPU *2		CC IE Control CC IE Field	0	○ *3	0 *7	○ *3	×	×	×	×	×
	Q series-	MELSECNET/H *4	0	0	\times	0	\times	×	\times	\times	\times
	Compatible E71	MELSECNET/10 *4	0	0	\times	0	0	0	0	\times	0
	(ActQJ71E71UDP,	MELSECNET(II)	\times	×	\times	\times	×	×	\times	×	×
	ActMLQJ71E71UDP)	Ethernet	○ *5	\times	\times	0	×	○ *5	\times	\times	\times
		Computer link	○ *6	\times	0	×	×	×	×	\times	×
		CC-Link	0	0	0	×	0	0	0	×	0

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*2: Relayed stations cannot be accessed through the QSCPU.

*3: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*4: On the connected station side (Q series-compatible E71), always specify the station number set in the Ethernet parameter.

*5: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number.
 Also set the "Station No. → IP information" of the Q series-compatible E71 or QE71 parameter setting.
 At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No. → IP information No. → IP information" of the IP address calculation system.

*6: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*7: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

8 ACCESSIBLE DEVICES AND RANGES

Connected Station			4. Relay Target CPU									
1. CPU	2. Connected module (Usable control name)	3. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1	
QnACPU *8	QE71 (ActAJ71QE71TCP, ActMLAJ71QE71TCP)	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×	
		MELSECNET/H	\times	×	×	×	×	×	×	×	×	
		MELSECNET/10	×	\times	\times	\times	×	0 *8	\times	\times	×	
		MELSECNET(II)	×	\times	\times	\times	×	×	\times	\times	×	
		Ethernet	\times	\times	\times	\times	×	×	\times	\times	×	
		Computer link	\times	\times	×	\times	×	×	×	\times	×	
		CC-Link	×	\times	×	\times	×	×	×	\times	×	
	QE71 (ActAJ71QE71UDP, ActMLAJ71QE71UDP)	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×	
		MELSECNET/H	×	\times	\times	\times	×	×	×	\times	×	
		MELSECNET/10	×	×	\times	×	×	0	×	×	×	
QnACPU		MELSECNET(II)	\times	\times	\times	\times	×	×	×	\times	×	
		Ethernet	×	×	\times	×	×	○ *5*9	×	\times	×	
		Computer link	×	\times	\times	\times	×	○ *9	×	\times	×	
		CC-Link	×	\times	\times	\times	×	\times	×	\times	×	
), E71 (ActAJ71E71TCP, ActMLAJ71E71TCP)	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×	
QCPU (A mode) *10,		MELSECNET/H	×	\times	\times	\times	×	×	×	\times	×	
QnACPU *11,		MELSECNET/10	\times	\times	\times	\times	○ *10	○ *10	O *10	\times	○ *10	
ACPU *10, motion controller		MELSECNET(II)	×	\times	\times	\times	○ *10	○ *10	○ *10	\times	○ *10	
CPU *10		Ethernet	×	\times	\times	\times	×	\times	×	\times	×	
		Computer link	×	\times	\times	\times	×	\times	×	\times	×	
		CC-Link	×	\times	\times	\times	×	×	×	\times	×	
QCPU (A mode) *10 QnACPU *11, ACPU *10,	E71 (ActAJ71E71UDP, ActMLAJ71E71UDP)	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×	
		MELSECNET/H	\times	×	\times	×	×	×	×	×	×	
		MELSECNET/10	\times	×	\times	×	○ *10	○ *10	O *10	×	○ *10	
		MELSECNET(II)	×	×	\times	×	○ *10	○ *10	○ *10	×	○ *10	
motion controller CPU *10		Ethernet	×	×	\times	×	×	×	×	×	×	
		Computer link	\times	×	\times	×	×	×	×	×	×	
		CC-Link	\times	\times	\times	\times	×	\times	×	\times	×	

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

 *5: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the " Station No. ↔ IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the " Station No. ↔ IP information system".

*8: CPU codes acquired are all 0x21.

*9: Inaccessible when TCP/IP is selected.

*10: For AnUCPU, QCPU (A mode), A173UHCPU (-S1) and A273UHCPU (-S3)

Operates as the one equivalent to AnACPU. (except type character string)

*11: Operates as the one equivalent to AnACPU. (except type character string)

- Access can be made within the AnACPU device range except the following devices.
 - File register(R), accumulator (A), index register (V), index register (Z).

• The following devices, latch relay (L) and step relay (S) make access to the internal relay (M).

8.3.3 Accessible ranges (For the use of Built-in Ethernet port CPUs)

This section indicates the accessible ranges for Ethernet communication using the Built-in Ethernet port CPUs.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not.

The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

POINT

When using TCP/IP on the Built-in Ethernet port CPU, you must set the Ethernet parameters in the PLC parameter setting of GX Developer.
8 ACCESSIBLE DEVICES AND RANGES

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
	CC IE Control CC IE Field	0	○ *2	○ *5	○ *2	×	×	×	×	×
	MELSECNET/H	0	0	×	0	×	×	×	×	×
QnUDE(H)CPU	MELSECNET/10	0	0	X	0	0	0	0	×	0
(ActQNUDECPUTCP,	MELSECNET(II)	×	×	×	×	×	×	×	×	×
ActMLQNUDECPUTCP)	Ethernet	0	×	×	0	×	0	×	×	×
	Computer link	○ *3	×	0	×	×	×	×	×	×
	CC-Link	0	0	0	×	×	×	×	×	×
	CC IE Control CC IE Field	0	○ *2	○ *5	○ *2	×	×	×	×	×
	MELSECNET/H	0	0	×	0	×	×	×	×	×
Q12DCCPU-V*4	MELSECNET/10	0	0	×	0	0	0	0	×	0
(ActQNUDECPUTCP,	MELSECNET(II)	×	×	×	×	×	×	×	×	×
ActMLQNUDECPUTCP)	Ethernet	×	×	×	×	×	×	×	×	×
	Computer link	×	×	×	×	×	×	×	×	×
	CC-Link	0	×	0	×	×	×	×	×	×
	CC IE Control CC IE Field	0	○ *2	○ *5	○ *2	×	×	×	×	×
	MELSECNET/H	0	0	X	0	×	×	×	×	×
QnUDE(H)CPU	MELSECNET/10	0	0	×	0	0	0	0	×	0
(ActQNUDECPUUDP,	MELSECNET(II)	×	×	X	×	×	×	×	×	×
ActMLQNUDECPUUDP)	Ethernet	0	×	×	0	×	0	×	×	×
	Computer link	○ *3	×	0	×	×	×	×	×	×
	CC-Link	0	0	0	×	×	×	×	×	×
	CC IE Control CC IE Field	0	O *2	O *5	O *2	×	×	×	×	×
	MELSECNET/H	0	0	\times	0	×	×	×	×	×
Q12DCCPU-V*4	MELSECNET/10	0	0	×	0	0	0	0	×	0
(ActQNUDECPUUDP,	MELSECNET(II)	×	×	×	×	×	×	×	×	×
ActMLQNUDECPUUDP)	Ethernet	×	×	×	×	×	×	×	\times	×
	Computer link	×	×	×	×	×	×	×	\times	×
	CC-Link	0	×	0	×	×	×	×	×	×
	CC IE Field *5	0	×	0	×	×	×	×	\times	×
	MELSECNET/H	×	\times	\times	\times	\times	×	×	\times	\times
LCPU	MELSECNET/10	×	×	×	×	×	×	×	\times	\times
(ActLCPUTCP, ActMLLCPUTCP)	MELSECNET(II)	×	\times	×	×	×	×	\times	\times	×
	Ethernet	×	×	\times	\times	×	×	×	\times	×
	Computer link	○ *3	×	0	×	×	×	×	×	×
	CC-Link	0	0	0	×	×	×	×	×	×
	CC IE Field ^{*5}	0	×	0	×	×	×	×	\times	×
	MELSECNET/H	×	×	×	×	×	×	×	×	×
LCPU	MELSECNET/10	×	×	×	×	×	×	×	×	×
(ActLCPUUDP, ActMLLCPUUDP)	MELSECNET(II)	×	×	×	×	×	×	×	×	×
	Ethernet	×	×	×	×	×	×	×	×	×
	Computer link	○ *3	×	0	×	×	×	×	×	×
	CC-Link	0	0	0	\times	\times	×	\times	\times	\times

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*2: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*3: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*4: Q12DCCPU-V does not support MELSOFT direct connection.

It is inaccessible when using Ethernet port direct connection.

*5: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

8.3.4 Accessible ranges (For the use of CC-Link IE Field Network Ethernet adapter module)

This section indicates the accessible ranges for Ethernet communication using the CC-Link IE Field Network Ethernet adapter module.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

8 ACCESSIBLE DEVICES AND RANGES

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	0	O *1	O*2	×	×	×	×	×	×
	MELSECNET/H	0	0	\times	×	×	×	×	\times	×
QnUDE(H)CPU	MELSECNET/10	0	0	\times	\times	×	×	\times	\times	×
(ActCCIEFADPTCP,	MELSECNET(II)	×	×	\times	\times	×	×	×	\times	\times
ActMLCCIEFADPTCP)	Ethernet	0	×	\times	×	×	×	×	\times	×
	Computer link	0	×	0	\times	×	×	\times	\times	\times
	CC-Link	0	0	0	×	×	×	×	\times	×
	CC IE Control CC IE Field	0	○*1	O*2	×	×	×	×	×	×
	MELSECNET/H	0	0	\times	\times	×	×	\times	\times	\times
QnUDE(H)CPU	MELSECNET/10	0	0	×	×	×	×	×	×	\times
(ActCCIEFADPUDP,	MELSECNET(II)	×	×	\times	×	×	×	×	×	\times
ActMLCCIEFADPUDP)	Ethernet	0	×	\times	\times	×	\times	\times	\times	\times
	Computer link	0	×	0	×	×	×	×	×	\times
	CC-Link	0	0	0	×	×	×	×	×	\times
	CC IE Field *2	0	×	0	×	×	×	×	×	×
	MELSECNET/H	×	×	\times	×	×	×	×	×	\times
LCPU	MELSECNET/10	×	×	\times	×	×	×	×	×	\times
(ActCCIEFADPTCP,	MELSECNET(II)	×	×	\times	×	×	×	×	×	\times
ActMLCCIEFADPTCP)	Ethernet	×	×	×	×	×	×	×	×	×
	Computer link	0	×	0	×	×	×	×	×	\times
	CC-Link	0	0	0	\times	×	\times	\times	\times	\times
	CC IE Field *2	0	×	0	×	×	×	×	\times	\times
	MELSECNET/H	×	×	×	×	×	×	×	×	×
LCPU	MELSECNET/10	×	×	×	×	×	×	×	×	×
(ActCCIEFADPUDP,	MELSECNET(II)	×	×	×	×	×	×	×	×	×
ActMLCCIEFADPUDP)	Ethernet	×	×	×	×	×	×	×	×	×
	Computer link	0	×	0	×	×	×	×	×	×
	CC-Link	0	0	0	×	×	×	×	×	×

*1: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*2: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

8.4 For CPU COM Communication

This section provides the accessible devices and accessible ranges for CPU COM communication.

8.4.1 Accessible devices

	0						
			A	ccess Targe	t		
A0J2H A1S(-S1) A1SH	A2A(-S1) A2U(-S1)						

The following table indicates the accessible devices for CPU COM communication.

	Device ⁄ice Name)	A1N	A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A20(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Functi	on input (FX)	\times	×	×	×	\times	(\supset	0	×	×	\times	\times
Functio	on output (FY)	\times	×	×	\times	\times	()	0	\times	\times	\times	\times
Function	n register (FD)	\times	×	×	×	\times	()	0	×	\times	\times	\times
Specia	al relay (SM)	0	0	0	0	0	()	0	0	\times	\times	0
Special	l register (SD)	0	0	0	0	0	(0	0	\times	\times	0
Inpu	ut relay (X)	0	0	0	0	0	(0	0	\times	0	0
Outp	out relay (Y)	0	0	0	0	0	(0	0	\times	0	0
Interr	nal relay (M)	0	0	0	0	0	(0	0	×	0	0
Lato	ch relay (L)	0	0	0	0	0	(-	0	×	×	\times	0
Annu	unciator (F)	0	0	0	0	0	(0	×	\times	\times	0
Edg	e relay (V)	\times	×	\times	\times	\times	(0	\times	\times	×	\times
Linl	k relay (B)	0	0	0	0	0	(-	0	×	\times	\times	0
	register (D)	0	0	0	0	0	(0	0	\times	0	0
Link	register (W)	0	0	0	0	0			0	\times	\times	\times	0
	Contact (TS)	0	0	0	0	0	0 0		0	×	\times	0	0
Timer	Coil (TC)	0	0	0	0	0	(\supset	0	\times	\times	0	0
(T)	Present value (TN)	0	0	0	0	0	C		0	×	×	0	0
	Contact (CS)	0	0	0	0	0	(0	\times	\times	0	0
Counter	Coil (CC)	0	0	0	0	0	()	0	\times	\times	0	0
(C)	Present value (CN)	0	0	0	0	0	C)	0	×	×	0	0
Detentive	Contact (SS)	\times	×	×	\times	\times	()	0	\times	\times	\times	\times
Retentive timer	Coil (SC)	\times	\times	×	\times	\times	()	0	\times	\times	\times	\times
(ST)	Present value (SN)	×	×	×	×	×	C	C	0	×	×	×	\times
Link spe	ecial relay (SB)	\times	×	×	\times	\times	(0	×	×	×	×
Link spec	ial register (SW)	\times	×	×	\times	\times	(0	×	×	×	×
Ste	p relay (S)	0	0	0	0	0	>	<	×	×	\times	0	0
Direc	t input (DX)	\times	×	×	\times	\times	×		×	×	\times	\times	\times
Direct	output (DY)	\times	×	\times	\times	\times	>	<	×	×	\times	\times	\times
Accu	imulator (A)	0	0	0	0	0	>	<	×	×	\times	\times	0

		$ \begin{array}{c c c c c c c c c c c c c c c c c c c $												
(Device Device Name)	A1N	A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1)	A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A	A3A	A4U	QnACPU		LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Inde	ex register	(Z)	0	-	0	0	0	()	0		×	O *1	
inda	SK TOGIOLOI	(V)	-			-	-							
File	e register	. ,		-	_	-	_	_	-	_				
	0	. ,	\times	×	×	\times	\times	0	*2	0	×	×	×	×
Ext	ended file regi (ER * \R)	ster	0	0	0	0	0	>	×	×	×	×	×	0
	Link inp (J *\X		×	×	×	×	×	()	0	0	×	×	×
	Link out (J * \Y		×	×	×	×	×	()	0	0	×	×	×
Direct	Link rela (J * ∖B	-	×	×	×	×	×	()	0	0	×	×	×
link	Link specia (J * \SE		×	×	×	×	×	(\supset	0	0	×	×	×
	Link regis (J * \W		×	×	×	×	×	(\supset	0	0	×	×	×
	Link special ((J *\SV	•	×	×	×	×	×	(0	0	×	×	×
	ecial direct but nemory (U * \C		×	×	×	×	×	0	*4	0	0	×	○ *5	×

*1: Data cannot be written to 2 or more consecutive points using WriteDeviceBlock or WriteDeviceBlock2. (Data may be written to only one point.)

*2: Disabled for the use of Q00JCPU or Q00UJCPU.

*3: When accessing to FX series CPU other than FX_{3G}CPU and FX_{3U(C)}CPU, specify the data register. The file register (R) can be specified only when accessing to FX_{3G}CPU or FX_{3U(C)}CPU.

*4: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed.

In addition, write to the shared memory cannot be performed independently of the host or other CPU.

*5: The device can be used to execute Read/WriteDeviceRandom, Read/Write/DeviceRandom2, Get/SetDevice or Get/SetDevice2, only when accessing to FX_{3U(C)}CPU.

8.4.2 Accessible ranges

This section indicates the accessible ranges for CPU COM communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not.

The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
	CC IE Control CC IE Field	0	○ *3	0 *8	○ *3	×	×	×	×	×
	MELSECNET/H	0	0	\times	0	\times	\times	\times	\times	×
QCPU(Q mode)	MELSECNET/10	0	0	\times	0	0	0	0	\times	0
(ActQCPUQ, ActMLQCPUQ) *2	MELSECNET(II)	\times	\times	\times	×	\times	×	\times	\times	\times
	Ethernet	○ *4	×	\times	0	×	○ *4	\times	×	×
	Computer link	○ *5	\times	0	×	\times	0	×	\times	×
	CC-Link	0	0	0	×	○ *6	○ *6	○ *6	○ *7	○ *6
	CC IE Field *8	0	\times	0	×	×	×	\times	×	\times
	MELSECNET/H	×	\times	\times	×	×	×	\times	\times	×
	MELSECNET/10	×	×	\times	×	\times	×	\times	\times	×
LCPU (ActLCPU, ActMLLCPU)	MELSECNET(II)	×	×	\times	×	×	×	\times	×	×
	Ethernet	×	×	\times	\times	\times	\times	\times	\times	\times
	Computer link	○ *5	\times	0	\times	\times	0	\times	\times	\times
	CC-Link	0	0	0	\times	0 *6	0 *6	0 *6	\times	0 *6

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*2: For the Q00J/Q00UJ/Q00/Q00U/Q01/Q01UCPU, some network cards have restrictions on the number of loadable cards. Refer to Appendix 5 for details.

*3: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

*5: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*6: As the relayed station CPU side CC-Link system master/local module, use the module of software version "S" or later.

*7: Accessible to FX3GCPU, FX3U(C)CPU only.

*8: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

8 ACCESSIBLE DEVICES AND RANGES

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	×	×	×	×	×	×	×
QCPU(A mode)	MELSECNET/10	×	×	\times	\times	0	×	0	×	0
(ActQCPUA, ActMLQCPUA)	MELSECNET(II)	×	×	\times	\times	0	×	0	\times	0
	Ethernet	×	×	\times	\times	×	×	\times	\times	×
	Computer link	×	×	\times	\times	×	×	\times	\times	×
	CC-Link	×	\times	\times	\times	×	\times	\times	\times	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	×	×	×	×	×	×	×
QnACPU	MELSECNET/10	×	×	×	×	×	0	×	×	×
(ActQnACPU, ActMLQnACPU)	MELSECNET(II)	×	×	×	×	×	0	×	×	×
(ACIQNACPU, ACIVILQNACPU)	Ethernet	×	×	×	×	×	○ *4	×	×	×
	Computer link	×	\times	\times	×	×	0	×	×	×
	CC-Link	×	\times	\times	×	×	×	×	×	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	\times	\times	×	×	×	×	×	×
ACPU,	MELSECNET/10	×	×	×	×	0	×	0	×	0
Motion controller CPU	MELSECNET(II)	×	\times	\times	×	0	×	0	×	0
(ActACPU, ActMLACPU)	Ethernet	×	\times	\times	×	×	×	×	×	×
	Computer link	×	×	×	\times	×	×	×	\times	×
	CC-Link	×	\times	×	\times	×	×	×	\times	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	\times	×	\times	×	×	×	×	×
FXCPU	MELSECNET/10	×	×	×	×	×	×	×	×	×
(ActFXCPU, ActMLFXCPU)	MELSECNET(II)	×	×	\times	\times	×	×	×	×	×
	Ethernet	×	×	×	\times	×	×	×	×	×
	Computer link	×	×	×	\times	×	×	×	×	×
	CC-Link	\times	\times	×	×	×	×	×	\times	×

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No. → IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No. → IP information system".

8.5 For CPU USB Communication

This section provides the accessible devices and accessible ranges for CPU USB communication.

8.5.1 Accessible devices

The following table indicates the accessible devices for CPU USB	communication.
-	

							Ac	cess Targe	et				
	Device vice Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU *1	FXCPU	Motion controller CPU
Function	on input (FX)	\times	×	×	\times	\times	0		0	×	\times	×	×
Functio	on output (FY)	\times	\times	×	×	\times	0		0	\times	\times	\times	×
Function	n register (FD)	\times	×	×	\times	\times	0		0	\times	×	×	\times
Specia	al relay (SM)	0	0	0	\bigcirc	0	0		0	0	0	\times	0
Special	l register (SD)	0	0	0	0	0	0		0	0	0	\times	0
Inpu	ut relay (X)	0	0	0	0	0	0		0	0	0	○ *2	0
Outp	out relay (Y)	0	0	0	0	\bigcirc	0		0	0	0	○ *2	0
Intern	nal relay (M)	\bigcirc	0	0	0	0	0		0	0	0	○ *2	0
Lato	ch relay (L)	0	0	0	0	0	0		0	\times	\times	×	0
Annu	unciator (F)	0	0	0	0	0	0		0	\times	0	×	0
Edg	e relay (V)	\times	×	×	\times	\times	0		0	\times	0	\times	×
Link	k relay (B)	\bigcirc	0	0	0	0	0		0	\times	0	×	0
Data	register (D)	0	0	0	0	0	0		0	0	0	○ *2	0
Link r	register (W)	0	0	0	0	0	0		0	\times	0	×	0
	Contact (TS)	0	0	0	0	0	0		0	×	0	○ *2	0
Timer	Coil (TC)	0	0	0	0	0	0		0	×	0	○ *2	0
(T)	Present value (TN)	0	0	0	0	0	0		0	×	0	○ *2	0
	Contact (CS)	0	0	0	0	0	0		0	\times	0	○ *2	0
Counter	Coil (CC)	0	0	0	0	0	0		0	×	0	○ *2	0
(C)	Present value (CN)	0	0	0	0	0	0		0	×	0	○ *2	0
Detentio	Contact (SS)	\times	×	×	×	×	0		0	×	0	×	×
Retentive timer	Coil (SC)	\times	×	×	\times	\times	0		0	×	0	×	×
(ST)	Present value (SN)	×	×	×	×	×	0		0	×	0	×	×
Link spe	ecial relay (SB)	\times	×	×	\times	\times	0		0	×	0	×	×
Link speci	ial register (SW)	\times	×	×	\times	\times	0		0	×	0	×	×
Step	p relay (S)	0	0	0	0	0	×		×	×	×	○ *2	0
Direc	t input (DX)	\times	×	×	\times	\times	×		×	×	\times	×	×
Direct	output (DY)	\times	×	×	\times	\times	×		×	×	\times	×	×
Accu	imulator (A)	0	0	0	0	0	×		×	×	×	×	0

*1: Write to device data cannot be performed.

*2: Accessible to $\mathsf{FX}_{3G}\mathsf{CPU}$ only.

								A	Access Targe	et				
(Device Device Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU *1	FXCPU	Motion controller CPU
Inde	ex register	(Z)	0	0	0	0	0	()	0	×	\times	O*2*3	0
inde	ex register	(V)	0	0	0	0	0	>	<	×	×	×	○*2*3	0
File	e register	(R)	0	0	0	0	0		*4	0	×	×	○*2	0
		(ZR)	\times	×	×	\times	\times	0	*4	0	×	×	×	×
Exte	ended file regis (ER * \R)	ster	0	0	0	0	0	>	<	×	×	×	×	0
	Link inp (J * ∖X		×	×	×	×	×	C	\supset	0	0	×	×	×
	Link outp (J * \Y		×	×	×	×	×	C)	0	0	×	×	×
Direct	Link rela (J * ∖B		×	×	×	×	×	C)	0	0	×	×	×
link	Link special (J * \SE		×	×	×	×	×	C)	0	0	×	×	×
	Link regis (J * \W		×	×	×	×	×	C		0	0	×	×	×
	Link special r (J *\SV	•	×	×	×	×	×	C	\supset	0	0	×	×	×
	ecial direct but nemory (U * \C		×	×	×	×	×	0	*5	0	0	×	○ *2	×

*1: Write to device data cannot be performed.

*2: Accessible to $FX_{3G}CPU$ only.

*3: It is not possible to write to more than 2 points successively using WriteDeviceBlock or WriteDeviceBlock2. (Writing to only 1 point is allowed.)

*4: Disabled for the use of Q00JCPU or Q00UJCPU.

*5: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed. In addition, write to the shared memory cannot be performed independently of the host or other CPU.

8.5.2 Accessible ranges

This section indicates the accessible ranges for CPU USB communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not.

The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. F	Relay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	0	○ *2	○ *6	○ *2	×	×	×	×	×
	MELSECNET/H	0	0	\times	0	×	×	\times	×	\times
QCPU (Q mode),	MELSECNET/10	0	0	\times	0	0	0	0	×	0
	MELSECNET(II)	\times	×	\times	×	×	×	\times	×	\times
(ActQCPUQUSB, ActMLQCPUQUSB)	Ethernet	○ *3	×	\times	0	×	○ *3	×	×	\times
	Computer link	○ *4	×	0	×	×	0	\times	×	\times
	CC-Link	0	0	0	×	○ *5	○ *5	○ *5	○ *5	○ *5
	CC IE Control CC IE Field	0	○ *2	○ *6	○ *2	×	×	×	×	×
	MELSECNET/H	0	0	\times	0	×	×	×	×	\times
Q12DCCPU-V	MELSECNET/10	0	0	\times	0	0	0	0	×	0
(ActQCPUUSB, ActMLQCPUUSB)	MELSECNET(II)	\times	×	\times	×	×	×	\times	×	\times
	Ethernet	×	×	\times	×	×	×	\times	×	\times
	Computer link	×	×	\times	\times	×	×	×	×	×
	CC-Link	0	0	0	×	○ *5	○ *5	○ *5	\times	○ *5

*1: Relayed stations cannot be accessed through the QSCPU.

*2: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*3: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

*4: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*5: As the relayed station CPU side CC-Link system master/local module, use the module of software version "S" or later.

*6: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Field *6	0	\times	0	\times	×	\times	\times	×	\times
	MELSECNET/H	×	×	×	×	×	×	×	\times	\times
	MELSECNET/10	×	×	\times	×	×	×	×	\times	\times
	MELSECNET(II)	×	×	\times	×	×	×	×	\times	\times
(ActLCPUUSB, ActMLLCPUUSB)	Ethernet	×	×	×	×	×	\times	\times	\times	\times
	Computer link	○ *4	×	0	×	×	0	×	\times	\times
	CC-Link	0	×	0	×	○ *5	○ *5	○ *5	\times	○ *5
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	×	×	×	×	×	\times	\times
FXCPU	MELSECNET/10	×	×	×	×	×	×	\times	\times	\times
(ActFXCPUUSB, ActMLFXCPUUSB	MELSECNET(II)	×	×	×	×	×	×	×	\times	\times
	Ethernet	×	×	\times	×	×	×	\times	\times	\times
	Computer link	×	×	\times	×	×	×	\times	\times	\times
	CC-Link	×	×	\times	\times	×	×	\times	×	×

*4: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*5: As the relayed station CPU side CC-Link system master/local module, use the module of software version "S" or later.

*6: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

8.6 For MELSECNET/10 Communication

This section provides the accessible devices and accessible ranges for MELSECNET/10 communication.

8.6.1 Accessible devices

The following table indicates the accessible devices for MELSECNET/10 communication.

								Access T	arget					
	Device ⁄ice Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU	Own board
Function	on input (FX)	\times	×	\times	\times	\times	()	0	×	\times	Х	×	\times
Functio	on output (FY)	\times	×	×	\times	\times	(-	0	×	\times	×	×	\times
Function	n register (FD)	\times	×	×	\times	\times	(-	0	×	\times	\times	×	\times
Specia	al relay (SM)	0	0	0	0	0	(0	0	\times	\times	0	0
Special	l register (SD)	0	0	0	0	0	(0	0	\times	\times	0	0
Inpu	ut relay (X)	0	0	0	0	0	(-	0	0	\times	\times	0	0
Outp	out relay (Y)	0	0	0	0	\circ	(0	0	\times	\times	0	0
Intern	nal relay (M)	0	0	0	0	0	(0	0	\times	×	0	\times
Lato	ch relay (L)	0	0	0	0	0	(0	×	\times	×	0	\times
Annu	unciator (F)	0	0	0	0	0	(0	×	\times	×	0	×
Edg	je relay (V)	×	×	×	×	×			0	×	\times	×	×	×
1	k relay (B)	0	0	0	Ô	0	(0	×	\times	×	0	0
1	register (D)	0	0	0	0	0			0	0	×	×	0	×
Link ı	register (W)	0	0	0	0	0			0	×	\times	×	0	0
	Contact (TS)	0	0	0	0	0	(, 	0	×	×	×	0	\times
Timer	Coil (TC)	0	0	0	0	0	()	0	×	×	×	0	\times
(T)	Present value (TN)	0	0	0	0	0	C)	0	×	×	×	0	\times
	Contact (CS)	0	0	0	0	0	(0	×	\times	×	0	\times
Counter	Coil (CC)	0	0	0	0	0	()	0	×	\times	×	0	\times
(C)	Present value (CN)	0	0	0	0	0	C)	0	×	×	×	0	\times
Retentive	Contact (SS)	\times	×	×	\times	\times	()	0	×	\times	×	×	\times
timer	Coil (SC)	\times	×	\times	\times	\times	()	0	×	\times	\times	\times	\times
(ST)	Present value (SN)	×	×	×	×	×	C)	0	×	×	×	×	\times
Link spe	ecial relay (SB)	\times	×	×	\times	\times	C		0	×	\times	×	×	0
Link spec	ial register (SW)	\times	×	×	×	\times	(0	×	\times	×	×	0
Ste	p relay (S)	0	0	0	0	0	>	<	\times	×	\times	×	0	\times
Direc	ct input (DX)	\times	×	×	\times	\times	>	<	\times	×	\times	\times	\times	\times
Direct	t output (DY)	\times	×	\times	\times	\times	>	<	×	×	\times	Х	×	\times
Accu	imulator (A)	0	0	0	0	\circ	>	<	\times	×	\times	×	0	\times

A2N(-S1) A2USH-S1 A3U A3U CPU A2S(-S1) A2USH-S1 A2UCH-A A2UCH-A A2UCH-A A2SH(-S1) A1FX Q06H-A O O O X X O Index register (Z) O O O O X X X O (V) O O O O X X X O (R) O O O O O X X X O															
()	A1N	A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1)	A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A	A3A	A4U	QnACPU		LCPU	Q12DCCPU-V	QSCPU	FXCPU	controller	Own board
Inde	ex register	(Z)	0	0	0	0	0	()	0	×	×	×	0	\times
inde	skrogiotor	(V)	0	-	_	\bigcirc				\times	×	\times	\times		\times
File	e register	(R)	-	-		_	-	_	-					_	\times
	e regiotor	(ZR)	\times	×	×	\times	\times	0	*1	0	×	\times	\times	×	\times
Ext	ended file regis (ER * \R)	ster	0	0	0	0	0	>	×	×	×	×	×	0	×
	Link inp (J * ∖X		×	×	×	×	×	C)	0	0	×	×	×	\times
	Link outp (J * \Y		×	×	×	×	×	(C	0	0	×	×	×	×
Direct	Link rela (J * ∖B	,	×	×	×	×	×	(C	0	0	×	×	×	\times
link	Link special (J * \SE	-	×	×	×	×	×	(C	0	0	×	×	×	\times
	Link regis (J * \W		×	×	×	×	×	()	0	0	×	×	×	\times
	Link special r (J *\SV	•	×	×	×	×	×	()	0	0	×	×	×	\times
	ecial direct buf nemory (U * \C		×	×	×	×	×	0	*2	0	0	×	×	×	×

*1: Disabled for the use of Q00JCPU or Q00UJCPU.

*2: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed.

In addition, write to the shared memory cannot be performed independently of the host or other CPU.

8.6.2 Accessible ranges

This section indicates the accessible ranges for MELSECNET/10 communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs and own board (MELSECNET/10 board) are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
	CC IE Control CC IE Field	0	○ *2	○ *4	○ *2	×	×	×	×	×
	MELSECNET/H	0	0	\times	0	×	×	\times	\times	×
QCPU(Q mode)	MELSECNET/10	0	0	\times	0	0	0	0	\times	0
(ActMnet10BD, ActMLMnet10BD)	MELSECNET(II)	×	×	\times	×	×	×	×	\times	\times
	Ethernet	0	\times	\times	0	×	×	\times	\times	\times
	Computer link	○ *3	\times	0	×	\times	0	\times	\times	\times
	CC-Link	0	0	0	×	×	×	\times	\times	\times
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	\times	\times	\times	×	\times	\times	\times
Q12DCCPU-V	MELSECNET/10	×	×	\times	×	\times	×	\times	×	\times
(ActMnet10BD, ActMLMnet10BD)	MELSECNET(II)	×	×	\times	×	×	×	\times	\times	×
	Ethernet	×	×	\times	×	\times	×	\times	\times	\times
	Computer link	×	×	\times	\times	\times	×	\times	\times	\times
	CC-Link	0	0	0	×	\times	×	\times	\times	\times
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	\times	×	\times	×	\times	\times	\times
QnACPU,	MELSECNET/10	0	0	\times	0	0	0	0	×	0
(ActMnet10BD, ActMLMnet10BD)	MELSECNET(II)	×	\times	\times	×	×	×	\times	×	×
	Ethernet	×	×	\times	×	×	0	\times	×	×
	Computer link	×	×	\times	×	×	0	\times	\times	×
	CC-Link	×	×	\times	×	×	×	\times	\times	×

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*2: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*3: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*4: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
QCPU(A mode),	MELSECNET/H	×	×	\times	×	×	×	×	×	\times
ACPU,	MELSECNET/10	0	0	\times	0	0	0	0	×	0
Motion controller CPU	MELSECNET(II)	×	×	\times	×	×	×	×	×	\times
(ActMnet10BD, ActMLMnet10BD)	Ethernet	×	×	×	×	×	×	×	×	\times
	Computer link	×	×	×	×	×	×	×	×	\times
	CC-Link	×	×	×	×	×	×	×	×	\times

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

8.7 For CC-Link Communication

This section provides the accessible devices and accessible ranges for CC-Link communication.

8.7.1 Accessible devices

The following table indicates the accessible devices for CC-Link communication.

							A	Access Targe	et				
	Device ⁄ice Name)	A1N	A0.J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Functi	on input (FX)	\times	\times	×	\times	\times	C)	0	\times	×	×	×
Functio	on output (FY)	\times	×	×	\times	\times	()	0	×	×	×	×
Function	n register (FD)	\times	×	×	\times	\times	(0	\times	×	×	×
Specia	al relay (SM)	0	0	0	\bigcirc	0	C		0	0	×	×	0
Special	l register (SD)	0	0	0	0	0	(0	0	\times	\times	0
Inpu	ut relay (X)	0	0	0	0	0	(-	0	0	×	O *1	0
Outp	out relay (Y)	0	0	0	0	0	(0	0	×	O *1	0
Interr	nal relay (M)	0	0	0	0	0	(0	0	×	○ *1	0
Lato	ch relay (L)	0	0	0	0	0	(0	×	×	×	0
Annı	unciator (F)	0	0	0	0	0	(-	0	×	×	\times	0
Edg	je relay (V)	\times	×	×	\times	\times	(-	0	×	×	×	×
Linl	k relay (B)	0	0	0	0	0	(-	0	×	×	×	0
1	register (D)	0	0	0	0	0	(0	0	×	O *1	0
Link	register (W)	0	0	0	0	0	(0	×	×	×	0
	Contact (TS)	0	0	0	0	0	C		0	×	×	O *1	0
Timer	Coil (TC)	0	0	0	0	0	()	0	\times	×	O *1	0
(T)	Present value (TN)	0	0	0	0	0	C)	0	×	×	O *1	0
	Contact (CS)	0	0	0	0	0	C		0	\times	×	O *1	0
Counter	Coil (CC)	0	0	0	0	0	(0	×	×	0 *1	0
(C)	Present value (CN)	0	0	0	0	0	C		0	×	×	O *1	0
Dotortiu	Contact (SS)	\times	×	×	\times	\times	(0	×	×	×	×
Retentive timer	Coil (SC)	\times	×	×	\times	\times	()	0	×	×	×	×
(ST)	Present value (SN)	×	×	×	×	×	C		0	×	×	×	×
Link spe	ecial relay (SB)	\times	×	×	\times	×	()	0	×	×	×	×
Link spec	ial register (SW)	\times	×	×	\times	\times	C)	0	×	×	×	×
Ste	p relay (S)	0	0	0	0	0	>	<	×	×	×	O *1	0
Direc	t input (DX)	\times	×	×	\times	\times	>	<	×	×	×	×	×
Direct	t output (DY)	\times	×	×	\times	\times	>	<	×	×	×	\times	×
Accu	imulator (A)	0	0	0	0	0	>	<	×	×	×	O *1 *2	0

(1) For another station access

*1: Accessible to FX3GCPU, FX3U(C)CPU only.

*2: It is not possible to write to more than 2 points successively using WriteDeviceBlock or WriteDeviceBlock2. (Writing to only 1 point is allowed.)

								A	Access Targe	et				
(Device Device Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Inde	ex register	(Z)	0	0	0	0	0	C	\supset	0	×	×	O *1 *2	0
inde		(V)	0	0	0	\circ	\bigcirc		<	\times	×	\times	○ *1 *3	0
File	e register	(R)	0	0	0	0	0	_	*4	0	×	\times	\times	0
	o rogiotoi	(ZR)	×	×	×	\times	\times	0	*4	0	×	×	\times	×
Exte	ended file regi (ER * \R)	ster	0	0	0	0	0	>	K	×	×	×	×	0
	Link inp (J * ∖X		×	×	×	×	×	C)	0	0	×	×	×
	Link out (J * \Y		×	×	×	×	×	()	0	0	×	×	×
Direct	Link rela (J * ∖B	-	×	×	×	×	×	(\supset	0	0	×	×	×
link	Link specia (J * \SE		×	×	×	×	×	C)	0	0	×	×	×
	Link regis (J * \W		×	×	×	×	×	C)	0	0	×	×	×
	Link special ((J *\SV	•	×	×	×	×	×	(0	0	×	×	×
	ecial direct but nemory (U * \C		×	×	×	×	×	0	*5	0	0	×	○ *1 *6	×

*1: Accessible to FX_{3G}CPU, FX_{3U(C)}CPU only.

*2: It is not possible to write to more than 2 points successively using WriteDeviceBlock or WriteDeviceBlock2. (Writing to only 1 point is allowed.)

*3: When accessing to FX series CPU other than FX_{3G}CPU and FX_{3U(C)}CPU, specify the data register. The file register (R) can be specified only when accessing to FX_{3G}CPU or FX_{3U(C)}CPU.

*4: Disabled for the use of Q00JCPU or Q00UJCPU.

*5: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed. In addition, write to the shared memory cannot be performed independently of the host or other CPU.

*6: The device can be used to execute Read/WriteDeviceRandom, Read/Write/DeviceRandom2, Get/SetDevice or Get/SetDevice2, only when accessing to FX_{3U(C)}CPU.

(2) For own board access

The following devices are usable only for own board access.

Device	Device Name	Remarks
Special relay	SM	Special relay of own board
Special register	SD	Special register of own board
Link special relay (for CC-Link)	SB	Link special relay of own board
Link special register (for CC-Link)	SW	Link special register of own board
Remote input	Х	RX
Remote output	Y	RY
Link register	W	
Remote register (write area for CC-Link)	WW	RWw
Remote register (read area for CC-Link)	WR	RWr
Buffer memory	ML	Buffer memory of own station CC-Link module
Random access buffer	MC	Random access buffer in buffer memory of own station CC-Link module
Automatic refresh buffer	MF	Automatic refresh buffer of own station CC-Link module

8.7.2 Accessible ranges

This section indicates the accessible ranges for CC-Link communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs and own board (CC-Link board) are all accessible. Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	0	○ *1	○ *2	O *1	×	×	×	×	×
	MELSECNET/H	0	0	\times	0	\times	\times	\times	\times	\times
QCPU(Q mode)	MELSECNET/10	0	0	\times	0	\times	\times	\times	\times	\times
(ActCCBD, ActMLCCBD)	MELSECNET(II)	\times	×	\times	\times	\times	\times	\times	×	\times
	Ethernet	0	×	\times	0	×	×	\times	×	\times
	Computer link	\times	\times	\times	\times	\times	\times	\times	\times	\times
	CC-Link	\times	\times	\times	\times	\times	\times	\times	\times	\times
	CC IE Control CC IE Field	0	○ *1	×	O *1	×	×	×	×	×
	MELSECNET/H	0	0	\times	0	×	×	\times	×	×
Q12DCCPU-V	MELSECNET/10	0	0	\times	0	×	0	\times	×	×
(ActCCBD, ActMLCCBD)	MELSECNET(II)	×	×	\times	×	×	×	\times	×	×
	Ethernet	×	\times	\times	\times	×	0	\times	\times	×
	Computer link	\times	\times	\times	\times	×	\times	\times	×	\times
	CC-Link	×	\times	\times	\times	\times	\times	\times	\times	\times
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	\times	\times	×	×	\times	\times	\times	\times
QnACPU	MELSECNET/10	×	\times	\times	×	×	0	\times	\times	\times
(ActCCBD, ActMLCCBD)	MELSECNET(II)	\times	\times	\times	\times	×	\times	\times	\times	\times
	Ethernet	\times	\times	\times	\times	\times	0	\times	\times	\times
	Computer link	×	\times	\times	\times	×	×	\times	\times	\times
	CC-Link	×	\times	\times	×	×	\times	\times	\times	\times
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
LCPU,	MELSECNET/H	×	×	×	×	×	×	\times	\times	×
QCPU(A mode),	MELSECNET/10	×	×	×	\times	\times	\times	\times	\times	\times
ACPU,	MELSECNET(II)	×	×	×	×	×	×	×	\times	\times
Motion controller CPU	Ethernet	×	×	×	\times	\times	×	\times	\times	\times
(ActCCBD, ActMLCCBD)	Computer link	×	×	×	×	\times	\times	×	\times	×
	CC-Link	\times	×	\times	\times	×	\times	\times	×	\times

*1: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*2: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

8.8 For CC-Link G4 Communication

This section provides the accessible devices and accessible ranges for CC-Link G4 communication.

8.8.1 Accessible devices

The following table indicates the accessible devices for CC-Link G4 communication.
--

							A	Access Targe	t				
	Device ⁄ice Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Functi	on input (FX)	\times	×	×	\times	\times)	0	×	×	×	\times
Functio	on output (FY)	\times	×	×	\times	\times	(_	0	×	×	×	×
Function	n register (FD)	\times	×	×	\times	\times	()	0	×	×	×	×
Speci	al relay (SM)	0	0	0	0	0)	0	0	\times	×	0
Specia	l register (SD)	0	0	0	0	0)	0	0	×	×	0
Inpu	ut relay (X)	0	0	0	0	0	(_	0	0	\times	×	0
Outp	out relay (Y)	0	0	0	0	0	(0	0	×	×	0
Interr	nal relay (M)	0	0	0	0	0)	0	0	×	×	0
	ch relay (L)	0	0	0	0	0	(-	0	×	×	×	0
	unciator (F)	0	0	0	0	0)	0	×	×	×	0
-	e relay (V)	×	×	×	×	×	(0	×	×	×	×
	k relay (B)	0	0	0	0	0	(0	×	×	×	0
1	register (D)	0	0	0	0	0		2	0	0	×	×	0
Link	register (W)	0	0	0	0	0	(0	×	×	×	0
	Contact (TS)	0	0	0	0	0		2	0	×	×	×	0
Timer	Coil (TC)	0	0	0	0	0	()	0	×	×	×	0
(T)	Present value (TN)	0	0	0	0	0	()	0	×	×	×	0
	Contact (CS)	0	0	0	0	0)	0	×	\times	×	0
Counter	Coil (CC)	0	0	0	0	0	()	0	×	×	\times	0
(C)	Present value (CN)	0	0	0	0	0	()	0	×	×	×	0
Dotoptive	Contact (SS)	\times	×	×	\times	\times	()	0	×	×	×	×
Retentive timer	Coil (SC)	\times	×	×	\times	\times	()	0	×	\times	\times	\times
(ST)	Present value (SN)	×	×	×	×	×	(\supset	0	×	×	×	×
Link spe	ecial relay (SB)	\times	×	×	×	\times	()	0	×	×	×	×
Link spec	ial register (SW)	\times	×	×	\times	\times	()	0	×	×	×	\times
Ste	p relay (S)	0	0	0	0	0	>	~	×	×	×	×	0
Direc	t input (DX)	\times	×	×	\times	\times	>	~	×	×	\times	×	\times
Direct	t output (DY)	\times	\times	\times	\times	\times	>	×	×	×	\times	\times	×
Accu	imulator (A)	0	0	0	0	0	>	×	×	×	\times	\times	0

								ŀ	Access Targe	et				
(Device Device Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Inde	ex register	(Z)	0	0	0	0	0	()	0	×	×	×	0
inde	skrogiotor	(V)	0	0	0	\circ	0		~	\times	×	\times	\times	0
File	e register	(R)	0	0	0	0	0	_	*1	0	×	×	×	0
	0	(ZR)	\times	×	×	×	\times	0	*1	0	×	×	×	×
Exte	ended file regi: (ER * \R)	ster	0	0	0	0	0	>	~	×	×	×	×	0
	Link inp (J * ∖X		×	×	×	×	×	(C	0	0	×	×	\times
	Link outp (J * \Y		×	×	×	×	×	()	0	0	×	×	×
Direct	Link rela (J * ∖B	,	×	×	×	×	×	(\supset	0	0	×	×	×
link	Link special (J * \SE	-	×	×	×	×	×	(\supset	0	0	×	×	×
	Link regis (J * \W		×	×	×	×	×	(C	0	0	×	×	×
	Link special r (J * \SV	•	×	×	×	×	×	(C	0	0	×	×	×
	ecial direct but nemory (U * \C		×	×	×	×	×	(\supset	0	0	×	×	×

*1: Disabled for the use of Q00JCPU or Q00UJCPU.

8.8.2 Accessible ranges

This section indicates the accessible ranges for CC-Link G4 communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	0	O *1	O *2	O *1	×	×	×	×	×
	MELSECNET/H	0	0	×	0	×	×	\times	×	×
QCPU (Q mode)	MELSECNET/10	0	0	\times	0	0	0	0	×	0
(ActCCG4Q, ActMLCCG4Q)	MELSECNET(II)	×	\times	\times	\times	\times	×	\times	\times	\times
	Ethernet	0	\times	\times	0	\times	0	\times	\times	\times
	Computer link	×	×	\times	\times	×	0	\times	\times	\times
	CC-Link	×	×	\times	\times	×	×	\times	\times	\times
	CC IE Control CC IE Field	×	O *1	○ *2	O *1	×	×	×	×	×
	MELSECNET/H	×	0	\times	0	×	×	\times	\times	\times
Q12DCCPU-V	MELSECNET/10	×	0	\times	0	0	0	0	\times	0
(ActCCG4Q, ActMLCCG4Q)	MELSECNET(II)	×	×	\times	×	×	×	\times	×	×
	Ethernet	×	×	\times	×	×	×	\times	×	×
	Computer link	×	×	\times	×	×	×	\times	×	×
	CC-Link	×	×	\times	×	×	×	\times	×	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	\times	×	×	×	\times	×	×
LCPU	MELSECNET/10	×	×	×	×	×	×	\times	×	×
(ActCCG4Q, ActMLCCG4Q)	MELSECNET(II)	×	×	×	×	×	×	\times	×	×
. ,	Ethernet	×	×	×	×	×	×	\times	×	×
	Computer link	×	×	×	×	×	0	×	×	×
	CC-Link	×	×	×	×	×	×	×	×	×

(a) When CC-Link G4 module is in Q mode or LCPU

*1: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*2: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	\times	\times	×	×	×	×	\times
QnACPU	MELSECNET/10	\times	×	\times	\times	×	0	\times	×	\times
(ActCCG4QnA, ActMLCCG4QnA)	MELSECNET(II)	×	×	\times	×	×	0	\times	×	\times
	Ethernet	×	×	\times	\times	×	0	×	×	\times
	Computer link	\times	×	\times	\times	×	0	\times	×	\times
	CC-Link	×	×	\times	\times	×	×	\times	×	\times

(b) When CC-Link G4 module is in QnA mode

(c) When CC-Link G4 module is in A mode

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
QCPU(A mode),	MELSECNET/H	×	×	\times	\times	×	×	\times	\times	\times
ACPU,	MELSECNET/10	×	×	\times	\times	×	×	\times	\times	×
Motion controller CPU	MELSECNET(II)	×	×	\times	×	×	×	\times	\times	×
(ActCCG4A, ActMLCCG4A)	Ethernet	×	×	\times	×	×	×	\times	\times	×
	Computer link	×	×	\times	×	×	×	\times	\times	×
	CC-Link	×	×	×	×	×	×	×	×	×

8.9 For CPU Board Communication

This section provides the accessible devices and accessible ranges for CPU board communication.

8.9.1 Accessible devices

The following table indicates the accessible devices for CPU board communication.

1							A	Access Targe	et				
	Device vice Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Functi	ion input (FX)	\times	×	×	\times	\times	-	*1	×	×	×	\times	×
Functio	on output (FY)	\times	×	\times	\times	\times	-	*1	\times	×	×	×	×
Functio	n register (FD)	\times	×	\times	\times	\times		*1	\times	×	×	\times	×
Speci	ial relay (SM)	0	0	0	0	0	-	*1	×	×	×	×	0
	I register (SD)	0	0	0	0	0		*1	×	\times	×	×	0
1	ut relay (X)	0	0	0	0	0		*1	×	\times	×	×	0
· · · · ·	out relay (Y)	0	0	0	0	0	_	*1	×	×	×	×	0
-	nal relay (M)	0	0	0	0	0	_	*1	×	×	×	×	0
-	ch relay (L)	0	0	0	0	0	-	*1	×	×	×	×	0
1	unciator (F)	0	0	0	0	0	-	*1	×	×	×	×	0
-	ge relay (V)	×	×	×	\times	×		<	×	×	×	×	×
1	k relay (B)	0	0	0	0	0	-	*1	×	×	×	×	0
1	register (D)	0	0	0	0	0	0	*1	×	×	×	×	0
Link	register (W)	0	0	0	0	0		*1	X	×	×	×	0
	Contact (TS)	0	0	0	0	0	-	*1	×	×	×	×	0
Timer	Coil (TC)	0	0	0	0	0	0	*1	×	×	×	×	0
(T)	Present value (TN)	0	0	0	0	0	0	*1	×	×	×	×	0
	Contact (CS)	0	0	0	0	0	0	*1	\times	×	×	×	0
Counter	Coil (CC)	0	0	0	0	0	0	*1	\times	×	\times	\times	0
(C)	Present value (CN)	0	0	0	0	0	0	*1	×	×	×	×	0
Retentive	Contact (SS)	\times	×	×	\times	\times	>	<	×	×	×	×	×
timer	Coil (SC)	\times	×	×	\times	\times	>	<	×	×	\times	×	×
(ST)	Present value (SN)	\times	×	×	×	×	>	<	×	×	×	×	×
Link spe	ecial relay (SB)	\times	×	×	\times	\times	>	<	×	×	×	×	×
Link spec	cial register (SW)	\times	×	×	\times	\times	>	<	×	×	×	×	×
Ste	ep relay (S)	0	0	0	0	0	>	K	×	×	×	×	0
Direc	ct input (DX)	\times	×	×	\times	\times	>	<	×	×	×	×	×
Direc	t output (DY)	\times	×	×	\times	\times	>	<	×	×	\times	\times	×
Accu	umulator (A)	0	0	0	\bigcirc	0	>	K	×	×	\times	×	0

*1: Access to QCPU (Q mode) cannot be made.

When making access to QnACPU, the range is equivalent to that of AnACPU.

								A	Access Targe	t				
(Device Device Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Inde	ex register	(Z)	0	0	0	0	0	0	*1	\times	×	×	×	0
	si regiotoi	(V)	0	0	0	0	0		K	×	×	\times	×	0
File	e register	(R)	0	0	0	0	\bigcirc		<	×	×	\times	×	0
	o rogiotoi	(ZR)	\times	×	×	\times	\times	>	<	×	×	\times	\times	×
Ext	ended file regi (ER * \R)	ster	0	0	0	0	0	>	×	×	×	×	×	0
	Link inp (J * \X		×	×	×	×	×	>	K	×	×	×	×	×
	Link outp (J * \Y		×	×	×	×	×	>	<	×	×	×	×	×
Direct	Link rela (J * ∖B	-	×	×	×	×	×	>	<	×	×	×	×	×
link	Link specia (J * \SE		×	×	×	×	×	>	<	×	×	×	×	×
	Link regis (J * \W		×	×	×	×	×	>	<	×	×	×	×	×
	Link special ((J *\SV	•	×	×	×	×	×	>	<	×	×	×	×	×
	ecial direct but nemory (U * \C		×	×	×	×	×	>	<	×	×	×	×	×

*1: Access to QCPU (Q mode) cannot be made.

When making access to QnACPU, the range is equivalent to that of AnACPU.

8.9.2 Accessible ranges

This section indicates the accessible ranges for CPU board communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not.

The own board (CPU board) is accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					2. R	elay Target	CPU			
Network Board (Usable control name)	1. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	\times	\times	×	×	×	\times	\times
CPU board	MELSECNET/10	×	×	\times	\times	0	○ *2	0	\times	0
(ActAnUBD, ActMLAnUBD)	MELSECNET(II)	×	×	\times	\times	0	○ *2	0	\times	0
	Ethernet	×	×	\times	\times	×	×	×	\times	\times
	Computer link	×	×	\times	×	×	×	×	\times	×
	CC-Link	×	×	\times	\times	×	×	×	\times	\times

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*2: Operates as the one equivalent to AnACPU. (except type character string)

Access can be made within the AnACPU device range except the following devices.

• File register(R), accumulator (A), index register (V), index register (Z).

• The following devices, latch relay (L) and step relay (S) make access to the internal relay (M).

8.10 For MELSECNET/H Communication

This section provides the accessible devices and accessible ranges for MELSECNET/H communication.

8.10.1 Accessible devices

The following table indicates the accessible devices for MELSECNET/H communication.

1								Access T	arget					
	Device vice Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU *1	FXCPU	Motion controller CPU	Own board
Functi	ion input (FX)	\times	×	×	\times	\times	(0	×	\times	\times	×	\times
Functio	on output (FY)	\times	×	×	\times	\times	C)	0	\times	\times	×	×	\times
Functio	n register (FD)	\times	×	×	\times	\times	C		0	×	×	×	×	\times
Speci	ial relay (SM)	0	0	0	0	0	C	-	0	0	0	\times	0	0
Specia	l register (SD)	0	0	0	0	0	C		0	0	0	\times	0	0
Inp	ut relay (X)	0	0	0	0	\bigcirc	C		0	0	0	\times	0	0
Outp	out relay (Y)	0	0	0	0	0	C		0	0	0	\times	0	0
Interi	nal relay (M)	0	0	0	0	0	C		0	0	0	×	0	\times
Late	ch relay (L)	0	0	0	0	0	0	-	0	\times	×	×	0	\times
Ann	unciator (F)	0	0	0	0	0	C		0	\times	0	×	0	\times
-	ge relay (V)	\times	×	×	\times	\times	0		0	×	0	\times	×	×
1	k relay (B)	0	0	0	0	0	(0	×	0	×	0	0
4	ı register (D)	0	0	0	0	0	(-	0	0	0	×	0	×
Link	register (W)	0	0	0	0	0	(0	×	0	×	0	0
	Contact (TS)	0	0	0	0	0			0	×	0	×	0	\times
Timer	Coil (TC)	0	0	0	0	0	C)	0	×	0	×	0	\times
(T)	Present value (TN)	0	0	0	0	0	C		0	×	0	×	0	\times
	Contact (CS)	0	0	0	0	0	0		0	\times	0	×	0	\times
Counter	Coil (CC)	0	0	0	\bigcirc	0	C)	0	×	0	\times	0	\times
(C)	Present value (CN)	0	0	0	0	0	C)	0	×	0	×	0	\times
Retentive	Contact (SS)	\times	×	×	\times	\times	(0	×	0	\times	\times	\times
timer	Coil (SC)	\times	×	×	\times	\times	0)	0	×	0	\times	×	\times
(ST)	Present value (SN)	×	×	×	×	×	C)	0	×	0	×	×	×
Link spe	ecial relay (SB)	\times	×	×	\times	\times	()	0	×	0	×	×	0
Link spec	cial register (SW)	\times	×	×	\times	\times	()	0	×	0	\times	×	0
Ste	ep relay (S)	0	0	0	0	\bigcirc	>	<	\times	×	×	×	0	\times
Direc	ct input (DX)	\times	×	×	\times	\times	>	<	×	×	×	\times	×	\times
Direc	t output (DY)	\times	×	×	\times	\times	>	<	\times	×	\times	\times	\times	\times
Accu	umulator (A)	0	0	0	0	0	>	<	\times	\times	\times	\times	0	\times

*1: Write to device data cannot be performed.

									Access	Target					
(Device Device Name))	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU *1	FXCPU	Motion controller CPU	Own board
Inde	ex register	(Z)	0	0	0	0	0	()	0	×	×	×	0	\times
inde		(V)	\circ	0	0	0	0	>	×	\times	×	×	\times	0	\times
File	e register	(R)	0	0	0	0	0		*2	0	×	×	×	0	\times
	o regiotor	(ZR)	\times	×	×	\times	×	0	*2	0	×	×	×	×	\times
Ext	ended file regis (ER * \R)	ster	0	0	0	0	0	>	×	×	×	×	×	0	\times
	Link inp (J * ∖X		×	×	×	×	×	C	C	0	0	×	×	×	\times
	Link outp (J * \Y		×	×	×	×	×	(C	0	0	×	×	×	×
Direct	Link rela (J * ∖B	,	×	×	×	×	×	(C	0	0	×	×	×	×
link	Link special (J * \SE		×	×	×	×	×	(\supset	0	0	×	×	×	×
	Link regis (J * \W		×	×	×	×	×	C	\supset	0	0	×	×	×	\times
	Link special r (J * \SV	•	×	×	×	\times	×	C	C	0	0	×	×	×	\times
	ecial direct buf nemory (U * \C		×	×	×	×	×	0	*3	0	0	×	×	×	×

*1: Write to device data cannot be performed.

*2: Disabled for the use of Q00JCPU or Q00UJCPU.

*3: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed.

In addition, write to the shared memory cannot be performed independently of the host or other CPU.

8.10.2 Accessible ranges

This section indicates the accessible ranges for MELSECNET/H communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs and own board (MELSECNET/H board) are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
	CC IE Control CC IE Field	0	○ *3	○ *7	○ *3	×	×	×	×	×
	MELSECNET/H *4	0	0	\times	0	\times	\times	\times	\times	\times
QCPU (Q mode),	MELSECNET/10 *5	0	0	\times	0	0	0	0	\times	0
QSCPU *2	MELSECNET(II)	×	×	×	×	×	×	×	\times	\times
(ActMnetHBD, ActMLMnetHBD)	Ethernet	0	×	\times	0	×	×	×	\times	\times
	Computer link	○ *6	×	0	×	×	0	×	\times	\times
	CC-Link	0	0	0	\times	×	×	\times	\times	\times
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H *4	×	×	×	\times	×	×	×	\times	×
Q12DCCPU-V	MELSECNET/10 *5	×	×	×	\times	×	×	×	\times	\times
(ActMnetHBD, ActMLMnetHBD)	MELSECNET(II)	×	×	\times	×	×	×	\times	\times	×
	Ethernet	×	×	\times	×	×	×	\times	\times	×
	Computer link	×	×	×	×	×	×	\times	×	×
	CC-Link	0	0	0	×	\times	\times	\times	×	\times

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*2: Relayed stations cannot be accessed through the QSCPU.

*3: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*4: Accessible when the MELSECNET/H module of the connected station is in the MELSECNET/H mode.

*5: Accessible when the MELSECNET/H module of the connected station is in the MELSECNET/10 mode.

*6: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*7: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	×	×	×	×	×	×	\times
QnACPU *4	MELSECNET/10	0	0	×	0	0	0	0	\times	0
(ActMnetHBD, ActMLMnetHBD)	MELSECNET(II)	×	\times	\times	\times	×	×	×	\times	\times
	Ethernet	×	\times	\times	\times	×	0	\times	\times	×
	Computer link	×	\times	×	\times	×	0	×	\times	\times
	CC-Link	×	\times	\times	\times	×	×	\times	\times	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
QCPU (A mode),	MELSECNET/H	×	×	\times	×	×	×	\times	\times	×
ACPU,	MELSECNET/10	0	0	\times	0	0	0	0	\times	0
Motion controller CPU	MELSECNET(II)	\times	×	\times	×	×	×	×	\times	\times
(ActMnetHBD, ActMLMnetHBD)	Ethernet	×	×	\times	×	×	×	\times	\times	×
	Computer link	×	×	\times	\times	×	×	\times	\times	×
	CC-Link	\times	×	\times	\times	×	×	\times	\times	\times

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*4: Accessible when the MELSECNET/H module of the connected station is in the MELSECNET/H mode.

8.11 For CC-Link IE Controller Network Communication

This section provides the accessible devices and accessible ranges for CC-Link IE Controller Network communication.

8.11.1 Accessible devices

The following table indicates the accessible devices for CC-Link IE Controller Network communication.

								Access T	Target					
	Device vice Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU *1	FXCPU	Motion controller CPU	Own board
Functi	ion input (FX)	\times	×	×	\times	\times	C)	0	×	\times	\times	×	\times
Functio	on output (FY)	\times	×	×	\times	\times	C		0	×	\times	\times	×	\times
Functio	n register (FD)	\times	×	\times	\times	\times	()	0	×	\times	\times	\times	\times
Speci	al relay (SM)	0	0	0	\circ	0	0	-	0	0	0	×	0	0
Specia	l register (SD)	\circ	0	0	0	\circ	C		0	0	0	\times	0	0
Inpu	ut relay (X)	0	0	0	0	0	C)	0	0	0	\times	0	0
Outp	out relay (Y)	0	0	0	0	0	(-	0	0	0	\times	0	0
Interr	nal relay (M)	0	0	0	0	0	0		0	0	0	\times	0	\times
Lato	ch relay (L)	0	0	0	0	0	C		0	×	\times	\times	0	\times
Ann	unciator (F)	0	0	0	0	0	(-	0	×	0	×	0	\times
Edg	ge relay (V)	\times	×	×	\times	\times	C		0	×	0	\times	×	\times
Lin	k relay (B)	0	0	0	0	0	C		0	×	0	\times	0	\times
Data	register (D)	0	0	0	0	0	0	-	0	0	0	×	0	\times
Link	register (W)	0	0	0	0	0	0		0	×	0	\times	0	0
	Contact (TS)	0	0	0	0	0	C		0	×	0	\times	0	\times
Timer	Coil (TC)	0	0	0	0	0	0)	0	×	0	\times	0	\times
(T)	Present value (TN)	0	0	0	0	0	C)	0	×	0	×	0	×
	Contact (CS)	0	0	0	0	0	(-	0	\times	0	×	0	\times
Counter	Coil (CC)	\circ	0	0	0	0	C)	0	×	0	\times	0	\times
(C)	Present value (CN)	0	0	0	0	0	C)	0	×	0	×	0	×
Dotontius	Contact (SS)	\times	×	×	\times	\times	()	0	×	0	\times	×	\times
Retentive timer	Coil (SC)	\times	×	×	\times	\times	(\supset	0	×	0	\times	×	\times
(ST)	Present value (SN)	×	×	×	×	×	C)	0	×	0	×	×	×
Link spe	ecial relay (SB)	\times	×	×	\times	\times	(\supset	0	×	0	×	×	0
Link spec	ial register (SW)	\times	×	×	\times	\times	C)	0	×	0	×	×	0
Ste	p relay (S)	0	0	0	0	0	>	<	×	×	×	×	0	\times
Direc	ct input (DX)	\times	×	×	\times	\times	>	<	\times	×	×	×	×	\times
Direct	t output (DY)	\times	×	×	\times	×	>	<	\times	×	×	\times	×	\times
Accu	umulator (A)	0	0	0	0	0	>	<	\times	×	\times	\times	0	\times

*1: Write to device data cannot be performed.

$\begin{array}{ $								Access 1	arget						
()	A1N	A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1)	A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A	A3A	A4U	QnACPU		LCPU	Q12DCCPU-V		FXCPU	controller	Own board
Inde	ev register	(Z)	0	0	0	0	0	()	0	×	×	×	0	\times
intac	ex register	(V)	0		-	0	0			\times	×	×	×		\times
File	e register	(R)			-	-	-							_	\times
		. ,	\times	×	×	\times	×	0	*2	0	×	×	×	×	\times
Exte		ster	0	0	0	0	0	>	×	×	×	×	×	0	\times
			×	×	×	×	×	C)	0	0	×	×	×	\times
			×	×	×	×	×	()	0	0	×	×	×	×
Direct			×	×	×	×	×	C	C	0	0	×	×	×	×
link			×	×	×	×	×	()	0	0	×	×	×	×
	0		×	×	×	×	×	()	0	0	×	×	×	\times
	Link special r (J *\SV	•	×	×	×	×	×	C)	0	0	×	×	×	×
Special	direct buffer n (U * \G)	nemory	×	×	×	×	×	0	*3	0	0	×	×	×	×

*1: Write to device data cannot be performed.

*2: Disabled for the use of Q00JCPU or Q00UJCPU.

*3: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed.

In addition, write to the shared memory cannot be performed independently of the host or other CPU.

8.11.2 Accessible ranges

This section indicates the accessible ranges for CC-Link IE Controller Network communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs and own board (CC-Link IE Controller Network board) are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *1
	CC IE Control CC IE Field	0	○ *3	○ *7	○ *3	×	×	×	×	×
	MELSECNET/H *4	0	0	\times	0	×	×	\times	\times	\times
QCPU(Q mode)	MELSECNET/10 *5	0	0	\times	0	0	0	0	\times	0
QSCPU *2 (ActMnetGBD, ActMLMnetGBD)	MELSECNET(II)	×	×	\times	\times	×	×	×	\times	×
	Ethernet	0	×	\times	0	×	×	\times	\times	×
	Computer link	○ *6	×	0	\times	×	0	\times	\times	×
	CC-Link	0	0	0	×	×	×	\times	\times	\times
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H *4	\times	×	\times	\times	×	\times	\times	\times	\times
Q12DCCPU-V	MELSECNET/10 *5	\times	×	\times	\times	\times	×	\times	\times	\times
(ActMnetGBD, ActMLMnetGBD)	MELSECNET(II)	×	×	\times	×	×	\times	×	\times	\times
	Ethernet	\times	×	\times	×	×	×	\times	\times	\times
	Computer link	\times	×	\times	\times	×	×	\times	\times	\times
	CC-Link	0	0	0	\times	\times	\times	\times	\times	\times

*1: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*2: Relayed stations cannot be accessed through the QSCPU.

*3: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*4: Accessible when the MELSECNET/H module of the connected station is in the MELSECNET/H mode.

*5: Accessible when the MELSECNET/H module of the connected station is in the MELSECNET/10 mode.

*6: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*7: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

8.12 For CC-Link IE Field Network Communication

This section provides the accessible devices and accessible ranges for CC-Link IE Field Network communication.

8.12.1 Accessible devices

The following table indicates the accessible devices for CC-Link IE Field Network
communication.

1		COmmunication. Access Target												
Device (Device Name)		<u> </u>					Acc	cess T	arget					
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU QC (Q m		LCPU	Q12DCCPU-V	QSCPU *1	FXCPU	Motion controller CPU	Own board
Function	on input (FX)	\times	×	×	\times	\times	0		0	×	×	\times	×	\times
Functio	on output (FY)	\times	×	×	\times	\times	0		0	×	\times	\times	\times	\times
Function	n register (FD)	\times	×	\times	\times	\times	0		0	×	×	\times	\times	\times
Specia	al relay (SM)	\bigcirc	0	0	0	\circ	0		0	0	0	\times	0	0
Special	l register (SD)	\bigcirc	0	0	0	0	0		0	0	0	\times	0	0
Inpu	ut relay (X)	\circ	0	0	0	0	0		0	0	0	×	0	0
Outp	out relay (Y)	0	0	0	0	0	0		0	0	0	×	0	0
Intern	nal relay (M)	0	0	0	0	0	0		0	0	0	×	0	\times
Latch relay (L)		0	0	0	0	0	0		0	×	×	\times	0	\times
Annunciator (F)		\circ	0	0	\circ	\circ	0		0	×	0	\times	0	\times
Edge relay (V)		\times	×	×	\times	\times	0		0	×	0	\times	\times	\times
Link relay (B)		0	0	0	0	0	0		0	×	0	\times	0	\times
Data register (D)		0	0	0	0	0	0		0	0	0	\times	0	\times
Link register (W)		0	0	0	0	0	0		0	×	0	\times	0	0
	Contact (TS)	0	0	0	0	0	0		0	×	0	×	0	\times
Timer	Coil (TC)	0	0	0	0	0	0		0	×	0	×	0	×
(T)	Present value (TN)	0	0	0	0	0	0		0	×	0	×	0	\times
	Contact (CS)	\bigcirc	0	0	0	0	0		0	×	0	\times	0	\times
Counter	Coil (CC)	0	0	0	0	0	0		0	×	0	×	0	\times
(C)	Present value (CN)	0	0	0	0	0	0		0	×	0	×	0	×
Detentive	Contact (SS)	\times	×	×	×	\times	0		0	×	0	×	×	\times
Retentive timer	Coil (SC)	\times	×	×	\times	\times	0		0	×	0	×	\times	\times
(ST)	Present value (SN)	×	×	×	×	×	0		0	×	0	×	×	×
Link special relay (SB)		×	×	×	×	×	0		0	×	0	×	×	0
Link special register (SW)		×	×	×	\times	\times	0		0	×	0	×	×	0
Step relay (S)		0	0	0	0	0	×		\times	×	×	×	0	\times
Direct input (DX)		×	×	×	×	\times	×		×	×	×	×	×	\times
Direct output (DY)		\times	×	×	\times	\times	×		×	×	×	×	×	\times
Accumulator (A)		0	0	0	0	0	×		\times	×	×	×	0	\times

*1: Write to device data cannot be performed.

									Access 1	arget					
Device (Device Name)		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU *1	FXCPU	Motion controller CPU	Own board	
Index register (Z) (V)		0	0	0	0	0	()	0	×	×	\times	0	\times	
		0	0	0	0	0	×		\times	×	×	×	0	\times	
File register (R) (ZR)			0	0	0	0	0		*2	0	×	×	×	0	×
		、 /	\times	×	×	×	×	○ *2		0	×	×	×	×	×
Extended file register (ER * \R)		ster	0	0	0	0	0	×		×	×	×	×	0	×
	Link input (J ≭ ∖X)		×	×	×	×	×	C	C	0	0	×	×	×	×
	Link output (J * \Y)		×	×	×	×	×	0		0	0	×	×	×	×
Direct	Link relay (J ≭ \B)		×	×	×	×	×	0		0	0	×	×	×	×
link	Link special relay (J * \SB)		×	×	×	×	×	0		0	0	×	×	×	\times
	Link register (J * ∖W)		×	×	×	×	×	0		0	0	×	×	×	×
	Link special register (J * \SW)		×	×	×	×	×	(C	0	0	×	×	×	×
Special direct buffer memory (U * \G)		×	×	×	×	×	0	*3	0	0	×	×	×	×	

*1: Write to device data cannot be performed.

*2: Disabled for the use of Q00JCPU or Q00UJCPU.

*3: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed.

In addition, write to the shared memory cannot be performed independently of the host or other CPU.

8.12.2 Accessible ranges

This section indicates the accessible ranges for CC-Link IE Field Network communication.

(1) Configuration



(2) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs and own board (CC-Link IE Field Network board) are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

		3. Relay Target CPU										
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU		
	CC IE Control CC IE Field	0	○ *1	⊜*2	×	×	×	×	×	×		
	MELSECNET/H	0	0	\times	\times	×	×	\times	\times	×		
QCPU(Q mode)	MELSECNET/10	0	0	\times	\times	0	0	0	\times	0		
(ActCCIEFBD, ActMLCCIEFBD)	MELSECNET(II)	×	×	\times	\times	×	×	\times	\times	×		
	Ethernet	0	×	\times	\times	×	\times	\times	\times	\times		
	Computer link	0	×	0	\times	\times	×	\times	\times	\times		
	CC-Link	0	0	0	\times	×	\times	\times	\times	\times		
	CC IE Field *2	0	×	0	\times	×	\times	\times	\times	\times		
	MELSECNET/H	×	×	\times	\times	×	×	\times	\times	\times		
LCPU	MELSECNET/10	\times	×	\times	\times	×	\times	\times	\times	\times		
(ActCCIEFBD, ActMLCCIEFBD)	MELSECNET(II)	×	×	\times	\times	×	×	\times	\times	×		
(ACICCIET BD, ACIVILCOIEFBD)	Ethernet	×	×	\times	\times	×	×	\times	\times	\times		
	Computer link	0	×	0	\times	×	×	\times	\times	\times		
	CC-Link	0	0	0	\times	×	\times	\times	\times	\times		

*1: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*2: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.
8.13 For Q Series Bus Communication

This section provides the accessible devices and accessible ranges for Q series bus communication.

8.13.1 Accessible devices

The following table indicates the accessible devices for Q series bus communication.

	Device ice Name)	Access Target Q02(H), Q06H, Q12H, Q25H, Q02PH, Q06PH, Q12PH, Q25PH		Devic (Device N	-	Access Target Q02(H), Q06H, Q12H, Q25H, Q02PH, Q06PH, Q12PH, Q25PH
Functio	on input (FX)	0		Link special re	elay (SB)	0
Function	n output (FY)	0	L	ink special reg	ister (SW)	0
Function	register (FD)	0		Step rela	y (S)	×
Specia	l relay (SM)	0		Direct inpu	t (DX)	×
Special	register (SD)	0		Direct outpu	ut (DY)	×
Input	t relay (X)	0	Accumulator (A)			×
Outpu	ut relay (Y)	0	Index register		(Z)	0
Interna	al relay (M)	0	inde	ex register	(V)	×
Latch	n relay (L)	0	File register		(R)	0
Annu	nciator (F)	0	FIIE	e register	(ZR)	0
Edge	e relay (V)	0	Ext	ended file regi	ster (ER * \R)	×
Link	relay (B)	0		Link in	put (J * \X)	0
Data r	register (D)	0		Link ou	tput (J *\Y)	0
Link re	egister (W)	0	Direct	Link re	elay (J ∗ \B)	0
Timer	Contact (TS)	0	link	Link specia	ll relay (J ∗\SB)	0
(T)	Coil (TC)	0		Link reg	ister (J ∗\W)	0
(1)	Present value (TN)	0		Link special	register (J * \SW)	0
Countor	Contact (CS)	0	Specia	al direct buffer	memory (U * \G)	○ *1
Counter (C)	Coil (CC)	0				
(0)	Present value (CN)	0				
Dotontivo timor	Contact (SS)	0				
Retentive timer (ST)	Coil (SC)	0				
(-)	Present value (SN)	0				

*1: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed. In addition, write to the shared memory cannot be performed independently of the host or other CPU.

8.13.2 Accessible ranges

This section indicates the accessible ranges for Q series bus communication.

- Access can be made to another CPU on the same base.
 However, access cannot be made to another CPU via the network of another CPU.
- Access can be made to another CPU via the MELSECNET/H module controlled by the PC CPU module.
 In this case, the accessible ranges are as in MELSECNET/H communication. Refer to Section 8.10.2.

The IBM-PC/AT compatible used for MELSECNET/H communication corresponds to the PC CPU module, and the MELSECNET/H board to the MELSECNET/H module.

(3) Access can be made to another CPU via the CC-Link module controlled by the PC CPU module.
 In this case, the accessible ranges are as in CC-Link communication. Refer to Section 8.7.2.

The IBM-PC/AT compatible used for CC-Link communication corresponds to the PC CPU module, and the CC-Link board to the CC-Link module.

8.14 For Modem Communication

This section explains the accessible devices and accessible ranges for modem communication.

8.14.1 Accessible devices

The following table indicates the accessible devices for modem of	communication.
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		Access Target											
	Device (Device Name) Function input (FX)		A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Functio	on input (FX)	\times	×	×	\times	\times	C)	0	×	×	\times	×
Functio	n output (FY)	\times	\times	\times	\times	\times	C)	0	×	\times	\times	\times
Function	n register (FD)	\times	×	×	\times	\times	C)	0	×	\times	\times	\times
Specia	Special relay (SM)		0	0	0	0	C)	0	0	\times	\times	0
Special	register (SD)	0	0	0	0	0	C)	0	0	\times	\times	0
Inpu	ıt relay (X)	0	0	0	0	0	C)	0	0	\times	O *1	0
Outp	ut relay (Y)	0	0	0	0	0	C)	0	0	\times	O *1	0
Intern	al relay (M)	0	0	0	0	0	()	0	0	\times	O *1	0
Latc	h relay (L)	0	0	0	0	0	C)	0	×	\times	\times	0
Annu	unciator (F)	0	0	0	0	0	C)	0	×	\times	\times	0
Edg	e relay (V)	\times	×	\times	\times	\times	0		0	×	\times	\times	\times
Link	c relay (B)	0	0	0	0	0	0		0	×	\times	\times	0
Data	register (D)	0	0	0	0	0	()	0	0	\times	O *1	0
Link r	register (W)	0	0	0	0	0	0		0	×	\times	\times	0
	Contact (TS)	0	0	0	0	0	0		0	×	\times	O *1	0
Timer	Coil (TC)	0	0	0	0	0	()	0	×	\times	O *1	0
(T)	Present value (TN)	0	0	0	0	0	C)	0	×	×	O *1	0
	Contact (CS)	0	0	0	0	0	C)	0	×	\times	O *1	0
Counter	Coil (CC)	0	0	0	0	0	C)	0	×	\times	O *1	0
(C)	Present value (CN)	0	0	0	0	0	C)	0	×	×	O *1	0
Detertion	Contact (SS)	\times	×	×	×	\times	C)	0	×	×	\times	×
Retentive timer	Coil (SC)	\times	×	×	\times	\times	C)	0	×	×	\times	×
(ST)	Present value (SN)	×	×	×	×	×	C		0	×	×	×	×
Link spe	cial relay (SB)	\times	×	×	×	\times	C)	0	×	×	×	×
Link speci	ial register (SW)	\times	×	×	×	\times	C)	0	×	\times	\times	×
Step	o relay (S)	0	0	0	0	0	>	<	×	×	\times	○ *2	0
Direc	t input (DX)	\times	×	×	×	\times	>	<	\times	×	×	×	×
Direct	output (DY)	\times	×	×	\times	\times	>	<	×	×	\times	\times	\times
Accu	mulator (A)	0	0	0	0	0	>	<	×	×	\times	\times	0

*1: Only the FX1sCPU, FX1NCPU, FX1NCCPU, FX2NCPU, FX2NCCPU, FX3GCPU or FX3UCCPU can be used.

(To the next page)

								ŀ	Access Targe	t				
Device (Device Name) Index register		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU QCPU (Q mode)		LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU	
Inde	ex register	(Z)	0	0	0	0	0	(\bigcirc	0	×	×	O *1 *2	0
	(V)		0	0	0	0	0		<	×	×	\times	○ *1 *2	0
File register (R)		0	0	0	0	0	_	*3	0	×	×	○ *4	0	
L	(ZR)		\times	×	×	\times	\times	0	*3	0	×	×	×	\times
Exte	Extended file registers (ER * \R)		0	0	0	0	0	×		×	×	×	×	0
	Link inp (J * \X		×	×	×	×	×	0		0	0	×	×	×
	Link out (J * \Y		×	×	×	×	×	()	0	0	×	×	×
Direct	Link rela (J * ∖B	,	×	×	×	×	×	(\supset	0	0	×	×	×
link	Link specia (J * \SE	-	×	×	×	×	×	(\bigcirc	0	0	×	×	×
	Link regis (J * \W		×	×	×	×	×	(0	0	×	×	×
	Link special ((J * \SV	•	×	×	×	×	×	(0	0	×	×	×
	ecial direct but nemory (U * \C		×	×	×	×	×	0	*5	0	0	×	○ *6	×

*1: Only the FX1sCPU, FX1nCPU, FX1ncCPU, FX2nCPU, FX2nCPU, FX3gCPU or FX3ucCPU can be used.

*2: WriteDeviceBlock or WriteDeviceBlock2 cannot be used to write data to 2 or more points consecutively. (Data can be written to one point only.)

*3: Disabled for the use of Q00JCPU or Q00UJCPU.

*4: When accessing to FX series CPU other than FX_{3G}CPU and FX_{3U(C)}CPU, specify the data register. The file register (R) can be specified only when accessing to FX_{3G}CPU or FX_{3U(C)}CPU.

*5: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed. In addition, write to the shared memory cannot be performed independently of the host or other CPU.

*6: The device can be used to execute Read/WriteDeviceRandom, Read/Write/DeviceRandom2, Get/SetDevice or Get/SetDevice2, only when accessing to FX_{3U(C)}CPU.

8.14.2 Accessible ranges

This section indicates the accessible ranges for Modem communication.

- (1) When using A6TEL and Q6TEL
 - (a) Configuration



(b) Accessibility list

The following table indicates whether access can be made or not. The connected CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

Connected	Station					3.	Relay Targe	et CPU			
1. CPU	2. Connected unit (Usable control name)	3. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
		CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
		MELSECNET/H	×	\times	\times	\times	×	\times	\times	\times	\times
	Q6TEL (QnA mode)	MELSECNET/10	×	×	\times	×	×	0	×	×	\times
QnACPU	(ActQ6TEL)	MELSECNET(II)	×	×	\times	×	×	0	×	×	\times
		Ethernet	×	×	\times	×	×	0	×	×	\times
		Computer link	×	×	\times	×	×	0	×	×	\times
		CC-Link	×	×	\times	×	×	\times	×	×	\times
		CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
		MELSECNET/H	×	\times	\times	×	×	\times	\times	\times	\times
ACPU,	A6TEL,	MELSECNET/10	×	\times	\times	\times	0	\times	0	\times	0
Motion controller CPU	Q6TEL (A mode)	MELSECNET(II)	×	×	\times	×	0	\times	0	×	0
	(ActA6TEL)	Ethernet	×	×	\times	×	×	×	×	×	×
		Computer link	×	×	\times	×	×	\times	\times	×	\times
		CC-Link	×	×	\times	\times	×	\times	\times	×	×

(2) When using FXCPU



(b) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible. Whether the relay target CPU is accessible or not is indicated by \bigcirc

(accessible) or imes (inaccessible).

		3. Relay Target CPU											
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU			
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×			
	MELSECNET/H	×	×	\times	\times	×	×	\times	\times	\times			
FXCPU *1	MELSECNET/10	\times	×	\times	\times	×	×	×	\times	\times			
(ActFXCPUTEL)	MELSECNET(II)	×	×	×	×	×	×	×	\times	\times			
	Ethernet	×	×	\times	\times	×	×	×	\times	\times			
	Computer link	×	×	\times	\times	×	×	×	\times	\times			
	CC-Link	×	×	\times	\times	×	×	×	\times	\times			

*1: Only the FX1sCPU, FX1nCPU, FX1ncCPU, FX2nCPU, FX2ncCPU, FX3uCPU or FX3ucCPU can be used.

- (3) When using Q series-compatible C24, L series-compatible C24 and QC24N
 - (a) Configuration



IBM-PC/AT compatible

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

Co	onnected Station					4. R	elay Target	CPU			
1. CPU	2. Connected unit (Usable control name)	3. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
		CC IE Control CC IE Field	0	O*1	○ *4	O *1	×	×	×	×	×
		MELSECNET/H	0	0	\times	0	×	×	\times	\times	×
		MELSECNET/10	0	0	\times	0	0	0	0	\times	0
QCPU	Q series-compatible C24	MELSECNET(II)	\times	\times	\times	\times	\times	\times	\times	\times	\times
(Q mode)		Ethernet	0	\times	\times	0	×	0	\times	\times	\times
	(ActQJ71C24TEL)	Computer link	○ *2	\times	0	\times	\times	0	\times	\times	\times
		CC-Link	0	0	0	\times	0	0	0	\times	0
		Multidrop (Independent mode) *3	○ *2	×	0	×	×	0	×	×	×
		CC IE Field *4	0	×	0	×	×	×	×	×	×
		MELSECNET/H	×	\times	\times	×	×	×	\times	×	×
		MELSECNET/10	×	×	×	×	×	×	×	\times	×
	L series-compatible	MELSECNET(II)	×	×	×	×	×	×	×	\times	×
LCPU	C24	Ethernet	×	\times	\times	×	×	×	\times	\times	×
	(ActLJ71C24TEL)	Computer link	○ *2	\times	0	\times	×	0	\times	\times	×
		CC-Link	0	0	0	\times	0	0	0	\times	0
		Multidrop (Independent mode) *3	○ *2	×	0	×	×	0	×	×	×
		CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
		MELSECNET/H	×	\times	\times	×	×	×	\times	\times	×
		MELSECNET/10	×	×	×	×	×	0	×	×	×
0.000	QC24N	MELSECNET(II)	×	\times	\times	\times	×	0	\times	\times	×
QnACPU	(ActAJ71QC24TEL)	Ethernet	\times	\times	×	\times	×	0	\times	\times	\times
		Computer link	×	\times	×	\times	×	0	×	\times	×
		CC-Link	×	\times	×	\times	×	0	×	\times	×
		Multidrop (Independent mode) *3	×	×	×	×	×	0	×	×	×

*1: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*2: The Redundant CPU is inaccessible to the computer link module which is on the main base.

*3: Indicates the CH2 side setting. (The CH1 side is fixed to the independent mode.)

8.15 For Gateway Function Communication

This section describes the accessible devices and accessible ranges for gateway function communication.

8.15.1 Accessible devices

This section indicates the accessible devices for gateway function communication.

(1) Accessible devices

Only the following device is accessible for gateway function communication. Device : Gateway device Device name: EG

8.15.2 Accessible ranges

This section indicates the accessible ranges for gateway function communication.

(1) Configuration



(2) Accessible ranges

Access can be made to only the connected GOT.

8.16 For GX Simulator Communication

This section describes the accessible devices and accessible ranges for GX Simulator communication.

8.16.1 Accessible devices

The accessible devices of other station during GX Simulator communication depends on the other station device settings made on the device manager of GX Simulator. For other station device setting, refer to "GX Simulator Version 7 Operating Manual".

8.16.2 Accessible ranges

The following table indicates the accessible ranges for GX Simulator communication.

Whether the target CPU is accessible or not is indica	ted by \odot (accessible) or $ imes$
(inaccessible).	

Target station					Target C	PU			
(Usable control name)	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode) *1	QnACPU	ACPU	FXCPU	Motion controller CPU *1
Own station (ActLLT, ActMLLLT)	0	×	×	×	0	0	0	0	0
Other station (ActLLT, ActMLLLT)	0	×	×	×	0	0	0	×	0

*1: When making an access to other station, set to "ACPU".

8.17 For GX Simulator2 Communication

This section describes the accessible devices and accessible ranges for GX Simulator2 communication.

8.17.1 Accessible devices

The accessible devices during GX Simulator2 communication depend on the device supported by GX Simulator2. For details, refer to "GX Works2 Version 1 Operating Manual (Common)".

8.17.2 Accessible ranges

The following table indicates the accessible ranges for GX Simulator2 communication.

Whether the target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

Usable control name					Target C	PU			
	QCPU	Q12DC	LCPU	QSCPU	QCPU	QnACPU		EXCDU	Motion controller
	(Q mode)	CPU-V	LOFU	QOUPU	(A mode)	QIIACEU	ACFU	FACEU	CPU
ActSIM, ActMLSIM	0	×	0	×	×	×	×	0	0

8.18 For GOT Transparent Communication

This section provides the accessible devices and accessible ranges for GOT transparent communication.

8.18.1 Accessible devices

The following table indicates the accessible devices for GOT transparent communication.

		Access Target											
	Device vice Name)	A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	QCPU (Q mode)	LCPU	Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Function	on input (FX)	\times	×	×	\times	\times	0		0	×	×	\times	×
Functio	on output (FY)	\times	×	×	\times	\times	(0	\times	×	\times	×
Function	n register (FD)	\times	×	×	×	\times	(0	×	×	\times	×
Specia	al relay (SM)	0	0	0	0	0	(0	0	\times	\times	0
Special	register (SD)	0	0	0	0	0	(-	\circ	0	×	\times	0
Inpu	ut relay (X)	0	0	0	0	0	(0	0	\times	0	0
Outp	ut relay (Y)	0	0	0	0	\bigcirc	(0	0	×	0	0
Intern	nal relay (M)	0	0	0	0	0	(-	0	0	×	0	0
Lato	h relay (L)	0	0	0	0	0	(-	0	×	\times	\times	0
Annı	unciator (F)	0	0	0	0	0	(0	\times	×	\times	0
Edg	e relay (V)	\times	×	×	\times	\times	0		0	\times	×	\times	×
Linł	k relay (B)	0	0	0	0	0	0		0	×	×	\times	0
Data	register (D)	0	0	0	0	0	0		0	0	×	0	0
Link ı	register (W)	0	0	0	0	0	0		0	×	×	×	0
	Contact (TS)	0	0	0	0	0	(0	×	×	0	0
Timer	Coil (TC)	0	0	0	0	0	()	0	×	×	0	0
(T)	Present value (TN)	0	0	0	0	0	C)	0	×	×	0	0
	Contact (CS)	0	0	0	0	0	C)	\bigcirc	\times	\times	0	0
Counter	Coil (CC)	0	0	0	0	0	()	0	×	\times	0	0
(C)	Present value (CN)	0	0	0	0	0	C		0	×	×	0	0
Detentive	Contact (SS)	\times	×	×	\times	\times	(0	×	×	×	×
Retentive timer	Coil (SC)	\times	×	×	\times	\times	()	0	×	\times	\times	×
(ST)	Present value (SN)	×	×	×	×	×	C)	0	×	×	×	×
Link spe	ecial relay (SB)	\times	×	×	\times	×	C)	0	×	×	\times	×
Link speci	ial register (SW)	\times	×	×	\times	\times	(0	×	×	\times	×
Ste	p relay (S)	0	0	0	0	0	>	<	×	×	×	0	0
Direc	t input (DX)	\times	×	×	\times	\times	>	<	×	×	×	×	×
Direct	output (DY)	\times	×	×	\times	\times	>	<	\times	×	×	×	×
Accu	mulator (A)	0	0	0	0	0	>	<	×	×	×	×	0

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								ŀ	Access Targe	et				
(Device (Device Name) Index register		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2US(-S1) A2AS (-S1/-S30) A2USH-S1 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	QnACPU	(Q mode)		Q12DCCPU-V	QSCPU	FXCPU	Motion controller CPU
Inde	ex register	(Z)	0	0	0	0	0	Ó		0	×	×	O *1	0
inde	(V)		0	0	0	\circ	\bigcirc		<	×	×	\times	O *1	0
File	File register (R)		0	0	0	0	0		*2	0	×	×	○ *3	0
	(ZR)		\times	×	×	\times	\times	0	*2	0	×	×	×	×
Ext	Extended file register (ER * \R)		0	0	0	0	0	×		×	×	×	×	0
	Link inp (J *\X		×	×	×	×	×	0		0	0	×	×	×
	Link out (J * \Y		×	×	×	×	×	()	0	0	×	×	×
Direct	Link rela (J * ∖B	-	×	×	×	×	×	()	0	0	×	×	×
link	Link specia (J * \SE	-	×	×	×	×	×	(\supset	0	0	×	×	×
	Link regis (J * \W		×	×	×	×	×	(\supset	0	0	×	×	×
	Link special ((J *\SV	•	×	×	×	×	×	(0	0	×	×	×
	ecial direct but nemory (U * \C		×	×	×	×	×	0	*4	0	0	×	○ *5	×

*1: Data cannot be written to 2 or more consecutive points using WriteDeviceBlock or WriteDeviceBlock2. (Data may be written to only one point.)

*2: Disabled for the use of Q00JCPU or Q00UJCPU.

*3: When accessing to FX series CPU other than FX_{3G}CPU and FX_{3U(C)}CPU, specify the data register. The file register (R) can be specified only when accessing to FX_{3G}CPU or FX_{3U(C)}CPU.

*4: In a multi-CPU configuration, read from the shared memory of the host CPU cannot be performed.

In addition, write to the shared memory cannot be performed independently of the host or other CPU.

*5: The device can be used to execute Read/WriteDeviceRandom, Read/Write/DeviceRandom2, Get/SetDevice or Get/SetDevice2, only when accessing to FX_{3U(C)}CPU.

8.18.2 Accessible ranges

This section indicates the accessible ranges for GOT transparent communication.

POINT For usable system configuration, refer to GOT1000 Series Connection Manual

- (1) IBM-PC/AT compatible side port: Serial, GOT1000 side port: Serial, CPU side port: Direct connection
 - (a) Configuration



IBM-PC/AT compatible

(b) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *2
	CC IE Control CC IE Field	0	○ *3	○ *6	×	×	×	×	×	×
	MELSECNET/H	0	0	×	×	×	×	\times	×	\times
QCPU(Q mode) *1	MELSECNET/10	0	0	×	×	0	0	0	×	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	×	×	×	×	\times	×	\times
	Ethernet	○ *4	×	\times	×	×	○ *4	\times	×	\times
	Computer link	0	\times	0	×	\times	0	\times	\times	\times
	CC-Link	0	0	0	×	○ *5	○ *5	○ *5	×	○ *5

*1: Inaccessible to Redundant CPU.

*2: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*3: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting.

At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

*5: As the relayed station CPU side CC-Link system master/local module, use the module of software version "S" or later.

*6: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

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					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *2
	CC IE Field *6	0	\times	0	×	×	×	\times	\times	×
	MELSECNET/H	×	\times	×	\times	\times	×	\times	\times	\times
LCPU	MELSECNET/10	\times	\times	\times	\times	\times	×	\times	×	×
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	×	\times	×	\times	\times	×
	Ethernet	\times	\times	\times	\times	\times	\times	\times	\times	\times
	Computer link	0	\times	0	×	×	0	\times	×	×
	CC-Link	0	0	0	×	○ *5	○ *5	○ *5	×	○ *5
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	\times	\times	\times	\times	\times	×	\times	\times	\times
QCPU(A mode)	MELSECNET/10	×	\times	×	\times	0	×	0	\times	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	×	×	0	×	0	×	0
	Ethernet	×	×	×	×	×	×	×	×	×
	Computer link	×	×	×	×	×	×	×	×	×
	CC-Link	×	×	×	×	×	×	×	×	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	×	×	×	×	×	×	×
QnACPU	MELSECNET/10	×	×	×	×	×	0	×	×	×
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	×	×	×	0	×	×	×
(1000011101)	Ethernet	×	×	×	×	×	0 *4	×	×	×
	Computer link	×	×	×	×	×	0	×	×	×
	CC-Link	×	×	×	×	×	0	×	×	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	×	×	×	×	×	×	×
ACPU,	MELSECNET/10	×	×	×	×	0	×	0	×	0
Motion controller CPU	MELSECNET(II)	×	×	×	×	0	×	0	×	0
(ActGOTTRSP, ActMLGOTTRSP)	Ethernet	×	×	×	×	×	×	×	×	×
	Computer link	×	×	×	×	×	×	×	×	×
	CC-Link	×	×	×	×	×	×	×	×	×
	CC IE Control									
	CC IE Field	×	×	\times	×	×	×	\times	\times	×
	MELSECNET/H	×	×	×	×	×	×	×	×	×
FXCPU	MELSECNET/10	×	×	×	×	×	×	×	×	×
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	×	×	×	×	×	×	×
	Ethernet	×	×	×	×	×	×	×	×	×
	Computer link	×	×	×	×	×	×	×	×	×
	CC-Link	×	×	×	×	×	×	×	×	×
		~	~~	\sim	\sim	\sim	~	\sim	\sim	\sim

*1: Inaccessible to Redundant CPU.

*2: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

*5: As the relayed station CPU side CC-Link system master/local module, use the module of software version "S" or later.

- (2) IBM-PC/AT compatible side port: USB, GOT1000 side port: USB, CPU side port: Direct connection
 - (a) Configuration



The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *2
	CC IE Control CC IE Field	0	○ *3	○ *6	×	×	×	×	×	×
	MELSECNET/H	0	0	×	×	×	×	\times	×	×
QCPU(Q mode) *1	MELSECNET/10	0	0	×	×	0	0	0	×	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	×	×	×	×	\times	\times	\times
	Ethernet	○ *4	\times	×	×	×	○ *4	×	×	×
	Computer link	0	\times	0	×	\times	0	\times	\times	\times
	CC-Link	0	0	0	×	○ *5	○ *5	○ *5	×	○ *5
	CC IE Field *6	0	\times	0	×	×	×	×	×	\times
	MELSECNET/H	×	\times	×	×	\times	×	\times	\times	\times
	MELSECNET/10	×	\times	×	×	×	×	\times	×	\times
	MELSECNET(II)	×	\times	\times	×	\times	×	\times	\times	\times
(ActGOTTRSP, ActMLGOTTRSP)	Ethernet	×	\times	×	×	×	×	×	\times	\times
	Computer link	0	\times	0	\times	\times	0	\times	\times	\times
	CC-Link	0	0	0	\times	○ *5	○ *5	0 *5	×	○ *5

*1: Inaccessible to Redundant CPU.

*2: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*3: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number.

Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

*5: As the relayed station CPU side CC-Link system master/local module, use the module of software version "S" or later.

*6: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

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					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *2
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	\times	×	×	×	×	×	×	×
QCPU(A mode)	MELSECNET/10	×	\times	\times	\times	0	×	0	\times	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	0	×	0	\times	0
	Ethernet	×	\times	\times	\times	×	×	\times	\times	×
	Computer link	×	\times	\times	\times	×	×	\times	\times	×
	CC-Link	×	\times	\times	\times	×	×	×	\times	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	\times	\times	\times	×	\times	\times	\times	×
QnACPU	MELSECNET/10	×	\times	\times	\times	×	0	\times	\times	×
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	×	0	\times	\times	×
	Ethernet	×	\times	\times	\times	×	○ *4	×	\times	×
	Computer link	×	\times	\times	\times	×	0	×	\times	×
	CC-Link	×	\times	\times	\times	×	0	×	\times	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	×	×	×	×	×	×	×
ACPU,	MELSECNET/10	×	\times	×	×	0	×	0	×	0
Motion controller CPU	MELSECNET(II)	×	\times	×	×	0	×	0	×	0
(ActGOTTRSP, ActMLGOTTRSP)	Ethernet	×	×	×	×	×	×	×	×	×
	Computer link	×	\times	×	×	×	×	×	×	×
	CC-Link	×	\times	\times	\times	×	×	×	\times	×
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	\times	×	×	×	×	×	×
FXCPU	MELSECNET/10	×	×	\times	×	×	×	×	×	×
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	×	×	×	×	×	×	×
	Ethernet	×	×	×	×	×	×	×	×	×
	Computer link	×	×	×	\times	×	×	×	×	×
	CC-Link	×	\times	×	×	×	×	×	×	×

*2: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No. → IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No. → IP information system".

- (3) IBM-PC/AT compatible side port: Serial, GOT1000 side port: Serial, CPU side port: Bus connection
 - (a) Configuration



The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *2
	CC IE Control CC IE Field	0	○ *3	○ *6	×	×	×	×	×	×
	MELSECNET/H	0	0	×	×	×	×	\times	\times	×
QCPU(Q mode) *1	MELSECNET/10	0	0	×	×	0	0	0	×	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	×	×	×	×	\times	×	×
	Ethernet	○ *4	\times	×	×	×	○ *4	\times	\times	\times
	Computer link	0	\times	0	×	×	0	\times	×	×
	CC-Link	0	0	0	×	○ *5	○ *5	○ *5	\times	○ *5
	CC IE Control CC IE Field	0	○ *3	○ *6	×	×	×	×	×	×
	MELSECNET/H	0	0	×	×	×	×	×	\times	×
Q12DCCPU-V	MELSECNET/10	0	0	×	\times	0	0	0	\times	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	×	×	×	\times	\times	\times
	Ethernet	×	\times	×	\times	\times	×	×	\times	\times
	Computer link	×	\times	\times	\times	\times	\times	×	\times	\times
	CC-Link	0	0	0	\times	○ *5	○ *5	○ *5	\times	○ *5

*1: Inaccessible to Redundant CPU.

*2: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*3: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

 *4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No. → IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No. → IP information system".

*5: As the relayed station CPU side CC-Link system master/local module, use the module of software version "S" or later.

*6: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

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					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *2
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	\times	×	\times	×	×	×	\times	×
QnACPU	MELSECNET/10	×	×	\times	\times	×	0	×	\times	\times
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	×	0	\times	\times	×
	Ethernet	×	\times	\times	\times	×	○ *4	\times	\times	\times
	Computer link	×	\times	\times	\times	×	0	\times	\times	\times
	CC-Link	×	\times	\times	\times	×	0	\times	\times	\times
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	\times	\times	\times	×	×	\times	\times	\times
ACPU,	MELSECNET/10	×	\times	\times	\times	0	×	0	\times	0
Motion controller CPU	MELSECNET(II)	×	\times	\times	\times	0	×	0	\times	0
(ActGOTTRSP, ActMLGOTTRSP)	Ethernet	×	\times	\times	×	×	×	\times	×	×
	Computer link	×	\times	\times	\times	×	×	\times	×	×
	CC-Link	×	\times	\times	\times	×	×	\times	\times	\times

*2: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting.

At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

- (4) IBM-PC/AT compatible side port: USB, GOT1000 side port: USB, CPU side port: Bus connection
 - (a) Configuration



The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *2
	CC IE Control CC IE Field	0	○ *3	○ *6	×	×	×	×	×	×
	MELSECNET/H	0	0	\times	\times	\times	\times	\times	\times	\times
QCPU(Q mode) *1	MELSECNET/10	0	0	\times	×	0	0	0	\times	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	×	×	×	×	\times	\times	×
	Ethernet	○ *4	×	×	×	×	○ *4	\times	\times	×
	Computer link	0	\times	0	×	×	0	\times	\times	×
	CC-Link	0	0	0	×	○ *5	○ *5	○ *5	\times	○ *5
	CC IE Control CC IE Field	0	○ *3	○ *6	×	×	×	×	×	×
	MELSECNET/H	0	0	×	×	×	×	\times	\times	×
Q12DCCPU-V	MELSECNET/10	0	0	×	×	0	0	0	\times	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	×	×	\times	×	\times	\times	\times
	Ethernet	×	\times	\times	\times	\times	\times	\times	\times	\times
	Computer link	×	\times	×	×	\times	×	×	\times	\times
	CC-Link	0	0	0	\times	○ *5	○ *5	○ *5	\times	○ *5

*1: Inaccessible to Redundant CPU.

*2: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*3: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

 *4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No. → IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No. → IP information system".

*5: As the relayed station CPU side CC-Link system master/local module, use the module of software version "S" or later.

*6: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

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					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode)	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU *2
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	\times	×	×	×	×	×	\times	\times
QnACPU	MELSECNET/10	×	\times	\times	\times	×	0	×	\times	\times
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	\times	\times	×	0	\times	\times	×
	Ethernet	×	\times	\times	\times	×	○ *4	\times	\times	\times
	Computer link	×	\times	\times	\times	×	0	\times	\times	\times
	CC-Link	×	\times	\times	\times	×	0	\times	\times	\times
	CC IE Control CC IE Field	×	×	×	×	×	×	×	×	×
	MELSECNET/H	×	×	\times	\times	×	×	\times	\times	\times
ACPU,	MELSECNET/10	×	\times	\times	\times	0	×	0	\times	0
Motion controller CPU	MELSECNET(II)	×	×	\times	×	0	×	0	×	0
(ActGOTTRSP, ActMLGOTTRSP)	Ethernet	×	×	\times	×	×	×	\times	×	×
	Computer link	×	×	\times	\times	×	×	\times	×	×
	CC-Link	×	×	\times	\times	×	×	\times	\times	×

*2: Accessible to the A171SHCPU, A172SHCPU, A173UHCPU(-S1) or A273UHCPU(-S3) only.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting.

At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

- (5) IBM-PC/AT compatible side port: Serial, GOT1000 side port: Serial, CPU side port: Q series-compatible C24 or L series-compatible C24
 - (a) Configuration



The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

Co	onnected Station					4. R	elay Target	CPU			
1. CPU	2. Connected unit (Usable control name)	3. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
		CC IE Control CC IE Field	0	○ *2	○ *4	×	×	×	×	×	×
		MELSECNET/H	0	0	×	×	×	×	×	×	×
	Q series-compatible	MELSECNET/10	0	0	×	\times	0	0	0	×	0
QCPU	C24	MELSECNET(II)	×	\times	\times	\times	×	×	\times	\times	\times
(Q mode) *1	(ActGOTTRSP,	Ethernet	0	×	×	×	×	0	×	×	×
	ActMLGOTTRSP)	Computer link	0	0	0	\times	×	0	\times	×	×
		CC-Link	0	\times	0	\times	0	0	0	\times	0
		Multidrop (Independent mode) *3	0	×	0	×	×	0	×	×	×
		CC IE Field *4	0	\times	0	\times	×	×	\times	×	×
		MELSECNET/H	×	\times	×	×	×	×	\times	×	×
	1	MELSECNET/10	×	×	×	\times	×	×	\times	×	×
	L series-compatible	MELSECNET(II)	×	\times	\times	\times	×	×	\times	\times	\times
LCPU	C24	Ethernet	×	\times	\times	\times	×	×	\times	\times	\times
	(ActGOTTRSP,	Computer link	0	\times	0	\times	×	0	\times	\times	\times
	ActMLGOTTRSP)	CC-Link	0	0	0	\times	0	0	0	\times	0
		Multidrop (Independent mode) *3	0	×	0	×	×	0	×	×	×

*1: Inaccessible to Redundant CPU.

*2: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*3: Indicates the CH2 side setting. (The CH1 side is fixed to the independent mode.)

- (6) IBM-PC/AT compatible side port: USB, GOT1000 side port: USB, CPU side port: Q series-compatible C24 or L series-compatible C24
 - (a) Configuration



The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

Co	nnected Station					4. R	elay Target	CPU			
1. CPU	2. Connected unit (Usable control name)	3. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
		CC IE Control CC IE Field	0	○ *2	○ *4	×	×	×	×	×	×
		MELSECNET/H	0	0	\times	×	×	×	\times	\times	\times
	Q series-compatible	MELSECNET/10	0	0	\times	\times	0	0	0	\times	0
QCPU	C24	MELSECNET(II)	×	\times	\times	\times	×	×	\times	\times	\times
(Q mode) *1	(ActGOTTRSP,	Ethernet	0	\times	×	\times	\times	0	\times	\times	\times
	ActMLGOTTRSP)	Computer link	0	0	0	\times	\times	0	\times	\times	\times
		CC-Link	0	\times	\circ	\times	0	0	0	\times	0
		Multidrop (Independent mode) *3	0	×	0	×	×	0	×	×	×
		CC IE Field *4	0	×	0	×	×	×	\times	\times	\times
		MELSECNET/H	×	×	\times	×	×	×	\times	\times	\times
		MELSECNET/10	×	\times	\times	\times	\times	\times	\times	\times	×
	L series-compatible C24	MELSECNET(II)	\times	\times	\times	\times	\times	\times	\times	\times	\times
LCPU		Ethernet	×	×	\times	\times	\times	\times	\times	\times	\times
	(ActGOTTRSP,	Computer link	0	×	0	\times	\times	0	\times	\times	×
	ActMLGOTTRSP)	CC-Link	0	0	0	\times	0	0	0	\times	0
		Multidrop (Independent mode) *3	0	×	0	×	×	0	×	×	×

*1: Inaccessible to Redundant CPU.

*2: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*3: Indicates the CH2 side setting. (The CH1 side is fixed to the independent mode.)

- (7) IBM-PC/AT compatible side port: Serial, GOT1000 side port: Serial, CPU side port: Q series-compatible E71
 - (a) Configuration



The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

Co	onnected Station					4. R	elay Target	CPU			
1. CPU	2. Connected unit (Usable control name)	3. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
		CC IE Control CC IE Field	0	○ *3	○ *4	×	×	×	×	×	×
	Q series-compatible	MELSECNET/H	0	0	×	\times	×	×	\times	\times	\times
QCPU	E71 *2	MELSECNET/10	0	0	×	×	0	0	0	\times	0
(Q mode) *1,	(ActGOTTRSP,	MELSECNET(II)	×	×	×	\times	×	\times	\times	\times	\times
QSCPU	ActMLGOTTRSP)	Ethernet	0	\times	×	\times	×	0	\times	\times	\times
		Computer link	0	×	0	\times	\times	0	\times	\times	\times
		CC-Link	0	0	0	\times	0	0	0	\times	0

*1: Inaccessible to Redundant CPU.

*2: Cannot make communication if a remote password has been set to the connected station side Q series-compatible E71.

*3: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

- (8) IBM-PC/AT compatible side port: USB, GOT1000 side port: USB, CPU side port: Q series-compatible E71
 - (a) Configuration



The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

Co	onnected Station					4. R	elay Target	CPU			
1. CPU	2. Connected unit (Usable control name)	3. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
		CC IE Control CC IE Field	0	○ *3	○ *4	×	×	×	×	×	×
	Q series-compatible	MELSECNET/H	0	0	×	×	\times	×	\times	\times	×
QCPU	E71 *2	MELSECNET/10	0	0	×	×	0	0	0	×	0
(Q mode) *1,	(ActGOTTRSP,	MELSECNET(II)	×	×	×	×	\times	×	\times	×	×
QSCPU	ActMLGOTTRSP)	Ethernet	0	×	×	×	\times	0	\times	\times	\times
		Computer link	0	×	0	×	×	0	\times	\times	\times
		CC-Link	0	0	0	×	0	0	0	\times	0

*1: Inaccessible to Redundant CPU.

*2: Cannot make communication if a remote password has been set to the connected station side Q series-compatible E71.

*3: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

- (9) IBM-PC/AT compatible side port: Serial, GOT1000 side port: Serial, CPU side port: Ethernet port
 - (a) Configuration



The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU *1 (Usable control name)	2. Relayed Network	QCPU (Q mode) *2	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	0	○ *3	○ *5	×	×	×	×	×	×
	MELSECNET/H	0	0	×	\times	\times	×	\times	\times	\times
QnUDE(H)CPU	MELSECNET/10	0	0	\times	\times	0	0	0	\times	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	×	\times	\times	×	\times	\times	\times
	Ethernet	○ *4	\times	\times	\times	\times	○ *4	\times	\times	×
	Computer link	0	\times	0	\times	\times	×	\times	\times	\times
	CC-Link	0	0	0	\times	\times	×	\times	×	×
	CC IE Control CC IE Field	0	○ *3	○ *5	×	×	×	×	×	×
	MELSECNET/H	0	0	\times	\times	×	×	\times	×	×
Q12DCCPU-V	MELSECNET/10	0	0	\times	\times	0	0	0	×	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	\times	\times	×	×	\times	×	×
	Ethernet	×	×	\times	×	×	×	\times	×	×
	Computer link	×	×	\times	\times	×	×	\times	×	×
	CC-Link	0	0	0	×	×	×	\times	×	×
	CC IE Field *5	0	×	0	\times	×	×	\times	×	×
	MELSECNET/H	×	×	\times	\times	×	×	\times	×	×
	MELSECNET/10	×	\times	\times	\times	×	×	\times	×	×
	MELSECNET(II)	×	×	×	×	×	×	\times	×	×
(ActGOTTRSP, ActMLGOTTRSP)	Ethernet	×	\times	×	×	×	×	×	×	×
	Computer link	0	\times	0	×	×	×	\times	\times	×
	CC-Link	0	0	0	\times	×	×	×	\times	×

*1: Cannot make communication if a remote password has been set to the connected station CPU.

*2: Inaccessible to Redundant CPU.

*3: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

(10) IBM-PC/AT compatible side port: USB, GOT1000 side port: USB, CPU side port: Ethernet port

(a) Configuration



(b) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU *1 (Usable control name)	2. Relayed Network	QCPU (Q mode) *2	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	0	○ *3	○ *5	×	×	×	×	×	×
	MELSECNET/H	0	0	×	\times	\times	×	\times	\times	\times
QnUDE(H)CPU	MELSECNET/10	0	0	×	\times	0	0	0	\times	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	\times	×	\times	\times	\times
	Ethernet	○ *4	\times	×	\times	\times	○ *4	\times	\times	\times
	Computer link	0	\times	0	\times	\times	×	\times	\times	\times
	CC-Link	0	0	0	\times	\times	×	\times	\times	\times
	CC IE Control CC IE Field	0	○ *3	○ *5	×	×	×	×	×	×
	MELSECNET/H	0	0	\times	\times	×	×	\times	×	×
Q12DCCPU-V	MELSECNET/10	0	0	\times	\times	0	0	0	×	0
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	\times	\times	×	×	\times	×	×
, , , ,	Ethernet	×	\times	\times	\times	×	×	\times	×	×
	Computer link	×	×	\times	\times	×	×	\times	×	×
	CC-Link	0	0	0	\times	×	×	\times	×	×
	CC IE Field *5	0	×	0	\times	×	×	\times	×	×
	MELSECNET/H	×	×	\times	\times	×	×	\times	\times	×
	MELSECNET/10	×	×	\times	\times	×	×	\times	×	×
	MELSECNET(II)	×	×	×	×	×	×	×	×	×
(ActGOTTRSP, ActMLGOTTRSP)	Ethernet	×	\times	×	\times	×	×	\times	\times	×
	Computer link	0	×	0	×	×	×	×	×	×
	CC-Link	0	0	0	×	×	\times	\times	×	×

*1: Cannot make communication if a remote password has been set to the connected station CPU.

*2: Inaccessible to Redundant CPU.

*3: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

*4: Set the parameter-set values of the target station side Q series-compatible E71 or QE71 to the network number and station number. Also set the "Station No.↔ IP information" of the Q series-compatible E71 or QE71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system".

(11) IBM-PC/AT compatible side port: Serial, GOT1000 side port: Serial, CPU side port: CC-Link IE Field Network Ethernet adapter module



(b) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible. Whether the relay target CPU is accessible or not is indicated by \bigcirc

(accessible) or imes (inaccessible).

					3. R	elay Target	CPU			
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	0	○ *2	⊖*3	×	×	×	×	×	×
	MELSECNET/H	0	0	×	×	\times	×	\times	\times	×
QnUDE(H)CPU	MELSECNET/10	0	0	×	\times	\times	\times	\times	\times	\times
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	×	×	\times	\times	\times
	Ethernet	0	\times	\times	\times	×	×	\times	\times	\times
	Computer link	0	\times	0	\times	\times	×	\times	\times	\times
	CC-Link	0	0	0	\times	×	×	\times	\times	\times
	CC IE Field *3	0	\times	0	\times	×	×	\times	\times	\times
	MELSECNET/H	×	\times	\times	\times	×	×	\times	\times	\times
	MELSECNET/10	×	\times	\times	\times	×	×	\times	\times	\times
LCPU (ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	×	×	\times	\times	\times
	Ethernet	×	\times	×	\times	×	×	\times	×	\times
	Computer link	0	\times	0	\times	×	×	\times	×	\times
	CC-Link	0	0	0	×	×	×	\times	\times	\times

*1: Inaccessible to Redundant CPU.

*2: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

(12) IBM-PC/AT compatible side port: USB, GOT1000 side port:USB, CPU side port: CC-Link IE Field Network Ethernet adapter module



IBM-PC/AT compatible

(b) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

			3. Relay Target CPU								
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU	
	CC IE Control CC IE Field	0	○ *2	⊖*3	×	×	×	×	×	×	
	MELSECNET/H	0	0	×	×	\times	×	\times	\times	×	
QnUDE(H)CPU	MELSECNET/10	0	0	×	\times	\times	\times	\times	\times	\times	
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	\times	×	\times	\times	\times	
	Ethernet	0	\times	\times	\times	\times	×	\times	\times	\times	
	Computer link	0	\times	0	\times	\times	×	\times	\times	\times	
	CC-Link	0	0	0	\times	×	×	\times	\times	\times	
	CC IE Field *3	0	\times	0	\times	×	×	\times	\times	\times	
	MELSECNET/H	×	\times	\times	\times	\times	×	\times	\times	\times	
LCPU	MELSECNET/10	×	×	\times	×	×	×	\times	\times	\times	
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	\times	×	×	×	\times	\times	×	
	Ethernet	×	\times	×	\times	×	×	\times	\times	\times	
	Computer link	0	×	0	×	×	×	\times	\times	\times	
	CC-Link	0	0	0	\times	×	×	\times	\times	\times	

*1: Inaccessible to Redundant CPU.

*2: Inaccessible to Q12DCCPU-V relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

(13) IBM-PC/AT compatible side port: Ethernet board, GOT1000 side port: Ethernet port, CPU side port: Serial

(a) Configuration



(b) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc

(accessible) or imes (inaccessible).

			3. Relay Target CPU									
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU		
	CC IE Control CC IE Field	0	○ *2	⊖*3	×	×	×	×	×	×		
	MELSECNET/H	0	0	\times	\times	×	×	\times	\times	\times		
QCPU(Q mode) *1	MELSECNET/10	0	0	\times	\times	\times	×	\times	\times	\times		
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	\times	×	\times	\times	\times		
	Ethernet	×	\times	\times	\times	×	×	\times	\times	\times		
	Computer link	0	×	\bigcirc	\times	×	×	\times	×	×		
	CC-Link	0	0	0	\times	\times	×	\times	\times	×		
	CC IE Control CC IE Field	0	○ *2	⊜*3	×	×	×	×	×	×		
	MELSECNET/H	0	0	\times	×	×	×	\times	×	×		
Q12DCCPU-V	MELSECNET/10	0	0	\times	×	×	×	\times	×	×		
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	×	\times	×	×	×	\times	×	×		
	Ethernet	×	×	\times	×	×	×	\times	×	×		
	Computer link	0	×	0	×	×	×	\times	×	×		
	CC-Link	0	0	0	\times	×	×	\times	×	×		
	CC IE Field *3	0	×	0	\times	×	×	\times	×	×		
	MELSECNET/H	×	×	\times	\times	×	×	\times	×	×		
LCPU	MELSECNET/10	×	\times	×	×	×	×	×	×	×		
	MELSECNET(II)	×	×	×	×	×	×	×	×	×		
(ActGOTTRSP, ActMLGOTTRSP)	Ethernet	×	×	×	×	×	×	×	×	×		
	Computer link	0	×	0	×	×	×	×	×	×		
	CC-Link	0	0	0	\times	×	×	\times	\times	×		

*1: Inaccessible to Redundant CPU.

*2: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

(14) IBM-PC/AT compatible side port: Ethernet board,

GOT1000 side port: Ethernet port,

CPU side port: Q series-compatible C24 or L series-compatible C24

(a) Configuration



IBM-PC/AT compatible

(b) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

Con	nected Station					4. R	elay Target	CPU			
1. CPU	2. Connected unit (Usable control name)	3. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
		CC IE Control CC IE Field	0	○ *2	⊖*3	×	×	×	×	×	×
	Q series-compatible	MELSECNET/H	0	0	×	×	×	×	×	×	×
QCPU	C24	MELSECNET/10	0	0	\times	×	×	×	×	\times	×
(Q mode) *1	(ActGOTTRSP,	MELSECNET(II)	×	\times	\times	×	×	×	\times	\times	×
	ActMLGOTTRSP)	Ethernet	0	\times	\times	\times	×	×	\times	\times	\times
		Computer link	0	0	0	×	\times	×	×	\times	\times
		CC-Link	0	\times	0	\times	\times	×	×	\times	\times
		CC IE Control CC IE Field	0	○ *2	⊖*3	×	×	×	×	×	×
	Q series-compatible	MELSECNET/H	0	0	×	×	×	×	×	×	×
	C24	MELSECNET/10	0	0	×	×	×	×	×	×	×
Q12DCCPU-V	(ActGOTTRSP,	MELSECNET(II)	×	×	×	×	×	×	×	×	×
	ActMLGOTTRSP)	Ethernet	0	×	×	×	×	×	×	×	×
		Computer link	0	0	0	×	×	×	×	\times	×
		CC-Link	0	\times	0	\times	×	×	\times	\times	\times
		CC IE Field *3	0	\times	0	×	\times	×	×	\times	\times
	Learing compatible	MELSECNET/H	×	\times	×	\times	\times	\times	\times	\times	\times
	L series-compatible	MELSECNET/10	×	\times	\times	\times	\times	\times	×	\times	\times
LCPU	LCPU C24	MELSECNET(II)	×	\times	\times	\times	\times	\times	\times	\times	×
	(ActGOTTRSP, ActMLGOTTRSP)	Ethernet	×	\times	×	\times	\times	\times	\times	\times	\times
	AUIVILGUTTKOP)	Computer link	0	\times	0	\times	\times	\times	\times	\times	\times
		CC-Link	0	0	0	\times	\times	\times	\times	\times	\times

*1: Inaccessible to Redundant CPU.

*2: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

(15) IBM-PC/AT compatible side port: Ethernet board,

GOT1000 side port: Ethernet port, CPU side port: Bus connection

(a) Configuration



IBM-PC/AT compatible

(b) Accessibility list

The following table indicates whether access can be made or not. The connected station CPUs are all accessible.

Whether the relay target CPU is accessible or not is indicated by \bigcirc (accessible) or \times (inaccessible).

			3. Relay Target CPU							
1. Connected Station CPU (Usable control name)	2. Relayed Network	QCPU (Q mode) *1	Q12DC CPU-V	LCPU	QSCPU	QCPU (A mode)	QnACPU	ACPU	FXCPU	Motion controller CPU
	CC IE Control CC IE Field	0	○ *2	⊖*3	×	×	×	×	×	×
	MELSECNET/H	0	0	×	×	\times	×	\times	\times	\times
QCPU(Q mode) *1	MELSECNET/10	0	0	\times	\times	\times	×	\times	\times	\times
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	\times	×	\times	\times	\times
	Ethernet	×	\times	\times	\times	\times	×	\times	\times	\times
	Computer link	0	\times	0	\times	\times	×	\times	\times	\times
	CC-Link	0	0	0	\times	\times	\times	\times	\times	\times
	CC IE Control CC IE Field	0	○ *2	○*3	×	×	×	×	×	×
	MELSECNET/H	0	0	×	\times	\times	×	\times	\times	\times
Q12DCCPU-V	MELSECNET/10	0	0	\times	\times	\times	×	\times	\times	\times
(ActGOTTRSP, ActMLGOTTRSP)	MELSECNET(II)	×	\times	\times	\times	\times	×	\times	\times	\times
	Ethernet	×	\times	×	\times	\times	×	\times	\times	\times
	Computer link	0	\times	0	\times	\times	×	\times	\times	\times
	CC-Link	0	0	0	\times	×	×	\times	\times	\times

*1: Inaccessible to Redundant CPU.

*2: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

APPENDICES

Appendix 1 Concept of the Routing Parameters

The routing function is used by the station of the programmable controller in a multilevel system to make transient transmission to the station of another network No. To perform the routing function, the "Routing parameters" must be set to associate the network No.s and stations acting as bridges.

For communication via the MELSECNET(II), the routing function cannot be used.

- (1) The routing parameters must be set to the request source and relay station of the programmable controller.
 - (a) The request source must be set to make access to the request target.
 - (b) The relay station must be set to make access from the request source to the request target and to make access from the request target to the request source.
 - (c) The request target needs no setting.

For example, to make transient transmission from 1Ns3 to 3Ns4 in the following diagram, the routing parameters must be set to the programmable controller 1Ns3 which makes transient transmission, to the programmable controllers 1Ns4 and 2Mp1 which serve as bridges, and to the programmable controllers 2Ns4 and 3Ns5.



(2) Up to 16 "transfer target network No.s" can be set to the programmable controller.16 different network No.s allow the own station to be a request source or other stations to be accessed via the own station.



(3) Routing parameter setting areas and data

For transient transmission, the routing parameter setting areas depend on the system.

(a) Two-level system

The routing parameters need not be set because transient transmission is made to within the same network.



(b) Multi-level 1 (two networks)

Set the routing parameters only to the station of the request source. *1 To the request source, set the data to access the request target (network No. 2).



(c) Multi-level 2 (three networks)

Set the routing parameters to the request source and relay stations. *1

To the request source, set the data to access the request target (network No. 3).

To the relay station 1), set the data to access the request target (network No. 3).

To the relay station 2), set the data to access the request source (network No. 1).



(d) Multi-level 3 (four or more networks)

Set the routing parameters to the request source and relay stations. *1

To the request source, set the data to access the request target (network No. 4).

To the relay station 1) (the nearest relay station to the request source), set the data to access the request target (network No. 4).

To the relay station 2) (the nearest relay station to the request target), set the data to access the request source (network No. 1).

To the relay station 3) (relay station other than 1) and 2)), set the data to access the request target (network No. 4) and request source (network No. 1).



APP

- *1: The following explains the case when the request source is the personal computer connected to Ethernet.
 - (1) The parameter settings are not necessary for the request source.
 - (2) The routing parameter settings are necessary for relay stations so that they can access the request source. Refer to the following manual according to the connected programmable controllers.
 - When connecting to Q series compatible E71 Q Corresponding Ethernet Interface Module User's Manual (Application)
 - When connecting to QE71
 - For QnA Ethernet Interface Module User's Manual

Appendix 2 How to Start the Internet/Intranet Environment

This section describes an example of configuring a system that uses MX Component to create a home page (HTML, ASP) for communication with the programmable controller CPU and display it using the browser (Internet Explorer) via the Internet/intranet.

Appendix 2.1 Operating procedure



The following is the procedure to start the Internet/intranet environment.

POINT

Web pages using MX Component will not operate in the environment where a test using the sample page is not conducted properly.

Check the traffic, noise and others of the communication line to operate the sample page properly.

Appendix 2.2 Conditions of usable personal computers

The following are the conditions of the personal computers that may be used as a Web server and a Web client.

(1) Personal computer usable as Web server (factory side)

When using the personal computer as a Web server, use the personal computer that satisfies all of the following conditions 1 to 4.

	Description
Condition 1	 Any of the following Operating Systems is operating on the personal computer. Microsoft[®] Windows NT[®] Workstation Operating System Version 4.0 Microsoft[®] Windows[®] 2000 Professional Operating System Version 4.0 Microsoft[®] Windows[®] 98 Operating System Microsoft[®] Windows[®] XP Professional Operating System Microsoft[®] Windows Vista[®] Home Premium Operating System Microsoft[®] Windows Vista[®] Business Operating System Microsoft[®] Windows Vista[®] Enterprise Operating System Microsoft[®] Windows Vista[®] Illimate Operating System Microsoft[®] Windows[®] 7 Home Premium Operating System Microsoft[®] Windows[®] 7 Professional Operating System Microsoft[®] Windows[®] 7 Enterprise Operating System
Condition 2	The personal computer can be connected to the Internet or intranet.
Condition 3	When Web pages are to be made public on the Internet, external access must not be inhibited by a firewall or like.
Condition 4	MX Component has been installed and settings have been made for communication with the programmable controller.

(2) Personal computer usable as Web client (office side)

When using the personal computer as a Web client, use the personal computer that satisfies both of the following conditions 1 and 2.

	Description
Condition 1	 Any of the following Operating Systems is operating on the personal computer. Microsoft® Windows NT® Workstation Operating System Version 4.0 Microsoft® Windows® 2000 Professional Operating System Version 4.0 Microsoft® Windows® 98 Operating System Microsoft® Windows® 95 Operating System Microsoft® Windows® Millennium Edition Operating System Microsoft® Windows® XP Professional Operating System Microsoft® Windows® XP Home Edition Operating System Microsoft® Windows® XP Home Edition Operating System Microsoft® Windows® XP Home Edition Operating System Microsoft® Windows Vista® Home Basic Operating System Microsoft® Windows Vista® Home Premium Operating System Microsoft® Windows Vista® Business Operating System Microsoft® Windows Vista® Enterprise Operating System Microsoft® Windows® 7 Starter Operating System Microsoft® Windows® 7 Professional Operating System Microsoft® Windows® 7 Professional Operating System Microsoft® Windows® 7 Enterprise Operating System Microsoft® Windows® 7 Enterprise Operating System Microsoft® Windows® 7 Professional Operating System Microsoft® Windows® 7 Enterprise Operating System
Condition 2	The personal computer can be connected to the Internet or intranet.
Appendix 2.3 How to install Web server

Install the Web server in the following method.

- When using Windows[®] 98
 Install Personal Web Server stored on the Windows[®] 98 setup CD.
 It can be installed using the CD drive: \add-ons\pws\setup.exe.
- (2) When using Windows NT[®] Workstation 4.0 Get "Windows NT[®] Option Pack 4.0" and install Peer Web Services 4.0. It can be installed using the CD drive: \setup.exe.
- (3) When using Windows[®] 2000 Professional Select [Control Panel]-[Add/Remove Programs] and install the Windows component "Internet Information Service (IIS)". The Windows[®] 2000 Professional setup CD is required for installation.
- (4) When using Windows[®] XP Professional Select [Control Panel]-[Add/Remove Programs] and install the Windows component "Internet Information Service (IIS)". The Windows[®] XP Professional setup CD is required for installation.
- (5) When using Windows Vista[®] or Windows[®] 7 Select [Control Panel] – [Programs] and start [Turn Windows features on or off], and then install "Internet Information Services".

POINT

For detailed Web server installation method corresponding to the OS, refer to the installation procedure attached to the corresponding OS.

Appendix 2.4 Setting the Internet access account

When the OS of the personal computer where the Web server is operating is Windows NT[®] Workstation 4.0, Windows[®] 2000 Professional, Windows[®] XP Professional or Windows[®] 7, a special right must be set to the Internet access account.

POINT

The settings in this section are not needed when the OS of the personal computer where the Web server is operating is Windows[®] 98.

(1) When using Windows NT[®] Workstation 4.0

When the Active Server Pages (ASP) pages using MX Component are to be made public, the IUSR_Name (Internet Server Anonymous Access) must be given the "Debug programs" right.

Make settings in the following procedure.



- 1) Select the [Start]-[Programs]-[Administrative Tool (Common)]-[User Manager] menu.
- User Manager

 User
 Policies
 Options
 Help

 User
 Account...
 Fu

 A
 User Rights...
 Fu

 G
 Audit...
 Fu

 IUSER_MXComponent
 MXComponent

(To the next page)

2) As User Manager starts, select the [Policies]-[User Rights] menu.

 Check "Show Advanced User Rights" and select "Debug programs" from the "Right" list box.

4) Click Add.

x

OK Cancel

<u>H</u>elp

Add..

Remove

Ŧ

٠

User Rights Policy

Computer: MXCOMPONENT

Create a pagefile

Debug programs

Show Advanced User Rights

Create a token object Create permanent shared objects

Generate security audits

Force shutdown from a remote system

Right: Debug programs

Grant T

Add Users and Groups

SSAINTERACTIVE S⊊NETWORK

NETWORK

Add Names:

Add

MXCOMPONENT/IUSR_MXComponent

Names:

List Names From: CMXCOMPONENT*

(From the previous page)

Add Users and Groups	X
List Names From: COMPO	NENT*
Administrators	Members can fully administer the comput All authenticated users Members can bypass file security to bac All Users Users granted guest access to the comp Users accessing this object locally Users accessing this object remotely Members can share directories and print
Add Show User:	s <u>M</u> embers <u>S</u> earch
Aguirraines.	×
OK	Cancel <u>H</u> elp

J

Ordinary users

Members..

Guest Built-in account for guest access to UIUSR_MXComponent (Internet Grinternet Server Anonymous Access

Show <u>U</u>sers

•

Users accessing this object locally

Users accessing this object remotely

Members can share directories and print Supports file replication in a domain

Built-in account for guest access to the Built-in account for administering the cor

<u>S</u>earch...

.

.

- 5) The "Add User and Groups" dialog box appears. At this time, if the computer name (name of the computer where Peer Web Server 4.0 has been set up) is not displayed in "List Names Form", select the computer name.
- 6) With the computer name selected, click Show Users .

- 7) Select the "IUSR_ computer name (Internet Server Anonymous Access)" account from the "Names" list box, and click Add .
- 8) Click OK
- $\overline{\mathbf{v}}$ OK Cancel Help ↓ User Rights Policy × Computer: MXCOMPONENT οк Cancel Right: Debug programs Ŧ <u>H</u>elp Grant To: Administrators IUSR_MXComponent (Internet Guest Account) <u>A</u>dd... <u>R</u>emove ☑ Show Advanced User Rights ↓
 - (Setting completion)

9) After making sure that the account has been added, reboot the personal computer.

(2) When using Windows® 2000 Professional

When the Active Server Pages (ASP) pages using MX Component are to be made public, the IUSR_Name(Internet Server Anonymous Access) must be given the "Debug programs" right.

Make settings in the following procedure.

∰History 4	<u>45 × •</u>	ດ∣⊞•		
Computer Da Management	ta Sources (ODBC)	Event View		Security Pe licy
	Inet Server ministration			
		\downarrow		
duction View 🗘 → 🖸		-9		
Tree	Policy /		Local Setting	Effective Settin
Security Settings	- 題Access this cor	puter from the net he operating system	Everyone,Users,Po	
Image: Construct Policies Image: Construct Policies <td>観Add workstatic 題Back up files ar 題Bypass travers 題Change the sy 題Create a pagel 「題Create a token 題Create perman</td> <td>ns to domain nd directories e checking stem time ille object ent shared objects</td> <td>Backup Operators, Everyone,Users,Po Power Users,Admir Administrators</td> <td>o Everyone,Users ni Power Users,Ad Administrators</td>	観Add workstatic 題Back up files ar 題Bypass travers 題Change the sy 題Create a pagel 「題Create a token 題Create perman	ns to domain nd directories e checking stem time ille object ent shared objects	Backup Operators, Everyone,Users,Po Power Users,Admir Administrators	o Everyone,Users ni Power Users,Ad Administrators
	認Deny logon as 認Deny logon as 認Deny logon loc	this computer from a batch job a service		Administrators
		\downarrow		
Local Security Policy				<u>?</u> ×
A <u>s</u> signed To		Local Policy Settin	Effec g Policy:	
Administrators]
Add	ettings are def	ned they over	ride local polic	u settinas
a contain rever policy s	owingo are der		nao iocar policj	, soungs.
			OK	Cancel

↓ (To the next page) Select [Local Policies]-[User Rights Assignment] in the tree structure and double-click "Debug programs".

1) Select [Administrative Tools]-[Local Security Policy].

 As the "Local Security Policy Setting" dialog box appears, click Add. A<u>s</u>signed To

Add...

Administrators

MXCOMPONENT\IUSR_MXCompone

(From the previous page)

	\downarrow		
Belect Users or Groups			<u>? ×</u>
Look in: 📃 MXCOMPONENT			•
Name	In Folder		
100 IUSR MXComponent	MXCOMPONENT		
Administrators	MXCOMPONENT		
Rackup Operators	MXCOMPONENT		
Guests	MXCOMPONENT		
Rower Users	MXCOMPONENT		
Replicator	MXCOMPONENT		
🚾 Users	MXCOMPONENT		•
		OK	Cancel
	\downarrow		
Local Security Policy Setting			? ×

Local Policy Setting

 \checkmark

If domain-level policy settings are defined, they override local policy settings.

↓ (Setting completion) Effective Policy Setting

4

Cancel

ПΚ

- 4) The "Select Users or Groups" dialog box appears. At this time, if the computer name (name of the computer where Internet Information Service has been set up) is not displayed in "Lock in", select the computer name.
- 5) Select the "IUSR_Name (Internet Server Anonymous Access)" account from the "Name" list box, and click Add .
- 6) Click OK .
- 7) After making sure that the account has been added, reboot the personal computer.

(3) When using Windows[®] XP Professional

When the Active Server Pages (ASP) pages using MX Component are to be made public, the IUSR_Name (Internet Server Anonymous Access) must be given the "Debug programs" right.

Make settings in the following procedure.



1) Select [Administrative Tools]-[Local Security Policy].

Galacial Policies Audit Policy Galacian Policy Galacian Policy Galacian Policies Software Restriction Policies Software Restriction Policies Si IP Security Policies on Local	#Act as part of the operating sy #Add workstations to domain #Adjust memory quotas for a pr #Aljush logon through Terminal #Back up files and directories #Bypass traverse checking #Chanage the system time #Create a pagefile #Create a pagefile #Create a token object	LOCAL SERVICE, NETWO Administrators, Backup Zevryone, Administrators Administrators, Power U Administrators, Power U Administrators
	Debug programs Deny access to this computer f	Administrators SUPPORT_388945a0,Gu
	聞Deny logon as a batch job 聞Deny logon as a service 聞Deny logon locally 聞Deny logon through Terminal	SUPPORT_388945a0,Gu
< >	Enable computer and user acc Force shutdown from a remote Generate security audits Therease scheduling priority Code and unload device drivers	LOCAL SERVICE,NETWO Administrators

↓

2) Select [Local Policies]-[User Rights Assignment] in the tree structure and double-click "Debug programs".

Debug programs Properties ? 🗙
Local Security Setting
Debug programs
Administrators
Add User or Group Bernove

(To the next page)

 As the "Local Security Policy Setting" dialog box appears, click Add User or Group.

(From the previous page)

elect Users or Groups		? ×
Select this object type:		
Users or Built-in security principals		Object Types
From this location:		
MX-PC		Locations
Enter the object names to select (examples):		
		Check Names
Advanced	OK	Cancel

- 4) The "Select Users or Groups" dialog box appears. At this time, if the computer name (name of the computer where Internet Information Service has been set up) is not displayed in "Locations", select the computer name. After confirming the above setting, click Advanced.
- Ţ Select Users or Groups Select this object type Users or Built-in security principals Object Types... From this location MX-PC Locations... Common Queries Starts with 💌 Columns. N<u>a</u>me: Find Now Description: Starts with 👻 Stop Disabled accounts Non expiring password Days since last logon: P OK Cancel Search results: Name (RDN) In Folder Name (RDN) DIALUP Everyone Sourcest NITERACTIVE NUSR NETWORK NETWORK S... NETWORK S... MX-PC MX-PC
 - 5) Click Find Now, and select the "IUSR_Name (Internet Server Anonymous Access)" account from the "Name" list box, and click OK.

Select Users or Groups ? X Select this object type: Users or Builtin security principals Object Types... From this location: MX-PC Locations... Enter the object names to select (examples): ILISE OK Cancel



6) After making sure that the account has been added, reboot the personal computer.

zion View Help

100

(4) When using Windows Vista® or Windows® 7

When the Active Server Pages (ASP) pages using MX Component are to be made public, the IUSR must be given the "Debug programs" right. Make settings in the following procedure.

Organize 🔻 📰 Open	Burn			100 -		1
A Favorites	Name	Date modified	Type	Size		
🛄 Desktop	Component Services	2009/07/14 13:46	Shortcut		2 KB	
Downloads	🚰 Computer Management	2009/07/14 13:41	Shortcut		2 KB	
Recent Places	Data Sources (ODBC)	2009/07/14 13:41	Shortcut		2 KB	
	Event Viewer	2009/07/14 13:42	Shortcut		2 KB	
词 Libraries	🙈 iSCSI Initiator	2009/07/14 13:41	Shortcut		2 KB	
Documents	🗟 Local Security Policy	2010/03/17 5:44	Shortcut		2 KB	l
J Music	Performance Monitor	2009/07/14 13:41	Shortcut		2 KB	
Pictures	Print Management	2010/03/17 5:43	Shortcut		2 KB	
Videos	Services	2009/07/14 13:41	Shortcut		2 KB	
	System Configuration	2009/07/14 13:41	Shortcut		2 KB	
👰 Computer	Task Scheduler	2009/07/14 13:42	Shortcut		2 KB	
👝 Local Disk (C:)	Hindows Firewall with Advanced Security	2009/07/14 13:41	Shortcut		2 KB	
🚢 ボリューム (E:)	Windows Memory Diagnostic	2009/07/14 13:41	Shortcut		2 KB	
	Windows PowerShell Modules	2009/07/14 13:52	Shortcut		3 KB	
📬 Network						
Local Security Shortcut	Policy Date modified: 2010/03/17 5:44 D Size: 1.21 KB	ate created: 2010/03/	7 5:44			

 Select [Administrative Tools]-[Local Security Policy].
 * When user account control is enabled in Windows Vista[®], the following screen appears. Click Continue or Yes.

< Windows Vista [®] >	<pre>< Windows® 7 ></pre>
User Account Control	😵 User Account Control
💮 Windows needs your permission to continue	Do you want to allow the following program to make changes to this computer?
If you started this action, continue. Microsoft Management Console Microsoft Windows	Program name: Microsoft Management Console Venfied publisher: Microsoft Windows
Details Cancel	Show getails
User Account Control helps stop unauthorized changes to your computer.	Change when these notifications appea

2) Select [Local Policies]-[User Rights Assignment] in the tree structure and double-click "Debug programs".



LOCAL SERVICE, NET

(To the next page)

 As the "Local Security Policy Setting" dialog box appears, click Add User or Group.

(From the previous page)

\downarrow	
Select Users or Groups	8 ×
Select this object type:	
Users or Built-in security principals	Qbject Types
From this location: MEIA372A	Locations
Enter the object names to select (examples):	
	Check Names
Advanced	OK Cancel
\downarrow	
elect Users or Groups	? ×
Select this object type:	
Users or Built-in security principals	Qbject Types
From this location:	
MEIA372A	Locations
Common Queries	
Name: Starts with *	Columns
Description: Starts with v	Find Now
Disabled accounts	Stop
Non expiring password	~
Days since last logon:	P I
Search results:	OK Cancel
Name (RDN) In Folder	
A DIALUP	
Everyone Guest MEIA372A	
A INTERACTIVE	
LOCAL SERV MX MEIA372A	=
A NETWORK	
KINETWORK S OWNER RIG	
B DEMOTE WT	
1	
Select Users or Groups	2 ×
Select this object type: Users or Built-in security principals	Qbject Types
From this location:	Zolon ()bas
MEIA372A	Locations
Enter the object names to select (examples):	
IUSR	Gheck Names
1	
Advanced	OK Cancel
)
Ļ	
v	
(Setting con	aplotion)

- 4) The "Select Users or Groups" dialog box appears. At this time, if the computer name (name of the computer where Internet Information Service has been set up) is not displayed in "Locations", select the computer name. After confirming the above setting, click Advanced.
- 5) Click Find Now button, and select the "IUSR" account from the "Name" list box, and click OK.

6) After making sure that the account has been added, reboot the personal computer.

Appendix 2.5 Making Web pages public

To make Web pages public on the Internet/intranet, the folder must be Web shared. The following is the procedure to make the folder Web shared. Though the screen slightly varies with the Web server OS, the setting procedure is the same.

(1) When using Microsoft[®] Windows NT[®] Workstation Operating System Version 4.0, Microsoft[®] Windows[®] 2000 Professional Operating System, Microsoft[®] Windows[®] XP Professional, Microsoft[®] Windows[®] XP Home Edition or Windows[®] Vista



(Setting completion)

1) Boot Explorer and right-click any folder that contains the Web file (*.html, *.asp) to be made public to display the folder properties.

2) As the properties screen appears, select the "Web Sharing" tab and select "Share this folder".

3) As the "Edit Alias" dialog box appears, change the alias here if you change it.

The alias is the underlined part of the URL to be specified on the Web browser. http://**.**.**/Mxcomponent/NetTest.asp

(2) When using Windows Vista®





↓ (Setting completion)

- Select [Control Panel] [Classic View] [Administrative Tools] and double-click [Internet Information Services (IIS) Manager].
 - * When user account control is enabled in Windows Vista[®], the following screen appears.

Click Co	ntinue .	
User Account Co	ontrol	×
💮 Windo	ows needs your pe	ermission to continue
If you started	this action, continue.	
	Microsoft Manageme Microsoft Windows	nt Console
Details		<u>C</u> ontinue Cancel
User Account (Control helps stop unau	thorized changes to your computer.

 Internet Information Services (IIS) Manager starts. Expand the tree on [Connections] window, right-click on [Default Web Site], and then click [Add Virtual Directory...].

 The "Add Virtual Directory" dialog box appears.
 Specify any name at "Alias:", and specify a folder path name to be released at "Physical path:" and click OK.

The alias is the underlined part of the URL to be specified on the Web browser. http://**.**.**/Mxcomponent/NetTest.asp (3) When using Windows[®] 7

_ 🗆 🗙

Ø



To turn a feature on, select its check box. To turn a feature off, clear its check box. A filled box means that only part of the feature is turned on.

Internet Information Services Hostable Web Core
 Media Features

Windows Features

Games
 Indexing Service
 Internet Explorer 8
 Internet Information Services

Turn Windows features on or off

■ ■ Microsoft .NET Framework 3.5.1

 Select [Control Panel] – [Programs] – [Turn Windows features on or off].

2) Check "Internet Information Services".



↓ (Setting completion)

- Select [Internet Information Services] [World Wide Web Services] – [Application Development Features], check "ASP" and click OK.
 - * When using 64-bit Windows[®] 7, configure the settings on the next page.





Ţ (Setting completion)

- 1) Select [Start]-[Administrative Tools]-[Internet Information Services (IIS) Manager] and select [Application Pools] from the left pane. Select an application pool to be changed and select [Advanced Settings...] from the right pane.
- 2) Set "True" for [Enable 32-Bit Applications] and click OK .

Appendix 2.6 Checking whether access can be made to Web server properly or not

When a check is to be made via the Internet, the personal computer where the Web server has been installed must be connected to the Internet.

After confirming that the Web server is connected to the Internet/intranet, boot the Web browser (Internet Explorer) on the Web client side personal computer, enter the URL as indicated below, and make sure that the Web page is displayed properly.

(URL input example) http://<u>10.97.85.10/Mxcomponent</u>/NetTest.asp

IP address of Web server

NetTest.asp is the Web server operation checking test page offered by MX Component. Make sure that the system date and system time of the server are displayed on the Web browser.

POINT

(1) If access to NetTest.asp cannot be made properly, access cannot be made to the Web pages using MX Component, either.
In such a case, reconfirm the Web server settings and Web client browser settings.
If the settings are correct, the Web pages may not be displayed because communication cannot be made properly due to dense traffic or like of the communication line.
In this case, check the status of the communication line.
(2) NetTest.asp is stored in the following folder.
[user-specified folder]-[Act]-[Sample]-[VBScript]-[SampleASP]

APP - 19

Appendix 3 RS-232 Cable wiring example when performing computer link communication

Appendix 3.1 A Series

(1) When a 25-pin connector is used in a C24(computer link module) (Example of connection 1)

Computer Link	Module Side]	Personal Computer Side
Signal Name	Pin No.		Signal Name
FG	1	∢ →	FG
SD(TXD)	2		SD(TXD)
RD(RXD)	3	•	RD(RXD)
RS	4		RS
CS(CTS)	5		CS(CTS)
DSR(DR)	6		DSR(DR)
SG	7	$\leftarrow \rightarrow \rightarrow$	SG
CD	8		CD
DTR(ER)	20		DTR(ER)

The CD signal need not be connected when the following connection is used for communication. Select no CD terminal check (write 1) as the RS-232 CD terminal check setting (setting made at buffer memory address 10BH).

(Example of connection 2)

Computer Link M	lodule Side		Personal Computer Side
Signal Name	Pin No.		Signal Name
FG	1	←	FG
SD(TXD)	2		SD(TXD)
RD(RXD)	3	+	RD(RXD)
RS	4		RS
CS(CTS)	5	← ┘	CS(CTS)
DSR(DR)	6	•	DSR(DR)
SG	7	\longleftarrow	SG
CD	8		CD
DTR(ER)	20		DTR(ER)

Computer Link N	/lodule Side		Personal Computer Side
Signal Name	Pin No.		Signal Name
CD	1		CD
RD(RXD)	2		RD(RXD)
SD(TXD)	3		SD(TXD)
DTR(ER)	4		DTR(ER)
SG	5	$\bullet \qquad \bullet \qquad$	SG
DSR(DR)	6	•	DSR(DR)
RS(RTS)	7		RS(RTS)
CS(CTS)	8	←	CS(CTS)

(2) When a 9-pin connector is used in a C24(computer link module) (Example of connection 1)

(Example of connection 2)

Computer Link N	/lodule Side		Personal Computer Side
Signal Name	Pin No.		Signal Name
CD	1		CD
RD(RXD)	2	• • •	RD(RXD)
SD(TXD)	3		SD(TXD)
DTR(ER)	4		DTR(ER)
SG	5	$\leftarrow \qquad \qquad$	SG
DSR(DR)	6		DSR(DR)
RS(RTS)	7		RS(RTS)
CS(CTS)	8	← ┘ └→	CS(CTS)

* Connecting the DTR and DSR signals of the C24 (computer link module) to the external device as shown above enables DC code control or DTR/DSR control.

Appendix 3.2 QnA Series

- (1) For large-scale QC24(N)
 - (a) Example of connection to an external device that allows the CD signal(No.8 pin) to be turned ON/OFF

Large-scale G	QC24(N) Side	Cable Connection and Signal Direction	Personal Computer Side
Signal Name	Pin No.	(Full-/Half-Duplex Communication)	Signal Name
FG	1	← →	FG
SD(TXD)	2		SD(TXD)
RD(RXD)	3		RD(RXD)
RS	4		RS
CS(CTS)	5		CS(CTS)
DSR(DR)	6		DSR(DR)
SG	7	\longleftrightarrow	SG
CD	8		CD
DTR(ER)	20		DTR(ER)

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

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

Large-scale QC24(N) Side Signal Name Pin No.		Cable Connection and Signal Direction (Full-Duplex Communication)	Personal Computer Side Signal Name
FG	1	← →	FG
SD(TXD)	2		SD(TXD)
RD(RXD)	3		RD(RXD)
RS	4		RS
CS(CTS)	5	← ↓	CS(CTS)
DSR(DR)	6	*	DSR(DR)
SG	7	\longleftrightarrow	SG
CD	8		CD
DTR(ER)	20		DTR(ER)

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

- (2) For compact QC24(N)
 - (a) Example of connection to an external device that allows the CD signal(No.1 pin) to be turned ON/OFF

Compact Q	C24(N) Side	Cable Connection and Signal Direction	Personal Computer Side
Signal Name	Pin No.	(Full-/Half-Duplex Communication)	Signal Name
CD	1	•	CD
RD(RXD)	2		RD(RXD)
SD(TXD)	3		SD(TXD)
DTR(ER)	4		DTR(ER)
SG	5	$\bullet \qquad \bullet \qquad \bullet \qquad \bullet$	SG
DSR(DR)	6		DSR(DR)
RS(RTS)	7		RS(RTS)
CS(CTS)	8	←	CS(CTS)

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

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

Compact QC24(N) Side		Cable Connection and Signal Direction	Personal Computer Side
Signal Name	Pin No.	(Full-Duplex Communication)	Signal Name
CD	1		CD
RD(RXD)	2		RD(RXD)
SD(TXD)	3		SD(TXD)
DTR(ER)	4		DTR(ER)
SG	5	\leftarrow	SG
DSR(DR)	6		DSR(DR)
RS(RTS)	7		RS(RTS)
CS(CTS)	8	←	CS(CTS)

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

Appendix 3.3 Q Series

Pin No.	Signal Code	Signal Name	Signal Direction Q series- compatible C24⇔external device
1	CD	Receive carrier detection	•
2	RD(RXD)	Receive data	•
3	SD(TXD)	Send data	→
4	DTR(ER)	Data terminal ready	→
5	SG	Send ground	•
6	DSR(DR)	Data set ready	•
7	RS(RTS)	Request to send	→
8	CS(CTS)	Clear to send	I ←
9	RI(CI)	Call indication	↓

The connector specifications are indicated below.

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

Q series -compatible C24		Cable Connection and Signal Direction (Connection example for full duplex/half	Personal Computer Side
Signal Name	Pin No.	duplex communication)	Signal Name
CD	1	× _*	CD
RD(RXD)	2		RD(RXD)
SD(TXD)	3		SD(TXD)
DTR(ER)	4		DTR(ER)
SG	5	$\leftarrow \qquad \qquad$	SG
DSR(DR)	6		DSR(DR)
RS(RTS)	7		RS(RTS)
CS(CTS)	8	← ┘ └→	CS(CTS)
RI(CI)	9		

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

Q series -compatible C24		Cable Connection and Signal Direction (Connection example for full duplex	Personal Computer Side
Signal Name	Pin No.	communication)	Signal Name
CD	1		CD
RD(RXD)	2	• • • • • • • • • • • • • • • • • • •	RD(RXD)
SD(TXD)	3		SD(TXD)
DTR(ER)	4		DTR(ER)
SG	5	$\leftarrow \qquad \qquad$	SG
DSR(DR)	6		DSR(DR)
RS(RTS)	7		RS(RTS)
CS(CTS)	8	← ┘	CS(CTS)
RI(CI)	9		

Appendix 3.4 FX Series

The following shows the example of wiring a personal computer and the FX extended port. For details of the FX-485PC-IF converter, refer to the FX SERIES USER'S MANUAL-Data Communication Edition.

(1) Example of connecting a personal computer and FX-485PC-IF converter with the RS-232 cable

Personal computer side	Cable connection and signal direction	FX-485PC-IF side	
Signal name	(Full-/Half-Duplex Communication)	Signal name	Pin No.
SD(TXD)		SD(TXD)	2
RD(RXD)		RD(RXD)	3
RS(RTS)		RS(RTS)	4
CS(CTS)		CS(CTS)	5
DR(DSR)	▼	DR(DSR)	6
SG(GND)	$\bullet \qquad \bullet \qquad \bullet$	SG(GND)	7
ER(DTR)		ER(DTR)	20

(2) Example of connecting the FX-485PC-IF converter and the FX extended port (2-pair wiring)



*1: R indicates a terminal resistance.

Make sure to install terminal resistances at both ends of the circuit.

(For 2-pair wiring, use the terminal resistance of 330Ω , 1/4W.)

For the FX₃G-485-BD, FX₃U-485-BD and FX₃U-485ADP, terminal resistances are built in.

Set the terminal resistance by the setting switch.

For the FXon-485ADP, FX1N-485-BD, FX2N-485-BD, and FX2NC-485ADP use the provided terminal resistances.

- *2: Make sure to ground the shield connected to the FX1N-485-BD, FX2N-485-BD, FX2N-485-BD, FX3U-485ADP, FX3G-485-BD, FX3U-485ADP.
- *3: Make sure to connect the FG terminal to the ground terminal of the grounded programmable controller.

Appendix 4 Multi-CPU System

The valid CPU number specified for a multi-CPU system is that of the last accessed station only.

When making access to the non-control CPU of the relay module on the accessed station, use the modules of function version B as the relay modules and QCPUs (Q mode) on the own station, all relay stations and accessed station.

(Example 1) CPU COM communication

When the programmable controller CPU No. 3 (0x3E2) is specified for access, access is made to the CPU 3.



(Example 2) CPU COM communication (via MELSECNET/H)

When the programmable controller CPU No. 3 (0x3E2), network number 2 and station number 2 are specified for access, access is made to the CPU 3'.

The CPU number cannot be specified for the relay station. Therefore, if access is made to the network No. 1 in the following case, an error will occur since the network number controlled by the CPU ② is only "2".



Appendix 5 Number of Loadable Network Modules When Q00JCPU, Q00UJCPU, Q00CPU, Q00UCPU, Q01CPU or Q01UCPU Is Used

The following indicates the number of loadable network modules that may be connected when the Q00JCPU, Q00CPU or Q01CPU is used.

Network Module	Number of Loadable Modules	
MELSECNET/H module	1 modulo in all	
Ethernet module	1 module in all	
CC-Link module (Function version B or later)	2 modules	
CC-Link IE Controller Network module	1 module	

Therefore, the following systems cannot be configured.

(Example 1) Since the number of loadable Ethernet modules is 1, the part of the system indicated by the dotted line cannot be configured.



(Example 2) Since the number of loadable MELSECNET/H modules is one, the part of the system indicated by the dotted line cannot be configured.



Appendix 6 Flowchart for the case where access cannot be performed during modem communication

If the programmable controller CPU cannot be accessed using modem communication, refer to the following flowchart and take corrective action.



Appendix 7 Compatibility with Redundant CPU

This section explains the compatibility of MX Component with the Redundant CPU (Q12PRHCPU, Q25PRHCPU).

(1) Target system

In Target system, select either "Control system" or "Not specified" to access the compatible Redundant CPU.

Control system: Connects to the control system and continues access to the control system in response to system switching.

- Not specified: Connects to the connection target programmable controller CPU as before.
- *1: Target system setting can either be made on the utility setting type communication setting wizard screen or by the program setting type control property.

POINT					
o judge w	hich systen	n in the Redu	ndant CPL	l system is	being accessed by MX Component,
onitor the	e following s	pecial relays.			
) When o	checking wh	ich system is	being acc	essed, Sys	stem A or System B
SM1511	System A identification flag		 Identifies system A/system B of a redundant system. Remains ON/OFF even if the tracking cable is disconnected while the redundant syst is running. 		
			System A	System B	At the time of TRK.CABLE ERR.(Error code: 6120) occurrence (System not determined.)
SM1512	System B identification	SM1511	ON	OFF	OFF
51011512	flag	SM1512	OFF	ON	OFF
) When o SM1515	checking the	 operation sy Indicates the Remains ON is running. 	CPU module	e operation st	atus cable is disconnected while the redundant system
	Standby		Control	Standby	At the time of TRK.CABLE ERR.(Error code:
	system		system	system	6120) occurrence (System not determined.)
SM1516	status	SM1515	ON	OFF	OFF
51011510		SM1516	OFF	ON	OFF

(2) Operation at occurrence of system switching

When system switching occurs during access to the Redundant CPU after selection of "Control system", access is continued as described below.

 (a) Connection via other than MELSECNET/H, Ethernet or CC-Link IE Controller Network
 Access to the control system after system switching is continued.

The following shows an example of CPU direction connection.



(b) Connection to MELSECNET/H, Ethernet or CC-Link IE Controller Network

Access to the control system after system switching is continued as shown below, depending on whether a communication error occurs or not.

The following shows an example of Ethernet connection.

<When communication is normal>



<When communication error occurs>



POINT

In the case of Ethernet connection, it may take time from when a communication error occurs until communication starts after connection to the control system.

(3) Automatic switching of communication route

If a communication error occurs during access to the Redundant CPU connected to MELSECNET/H, Ethernet or CC-Link IE Controller Network in Control system specification, the communication route is automatically switched to continue access to the control system.

Hereinafter, this automatic switching of the communication route is referred to as route switching.

The following describes the route switching conditions, how to check for route switching occurrence, and examples of access by route switching.

(a) Route switching conditions

When access is being made under the following conditions, access to the Redundant CPU is continued by route switching if a communication error occurs.

	Conditions for continued access		
Operation mode	Backup mode, Separate mode		
Target system	Control system		

However, if a tracking error*1 had already occurred at a start of communication, access to the control system is not continued by route switching even if tracking is recovered after that.

- *1: Includes the status in which either Redundant CPU is powered off or reset.
- (b) How to check for route switching occurrence and examples of access by route switching
 - How to check whether route switching occurred or not When communication is being made in Target system, whether communication is continued by route switching due to communication error can be estimated.

<Special relay and special registers to be monitored and estimated possibility of route switching>

SM1600*1	SD1590*2	SD1690*2	Possibility of route switching	Reference
OFF	Either one is other than 0		Since a system switching request from the network module was detected, route switching may have been executed.	2) Fig. 1
ON	0	0	Since an other system fault occurred, route switching may have been executed.	2) Fig. 2
ON	Either one is other than 0		Since an other system fault occurred or a system switching request from the network module was detected, route switching may have been executed.	2) Fig. 2 2) Fig. 1

*1: Even if SM1600 is ON, route switching does not occur when the CPU is not accessed via the tracking cable.

- *2: When using SM1600, SD1590 and SD1690 to estimate whether route switching has occurred or not for the Redundant CPU connected to Ethernet, check the following items in the redundant setting of the network parameter dialog box of GX Developer.
 - Issue a system switching request at disconnection detection.
 Issue a system switching request at communication error.

Check the following based on the statuses of the above special relay and special registers, and remove the error cause.

- Check the Redundant CPU for an error.
- Check the tracking cable status and whether the tracking cable is correctly connected.
- Check the relevant network module for an error and the network where the relevant network module is connected for an error.

2) Examples of access by route switching

The following shows examples of route switching during access to the control system by Ethernet connection.



<When system switching occurs at communication error>

Fig. 1 Route switching example 1

<When standby system fault occurs>



Fig. 2 Route switching example 2

POINT

- Route switching is not executed if a communication error has already occurred at a communication start for the Redundant CPU specified as the target. (A communication error occurs.)
- In the case of Ethernet connection, it may take time from when a communication error occurs until communication starts after connection to the control system.
- If a communication error has occurred, refer to (b) in (3) Automatic switching of communication route, and remove the communication disturbance.

REMARK

The following indicates details of the special relay and special registers to be monitored when estimating whether route switching occurred or not.

Number	Name	Meaning	Explanation
SM1600	Other system error flag	OFF: No error ON: Error	 Turns on when an error occurs during redundant system error check. (Turns on when either of bits for SD1600.) Remains off when no errors are present.
SD1590	Module No. for network module requesting route switching in host system	Module No. for network module requesting route switching in host system	 Any of the following bits turns on corresponding to module No. for network module requesting route switching in host system. Turns off by the system after recovery from error of the relevant module by user. Bit status b15 to b11 to b1 b0 0: OFF 1: ON Module No. 0: Invalid, as CPU module to the right of CPU module at the right of CPU module at the right end of a 12-I/O slot base (Q312B) Refer to SD1690 for module No. for network module requesting
SD1690	Module No. for network module requesting route switching in other system	Module No. for network module requesting route switching in other system	 route switching in other system. Any of the following bits turns on corresponding to module No. for network module requesting route switching in other system. Turns off by the system after recovery from error of the relevant module by user. <u>b15 to b11 to b1 b0</u> 0 0/1 0/1 0 Bit status 0: OFF 1: ON Module No. 0: Invalid, as CPU module uses 2 slots. Module No. 1: Indicates the module to the right of CPU module at the right of a 12-I/O slot base (Q312B) Refer to SD1590 for module No. for network module requesting route switching in host system.

(4) Combination table

Communications via redundant type extension base unit (Q65WRB) are supported.

The following table shows the supported/unsupported combinations.

		Function version	Combination	
Product name	Model		When mounted to the main base	When mounted to the extension base
	QJ71LP21-25	D or later	0	×
	QJ71LP21S-25	D or later	0	×
	QJ71LP21G	D or later	0	×
MELSECNET/H module	QJ71BR11	D or later	0	×
MELSECINET/TTHIOUdie	QJ72LP25-25		×	×
	QJ72LP25G		×	×
	QJ72BR15		×	×
	QJ71LP21		×	×
	QJ71E71		×	×
Ethernet module	QJ71E71(N1)-B2	D or later	0	0
	QJ71E71(N1)-B5	D or later	0	0
	QJ71E71-100	D or later	0	0
Modem module	QJ71CMO	B or later	×	0
	QJ71C24N		×	0
Serial communication module	QJ71C24N-R2		×	0
	QJ71C24N-R4		×	0
CC-Link module	QJ61BT11		×	0
	QJ61BT11N		O *1	0
CC-Link IE Controller Network	QJ71GP21-SX	D or later	0	×
module	QJ71GP21S-SX	D or later	0	×

 \bigcirc : Can be used. \times : Cannot be used.

*1: Cannot be used when the first five digits of the serial number is 06051 or lower.

Appendix 8 Warning Message Appears on Windows Vista® and Windows® 7

Appendix 8.1 Overview of warning message

The user account control function has been added to Windows Vista[®] and Windows[®] 7.

By this function, a warning message appears when executing Communication Setup Utility or PLC Monitor Utility with Administrator authority. (Refer to Section 4.1)

< Windows Vista [®] >	< Windows [®] 7 >
Jser Account Control	😵 User Account Control
In unidentified program wants access to your computer	Do you want to allow the following program from an unknown publisher to make changes to this computer?
Don't run the program unless you know where it's from or you've used it before. ActComm.exe Unidentified Publisher	Program name: ActMon.exe Publisher: Unknown File origin: Hard drive on this computer
Cancel I don't know where this program is from or what it's for.	Show details
Allow I trust this program. I know where it's from or I've used it before.	Change when these notifications appear
User Account Control helps stop unauthorized changes to your computer.	

Internet

Appendix 8.2 Methods for preventing the warning message

POINT

The user account control (UAC) function prevents a crash (e.g. prevention of startup of a program which executes unintended operation). Before setting this function, grasp that the security function offered by UAC will be disabled and fully understand the risk.

The following two methods are available for preventing a warning message.

 Disabling the user account control function The following shows a procedure for disabling the user account control function.

1) Select [Start] - [Control Panel].

(a) When using Windows Vista®



2) Select [User Accounts].

(To the next page)

(From the previous page)



(Setting completion)

3) Select [User Accounts].

4) Select [Turn User Account Control on or off].

5) Deselect [Turn on User Account Control (UAC) to make your computer more secure] and click OK.





1) Select [Start] - [Control Panel].

2) Select [System and Security].

3) Select [Change User Account Control settings].

(To the next page)

(From the previous page)



(Setting completion)

4) Set the slide bar "Never notify" and click OK.

(2) Allowing the warning message without showing it The following shows a procedure for allowing a warning message without showing it.



1) Select [Start] – [Control Panel].

2) Select [System and Security].

When using Windows Vista®, select [Classic View].

(From the previous page)




(From the previous page)





6) Select [Security Options].

 Select [User Account Control: Behavior of the elevation prompt for administrators in Admin Approval Mode Prompt for consent.

 Select [Elevate without prompting] on the <<Local Security Setting>> tab, and click OK.



(Setting completion)

Appendix 9 Restrictions by DEP function

Appendix 9.1 Data Execution Prevention (DEP)

Beginning with Windows XP[®] SP2, Microsoft Corporation implements DEP for Security Enhancement. For details of DEP, refer to the following documents provided by Microsoft Corporation.

1) "How to Configure Memory Protection in Windows[®] XP SP2" available at TechNet Security ThechCenter

http://technet.microsoft.com/en-us/library/cc700810.aspx

- 2) Microsoft[®] Help and Support Article ID: 875352 http://support.microsoft.com/kb/875352/en-us
 - http://support.microsoft.com/kb/875352/en-
- (URLs as of Nov 10, 2008)

Appendix 9.2 Symptoms

The effect of DEP may cause problems as the creation of a user application using an ACT control or the execution of them.

We have confirmed the occurrence of the following problems due to the effect of DEP. For details of each symptom, refer to "Appendix 9.5 Workarounds for Problems".

Situation	No	Symptom	Description
Creation of a user application	1	An ACT control added on a form may not be displayed.	An ACT control may not be displayed if it is added on a form in a Visual Studio [®] .NET project.
	2	Adding an ACT control to a form ends Visual Studio [®] in error.	When a Visual Studio [®] .NET project is created and an ACT control is added to a form, Visual Studio [®] ends in error.
	3	The designer display may be failed.	An error may occur if a form on which an ACT control is added is opened in a Visual Studio [®] .NET project.
	4	Displaying a designer fails to display an ACT control.	If a form on which an ACT control is added is opened in a Visual Studio [®] .NET project, the ACT control is not displayed.
	5	Displaying a designer ends Visual Studio [®] in error.	If a form on which an ACT control is added is opened in a Visual Studio [®] .NET project, Visual Studio [®] ends in error.
	6	Testing a dialog box may end Visual Studio [®] in error.	Adding an ACT control and testing a dialog box in an MFC project may end Visual Studio [®] in error.
Execution of a user application	7	Executing an MFC project program may cause an error.	An error may occur if an MFC project program including a form with an ACT control is created and executed.

Appendix 9.3 DEP Configurations that May Cause Problems

In the creation environment and execution environment of user applications, problems may occur due to the combination of the versions of the OS/Visual Studio[®] being used and the DEP configurations. The following shows the combinations that may cause problems.

If your environment corresponds to any of the following combinations, make settings in accordance with the 'Flow chart for avoiding problems' (Refer to "Appendix 9.4 Configurations for Avoiding Problems due to the Effect of DEP").

POINT

In Windows[®] XP, Windows Vista[®] and 32-bit/64-bit Windows[®] 7 alike, the DEP configuration is "OptIn" by default.

If the configuration is uncertain, confirm it.

(For the method for confirming, refer to Appendix 9.4.)

(1) Creation environment of user applications

The following shows the DEP configurations that may cause problems in the creation environment of user applications.

Creation enviror	DEP configurations that may cause problems	
Windows Vista [®] , 32-bit/64-bit Windows [®] 7	Visual Studio [®] 2010 Visual Studio [®] 2008	Optin, OptOut, AlwaysOn
	Visual Studio [®] 2005	
	Visual Studio [®] 2010	Always Or
Windows [®] XP	Visual Studio [®] 2008	AlwaysOn
	Visual Studio [®] 2005	

(2) Execution environment of user applications

Problem may occur depending on the execution environment when an MFC project user application is created with Visual Studio[®] 2008 and Visual Studio[®] 2010. (For distinguishing MFC projects, refer to "Appendix 9.6 Distinguishing Types of Projects".)

The following shows the DEP configurations that may cause problems in the execution environment of user applications.

Execution environment	DEP configurations that may cause problems
Windows Vista [®] , 32-bit Windows [®] 7	OptIn, OptOut, AlwaysOn
Windows [®] XP	AlwaysOn

Appendix 9.4 Configurations for Avoiding Problems due to the Effect of DEP

- Flow Chart for Avoiding Problems
 Make settings in accordance with the following flow chart to avoid problems
 caused by the effect of DEP.
 - (a) Creation environment of user applications



<Flow chart for avoiding problems in the creation environment>



(b) Execution environment of user applications

<Flow chart for avoiding problems in the execution environment>

(2) Confirming DEP Configuration

In Windows[®] XP, Windows Vista[®] and 32-bit/64-bit Windows[®] 7 alike, the DEP configuration is "OptIn" by default. If the configuration is uncertain, confirm it in the following way.

- (a) Windows Vista[®] and 32-bit/64-bit Windows[®] 7 Perform the following operations with administrator privileges.
 - 1) Select [Start]-[All Programs]-[Accessories].
 - 2) Right click on [Command Prompt] and select [Run As Administrator].



3) Input the following command.

BCDEDIT

4) The current DEP configuration is shown on the line "nx" in the following screen.

Administrator: Command I	Prompt	
identifier device description locale inherit default displayorder toolsdisplayorder timeout Windows Boot Loader	<pre>{bootmgr} partition=C: Windows Boot Manager en-US {globalsettings} {current} {current} {memdiag} 30</pre>	
identifier device path description locale inherit osdevice systemroot	<pre>{current} partition=C: Windows\system32\winload.exe Microsoft Windows Vista en-US {bootloadersettings} partition=C: Vindows</pre>	
1× C:\Windows\system32>,	<u>(5 19797</u>):1-a7c8-11dd-ae71-df374d379591) OptIn	

(b) Windows® XP

Perform the following operations with administrator privileges.

- 1) Select [Start]-[Control Panel].
- 2) Under "Pick a category", Select "Performance and Maintenance".
- 3) Under "or pick a Control Panel icon", select "System".
- 4) In the <<Advanced>> tab, and select <u>Settings</u> in the "Startup and Recovery" area.
- 5) Select Edit in the "System startup" area.

Startup and Recovery	=		?×
System startup Default operating system: "Microsoft Windows XP Professional" /fastdetect /N	loExe	cute	=05 🗸
Time to display list of operating systems:	30	**	seconds
Time to display recovery options when needed: To edit the startup options file manually, dick Edit.	30	*	seconds

6) Refer to the next line to [operating systems] in your boot.ini file.



*1: Might be different depending on the environment.

Confirm the DEP configuration from the description of the line starting with "multi...". Refer to the following table.

Description of boot.ini	DEP configuration	
Not including "/noexecute="	OptIn	
"/noexecute=OptIn"	OptIn	
"/noexecute=OptOut"	OptOut	
"/noexecute=AlwaysOn"	AlwaysOn	
"/noexecute=AlwaysOff"	AlwaysOff	

(3) DEP Configuration

The following shows the configurations for avoiding problems due to the effect of the DEP.

(a) Creation environment of user applications

In the environment where user applications are created, configure DEP as follows.

Creation environment		DEP configuration	
Windows Vista [®] ,	Visual Studio [®] 2010	AlwaysOff	
32-bit/64-bit Windows [®] 7	Visual Studio [®] 2008		
SZ-DIV64-DIL WINDOWS 7	Visual Studio [®] 2005	Other than AlwaysOn	
	Visual Studio [®] 2010	(When AlwaysOn:	
Windows [®] XP	Visual Studio [®] 2008	Change to OptIn,	
	Viewel Otheria® 2005	When other than AlwaysOn:	
	Visual Studio [®] 2005	No change necessary)	

- (b) Execution environment of user applications When user applications are created with MFC projects of Visual Studio[®] 2008 and Visual Studio[®] 2010, configure DEP in the execution environment as follows. Problems can be avoided by changing the DEP configuration and linker option (recreating programs).
 - 1) Possible to change the linker option and create user applications

Select "Image is not compatible with DEP (/NXCOMPAT:NO)" in [Linker]-[Advanced]-[Data Execution Prevention (DEP)] in the MFC project Property Pages, and create user applications. Configure DEP as follows.

Execution environment	DEP configuration
Windows Vista [®] ,	Other than AlwaysOn
32-bit Windows [®] 7	(When AlwaysOn:
	Change to OptIn,
Windows [®] XP	When other than AlwaysOn:
	No change necessary)

 Impossible to change the linker option When the linker option cannot be changed (when programs cannot be recreated), configure DEP to "AlwaysOFF".

Execution environment	DEP configuration
Windows Vista [®] ,	
32-bit Windows [®] 7	AlwaysOff
Windows [®] XP	

- (4) Changing DEP Configuration
 - (a) Windows Vista[®] and 32-bit/64-bit Windows[®] 7 Perform the following operations with administrator privileges.
 - 1) Select [Start]-[All Programs]-[Accessories].
 - 2) Right click on [Command Prompt] and select [Run As Administrator].



3) Execute the following command.

DEP to be configured	Command that should be executed
OptIn	BCDEDIT /SET nx OptIn
OptOut	BCDEDIT /SET nx OptOut
AlwaysOff	BCDEDIT /SET nx AlwaysOff

- 4) Restart the personal computer.
- (b) Windows® XP
 - 1) Select [Start]-[Control Panel].
 - 2) Under "Pick a category", Select "Performance and Maintenance".
 - 3) Under "or pick a Control Panel icon", select "System".
 - 4) In the <<Advanced>> tab, and select <u>Settings</u> in the "Startup and Recovery" area.
 - 5) Select Edit in the "System startup" area.





*1: Might be different depending on the environment.

6) Edit the boot.ini file as follows.

Description of boot.ini	Modification method
Not including	Add the following description at the end of the line
"/noexecute="	starting with "multi", which is the next to the line
	[operation systems].
	When changing to OptOut: "/noexecute=OptOut"
	When changing to AlwaysOff:
	"/noexecute=AlwaysOff"
Including "/noexecute="	Replace a description following "/noexecute=" to the
	DEP configuration to be.
	When changing to Optin: "/noexecute=OptIn"
	When changing to OptOut: "/noexecute=OptOut"
	When changing to AlwaysOff:
	"/noexecute=AlwaysOff"

POINT

Be sure to edit the boot.ini carefully. The default configuration (OptIn) may be taken for incorrect settings.

Changing settings not explained above may result in Windows[®] XP not being able to start up.

- 7) In Notepad, select [File]-[Save].
- 8) Exit Notepad.
- 9) Click OK to close the Startup and Recovery dialog box.
- 10) Click OK to close the System Properties dialog box.
- 11) Restart the personal computer.

(5) Linker Option Setting

When creating an MFC project program with Visual Studio[®] 2008 and Visual Studio[®] 2010, build the program after making the following setting. (For distinguishing MFC projects, refer to "Appendix 9.6 Distinguishing Types of Projects".)

- 1) Set Data Execution Prevention (DEP) in the MFC project Property Pages.
- < Visual Studio® 2008 >

Select "Image is not compatible with DEP (/NXCOMPAT:NO)" in [Linker]-[Advanced]-[Data Execution Prevention (DEP)] in the MFC project Property Pages.

Configuration: Active(Debug)		•	Platform:	Active(W	in32)	•	Configuration Manag	ger	
Common Properties		•	Entry Po	oint					
Framework and Referen Configuration Properties General Debugging C/C++			No Entry Point		No	No			
			Set Che	cksum		No	No		
			Base Ad	Base Address					
			Randomized Base Address		Disab	le Image Randomi	zation (/DYNAMICBASE:	:NC	
			Fixed Ba	se Address		Defau	lt		
Linker			Data Execution Prevention (DEP)) e is n	e is not compatible with DEP (/NXCOMPAT:NO) -			
Gene			Turn Off Assembly Generation		Default		-		
Input			Delay Lo	Delay Loaded DLL		Image is not compatible with DEP (/NXCOMPAT:NO)			
Manifest File	Ξ	Import Library Ima		Image is com	Image is compatible with DEP (/NXCOMPAT)				
Debugging System		10	Merge Sections <inherit defaults="" from="" or="" parent="" project=""></inherit>		efaults>	- 11			
			Target M	Target Machine MachineX86 (/MACHIN		(E:X86)			
	Optimization Embedded IDL Advanced		Profile		No	No			
			CLR Thread Attribute		No th	No threading attribute set			
Command Line Manifest Tool			CLR Image Type		Defau	Default image type		_	
			Key File						
Resource	es		Key Container						
XML Document Generat Browse Information Build Events			Delay Si	gn		No	No		
		+	Data Execution Prevention (DEP) Indicates that an executable was tested to be compatible with the Windows Data Execution Prevention feature. (INXCOMPAT, INXCOMPATINO)						

< Visual Studio 2010 >

Select "No (/NXCOMPAT:NO)" in [Linker]-[Advanced]-[Data Execution Prevention (DEP)] in the MFC project Property Pages.

Configuration: Active(Deb	ng) Platform: Active(Win	32) Configuration Manager
Common Properties	Entry Point	main
Configuration Properties	No Entry Point	No
General	Set Checksum	No
Debugging	Base Address	
VC++ Directories	Randomized Base Address	Yes (/DYNAMICBASE)
b C/C++	Fixed Base Address	No (/FIXED:NO)
⊿ Linker	Data Execution Prevention (DEP	No (/NXCOMPAT:NO)
General	Turn Off Assembly Generation	No
Input	Unload delay loaded DLL	
Manifest File	Nobind delay loaded DLL	
Debugging	Import Library	
System	Merge Sections	
Optimization Embedded IDI	Target Machine	MachineX86 (/MACHINE:X86)
Advanced	Profile	No
Command Line	CLR Thread Attribute	
Manifest Tool	CLR Image Type	Default image type
Resources	Key File	5 31
XML Document Gen	rator Key Container	
Browse Information	Delay Sign	
b Build Events	CLR Unmanaged Code Check	
b Custom Build Step	Error Reporting	Queue For Next Login (/ERRORREPORT:QUEUE)
Managed Resources	SectionAlignment	
< III	Data Execution Prevention (DEP) Marks an executable as having been (/NXCOMPAT[:NO])	tested to be compatible with Windows Data Execution Prevention feature.

2) Build the program.

Appendix 9.5 Workarounds for Problems

This chapter explains the occurrence cause and workaround for each symptom caused due to the effect of DEP.

- (1) An ACT Control Added on a Form May not be Displayed
 - (a) Symptom

As a Visual Studio[®] .NET project program is created, an ACT control added on a form is not displayed. Only its solid border is shown as selected. (For distinguishing Visual Studio[®] .NET projects, refer to "Appendix 9.6 Distinguishing Types of Projects".)

Directory WindowsApplication - Microsoft Visual Studio		
File Edit View Project Build Debug Data Format Tools Test Window Help		
	· · · · · · · · · · · · · · · · · · ·	
(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		
Solution Explorer - Windo * # × Form1.h [Design]* Start Page		- × 🕼
LADIA .		0
Zestant Windowszepisatien (*) ^M / ⁴ Fignal .		 X Server Englow(F): Troopool
Sol. 20 Clau Pr. MRe.		
Conclust O Errors (Δ 0 Warnings (() 0 Messages		* # ×
Description	File	Line
Code Definition Window 20 Call Browser 💷 Output		
Ready	10.0	譜 75×23

(b) Occurrence Cause

This problem occurs if an ACT control is added on a form in a Visual Studio[®] .NET project when DEP is enabled to ACT controls. The following shows the cases that DEP is enabled.

One stime and incoment		DEP Configuration	
Creation	Creation environment		AlwaysOn
	Visual Studio [®] 2010	0	
64-bit Windows [®] 7	Visual Studio [®] 2008	0	
	Visual Studio [®] 2005	-	
Windows Vista $^{\mathbb{R}}$,	Visual Studio [®] 2008	0	0
32-bit Windows [®] 7	Visual Studio [®] 2005		
Windows [®] XP	Visual Studio [®] 2008	-	
WINDOWS - XP	Visual Studio [®] 2005		

O: Causes problems -: Does not causes problems

(c) Workaround

To workaround this problem, change the DEP configuration as follows.

Creation	environment	DEP Configuration
	Visual Studio [®] 2010	AlwayaOff
	Visual Studio [®] 2008	AlwaysOff
		Other than AlwaysOn
64-bit Windows [®] 7		(When AlwaysOn:
	Visual Studio [®] 2005	Change to OptIn,
		When other than AlwaysOn:
		No change necessary)
Windows Vista $^{\mathbb{R}}$,	Visual Studio [®] 2008	AlwaysOff
32-bit Windows [®] 7	Visual Studio [®] 2005	Other than AlwaysOn
	Visual Studio [®] 2008	(When AlwaysOn:
Windows [®] XP		Change to OptIn,
WINDOWS AP	Visual Studio [®] 2005	When other than AlwaysOn:
		No change necessary)

When the DEP configuration cannot be changed, this problem can be avoided by creating a program using an ACT control without pasting it to a form (Reference).

- (2) Adding an ACT Control to a Form Ends Visual Studio® in Error
 - (a) Symptom

When a Visual Studio[®] .NET project program is created, adding an ACT control to a form with the designer displays the following dialog box and ends Visual Studio[®] in error.

If a Visual Studio[®] .NET project program including a form with an ACT control is debugged, an exception may occur (0xC0000005:Access violation) and the program may be closed. (For distinguishing Visual Studio[®] .NET projects, refer to "Appendix 9.6 Distinguishing Types of Projects".)

😵 Mic	rosoft Visual Studio
0	Microsoft Visual Studio has encountered a problem and needs to close.
	If you had files open that contained unsaved changes, these changes might be lost.
	Check online for a solution and close the program
	Close the program
	Debug the program
۷ ک	iew problem details

(b) Occurrence Cause

The problem occurs if an ACT control is added to a form in a Visual Studio[®] .NET project while DEP is enabled to ACT controls. The following table lists whether a problem occurs with DEP enabled.

Creation on ironment		DEP Configuration	
Creation environment		OptIn, OptOut	AlwaysOn
Windows Vista [®] , 32-bit Windows [®] 7	Visual Studio [®] 2010	0	0
Windows [®] XP	Visual Studio [®] 2010	-	

O: Causes problems -: Does not causes problems

(c) Workaround

To workaround this problem, change the DEP configuration as follows.

Creation environment		DEP Configuration
Windows Vista $^{\$}$, 32-bit Windows $^{\$}$ 7	Visual Studio [®] 2010	AlwaysOff
Windows [®] XP	Visual Studio [®] 2010	Other than AlwaysOn (When AlwaysOn: Change to OptIn, When other than AlwaysOn: No change necessary)

- (3) Designer Display May be Failed
 - (a) Symptom

When a Visual Studio[®] .NET project program is created, opening a form including an ACT control with the designer may cause an error. (For distinguishing Visual Studio[®] .NET projects, refer to "Appendix 9.6 Distinguishing Types of Projects".)

20 WindowsApplication - Microsoft Vie	ual Studio				- 8 ×
File Edit View Project Build	Debug Data Tools Test Window Help				
10-0-000×00	ע - פו - גָאָ - אָ Debug - W	fin32 • 🙆	•		
薬しる部しを必用	別图葉 や珠蝶黒 き乾計++	田田県町田田			
Solution Explorer - Solutio + # ×	Form1.h [Design] Start Page				- × 🏢
A DEDA					A (0)
Solution 'WindowsApplication' (WindowsApplication Header Files	To prevent possible data loss t	before loading the designer, the following	ig errors must be resolved:		*
⊕ III Form1.h	0 1Error	Ignore and Continue		Why am I seeing this pa	age?
h) resource.h		emory. This is often an indication that other r	remory is corrupt.		C Toolt
app.ico	Instances of this error (1)				
- D app.rc	1. Show Call Stack				
- C Assembly Info.cpp	Help with this error				
Crif stdafs.cpp	MSDN Help				
- C WindowsApplication.	5 5 10 10 10 10 10 10 10 10 10 10 10 10 10				
HeadMe.bt	Forum posts about this error Search the MSDN Forums for posts rela	ted to this error			
	pear on the moon referring to posteries	neo to pilo error.			
					_
6 III					
Sol Si Cla SPr BRe					7
Error List					- 7 ×
O Errors 1 Warning (i) 0 Me	isages				
Description				File I	Line
Code Definition Window 20 Call Br	owser 🗐 Output 🍰 Error List				
Ready					

(b) Occurrence Cause

This problem occurs if a form including an ACT control is opened with the designer in a Visual Studio[®] .NET project when DEP is enabled to ACT controls.

The following shows the cases that DEP is enabled.

Creation environment		DEP Configuration	
		OptIn, OptOut	AlwaysOn
Windows Vista®,	Visual Studio [®] 2008	0	
32-bit Windows® 7	Visual Studio [®] 2005		
	Visual Studio [®] 2008	-	0
Windows [®] XP	Visual Studio [®] 2005		

O: Causes problems -: Does not causes problems

(c) Workaround

To workaround this problem, change the DEP configuration as follows.

Creation environment		DEP Configuration
Windows Vista [®] ,	Visual Studio [®] 2008	AlwaysOff
32-bit Windows® 7	Visual Studio [®] 2005	Other than AlwaysOn
	Visual Studio [®] 2008	(When AlwaysOn: Change to OptIn,
Windows [®] XP	Visual Studio [®] 2005	When other than AlwaysOn: No change necessary)

(4) Displaying a Designer Fails to Display an ACT Control

(a) Symptom

If a form including an ACT control is opened with the designer when a Visual Studio[®] .NET project program is created, the ACT control is not displayed. Only its solid border is shown as selected. (For distinguishing Visual Studio[®] .NET projects, refer to "Appendix 9.6 Distinguishing Types of Projects".)



(b) Occurrence Cause

This problem occurs if a form including an ACT control is opened with the designer in a Visual Studio[®] .NET project when DEP is enabled to ACT controls.

The following shows the cases that DEP is enabled.

Creation on incompany		DEP Configuration	
Creation environment		OptIn, OptOut	AlwaysOn
	Visual Studio [®] 2010		
64-bit Windows® 7	Visual Studio [®] 2008	0	0
	Visual Studio [®] 2005	_	

O: Causes problems -: Does not causes problems

(c) Workaround

To workaround this problem, change the DEP configuration as follows.

Creation environment		DEP Configuration	
64-bit Windows [®] 7	Visual Studio [®] 2010	AlwayaOff	
	Visual Studio [®] 2008	AlwaysOff	
	Visual Studio [®] 2005	Other than AlwaysOn	
		(When AlwaysOn:	
		Change to OptIn,	
		When other than AlwaysOn:	
		No change necessary)	

- (5) Displaying a Designer Ends Visual Studio® in Error
 - (a) Symptom

If a form including an ACT control is opened with the designer when a Visual Studio[®] .NET project program is created, the following dialog box appears and Visual Studio[®] ends in error.

If a Visual Studio[®] .NET project program including a form with an ACT control is debugged, an exception may occur (0xC0000005:Access violation) and the program may be closed. (For distinguishing Visual Studio[®] .NET projects, refer to "Appendix 9.6 Distinguishing Types of Projects".)

😽 Mici	rosoft Visual Studio
00	Microsoft Visual Studio has encountered a problem and needs to close.
	If you had files open that contained unsaved changes, these changes might be lost.
	Check online for a solution and close the program
	Close the program
	Debug the program
🕑 V	iew problem details

(b) Occurrence Cause

The problem occurs if a form including an ACT control is opened with the designer in a Visual Studio[®] .NET project while DEP is enabled to ACT controls.

The following shows the cases that DEP is enabled.

Orretier		DEP Configuration		
Creation	environment	OptIn, OptOut	AlwaysOn	
Windows Vista [®] , 32-bit Windows [®] 7	Visual Studio [®] 2010	0	0	
Windows [®] XP	Visual Studio [®] 2010	-		

O: Causes problems -: Does not causes problems

(c) Workaround

To workaround this problem, change the DEP configuration as follows.

Creation	n environment	DEP Configuration	
Windows Vista [®] , 32-bit Windows [®] 7		AlwaysOff	
Windows [®] XP	Visual Studio [®] 2010	Other than AlwaysOn (When AlwaysOn: Change to OptIn, When other than AlwaysOn: No change necessary)	

(6) Testing a Dialog Box May End Visual Studio® in Error

(a) Symptom

When an MFC project program is created, testing a dialog box may end Visual Studio[®] in error. (For distinguishing MFC projects, refer to "Appendix 9.6 Distinguishing Types of Projects".)

Align	•	Microsoft Windows
Space Evenly	٠	Microsoft Visual Studio 2008 has stopped working
Make Same Size Arrange Button	7 (S)	Windows can check online for a solution to the problem the next time you go online and try to restart the program.
Center in Dialog Size to Content	T () -	Check online for a solution later and restart the program
Auto Size Flip	•	Restart the program
Tab Order		Debug the program
Guide Settings.	a	
Toggle Guides	nics	View problem details
Test Dialog		

(b) Occurrence Cause

This problem occurs if an ACT control is added on a form and then "Test Dialog" is performed in an MFC project when DEP is enabled to ACT controls.

The following shows the cases that DEP is enabled.

Creation environment		DEP Configuration		
		OptIn, OptOut	AlwaysOn	
Windows Vista [®] , 32-bit Windows [®] 7	Visual Studio [®] 2010		0	
	Visual Studio [®] 2008	0		
	Visual Studio [®] 2005			
	Visual Studio [®] 2010			
Windows [®] XP	Visual Studio [®] 2008	-		
	Visual Studio [®] 2005			

O: Causes problems -: Does not causes problems

(c) Workaround

To workaround this problem, change the DEP configuration as follows.

Creation e	environment	DEP Configuration
Mindows Misto®	Visual Studio [®] 2010	AlwayaOff
Windows Vista [®] , 32-bit Windows [®] 7	Visual Studio [®] 2008	AlwaysOff
	Visual Studio [®] 2005	Other than AlwaysOn
	Visual Studio [®] 2010	(When AlwaysOn:
Windows [®] XP	Visual Studio [®] 2008	Change to OptIn,
		When other than AlwaysOn:
	Visual Studio [®] 2005	No change necessary)

(7) Executing an MFC Project Program May Cause an Error

(a) Symptom

When an MFC project program including a form with an ACT control is created and executed, the following dialog box may be displayed and the program may be closed. When an MFC project program including a form with an ACT control is debugged with Visual Studio[®] 2008 and Visual Studio[®] 2010, an exception may occur (0xC0000005:Access violation) and the program may be closed. (For distinguishing MFC projects, refer to "Appendix 9.6 Distinguishing Types of Projects".)



*1: The character string specified in "FileDescription" of "VS_VERSION_INFO" in the resource is displayed as the program name.

When <u>Close the program</u> is clicked, the message "To protect your computer, Data Execution Prevention has closed the program^{*1}." is displayed on the task bar.



*1: The character string specified in "FileDescription" of "VS_VERSION_INFO" in the resource is displayed as the program name.

(b) Occurrence Cause

This problem occurs if any of the following conditions is true when a program including a form with an ACT control is created.

Execution	DEP configuration			
environment	AlwaysOn			
Windows Vista [®] , 32-bit Windows [®] 7	Causes problems only if "Image is compatible with DEP" is selected in [Linker]- [Advanced]-[Data Execution Prevention (DEP)] in the Property Pages when the program is created (built).	0		
Windows [®] XP	-			

(c) Workaround

To workaround this problem, change the DEP configuration and the linker option (recreate the program).

1) Possible to change the linker option and create user applications

Select "Image is not compatible with DEP (/NXCOMPAT:NO)" in [Linker]-[Advanced]-[Data Execution Prevention (DEP)] in the MFC project Property Pages, and create user applications. Configure DEP as follows.

Execution environment	DEP configuration	
Windows Vista [®] ,	Other than AlwaysOn	
32-bit Windows [®] 7 Windows [®] XP	(When AlwaysOn:	
	Change to OptIn,	
	When other than AlwaysOn:	
	No change necessary)	

Impossible to change the linker option
 When the linker option cannot be changed (when

When the linker option cannot be changed (when programs cannot be recreated), configure DEP to "AlwaysOFF".

Execution environment	DEP configuration	
Windows Vista [®] ,		
32-bit Windows® 7	AlwaysOff	
Windows [®] XP		

Appendix 9.6 Distinguishing Types of Projects

Types of projects can be distinguished based on the way of opening its form in the designer.

The following shows the both cases of a Visual Studio[®] .NET project and MFC project.

(1) Visual Studio[®] .Net project

In the "Solution Explorer", double click a form (*.h file or *.vb file). When a form is opened in this way, its project type is the Visual Studio[®] .NET project.

Solution Explorer - Solutio • 7 ×	Form1.h [Design] Start Pag	le		
Solution 'Sample2005' (1 project)	P⊒ Sample			
Header Files	Control O ActEasylF O ActQCPUQ	LogicalStationNu	umber:	Open
h stdafx.h	<u></u>			Close
Gource Files ReadMe.txt	Random Read/Write DeviceName:	DeviceSize:	DeviceData:	- <u></u>
Keadivie.txt		1 ()	•	ReadDeviceRandom2
				WriteDeviceRandom2
	Block Read/Write			
	DeviceName:	DeviceSize:	DeviceData:	ReadDeviceBlock2
				WriteDeviceBlock2
Sol 🖾 Cla 🔂 Pr 🗐 Re			*ico	

(2) MFC project

In the "Resource view", double click a resource ID under [Dialog]. When a form is opened in this way, its project type is the MFC project.

sampleEng.rc Dialog IDD_ABOUTBOX	CustomS			11111111111 		8
IDD_ABOUTBOX IDD_SAMPLEENG_DIALOG Icon Icon Icon Icon Icon Icon Icon Icon		Open C Ge ce Name ce Value	AJ71QE71UDP ommunication (CpuType Sample edit box Sample edit box communication	CetDevice	Outpu	nple edit box
< ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰				•		

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MX Component Version 3

Operating Manual

MODEL MELS3-ACTE-O-E

13JU32

MODEL CODE

SH(NA)-080271-S(1307)KWIX

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