# MX Component Version 4

## **Operating Manual**

# **MITSUBISHI**





MELSOFT Integrated FA Software

SW4DNC-ACT-E



(Read these precautions before using this product.)

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

The precautions given in this manual are concerned with this product. For the safety precautions of the programmable controller system, refer to the User's Manual for the CPU module.

In this manual, the safety precautions are classified into two levels: "<u>\</u> WARNING" and "<u>\</u> CAUTION".



Under some circumstances, failure to observe the precautions given under "<u>CAUTION</u>" may lead to serious consequences.

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

## [Design Instructions]

## 

• When data change, program change, or status control is performed from a personal computer to a running programmable controller, create an interlock circuit outside the programmable controller to ensure that the whole system always operates safely.

Furthermore, for the online operations performed from a personal computer to a programmable controller CPU, the corrective actions against a communication error due to such as a cable connection fault should be predetermined as a system.

# 

 The online operations performed from a personal computer to a running programmable controller CPU (forced output and operating status changes) must be executed after the manual has been carefully read and the safety has been ensured.

The operation failure may cause the injury or machine damage.

# **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.

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Prohibited Applications include, but not limited to, the use of the PRODUCT in;

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  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.

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# **OPERATING CONSIDERATIONS**

#### This section explains the considerations in the following order.

- 1) Consideration of operating system and personal computer to be used
- 2) Consideration of installation and uninstallation
- 3) Programmable controller CPU-related considerations
- 4) Considerations for using of other MELSOFT products
- 5) Considerations for using of Ethernet modules
- 6) Considerations for using of CC-Link modules
- 7) Considerations for using of serial communication modules
- 8) Consideration of modem communication
- 9) Consideration of programming
- 10) Considerations for using of Microsoft<sup>®</sup> Excel<sup>®</sup>
- 11) Considerations for using of Microsoft<sup>®</sup> Access<sup>®</sup>
- 12) Considerations for using of VBScript

#### Considerations of operating system and personal computer to be used

- (1) Restrictions applied when a user without Administrator's authority operates MX Component Note that the following restrictions are applied when a user without Administrator's authority operates MX Component.
  - (a) Communication Setup Utility
    - The logical station number cannot be created, changed, or deleted.
    - Communication settings cannot be imported.
    - This utility cannot be started up if the communication settings are set using MX Component earlier than Version 3.00A.<sup>\*1</sup>

#### (b) PLC Monitor Utility

- This utility cannot be started up if the communication settings are set using MX Component earlier than Version 3.00A.<sup>\*1</sup>
- Device registration cannot be performed on the <<Entry Device>> tab.
- (c) Communication board
  - Various settings cannot be set on the CC-Link IE Controller Network, CC-Link IE Field Network, MELSECNET/H, and CC-Link board utilities.
  - \*1: If the following error message is displayed, start up and close the utility as a user with Administrator's authority. This operation enables a user without Administrator's authority to start up the utility.

| Communic | ation Setting Wizard                                                                                                                                              |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8        | Updating the system information data failed.<br>There is a possibility without the operation authority. Please execute it<br>by the administrator authority user. |
|          | There is a possibility that the operating environment of the application<br>is corrupt.<br>Re-install the application and try again.                              |
|          | ОК                                                                                                                                                                |

#### (2) Resume and other functions of personal computer

A communications error may occur when communicating 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 communicating with the programmable controller CPU.

#### Considerations of installation and uninstallation

#### (1) Installation

When performing overwrite installation, install the software in the same folder where it is installed previously.

#### (2) Start menu

When MX Component is uninstalled, the item may remain in the start menu. In this case, restart the personal computer.

#### Programmable controller CPU-related considerations

#### (1) Considerations for performing USB communication

ON/OFF of a programmable controller CPU during communications with the programmable controller CPU may cause a communication error which cannot be recovered.

If it is not recovered, completely disconnect the USB cable and then reconnect it after 5 or more seconds. (If this error occurs at the initial communication after the above operation, the function will be performed properly in and after the second communications.)

#### (2) Time data of programmable controller CPU

- (a) For QCPU (Q mode), LCPU, and FXCPU, the time data setting can be set if the programmable controller CPU is in the RUN status.
- (b) For QCPU (Q mode) and LCPU, the setting can be set regardless of the ON/OFF status of the time setting device "SM1028".
- (c) For FXCPU, the setting can be set for FX<sub>1N</sub> (clock built-in), FX<sub>1NC</sub> (clock built-in), FX<sub>1S</sub> (clock built-in), FX<sub>2N</sub> (clock built-in), FX<sub>2NC</sub> (when RTC cassette is installed), FX<sub>2</sub> (when RTC cassette is installed), FX<sub>2</sub> (when RTC cassette is installed), FX<sub>2</sub> (when RTC cassette is installed), and FX<sub>3</sub> (clock built-in) only.
- (d) Note that an error for transfer time occurs in the time setting.

#### (3) Restrictions on using FXCPU

- (a) When FXCPU is used, the TN devices (timer present values) or CN devices (counter present values) cannot be accessed if the device numbers specified are split across 199 or earlier and 200 or later.
- (b) Since FXCPU does not feature the 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 FXCPU, data cannot be written to 2 or more consecutive points using WriteDeviceBlock(). (Data may be written to only one point.)

#### (4) Serial communication function of Q00UJ/Q00/Q00U/Q01/Q01U/Q02UCPU<sup>\*1</sup>

\*1: In this section, "serial communication function compatible CPU" indicates Q00UJ/Q00/Q00U/Q01/Q01U/Q02UCPU. When the following conditions are all satisfied, communication between the personal computer and the serial communication function compatible CPU is set at 9600bps speed.

- The serial communication function of the connected CPU is valid.
- The transmission speed settings differ between the personal computer and the serial communication function compatible CPU side.

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

#### (5) Considerations for using built-in Ethernet port CPU

When resetting the programmable controller CPU during TCP/IP connection establishment (during opening) using MX Component, a communication error or receive error occurs at subsequent communication. In this case, perform the close processing in the application that uses MX Component, and perform the open processing again.

#### (6) Considerations for using QSCPU

In order to protect the safety programmable controller system, functions to write data to buffer memory, to write/ set devices, and to write time data cannot be executed.

#### Considerations for using other MELSOFT products

#### (1) Considerations for performing GX Simulator communication

When resetting the programmable controller CPU during TCP/IP connection establishment (during opening) using MX Component, a communication error or receive error occurs at subsequent communication. In this case, perform the close processing in the application that uses MX Component, and perform the open processing again.

#### Considerations for using Ethernet modules

#### (1) Resetting the programmable controller CPU during TCP/IP connection establishment

When resetting programmable controller CPU during TCP/IP connection establishment (during opening) using MX Component, a communication error or receive error occurs at subsequent communication. In this case, perform close the processing in the application that uses MX Component, and perform the open processing again.

#### (2) Target existence check starting interval of Ethernet module

If the close processing (Close) is executed from the personal computer, the Ethernet module may not perform the close processing (Close). One of its causes is the cable disconnection.

If the open processing (Open) is executed from the personal computer with the Ethernet module not executing the close processing (Close), the open processing (Open) from the personal computer is not terminated normally until the Ethernet module performs a target existence check and executes the close processing (Close).

When terminating the open processing (Open) early from the personal computer, shorten the target existence check starting interval setting of the Ethernet module.

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

#### (3) Replacement of Ethernet module

If the Ethernet modules are changed during Ethernet communication due to debugging, failure or the like, the other node (personal computer) must be restarted.

(Because 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 performed simultaneously from multiple personal computers 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 higher 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 also set on the lower layer, communication cannot be performed with the programmable controller CPU on the lower layer.



#### (6) Ethernet communication

- (a) The communication line is disconnected if the CPU becomes faulty or the Ethernet module is reset during Ethernet communication (when the protocol is TCP/IP).
   In this case, perform the line close processing (Close) and then perform the reopen processing (Open).
- (b) When two different communication systems (protocols) are used to access from one personal computer to one Q series-compatible E71, two station numbers TCP/IP and for UDP/IP must be set. However, it is not required to set different station numbers for TCP/IP and for UDP/IP when using MX Component Version 3 or later and Q series-compatible E71 with serial number 05051 or higher.

Example When MX Component uses TCP/IP and GX Developer uses UDP/IP



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.

#### Considerations for using CC-Link modules

#### (1) Software version of CC-Link master/local module

For CC-Link master/local modules used in CC-Link communication, use modules of software version "N" or later. Modules of software version "M" or earlier do not operate normally.

#### Considerations for using serial communication modules

#### (1) Serial communication

- (a) On any serial communication modules, remote "PAUSE" operation will result in an error for all connections.
- (b) The FX extended port is required when performing the serial communication using FX<sub>0N</sub>, FX<sub>1S</sub>, FX<sub>1N(C)</sub>, FX<sub>3G</sub>, or FX<sub>3U(C)</sub>CPU.

#### (2) Considerations for connecting personal computer and serial communication module

 (a) When using QJ71C24-R2 of function version A An MX Component application can use only either of CH1 and CH2.
 When the MELSOFT product, (GX Developer, GOT, or the like) is using one channel, the application cannot use the other channel.
 When Q IZ1C24 R2 of function version R is used, the application can use both channels.

When QJ71C24-R2 of function version B is used, the application can use both channels.

#### Considerations of modem communication

#### (1) Simultaneous modem communications

The simultaneous modem communications using MX Component and other applications (GX Developer or the like) cannot be performed.

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) Considerations for using telephone line

- (a) Do not use the call-waiting phone line.
   On the call-waiting phone line, data corruption, telephone line disconnection, or similar problem 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 adapter.
   When the telephone line is 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 connections.

#### (3) Considerations for using cellular phone

#### (a) Modem for radio communication using a cellular phone

Although the modem name is different according to the manufacturer, 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 features the ANS/ORG/TEL select switch.

If the cellular phone communication unit does not have the ANS/ORG/TEL select switch, the line cannot be connected.

The line connection procedure is different according to the cellular phone company and cellular phone model. For details, contact the manufacturer of your cellular phone.

#### Considerations of programming

#### (1) Sample programs, test programs, and sample sequence programs

#### (a) Sample programs and test programs

Sample programs are included for references when creating user programs. Test programs are included for conducting communication tests. Use the programs with your responsibility.

#### (b) Sample sequence programs

Sample sequence programs included in MX Component require modifications according to the system configuration and parameter settings.

Modify the program to suit the system.

Use the programs with your responsibility.

#### (2) Forced termination of processes during communication

If communication is performed 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) Error at communication start

A communication error may occur within the preset time-out period at a communication start, for example, when the communication diagnostic button is pressed, when a monitoring is started, or when any function is executed. These errors are assumed to be detected before a time-out error.

(Example: When the communication cable is not connected, at when the programmable controller power is off)

#### (4) CheckDeviceString

Do not use the CheckDeviceString method of ACT control.

#### (5) ActUMsg control and ActUWzd control

Installing MX Component registers the ActUMsg control and the ActUWzd control, however, do not use them.

#### (6) Considerations for using Ethernet modules

- (a) Provide an interval longer than the sequence scan time of the Ethernet module mounted station for a period from when the Open method is executed until the Close method is executed.
- (b) Provide an interval of at least 500ms for a period from when the Close method is executed until the Open method is executed again.

#### (7) Considerations for execution of Disconnect

If a telephone line cannot be disconnect by executing the Disconnect function for some reason, power OFF the modem being used to forcibly disconnect the telephone line.

### Considerations for using $Microsoft^{\mathbb{R}} \operatorname{Excel}^{\mathbb{R}}$

#### (1) Considerations for using Excel VBA

If the page feed preview function is set in the application that uses Excel VBA, a memory leak or operating system basic operation (file operation, printing, or the like) failure may occur.

#### (2) Considerations for using Microsoft<sup>®</sup> Excel<sup>®</sup>

(a) Occasionally, controls may not be pasted to Excel.
 This symptom occurs if the cache file (temporary file) of Excel remains.
 In such a case, perform the operation in the following procedure.

#### Operating procedure

- **1.** Close Excel.
- 2. Delete "\*.exd" in the Excel 8.0 folder of the temp folders. \*1, \*2
- 3. Restart Excel.
- \*1: The location of temp folder differs according to the operating system.
- \*2: When the corresponding folder and file are not displayed, set the settings in the folder option setting to display all files and folders.
- (b) Resizing of ACT control in Excel does not affect the operation of MX Component. To restore the size, set the Height and Width properties of ACT control to "24".

### Considerations for using Microsoft<sup>®</sup> Access<sup>®</sup>

#### (1) Considerations for using Microsoft<sup>®</sup> Access<sup>®</sup>

(a) When the ACT control is pasted to an Access form and the ACT control is double-clicked or the custom control in the property is selected, the following error message is displayed. However, this does not affect the operation of ACT control.

(An error message other than the following message may be displayed.)

| Microsoft | Access                                                            |
|-----------|-------------------------------------------------------------------|
| _         | The operation on the MITSUBISHI ActUtlType Control object failed. |
| 1         | The OLE server may not be registered.                             |
|           | To register the OLE server, reinstall it.                         |
|           | OK                                                                |

- (b) When the ACT control is pasted and the property is displayed, the displayed property name may be collapsed. This symptom only occurs on the display of the property, and this does not affect the functions of the property.
- (c) Resizing of ACT control in Access does not affect the operation of MX Component. To restore the size, set the Height and Width properties of ACT control to "24".

#### **Considerations for using VBScript**

#### (1) Security of the Internet/intranet when using VBScript

MX Component does not feature the Internet/intranet security function. When the security function is required, set the setting on the user side.

# INTRODUCTION

Thank you for your patronage. We appreciate your purchase of the Mitsubishi integrated FA software, MELSOFT series. This manual is designed for users to understand operations of MX Component.

Before using the product, thoroughly read this manual and related manuals to develop full familiarity with the functions and performance of MX Component and supported modules to ensure correct use.

# **RELATED MANUALS**

The manuals related to this product are shown below.

Refer to the following tables when ordering required manuals.

. . . . . . . . . . . . . . . .

| Manual name                                                 | Description                                                         |  |
|-------------------------------------------------------------|---------------------------------------------------------------------|--|
| < Manual number, model code >                               |                                                                     |  |
| MX Component Version 4 Programming Manual                   | Explains the programming procedures, detailed explanations and      |  |
| <sh-081085eng, 13jw12=""></sh-081085eng,>                   | error codes of the ACT controls.                                    |  |
| Type Q80BD-J61BT11N/Q81BD-J61BT11 CC-Link System Master/    | Explains the system configuration, specifications, functions,       |  |
| Local Interface Board User's Manual (For SW1DNC-CCBD2-B)    | handling, wiring, and troubleshooting of the type Q80BD-J61BT11N/   |  |
| <sh-080527eng, 13jr77=""></sh-080527eng,>                   | Q81BD-J61BT11 CC-Link system master/local interface board.          |  |
| MELSECNET/H Interface Board User's Manual                   | Explains the system configuration, specifications, functions,       |  |
| SH-080128, 13JR24>                                          | handling, wiring, and troubleshooting of the MELSEC/H board.        |  |
| CC-Link IE Controller Network Interface Board User's Manual | Explains the system configuration, specifications, functions,       |  |
| (For SW1DNC-MNETG-B)                                        | handling, wiring, and troubleshooting of the CC-Link IE             |  |
| <sh-080691eng, 13jz02=""></sh-080691eng,>                   | Controller Network board.                                           |  |
| GX Simulator Version 7 Operating Manual                     | Explains the setting and operating method for monitoring the device |  |
| SH-080468ENG, 13JU51>                                       | memory and simulating the machine side operations using GX          |  |
| ·                                                           | Simulator.                                                          |  |
| GX Works2 Version 1 Operating Manual (Common)               | Explains the system configuration of GX Works2 and the functions    |  |
| - SH-080779ENG, 13JU63>                                     | common to a Simple project and Structured project such as           |  |
|                                                             | parameter setting, operation method for the online function.        |  |

Remark

MX Component Version 4 Programming Manual is included on the CD-ROM of the software package in a PDF file format. Manuals in printed form are sold separately for single purchase. Order a manual by quoting the manual number (model code) listed in the table above.

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# HOW TO READ THIS MANUAL

The following explains the page composition and symbols in this manual.

The content of the example page used here are different from the actual content for the intention of explaining how to use this manual.



Operating procedure

The following three types of procedure are found under Operating procedure .

1) When the operation is performed with a single step

```
℃ [Start] ⇔ [All Programs] ⇔ [MELSOFT Applictaion] ⇔ [MX Component]
```

2) When the operation is performed with multiple steps

**1.** Turn OFF the personal computer.

**2.** Turn OFF the conversion cable/converter. Ground the FG terminal if provided.

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

- <sup>™</sup> [Menu] ⇔ [Exit Communication Setup Utility]
- Click the **Exit** button at bottom right of the screen.

· Symbols used in this manual

The following shows the symbols used in this manual with descriptions and examples.



| No. | Notation    | Description           | Example                                |  |
|-----|-------------|-----------------------|----------------------------------------|--|
| 1   | (Underline) | Screen name           | Communication Setup Utility screen     |  |
| 2   | []          | Menu name on menu bar | [Menu] ⇔ [Target setting]              |  |
| 3   | << >>       | Tab name on screen    | < <targer setting="">&gt; tab</targer> |  |
| 4   |             | Item name on screen   | "PC side I/F"                          |  |
| 5   |             | Button on screen      | ок button                              |  |
| -   |             | Keyboard key          | Enter key                              |  |

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

| Term                                                | Description                                                                                                                                                                                                                                                                   |  |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| MX Component                                        | Generic product name for SWnDNC-ACT-E and SWnDNC-ACT-EA (n: version)<br>-EA indicates a volume-license product.                                                                                                                                                               |  |
| Personal computer                                   | Generic term for personal computers on which Windows <sup>®</sup> operates                                                                                                                                                                                                    |  |
| PC CPU module                                       | Abbreviation for MELSEC Q-series compatible PC CPU module (CONTEC CO., LTD. product)                                                                                                                                                                                          |  |
| GX Developer                                        | Generic product name for SWnD5C-GPPW-E, SWnD5C-GPPW-EA, SWnD5C-GPPW-EV, and SWnD5C-GPPW-EVA (n: version)<br>-EA indicates a volume-license product, and -EV an updated product.                                                                                               |  |
| GX Works2                                           | Generic product name for SWnDNC-GXW2 (n: version)                                                                                                                                                                                                                             |  |
| MELSOFT Navigator                                   | Product name for the integrated development environment included in SWnDNC-IQWK (iQ Platform compatible engineering environment MELSOFT iQ Works) (n: version)                                                                                                                |  |
| GX Simulator                                        | Generic product name for SWnD5C-LLT-E, SWnD5C-LLT-EA, SWnD5C-LLT-EV, and SWnD5C-LLT-EVA (n: version)<br>-EA means a volume-license product, and -EV an updated product.                                                                                                       |  |
| MELSECNET/H board                                   | Generic term for Q80BD-J71LP21S-25 and Q80BD-J71BR11<br>Abbreviation for MELSECNET/H interface board                                                                                                                                                                          |  |
| CC-Link IE Controller Network board                 | Generic term for Q80BD-J71GP21-SX and Q80BD-J71GP21S-SX<br>Abbreviation for CC-Link IE Controller Network interface board                                                                                                                                                     |  |
| CC-Link IE Field Network board                      | Abbreviation for Q81BD-J71GF11-T2 CC-Link IE Field Network interface board                                                                                                                                                                                                    |  |
| CC-Link board                                       | Generic term for Q80BD-J61BT11N and Q81BD-J61BT11<br>Abbreviation for CC-Link system master/local interface board                                                                                                                                                             |  |
| QCPU                                                | Generic term for Q00J, Q00UJ, Q00, Q00U, Q01, Q01U, Q02, Q02H, Q02PH, Q02U, Q03UD, Q03UDE, Q04UDH, Q04UDEH, Q06H, Q06PH, Q06UDH, Q06UDEH, Q10UDH, Q10UDEH, Q12H, Q12PH, Q12PRH, Q13UDH, Q13UDEH, Q20UDH, Q20UDEH, Q25H, Q25PH, Q25PRH, Q26UDH, Q26UDEH, Q50UDEH, and Q100UDEH |  |
| Built-in Ethernet port QCPU                         | Generic term for Q03UDE, Q04UDEH, Q06UDEH, Q10UDH, Q10UDEH, Q13UDEH, Q26UDEH, Q50UDEH, and Q100UDEH                                                                                                                                                                           |  |
| LCPU                                                | Generic term for L02, L26CPU-BT                                                                                                                                                                                                                                               |  |
| Built-in Ethernet port CPU                          | Generic term for built-in Ethernet port QCPU and LCPU                                                                                                                                                                                                                         |  |
| FXCPU                                               | Generic term for FXo, FXos, FXon, FX1, FX1n, FX1nc, FX1s, FXu, FX2c, FX2n, FX2nc, FX3g, FX3u, and FX3uc                                                                                                                                                                       |  |
| Q motion CPU                                        | Generic term for Q172, Q173, Q172H, Q173H, Q172D, Q173D, Q172DS, and Q173DS                                                                                                                                                                                                   |  |
| QSCPU                                               | Abbreviation for a safety CPU module (QS001CPU)                                                                                                                                                                                                                               |  |
| C Controller CPU                                    | Abbreviation for Q12DCCPU-V                                                                                                                                                                                                                                                   |  |
| Programmable controller CPU                         | Generic term for QCPU (Q mode), LCPU, FXCPU, Q motion CPU, QSCPU, and C Controller CPU                                                                                                                                                                                        |  |
| Q series-compatible C24                             | Generic term for QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, and QJ71C24N-R4                                                                                                                                                                                                  |  |
| L series-compatible C24                             | Generic term for LJ71C24 and 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                                                                                                                                                               |  |
| Serial communication module                         | Generic term for Q series-compatible C24, L series-compatible C24, and FX extended port                                                                                                                                                                                       |  |
| Q series-compatible E71                             | Generic term for QJ71E71, QJ71E71-B2, QJ71E71-B5, and QJ71E71-100                                                                                                                                                                                                             |  |
| CC-Link IE Field Network<br>Ethernet adapter module | Abbreviation for NZ2GF-ETB CC-Link IE Field Network Ethernet adapter module                                                                                                                                                                                                   |  |
| CC-Link G4 module                                   | Abbreviation for AJ65BT-G4-S3 GPP function peripheral connection module                                                                                                                                                                                                       |  |
| GOT                                                 | Abbreviation for Graphic Operation Terminal                                                                                                                                                                                                                                   |  |
| GOT1000                                             | Abbreviation for Graphic Operation Terminal GOT1000 series                                                                                                                                                                                                                    |  |

| Term                                        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Serial communication                        | Abbreviation for communication with programmable controller CPU using the serial communication module                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Ethernet communication                      | Abbreviation for communication by connecting the personal computer to Ethernet module or the built-in Ethernet port CPU                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| CPU COM communication                       | Abbreviation of communication performed by connecting the personal computer to the RS-232 or RS-422 connector of programmable controller CPU                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| CPU USB communication                       | Abbreviation for communication by connecting personal computer to the USB connector of QCPU (Q mode), LCPU                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| MELSECNET/H<br>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<br>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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| 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<br>Q series-compatible C24, L series-compatible C24 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                             | Abbreviation for communication with programmable controller CPU using the GOT transparent functions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
|                                             | Abbreviation for user program creation using Communication Setup Litility                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| Program setting type                        | Abbreviation for user program creation without using Communication Setup Utility                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| ACT control                                 | A development type for creating user programs using Communication Setup Utility                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| NET control                                 | A development type for creating user programs without using Communication Setup Utility                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Redundant CPU                               | Generic term for O12PRHCPU and O25PRHCPU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Redundant type extension base unit          | Abbreviation for Q65WRB extension base unit for redundant system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Windows <sup>®</sup> XP                     | Generic term for Microsoft <sup>®</sup> Windows <sup>®</sup> XP Professional Operating System and Microsoft <sup>®</sup> Windows <sup>®</sup> XP Home Edition Operating System                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| Windows Vista <sup>®</sup>                  | Generic term for Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Home Basic Operating System,<br>Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Home Premium Operating System,<br>Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Business Operating System,<br>Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Ultimate Operating System, and<br>Microsoft <sup>®</sup> Window Vista <sup>®</sup> Enterprise Operating System                                                                                                                                                 |  |
| Windows <sup>®</sup> 7                      | Generic term for Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Starter Operating System,<br>Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Home Premium Operating System,<br>Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Professional Operating System,<br>Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Ultimate Operating System, and<br>Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Enterprise Operating System<br>"32-bit Windows <sup>®</sup> 7" is used for indicating 32-bit version only, and "64-bit Windows <sup>®</sup> 7" is used for<br>indicating 64-bit version only. |  |
| Excel                                       | Generic term for Microsoft <sup>®</sup> Excel <sup>®</sup> 2003, Microsoft <sup>®</sup> Excel <sup>®</sup> 2007, and Microsoft <sup>®</sup> Excel <sup>®</sup> 2010 (32-bit version)                                                                                                                                                                                                                                                                                                                                                                                                    |  |

| Term                           | Description                                                                                                                                                                             |  |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Access                         | Generic term for Microsoft <sup>®</sup> Access <sup>®</sup> 2003, Microsoft <sup>®</sup> Access <sup>®</sup> 2007, and Microsoft <sup>®</sup> Access <sup>®</sup> 2010 (32-bit version) |  |
| Visual Basic <sup>®</sup> .NET | Generic term for Visual Basic version Visual Studio <sup>®</sup> 2005, Visual Studio <sup>®</sup> 2008, and Visual Studio <sup>®</sup> 2010                                             |  |
| Visual C++® .NET               | Abbreviation for creation of an application using .NET Framework                                                                                                                        |  |
| System label                   | Generic term for label names assigned to each device<br>It can be used instead of devices in programs.                                                                                  |  |

The following are the definitions of terms used in this manual.

#### (1) Logical station number

The connection target information required to open the communication line is combined into one data using Communication Setup Utility, and that data is provided with a logical number. This number can be used with the utility setting type only.

Example For CPU COM communication



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

#### (2) Utility setting type

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 Communication Setting Wizard.

#### (3) Program setting type

A user program is created without using Communication Setup Utility.

Set the ACT control settings for the corresponding communication in the user program or on the property page or the like of Visual  $Basic^{(m)}$  or Visual  $C^{++(m)}$ .

The required settings for the properties depend on the ACT control.

# CHAPTER 1 OVERVIEW

# **1.1** Overview of MX Component

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

Program development with serial communication and Ethernet communication used be complicated, however, it is simplified by using the common functions.

When applying any of the following program examples to the actual system, examine the applicability and confirm that no problem will occur in the system control.

# 1.2 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 setting dialog-based communication settings on the screen, the user can achieve communication settings to access the programmable controller CPU to communicate with.

Once the communication settings are set, stations can be accessed by merely specifying the logical station number of the programmable controller CPU stored on Communication Setup Utility.

#### (3) Save and read of communication settings

MX Component features the functions to save and read the communication settings set on Communication Setup Utility.

The set data can easily be moved from the personal computer used for development to that used for operation.

Note: MX Component must be installed in both the personal computer used for development and the actually used personal computer.



#### (4) Label function

This function allows users to create a program with labels.

Programs can be created without considering device numbers, and devices can be read or written using labels names.

'Execute the processing of function "ReadDeviceRandom2".

iReturnCode= DotUtlType.ReadDeviceRandom2( "Amount of production", Structured data type label 3 D0 Word С́N200 D1 Word objData) Word Specify the label name. 'Execute the processing of function "ReadDeviceRandom2". iReturnCode= DotUtlTvpe.ReadDeviceRandom2( Array type label "AlarmArray", [0] : D0 Word 3, [1] : D1 Word objectValue) [2] : D2 Word

Free from complex use of data-type-dedicated methods.

#### (5) Device monitor function

Utilizing PLC Monitor Utility enables users to monitor the status of the specified device and change its data. \*1



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

#### (6) Access to buffer memory of special function module

Not only the devices of the programmable controller CPU but also the buffer memory of an intelligent function or special function module can be accessed.



\*1: Buffer memory data of QSCPU cannot be written.

#### (7) Read/write of programmable controller CPU time data

The time data of the programmable controller CPU connected to the personal computer can be read/written. \*1



\*1: Time data of QSCPU cannot be written.

#### (8) Multi-thread communication

The same communication path can be accessed from multiple threads at the same time.



# (9) GX Simulator or the simulator function of GX Works2 (GX Simulator2) for offline debugging <sup>\*1</sup>

By using GX Developer and GX Simulator or the simulation function of GX Works2, debugging can be performed on a single personal computer without connecting the programmable controller.



\*1: This function is not supported by QSCPU.

### Point P

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

1

#### (10)A wide variety of programming languages supported

MX Component supports VBScript and VBA as well as Visual Basic<sup>®</sup> and Visual C++<sup>®</sup>.

#### (a) Creation of monitoring page using VBScript

1) Monitoring page can be created in HTML format

A graphical monitoring home page (HTML format) can be created by using the text editor.

Visual Basic<sup>®</sup>, Visual C++<sup>®</sup> or the like is not required to be purchased.



2) Using ASP function for monitoring via Internet/intranet

Using the ASP function of VBScript and releasing the Web pages on the factory side (side which monitors data using MX Component) enables the programmable controller device status or remote operation for an error to be performed from a remote location or during business trip via the Internet/intranet by merely specifying the factory side URL on Internet Explorer<sup>®</sup>.



#### (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.

Device data of the programmable controller can be logged and device data can be sampled/saved in real time.



#### (11)Compatibility with multi-CPU system of QCPU (Q mode)

Setting Communication Setup Utility or control properties enables access to the multi-CPU system.

#### (12)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.



1

#### (13)Accessibility to gateway devices of GOT

The gateway device data of GOT can be read/written by using the gateway function communication of MX Component.

The device data of the programmable controller CPU that is being monitored by GOT can be read/written by reading from/writing to the gateway device data of GOT.



#### (14)Compatibility with GOT transparent function

Using the GOT transparent function, the programmable controller CPU can be accessed via GOT.



#### (15)Reduction of error description search time

The ActSupport control for troubleshooting function is supported.

The error description and corrective action are displayed within the user application by only specifying the error code.

Therefore, checking error description or corrective action on the programming manual is not required when an error occurs in a control.

<Example of displaying error description on message box>

| Communi | cation support utility Error descrip                                                                                                                                                                                            | tion and corrective action are displayed. |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
|         | USB driver connect error<br>Connection of the USB driver failed.<br>The corrective action is as follows:<br>Exit the program and restart the IBM-PC/AT compatible.<br>Reinstall MX Component.<br>Check USB driver installation. |                                           |
|         | <errorcode:1808502[hex]></errorcode:1808502[hex]>                                                                                                                                                                               |                                           |
|         | ОК                                                                                                                                                                                                                              |                                           |

# **CHAPTER 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 can be configured for each operating system.

#### 2.1.1 When using Windows<sup>®</sup> XP Professional Operating System

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

| Item                                        |                    | Description                             |  |
|---------------------------------------------|--------------------|-----------------------------------------|--|
| Serial communication                        |                    | 0                                       |  |
| Ethernet communication                      |                    | 0                                       |  |
| CPU COM communication                       |                    | 0                                       |  |
| CPU USB communication                       |                    | 0                                       |  |
| MELSECNET/H communication                   |                    | O <sup>*1</sup>                         |  |
| CC-Link IE Controller Network communication |                    | 0                                       |  |
|                                             | Applicable board   | CC-Link IE Controller Network board     |  |
|                                             | Applicable driver  | SW1DNC-MNETG-B or later                 |  |
| CC-Link IE Field Network communication      |                    | 0                                       |  |
|                                             | Applicable board   | CC-Link IE Field Network board          |  |
|                                             | Applicable driver  | SW1DNC-CCIEF-J, SW1DNC-CCIEF-B or later |  |
| CC-Link communication                       |                    | O*2                                     |  |
| CC-Link G4 communication                    |                    | 0                                       |  |
| Q series bus communication (only when PC C  | PU module is used) | ×                                       |  |
| GX Simulator communication                  |                    | 0                                       |  |
| GX Simulator2 communication                 |                    | 0                                       |  |
| Modem communication                         |                    | 0                                       |  |
| Gateway function communication              |                    | 0                                       |  |
| GOT transparent communication               |                    | 0                                       |  |

Supported by SW0DNC-MNETH-B Version 70H or later \*1:

\*2 : Supported by SW4DNF-CCLINK-B Version 40E or later  $\bigcirc$ : Configurable,  $\times$ : Not configurable

2.1 System Configuration List 2.1.1 When using Windows<sup>®</sup> XP Professional Operating System

| ltem                                                         |                   | Description                                       |
|--------------------------------------------------------------|-------------------|---------------------------------------------------|
| Serial communication                                         |                   | 0                                                 |
| Ethernet communication                                       |                   | 0                                                 |
| CPU COM communication                                        |                   | 0                                                 |
| CPU USB communication                                        |                   | 0                                                 |
| MELSECNET/H communication                                    |                   | ×                                                 |
| CC-Link IE Controller Network communication                  |                   | 0                                                 |
|                                                              | Applicable board  | CC-Link IE Controller Network board               |
|                                                              | Applicable driver | SW1DNC-MNETG-B or later                           |
| CC-Link IE Field Network communication                       |                   | 0                                                 |
|                                                              | Applicable board  | CC-Link IE Field Network board                    |
|                                                              | Applicable driver | SW1DNC-CCIEF-J, SW1DNC-CCIEF-B or later           |
| CC-Link communication                                        |                   | ×                                                 |
| CC-Link G4 communication                                     |                   | 0                                                 |
| 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 |

The following table lists the systems that can be configured for the use of Windows<sup>®</sup> XP Home Edition.

Configurable, X: Not configurable

Point P

The ASP function of VBScript cannot be used.

# 2.1.3 When using Windows Vista<sup>®</sup> Operating System

| Item                                                         | Description |
|--------------------------------------------------------------|-------------|
| Serial communication                                         | 0           |
| Ethernet communication                                       | 0           |
| CPU COM communication                                        | 0           |
| CPU USB communication                                        | 0           |
| 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           |
| 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           |

The following table lists the systems that can be configured for the use of Windows Vista<sup>®</sup>.

 $\bigcirc$ : Configurable,  $\times$ : Not configurable

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| ltom                                                         | Description    |                |
|--------------------------------------------------------------|----------------|----------------|
| item                                                         | 32-bit edition | 64-bit edition |
| Serial communication                                         | 0              | 0              |
| Ethernet communication                                       | 0              | 0              |
| CPU COM communication                                        | 0              | 0              |
| CPU USB communication                                        | 0              | 0              |
| 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              |
| 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              |

The following table lists the systems that can be configured for the use of Windows<sup>®</sup> 7.

 $\bigcirc:$  Configurable,  $\times:$  Not configurable

# **2.2** System Configuration for 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 considerations on each communication form, refer to the following section.

 $\ensuremath{\mathbb{I}}$  Page 35, Section 2.2.2 Details of communication forms

## 2.2.1 System configurations



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### 2.2.2 Details of communication forms

The table at top right of each communication format description indicates whether the communication format can be configured with the operating system used.

Example 64-bit Windows<sup>®</sup> is not supported.

Windows<sup>®</sup> XP, Windows Vista<sup>®</sup>, and 32-bit Windows<sup>®</sup> are supported.

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | ×           |

XP: Windows<sup>®</sup> XP, Vista: Windows Vista<sup>®</sup>, W7 (32-bit): 32-bit Windows<sup>®</sup> 7, W7 (64-bit): 64-bit Windows<sup>®</sup> 7  $\bigcirc$ : Configurable,  $\times$ : Not configurable

### (1) Serial communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

For connecting the serial communication module, refer to the manual of serial communication module.

### Applicable modules

1) The following table indicates the applicable modules for accessing programmable controller CPU with serial communication CPU.

|                         | Module model                                                                                                                                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Q series-compatible C24 | QJ71C24, QJ71C24-R2, QJ71C24N, QJ71C24N-R2, QJ71C24N-R4                                                                                                                                                         |
| L series-compatible C24 | LJ71C24, LJ71C24-R2                                                                                                                                                                                             |
| FX extended port        | FX <sub>0N</sub> -485ADP, FX <sub>2NC</sub> -485ADP, FX <sub>3U</sub> -485ADP, FX <sub>1N</sub> -485-BD, FX <sub>2N</sub> -485-BD, FX <sub>3G</sub> -485-BD, FX <sub>3G</sub> -485-BD, FX <sub>3U</sub> -485-BD |

#### 2) About connection of applicable modules

When accessing the programmable controller CPU from a personal computer via serial communication modules, note that modules that can be connected to the personal computer are limited.

Even if a module cannot be directly connected to the personal computer, it may be applicable as the nth module in multi-dropped connection.

| Model                                                                                                                                                                                             | Interface        | 1:1 system configuration           | Multi-dropped connection |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------|--------------------------|------------|
| WOUEI                                                                                                                                                                                             | Internace        | 1.1 System configuration           | 1st module               | nth module |
| QJ71C24N                                                                                                                                                                                          | RS-232 (CH1)     | 0                                  | 0                        | ×          |
| QJ71C24                                                                                                                                                                                           | RS-422/485 (CH2) | ×                                  | ×                        | 0          |
| 0171024-82                                                                                                                                                                                        | RS-232 (CH1)     | 0                                  | ×                        | ×          |
| QJ71C24N-R2                                                                                                                                                                                       | RS-232 (CH2)     | O<br>(Function version B or later) | ×                        | ×          |
|                                                                                                                                                                                                   | RS-422/485 (CH1) | Х                                  | ×                        | 0          |
| QJ71024N-R4                                                                                                                                                                                       | RS-422/485 (CH2) | ×                                  | ×                        | 0          |
| LJ71C24                                                                                                                                                                                           | RS-232 (CH1)     | 0                                  | 0                        | ×          |
|                                                                                                                                                                                                   | RS-422/485 (CH2) | Х                                  | ×                        | 0          |
| L 171C24 P2                                                                                                                                                                                       | RS-232 (CH1)     | 0                                  | ×                        | ×          |
| LJ7 1024-NZ                                                                                                                                                                                       | RS-232 (CH2)     | 0                                  | ×                        | ×          |
| FX <sub>0N</sub> -485ADP<br>FX <sub>2NC</sub> -485ADP<br>FX <sub>3U</sub> -485ADP<br>FX <sub>1N</sub> -485-BD<br>FX <sub>2N</sub> -485-BD<br>FX <sub>3G</sub> -485-BD<br>FX <sub>3U</sub> -485-BD | RS-422/485       | 0                                  | 0                        | 0          |

 $\bigcirc:$  Applicable,  $\times:$  Not applicable

• Switch settings of the serial communication module

For the switch settings for the use of MX Component, refer to the following section.

Page 133, Section 8.1.1 Settings of serial communication modules

#### • Cable for connection

For the connection cable, refer to the manual of serial communication module.

For cable pin assignment, refer to the following appendix.

Page 312, Appendix 3 RS-232 Cable Wiring Examples for Serial Communication

Point P

Only the RS-232 connector applicable for connection of the personal computer and serial communication module. The RS-422 connector or RS-422/485 terminal block cannot be used.

### (2) Ethernet communication

### (a) when Ethernet interface module is used

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

For connecting the Ethernet module, refer to the manual of Ethernet module.

#### Considerations

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

#### • Applicable modules

The following table indicates the applicable modules for accessing the programmable controller CPU via Ethernet modules.

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

|                         | Module model                                 |
|-------------------------|----------------------------------------------|
| Q series-compatible E71 | QJ71E71, QJ71E71-B2, QJ71E71-B5, QJ71E71-100 |

### (b) When built-in Ethernet port QCPU is used

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

For connecting the built-in Ethernet port QCPU, refer to the manual of built-in Ethernet port QCPU.

#### Considerations

The accessible range for the direct connection without specifying the IP address is the same segment only. The range beyond the router and gateway cannot be accessed.

### (3) CPU COM communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

#### • Cables for connection

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

The following cable is required for communications between the personal computer and of QCPU (Q mode).

RS-232 adaptor (L6ADP-R2) is required for the connection of LCPU.

| Model name                                                     | Manufacturer                                 |
|----------------------------------------------------------------|----------------------------------------------|
| QC30R2<br>(Personal computer connector: 9-pin D-sub connector) | Mitsubishi Electric Corporation RS-232 cable |

### Point P

• High-speed communication

For high-speed communication (transmission speed: 115.2/57.6kbps), use a personal computer compatible with high-speed communication.

When a communication error occurs, retry the communication after reducing the transmission speed setting.

#### 2) Cables for connection of FXCPU

The following cable is required for communications between the personal computer and of FXCPU. <When using Mitsubishi Electric Corporation product>

| Personal computer side (RS-232 cable)                                                 | RS-232/RS-422<br>converter | Programmable controller CPU side<br>(RS-422 cable)                                    |
|---------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------|
| F2-232CAB<br>(25-pin D-sub↔25-pin D-sub)<br>F2-232CAB-1<br>(9-pin D-sub↔25-pin D-sub) | FX-232AW                   | For FX1/FXu/FX2c<br>FX-422CAB (0.3m)<br>FX-422CAB-150 (1.5m)                          |
| F2-232CAB-2<br>(Half pitch $\leftrightarrow$ 25-pin D-sub)                            | FX-232AWC<br>FX-232AWC-H   | For FXo/FXos/FXos/FX1s/FX1n/FX1nc/FX2n/FX2nc/<br>FX3g/FX3u/FX3uc<br>FX-422CAB0 (1.5m) |

### Point /

Transmission speed

When connecting to FX<sub>3G</sub>/FX<sub>3U</sub>/FX<sub>3U</sub>c using FX-232AWC-H, select any of 9.6kbps, 19.2kbps, 38.4kbps, 57.6kbps, or 115.2kbps for the transmission speed.

When connecting using FX-232AWC or FX-232AW, select either 9.6kbps or 19.2kbps for the transmission speed.

• Connecting to FXCPU Be sure to use equipment shown in the table when connecting to FXCPU.

### Considerations on using RS-422 interface cables/converters

For the specifications of an RS-422 interface conversion cable/converter and the considerations on using them, read the following instructions as well as the manuals of each product for correct handling.

Connecting/disconnecting the conversion cable/converter

When connecting/disconnecting a peripheral device, conversion cable or converter to/from the RS-422 interface, be sure to touch a grounding strap or grounded metal to discharge static electricity stored in the cable or in your body before the operation, regardless of whether electricity is being supplied or not. After doing this, follow the procedure below.

Turn the programmable controller CPU OFF before connecting/disconnecting a conversion cable/ converter that receives 5VDC power supply from the RS-422 interface.

### Operating procedure

- **1.** Turn OFF the personal computer.
- **2.** Turn OFF the conversion cable/converter. Ground the FG terminal if provided.
- **3.** Connect/disconnect the conversion cable/converter to/from the personal computer and the programmable controller CPU.
- **4.** Turn ON the conversion cable/converter.
- 5. Turn ON the personal computer.
- **6.** Start up the software package.

3) Cables for connection of Q motion CPU

For communications between the personal computer and Q motion CPU, use the cables as indicated in 1).

- 4) Converter/Cable (FX CPU compatible) for connecting to the USB on personal computer
  - Applicable devices



```
Point P
```

- Using a USB cable for the first time Install the driver from the CD-ROM included with FX-USB-AW and FX<sub>3U</sub>-USB-BD.
- Considerations and restrictions For the considerations and restrictions relating to FX-USB-AW, refer to the user's manual included.
- 5) USB cable and function expansion board (FX3U, FX3Uc compatible)
  - · Applicable devices



### Point P

• Using a USB cable for the first time

Install the driver from the CD-ROM included with FX-USB-AW and FX<sub>3U</sub>-USB-BD.

- Considerations and restrictions
  - For the considerations and restrictions relating to FX<sub>3U</sub>-USB-BD, refer to the user's manual included.
    When "Operate Communication Setting" is selected on the <<PLC System (2)>> tab of PLC parameter, the corresponding port cannot communicate with the programmable controller CPU. Write the setting in which "Operate Communication Setting" is cleared from the built-in programming port of the programmable controller CPU.

When the programmable controller type of the project is  $FX_{3U}/FX_{3UC}$ , the channel setting (CH1/CH2) combo box is displayed. Select 'CH1' to confirm the setting.

| OH1  Operate Communication Setting | 'he setting contents are<br>When communicate with<br>he D8120 special registe | cleared when unchecked.<br>GX Works2, GOT, etc. by PLC using optional board for FX etc.,<br>or of PLC must be 0 deared, and must be unchecked.) |
|------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocol                           | Y                                                                             | Control Line                                                                                                                                    |
| -Data Length                       |                                                                               | H/W Type                                                                                                                                        |
| Parity                             |                                                                               | Control Mode                                                                                                                                    |
| - Skop Bit                         | Ŧ                                                                             | Sun Check                                                                                                                                       |
| Transmission Speed                 | * (tps)                                                                       | Transmission Control Procedure                                                                                                                  |
| E Header                           |                                                                               | Station Number Setting                                                                                                                          |
| Terminat                           |                                                                               | Time Out Judge Time<br>X 10ms (1-255)                                                                                                           |

6) RS-422 function expansion board for FXCPU

| Series           | Function expansion board |
|------------------|--------------------------|
| FX3U, FX3UC      | FX3U-422-BD              |
| FX3G             | FX3G-422-BD              |
| FX <sub>2N</sub> | FX <sub>2N</sub> -422-BD |
| FX1s, FX1N       | FX1N-422-BD              |



#### • PLC parameter

When "Operate Communication Setting" is selected on the <<PLC System (2)>> tab of PLC parameter, the corresponding port cannot communicate with the programmable controller CPU. Write the setting in which "Operate Communication Setting" is cleared from the built-in programming port of the programmable controller CPU. When the programmable controller type of the project is FX<sub>3G</sub> or FX<sub>3U</sub>/FX<sub>3UC</sub>, the channel setting (CH1/CH2) combo box is displayed.

Select 'CH1' to confirm the setting.

| H1 The setting contents are (When communication Setting Setting Setting Contents are setting contents are setting contents are setting contents are setting Se | deared when unchecked.<br>GX Works2, GOT, etc. by PLC using optional board for FX etc.,<br>r of PLC must be 0 cleared, and must be unchecked.) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Control Line                                                                                                                                   |
| Data Length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | H/W Type                                                                                                                                       |
| Parky                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Control Mode                                                                                                                                   |
| Stop Bt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Direit                                                                                                                                         |
| Transmission Speed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Transmission Control Procedure                                                                                                                 |
| Header                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Sation Number Setting                                                                                                                          |
| Terminator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Time Out Judge Time                                                                                                                            |

| Serial port shape of personal computer Series |                  | Function expansion board and special adapter                                                 | RS-232 cable   |  |
|-----------------------------------------------|------------------|----------------------------------------------------------------------------------------------|----------------|--|
|                                               |                  | FX <sub>3U</sub> -232-BD                                                                     | EX 0220AD 4    |  |
|                                               | FA3U, FA3UC      | Function expansion board (FX <sub>3U</sub> -***-BD) <sup>*1</sup> + FX <sub>3U</sub> -232ADP | - FX-232CAB-1  |  |
|                                               | FX               | FX3G-232-BD                                                                                  | EX 2220AB 1    |  |
|                                               | FA3G             | FX3G-CNV-ADP + FX3U-232ADP                                                                   | - FA-2320AD-1  |  |
|                                               |                  | FX <sub>0N</sub> -232ADP + FX <sub>2N</sub> -CNV-BD                                          | F2-232CAB-1    |  |
| 9-nin D-sub                                   | FX <sub>2N</sub> | FX <sub>2N</sub> -232-BD                                                                     | EX 2220AD 1    |  |
| 9-piil D-300                                  |                  | FX <sub>2NC</sub> -232ADP + FX <sub>2N</sub> -CNV-BD                                         | - FX-232CAB-1  |  |
|                                               |                  | FX0N-232ADP                                                                                  | F2-232CAB-1    |  |
|                                               | FAINC, FA2NC     | FX <sub>2NC</sub> -232ADP                                                                    | FX-232CAB-1    |  |
|                                               |                  | FX0N-232ADP + FX1N-CNV-BD                                                                    | F2-232CAB-1    |  |
|                                               | FX1s, FX1N       | FX1N-232-BD                                                                                  | EX 2220AB 1    |  |
|                                               |                  | FX <sub>2NC</sub> -232ADP + FX <sub>1N</sub> -CNV-BD                                         | - FA-2320AD-1  |  |
|                                               |                  | FX3U-232-BD                                                                                  |                |  |
|                                               | FX3U, FX3UC      | Function expansion board $(FX_{3U}-***-BD)^{*1} + FX_{3U}-232ADP$                            | - FX-232CAB-2  |  |
|                                               | FX3G             | FX <sub>3G</sub> -232-BD                                                                     | EX 2220AB 2    |  |
|                                               |                  | FX3G-CNV-ADP + FX3U-232ADP                                                                   | - FX-2320AD-2  |  |
|                                               |                  | FX <sub>0N</sub> -232ADP + FX <sub>2N</sub> -CNV-BD                                          | F2-232CAB-2    |  |
| Half nitch 14-nin                             | FX <sub>2N</sub> | FX <sub>2N</sub> -232-BD                                                                     | EX-232CAP 2    |  |
|                                               |                  | FX2NC-232ADP + FX2N-CNV-BD                                                                   | - 1 X-2320AB-2 |  |
|                                               | FX1NC, FX2NC     | FX0N-232ADP                                                                                  | F2-232CAB-2    |  |
|                                               |                  | FX2NC-232ADP                                                                                 | FX-232CAB-2    |  |
|                                               |                  | FX0N-232ADP + FX1N-CNV-BD                                                                    | F2-232CAB-2    |  |
|                                               | FX1s, FX1N       | FX1N-232-BD                                                                                  | EX-232CAB-2    |  |
|                                               |                  | FX <sub>2NC</sub> -232ADP + FX <sub>1N</sub> -CNV-BD                                         | - 1 X-2320AD-2 |  |
|                                               |                  | FX3U-232-BD                                                                                  | E2 222CAP 1    |  |
|                                               | FA3U, FA3UC      | Function expansion board $(FX_{3\cup}-***-BD)^{*1} + FX_{3\cup}-232ADP$                      | F2-2320AB-1    |  |
|                                               | FXac             | FX3G-232-BD                                                                                  | E2-232CAB-1    |  |
|                                               | 1 736            | FX3G-CNV-ADP + FX3U-232ADP                                                                   | 12-2320AD-1    |  |
|                                               |                  | FX <sub>0N</sub> -232ADP + FX <sub>2N</sub> -CNV-BD                                          | F2-232CAB      |  |
| 25-pin D-sub                                  | FX <sub>2N</sub> | FX <sub>2N</sub> -232-BD                                                                     | E2-232CAB-1    |  |
|                                               |                  | FX2NC-232ADP+ FX2N-CNV-BD                                                                    | - 1 2-2320AD-1 |  |
|                                               |                  | FX0N-232ADP                                                                                  | F2-232CAB      |  |
|                                               |                  | FX2NC-232ADP                                                                                 | F2-232CAB-1    |  |
|                                               |                  | FX0N-232ADP + FX1N-CNV-BD                                                                    | F2-232CAB      |  |
|                                               | FX1s, FX1N       | FX1N-232-BD                                                                                  | F2-232CAB-1    |  |
|                                               |                  | FX2NC-232ADP + FX1N-CNV-BD                                                                   |                |  |

\*1 : \*\*\* of the function expansion board (FX3U-\*\*\*-BD) indicates 232, 485, 422, USB or CNV.

The serial communication is also available for FX<sub>3U</sub>-485-BD. For setting for the serial communication, refer to the following section.

### Point P

#### • PLC parameter

When "Operate Communication Setting" is selected on the <<PLC System (2)>> tab of PLC parameter, the corresponding port cannot communicate with the programmable controller CPU. Write the setting in which "Operate Communication Setting" is cleared from the built-in programming port of the programmable controller CPU. When the programmable controller type of the project is FX<sub>3G</sub> or FX<sub>3U</sub>/FX<sub>3UC</sub>, the channel setting (CH1/CH2) combo box is displayed.

• FX3U/FX3UC (FX3UC-32MT-LT, FX3UC-32MT-LT-2) series

When using the first adapter of FX<sub>3U</sub>-232ADP which is connected to FX<sub>3U</sub>-232-BD or FX<sub>3U</sub>-CNV-BD, specify 'CH1' and check the setting.

When using FX<sub>3U</sub>-232ADP which is connected to a board other than FX<sub>3U</sub>-CNV-BD, or when using the second adapter of FX<sub>3U</sub>-232ADP which is connected to FX<sub>3U</sub>-CNV-BD, specify 'CH2' and check the setting.

| CH1  Operate Communication Setting | The setting contents are<br>(When communicate with<br>the D8120 special registe | deared when unchecked.<br>GX Works2, GOT, etc. by PLC using optional board for FX etc.,<br>r of PLC must be 0 deared, and must be unchecked.) |
|------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Protocol                           | ×.                                                                              | Control Line                                                                                                                                  |
| Data Length                        | ~                                                                               | H/W Type                                                                                                                                      |
| Parky                              | v                                                                               | Control Mode                                                                                                                                  |
| Stop Bit                           | ~                                                                               | Sum Check                                                                                                                                     |
| Transmission Spee                  | (bps)                                                                           | Transmission Control Procedure                                                                                                                |
| E Header                           |                                                                                 | Ration Number Setting                                                                                                                         |
| Termine                            | tor                                                                             | Time O.J. Judge Time<br>X 10ms (1-255)                                                                                                        |

### (4) CPU USB communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

#### • About the USB cable

The following table shows USB cables and USB adapters whose operations have been confirmed by Mitsubishi Electric.

| Product name                           | Model name     | Manufacturer                                   |
|----------------------------------------|----------------|------------------------------------------------|
| USB cable<br>(USB A type - USB B type) | AU230          | BUFFALO KOKUYO SUPPLY INC.                     |
|                                        | KU-AMB530      | SANWA SUPPLY INC.                              |
| USB cable                              | U2C-M30BK      | ELECOM Co., Ltd.                               |
| (USB A type - USB miniB type) $^{*1}$  | MR-J3USBCBL3M  | Mitsubishi Electric Corporation                |
|                                        | GT09-C30USB-5P | Mitsubishi Electric System & Service Co., Ltd. |

\*1: Universal model QCPU/LCPU only

#### Applicable modules

Refer to "Access Target" of the accessible device table in the following section.

Page 250, Section 10.5.1 Accessible devices

Point *P* 

- Using a USB cable for the first time Install the USB driver. For the installation of the USB driver, refer to the following appendix.
   Page 328, Appendix 10 USB Driver Installation
- Considerations and restrictions For the considerations and restrictions when accessing a programmable controller CPU, refer to the following section. Image 3, OPERATING CONSIDERATIONS

### (5) MELSECNET/H communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | ×           |

#### Considerations

- 1) Use the communication driver SW0DNC-MNETH or later. The 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.

### (6) CC-Link IE Controller Network communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | ×           |

- Considerations
  - 1) Use the communication driver SW1DNC-MNETG-B or later. The 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.

### (7) CC-Link IE Field Network communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | ×           |

### Considerations

1) Use the communication driver SW1DNC-CCIEF-J, SW1DNC-CCIEF-B or later. The 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.

### (8) CC-Link communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | ×           |

### Considerations

1) Use the communication driver SW1DNC-CCBD2-B or later.

Use the one whose version is 1.04E or later for Windows Vista<sup>®</sup>, and version 1.08J or later for Windows<sup>®</sup> 7. The 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.
- 3) The CC-Link master station module used should be of software version "N" or later.
- Applicable CPU modules QCPU (Q mode), LCPU

### (9) CC-Link G4 communication

| Ī | ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|---|----|-------|-------------|-------------|
|   | 0  | 0     | 0           | 0           |

### Considerations

1) The CC-Link G4 module used should be of software version "D" or later.

2) The CC-Link master station module used should be of software version "N" or later.

• Switch settings of the CC-Link G4 module

For the switch settings for the use of MX Component, refer to the following section.

Page 175, Section 8.8.1 Switch settings of CC-Link G4 module

Cables

Communications between the personal computer and CC-Link G4 module require the RS-232/RS-422 conversion cables as used in CPU COM communication.

For details, refer to the following section.

Page 38, Section 2.2.2 (3) 2) Cables for connection of FXCPU

### (10)Q series bus communication (only when PC CPU module is used)

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | ×     | ×           | ×           |

Considerations

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

### (11)GX Simulator communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

### Considerations

When performing GX Simulator communication, use GX Developer Version 8 (SW8D5C-GPPW) and GX Simulator Version 7 (SW7D5C-LLT) or later.

Point P -

GX Developer and GX Simulator must be purchased separately.

### (12)GX Simulator2 communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

### Considerations

When performing GX Simulator2 communication, use GX Works2 Version 1 (SW1DNC-GXW2) or later.

Point P

GX Works2 must be purchased separately.

### (13)Modem communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

#### • Considerations

1) When performing modem communication, set 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                                     |
|-------------------------|--------------------------------------------------|
| FXCPU                   | 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.
- Modem specifications

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

- · AT commands are supported. (Initialization command)
- DR terminal can be turned ON (High) independently.
  - (Example A modem, whose CD terminal turns ON as the DR terminal turns ON, cannot be used.)
- Communication standard: ITU-T V.90/V.34/V.32bis/V.32/V.22bis/V.22/V.21/V.FC

### Bell 212A/103

Point P

- 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
- 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.
- For modem communication, the standard AT command cannot be used for some modems. If the line cannot be connected by selecting "Modem standard" for "AT command" within Communication Setup Utility, specify the AT command on the user side. For the setting of "AT command" within Communication Setup Utility, refer to the following section.
   Page 100, Section 7.1.7 (1) Connect Line screen
- When using the callback function, use Q series-compatible C24.

### (14)Gateway function communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

• Gateway function compatible GOT

For the gateway function compatible GOT, refer to the corresponding manual of gateway function for GOT1000 series.

• GOT setting and setting between GOT and programmable controller

For the gateway function compatible GOT, refer to the corresponding manual of gateway function for GOT1000 series.

### (15)GOT transparent communication

| ХР | Vista | W7 (32-bit) | W7 (64-bit) |
|----|-------|-------------|-------------|
| 0  | 0     | 0           | 0           |

### • Considerations

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

### **2.3** Operating Environment

| Item                               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal computer                  | PC/AT compatible machine supporting the following operating systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CPU                                | Perfor to the table "Operating systems and hardware requirements" below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Required memory                    | Refer to the table "Operating systems and hardware requirements" below.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| PC CPU module                      | MELSEC Q-series compatible PC CPU module (CONTEC CO., LTD. product)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Available hard disk                | 1GB or more                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| capacity                           | Virtual memory available capacity is 512MB or more.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Display                            | Resolution 1024 × 768 dots or more                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating system * <sup>1,*2</sup> | <ul> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> XP Professional Operating System (English version) SP3 or later</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> XP Home Edition Operating System (English version) SP3 or later</li> <li>Microsoft<sup>®</sup> Windows Vista<sup>®</sup> Home Basic Operating System (English version) SP2 or later</li> <li>Microsoft<sup>®</sup> Windows Vista<sup>®</sup> Home Premium Operating System (English version) SP2 or later</li> <li>Microsoft<sup>®</sup> Windows Vista<sup>®</sup> Home Premium Operating System (English version) SP2 or later</li> <li>Microsoft<sup>®</sup> Windows Vista<sup>®</sup> Business Operating System (English version) SP2 or later</li> <li>Microsoft<sup>®</sup> Windows Vista<sup>®</sup> Ultimate Operating System (English version) SP2 or later</li> <li>Microsoft<sup>®</sup> Windows Vista<sup>®</sup> Enterprise Operating System (English version) SP2 or later</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Starter Operating System (English version) *<sup>3</sup></li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Professional Operating System (English version) *<sup>3</sup></li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Ultimate Operating System (English version) *<sup>3</sup></li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Enterprise Operating System (English version) *<sup>3</sup></li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Enterprise Operating System (English version) *<sup>3</sup></li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Enterprise Operating System (English version) *<sup>3</sup></li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Enterprise Operating System (English version) *<sup>3</sup></li> </ul> |

The following table summarizes the operating environment for MX Component.

\*1: "64-bit Windows<sup>®</sup> XP Professional" and "64-bit Windows Vista<sup>®</sup>" cannot be used.

\*2: The following functions cannot be used. If used, this product may not operate normally.

- Activating the application with Windows<sup>®</sup> compatible mode.
- Simplified user switch-over
- Remote desktop
- Large font size (Advanced setting of Display Properties)
- DPI setting other than 100 %
- \*3 : The following functions cannot be used.
  - Windows XP Mode
  - Windows Touch

(Continued on next page)

| ltem                    | Description               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | Programming<br>language   | Development software                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Programming language *4 | Visual Basic <sup>®</sup> | Microsoft <sup>®</sup> Visual Studio 2005 Visual Basic <sup>®</sup> (English version) <sup>*7</sup><br>Microsoft <sup>®</sup> Visual Studio 2008 Visual Basic <sup>®</sup> (English version) <sup>*8</sup><br>Microsoft <sup>®</sup> Visual Studio 2010 Visual Basic <sup>®</sup> (English version)<br>Microsoft <sup>®</sup> Visual Studio 2005 Visual C++ <sup>®</sup> (English version) <sup>*7</sup>                                                                                        |
|                         | Visual C++®               | Microsoft <sup>®</sup> Visual Studio 2008 Visual C++ <sup>®</sup> (English version) <sup>*8</sup><br>Microsoft <sup>®</sup> Visual Studio 2010 Visual C++ <sup>®</sup> (English version)                                                                                                                                                                                                                                                                                                        |
|                         | VBScript *5 *6            | Text editor and commercially available HTML tool                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                         | VBA                       | Microsoft <sup>®</sup> Excel <sup>®</sup> 2003 (English version) <sup>*9</sup><br>Microsoft <sup>®</sup> Excel <sup>®</sup> 2007 (English version)<br>32-bit Microsoft <sup>®</sup> Excel <sup>®</sup> 2010 (English version) <sup>*10</sup><br>Microsoft <sup>®</sup> Access <sup>®</sup> 2003 (English version) <sup>*9</sup><br>Microsoft <sup>®</sup> Access <sup>®</sup> 2007 (English version)<br>32-bit Microsoft <sup>®</sup> Access <sup>®</sup> 2010 (English version) <sup>*10</sup> |

\*4 : User programs created in the English environment are applicable to the English environment only, cannot be used in the other environment.

- \*5 : To operate VBScript, use Internet Explorer<sup>®</sup> (version 5.00.2919.6307 or later).
- \*6 : When  $Windows^{\textcircled{B}}$  XP Home Edition is used, the ASP function cannot be used.
- \*7 : When using Visual Studio<sup>®</sup> 2005 on Windows Vista<sup>®</sup>, Visual Studio<sup>®</sup> 2005 Service Pack 1 or Visual Studio<sup>®</sup> 2005 Service Pack 1 Update for Windows Vista<sup>®</sup> is required.
- \*8 : When using Visual Studio<sup>®</sup> 2008 on Windows<sup>®</sup> 7, Visual Studio<sup>®</sup> 2008 Service Pack 1 is required.
- \*9 : When using Microsoft<sup>®</sup> Excel<sup>®</sup> 2003 or Microsoft<sup>®</sup> Access<sup>®</sup> 2003 on Windows<sup>®</sup> 7, Microsoft<sup>®</sup> Office<sup>®</sup> 2003 Service Pack 3 or later is required.
- \*10: 64-bit Microsoft<sup>®</sup> Excel<sup>®</sup> 2010 and 64-bit Microsoft<sup>®</sup> Access<sup>®</sup> 2010 are not supported.

### Operating systems and hardware requirements

| Operating system              | Hardware requirements                                              |             |  |
|-------------------------------|--------------------------------------------------------------------|-------------|--|
| Operating system              | CPU                                                                | Memory      |  |
| Windows <sup>®</sup> XP       |                                                                    |             |  |
| Windows Vista <sup>®</sup>    | Intel <sup>®</sup><br>Core™2 Duo 2GHz or higher is<br>recommended. | 1GB or more |  |
| 32-bit Windows <sup>®</sup> 7 |                                                                    |             |  |
| 64-bit Windows <sup>®</sup> 7 |                                                                    | 2GB or more |  |

Point P

When creating a user program, select "x86" (32 bits) "Target CPU".

### **2.4** Applicable Programmable Controller CPUs

| Programmable controller series | Module model                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| QCPU (Q mode)                  | Q00JCPU, Q00UJCPU, Q00CPU, Q00UCPU, Q01CPU, Q01UCPU, Q02CPU, Q02HCPU, Q02PHCPU, Q02UCPU, Q03UDCPU, Q03UDECPU, Q04UDHCPU, Q04UDEHCPU, Q06HCPU, Q06HCPU, Q06UDHCPU, Q06UDEHCPU, Q10UDHCPU, Q10UDEHCPU, Q12HCPU, Q12PHCPU, Q12UDHCPU, Q13UDHCPU, Q13UDEHCPU, Q20UDEHCPU, Q25HCPU, Q25PHCPU, Q25PRHCPU, Q26UDHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU |
| LCPU                           | L02CPU, L26CPU-BT                                                                                                                                                                                                                                                                                                                                  |
| C controller CPU               | Q12DCCPU-V *1                                                                                                                                                                                                                                                                                                                                      |
| QSCPU                          | QS001CPU                                                                                                                                                                                                                                                                                                                                           |
| Q motion CPU                   | Q172CPU, Q173CPU, Q172HCPU, Q173HCPU, Q172DCPU, Q173DCPU, Q172DSCPU, Q173DSCPU                                                                                                                                                                                                                                                                     |
| FXCPU                          | FX0CPU, FX0sCPU, FX0NCPU, FX1CPU, FX1NCPU, FX1NCCPU, FX1sCPU, FX0CPU, FX0CPU, FX20CPU, FX20CPU, FX30CPU, FX30CPU, FX30CPU, FX30CPU                                                                                                                                                                                                                 |

The following are the applicable programmable controller CPUs.

\*1: The first five digits of the serial number is 12042 or higher are supported.

# CHAPTER 3 INSTALLATION AND UNINSTALLATION

This chapter explains the installation and uninstallation procedure of MX Component.

### 3.1 Installation

The following explains the installation procedure. Screens from Windows<sup>®</sup> 7 are used except for different operations required in other operating systems.

Point P

- Before installing MX Component, close the other applications running on Windows<sup>®</sup>.
- The installer may not work normally because of the operating system's or other companies' update programs (Windows<sup>®</sup> Update the Java update program, or the like) start automatically. Install MX Component after configuring those update programs not to start automatically.
- When installing MX Component, log on as a user with the administrator authority.
- For the required personal computer operating environment to install MX Component, refer to the following section.

Program n Publisher: File origin:

Show detail

### (1) Installing the product

#### Operating procedure



 Right-click [Start] and select [Explorer]. Click the drive in which the disk is inserted, and double-click "SETUP.EXE".

When user account control is enabled, the following screen is displayed.

Click the <u>Yes</u> button or "Allow".







Continued on next page

No

Yes

- 2. If the message on the left is displayed, click the Cancel button to uninstall MX Component, and then reinstall it.
- If the message on the left is displayed, install EnvMEL ( Page 56, (2) in this section).
   After the operation is complete, restart installation operation.
- **4.** Check that all applications is closed and click the button.

If the applications are running, close all running applications.

### 5. Starting setup.

Enter the name and company name and click the Next> button.

### **6.** Check the registered name and company name.

Check if the registered content is correct, and click the Yes button.

In order to change the information, click the <u>No</u> button to return to the previous screen

|                          | $\mathbf{c}$                                                                                                                                                                                                                         |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input ProductID          |                                                                                                                                                                                                                                      |
|                          | Please enter the product ID of the product.<br>Please input in single byte English characters.                                                                                                                                       |
|                          | < Back Next > Cancel                                                                                                                                                                                                                 |
| Choose Destination Locat | ion 💌                                                                                                                                                                                                                                |
|                          | The setup will instal i SW-1014-ALC in the following directory.<br>Click [Next] to install in this directory.<br>Click [Stowse] and select the directory for installing in other<br>directory.<br>Click [Cancel] for not installing. |
| 20                       | Destination Folder C:\MELSEC\ Browse                                                                                                                                                                                                 |
|                          | < <u>B</u> ack <u>Next&gt;</u> Cancel                                                                                                                                                                                                |
|                          | $\mathbf{r}$                                                                                                                                                                                                                         |

Continued on next page

### 7. Register the product ID.

Enter the product ID and click the <u>Next</u> button. The product ID is printed on the license certificate included with the product.

8. Specify the installation destination folder.
 If do not change the destination folder, click the button.

In order to change the destination folder, click the Browse... button and specify a new drive and folder.







Installation complete

ОК

**9.** When installing a MELSOFT product, the message on the left may be displayed.

Click the **\_\_**\_\_\_\_ button to continue the installation.

When using Windows<sup>®</sup> XP, click the <u>Continue Anywey</u> button

(The screen display may be different partially depending on the used operating system. This does not affect the operation.)

(We have checked the operation and confirmed that no error occurs after the installation.)

3

When the message on the left is displayed, installation is complete.

**10.** Click the <u>w</u> button to close the screen.

When the following screen is displayed, select "Yes, I want to restart my computer now.".

| Restarting Windows                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------|
| Setup has finished copying files to your computer. Before you can<br>use the program, you must restart Windows or your computer. |
| Choose one of the following options and click OK to finish setup.                                                                |
|                                                                                                                                  |
|                                                                                                                                  |
| <ul> <li>Yes, I want to restart my computer now.</li> </ul>                                                                      |
| O No, I will restart my computer later.                                                                                          |
| OK                                                                                                                               |

### (2) When message is displayed at start of installation

The following explains the countermeasures when the message is displayed at start of installation.

(a) When starting the installation of this product, the "This package is not in proper operating environment" message is displayed, disabling normal completion of installation.

### In such a case, close all applications and install EnvMEL.

<Installation of EnvMEL> Execute "SETUP.EXE" in the "EnvMEL" folder within the product CD-ROM. After executing "SETUP.EXE", install the product. When user account control is enabled, the following screen is displayed. Click the <u>Yes</u> button or "Allow".

| 😵 User Account Control |                                                                                                        |                                             |                                        |  |
|------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------|--|
|                        | Do you want to allow the following program from an unknown publisher to make changes to this computer? |                                             |                                        |  |
|                        | Program name:<br>Publisher:<br>File origin:                                                            | SETUP.EXE<br><b>Unknown</b><br>CD/DVD drive |                                        |  |
| 🕑 si                   | how <u>d</u> etails                                                                                    |                                             | Yes <u>N</u> o                         |  |
|                        |                                                                                                        | <u>(</u>                                    | Change when these notifications appear |  |

<Windows<sup>®</sup> 7>

<Windows Vista<sup>®</sup>>

| User Account Control                                                               |  |  |
|------------------------------------------------------------------------------------|--|--|
| An unidentified program wants access to your computer                              |  |  |
| Don't run the program unless you know where it's from or you've used it<br>before. |  |  |
| SETUP.EXE<br>Unidentified Publisher                                                |  |  |
| Cancel<br>I don't know where this program is from or what it's for.                |  |  |
| → Allow<br>I trust this program. I know where it's from or I've used it before.    |  |  |
|                                                                                    |  |  |
| User Account Control helps stop unauthorized changes to your computer.             |  |  |

After executing the. exe file, reinstall the product.

If this product is not installed properly at this time, restart the personal computer.

(b) The <u>Program Compatibility Assistant</u> screen may be displayed after installation. Select "This program installed correctly" and restart the personal computer.

| Program Compatibility Assistant                                                                                                |  |  |
|--------------------------------------------------------------------------------------------------------------------------------|--|--|
| This program might not have installed correctly                                                                                |  |  |
| If this program didn't install correctly, try reinstalling using settings that<br>are compatible with this version of Windows. |  |  |
| Program: Setup Launcher<br>Publisher: InstallShield Software Corporation<br>Location: F\EnvMEL\SETUP.EXE                       |  |  |
| Reinstall using recommended settings                                                                                           |  |  |
| This program installed correctly                                                                                               |  |  |
| Cancel                                                                                                                         |  |  |
| What settings are applied?                                                                                                     |  |  |

If "Reinstall using recommended settings" is selected, the "Windows XP SP2 compatibility mode" is automatically set. Disable the "Windows XP SP2 compatibility mode" by the following procedure, and install the product again.

| SETUP.EXE Properties      General Compatibility Security Details Previous Versions      Y you have problems with this program and it worked correctly on | Clear the check box.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| an earlier version of Windows, select the compatibility mode that<br>matches that earlier version.<br>Help me choose the settings                        | SETUP.EXE Properties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| Comparisity mode     Image: Run this program in compatibility mode for:     Windows XP (Service Pack 3)                                                  | If you have problems will this program and it worked correctly<br>on an earlier version of Vindows, select the compatibility mode<br>that matches that earlier version.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| Settings Run in 256 colon Run in 540 x480 screen resolution Databe visual theres Databe desktop composition                                              | Compatibility mode<br>The Date Interpret of the Company of the Compa |  |
| Privilege Level                                                                                                                                          | Run in 640 x 480 screen resolution Disable visual themes Disable desktop composition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| Change settings for all users                                                                                                                            | Privlege Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|                                                                                                                                                          | OK Cancel Apply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |

- 1. Right-click on the setup.exe icon of the installation target in the Windows explorer, and open the SETUP.EXE Properties screen.
- 2. Select the <<Compatibility>> tab and click the Change settings for all users button.
- Clear the "Run this program in compatibility mode for:" check box of compatibility mode in the <<Compatibility for all users>> tab, and click the
   ok button.
- 4. Click the ok button on the <u>SETUP.EXE Properties</u> screen.
- Install the product again.
   (SP Page 52, (1) in this section)

### 3.2 Registered Icons

Installation of MX Component registers the following icons to [Start] ⇔ [All Programs] ⇔ [MELSOFT Application] ⇔ [MX Component].

| lcon     | Name                        | Description                         |
|----------|-----------------------------|-------------------------------------|
|          | Label Utility               | Starts Label Utility.               |
| <b>E</b> | PLC Monitor Utility         | Starts PLC Monitor Utility.         |
| -        | Communication Setup Utility | Starts Communication Setup Utility. |

### 3.3 Uninstallation

The following explains the uninstallation procedure. Screens from Windows<sup>®</sup> 7 are used except for different operations required in other operating systems.

Point *P* 

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

#### Operating procedure



[Start] ⇔ [Control Panel] ⇔ "Uninstall a program"
 Windows<sup>®</sup> XP>

[Start] ⇔ [Control Panel] ⇔ "Add/Remove Programs"

2. Select "MX Component" from the list of programs and select "Change/Remove".

<Windows® XP>

Select "MX Component" from the list of programs and click the [Remove] button.

When user account control is enabled, the following screen is displayed.

Click the version of the continue button. CWindows® 7> Version of the following program to make Program were beinstal or change an application Version getains: Microsoft Windows whone getains: Microsoft Windows Change when these coefficients segres



Continued on next page

**3.** Click the  $\underline{}_{\underline{}_{\text{ES}}}$  button.

When not uninstalling MX Component, click the

**button to return to the preceding screen.** Components indicate the icons and files installed.



Uninstallation complete

When the screen on the left is displayed, uninstall is complete.

**4.** Click the <u>kink</u> button to close the screen.

# CHAPTER 4 OPERATION PROCEDURES

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

### 4.1 Utilities

The following are the utilities used in MX Component.

| Item                           | Description                                                                                                                               | Reference                |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Communication Setup<br>Utility | Set the parameter for communication with the wizard.                                                                                      | Page 89,<br>Section 7.1  |
| PLC Monitor Utility            | Set the transfer settings using the logical station number set with Communication Setup Utility, and monitor the programmable controller. | Page 107,<br>Section 7.2 |
| Label Utility                  | Register/utilize the system labels.                                                                                                       | Page 119,<br>Section 7.3 |

### 4.2 Selecting Development Type

When using MX Component to create user applications, select the utility setting type or program setting type before creating a user application.

The following explains utility setting type and program setting type.

### (1) Utility setting type

Set the communication settings using Communication Setting Wizard.

With Communication Setup Utility, a user program can be created 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 Communication Setting Wizard for the ACT control or the .NET control property or into a user program.

### (2) Program setting type

A user program is created without using Communication Setup Utility.

Set the ACT control settings for the corresponding communication on the property window directly or within the user program.

The required settings for the properties differ depending on the ACT control.

### (3) Comparison

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

| ltem                | Utility setting type                                     | Program setting type                           |
|---------------------|----------------------------------------------------------|------------------------------------------------|
|                     | Communication settings can be set easily using           |                                                |
|                     | Communication Setting Wizard.                            | All communication settings can be set in the   |
| Feature             | In program creation, communication can be performed by   | user program.                                  |
| i caluic            | merely setting the parameter (logical station number) on | Communication settings can be changed flexibly |
|                     | Communication Setting Wizard.                            | in the user program.                           |
|                     | (The number of development processes can be reduced.)    |                                                |
| Used ACT control    | ActUtlType, ActMLUtlType                                 | ActProgType, ActMLProgType                     |
| Used .NET control   | DotUtlType (when labels are used)                        | -                                              |
| Communication Setup | llsed                                                    | Notused                                        |
| Utility             |                                                          |                                                |
| How to connect PLC  | Select the logical station number                        | Change the settings every connection.          |
| Monitor Utility     |                                                          | (Use the wizard)                               |

### **4.3** User Application Creating Procedures

### 4.3.1 When using Visual Basic<sup>®</sup> .NET

### The following describes the creation procedures when using Visual $\mathsf{Basic}^{\textcircled{R}}$ .NET.



\*1 : MX Component Version 4 Programming Manual

### 4.3.2 When using Visual C++<sup>®</sup>.NET



The following describes the creation procedures when using Visual C++® .NET.

\*1: MX Component Version 4 Programming Manual

### 4.3.3 When using VBA



The following describes the creation procedures when using VBA.

\*1: MX Component Version 4 Programming Manual

### 4.3.4 When using VBScript



The following describes the creation procedures when using VBScript.

For starting the Internet/intranet environment, refer to the following appendix.

### 4.4 PLC Monitor Utility Operating Procedure



The following is the PLC Monitor Utility operating procedure.

# CHAPTER 5 SYSTEM LABELS

System labels are labels that can be used with sharing them with multiple projects by opening devices of programmable controller projects and motion controller projects as system labels. Therefore, programming efficiency is improved.

As the device assignment settings are changed in bulk, device assignment changes on applications are not required.

### 5.1 Using System Labels

Register a label using Label Utility of MX Component, and use it from controls.



- Define labels one-to-one with devices, and register the labels.
- · Structure can be used. Structure consists of aggregate of various devices.
- Set data types. Any data types can be set as array.
- · System labels used in MELSOFT Navigator can be utilized in MX Component.

System label data base

A system label data base is a data base to manage system labels.

### 5.1.1 Register system labels in MX Component

Register a system label with Label Utility.

### (1) Register system labels

### Operating procedure

👍 MXLabe

Add LabelSpace(N)
Rename LabelSpace(A)
Delete LabelSpace(D)

Reference Workspace Logical Station Numbe Structured Data Types



If you want to register a

Description

 C [Start] ⇔ [All Programs] ⇔ [MELSOFT Application] ⇔ [MX Component] ⇔ [Label Utility] → Label Utility starts.

Right-click "Undefined\_name" on the LabelSpace window, and select [Rename LabelSpace].
 (Image 119, Section 7.3.1)
 Change the LabelSpace name.

Right-click "System Label List" on the Navigation window, and select [System Label List] ⇔ [New].
 (▷ Page 122, Section 7.3.3)
 Set the system label list name.

5



CAP NUM

Continued on next page



MXLabelManager Menu(M) Edit(E) Help(H

LabelSpace Label1 Select the set system label list name to display the system label list.

Set system label names, data types, and devices.
 (E Page 122, Section 7.3.3)

 5. Right-click "Logical Station Number" on the Navigation window, and select [Logical Station Number] ⇔ [Regist].
 (□ Page 121, Section 7.3.2)

Descript

Regist (N)



6. Select a logical station number, and click the 
button. ( Page 121, Section 7.3.2)
For setting the communication settings, click the
Communication Setting button, and set the settings with
Communication Setting Wizard.
(Page 95, Section 7.1.6)


add the LabelS

MXLabelManager Menu(M) Edit(E) Help(H Add LabelSpace(N)

Save LabelSpace(S)

Workspace(<u>W</u>) Export(<u>E</u>) Import(<u>I</u>) System Label(<u>L</u>)

Exit(X)

Ctrl+5

Alt+F4

Descripti

The logical station number is displayed on the Navigation window.

7. <sup>™</sup> [Menu] <sup>⇔</sup> [Save LabelSpace]
 (<sup>™</sup> Page 119, Section 7.3.1)
 → The system label is registered.

- 5
- 8. ℃ [Menu] ⇔ [Refresh system label data for Control]
   (▷ Page 131, Section 7.3.7)

 $\rightarrow$  The labels referred from controls are updated.

Registration complete

#### (2) Deleting system labels

#### Operating procedure

| ahelSnare                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       | Delete           | System Label Name               | 4          | Data Type | Device       |
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| MLabelManager<br>multi, Edit(), Help/ti<br>Add LabelSpace()<br>Stere LabelSpace()<br>Logical Station Number()<br>Krispace()<br>Vioitspace()<br>Vioitspace()<br>System Label data for Control(8)<br>Logical Station Number()<br>System Label()<br>Import()<br>System Label()<br>Logical Station Number()<br>Logical                                                                                                                                                                                                                                                                                                                                 |       |                  | System Label Name<br>Start_Jano | Bit        | Data Type | Device<br>MD |
| MLabelManager<br>mulM, Editt) HelpM<br>Add LabelSpace()<br>Save LabelSpace()<br>Cont-S<br>Defet LabelSpace()<br>Refresh system label data for Control()<br>Logical Station Number()<br>Workspace()<br>Export()<br>Import()<br>System Label()<br>Ext()<br>Att-F4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Descr |                  | System Label Name<br>Start_Jano | Bit        | Data Type | Device<br>M0 |
| DLLabelManager<br>mu/M, Edit(), Teloph<br>Add Labe/Space()<br>Rename Labe/Space()<br>Delete Labe/Space()<br>CorioS<br>Delete Labe/Space()<br>CorioS<br>Delete Labe/Space()<br>CorioS<br>Delete Labe/Space()<br>CorioS<br>Delete Labe/Space()<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS<br>CorioS     | Descr | Delete           | System Label Name<br>Start_Jamp | Bit        | Data Type | Device<br>MO |
| MLabelManager<br>mulM, Edit(), Helpfi<br>Add LabeSpace()<br>Stre LabeSpace()<br>Critis<br>Deleta LabeSpace()<br>Critis<br>Referch system label data for Control(8)<br>Logical Station Number()<br>Workspace()<br>Export(8)<br>Export(8)<br>System Label()<br>Ent(8)<br>Att+4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Descr | Pelete<br>Delete | System Label Name<br>Start_Jano | Bit        | Data Type | Device<br>M0 |
| MLabelManager<br>mulM, Editt) HelpM<br>Add LabelSpace()<br>Save LabelSpace()<br>Cont-S<br>Defet LabelSpace()<br>Refresh system label data for Control()<br>Logical Station Number()<br>Workspace()<br>Export()<br>Import()<br>System Label()<br>Att-F4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Descr | Delete<br>I      | System Label Name<br>Start_Jano | Bit        | Data Type | Device<br>M0 |
| DLIJbelManager<br>muM, Editt, Helph<br>Add LabeSpace(b)<br>Rename LabeSpace(b)<br>Delete LabeSpace(c)<br>Corios<br>Delete LabeSpace(c)<br>Corios<br>Delete LabeSpace(c)<br>Corios<br>Delete LabeSpace(c)<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios<br>Corios | Descr | Delete<br>I      | System Label Name<br>Start_Jamp | Bit        | Data Type | Device<br>MO |
| MLabelManager<br>mulM, Edit(), Helpfi<br>Add LabeSpace()<br>Stre LabeSpace()<br>Critics<br>Deleta LabeSpace()<br>Critics<br>Deleta LabelSpace()<br>Critics<br>Refresh system<br>King and a for Control(8)<br>Logical Station Number()<br>Workspace()<br>System Label()<br>Ent()<br>Alt+F4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Descr | pelete<br>iption | System Label Hare<br>Star-Lano  | Bit        | Data Type | Device<br>MO |
| MLabelManager<br>mulM, Editt) HelpM<br>Add LabelSpace(B)<br>Sove LabelSpace(B)<br>Control<br>Refresh ystem label data for Control(B)<br>Logical Station Number(G)<br>Workspace(B)<br>Export(B)<br>Import(B)<br>System Label(L)<br>Katel Alt-F4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Descr | pelete           | System Label Name<br>Start_Jano | ▲  <br>Bit | Data Type | Device<br>M0 |
| DLLabelManager<br>muMi Edit() Teloph<br>Add LabeSpace()<br>Rename LabeSpace()<br>Delete LabeSpace()<br>Corio3<br>Delete LabeSpace()<br>Corio3<br>Delete LabeSpace()<br>Add LabeSpace()<br>Logical Station Number()<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Descr | pelete<br>iption | System Label Name<br>Start_Jong | Bit        | Data Type | Device<br>MO |
| MLabelManager<br>mulM, Edit() HelpH<br>Add LabelSpace()<br>Save LabelSpace()<br>Edit() LabelSpace()<br>Refresh system label data for Control(B)<br>Logical Station Number()<br>Workspace()<br>Export()<br>Import()<br>System Label()<br>Ext()<br>Att-F4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Descr | Pelete<br>iption | System Label Name<br>Start_Jano | A<br>Bt    | Data Type | Device<br>MO |
| MLabelManager<br>mulM, Editt) HelpH<br>Add LabelSpace(B)<br>Sove LabelSpace(B)<br>Control<br>Refresh vystem label data for Control(B)<br>Logical Station Number(G)<br>Workspace(B)<br>Export(B)<br>Import(B)<br>System Label(B)<br>Ext(D)<br>Alt-F4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Descr | pelete<br>iption | System Label Name<br>Start_Jano | A Bt       | Data Type | Device<br>M0 |

**1.** Select "Delete" for a system label to be deleted.

C [Menu] ⇔ [Save LabelSpace]
 (▷ Page 119, Section 7.3.1)
 → The system label is deleted.

- MultibleManager
   Image: Comparing the Mapping of th

  - Deletion complete

3. <sup>∞</sup> [Menu] ⇒ [Refresh system label data for Control]
 (□ Page 131, Section 7.3.7)
 → The labels referred from controls are updated.

#### (3) Registering system labels (structured data type)

#### Operating procedure

| /IXLabelManager                                                                             |                                                                                                                                                                 |   |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| enu(M) Edit(E) Help(H)                                                                      |                                                                                                                                                                 |   |
| abelSpace<br>Indefined_Name                                                                 | Repirter the system labeled with the following procedure.<br>1. Spetic the LabelSpace<br>2. To register Logical Station Number.<br>3. To register System Label. |   |
| Reference Workspace<br>Logical Station Number<br>Structured Data Types<br>System Label List |                                                                                                                                                                 |   |
|                                                                                             | Description                                                                                                                                                     |   |
|                                                                                             |                                                                                                                                                                 |   |
|                                                                                             | <                                                                                                                                                               | Þ |

 C [Start] ⇔ [All Programs] ⇔ [MELSOFT Application] ⇔ [MX Component] ⇔ [Label Utility] → Label Utility starts.

- Right-click "Undefined\_name" on the LabelSpace window, and select [Rename LabelSpace].
   (I Page 119, Section 7.3.1)
   Change the LabelSpace name.
- McLabelManager Menuly Edit: Hejph Menuly Edit: Hejph Reference: Workspace.(A) Delete LabelSpace(D) Delete LabelSpace(D) Delete LabelSpace(D) Reference: Workspace. System Label List System Label List CAP INLIM SCRI.

5



 Right-click "Structured Data Types" on the Navigation window, and select [Structured Data Types] ⇔ [New].
 (E Page 127, Section 7.3.4) Set the structure name.

# Continued on next page



Select the set structure name to display the structure setting list.

 Set label names and data types for structure member. (SP Page 127, Section 7.3.4)

 Right-click "System Label List" on the Navigation window, and select [System Label List] ⇒ [New].
 (▷ Page 122, Section 7.3.3) Set the system label list name.



∽

Continued on next page

Select the set system label list name to display the system label list.

6. Set system label names and data types.

(E Page 122, Section 7.3.3) Click "Detail Setting" on the "Device" column of the system label list.

🚹 MXLabelMa

Menu(M) Edit(E) Hel LabelSpace Label1

> Reference Works Logical Station N Structured Data

> > n Label List(Y)

•

Descrip

New(N)





7. Specify a device.

8. <sup>∞</sup> [Menu] ⇔ [Save LabelSpace]
 (□ Page 119, Section 7.3.1)
 → The system label is registered.

- 9. ℃ [Menu] ⇔ [Refresh system label data for Control]
  - ( 🖙 Page 131, Section 7.3.7)

 $\rightarrow$  The labels referred from controls are updated.



Registration complete

### 5.1.2 Utilizing labels used in MELSOFT Navigator

Refer a system label from existing Workspace, and register it with Label Utility.

#### Operating procedure

| MXLabelManager                                                                                                                                                                          | - • •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Menu(M) Edit(E) Help(H)                                                                                                                                                                 | Register the system labeled with the following procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| LabelSpace                                                                                                                                                                              | 1. Select the LabelSpace.<br>2. To register Logical Station Number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Choose Carlos                                                                                                                                                                           | 3. To register System Label.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| Reference Workspace:                                                                                                                                                                    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| MCLabelManager<br>Merul(M Edit) Help(H)<br>LabelSpace                                                                                                                                   | CAP (NUM (SCR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| MXLabelManager<br>MenujiAj Editji Helpitij<br>LabeSpace<br>LabeTja                                                                                                                      | CAP (NUM (SCR)<br>(CAP (NUM (SCR)<br>)<br>CAP (NUM (SCR))<br>)<br>CAP (SCR))<br>(SCR))<br>)<br>CAP (SCR))<br>)<br>CAP (SCR))<br>)<br>CAP (SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>(SCR))<br>( |
| MXLabelManager<br>Merul/M_Edit(S_Help)H<br>LabelSpace<br>Label1_                                                                                                                        | CAP HUM SCR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| MCLabelManager<br>Merul(M Edit) Help(H)<br>LabelSpace<br>LabelT                                                                                                                         | CAP NUM SCRI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| MXLabelManager<br>Menuj04 Edit[5 Help/H<br>LubelSpace<br>LubelSpace                                                                                                                     | CAP NUM (SCR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| MCLabelManager<br>Meruly Edit[] Help(H)<br>LabelSpace<br>Label1 ]<br>Peterovea Wolksapper<br>LabelSpace Wolksapper<br>LabelSpace Wolksapper                                             | CAP WUM (SCR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| MOLabelManager<br>Merulyili Edit[] Helpiti<br>LabelSpace<br>LabelT                                                                                                                      | CAP INUM (SCRU<br>CAP INUM (SCRU<br>) you want to register a new reference to a different workspace, add the LabeEpsee.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| MULabelManager<br>MerujiAg Edit[3 Help/b]<br>LabelSpace<br>Label1<br>System Castral Station Numb<br>System Label List                                                                   | CAP (NUM (SCR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| MULabelManager<br>MenufM Edit(2) HeipH)<br>LabelSosco<br>LabelT<br>Corcia Station Numb<br>Structured Data Types<br>Structured Data Types                                                | CAP WUM (SCR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| MCLabelManager<br>MerulyA Edit[] Helpiti<br>[ab/Seace<br>[abel]<br>Bilmion Wolfseace<br>[abel]<br>Bilmion Wolfseace<br>[abel]<br>Bilmion Wolfseace<br>[abel]<br>System Label List       | (CAP INUM (SCR)<br>(CAP I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| MULabelManager<br>Menul/M_Edit[] Help(H)<br>LabelSpace<br>Label1<br>Stotchaston Nucl-Space(W)<br>System Label List                                                                      | CAP NUM SCRI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| MXLabelManager<br>Menufility Edit(2) HelpPh<br>LabelState<br>LabelT<br>Copies Station Numb<br>System Label List<br>Workspace(W)                                                         | CAP WUM SCR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| MCLabelManager<br>Merul/M_EditEj Helpiti<br>LabelSpace<br>Label]<br>Potention Workspace(W)<br>Copcal Station Nank<br>Synchron Label List                                                | CAP (NUM (SCR.<br>CAP (NUM (SCR.<br>)<br>)<br>)<br>Reference Registration(N)<br>Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MULabelManager<br>Menul/M_Edit[] Help(H)<br>LabelSpace<br>Label1<br>Storten Mol Statico Numb<br>Strate Das Types<br>System Label List                                                   | CAP NUM SCR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MXLabelManager<br>MenulMi Edit() HeipPri<br>LabeStato<br>LabeStato<br>LabeStato<br>Southed Data Types<br>Southed Data Types                                                             | CAP NUM SCR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| MOLabelManager<br>Merulyiti Editti Helphti<br>LabelSpace<br>LabelT<br>System Label List<br>System Label List                                                                            | CAP (NUM (SCR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| MULabelManager<br>MenulMi Edit[) Help(r)<br>LabelSpace<br>Label1<br>Stotchad Station Numk<br>System Label List                                                                          | CAP (NUM SCN     C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| MXLabelManager<br>MxLabelManager<br>LabeGsaco<br>Label1<br>Contract Wohlsocco<br>Label1<br>Contract Station Numb<br>Contract Station Numb<br>Contract Station Numb<br>System Label List | CAP  NUM SCR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| MOLabelManager<br>Merulyiti Edittij Helpitti<br>LabelSpace<br>LabelT<br>System Label List<br>System Label List                                                                          | If you want to register a new reference to a different workspace, add the LabelSpace.      Reference Registration(N)      Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| MULabelManager<br>Menul/M_Edit[] Help(H)<br>LabelSpace<br>Label1<br>Statics Nucl.Space(W)<br>System Label List                                                                          | Cost Num (Scn)      Cost Num (Scn)      Vou want to register a new reference to a different workspace, add the LabeSpace      Prove want to register a new reference to a different workspace, add the LabeSpace      Prove want to register a new reference to a different workspace, add the LabeSpace      Prove want to register a new reference to a different workspace, add the LabeSpace      Prove want to register a new reference to a different workspace, add the LabeSpace      Prove want to register a new reference to a different workspace, add the LabeSpace      Prove want to register a new reference to a different workspace, add the LabeSpace      Prove want to register a new reference to a different workspace, add the LabeSpace                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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 <sup>™</sup> [Start] ⇔ [All Programs] ⇔ [MELSOFT Application] ⇔ [MX Component] ⇔ [Label Utility] → Label Utility starts.

Right-click "Undefined\_name" on the LabelSpace window, and select [Rename LabelSpace].
 (▷ Page 119, Section 7.3.1)
 Change the LabelSpace name.

 Right-click "Structured Data Types" on the Navigation window, and select [Workspace] 
 [Reference Registration].
 (□ Page 128, Section 7.3.5)

( Page 126, Section 7.3.



4. Select a Workspace that is to be referred and registered. ( SP Page 128, Section 7.3.5)

The referred and registered Workspace name is displayed on the Navigation window. Select the system label name to display the referred system label list.



MXLabelManager Menu(M) Edit(E) Help(H



Continued on next page

5. ♥ [Menu] ▷ [Save LabelSpace]
 (▷ Page 119, Section 7.3.1)
 → The system label is registered.

For referring more than one Workspace, add LabelSpace first, and operate the procedure 2 to 4.



 $\bigtriangledown$ Registration complete

6. <sup>™</sup> [Menu] 
 <sup>™</sup> [Refresh system label data for Control]
 (<sup>™</sup> Page 131, Section 7.3.7)

# **5.1.3** Applying device settings changed in GX Works2 to MX Component

Update the settings with Label Utility after changing the device assignment settings of referred and registered system labels with GX Works2.

#### Operating procedure

| MXLabelManager                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                 |
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| Menu(M) Edit(E) Help(H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Register the system labeled with the following procedure.                                                                       |
| Undefined_Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1. Select the LabelSpace.<br>2. To register Logical Station Number.<br>3. To register System Label                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                 |
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| Reference Workspace:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                 |
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| Se System Label List                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                 |
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| Menu(M) Edit(E) Help(H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                 |
| LabelSpace                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Register the system labeled with the following procedure.<br>1. Select the LabelSpace.<br>2. To register Legisla Station Number |
| Label1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3. To register System Label.                                                                                                    |
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| Reference Workspace<br>Logical Station Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                 |
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| Co                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ontinued on next page                                                                                                           |

 C [Start] ⇔ [All Programs] ⇔ [MELSOFT Application] ⇔ [MX Component] ⇔ [Label Utility] → Label Utility starts.

The system label notification icon is displayed on the status bar of Label Utility.

**2.** Select the LabelSpace name.

- Right-click the system label notification icon, and select [Change Contents of System Label Database]. (☞ Page 130, Section 7.3.6)
- 4. Click the ves button.



Point P

The system label change notification icon is not displayed when the system labels are used without referring and registering the Workspace.

Select the system label list name to display the system label list.

5. <sup>™</sup> [Menu] <sup>⇔</sup> [Save LabelSpace]
 (<sup>™</sup> Page 119, Section 7.3.1)
 → The system label is registered.

For referring more than one Workspace, select LabelSpace from the LabelSpace window first, and operate the procedure 2 to 4.

The system label change notification icon is displayed while referring more than one Workspace.

C [Menu] ⇔ [Refresh system label data for Control]
 (▷ Page 131, Section 7.3.7)

 $\rightarrow$  The labels referred from controls are updated.

## 5.1.4 Using System Labels on another personal computer

Export a LabelSpace, and import it to another personal computer to use a system label.

#### (1) Exporting LabelSpaces

Export a LabelSpace, and create a file.

#### Operating procedure

🔾 🗸 📲 « Win7-ENG (C:) 🕨 MELSEC 🕨 Act 🕨 U

Save as type: ACT Regist File (\*.act)

Organize 🔻 New fo

★ Favorites
► Desktop
► Downloads
₩ Recent Places

Libraries Documer Music Pictures Videos Computer File pa

A Hide Folder



• <del>4</del>9

80 - 88

Save Cancel



- 2. ℃ [Menu] ⇔ [COM setup export] () Page 94, Section 7.1.5)
- **3.** Enter the file name to be saved.

4. ℃ [Start] ⇔ [All Programs] ⇔ [MELSOFT
 Application] ⇔ [MX Component] ⇔ [Label Utility]
 → Label Utility starts.

5



Continued on next page



5. 𝔍 [Menu] ⇔ [Export] ( 🖙 Page 131, Section 7.3.8)

**6.** Enter the file name to be saved.

 $\mathbf{r}$ 

•

Save Cancel

r Compute

Hide Folders

Save as type: ACT Regist File (\*.act)

Registration complete

#### (2) Importing LabelSpaces

Import an exported file to LabelSpace of another personal computer.

Copy the exported files of the communication setting and the LabelSpace to the personal computer to be imported beforehand.

#### Operating procedure

| Communication Setup Utility                                                                          |                                                                                                     |                                                        |         | - • •   |
|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------|---------|---------|
| Weeu) Frep<br>Target setting<br>List view<br>Connection test<br>COM setup import.<br>Wizard.<br>Exit | h test<br>Sample<br>CPU type<br>Module type<br>Station No<br>Transmission speed<br>Party<br>Control | 000J<br>0J71C24<br>1<br>19200 bps<br>0dd<br>DTR or RTS | Wizard. | Delete. |
|                                                                                                      |                                                                                                     |                                                        |         | Exit    |
|                                                                                                      | ۲                                                                                                   | <u>ک</u>                                               |         |         |



| Menu(M) Edit(E) Help(H)                                                                                                       |                                                                                                                                                              |   |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| LabeEpace<br>Undefined, Name<br>Reference Workspace<br>Enclosed Station Number<br>Structured Data Types<br>Stystem Label List | Pepter the system blockid with the following procedure.<br>1. Select the LeeBopson<br>2. To register Lopical Station Number.<br>3. To register bystem Label. |   |
|                                                                                                                               | Description                                                                                                                                                  |   |
|                                                                                                                               |                                                                                                                                                              | • |

Continued on next page

- C [Start] ⇔ [All Programs] ⇔ [MELSOFT Application] ⇔ [MX Component] ⇔ [Communication Setup Utility]
   → Communication Setup Utility starts.
- 2. ♥ [Menu] ▷ [COM setup import] () Page 93, Section 7.1.4)
- **3.** Specify the file name of communication setting to be imported.

4. <sup>∞</sup> [Start] ⇔ [All Programs] ⇔ [MELSOFT
 Application] ⇔ [MX Component] ⇔ [Label Utility]
 → Label Utility starts.







Registration complete

**5.** <sup>™</sup> [Menu] ⇔ [Import] ( <sup>™</sup> Page 132, Section 7.3.9)

6. Specify the file name of LabelSpace to be imported.

7. <sup>™</sup> [Menu] <sup>⇔</sup> [Refresh system label data for Control]
 (<sup>™</sup> Page 131, Section 7.3.7)
 → The labels referred from controls are updated.

# CHAPTER 6 STARTING AND EXITING UTILITIES

This chapter explains how to start and exit the utilities.

# 6.1 Starting Utilities



℃ [Start] ⇔ [All Programs] ⇔ [MELSOFT Application] ⇔ [MX Component]
 For the registered icons, refer to the following section.
 □ Page 58, Section 3.2 Registered Icons

#### Screen display

<Administrator authority when executing each utility>

#### (1) Administrator authority

However, when Label Utility is executed, the status is switched to the administrator authority automatically. When executing Communication Setup Utility and PLC Monitor Utility, the performance differs according to the user account control (UAC) settings.

- When user account control (UAC) is enabled All users including administrator are fixed at and operate as "standard user". To execute programs with administrator authority, specify "Run as administrator".
- 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 with the administrator authority when UAC is enabled. (The procedure is also applied to PLC Monitor Utility.)



#### Operating procedure

**1.** Select [Communication Setup Utility], right-click, and select [Run as administrator] for execution.

For administrator users, the message shown on the left is displayed.

Select <u>ves</u> button or "Allow" to execute a program with the administrator authority. Select <u>ne</u> button or "Cancel" to cancel the execution.





Setting complete

#### (3) Setting to always execute programs as an administrator

Set the following setting to "Run as administrator" at all times. (The procedure is also applied to PLC Monitor Utility.)

#### Operating procedure



Setting complete

**1.** Select [Communication Setup Utility], right-click, and select [Properties].

2. Select the <<Compatibility>> tab, and select "Run this program as an administrator".

# 6.2 Exiting Utilities

#### (1) Communication Setup Utility

Operating procedure

- <sup>™</sup> [Menu] ⇔ [Exit Communication Setup Utility]
- Click the **Exit** button at bottom right of the screen.

#### (2) PLC Monitor Utility

Operating procedure

- <sup>™</sup> [Menu] ⇔ [Exit PLC Monitor Utility]
- Click the <u>text</u> button at bottom right of the screen.

#### (3) Label Utility

Operating procedure

∛◯ [Menu] ⇔ [Exit]

# 6.3 Confirming Version

Operating procedure

∛◯ [Help] ⇔ [About...]

# CHAPTER 7 UTILITY OPERATIONS

This chapter explains how to operate each utility.

Point P

For communication setting examples using Communication Setup Utility, refer to the following chapter.  $\bowtie$  Page 133, CHAPTER 8 COMMUNICATION SETTING EXAMPLES OF UTILITY SETTING TYPE

# 7.1 Communication Setup Utility

This section explains how to operate and set Communication Setup Utility used to perform communication with the utility setting type.

#### 7.1.1 **Operations on Target setting tab**

This tab is used to display the setting details of the logical station number set on Communication Setting Wizard and to edit.

#### Screen display 塌 Communication Setup Utility -Menu Help Target setting List view Connection test Logical station number 1:C24 Sample -Wizard Serial MultiDrop(C) Connection image PC I/F COM1 Module type QJ71C24 CPU type Q00. Station N diagram Time-out 10000 ms Transmission 19200 bps 3 d spe Parity Odd DTR or RTS Control Exit

| Item                     | Description                                                                                                                                                                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Logical station number   | Select the logical station number to display and edit the setting details set on Communication Setting Wizard.                                                                                                                                                   |
| Wizard button            | Start Communication Setting Wizard and set the logical station number.                                                                                                                                                                                           |
| Delete button            | Delete the preset logical station number.                                                                                                                                                                                                                        |
| Connection image diagram | Display the connection image diagram of the selected logical station number.<br>Click any sketch (personal computer, programmable controller CPU) in the connection image<br>diagram to start the Communication Setting Wizard, and the settings can be changed. |

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Remark

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For details of Communication Setting Wizard, refer to the following section.

Page 95, Section 7.1.6 Operations on Communication Setting Wizard screens

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#### 7.1.2 **Operations on List view tab**

This tab is used to list and edit the registered logical station number, and list the properties required for the program setting type.

#### Screen display

| 📲 Comr             | nunication Setup Utility         | _                  |   |
|--------------------|----------------------------------|--------------------|---|
| Menu               | Help                             |                    |   |
| Target s           | etting List view Connection test |                    |   |
|                    |                                  |                    |   |
| Logica             | I No Comment                     | PC side VF Wizard. |   |
| 1                  | C24_Sample                       | COM1               |   |
| 2                  | E71_Sample                       | Ethernet Delete    |   |
| 3                  | QnUDE_Sample                     | Ethernet           |   |
| roperty list 🗕 🕨 🛓 | Ethernet adapter_Sample          | Ethernet           |   |
| 5                  | CPU COM_Sample                   | COM1               |   |
| 6                  | CPU USB_Sample                   | USB                |   |
| 7                  | CC-Link_Sample                   | CC-Link            |   |
| 8                  | CC-Link G4_Sample                | COM1               |   |
| 9                  | GX Simulator_Sample              | GX Simulator       |   |
| 10                 | GX Simulator2_Sample             | GX Simulator2      |   |
| 11                 | MNETH_Sample                     | MNET/H             |   |
| 12                 | CC IE Control_Sample             | CC IE Control      |   |
| 13                 | CC IE Field_Sample               | CC IE Field        |   |
| 14                 | Q Bus_Sample                     | Q Series Bus       |   |
| 15                 | Modem_Sample                     | COM1 Display       |   |
| 16                 | GOT_Sample                       | Ethernet Utility   | - |
| 17                 | GOT Transparent_Sample           | USB(via GOT)       |   |
|                    | III                              | Save tex           | t |
|                    |                                  |                    |   |
|                    |                                  |                    |   |
|                    |                                  |                    |   |
|                    |                                  | Exit               |   |
|                    |                                  |                    |   |

| ltem             | Description                                                                                                                                                                        |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Property list    | Display the settings of the registered logical station numbers.<br>Double-clicking the logical station number starts Communication Setting Wizard.                                 |
| Wizard button    | Start Communication Setting Wizard and set the logical station number.                                                                                                             |
| Delete button    | Delete the preset logical station number.                                                                                                                                          |
| Display          | Utility : Display the settings set for the logical station numbers in the property list.<br>Program: Display the property list required for setting with the program setting type. |
| Save text button | Save the settings of property list into a file in the .txt format.                                                                                                                 |

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For details of Communication Setting Wizard, refer to the following section.

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Page 95, Section 7.1.6 Operations on Communication Setting Wizard screens 

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# 7.1.3 Operations on Connection test tab

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

#### Screen display

| En Communication Setup Utility          |      |   | - • × |
|-----------------------------------------|------|---|-------|
| Menu Help                               |      |   |       |
| Target setting List view Connection tes | t    |   |       |
| Logical station number 1:C24_Sample     | e    | • | Test  |
| Communication diagnosis count           | 5    |   |       |
| Result                                  |      |   |       |
|                                         |      |   |       |
| Diagnosis count                         | 0    |   |       |
| Result                                  |      |   |       |
| CPU name                                |      | _ |       |
| Mean time of communication              | 0 ms |   |       |
|                                         |      |   |       |
|                                         |      |   |       |
|                                         |      | [ | Exit  |

| ltem                                   | Description                                                                                                                                                    |                                                                                                                                                                                                                                                                                       |  |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Logical station number                 | Select the logical station number on which a communication test will be performed.                                                                             |                                                                                                                                                                                                                                                                                       |  |
| Communication                          | Set how many times (1 to 32767) the communication test will be repeated for the specified logical                                                              |                                                                                                                                                                                                                                                                                       |  |
| diagnosis count                        | station number.                                                                                                                                                |                                                                                                                                                                                                                                                                                       |  |
| Test button<br>( <u>Cancel</u> button) | Start (stop) the cor<br>When the logical s<br>following screen is<br>When the passwor<br>Password input<br>Please enter the password<br>when there is not a pa | nmunication test.<br>tation number where the modem communication data are set is selected, the<br>displayed after <u>Test</u> button is clicked.<br>rd is set, enter the password and click the <u>OK</u> button.<br>word.Please push OK as it is<br>ssword setting.<br><u>Cancel</u> |  |
|                                        | Display the result o                                                                                                                                           | of the communication test.                                                                                                                                                                                                                                                            |  |
|                                        | Item                                                                                                                                                           | Description                                                                                                                                                                                                                                                                           |  |
|                                        | Diagnosis count                                                                                                                                                | Display the number of connections during the communication test.                                                                                                                                                                                                                      |  |
| Result                                 | Result                                                                                                                                                         | Display the test result.<br>An error code is displayed at error occurrence.<br>0 is displayed at normal termination, or any value other than 0 is displayed at<br>abnormal termination.                                                                                               |  |
|                                        | CPU name                                                                                                                                                       | Display the connected CPU type.                                                                                                                                                                                                                                                       |  |
|                                        | Mean time of communication                                                                                                                                     | Display the average time taken until one communication test is established.<br>(Unit: ms)                                                                                                                                                                                             |  |

# 7.1.4 Importing communication settings

Apply the exported communication settings saved to the file ( Page 94, Section 7.1.5) to the utility. This screen is used when the communication settings set on another personal computer are to be applied to the personal computer being used.

| Operating procedure |                    |
|---------------------|--------------------|
| 🏷 [Menu] 🗘          | [COM setup import] |

#### Screen display



Point P

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

# 7.1.5 Exporting communication settings

Save the communication settings set on the personal computer in a file. (The file where data are saved is called the ACT registered file.)

This screen is used to apply the communication settings on another personal computer.

Point P -

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

#### Operating procedure

♡ [Menu] ⇔ [COM setup export...]

Screen display

| Save As                                               |                                 |                                    |                  |                         |            |        | × |
|-------------------------------------------------------|---------------------------------|------------------------------------|------------------|-------------------------|------------|--------|---|
| Co                                                    | mputer + OS (C:) + MELSEC + Act | > Uti                              |                  | <b>-</b> 4 <sub>7</sub> | Search Utl |        | ٩ |
| Organize 🔻 Ner                                        | w folder                        |                                    |                  |                         |            | 800 -  | 0 |
| Favorites                                             | Name                            | Date modified<br>6/12/2012 4:00 PM | Type<br>ACT File | Size<br>3 KB            |            |        |   |
| Libraries<br>Documents<br>Music<br>Pictures<br>Videos |                                 |                                    |                  |                         |            |        |   |
| 🖷 Computer                                            |                                 |                                    |                  |                         |            |        |   |
| Network       |                                 |                                    |                  |                         |            |        |   |
| File name:                                            | 1                               |                                    |                  |                         |            |        | • |
| Save as type:                                         | ACT Regist File (".act)         |                                    |                  |                         |            |        | • |
| Hide Folders                                          |                                 |                                    |                  |                         | Save       | Cancel |   |

## 7.1.6 Operations on Communication Setting Wizard screens

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

#### (1) Outline of Communication Setting Wizard

The logical station number required to perform communication with the utility setting type is set with the wizard. The following are the places and descriptions of the settings set on the Communication Setting Wizard screens. For the wizard screen settings, refer to the following section.

Page 96, (3) in this section Explanation of Communication Setting Wizard screens



| Screen Name | Description                                                                                                                                                  |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wizard 1)   | Set the logical station number.                                                                                                                              |
| Wizard 2)   | Set the connected network between the personal computer and connected station (programmable controller CPU and module).                                      |
| Wizard 3)   | Set the connected station (programmable controller CPU and module).                                                                                          |
| Wizard 4)   | Set the relayed network between the connected station (programmable controller CPU and module) and relayed station (programmable controller CPU and module). |
| Wizard 5)   | Set the relayed station programmable controller CPU.                                                                                                         |
| Wizard 6)   | Comment the logical station number.                                                                                                                          |

#### (2) Starting procedure

Operating procedure

- 🏷 [Menu] 💠 [Wizard]
- Click the Save text.. button on the utility screen.

#### (3) Explanation of Communication Setting Wizard screens

Communication Setting Wizard screens are shown from wizard 1) to wizard 6) in order. The following explains Communication Setting Wizard screens in displayed order.

Point Point

- The displays or available setting items of Communication Setting Wizard screens differ depending on the communication settings. Set all available setting items being displayed.
- Some of Communication Setting Wizard screens may not be displayed depending on the settings.

Operating procedure

Start Communication Setting Wizard.

Wizard 1) × You can press Back at any time to change you click Next to begin Please select the logical station numbe 1 • Cancel Next >

Continued on next page

**1.** Enter or select the logical station number and click the Next> button.

The logical station number can be registered from 0 to 1023.



Wizard 2)

| Communication Setting Wizard - PC side                                                                                          | × |
|---------------------------------------------------------------------------------------------------------------------------------|---|
| Please select the PC side UF PC side UF PC side UF PC side UF Communication setting Connect port Connect port Time out 10000 ms |   |
| Cancel < Back Next > Finish                                                                                                     |   |

 Select "PC side I/F" to communicate with. The items shown in "Communication setting" differ depending on the setting set in "PC side I/F". Set all available setting items and click the <a href="https://www.weithing.com">weithing</a> button.

The following table indicates the items corresponding to the communications in "PC side I/F".

| Setting Item        | Communication Name                                                    |
|---------------------|-----------------------------------------------------------------------|
| USB                 | USB communication                                                     |
| USB (via GOT)       | GOT transparent communication                                         |
| Serial              | Serial communication, CPU COM communication, CC-Link G4 communication |
| Serial (via GOT)    | GOT transparent communication                                         |
| Ethernet board      | Ethernet communication,<br>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                                             |
| 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                                            |



|        | Please select the PLC side VF PLC side VF Communication setting CPU type Q02(H)  Transmission speed 9600  bps Control DTR or RTS Control |  |
|--------|------------------------------------------------------------------------------------------------------------------------------------------|--|
| Cancel | < Back [Next> Finish                                                                                                                     |  |

When via GOT is selected on Wizard 2), the following screen is displayed. (Wizard 3) differs in available setting items depending on the settings on Wizard 2)) Set all available setting items and click the button.

| Communication              | n Setting Wizard - GOT | side   |        | (      | x |
|----------------------------|------------------------|--------|--------|--------|---|
| Please selec<br>GOT-PLC VF | t the GOT - PLC VF     | •      |        |        |   |
| Communicatio               | on setting             |        |        |        |   |
| Connect mod                | dule CPU module        | -      | ·      |        |   |
|                            |                        |        |        |        |   |
|                            |                        |        |        |        |   |
|                            |                        |        |        |        |   |
|                            |                        |        |        |        |   |
|                            |                        |        |        |        |   |
|                            |                        |        |        |        |   |
|                            |                        |        |        |        |   |
|                            |                        |        |        |        |   |
|                            | 1                      |        |        |        |   |
|                            | Cancel                 | < Back | Next > | Finish |   |

Continued on next page

7.1 Communication Setup Utility 7.1.6 Operations on Communication Setting Wizard screens



Communication Setting Wizard - Network
Please select the Network
Station type
Other station

Network
MELSECNET/10(H)

Network route
Mode
MELSECNET/H

Cancel
<Back
Netx > Finish



# Wizard 5)

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 the <u>Next></u> button.

When the modem is selected on Wizard 2), the <u>Connect</u> <u>Line</u> screen is displayed before Wizard 4).

For details of the <u>Connect Line</u> screen, refer to the following section.

Section 7.1.7 Operations on Connect Line screen

**5.** Wizard 5) differs in available setting items depending on the settings on Wizard 2), Wizard 3) and Wizard 4).

Set all available setting items and click the <u>Next></u> button.

6. Comment the logical station number being set. The maximum number of characters for comment is 32.
Enter a comment and click Frish button.

If a comment is not required, click the **Finish** button without entering it.

| Wizard 6)                               |                                                                                                                          |  |  |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--|--|
| Communication Setting Wizard - Finished |                                                                                                                          |  |  |
|                                         | The Communication wizard has finished collecting information. Please Finish to build the logical station number. Comment |  |  |
| Cancel                                  | < Back Next > Finish                                                                                                     |  |  |
|                                         | <u></u>                                                                                                                  |  |  |

Setting completion

When the registration of the logical station number is completed on Communication Setting Wizard, the settings are displayed on the <<Target setting>> tab.

| <before registration=""></before>                                                                                                                     | <after registration=""></after>                                                                                                                                                                                  | >                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Communication Setup Utility      Menu Help      Target setting     List view     Connection test      Logical station number      Wizard.      Delete | Communication Setup Utility Meru Help Target setting Lut view Connection test Logical station number T      Senal      Cov     Cov     Cov     CoM     CPU type Time-out     10000 ms     Control     DTR or RTS | CPU type         QQ2(r)           Network to         5           Multiple CPU         ¥one |
| Ext                                                                                                                                                   |                                                                                                                                                                                                                  | Exit                                                                                       |

# 7.1.7 Operations on Connect Line screen

This screen is used to set the telephone line settings required to set modem communication in Communication Setup Utility.

#### (1) Connect Line screen

Set the line connection system, telephone line, AT command, and the like.

#### Screen display

| Communication Setting Wizard - C | onnect Line   | ×               |
|----------------------------------|---------------|-----------------|
| Connect way Auto line connect    | <b>_</b>      |                 |
| Line type TONE   Outside         | e line number | Port COM1 -     |
| Connection Call number           |               | Browse          |
| AT command                       | of AT command |                 |
| C AT command setting             |               | Browse          |
| Ime                              |               | Details setting |
| Cancel                           | < Back Next > | Finish          |

| Item            | Description                                                                                                                                                                      |                                                                                                                                            |   |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---|
|                 | Set the line connection system.<br>When Q series-compatible C24 is used, any of the following items can be selected.<br>(Fixed to "Auto line connect" when FXCPU is used.)       |                                                                                                                                            |   |
|                 | Item                                                                                                                                                                             | Description                                                                                                                                |   |
|                 | Auto line connect                                                                                                                                                                | Select this when the callback function is not set.                                                                                         |   |
|                 | Auto line connect (Callback fixation)                                                                                                                                            |                                                                                                                                            |   |
| Connect way     | Auto line connect (Callback number specification)                                                                                                                                | For details on the connection format of each                                                                                               | - |
|                 | Callback connect (Fixation)                                                                                                                                                      | callback function, refer to the following                                                                                                  |   |
|                 | Callback connect (Number specification)                                                                                                                                          | manual.                                                                                                                                    |   |
|                 | Callback request (Fixation)                                                                                                                                                      | Manual                                                                                                                                     |   |
|                 | Callback request (Number specification)                                                                                                                                          |                                                                                                                                            |   |
|                 | Callback reception waiting                                                                                                                                                       |                                                                                                                                            |   |
| Callback number | Set the telephone number used with the ca<br>This item can be set only when "Auto line c<br>"Callback connect (Number specification)"<br>selected in the line connection system. | llback function of Q series-compatible C24.<br>onnect (Callback number specification)",<br>or "Callback connect (Number specification)" is | - |

(Continued on next page)

| ltem                   |                     | Description                                                                                                                                                                         | Reference                     |
|------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Line                   |                     | -                                                                                                                                                                                   | -                             |
|                        | Line type           | Select a line type: Tone, Pulse, or ISDN.                                                                                                                                           | -                             |
|                        | Outside line number | Set the number as required when calling through the outside line.                                                                                                                   | -                             |
|                        | Port                | Select the COM port number which is connected to the modem.                                                                                                                         | -                             |
| Connection target      |                     | Set the phone number of the target.<br>The previously-registered phone numbers in the telephone directory can be specified by clicking the Browse_ button.                          | Page 102, (2) in this section |
| AT co                  | ommand              | -                                                                                                                                                                                   | -                             |
|                        | Modem standard      | Use the AT command set on the modem.                                                                                                                                                | -                             |
|                        | AT command setting  | When a difficulty of line connection occurs using the standard AT command, create an AT command with referring to the manual of the modem and the content displayed by clicking the | Page 104, (3) in this section |
| Details setting button |                     | Display the <u>Detail setting</u> screen.                                                                                                                                           | Page 106, (4) in this section |

#### (2) Setting TEL data

Set the telephone numbers used on the Connect Line screen.

|                      | Call book                 | ×               |
|----------------------|---------------------------|-----------------|
|                      | A Factory                 | Close           |
|                      | Paintng                   | Cancel          |
| List of registered — | Construction              | New call number |
| phone numbers        |                           | New group       |
|                      |                           | Edit            |
|                      |                           | Сору            |
|                      |                           | Move group      |
|                      |                           | Delete          |
|                      | C Display cursor position | Find            |
|                      | Call number               | Select          |
|                      | Outside line number       | Read file       |
|                      |                           | Write file      |
|                      |                           |                 |

#### Display contents

| ltem                             | Description                                                                                      |
|----------------------------------|--------------------------------------------------------------------------------------------------|
| List of registered phone numbers | Display group names and user names of phone numbers.                                             |
| Display cursor position          | Display the registered information of the data selected on the list of registered phone numbers. |

#### Operating procedure

- **1.** Select a group for which the phone number to be registered on the list of registered phone numbers.
- 2. Click the New call number... button.

 $\rightarrow$  The <u>Call number setting</u> screen is displayed.

| Call number setting                                                                    |              | 3 |
|----------------------------------------------------------------------------------------|--------------|---|
| 0                                                                                      | A Factory    |   |
| Group name                                                                             | AFactory     |   |
| Destination name                                                                       | Construction |   |
|                                                                                        |              |   |
| Call number                                                                            | ******       |   |
| Outside line number                                                                    | 0 •          |   |
| For only line conne                                                                    | ction        |   |
| Password                                                                               | ****         |   |
| A password input is necessary when the password is unset or when connecting to a line. |              |   |
| Comment                                                                                |              |   |
| ABCDEFGHIJKLMNC                                                                        | PQRSTUVWXYZ  | - |
|                                                                                        | OK Cancel    |   |

#### **3.** Set the items on the screen.

| Item                     | Description                                                                                                                                       |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Group name               | Display the group name to which the information is registered.                                                                                    |
| Destination name         | Enter the name of the phone number to be set.<br>The maximum number of characters that can be set is 50.                                          |
| Call number              | Enter the phone number. The maximum number of characters that can be set is 50.                                                                   |
| Outside line number      | Set the outside line number. The maximum number of characters that can be set is 10.                                                              |
| For only line connection | When a password is set for Q series-compatible C24, this setting enables to process the password authorization automatically to connect the line. |
| Comment                  | Enter notes on the registered information.<br>The maximum number of characters that can be set is 60.                                             |

#### **4.** Click the <u>K</u> button.

 $\rightarrow$  The phone number is registered.

#### Screen button

| Item              | Description                                                                                                  |
|-------------------|--------------------------------------------------------------------------------------------------------------|
|                   | Create a new group.                                                                                          |
| New group button  | The Group setting screen is displayed by clicking the New group button.                                      |
|                   | Enter a group name. The maximum number of characters that can be set is 50.                                  |
|                   | Edit the registered data.                                                                                    |
| Edit button       | Select a registered data to be edited on the list of registered phone numbers.                               |
|                   | The Call number setting screen is displayed by clicking the state button. Edit the data.                     |
|                   | Copy a registered phone number to another group.                                                             |
|                   | Select the registered data to be copied on the list of registered phone numbers.                             |
| Copy Dutton       | The Group screen is displayed by clicking the <u>Copy</u> button.                                            |
|                   | Select the group to which data is pasted, and click the $\begin{tabular}{c} \mbox{ok} \end{tabular}$ button. |
|                   | Move a registered phone number to another group.                                                             |
|                   | Select the registered data to be moved on the list of registered phone numbers.                              |
| Move group button | The Group screen is displayed by clicking the Move group button.                                             |
|                   | Select the group to which data is moved, and click the button.                                               |
| Delete            | Delete a registered group and phone number.                                                                  |
|                   | Data cannot be deleted in bulk in group unit.                                                                |
|                   | Search for a registered phone number. The search condition is a partial match.                               |
| Find button       | Target data is searched from all registered data.                                                            |
| button            | When entering search conditions to both "Destination Name" and "Phone Number", the data                      |
|                   | which satisfies the both search conditions is searched.                                                      |
| Select button     | Perform a selection processing of phone number setting when referring from the <u>Connect</u>                |
|                   | Line screen.                                                                                                 |
|                   | Read phone number data from the specified file and add it to the directory.                                  |
| Read file button  | To replace the data with the read phone number data, execute the read file function after                    |
|                   | deleting all groups and phone numbers.                                                                       |
| Write file button | Write the data set on the AT command registration screen to the specified file.                              |

## Point P

The phone book created using GX Developer can be read in MX Component. The phone book of GX Developer is stored in the following folders. [User-specified folder] - [Gppw]

#### (3) Registering AT commands

Set the AT commands used on the <u>Connect Line</u> screen.

|                                     | A | l command registration                  | ×              |
|-------------------------------------|---|-----------------------------------------|----------------|
|                                     |   |                                         | Close          |
|                                     |   |                                         | Cancel         |
| List of registered —<br>AT commands |   | <b>→</b>                                | New AT command |
|                                     |   |                                         | Edit           |
|                                     |   |                                         | Сору           |
|                                     |   |                                         | Move group     |
|                                     |   |                                         | Delete         |
|                                     |   |                                         | Select         |
|                                     |   |                                         | Read file      |
|                                     |   |                                         | Write file     |
|                                     | Γ | Display cursor position —<br>AT command |                |
|                                     |   | AT&C1Q0V1W3&D2&K3                       |                |

#### Display contents

| Item                           | Description                                                                                    |
|--------------------------------|------------------------------------------------------------------------------------------------|
| List of registered AT commands | Display titles of AT commands.                                                                 |
| Display cursor position        | Display the registered information of the data selected on the list of registered AT commands. |

#### Operating procedure

- **1.** Select "Modem at MELSOFT application side" on the list of registered AT commands.
- 2. Click the New AT command... button.
  - $\rightarrow$  The <u>AT command registration</u> screen is displayed.

| AT command registration                                                                                         | × |
|-----------------------------------------------------------------------------------------------------------------|---|
| Group name                                                                                                      |   |
| Modem at MELSOFT application side                                                                               |   |
| Тінь                                                                                                            |   |
| The second se | _ |
| **** Corporation **** Type Modem                                                                                |   |
| AT command                                                                                                      |   |
| AT&C1Q0V1\N3&D2&K3                                                                                              | _ |
|                                                                                                                 |   |
| OK Cancel Help of AT command                                                                                    |   |

#### 3. Set the items on the screen.

| Item       | Description                                                                                                            |
|------------|------------------------------------------------------------------------------------------------------------------------|
| Group name | Display the group name of data to which AT command is registered.                                                      |
| Title      | Enter a title for the AT command to be registered.                                                                     |
| AT command | Set the command for modem initialization.<br>The maximum number of characters that can be entered is 70 in ASCII code. |

#### **4.** Click the ok button.

 $\rightarrow$  The AT command is registered.

#### Screen button

| ltem              | Description                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
|                   | Edit the registered data.                                                                                                                 |
| Edit button       | Select the registered data to be edited on the list of registered AT commands.                                                            |
|                   | The <u>AT command registration</u> screen is displayed by clicking the <u>Edit.</u> button.                                               |
|                   | Edit the data.                                                                                                                            |
|                   | Copy a registered AT command to another group.                                                                                            |
| 1                 | Select the registered data to be copied on the list of registered AT commands.                                                            |
| Copy button       | The <u>Group</u> screen is displayed by clicking the <u>Copy.</u> button.                                                                 |
|                   | Select the group (to which data is pasted), and click the $\begin{tabular}{c} \end{tabular}$ button.                                      |
|                   | Move a registered AT command to another group.                                                                                            |
|                   | Select the registered data to be moved on the list of registered AT commands.                                                             |
| Move group button | The <u>Group</u> screen is displayed by clicking the <u>Move group</u> button.                                                            |
|                   | Select the group (to which data is moved), and click the $\begin{tabular}{c} \begin{tabular}{c} \begin{tabular}{c} \end{tabular}$ button. |
| Delete button     | Delete a registered AT command.                                                                                                           |
| Select button     | Perform a selection processing of AT command when referring from the Connect Line screen.                                                 |
|                   | Read AT command from the specified file and add it to the directory.                                                                      |
| Read file button  | To replace the commands with the read AT commands, execute the read file function after                                                   |
|                   | deleting all AT commands.                                                                                                                 |
| Write file button | Write data set on the AT command registration screen to the specified file.                                                               |

#### Point P

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

#### (4) Details setting screen

Screen display

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

| Details setting                              |     | ×        |
|----------------------------------------------|-----|----------|
| Line connection CD signal wait time          | 90  | seconds. |
| Line connection modem 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. |
| CANCE                                        | L   |          |

| Item                                         | Description                                                                                                                                                                                                                                            |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Line connection CD signal wait time          | Set the line connection CD signal confirmation time. (1 to 999 seconds)<br>Increase the set time if the CD signal does not turn ON within the set time depending on the<br>line-connected region (example: overseas).                                  |
| Line connection modem report wait time       | Set the line connection modem report wait time. (1 to 999 seconds)<br>Increase the set time if the response speed of the modem is low.                                                                                                                 |
| Line disconnection CD signal wait time       | Set the line disconnection CD signal confirmation time. (1 to 999 seconds)<br>Increase the set time if the CD signal does not turn OFF within the preset time depending on<br>the line-connected region (example: overseas).                           |
| Line disconnection delay time                | Set the line disconnection delay time. (1 to 999 seconds)<br>Increase the set time if the response speed of the modem is low.                                                                                                                          |
| Data transmission delay time                 | Set the data transmission delay time. (1 to 999 seconds)<br>Increase the set time if the response speed of the modem is low.                                                                                                                           |
| AT command response wait time                | Set the AT command response wait time. (1 to 999 seconds)<br>Increase the set time if the response speed of the modem is low.                                                                                                                          |
| Password cancellation response wait time     | Set the password cancellation response wait time. (1 to 999 seconds)<br>Increase the set time if the quality of the line with the other end is low.                                                                                                    |
| AT command/password cancellation retry times | Set the AT command/password cancellation retry count. (1 to 999 times)<br>Increase the set count if the AT command cannot be sent or the password cannot be canceled.                                                                                  |
| Line callback cancel wait time               | Set the Line callback cancel wait time. (1 to 180 seconds)<br>Increase the set time if the line at the other end (Q series-compatible C24 side) is not<br>disconnected within the set time depending on the line-connected region (example: overseas). |
| Call back delay time                         | Set the callback delay time. (1 to 999 seconds)<br>Increase the set time if the device for relaying connection to the line (example: modem, etc.)<br>requires the set time for reconnection after line disconnection.                                  |
| Call back reception waiting time-out         | Set the callback reception waiting time-out. (1 to 3600 seconds)<br>Increase the set time if a time-out occurs in a callback receive waiting status.                                                                                                   |
# 7.2 PLC Monitor Utility

This section explains how to operate and set PLC Monitor Utility.

# 7.2.1 Operations on Transfer setting screen

This screen is used to set connection from the personal computer to the programmable controller CPU.

#### Operating procedure

℃ [Online] <> [Transfer setting]

(This screen is also displayed when PLC Monitor Utility is started.)

### (1) When selecting the utility setting type

#### Screen display

| Transfer setting       |              |    |        |   |
|------------------------|--------------|----|--------|---|
| Utility setting type   |              |    |        |   |
| Logical station number | 1:C24_Sample |    |        | • |
| O Program setting type | Wizard       |    |        |   |
|                        |              |    |        |   |
|                        |              |    |        |   |
|                        |              |    |        |   |
|                        |              |    |        |   |
|                        |              |    |        |   |
|                        |              |    |        |   |
|                        |              |    |        |   |
|                        |              |    |        |   |
|                        |              |    |        |   |
|                        |              |    |        |   |
| Connect Retry Times    | 0            | ОК | Cancel |   |

| ltem                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Utility setting type   | Select this to set the transfer setting using the logical station number set on Communication Setup Utility.                                                                                                                                                                                                                                                                                                                                |
| Logical station number | Select the logical station number set on Communication Setup Utility.<br>When the logical station number where the modem communication data are set is selected, the following<br>screen is displayed after the OK button is clicked.<br>When the password is set, enter the password and click the OK button.<br>Password input<br>Please enter the password.Please push OK as it is<br>when there is not a password setting.<br>OK Cancel |
| Connect Retry Times    | Set the number of retries (0 to 9) to be performed when an error occurs during monitoring with PLC Monitor Utility.                                                                                                                                                                                                                                                                                                                         |



Before specifying the logical station number, confirm that the settings of the logical station number, (the CPU type, station number, or the like) are correct on Communication Setup Utility.

### (2) When selecting the program setting type

#### Screen display

| Transfer setting | 9                      |             |             |              | ×         |
|------------------|------------------------|-------------|-------------|--------------|-----------|
| C Utility settin | ng type                |             |             |              |           |
| Logical s        | tation number 1 : C24_ | Sample      |             |              | <b>T</b>  |
| Program se       | etting type Wizard     |             |             |              |           |
|                  | Serial                 |             | MultiDrop(C | )            |           |
| PC VF            | COM1                   | Module type | QJ71C24     | CPU type     | Q02(H)    |
| Time-out         | 10000 ms               | Parity      | Odd         | Multiple CPU | 3<br>None |
|                  |                        | Control     | DTR or RTS  |              |           |
|                  |                        |             |             |              |           |
|                  |                        |             |             |              |           |
|                  |                        |             |             |              |           |
|                  |                        |             |             |              |           |
|                  |                        |             |             |              |           |
|                  |                        |             |             |              |           |
|                  |                        |             |             |              |           |
| Connect          | Retry Times 0          |             | ок          | Cancel       |           |

| Item                 | Description                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Program setting type | Select when the program setting type is used to create programs.                                                                                                                                                                                                                                                                                                                                                         |
| ок button            | Start Communication Setting Wizard and set the transfer setting.<br>When the modem communication data is set on Communication Setting Wizard, the following screen is<br>displayed after the or button is clicked.<br>When the password is set, enter the password and click the or button.<br>Password input<br>Please enter the password Please push OK as it is<br>when there is not a password setting.<br>OK Cancel |
| Connect Retry Times  | Set the number of retries (0 to 9) to be performed when an error occurs during monitoring with PLC Monitor Utility.                                                                                                                                                                                                                                                                                                      |

# Point P

When the program setting type is selected, the details of the transfer setting can be changed by clicking the programmable controller or personal computer sketch.



This tab is used to monitor the specified device.

#### Screen display



| Item                 |                                                                         | Description                                                    |  |
|----------------------|-------------------------------------------------------------------------|----------------------------------------------------------------|--|
| Device               | Enter the device name to be monitor<br>For the X and Y devices of FXCPU | ored in bulk.<br>, enter the device number in octal.           |  |
| Start monitor button | Start (stop) monitor.                                                   |                                                                |  |
|                      | Set the monitor format.                                                 |                                                                |  |
|                      | Item                                                                    | Description                                                    |  |
| Monitor format       | Bit&Word                                                                | Set the monitor screen to the bit and word display.            |  |
|                      | Bit                                                                     | Set the monitor screen to the bit display only.                |  |
|                      | Word                                                                    | Set the monitor screen to the word display only.               |  |
|                      | Set the display format of the device or "Word".                         | values to be displayed when the monitor format is "Bit & Word" |  |
|                      | Item                                                                    | Description                                                    |  |
|                      | 16bit integer                                                           | Set to the 16-bit integer display.                             |  |
| Display              | 32bit integer                                                           | Set to the 32-bit integer display.                             |  |
|                      | Real number (single precision)                                          | Set to the real number (single precision) display.             |  |
|                      | Real number (double precision)                                          | Set to the real number (double precision) display.             |  |
|                      | ASCII character                                                         | Set to the ASCII character string display.                     |  |
|                      | Set the radix when the display is "1                                    | 6 bit integer" or "32 bit integer".                            |  |
| <b>-</b>             | Item                                                                    | Description                                                    |  |
| Data format          | DEC                                                                     | Set to the decimal display.                                    |  |
|                      | HEX                                                                     | Set to the hexadecimal display.                                |  |

(Continued on next page)

| Item                              |                                                                                                                                                                                                                                                                                                                                                                                                                                | Description                                                                                                                                                                                                                                                     |  |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                   | Set the order of the bit devices bei                                                                                                                                                                                                                                                                                                                                                                                           | ng monitored.                                                                                                                                                                                                                                                   |  |
| <b></b>                           | Item                                                                                                                                                                                                                                                                                                                                                                                                                           | Description                                                                                                                                                                                                                                                     |  |
| Bit order                         | F-0                                                                                                                                                                                                                                                                                                                                                                                                                            | Display in order of F, E, 1, 0 from left to right.                                                                                                                                                                                                              |  |
|                                   | 0-F                                                                                                                                                                                                                                                                                                                                                                                                                            | Display in order of 0, 1, E, F from left to right.                                                                                                                                                                                                              |  |
| 1) Monitor screen                 | <ul> <li>Display the device status.</li> <li>For the bit device status, 1 indication.</li> <li>Bit devices are monitored in united in the state of the state of the state.</li> <li>Bit device outside the range state of the state.</li> <li>For the C devices of FXCPU, Conseparately.</li> <li>The Write to Device screen is displayed to the state.</li> <li>"*" flickers under the scroll button of the state.</li> </ul> | ates an ON status and 0 an OFF status.<br>s of 16 points.<br>upported by the programmable controller CPU is included in the<br>'0".<br>0 to C199 (16 bit) and C200 and later (32 bit) are displayed<br>layed by clicking the device name.<br>during monitoring. |  |
| 2) Target CPU name                | Display the communication target                                                                                                                                                                                                                                                                                                                                                                                               | CPU name specified on Communication Setting Wizard.                                                                                                                                                                                                             |  |
| 3) Communication path information | Display such information as the network type, network number, start I/O address and station number.                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                 |  |
| 4) Logical station number         | Display the logical station number<br>This number is not displayed wher                                                                                                                                                                                                                                                                                                                                                        | set for the utility setting type.<br>I the program setting type is used.                                                                                                                                                                                        |  |

# Point P

- Specifying the device memory in the U\*\G format enables the buffer memory to be monitored.
- When monitoring the setting values of the timers and counters, indirectly specify the data registers.
- Devices cannot be monitored if the connection destination is not established.
- The transfer settings cannot be set during monitoring.

This tab is used to monitor the specified buffer memory.

#### Screen display



| Item                 | Description                          |                                                             |  |  |
|----------------------|--------------------------------------|-------------------------------------------------------------|--|--|
| Module I/O           | Enter the start address of the modu  | ule to be monitored.                                        |  |  |
|                      | For access to FXCPU, enter the block | ock number of the special expansion device into Module I/O. |  |  |
| Memory address       | Enter the address of the buffer mer  | mory to be monitored in hexadecimal or decimal.             |  |  |
| Start monitor button | Start (stop) monitor                 |                                                             |  |  |
| ( button)            |                                      |                                                             |  |  |
|                      | Set the monitor format.              |                                                             |  |  |
|                      | Item                                 | Description                                                 |  |  |
| Monitor format       | Bit&Word                             | Set the monitor screen to the bit and word display.         |  |  |
|                      | Bit                                  | Set the monitor screen to the bit display only.             |  |  |
|                      | Word                                 | Set the monitor screen to the word display only.            |  |  |
|                      | or "Word".                           |                                                             |  |  |
|                      | Item                                 | Description                                                 |  |  |
|                      | 16bit integer                        | Set to the 16-bit integer display.                          |  |  |
| Display              | 32bit integer                        | Set to the 32-bit integer display.                          |  |  |
|                      | Real number (single precision)       | Set to the real number (single precision) display.          |  |  |
|                      | Real number (double precision)       | Set to the real number (double precision) display.          |  |  |
|                      | ASCII character                      | Set to the ASCII character string display.                  |  |  |
|                      | Set the radix when the display is "1 | 6 bit integer" or "32 bit integer".                         |  |  |
| Data farmat          | Item                                 | Description                                                 |  |  |
|                      | DEC                                  | Set to the decimal display.                                 |  |  |
|                      | HEX                                  | Set to the hexadecimal display.                             |  |  |

(Continued on next page)

| Item                              |                                                                                                                      | Description                                                            |  |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--|
|                                   | Set the order of the bit devices bein                                                                                | ng monitored.                                                          |  |
| Ditordor                          | Item                                                                                                                 | Description                                                            |  |
| Bit order                         | F-0                                                                                                                  | Display in order of F, E, 1, 0 from left to right.                     |  |
|                                   | 0-F                                                                                                                  | Display in order of 0, 1, E, F from left to right.                     |  |
| 1) Monitor screen                 | Display the buffer memory status.<br>• For the bit device status, 1 indica<br>"*" flickers under the scroll button c | ates an ON status and 0 an OFF status.<br>luring monitoring.           |  |
| 2) Target CPU name                | Display the communication target (                                                                                   | CPU name specified on Communication Setting Wizard.                    |  |
| 3) Communication path information | Display such information as the network type, network number, start I/O address and station number.                  |                                                                        |  |
| 4) Logical station number         | Display the logical station number a This number is not displayed when                                               | set for the utility setting type.<br>the program setting type is used. |  |

## Point P

• Devices cannot be monitored if the connection destination is not established.

• The transfer settings cannot be set during monitoring.

• The devices cannot be monitored during gateway function communication.

# 7.2.4 Operation on Entry Device tab

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

#### Screen display



| ltem                   |                                                                                |                     | Description                       |                                                    |
|------------------------|--------------------------------------------------------------------------------|---------------------|-----------------------------------|----------------------------------------------------|
|                        | Register the device to be moni                                                 | itored.             |                                   |                                                    |
|                        | The following screen is display                                                | ved by clicking the | Register device button.           |                                                    |
|                        |                                                                                | Item                |                                   | Description                                        |
|                        |                                                                                | Device              | Enter the device to b             | e registered.                                      |
|                        |                                                                                |                     | Set the value to be e             | ntered when a word device is specified.            |
|                        |                                                                                |                     | Item                              | Description                                        |
|                        |                                                                                | value               | DEC                               | Set to decimal.                                    |
|                        |                                                                                |                     | HEX                               | Set to hexadecimal.                                |
|                        | Register device                                                                |                     | Set the display forma             | at when a word device is specified.                |
| Register device button | Device                                                                         |                     | Item                              | Description                                        |
|                        | Value DEC 💌                                                                    |                     | 16bit integer                     | Set to the 16-bit integer display.                 |
|                        | Display 16bit integer                                                          |                     | 32bit integer                     | Set to the 32-bit integer display.                 |
|                        | Register Close                                                                 | Display             | Real number (single precision)    | Set to the real number (single precision) display. |
|                        |                                                                                |                     | Real number<br>(double precision) | Set to the real number (double precision) display. |
|                        |                                                                                |                     | ASCII character                   | Set to the ASCII character string display.         |
|                        |                                                                                | Register button     | Register the device.              |                                                    |
|                        |                                                                                | Close button        | Close the dialog box.             |                                                    |
| Delete device button   | Delete the device to be monitored.                                             |                     |                                   |                                                    |
| Clear device button    | Delete all devices registered in device entry monitor from the monitor screen. |                     |                                   |                                                    |
| Start monitor button   | Start (stop) monitor.                                                          |                     |                                   |                                                    |

(Continued on next page)

| Item                              | Description                                                                                                                                                                                     |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) Monitor screen                 | Display the device status.<br>The <u>Write to Device</u> screen is displayed by clicking the device name. ( Page 116, Section 7.2.5)<br>"*" flickers under the scroll button during monitoring. |
| 2) Target CPU name                | Display the communication target CPU name specified on Communication Setting Wizard.                                                                                                            |
| 3) Communication path information | Display such information as the network type, network number, start I/O address and station number.                                                                                             |
| 4) Logical station number         | Display the logical station number set for the utility setting type.<br>This number is not displayed when the program setting type is used.                                                     |

# Point P

- When monitoring the setting values of the timers and counters, indirectly specify the data registers.
- Devices cannot be monitored if the connection destination is not established.
- The transfer settings cannot be set during monitoring.

# 7.2.5 Operations on Write to Device screen

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

Operating procedure

- <sup>™</sup> [Online] <> [Device write]
- Double-click the monitor screen of the corresponding tab.

\* [Device write] cannot be selected when QSCPU is connected.

#### Screen display

| Bit device               |                 | Force ON     |     | Close    |
|--------------------------|-----------------|--------------|-----|----------|
| Device                   |                 | Force OFF    |     |          |
| ,                        |                 | Toggle force |     |          |
| Word device / Buffer men | nory            |              |     |          |
| Word device / Buffer men | lodule start VO |              | HEX | <u>_</u> |

|               | Item                |                                                                                             | Description                                 |
|---------------|---------------------|---------------------------------------------------------------------------------------------|---------------------------------------------|
|               | Device              | Enter the device name.                                                                      |                                             |
|               | Force ON button     | Forcibly change the specified dev                                                           | vice to the ON status.                      |
| Bit device    | Force OFF button    | Forcibly change the specified dev                                                           | vice to the OFF status.                     |
|               | Toggle force button | Forcibly change the specified device from the ON to OFF status or from the OF to ON status. |                                             |
|               | Device              | Select this to enter the word device                                                        | ce to be written.                           |
|               | Buffer memory       | Select this to enter a module star                                                          | rt I/O address and a buffer memory address. |
|               |                     | Enter the value to be written.<br>The following table indicates the i                       | nput range.                                 |
| Word device/  |                     | Item                                                                                        | Description                                 |
| Buffer memory | Setting value       | 16bit integer                                                                               | -32768 to 32767                             |
|               |                     | 32bit integer                                                                               | -2147483648 to 2147483647                   |
|               |                     | Real number (single precision)                                                              | -999999999999999999 to 99999999999999999    |
|               |                     | Real number (double precision)                                                              | Number of significant figures: 13 digits    |
|               | setbutton           | Write the set data.                                                                         |                                             |

# 7.2.6 Operations on Time setting screen

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

#### Operating procedure

♡ [Online] <> [Set time]

Screen display

| Time setting |     |        |      |      |    | ×           |
|--------------|-----|--------|------|------|----|-------------|
| PC Time      |     |        |      |      |    |             |
| 2012 /       | 7 / | 4      | 9 :  | 55 : | 14 | Wednesday 👻 |
| PLC Time     |     |        |      |      |    |             |
| 2000 /       | 1 / | 2      | 13 : | 28 : | 22 | Monday 💌    |
|              | Re  | gister |      | Clo  | se | ]           |

\* For QSCPU, the time data cannot be changed.

| ltem            | Description                                                          |
|-----------------|----------------------------------------------------------------------|
| PC Time         | Display the time of the personal computer. (Write disabled)          |
| PLC Time        | Display the time of the programmable controller CPU.                 |
| Register button | Write the "PLC Time" information to the programmable controller CPU. |
| Close button    | Close the Time setting screen.                                       |

### Point P

Time 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.)

# 7.2.7 Operations on telephone line connection, disconnection screens

Connect and disconnect the telephone line for modem communication.

### (1) Telephone line connection

Operating procedure

- **1.** <sup>∞</sup> [Online] ⇔ [Connect]
- 2. For telephone line connection, the following dialog box is displayed. Enter the password and click the <u>vert</u> button.

| Password input                                        | ×                                          |
|-------------------------------------------------------|--------------------------------------------|
| Please enter the passwor<br>when there is not a passw | d.Please push OK as it is<br>vord setting. |
|                                                       |                                            |
| ОК                                                    | Cancel                                     |

\* [Connect] cannot be selected when QSCPU is connected.

### (2) Telephone line disconnection

∛◯ [Online] ⇔ [Disconnect]

\* [Disconnect] cannot be selected when QSCPU is connected.

# 7.3 Label Utility

This section explains how to operate and set Label Utility.

# 7.3.1 Operations on Label screen

#### Screen display



| ltem              | Description                                                                                                                         | Reference                                                |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| LabelSpace window | Display the list of LabelSpace.<br>The LabelSpace names are displayed on the list in ascending order based on the date of creation. | -                                                        |
| Navigation window | Display the logical station number, structured data type and system label list of LabelSpace in tree format.                        | -                                                        |
| Work window       | Display the system label list and the Structure Setting screen.                                                                     | Page 122,<br>Section 7.3.3<br>Page 127,<br>Section 7.3.4 |
| Task window       | Display the processing result in list format.                                                                                       | -                                                        |
| Status bar        | Display the current status.                                                                                                         | Page 130,<br>Section 7.3.6                               |

### (1) Basic operations

Operating procedure

#### (a) Adding LabelSpace

- <sup>™</sup> [Menu] <> [Add LabelSpace]
- Right-click the LabelSpace window, and select [Add LabelSpace].

Point P

The maximum number of LabelSpaces is 8. Note that the sum of LabelSpaces and referred Workspaces should be 16 or less.

#### (b) Changing LabelSpace name

- Select the LabelSpace name on the LabelSpace window, <sup>™</sup> [Menu] ⇔ [Rename LabelSpace].
- Right-click the LabelSpace name on the LabelSpace window, and select [Rename LabelSpace].

#### (c) Saving LabelSpace

- <sup>™</sup> [Menu] <> [Save LabelSpace]
- Exit Label Utility.

#### (d) Deleting LabelSpace

- Select the LabelSpace name on the LabelSpace window,  $\circlearrowright$  [Menu]  $\Leftrightarrow$  [Delete LabelSpace].
- Right-click the LabelSpace name on the LabelSpace window, and select [Delete LabelSpace].

# 7.3.2 Registering/deleting logical station numbers

### (1) Registration

Register a logical station number to LabelSpace.

#### Operating procedure

- Select a LabelSpace name on the LabelSpace window, <sup>™</sup> [Menu] 
   [Regist].
- Select a LabelSpace name on the LabelSpace window, right-click "Logical Station Number" on the Navigation window, and select [Logical Station Number] ⇔ [Regist].

Screen display

| Regist Logical Station N | lumber 💽                                |
|--------------------------|-----------------------------------------|
| Logical Station Number   | 6:CPU_USB Sample Communication Settings |
|                          | OK Cancel                               |

| Item                          | Description                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------------------|
| Logical Station Number        | Select the logical station number defined on Communication Setup Utility from the list box. |
| Communication Settings button | Start Communication Setup Utility.                                                          |
| o≪ button                     | Register the logical station number, and close the screen.                                  |
| Cancel button                 | Close the screen without registering the logical station number.                            |

### (2) Deletion

Delete the logical station number registered to LabelSpace.

Operating procedure

- Select the station number to be deleted from the Navigation window, <sup>™</sup> [Menu] <> [Logical Station Number] <> [Deregist].
- Right-click the station number to be deleted from the Navigation window, and select [Logical Station Number] ⇔ [Deregist].

# 7.3.3 System label list

Register, edit, and browse a system label.

Screen display



| ltem              | Description                                                                                                                                                                                                                                                                                                                                                       | Maximum number<br>of characters |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Delete            | Select the system label to be deleted.                                                                                                                                                                                                                                                                                                                            | -                               |
| System Label Name | Enter a desired system label name.<br>For characters that cannot be used for label names, refer to ( Page 326, Appendix 9).                                                                                                                                                                                                                                       | 32 characters                   |
| Data Type         | Set a data type from the <u>Data Type Selection</u> screen displayed by clicking                                                                                                                                                                                                                                                                                  | 128 characters                  |
| Device            | Set the device to be assigned to system label.<br>The bit-specified word device (D0.1) can be specified.<br>If the structure is set for data type, "Detail Setting" is displayed.<br>Set the items on the <u>Structured Data Device Setting</u> screen displayed by clicking "Detail<br>Setting". (Image 125, (3) in this section, Page 126, (4) in this section) | 50 characters                   |

### (1) Basic operations

Operating procedure

#### (a) Adding system label list

- Select a LabelSpace name on the LabelSpace window, <sup>™</sup> [Menu] 
   ▷ [System Label] 
   ▷ [New].
- Select a LabelSpace name on the LabelSpace window, right-click "System Label List" on the Navigation window, and select [New].

#### (b) Changing system label list name

- Select the system label list name on the Navigation window, ∑ [Menu] ⇔ [System Label] ⇔ [System Label List] ⇔ [Rename].
- Right-click the system label list name on the Navigation window, and select [System Label List] ⇔ [Rename].

#### (c) Deleting system label list

- Select the system label list name to be deleted on the Navigation window, <sup>™</sup> [Menu] 
   [System Label] 
   [System Label] 
   [Collecte]
- Right-click the system label list name to be deleted on the Navigation window, and select [System Label List] ⇔ [Delete].
- Select the system label list name to be deleted on the Navigation window, and press the Deter key.

### (2) Selecting data types

#### Screen display

Click ... on the data type entry field of the system label list or the structure setting.

| Type Selection                                                                                                                                              | X                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type Class  Simple Types(\$)  Structure(1)  Array Element  ARRAY(A)  Element (One Dimension)(E)  Element (Two Dimensions)(L)  Element (Three Dimensions)(M) | Data Type(Y)<br>Bit<br>Word[Signed]<br>Double Word[Signed]<br>Word[Unsigned]/Bit[16bit]<br>Double Word[Unsigned]/Bit[32Bit]<br>FLOAT[Single Precision]<br>FLOAT[Double Precision]<br>String<br>Time<br>Timer<br>Counter<br>Retentive Timer |
|                                                                                                                                                             | OK Cancel                                                                                                                                                                                                                                  |

#### Operating procedure

**1.** Select a type from "Type Class".

| Item         | Description                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------------------|
| Simple Types | Specify this to select a data type from basic types: bit, word.                                                     |
| Structure    | Specify this to select a data type from the defined structures.<br>(Not displayed for the structured data settings) |

- 2. In the "Data Type" field, select the data type and structure.
- **3.** Click the <u>w</u> button.

The settings are displayed in the "Data Type" column.

7.3 Label Utility 7.3.3 System label list

### Setting arrays for data type

Define a data type as an array.

To define a data type as an array, set the items of "Array Element" on the Type Selection screen.

#### Operating procedure

- **1.** Click ... on the data type entry field of the system label list or the structure setting.
- 2. Select the check box under "Array Element".
- **3.** Set "Element (One Dimension)", and if necessary, set "Element (Two Dimension)", "Element (Three Dimension)".
- **4.** Set the data type of the array element in the same manner as setting the normal data type.

| Type Selection                                                                                                                                             |                                                                                                                                                                                                                                    | ٢. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Type Class<br>Simple Types(S)<br>Structure(1)<br>Array Element<br>(One Dimension)(E)<br>Element<br>(Two Dimensions)(L)<br>Element<br>(Three Dimensions)(M) | Data Type(Y)<br>Bit<br>Word[Signed]<br>Double Word[Jnsigned]/Bit[16bit]<br>Double Word[Unsigned]/Bit[32Bit]<br>FLOAT[Single Precision]<br>FLOAT[Double Precision]<br>String<br>Time<br>Time<br>Timer<br>Counter<br>Retentive Timer |    |
|                                                                                                                                                            | OK Cancel                                                                                                                                                                                                                          |    |

### (3) Assigning devices to structured data type labels

#### Screen display

Click "Detail Setting" on the "Device" column of System Label List.

| Construction Data Data | C-11/                   |           |
|------------------------|-------------------------|-----------|
| Structured Data Device | Setting                 |           |
|                        |                         |           |
| Label1 (Structured1)   |                         |           |
| Label Name             | Data Type               | Device    |
| LABEL1_B1              | Bit                     |           |
| LABEL1_W1              | [Word[Signed]           |           |
| LABEL1_DW1             | Double Word[Signed]     |           |
| LABEL1_TJ1             | FLOAT[Single Precision] |           |
| LABEL1_M1              | String                  |           |
| LABEL1_J1              | Time                    |           |
| LABEL_B2               | Bit                     | =         |
| LABEL1_W2              | Word[Signed]            |           |
| LABEL1_B3              | Bit                     |           |
|                        |                         |           |
|                        |                         |           |
|                        |                         |           |
|                        |                         |           |
|                        |                         |           |
| •                      |                         | •         |
|                        |                         | OK Cancel |
|                        |                         | Cancel    |
|                        |                         |           |

#### Operating procedure

Set the items on the screen.

| Item       | Description                               |
|------------|-------------------------------------------|
| Label Name | Display label names defined as structure. |
| Data Type  | Display data types set to data names.     |
| Device     | Set device names to be assigned.          |

### (4) Assigning devices to structure array type labels

#### Screen display

Click "Detail Setting" on the "Device" column of System Label List.

| Structured Data Device Setting |                                |              |        |          |  |  |  |
|--------------------------------|--------------------------------|--------------|--------|----------|--|--|--|
| the array of structure         | Label1<br>(Structured1(04,03,0 | 3)[5][4][4]) |        |          |  |  |  |
| Structured 1(04,03 ▲           | Label Name                     | Data Type    | Device | <b>^</b> |  |  |  |
|                                | Pump_overload                  | Bit          | M200   |          |  |  |  |
| ro1 =                          | Pump_eartn_rauit               | Bit          | M201   |          |  |  |  |
| -11 -                          | Current tank water level       | Bit          | M202   |          |  |  |  |
| - [2]                          | Tank water level fault         | Bit          | M204   |          |  |  |  |
| [3]                            | Tank_water_level               | Word[Signed] | D10    |          |  |  |  |
|                                |                                |              |        | E        |  |  |  |
| [0]                            |                                |              |        |          |  |  |  |
| [1]                            |                                |              |        |          |  |  |  |
| [2]                            |                                |              |        |          |  |  |  |
| [3]                            |                                |              |        |          |  |  |  |
| E [2]                          |                                |              |        |          |  |  |  |
| [0]                            |                                |              |        | -        |  |  |  |
| [1]                            | •                              |              |        | - F      |  |  |  |
| [4]                            |                                |              |        |          |  |  |  |
| ⊡-[3]                          |                                |              |        |          |  |  |  |
| [0]                            |                                |              |        |          |  |  |  |
| [1]                            |                                |              |        | ОК       |  |  |  |
|                                |                                |              |        |          |  |  |  |
| <ul> <li>↓</li> </ul>          |                                |              |        | Cancel   |  |  |  |

#### Operating procedure

#### Set the items on the screen.

| Item            | Description                                                                                                                                                     |  |  |  |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Structure Array | Display elements of the structure array in tree format.<br>The device setting of the element selected in the tree is displayed in the right area of the screen. |  |  |  |
| Label Name      | Display label names defined as the structure.                                                                                                                   |  |  |  |
| Data Type       | Display data types set to label names.                                                                                                                          |  |  |  |
| Device          | Set device names to be assigned.<br>Device names can be entered for the start array element only.                                                               |  |  |  |

# 7.3.4 Setting Structure

Register, edit, and browse each data (element) that is configured in the structure managed in the LabelSpace.

#### Screen display

|    | Label Name | Data Type |  |  |  |
|----|------------|-----------|--|--|--|
| 1  | ST_data1   | Bit       |  |  |  |
| 2  | ST_data2   | Bit       |  |  |  |
| 3  | ST_data3   | Bit       |  |  |  |
| 4  | ST_data4   | Bit       |  |  |  |
| 5  | ST_data5   | Bit       |  |  |  |
| 6  | ST_data6   | Bit       |  |  |  |
| 7  | ST_data7   | Bit       |  |  |  |
| 8  | ST_data8   | Bit       |  |  |  |
| 9  | ST_data9   | Bit       |  |  |  |
| 10 | ST_data 10 | Bit 🛄     |  |  |  |
| 11 |            |           |  |  |  |

| ltem       | Description                                                                                     | Reference         |
|------------|-------------------------------------------------------------------------------------------------|-------------------|
| Label Name | Display a label name.                                                                           | -                 |
| Data Tupo  | Display a data type of the label.                                                               | Page 123,         |
|            | Specify a data type from the Type Selection screen displayed by clicking $\overline{I_{max}}$ . | Section 7.3.3 (2) |

#### (1) Basic operations

Operating procedure

#### (a) Adding structured data type

- Select a LabelSpace name on the LabelSpace window, <sup>™</sup> [Menu] 
   ▷ [System Label] 
   ▷ [Structured Data Types] 
   ▷ [New].
- Select a LabelSpace name on the LabelSpace window, right-click "Structured Data Types" on the Navigation window, and select [Structured Data Types] ⇔ [New].

#### (b) Changing structure name

- Select the structure name on the Navigation window, <sup>™</sup> [Menu] 
   [System Label] 
   [Structured Data Types] 
   [Rename].
- Right-click the structure name on the Navigation window, and select [Structured Data Types] ⇔ [Rename].

#### (c) Deleting structured data type

- Select the structure name to be deleted on the Navigation window, <sup>™</sup> [Menu] 
   [System Label] 
   [Structured Data Types] 
   [Delete].
- Right-click the structure name to be deleted on the Navigation window, and select [Structured Data Types] ⇔ [Delete].
- Select the structure name to be deleted on the Navigation window, and press the Deleter key.

# 7.3.5 Referring and registering/canceling Workspaces

#### (1) Referring and registering

Register a Workspace to be referred when importing a system label.

- A system label can be used in MX Component independently by canceling the reference.
- When registering a canceled reference, the reference is regarded as a new reference. (The canceled references are not restored.)
- The label information within the LabelSpace cannot be edited after the reference registration. (Note that the logical station numbers can be registered.)

Operating procedure

- Select the LabelSpace name on the LabelSpace window, and <sup>™</sup> [Menu] 
   [Workspace] 
   [Reference Registration].
- Right-click "Reference Workspace" on the Navigation window, and select [Workspace] ⇔ [Reference Registration].

Screen display

| Onen (worksnace)     |       |      |           |
|----------------------|-------|------|-----------|
| open (workspace)     |       |      |           |
| Save Folder Path(F)  |       |      |           |
| C: MELSOFT Wavigator |       |      | Browse(B) |
| Workspace List(L)    |       |      |           |
| Workspace            |       |      |           |
| ## WS001             |       |      |           |
| Workspace Name(W)    | WS001 |      |           |
|                      | 1     |      |           |
| Description of Icons |       |      |           |
| Workspace            |       |      |           |
|                      |       | Open | Cancel    |

| Item             | Description                                                                      |
|------------------|----------------------------------------------------------------------------------|
| Save Folder Path | Click the Browse(B) button, and select a folder in the Browse for Folder screen. |
| Workspace List   | Display the list of Workspaces.                                                  |

Point *P* 

The structure array labels whose devices are automatically assigned or whose devices are bit-specified cannot be referred and registered properly. Register them with the system label list.

### (2) Canceling

Cancel the reference of registered Workspace for importing the system label.

• The label information within the LabelSpace can be edited after canceling the reference registration.

Operating procedure

- Select the LabelSpace name on the LabelSpace window, <sup>™</sup> [Menu] ⇔ [Workspace] ⇔ [Dereference Registration].
- Right-click "Reference Workspace" on the Navigation window, and select [Workspace] ⇔ [Dereference Registration].

# 7.3.6 Change notification

### (1) Change notification

When Workspace is referred and registered, the system label notification icon is displayed by executing the change confirmation when the status-changed labels exist.

#### Operating procedure

<sup>™</sup> [Menu] <br/> ⇔ [System Label] <br/> ⇔ [Check Changes of System Label Database]<br/>
(The change confirmation is also executed when Label Utility starts.)

Screen display



Point P

- For using the change notification function, use MELSOFT Navigator version 1.39R or later.
- Receive a change notification when executing any of the following operations on the reference Workspace. (The change notification is not sent when creating a new system label.)
  - Change in system labels (including the change of comment and remark)
    - · Deletion of system labels

### (2) Applying the changed data

Apply the status-changed label information when Workspace is referred and registered. When more than one Workspace is referred, apply them for each LabelSpace.

Operating procedure

- <sup>™</sup> [Menu] ⇔ [System Label] ⇔ [Change Contents of System Label Database]
- Right-click the system label notification icon (<sup>\*\*</sup>), and select [Change Contents of System Label Database].

# 7.3.7 Updating system label data

Update the system label data.

Operating procedure

♥♥ [Menu] ▷ [Refresh system label data for Control]

# 7.3.8 Exporting LabelSpace

Save the information used in Label Utility.

Operating procedure

Ѷ [Menu] ♀ [Export]

Screen display

| Save As        |                                   |                   |          |      |           | ×      |
|----------------|-----------------------------------|-------------------|----------|------|-----------|--------|
| 00-0.0         | mputer + OS (C:) + MELSEC + Act I | • Uti             |          |      | earch Utl | Q      |
| Organize - Nev | w folder                          |                   |          |      | 8         | i • 🔞  |
| ☆ Favorites    | Name                              | Date modified     | Туре     | Size |           |        |
| Desktop        | ACT.act                           | 6/12/2012 4:00 PM | ACT File | 3 KB |           |        |
| Documents      |                                   |                   |          |      |           |        |
| E Pictures     |                                   |                   |          |      |           |        |
| Videos         |                                   |                   |          |      |           |        |
| 👰 Computer     |                                   |                   |          |      |           |        |
| 🖣 Network      |                                   |                   |          |      |           |        |
| File name      | 1                                 |                   |          |      |           |        |
| Save as type:  | ACT Regist File (*.act)           |                   |          |      |           | •      |
| Hide Folders   |                                   |                   |          |      | Save      | Cancel |

# 7.3.9 Importing LabelSpace

Import the saved information saved in a file by exporting LabelSpace (F Page 131, Section 7.3.8) to Label Utility.

Operating procedure

♡ [Menu] ⇔ [Import]

Screen display

| 📴 Open                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                      |                   |          |      |                    |                |        | × |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------|----------|------|--------------------|----------------|--------|---|--|
| Compute                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Search Utl + Computer + OS (C:) + MELSEC + Act + Utl |                   |          |      |                    |                |        |   |  |
| Organize 👻 New fold                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | er                                                   |                   |          |      |                    | 8= -           |        | 0 |  |
| ☆ Favorites                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Name                                                 | Date modified     | Туре     | Size |                    |                |        |   |  |
| Convolved Convo | C ACTaet                                             | 6/12/2012 4:00 PM | ACT File |      | 3 KB               |                |        |   |  |
| File n                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ame:                                                 |                   |          |      | ACT Regis     Open | t File (*.act) | Cancel | • |  |

# CHAPTER 8 COMMUNICATION SETTING EXAMPLES OF UTILITY SETTING TYPE

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

# 8.1 Serial Communication

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

# 8.1.1 Settings of serial communication modules

This section explains the settings of serial communication modules for the use of MX Component. The following sketches are used to explain each module.

<When using Q series-compatible C24 or L series-compatible C24>

(For 1:n communication) (For 1:1 communication) Module 1) \*2 Module 2) Personal computer Personal computer 0 L . Ļ \*1: Limited for use of only CH1 \*2: Limited for use of both CH1 and CH2 <When using FX extended port> Personal computer Station No.1 Station No.2 7 2 anne a star FX-485PC-IF

Point P

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

### (1) Q series-compatible C24, L series-compatible C24

#### (a) For 1:1 communication

| ltem     | Set                     | Sotting value               |       |
|----------|-------------------------|-----------------------------|-------|
|          | b15 to b8               | Setting 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              | 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 invalidated and the online change is enabled regardless of the online change setting.

For details, refer to Q series-compatible C24 manual. \*3: Set the following to "Odd number (Odd)":

Set the following to "Odd number (Odd)": "Parity bit" of the Communication Setup Utility/"ActParity" of the ActProgType control property.

Setting CH1/CH2 communication protocol to GX Developer connection (0 $\mu$ ) sets the communication speed/transmission settings to 0H (all OFF).

For details, refer to Q series-compatible C24 manual.

### (b) For 1:n communication

#### Module 1)

| ltem     | Set                     | Setting value               |                       |
|----------|-------------------------|-----------------------------|-----------------------|
|          | b15 to b8               | b7 to b0                    | Synchronous operation |
| Switch 1 | CH1 communication speed | CH1 transmission setting *1 | 07E6H                 |
| Switch 2 | -                       | CH1 communications protocol | 0008н                 |
| Switch 3 | CH2 communication speed | CH2 transmission setting *1 | 07E7H                 |
| Switch 4 | -                       | CH2 communications protocol | 0000н                 |
| Switch 5 | Module sta              | As set by user              |                       |

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



#### Module 2)

| ltom     | Set                     | Setting value               |                                        |
|----------|-------------------------|-----------------------------|----------------------------------------|
| nem      | b15 to b8 b7 to b0      |                             | Independent operation                  |
| Switch 1 | CH1 communication speed | CH1 transmission setting *1 | Set to satisfy the application of CH1  |
| Switch 2 | -                       | CH1 communications protocol | Set to satisfy the application of orm. |
| Switch 3 | CH2 communication speed | CH2 transmission setting *1 | 07E6н                                  |
| Switch 4 | -                       | CH2 communications protocol | 0005н                                  |
| Switch 5 | Module sta              | As set by user              |                                        |

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

| b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 | _        |                        |                          |                          |
|----|----|----|----|----|----|----|----|----------|------------------------|--------------------------|--------------------------|
|    |    |    |    |    |    |    |    | CH1 side |                        |                          |                          |
|    |    |    |    |    |    |    |    | CH2 side |                        |                          |                          |
| 1  | Î  | Î  | Î  | 1  | 1  | Î  | 1  |          |                        | Set                      | ting                     |
|    |    |    |    |    |    |    |    | Bit      | Description            | CH1 transmission setting | CH2 transmission setting |
|    |    |    |    |    |    |    |    | b0       | Operation setting      | 0 (independent)          | 1 (synchronous)          |
|    |    |    |    |    |    |    |    | b1       | Data bit               | 1 (8)                    | 1 (8)                    |
|    |    |    |    |    |    |    |    | b2       | Parity bit             | 1 (Yes)                  | 1 (Yes)                  |
|    |    |    |    | L  |    |    |    | b3       | Odd/even number parity | 0 (Odd number)           | 0 (Odd number)           |
|    |    |    |    |    |    |    |    | b4       | Stop bit               | 0 (1)                    | 0 (1)                    |
|    |    |    |    |    |    |    |    | b5       | Sum check code         | 1 (Yes)                  | 1 (Yes)                  |
|    |    |    |    |    |    |    |    | b6       | Online change *2       | 1 (enable)               | 1 (enable)               |
|    |    |    |    |    |    |    |    | b7       | Setting change         | 1 (enable)               | 1 (enable)               |

\*2: When the communication protocol is set to GX Developer connection (0H), the online change bit (b6) setting is invalidated and the online change is enabled regardless of the online change setting.

For details, refer to Q series-compatible C24 manual.

### (2) FX extended port

Set the FXCPU parameters with GX Works2 before using FX extended port to perform communication.

- Execute either of the following two setting methods by following the instruction described on the reference page.
  To use the PLC parameters ( Page 137, (2)(a) in this section)
  - To write values to special data registers (D8120, D8121, D8129) in a sequence program. (For FX<sub>0N</sub>CPU, only this method is applicable.) ( Page 138, (2)(b) in this section)

#### (a) Settings with PLC parameters

Operating procedure

- 1. Start GX Works2.
- 2. Select [Parameter] ⇔ [PLC parameter] in the project list.
- **3.** Click the <<PLC system(2)>> tab in the <u>FX parameter</u> screen.

| V | Operate The setting contents are dea<br>Communication (When communicate with GX<br>Setting the D8120 special register of | red when unchecked.<br>Works2, GOT, etc. by PLC using optional board for FX etc.,<br>PLC must be 0 deared. and must be unchecked.) |
|---|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|   | Protocol Non-Procedural                                                                                                  | Control Line                                                                                                                       |
|   | Data Length                                                                                                              | H/W Type<br>Regular/RS-232C                                                                                                        |
|   | Parity Odd                                                                                                               | Control Mode                                                                                                                       |
|   | Stop Bit                                                                                                                 | Sum Check                                                                                                                          |
|   | Transmission Speed<br>9600 (bps)                                                                                         | Transmission Control Procedure                                                                                                     |
|   | Header                                                                                                                   | Station Number Setting                                                                                                             |
|   | Terminator                                                                                                               | Time Out Judge Time      1                                                                                                         |

4. Set the items on the screen.

| Item                              | Description                                      |
|-----------------------------------|--------------------------------------------------|
| Operate communication setting     | Set whether to enable the communication setting. |
| Protocol *1                       | Select the communication protocol.               |
| Data length *1                    | Select the data length.                          |
| Parity *1                         | Select the parity.                               |
| Stop bit <sup>*1</sup>            | Select the stop bit.                             |
| Transmission speed *1             | Select the transmission speed.                   |
| H/W type <sup>*1</sup>            | Select the cable type used in the communication. |
| Sum check *1                      | Add the sum check.                               |
| Transmission control procedure *1 | Select the transmission control procedure.       |
| Station number setting *1         | Set the station number.                          |
| Time out judge time *1            | Set the timeout period.                          |

\*1: Not applicable when "Operate Communication Setting" is OFF.

### Point P

- When communication setting is set, turn on the FXCPU again after writing to programmable controller.
- When performing multi-drop connection, set the same communication settings for the devices. However, check that the station number is not overlapped.

# (b) Settings by writing values to the special data registers in a sequence program1) D8120 (communication format)

| -     | b15    | b14              | b13                | b12              | b11      | b10          | b9                      | b8          | b7  | b6  | b5 | b4    | b3  | b2 | b1 | b0 |
|-------|--------|------------------|--------------------|------------------|----------|--------------|-------------------------|-------------|-----|-----|----|-------|-----|----|----|----|
| D8120 |        |                  |                    |                  |          |              |                         |             |     |     |    |       |     |    |    |    |
|       |        | Bit              |                    | Desci            | ription  | I            | Setting detail          |             |     |     |    |       |     |    |    |    |
|       |        | b0               | Data               | Data length      |          |              | 0: 7 bit<br>1: 8 bit    |             |     |     |    |       |     |    |    |    |
|       |        |                  | Duiu               |                  |          |              |                         |             |     |     |    |       |     |    |    |    |
|       | b1     |                  |                    |                  |          |              |                         |             |     |     | b2 |       |     | b1 |    | 1  |
|       | 51     |                  |                    |                  |          | None         |                         |             |     | 0   |    |       | 0   |    |    |    |
|       | Parity |                  |                    | Parity           |          |              | Odd number              |             |     |     | 0  |       |     | 1  |    | -  |
|       |        | b2               |                    |                  |          |              |                         | Even number |     |     | 1  |       |     | 1  |    | -  |
|       |        |                  |                    |                  |          |              |                         |             |     |     | 0  | 1 bit |     |    |    |    |
|       |        | b3               | Stop               | bit              |          |              |                         | 1: 2 bit    |     |     |    |       |     |    |    |    |
|       |        | b/               |                    |                  |          |              |                         |             |     |     | h7 | hf    | - L |    | h4 |    |
|       |        | 04               |                    |                  |          |              |                         | 300hp       | \$  |     | 0  | 0     |     | 1  | 1  | 1  |
|       |        | b5               |                    |                  |          |              | -                       | 600bp       | s   |     | 0  | 1     | _   | 0  | 0  | -  |
|       |        |                  | Transmission speed |                  |          | -            | 1200b                   | -<br>DS     |     | 0   | 1  |       | 0   | 1  | -  |    |
|       |        | b6               |                    |                  |          | -            | 2400b                   | ps          |     | 0   | 1  |       | 1   | 0  | -  |    |
|       |        |                  |                    |                  |          | -            | 4800b                   | ps          |     | 0   | 1  |       | 1   | 1  | -  |    |
|       |        |                  |                    |                  |          |              | -                       | 9600b       | ps  |     | 1  | 0     |     | 0  | 0  | -  |
|       |        | b7               |                    |                  |          |              |                         | 19200       | bps |     | 1  | 0     |     | 0  | 1  | _  |
|       |        | <b>h</b> 0       |                    |                  |          |              |                         |             |     |     |    |       |     |    |    |    |
|       |        | bo               | -                  |                  | -        |              | 0                       |             |     |     |    |       |     |    |    |    |
|       |        | b9               |                    |                  |          |              |                         |             |     |     |    |       |     |    |    |    |
|       |        |                  |                    |                  |          |              |                         |             |     | b11 |    |       | b10 |    |    |    |
|       |        | b11              | n/w type           |                  |          |              | RS-48                   | 5           |     | 0   |    |       | 0   |    | -  |    |
|       |        | b12              |                    |                  | -        |              | 0                       |             |     |     |    |       |     |    |    |    |
|       |        | h 40 Ours she sh |                    | 0: Not available |          |              |                         |             |     |     |    |       |     |    |    |    |
|       |        | 013              |                    |                  |          | 1: Available |                         |             |     |     |    |       |     |    |    |    |
|       |        | b14              | Com                | municat          | ion pro  | tocol        | 1: Serial communication |             |     |     |    |       |     |    |    |    |
|       |        | b15              | Trans<br>proce     | smissio<br>dure  | n contro | bl           |                         | 0: Form 1   |     |     |    |       |     |    |    |    |

### 2) D8121 (station number setting) Specify the station number.

The station number can be specified in the range of  $00{\mbox{\tiny H}}$  to  $0F{\mbox{\tiny H}}.$ 

|       | b15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | to                                                                                          | b0              |  |  |  |  |  |  |  |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------|--|--|--|--|--|--|--|
| D8121 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Station number range: 00н to 0Fн                                                            |                 |  |  |  |  |  |  |  |
|       | 3) D8129 (time out judge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | e time setting)                                                                             |                 |  |  |  |  |  |  |  |
|       | Specify the EXCPU time out judge time in 10ms units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                             |                 |  |  |  |  |  |  |  |
|       | The setting range is as follows:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                             |                 |  |  |  |  |  |  |  |
|       | For EX1N, EX1N, EX1NC, EX1NC, EX1NC, EX1NC, 1 to 255 (10 to 2550ms)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                             |                 |  |  |  |  |  |  |  |
|       | For $FX_{2N}$ , $FX_{2N}$ , 1 to 3276 (10 to 32760ms)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                             |                 |  |  |  |  |  |  |  |
|       | f(0) = f(2) + |                                                                                             |                 |  |  |  |  |  |  |  |
|       | IT "U" IS STOREA, "IUUMS IS SET.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                             |                 |  |  |  |  |  |  |  |
|       | b15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | to                                                                                          | b0              |  |  |  |  |  |  |  |
| D8129 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FXoN,FX1S,FX1N(C),FX3G,FX3U(C): 1 to 255 FX2N(C): 1 to 3276                                 |                 |  |  |  |  |  |  |  |
|       | D. :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                             |                 |  |  |  |  |  |  |  |
| -     | oint/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                             |                 |  |  |  |  |  |  |  |
|       | <ul> <li>When communication s</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | etting is performed, turn on FXCPU again after writing to programma                         | ble controller. |  |  |  |  |  |  |  |
|       | <ul> <li>When performing multi-</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | When performing multi-drop connection, set the same communication settings for the devices. |                 |  |  |  |  |  |  |  |
|       | However, check that the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | e station number is not overlapped.                                                         |                 |  |  |  |  |  |  |  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                             |                 |  |  |  |  |  |  |  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                             |                 |  |  |  |  |  |  |  |
| G     | Remark                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                             |                 |  |  |  |  |  |  |  |
|       | The following chows on av                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | analy of a string values to the special data registers                                      |                 |  |  |  |  |  |  |  |
|       | The following shows an ex                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                             |                 |  |  |  |  |  |  |  |
|       | 0 H8002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                             | D8120 7         |  |  |  |  |  |  |  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                                                                                           |                 |  |  |  |  |  |  |  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EWOV HOC                                                                                    | D8121 ]         |  |  |  |  |  |  |  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EMQV K20                                                                                    | D8129 1         |  |  |  |  |  |  |  |
|       | The fellowing shows the set                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                             | 1               |  |  |  |  |  |  |  |
|       | The following shows the se                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | etting details of each special data register in the above program.                          |                 |  |  |  |  |  |  |  |
|       | <ul> <li>D8120</li> <li>Transmission and the last</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                             |                 |  |  |  |  |  |  |  |
|       | Transmission control pr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ocedure : Form 1                                                                            |                 |  |  |  |  |  |  |  |
|       | Sum abook                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                             |                 |  |  |  |  |  |  |  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                             |                 |  |  |  |  |  |  |  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | - R3-465<br>- 0600bps                                                                       |                 |  |  |  |  |  |  |  |
|       | Stop bit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | : 30000005<br>: 1 hit                                                                       |                 |  |  |  |  |  |  |  |
|       | Parity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | · Ν/Δ                                                                                       |                 |  |  |  |  |  |  |  |
|       | Data length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | : 7 bit                                                                                     |                 |  |  |  |  |  |  |  |
|       | ■ D8121                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                             |                 |  |  |  |  |  |  |  |
|       | Station number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | · 12                                                                                        |                 |  |  |  |  |  |  |  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | · ·-                                                                                        |                 |  |  |  |  |  |  |  |
|       | ■ D0129<br>Time out time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | · 200ms                                                                                     |                 |  |  |  |  |  |  |  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | . 200113                                                                                    |                 |  |  |  |  |  |  |  |

# 8.1.2 Access procedure

The following is the procedure for accessing the programmable controller CPU using serial communication.



#### (1) System examples

The following system examples are used in this section.





Personal computer (MX Component) COM1 is used. <For 1:n communication>



"1" is used.

### (2) Setting the switch settings of the serial communication module

| ltom     | Set                     | Setting value               |       |  |
|----------|-------------------------|-----------------------------|-------|--|
| nem      | b15 to b8               | b7 to b0                    |       |  |
| 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              | 0000н                       |       |  |

### (a) For 1:1 communication

\*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 invalidated and the online change is enabled regardless of the online change setting.

For details, refer to Q series-compatible C24 manual.

|                            |                                              | Setting                           |                                  |                             |          |  |  |  |
|----------------------------|----------------------------------------------|-----------------------------------|----------------------------------|-----------------------------|----------|--|--|--|
| S                          | witch (switch number)                        | Modu                              | ule 1)                           | Module 2)                   |          |  |  |  |
|                            |                                              | CH1 side                          | CH2 side                         | CH1 side                    | CH2 side |  |  |  |
| Mode setting s             | witch                                        | 0                                 | 5 (format 5)                     | 5 (fori                     | mat 5)   |  |  |  |
| Station numbe              | r setting switch                             |                                   | 1                                | 3                           |          |  |  |  |
|                            | Operation setting switch (SW01)              | OFF<br>(independent<br>operation) | ON<br>(synchronous<br>operation) | OFF (independent operation) |          |  |  |  |
|                            | Data bit setting (SW02)                      | ON (                              | 8 bit)                           | ON (                        | 8 bit)   |  |  |  |
|                            | Parity bit setting (SW03)                    | ON                                | (yes)                            | ON                          | (yes)    |  |  |  |
|                            | Even/odd number parity setting (SW04)        | OFF (odd                          | l number)                        | OFF (odd number)            |          |  |  |  |
|                            | Stop bit setting (SW05)                      | OFF                               | (1 bit)                          | OFF (1 bit)                 |          |  |  |  |
|                            | Sum check setting (SW06)                     | ON                                | (yes)                            | ON (yes)                    |          |  |  |  |
| Transmission specification | Online change enable/disable setting (SW07)  | ON (e                             | nable)                           | ON (enable)                 |          |  |  |  |
| setting switch             | Setting change enable/disable setting (SW08) | OFF (c                            | lisable)                         | OFF (disable)               |          |  |  |  |
|                            |                                              | 1920                              | 0bps                             | 19200bps                    |          |  |  |  |
|                            |                                              | SW                                | Setting                          | SW                          | Setting  |  |  |  |
|                            | Transmission speed setting                   | SW09                              | OFF                              | SW09                        | OFF      |  |  |  |
|                            | (SW09 to SW12)                               | SW10                              | ON                               | SW10                        | ON       |  |  |  |
|                            |                                              | SW11                              | ON                               | SW11                        | ON       |  |  |  |
|                            |                                              | SW12                              | OFF                              | SW12                        | OFF      |  |  |  |
|                            | - (SW13 to SW15)                             | All (                             | DFF                              | All OFF                     |          |  |  |  |

### (b) For 1:n communication
(3) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for 1:n communication.

Operating procedure

| Communication Setting Wizard - Introd | duction                                                                              |  |  |  |  |
|---------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|
|                                       | This Communication Setting Wizard will set the<br>communication information for ACT. |  |  |  |  |
|                                       | You can press Back at any time to change your<br>selections.                         |  |  |  |  |
|                                       | Please click Next to begin.                                                          |  |  |  |  |
|                                       | Please select the logical station number.                                            |  |  |  |  |
|                                       | Logical station number 1 💌                                                           |  |  |  |  |
|                                       | ,                                                                                    |  |  |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |  |  |
|                                       | $\mathbf{r}$                                                                         |  |  |  |  |
| Communication Setting Wizard - PC si  | de 💌                                                                                 |  |  |  |  |
|                                       | Please select the PC side I/F                                                        |  |  |  |  |
|                                       | PC side VF Serial                                                                    |  |  |  |  |
|                                       | Communication setting                                                                |  |  |  |  |
|                                       | Connect port COM1                                                                    |  |  |  |  |
|                                       | Time out 10000 ms                                                                    |  |  |  |  |
| <b>D</b>                              |                                                                                      |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |  |  |
| <br>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~   |                                                                                      |  |  |  |  |
| Communication Setting Wizard - PLC s  | side 💌                                                                               |  |  |  |  |
|                                       | Please select the PLC side VF                                                        |  |  |  |  |
|                                       | PLC side VF C24 module                                                               |  |  |  |  |
|                                       | Communication setting                                                                |  |  |  |  |
|                                       | Module type QJ71C24  Station No. 1                                                   |  |  |  |  |
|                                       | Transmission speed 19200 V bps                                                       |  |  |  |  |
|                                       | Parity Odd                                                                           |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       | Control DTR or RTS Control                                                           |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       | <->                                                                                  |  |  |  |  |

Continued on next page

- **1.** Start Communication Setup Utility and click the www.
- 2. Enter "1" in Logical station number and click the Next> button.

3. Set the following items and click the Next> button.

| PC side I/F  | : Serial |
|--------------|----------|
| Connect port | : COM1   |
| Time out     | : 10000  |

4. Set the following items and click the Next> button.

| : C24 module         |
|----------------------|
| : QJ71C24            |
| : 1                  |
| : 19200              |
| : Odd                |
| : DTR or RTS Control |
|                      |

| Continued from previous page         |                                                                  |  |  |  |  |
|--------------------------------------|------------------------------------------------------------------|--|--|--|--|
|                                      | $\langle \nabla \rangle$                                         |  |  |  |  |
| Communication Setting Wizard - Netw  |                                                                  |  |  |  |  |
| Communication Secting Mean           | Please select the Network                                        |  |  |  |  |
|                                      | Station type Other station 💌                                     |  |  |  |  |
| <b>E</b> H!                          | Network C24                                                      |  |  |  |  |
|                                      | Network route                                                    |  |  |  |  |
|                                      | Network type (Muttarop(combine)                                  |  |  |  |  |
| Cancel                               | <back finish<="" th=""></back>                                   |  |  |  |  |
| Ç                                    |                                                                  |  |  |  |  |
| Communication Setting Wizard - Othe  | er station                                                       |  |  |  |  |
|                                      | Please select the Other station                                  |  |  |  |  |
| 4 二前月                                | Other station setting                                            |  |  |  |  |
|                                      | CPU type Q00J 💌                                                  |  |  |  |  |
|                                      | Station No 3                                                     |  |  |  |  |
| Cancel                               | < Back Next > Finish                                             |  |  |  |  |
|                                      | $\mathbf{r}$                                                     |  |  |  |  |
| Communication Setting Wizard - Finis | hed                                                              |  |  |  |  |
|                                      | The Communication wizard has finished collecting<br>information. |  |  |  |  |
|                                      | Please Finish to build the logical station number.               |  |  |  |  |
|                                      | Comment C24_Sample                                               |  |  |  |  |
| Cancel                               | < Back Next > Finish                                             |  |  |  |  |
|                                      |                                                                  |  |  |  |  |

Registration complete

5. Set the following items and click the Next> button.

Station type Network Network type : Other station : C24 : Multidrop(combine)

6. Set the following items and click the Next> button.

| CPU type    | : Q00J |
|-------------|--------|
| Station No. | : 3    |

7. Enter a comment and click the Finish button.

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

Check the serial communication settings, using the logical station number set in (3) in this section.

#### Operating procedure



|                                          | ~    |   |      |
|------------------------------------------|------|---|------|
| Setup Utility                            |      |   |      |
| Menu Help                                |      |   |      |
| Target setting List view Connection test |      |   |      |
| Logical station number 1:C24_Sample      |      | • | Test |
| Communication diagnosis count 5          |      |   |      |
| Result                                   |      |   |      |
| Diagnosis count                          | 0    |   |      |
| Result                                   |      |   |      |
| CPU name                                 |      |   |      |
| Mean time of communication               | 0 ms |   |      |
|                                          |      |   |      |
|                                          |      |   | Exit |



| $\mathbf{c}$                |
|-----------------------------|
| Communication test complete |

 Click the <<Target setting>> tab and select the logical station number "1". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "1".

3. Click the Test button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

Through the above steps, it is confirmed that the logical station number settings are correct. This logical station number can be used for user

program creation and PLC Monitor Utility. Collect device data, using this logical station number. 8.1 Serial Communication 8.1.2 Access procedure

# 8.2 Ethernet Communication (When 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.

### 8.2.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using Ethernet communication.



<sup>\*1:</sup> The HOSTS file is not required to be edited when entering the IP address in the host name (IP Address) of Communication Setup Utility and the ActHostAddress property of the Ethernet communication control.

#### (1) System example

The following system example is used in this section.



#### (2) Setting parameter setting

Set the network type, start I/O number, network number, station number, mode and operational settings on the <u>Network Parameter - MELSECNET/CC IE/Ethernet Module Configuration</u> screen of GX Works2.



#### (3) Setting routing parameter setting

Set the following items on the <u>Network Parameter - Setting the Ethernet/CC IE/MELSECNET Routing Information</u> screen of GX Works2.

For the routing parameters, refer to the following appendix.

Page 297, Appendix 1 Concept of Routing Parameters

| CPU to be set | Setting screen example |   |                       |                      |                      |
|---------------|------------------------|---|-----------------------|----------------------|----------------------|
| CPU 1         |                        |   | Target Network<br>No. | Relay Network<br>No. | Relay<br>Station No. |
|               |                        | 1 | 1                     | 2                    | 2                    |
|               |                        | 2 | 2                     | 1                    | 1                    |
|               |                        | 3 |                       |                      |                      |
|               |                        |   |                       |                      |                      |
| CPU 2         |                        |   | Target Network<br>No. | Relay Network<br>No. | Relay<br>Station No. |
|               |                        | 1 | 1                     | 2                    | 2                    |
|               |                        | 2 |                       |                      |                      |
|               |                        | 3 |                       |                      |                      |

#### (4) Performing 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 cable and module connections and Windows<sup>®</sup> side IP address and other settings.

(5) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| Communication Setting Wizard - Introd | uction 💌                                                                             |  |  |  |  |
|---------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|
|                                       | This Communication Setting Wizard will set the<br>communication information for ACT. |  |  |  |  |
|                                       | You can press Back at any time to change your<br>selections.                         |  |  |  |  |
|                                       | Please click Next to begin.                                                          |  |  |  |  |
|                                       | Please select the logical station number.                                            |  |  |  |  |
|                                       | Logical station number 2 -                                                           |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |  |  |
|                                       | $\mathbf{c}$                                                                         |  |  |  |  |
| Communication Setting Wizard - PC sid | e 💌                                                                                  |  |  |  |  |
|                                       | Please select the PC side I/F                                                        |  |  |  |  |
|                                       | PC side VF Ethernet board                                                            |  |  |  |  |
|                                       | Connect module                                                                       |  |  |  |  |
|                                       | Protocol TCP                                                                         |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       | Network No 1                                                                         |  |  |  |  |
|                                       | Station No 2                                                                         |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       | Time out 60000 ms                                                                    |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
| Communication Setting Wizard - PLC si | de 💌                                                                                 |  |  |  |  |
|                                       | Please select the PLC side VF                                                        |  |  |  |  |
|                                       | PLC side VF Ethernet module                                                          |  |  |  |  |
|                                       | Communication setting                                                                |  |  |  |  |
| <b>∕</b> └                            | Module type QJ71E71                                                                  |  |  |  |  |
|                                       | Host(IP Address) 192.168.0.1                                                         |  |  |  |  |
|                                       | Network No 1                                                                         |  |  |  |  |
|                                       | Station No 1                                                                         |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |  |  |
|                                       |                                                                                      |  |  |  |  |
|                                       | $\checkmark$                                                                         |  |  |  |  |

Continued on next page

- **1.** Start Communication Setup Utility and click the wzard button.
- 2. Enter "2" in Logical station number and click the Next > button.

3. Set the following items and click the <u>Next></u> button.

| PC side I/F    | : Ethernet board |
|----------------|------------------|
| Connect module | : QJ71E71        |
| Protocol       | : TCP            |
| Network No.    | :1               |
| Station No.    | : 2              |
| Time out       | : 60000          |
|                |                  |

4. Set the following items and click the Next> button.

| PLC side I/F      | : Ethernet module |
|-------------------|-------------------|
| Module type       | : QJ71E71         |
| Host (IP Address) | : 192.168.0.1     |
| Station No.       | : 1               |



Registration complete

5. Set the following items and click the Next> button.

Station type Network : Other station : Ethernet

6. Set the following items and click the Next> button.

| CPU type     | : Q02(H) |
|--------------|----------|
| Network No.  | : 2      |
| Station No.  | : 3      |
| Multiple CPU | : None   |

7. Enter a comment and click the Finish button.

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

Check the Ethernet communication settings, using the logical station number set in (5) in this section.

#### Operating procedure





|   | $\checkmark$ |         |
|---|--------------|---------|
|   | - • •        |         |
| 2 | • Test       | -Click! |
| 0 |              |         |

Communication test complete

 Click the <<Target setting>> tab and select the logical station number "2". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "2".

3. Click the <u>Test</u> button to check that communication is being performed normally. If an error occurs, check the error code and remove the error. The error code is displayed in Result. (At normal

termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility. Collect device data, using this logical station number.

# 8.3 Ethernet Communication (When 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.

### 8.3.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using Ethernet communication.



\*1: The HOSTS file is not required to be edited when entering the IP address in the host name (IP address) of Communication Setup 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 settings are set from the PLC parameter of GX Works2.

Select the <<Built-in Ethernet port>> tab and set the communication settings : IP address or the like.

| IP Address Setting                                                                     |                                                                            | Open Setting                |                              |             |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------|------------------------------|-------------|
| IP Address<br>Subnet Mask Pattern<br>Default Router IP Address                         | Input Format DEC    192 168 0 1  255 255 255 0  192 168 0 254              | FTP Setting<br>Time Setting |                              |             |
| Communication Data Code                                                                |                                                                            |                             |                              |             |
| Enable online change (FTP     Disable direct connection t     Do not respond to search | , MC Protocol)<br>10 MELSOFT<br>for CPU (Built-in Ethernet port) on networ | Ŕ                           |                              |             |
| IP packet transfer setting                                                             | 1                                                                          |                             |                              |             |
|                                                                                        |                                                                            |                             | Set if it is needed( Default | / Changed ) |

#### (3) Performing 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 192.168.0.1 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 cable and module connections and Windows<sup>®</sup> side IP address and other settings.

#### (4) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| Communication Setting Wizard - Intro                                                                                                                                                                                             | oduction 💌                                                                                                                                |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| This Communication Setting Wizard will set the<br>communication information for ACT.<br>You can press Back at any time to change your<br>selections.<br>Please click Next to begin.<br>Please select the logical station number. |                                                                                                                                           |  |  |  |
|                                                                                                                                                                                                                                  | Logical station number 3                                                                                                                  |  |  |  |
| Cancel                                                                                                                                                                                                                           | < Back Finish                                                                                                                             |  |  |  |
| Sten                                                                                                                                                                                                                             | R) or jump to step 5)                                                                                                                     |  |  |  |
| Step C                                                                                                                                                                                                                           | b) of jump to step 5)                                                                                                                     |  |  |  |
| Communication Setting Wizard - PC s                                                                                                                                                                                              | ide 💽                                                                                                                                     |  |  |  |
|                                                                                                                                                                                                                                  | Please select the PC side VF PC side VF Ethernet board Communication setting Connect module CPU module Protocol TCP                       |  |  |  |
| Cancel                                                                                                                                                                                                                           | Time out 60000 ms                                                                                                                         |  |  |  |
|                                                                                                                                                                                                                                  | -T                                                                                                                                        |  |  |  |
|                                                                                                                                                                                                                                  | <u> </u>                                                                                                                                  |  |  |  |
| Communication Setting Wizard - PLC                                                                                                                                                                                               | side 💌                                                                                                                                    |  |  |  |
|                                                                                                                                                                                                                                  | Please select the PLC side VF PLC side VF COmmunication setting Host(IP Address) 192.168.0.1 Find CPU (Bullt-in Ethernet port) on network |  |  |  |
| Cancel                                                                                                                                                                                                                           | <back next=""> Finish</back>                                                                                                              |  |  |  |

- **1.** Start Communication Setup Utility and click the wizard button.
- 2. Enter "3" in Logical station number and click the Next> button.

Execute either of the following two ways of steps of the programmable controller side settings. Follow 3) and 4) of steps in case of connection by specified Host (IP address). Follow 5) and 6) of steps in case of Ethernet port direct connection.

3. Set the following items and click the Next> button.

| : Ethernet board |
|------------------|
| : CPU module     |
| : TCP            |
| : 60000          |
|                  |

4. Set the following items and click the Next> button.

| PLC side I/F      | : CPU module  |
|-------------------|---------------|
| Host (IP Address) | : 192.168.0.1 |



5. Set the following items and click the Next> button.

PC side I/F Connect module Protocol Time out

- : Ethernet board : CPU module : UDP : 60000
- Set the following items and click the Next>
   button.
   Select the check box "Ethernet port direct connection".

7. Set the following items and click the <u>Next></u> button.

| Station type | : Host station |
|--------------|----------------|
| CPU type     | : Q04UDEH      |
| Multiple CPU | : None         |

**8.** Enter a comment and click the Finish button.

Perform the built-in Ethernet port CPU search on the following screen displayed by clicking the

Find CPU (Built-in Ethernet port) on network button when use it.

| ind CPU (Built-in   | Ethernet port)                                  |                     |                         |             | ×                |
|---------------------|-------------------------------------------------|---------------------|-------------------------|-------------|------------------|
| IP address          | PLC type                                        | Label               | Comment                 | <u> </u>    |                  |
| 10.97.19.124        | Q03UDECPU                                       |                     |                         |             | ок               |
| 10.97.19.177        | QU4UDEHCPU                                      |                     |                         |             |                  |
|                     |                                                 |                     |                         |             | Cancel           |
|                     |                                                 |                     |                         |             |                  |
|                     |                                                 |                     |                         |             |                  |
|                     |                                                 |                     |                         |             |                  |
|                     |                                                 |                     |                         |             |                  |
|                     |                                                 |                     |                         |             |                  |
|                     |                                                 |                     |                         |             |                  |
|                     |                                                 |                     |                         | -           |                  |
| 4                   |                                                 |                     |                         | •           |                  |
| Finds CPU (Built-in | Ethernet port) on the                           | same network. Th    | is cannot be performed  |             |                  |
| when the following  | happens:                                        |                     |                         | Response wa | iting time(sec.) |
| No response with    | nin response waiting t                          | ime.                |                         |             | 2                |
| - "Do not respond t | outer or subliet mask<br>in search for CPU (Bui | it-in Ethernet nort | " is checked in PLC nar | rameter     | Undate           |
| oo not respond t    |                                                 | at an extremet port | no onconcernin i co per |             |                  |

Choosing the target CPU from the list and clicking the button enables to update the IP address on the

- "Communication Setting Wizard PLC side" setting.
- \* Built-in Ethernet port CPUs on the same network is the target of the search.

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

Check the Ethernet communication settings, using the logical station number set in (4) in this section.

#### Operating procedure

|                 | ation Setup Utility |              |            |        |        |
|-----------------|---------------------|--------------|------------|--------|--------|
| Menu Help       |                     |              |            |        |        |
| Target setting  | List view Connectio | n test       |            |        |        |
| Logical station | n number 3:QnUDE_S  | ample        | -          | Wizard | Delete |
|                 | Ethernet            |              |            |        |        |
| PC VF           | Ethernet            | CPU type     | Q04UDEH    | -      |        |
| Protocol        | UDP                 | Module type  | CPU module |        |        |
| Time-out        | 60000 ms            |              |            |        |        |
|                 |                     | Multiple CPU | None       |        |        |
|                 |                     |              |            |        |        |
|                 |                     |              |            |        | Exit   |
|                 |                     | ~            | <b>少</b>   |        |        |

| ~                                        | •    |   |       |
|------------------------------------------|------|---|-------|
| 👆 Communication Setup Utility            |      |   | - • × |
| Menu Help                                |      |   |       |
| Target setting List view Connection test |      |   |       |
| Logical station number 3:QnUDE_Sample    | e    | • | Test  |
| Communication diagnosis count 5          |      |   |       |
| Result                                   |      |   |       |
| Diagnosis count                          | 0    |   |       |
| Result                                   |      |   |       |
| CPU name                                 |      |   |       |
| Mean time of communication               | 0 ms |   |       |
|                                          |      |   |       |
|                                          |      |   | Exit  |



2. Click the <<Connection test>> tab and select the logical station number "3".



Communication test complete

 Click the <u>Test</u> button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility.

Collect device data, using this logical station number.

# 8.4 Ethernet Communication (When Using CC-Link IE Field Network Ethernet Adapter Module)

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

### 8.4.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using Ethernet communication.



#### (1) System example

The following system example is used in this section.



(2) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| (                                                                                                                                                                                                                          |                                                                                                                                                     |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Communication Setting Wizard - Introc                                                                                                                                                                                      | luction                                                                                                                                             |  |  |
| This Communication Setting Wizard will set the communication information for ACT.<br>You can press Back at any time to change your selections.<br>Please click Next to begin.<br>Please select the logical station number. |                                                                                                                                                     |  |  |
| Cancel                                                                                                                                                                                                                     | Logical station number     4                                                                                                                        |  |  |
|                                                                                                                                                                                                                            | $\mathbf{r}$                                                                                                                                        |  |  |
| Communication Setting Wizard - PC sid                                                                                                                                                                                      | de 💌                                                                                                                                                |  |  |
|                                                                                                                                                                                                                            | Please select the PC side VF<br>PC side VF Ethernet board<br>Communication setting<br>Connect module CC E Field Ethernet adapter<br>Protocol<br>TCP |  |  |
| Cancel                                                                                                                                                                                                                     | Time out         60000         ms           < Back                                                                                                  |  |  |
|                                                                                                                                                                                                                            | <u></u><br>で                                                                                                                                        |  |  |
| Communication Setting Wizard - PLCs                                                                                                                                                                                        | ide 💦                                                                                                                                               |  |  |
| Communication Setting Wizard- PLCs                                                                                                                                                                                         | Please select the PLC side VF PLC side VF CC E Field Ethernet adapter Communication setting Host(IP Address) 192.168.3.30                           |  |  |
| Cancel                                                                                                                                                                                                                     | < Back Next > Finish                                                                                                                                |  |  |
|                                                                                                                                                                                                                            | Ŷ                                                                                                                                                   |  |  |
| Contin                                                                                                                                                                                                                     | ued on next page                                                                                                                                    |  |  |

- **1.** Start Communication Setup Utility and click the wizard button.
- 2. Enter "4" in Logical station number and click the

3. Set the following items and click the Next> button.



PC side I/F Connect module Protocol Time out

: Ethernet board : CC IE Field Ethernet adapter : TCP : 60000

4. Set the following items and click the Next> button.

PLC side I/F: CC IE Field Ethernet adapterHost (IP Address): 192.168.3.30

8



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

Check the Ethernet communication settings, using the logical station number set in (2) in this section.

#### Operating procedure

| Sommunic 🖥      | ation Setup Utility   |                  |                 |        |        |
|-----------------|-----------------------|------------------|-----------------|--------|--------|
| Menu Help       |                       |                  |                 |        |        |
| Target setting  | List view Connection  | n test           |                 |        |        |
| Logical station | n number 4:Ethernet a | dapter_Sample    | •               | Wizard | Delete |
|                 | Ethernet              |                  |                 |        |        |
| PC VF           | 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               | 1      |        |
|                 |                       | Station No       | 1               |        |        |
|                 |                       | Multiple CPU     | None            |        |        |
|                 |                       |                  |                 |        | Exit   |
|                 |                       | ۲                | ጉ               |        |        |

| Setup Utility                             |           |   | - • - |
|-------------------------------------------|-----------|---|-------|
| Menu Help                                 |           |   |       |
| Target setting List view Connection test  |           |   |       |
| Logical station number 4:Ethernet adapted | er_Sample | • | Test  |
| Communication diagnosis count 5           |           |   |       |
| Result                                    |           |   |       |
| Diagnosis count                           | 0         |   |       |
| Result                                    |           |   |       |
| CPU name                                  |           |   |       |
| Mean time of communication                | 0 ms      |   |       |
| L                                         |           |   |       |
|                                           |           |   | Exit  |

Communication test complete

 Click the <<Target setting>> tab and select the logical station number "4".
 Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "4".

3. Click the <u>Test</u> button to check that communication is being performed normally. If an error occurs, check the error code and remove the error. The error code is displayed in Result. (At normal

termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility.

Collect device data, using this logical station number.

### 8.5 CPU COM Communication

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

### 8.5.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using CPU COM communication.



#### (1) System example

The following system example is used in this section.



Logical station number of "5" is used.

(2) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| (                                                                                 |                                                                                                   |  |  |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--|--|
| Communication Setting Wizard - Introd                                             | luction                                                                                           |  |  |
| This Communication Setting Wizard will set the communication information for ACT. |                                                                                                   |  |  |
|                                                                                   | selections.                                                                                       |  |  |
|                                                                                   | Please click Next to begin.                                                                       |  |  |
|                                                                                   | Please select the logical station number.                                                         |  |  |
|                                                                                   |                                                                                                   |  |  |
|                                                                                   | Logical station number 5                                                                          |  |  |
| Cancel                                                                            | < Back Next > Finish                                                                              |  |  |
|                                                                                   | $\mathbf{r}$                                                                                      |  |  |
| Communication Setting Wizard - PC sid                                             | le 💌                                                                                              |  |  |
|                                                                                   | Please select the PC side VF PC side VF Communication setting Connect port COM1 Time out 10000 ms |  |  |
| Cancel                                                                            | < Back Finish                                                                                     |  |  |
|                                                                                   | <b>心</b>                                                                                          |  |  |
| Communication Setting Wizard - PLC si                                             | ide 💌                                                                                             |  |  |
| Communication setting wizard * PEC si                                             | Please select the PLC side VF                                                                     |  |  |
|                                                                                   | Communication setting                                                                             |  |  |
|                                                                                   | CPU type Q02(H)                                                                                   |  |  |
|                                                                                   | Transmission speed 19200 💌 bps                                                                    |  |  |
|                                                                                   | Control DTR or RTS Control                                                                        |  |  |
|                                                                                   |                                                                                                   |  |  |
| Cancel                                                                            | < Back Finish                                                                                     |  |  |
|                                                                                   |                                                                                                   |  |  |

Continued on next page

- **1.** Start Communication Setup Utility and click the www.
- 2. Enter "5" in Logical station number and click the Next> button.

3. Set the following items and click the Next> button.

| PC side I/F  | : Serial |
|--------------|----------|
| Connect port | : COM1   |
| Time out     | : 10000  |

4. Set the following items and click the Next> button.

| PLC side I/F       | : CPU module         |
|--------------------|----------------------|
| CPU type           | : Q02(H)             |
| Transmission speed | : 19200              |
| Control            | : DTR or RTS Control |



Registration complete

5. Set the following items and click the Next> button.

Station type Network Mode

: Other station : MELSECNET/10(H) : MELSECNET/H

6. Set the following items and click the Next> button.

| CPU type     | : Q02(H) |
|--------------|----------|
| Network No.  | : 5      |
| Station No.  | : 5      |
| Multiple CPU | : None   |

7. Enter a comment and click the Finish button.

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

Check the CPU COM communication settings, using the logical station number set in (2) in this section.

#### Operating procedure



| Communication Setup Utility                 |       |   |      |
|---------------------------------------------|-------|---|------|
| enu Help                                    |       |   |      |
| Farget setting   List view   Connection tes |       |   |      |
| Logical station number 5:CPU COM_S          | ample | • | Test |
| Communication diagnosis count               |       |   |      |
| Result                                      |       |   |      |
| Diagnosis count                             | 0     |   |      |
| Result                                      |       |   |      |
| CPU name                                    |       |   |      |
| Mean time of communication                  | 0 ms  |   |      |
|                                             |       |   |      |
|                                             |       |   | Exit |

Communication test complete

 Click the <<Target setting>> tab and select the logical station number "5".
 Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "5".

 Click the <u>Test</u> button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility.

Collect device data, using this logical station number.

### 8.6 CPU USB Communication

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

### 8.6.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using CPU USB communication.



#### (1) System example

The following system example is used in this section.



(2) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| Communication Setting Wizard - Introd | Juction                                                                              |  |
|---------------------------------------|--------------------------------------------------------------------------------------|--|
|                                       | This Communication Setting Wizard will set the<br>communication information for ACT. |  |
|                                       | You can press Back at any time to change your<br>selections.                         |  |
|                                       | Please click Next to begin.                                                          |  |
|                                       | Please select the logical station number.                                            |  |
|                                       | Lonicel station number 6 🗸                                                           |  |
|                                       |                                                                                      |  |
| Cancel                                | < Back Finish                                                                        |  |
|                                       | $\mathbf{c}$                                                                         |  |
| Communication Setting Wizard - PC sid | de 💽                                                                                 |  |
|                                       | Please select the PC side VF<br>PC side VF USB                                       |  |
|                                       | Communication setting                                                                |  |
|                                       | Time out 10000 ms                                                                    |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
| Cancel                                | < Back Finish                                                                        |  |
| $\mathbf{c}$                          |                                                                                      |  |
| Communication Setting Wizard - PLC s  | ide 💌                                                                                |  |
|                                       | Please select the PLC side VF                                                        |  |
|                                       | PLC side VF CPU module                                                               |  |
|                                       | Communication Setting                                                                |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
|                                       |                                                                                      |  |
| Cancel                                | < Back Finish                                                                        |  |
|                                       | $\overline{\mathbf{v}}$                                                              |  |
| Contin                                | ued on next nage                                                                     |  |
| Contin                                | aca on non page                                                                      |  |

- **1.** Start Communication Setup Utility and click the Wizard. button.
- 2. Enter "6" in Logical station number and click the Next > button.

**3.** Set the following items and click the button.

| Ne | xt | > |   |
|----|----|---|---|
|    |    |   | _ |
|    |    |   |   |

| PC side I/F | : USB   |
|-------------|---------|
| Time out    | : 10000 |

**4.** Set the following items and click the Next > button.

| PLC side I/F | : CPU module |
|--------------|--------------|
| CPU type     | : Q02(H)     |

8



Registration complete

5. Set the following items and click the Next> button.

Station type Network Mode : Other station : MELSECNET/10(H) : MELSECNET/H

6. Set the following items and click the Next> button.

| CPU type     | : Q02(H) |
|--------------|----------|
| Network No.  | :1       |
| Station No.  | : 8      |
| Multiple CPU | : None   |

7. Enter a comment and click the **Finish** button.

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

Check the CPU USB communication settings, using the logical station number set in (2) in this section.

#### Operating procedure





|   | • |      |         |
|---|---|------|---------|
|   |   |      |         |
|   | • | Test | -Click! |
| 0 |   |      |         |

 $\sqrt{2}$ 

Communication test complete

 Click the <<Target setting>> tab and select the logical station number "6".
 Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "6".

 Click the Test button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility. Collect device data, using this logical station number.

### 8.7 CC-Link Communication

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

### 8.7.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using CC-Link communication.



#### (1) System example

The following system example is used in this section.



\* Accessible to FXCPU with CC-Link communication only via the serial/USB connection of QCPU or via Q seriescompatible 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, FX3UC | 1 to 63        |

#### (2) Checking the CC-Link board

Check whether the personal computer is connected properly to CC-Link.

#### Operating procedure

| CC-Link Ver.2 utility                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ×                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Board information   Other station monitor   Online operation   Parameter settings:    Target settings    Mem           Use board settingDireck all the Channel No. that you use)           IF Operanel No.81         Channel No.82         Channel No.83           Operation No.81         Channel No.82         Channel No.83         Channel No.84                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ory I/O test   Test       |
| Clarine no.         Operational settings           Sta. No./Type         1=4           Local station         Expanded cyclic           Signed and the state of the | Qther settings<br>Default |
| Mode Remote net(Ver.1 mode)  Input for Err. Sta. C Hold C Clear                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Check                     |
| Al connect count  No /Sta No. Station type Expanded cyclo Docupies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Ogar<br>d Sta.<br>↓       |
| Qevice Monitor         Load file         Save file         Help           ew                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Egt                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |
| $\sim$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |
| CC-Link Ver.2 utility                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |

| CC-Link Ver.2     | utility                  |                         |                          |                    |                     |       |
|-------------------|--------------------------|-------------------------|--------------------------|--------------------|---------------------|-------|
| loard information | Other station monito     | Online operation        | Parameter settings       | Target settings    | Memory I/O test     | Te    |
| Read paramet      | er                       |                         |                          |                    |                     |       |
| Read parame       | ter and target settings  | from CC-Link board      | driver to CC-Link utilit | у.                 | Bead                |       |
| - Write paramet   | er                       |                         |                          |                    |                     |       |
| Write parame      | ter and target settings  | from CC-Link utility to | o CC-Link board drive    | r.                 |                     |       |
| Reset op          | eration after writing pa | rameter                 |                          |                    | Write               | 1     |
| • Re              | set CC-Link boards thi   | at parameter was cha    | inged                    |                    |                     | _     |
| C Re              | set all CC-Link boards   | regardless of param     | eter changes             |                    |                     |       |
| Verify paramet    | er                       |                         |                          |                    |                     |       |
| Compare par       | ameter and target setti  | ngs between CC-Link     | cutility and CC-Link b   | oard driver.       | <u>V</u> erfy       |       |
|                   |                          | No                      | te : Parameter includ    | es Parameter setti | ngs and Target sett | tings |
| Device Monitor    |                          | Load file               | Save file                | Help               |                     | Egit  |
| N                 |                          |                         |                          |                    |                     |       |
|                   |                          |                         | _                        |                    |                     |       |
|                   |                          |                         |                          |                    |                     |       |

| Slot1 Channel No.81<br>Sta. No.   | 1:Local station(Ver.1 mode) | Link scan time | 2 ms LED information | n<br>ERR. j |
|-----------------------------------|-----------------------------|----------------|----------------------|-------------|
| Data link status                  | In data link                | Error status   | Normal               | Details     |
| - Slot2 Channel No.82<br>Sta: No  |                             | Link scan time | LED informatio       | FBB         |
| Data link status                  |                             | Error status   |                      | Details     |
| - Slot3 Channel No.83<br>Sta. No. |                             | Link scan time | ms LED information   | n<br>ERR. 🕅 |
| Data ink status                   |                             | Error status   |                      | Details     |
| Slot4 Channel No.84<br>Sta. No.   |                             | Link scan time | ms LED information   | ERR.        |

Check complete

- 1. <sup>™</sup> [Start] ⇔ [All Programs] ⇔ [MELSEC] ⇔ [MELSEC CC-Link Ver.2 Utility]
- 2. Click the <<Parameter settings>> tab and set the following items.

| Channel No.        | : Channel No. 81          |
|--------------------|---------------------------|
| Sta. No.           | :1                        |
| Туре               | : Local station           |
| Transmission rate  | : 10Mbps                  |
| Mode               | : Remote net (Ver.1 mode) |
| Occupied Sta.      | : Occupies 1 station      |
| Input for Err Sta. | : Clear                   |

3. Click the <<Online operation>> tab and click the

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**4.** Click the <<Board information>> tab. Check that the loop of the own station is normal.

**5.** Click the <u>button</u> button to exit from the utility.

#### (3) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| Communication Setting Wizard - Introd | uction 💌                                                                                                                                             |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       | This Communication Setting Wizard will set the<br>communication information for ACT.<br>You can press Back at any time to change your<br>selections. |
|                                       | Please click Next to begin.                                                                                                                          |
|                                       | Please select the logical station number.                                                                                                            |
|                                       |                                                                                                                                                      |
|                                       | Logical station number                                                                                                                               |
| Cancel                                | < Back Finish                                                                                                                                        |
|                                       | $\mathbf{c}$                                                                                                                                         |
| Communication Setting Wizard - PC sid | e 💌                                                                                                                                                  |
|                                       | Please select the PC side VF<br>PC side VF CC-Link board<br>Communication setting<br>Board No 1st module                                             |
| Cancel                                | < Back Next> Finish                                                                                                                                  |
|                                       | $\overline{\nabla}$                                                                                                                                  |
| Communication Setting Wizard - Netwo  | •                                                                                                                                                    |
|                                       | Please select the Network                                                                                                                            |
|                                       | Station type Other station(Single)                                                                                                                   |
|                                       | (Red) Nexts                                                                                                                                          |
| Cancel                                | < Back Next> Finish                                                                                                                                  |
|                                       | $\mathbf{r}$                                                                                                                                         |
| Contin                                | ued on next page                                                                                                                                     |

- 2. Enter "7" in Logical station number and click the Next> button.

3. Set the following items and click the <u>Next></u> button.

```
PC side I/F
Board No
```

```
: CC-Link board
: 1st module
```

- 4. Set the following items and click the Next> button.
  - Station type
- : Other station (Single)

| Continue                              | d from previous page                                                                                                                    |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
|                                       | $\mathcal{F}$                                                                                                                           |
| Communication Setting Wizard - Othe   | r station                                                                                                                               |
|                                       | Please select the Other station Other station setting CPU type Q002(H)                                                                  |
|                                       | Multiple CPU None                                                                                                                       |
| Cancel                                | < Back Finish                                                                                                                           |
|                                       | $\overline{\mathbf{c}}$                                                                                                                 |
| Communication Setting Wizard - Finisl | The Communication wizard has finished collecting information. Please Finish to build the logical station number. Comment CC-Link_Sample |
| Cancel                                | < Back Next > Finish                                                                                                                    |

Registration complete

5. Set the following items and click the Next> button.

| CPU type     | : Q02(H) |
|--------------|----------|
| Station No   | : 5      |
| Multiple CPU | : None   |

**6.** Enter a comment and click the **Finish** button.

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

Check the CC-Link communication settings, using the logical station number set in (3) in this section.

#### Operating procedure

| Communic                                                                            | ation setup ounty                                                                 |                            |          |        |             |  |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------|----------|--------|-------------|--|
| Menu Help                                                                           | 1 5                                                                               |                            |          |        |             |  |
| Target setting                                                                      | List view Connecti                                                                | on test                    |          |        |             |  |
| Logical statio                                                                      | n number 7:CC-Link                                                                | Sample                     | •        | Wizard | Delete      |  |
|                                                                                     | CC-Link                                                                           |                            |          |        |             |  |
| PC VF                                                                               | CC-Link                                                                           | CPU type                   | Q02(H)   |        |             |  |
| Board No                                                                            | No.1                                                                              | Station No                 | 0        |        |             |  |
|                                                                                     |                                                                                   | Multiple CPU               | None     |        |             |  |
|                                                                                     |                                                                                   |                            |          |        |             |  |
|                                                                                     |                                                                                   |                            |          |        |             |  |
|                                                                                     |                                                                                   |                            |          |        | Exit        |  |
|                                                                                     |                                                                                   |                            | Ç≻       |        | Exit        |  |
| Communic                                                                            | ation Setup Utility                                                               |                            | <b>₽</b> |        | Ext         |  |
| Communic                                                                            | ation Setup Utility                                                               |                            | ₽        |        | Ext         |  |
| Communic<br>Venu Help<br>Target setting                                             | ation Setup Utility                                                               | on test ]                  | Ç        |        | Ext         |  |
| g Communic<br>Venu Help<br>Target setting<br>Logical statio                         | ation Setup Utility<br>  List view [Connect]<br>n number 7.CC-Li                  | on test]]<br>nk_Sample     | ₽        |        | Ext<br>Test |  |
| g Communication<br>Vienu Help<br>Target setting<br>Logical station<br>Communication | iation Setup Utility<br>List view [Connection number 7.cc-Li<br>n diagnosis count | on test]<br>ht_Sample<br>5 | ∽        | ×      | Ext<br>Test |  |

 Click the <<Target setting>> tab and select the logical station number "7". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "7".



Exit

Communication test complete

3. Click the <u>Test</u> button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.
The error occurs is displayed in Deput (At served)

The error code is displayed in Result. (At normal termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

Through the above steps, it is confirmed that the logical station number settings are correct. This logical station number can be used for user program creation and PLC Monitor Utility. Collect device data, using this logical station number.

### 8.8 CC-Link G4 Communication

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

### 8.8.1 Switch settings of CC-Link G4 module

This section explains the switch settings of CC-Link G4 modules for the use of MX Component. The following sketches are used to explain each module.



### Point P

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

|                     | witch (owitch number)                       |               | Set                        | ting                        |              |
|---------------------|---------------------------------------------|---------------|----------------------------|-----------------------------|--------------|
| 3                   | witch (switch humber)                       |               | Q m                        | ode                         |              |
| Station number set  | tting switch                                |               | As set                     | by user                     |              |
| Data link transmiss | sion speed setting switch                   | (match to the | As set<br>e transmission s | by user<br>peed of the CC-I | Link module) |
|                     |                                             |               | SW                         | Setting                     |              |
|                     | Operation mode setting (SW1, SW6)           |               | SW1                        | OFF                         |              |
|                     |                                             |               | SW6                        | OFF                         |              |
|                     |                                             |               | 960                        | 0bps                        |              |
|                     | Inter-peripheral transmission speed setting |               | SW                         | Setting                     |              |
| Operation setting   | (SW2, SW3)                                  |               | SW2                        | OFF                         |              |
| DIP switch          |                                             |               | SW3                        | OFF                         |              |
|                     |                                             |               |                            |                             |              |
|                     |                                             |               | SW                         | Setting                     |              |
|                     | Parity bit setting (SW4, SW5)               |               | SW4                        | OFF                         |              |
|                     |                                             |               | SW5                        | OFF                         |              |
|                     | - (SW7)                                     |               | 0                          | FF                          |              |
|                     | Test mode setting (SW8)                     |               | OFF (onli                  | ine mode)                   |              |

### 8.8.2 Access procedure



The following is the procedure for accessing the programmable controller CPU using CC-Link G4 communication.

#### (1) System example

The following system example is used in this section.



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

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

| S                   | witch (switch number)                                  |       | Set               | ting             |          |
|---------------------|--------------------------------------------------------|-------|-------------------|------------------|----------|
| Station number set  | ting switch                                            |       | 01 (station       | number 1)        |          |
| Data link transmiss | ion speed setting switch                               |       | 4 (10             | Mbps)            |          |
|                     |                                                        |       | SW                | Setting          |          |
|                     | Operation mode setting (SW1, SW6)                      |       | SW1               | OFF              |          |
|                     |                                                        |       | SW6               | ON               | _        |
| Operation setting   | Inter-peripheral transmission speed setting (SW2, SW3) | Setti | ng is not require | ed (Automatic se | tting)   |
| DIP switch          |                                                        |       | SW                | Setting          |          |
|                     | Parity bit setting (SW4, SW5)                          |       | SW4               | OFF              |          |
|                     |                                                        |       | SW5               | OFF              | <u>.</u> |
|                     | - (SW7)                                                |       | 0                 | FF               |          |
|                     | Test mode setting (SW8)                                |       | OFF (onl          | ine mode)        |          |

#### (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 set on the <u>Network Parameter - CC-Link Module Configuration</u> screen of GX Works2 or from a sequence program.

#### (a) Setting parameter setting on CC-Link setting screen

Set the start I/O number, type, total number of modules connected, and station information. Set other setting items as required.

<CC-Link parameter setting screen>

|                                       | 1                        |      | 2 |   | 3 | 4 |   |
|---------------------------------------|--------------------------|------|---|---|---|---|---|
| Start I/O No.                         |                          | 0000 |   |   |   |   |   |
| Operation Setting                     | Operation Setting        |      |   |   |   |   |   |
| Туре                                  | Master Station           | -    |   | - | • |   | v |
| Master Station Data Link Type         | PLC Parameter Auto Start | -    |   | - | - |   | Ŧ |
| Mode                                  | Remote Net(Ver. 1 Mode)  | -    |   | - | * |   | Ŧ |
| Total Module Connected                |                          | 1    |   |   |   |   |   |
| Remote input(RX)                      |                          |      |   |   |   |   |   |
| Remote output(RY)                     |                          |      |   |   |   |   |   |
| Remote register(RWr)                  |                          |      |   |   |   |   |   |
| Remote register(RWw)                  |                          |      |   |   |   |   |   |
| 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    |   |   |   |   |   |
| Standby Master Station No.            |                          | 0    |   |   |   |   |   |
| PLC Down Select                       | Stop                     | -    | - | • | - |   | - |
| Scan Mode Setting                     | Asynchronous             | -    |   | - | • |   | - |
| Delay Time Setting                    |                          | 0    |   |   |   |   |   |
| Station Information Setting           | Station Information      |      |   |   |   |   |   |
| Remote Device Station Initial Setting | Initial Setting          |      |   |   |   |   | 1 |
| Interrupt Cottings                    | Totom at Cottings        |      |   | 1 |   |   |   |

#### <Station information setting screen>

|            |                            |     | Expanded ( | Cyclic | Number of          | Remote Station |   | Reserve/Inval | lid | Intelliger | nt Buffer Selec | t(Word)   |   |
|------------|----------------------------|-----|------------|--------|--------------------|----------------|---|---------------|-----|------------|-----------------|-----------|---|
| tation No. | Station Type               |     | Setting    | ,      | Occupied Stations  | Points         |   | Station Selec | t 🗌 | Send       | Receive         | Automatic |   |
| 1/1        | Intelligent Device Station | ▼ 5 | Single     | +      | Occupied Station 1 | 32Points       | • | No Setting    | -   | 64         | 64              | 128       | - |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |
|            |                            |     |            |        |                    |                |   |               |     |            |                 |           |   |

After setting the CC-Link parameters, write them to the programmable controller CPU.
### (b) Setting parameter setting in sequence program

The parameter setting items for data link and the sequence program example are described below.

| Address | Item                           | Description                                                       | Setting value |
|---------|--------------------------------|-------------------------------------------------------------------|---------------|
| 1н      | Number of<br>connected modules | Set the number of modules on the remote/local stations connected. | 1н            |
| 20н     | Station information            | AJ65BT-G4-S3                                                      | 2101н         |

#### <Parameter setting items>

#### <Sequence program>



## Point P

This sample sequence program is installed into the following folders after installation of MX Component. [User-specified folder] - [Act] - [Samples] - [GppW] - [CCG4A]

8

### (5) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| Communication Setting Wizard - Introd | uction 💌                                                                             |
|---------------------------------------|--------------------------------------------------------------------------------------|
|                                       | This Communication Setting Wizard will set the<br>communication information for ACT. |
| Annual                                | You can press Back at any time to change your<br>selections.                         |
|                                       | Please click Next to begin.                                                          |
|                                       | Please select the logical station number.                                            |
|                                       |                                                                                      |
|                                       | Logical station number 8                                                             |
| Cancel                                | <back finish<="" td=""></back>                                                       |
|                                       | $\mathcal{P}$                                                                        |
| Communication Setting Wizard - PC sid | le 💽                                                                                 |
|                                       | Please select the PC side VF                                                         |
|                                       | PC side VF Serial                                                                    |
| ( ₌≞∎⊮                                | Communication setting                                                                |
|                                       | Connect port COM1                                                                    |
|                                       | Time out 10000 ms                                                                    |
| <b>b</b>                              |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
| Cancel                                | <back finish<="" th=""></back>                                                       |
|                                       | $\mathbf{c}$                                                                         |
| Communication Setting Wizard - PLC si | de 🗾                                                                                 |
|                                       | Please select the PLC side VF                                                        |
|                                       | PLC side VF G4 module                                                                |
|                                       | Communication setting                                                                |
|                                       | Mode Q 🔽                                                                             |
|                                       | Transmission speed 19200 v bps                                                       |
|                                       | Control DTR or RTS Control                                                           |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
| Cancel                                | < Back Next > Finish                                                                 |
|                                       |                                                                                      |
|                                       | $\checkmark$                                                                         |

Continued on next page

- **1.** Start Communication Setup Utility and click the wire button.
- 2. Enter "8" in Logical station number and click the Next> button.

3. Set the following items and click the <u>Next></u> button.

| PC side I/F  | : Serial |
|--------------|----------|
| Connect port | : COM1   |
| Time out     | : 10000  |

4. Set the following items and click the Next> button.

| PLC side I/F       | : G4 module          |
|--------------------|----------------------|
| Mode               | : Q mode             |
| Transmission speed | : 19200              |
| Control            | : DTR or RTS Control |



Registration complete

5. Set the following items and click the <u>Next></u> button.

| Station type      | : Host station |
|-------------------|----------------|
| CPU type          | : Q00J         |
| CC-Link module No | : 0            |

**6.** Enter a comment and click the **Finish** button.

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

Check the CC-Link G4 communication settings, using the logical station number set in (5) in this section.

#### Operating procedure

| Communication Setup Utility                                                                                                                                                                              |                               |           |          |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------|----------|--------|
| 1enu Help                                                                                                                                                                                                |                               |           |          |        |
| Target setting List view Connect                                                                                                                                                                         | ion test                      |           |          |        |
| Logical station number 8:CC-Link                                                                                                                                                                         | G4_Sample                     | •         | Wizard   | Delete |
| Serial                                                                                                                                                                                                   |                               |           |          |        |
| C VF COM1                                                                                                                                                                                                | CPU type                      | Q00J      |          |        |
| ime-out 10000 ms                                                                                                                                                                                         | Module type                   | G4(Q)     |          |        |
|                                                                                                                                                                                                          | Transmission speed            | 19200 bps |          |        |
|                                                                                                                                                                                                          | Control<br>CC Liek medule Ne  | DIROFRIS  |          |        |
|                                                                                                                                                                                                          |                               |           |          |        |
|                                                                                                                                                                                                          |                               |           |          |        |
|                                                                                                                                                                                                          |                               |           |          | Exit   |
|                                                                                                                                                                                                          | र                             | ን         |          | Exit   |
| Communication Setup Utility                                                                                                                                                                              | र                             | ን         |          | Ext    |
| Communication Setup Utility<br>Ienu Help                                                                                                                                                                 | ۲                             | ን         |          | Ext    |
| Communication Setup Utility<br>Ienu Help<br>Target setting List view [Connect                                                                                                                            |                               | ን         |          | Ext    |
| Communication Setup Utility<br>Ienu Help<br>Target setting   List view [Connect<br>Logical station number   8:CC-L                                                                                       | on itest]<br>nk G4_Sample     | ን         | <b>.</b> | Ext    |
| Communication Setup Utility<br>Ienu Help<br>Target setting Lat view Connect<br>Logical station number ScccL<br>Communication diagnosis count                                                             | on test]<br>nk G4_Sample<br>5 | ን         | ¥        | Ext    |
| Communication Setup Utility<br>Ienu Help<br>Target setting   List view [Connect<br>Logical station number ScC-L<br>Communication diagnosis count<br>Result                                               | on test]<br>Ink G4_Sample     | ን         |          | Ext    |
| Communication Setup Utility<br>enu Help<br>Target setting   List view [Connect<br>Logical station number [S:CC-L<br>Communication diagnosis count<br>- Result<br>Diagnosis count                         | on test<br>Ink G4_Sample<br>5 | <u>}</u>  | <b>_</b> | Ext    |
| Communication Setup Utility<br>lenu Help<br>Farget setting   List view [Connect<br>Logical station number Sccc.L<br>Communication diagnosis count<br>Result<br>Result                                    | on test]<br>nk G4_Sample<br>5 | <u>ጉ</u>  | Y        | Ext    |
| Communication Setup Utility<br>Iteru Help<br>Target setting   List view [Connect<br>Logical station number   S.C.C.L<br>Communication diagnosis count<br>Result<br>Diagnosis count<br>Result<br>CPU name | on test                       | <u>}</u>  | ×        | Ext    |

 Click the <<Target setting>> tab and select the logical station number "8".
 Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "8".

Exit

Communication test complete

Click the Test button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.
 The error code is displayed in Result. (At normal

termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

Through the above steps, it is confirmed that the logical station number settings are correct. This logical station number can be used for user program creation and PLC Monitor Utility. Collect device data, using this logical station number.

# 8.9 GX Simulator Communication

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

## 8.9.1 Access procedure

The following is the procedure for accessing GX Simulator using ladder logic communication.



### (1) System example

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)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| ¢                                    |                                                                                                                                       |   |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---|
| Communication Setting Wizard - Intro | duction                                                                                                                               | × |
|                                      | This Communication Setting Wizard will set the<br>communication information for ACT.<br>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 9                                                                                                              |   |
| Cancel                               | < Back Finish                                                                                                                         |   |
|                                      | $\mathbf{c}$                                                                                                                          |   |
| Communication Setting Wizard - PC si | de                                                                                                                                    | × |
|                                      | Please select the PC side VF                                                                                                          |   |
|                                      | PC side //F GX Simulator                                                                                                              |   |
|                                      | Communication Settion                                                                                                                 |   |
|                                      | Station type Host station                                                                                                             |   |
|                                      | CPU type Q02(H)                                                                                                                       |   |
|                                      | ,                                                                                                                                     |   |
|                                      |                                                                                                                                       |   |
|                                      | Time out 10000 ms                                                                                                                     |   |
|                                      |                                                                                                                                       |   |
|                                      |                                                                                                                                       | _ |
| Cancel                               | < Back Finish                                                                                                                         |   |
|                                      |                                                                                                                                       |   |
|                                      | <u> </u>                                                                                                                              |   |
| Communication Setting Wizard - Finis | hed                                                                                                                                   | × |
| 20135                                | The Communication wizard has finished collecting                                                                                      |   |
|                                      | information.                                                                                                                          |   |
|                                      | Please Finish to build the logical station number.                                                                                    |   |
|                                      |                                                                                                                                       |   |
|                                      |                                                                                                                                       |   |
| - •=                                 | Comment                                                                                                                               |   |
|                                      | GX Simulator_Sample                                                                                                                   |   |
|                                      |                                                                                                                                       |   |
|                                      |                                                                                                                                       |   |
|                                      |                                                                                                                                       |   |
| Cancel                               | < Back Next > Finish                                                                                                                  |   |
|                                      | <u>,</u> ,                                                                                                                            |   |
| Deel                                 | V<br>atration complete                                                                                                                |   |
| Kegi                                 | su'alion complete                                                                                                                     |   |

- 1. Start Communication Setup Utility and click the wirard button.
- 2. Enter "9" in Logical station number and click the

3. Set the following items and click the <u>Next></u> button.

| PC side I/F  | : GX Simulator |
|--------------|----------------|
| Station type | : Host station |
| CPU type     | : Q02(H)       |
| Time out     | : 10000        |
|              |                |

**4.** Enter a comment and click the Finish button.

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

Check the GX Simulator communication settings, using the logical station number set in (2) in this section.

#### Operating procedure

| Sommunication                 | n Setup Utility                     |            |           |       |
|-------------------------------|-------------------------------------|------------|-----------|-------|
| Menu Help                     |                                     |            |           |       |
| Target setting Lis            | t view Connection test              |            |           |       |
| Logical station nur           | nber 9:GX Simulator_Sample          | -          | Wizard De | elete |
| PC VF<br>CPU type<br>Time-out | GX Simulator<br>[002(H)<br>10000 ms |            |           |       |
|                               |                                     |            |           |       |
|                               |                                     |            |           | Exit  |
|                               |                                     | $\sqrt{r}$ |           |       |

|                                          | •      |   |       |
|------------------------------------------|--------|---|-------|
| Han Communication Setup Utility          |        |   | - • • |
| Menu Help                                |        |   |       |
| Target setting List view Connection test |        |   |       |
| Logical station number 9:GX Simulator_9  | Sample | • | Test  |
| Communication diagnosis count 5          |        |   |       |
| Result                                   |        |   |       |
|                                          |        |   |       |
| Diagnosis count                          | 0      |   |       |
|                                          | 1      |   |       |
| Result                                   |        |   |       |
|                                          | 1      |   |       |
| CPU name                                 |        |   |       |
|                                          | ,      |   |       |
| Mean time of communication               | 0 ms   |   |       |
|                                          | ,      |   |       |
|                                          |        |   |       |
|                                          |        |   |       |
|                                          |        |   | Exit  |
|                                          |        |   |       |

|   | $\sim$ |      |        |
|---|--------|------|--------|
|   |        |      | ×      |
|   | •      | Test | Click! |
| 0 |        |      |        |

 $\neg \neg$ 

| Communication test complete | е |
|-----------------------------|---|

 Click the <<Target setting>> tab and select the logical station number "9".
 Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "9".

 Click the Test button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility.

Collect device data, using this logical station number.

# 8.10 GX Simulator2 Communication

This section provides the ladder logic communication (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.

## 8.10.1 Access procedure

The following is the procedure for accessing the simulation function of GX Works2 using GX Simulator2 communication.



#### (1) System example

The following system example is used in this section.



Logical station number of "10" is used.

(2) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| Communication Setting Wizard - Introd | uction 💌                                                                             |  |  |
|---------------------------------------|--------------------------------------------------------------------------------------|--|--|
|                                       | This Communication Setting Wizard will set the<br>communication information for ACT. |  |  |
|                                       | You can press Back at any time to change your<br>selections.                         |  |  |
|                                       | Please click Next to begin.                                                          |  |  |
|                                       | Please select the logical station number.                                            |  |  |
|                                       |                                                                                      |  |  |
|                                       | Logical station number 10 💌                                                          |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |
|                                       | $\mathbf{c}$                                                                         |  |  |
| Communication Setting Wizard - PC sid | de 💽                                                                                 |  |  |
|                                       | Please select the PC side VF                                                         |  |  |
|                                       | PC side VF GX Simulator2                                                             |  |  |
|                                       | Communication setting                                                                |  |  |
|                                       | CPII Series OCPII/O mode)                                                            |  |  |
|                                       |                                                                                      |  |  |
|                                       |                                                                                      |  |  |
|                                       |                                                                                      |  |  |
|                                       |                                                                                      |  |  |
|                                       |                                                                                      |  |  |
|                                       |                                                                                      |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |
|                                       | $\mathbf{c}$                                                                         |  |  |
| Communication Setting Wizard - Finish | ed 📃                                                                                 |  |  |
|                                       | The Communication wizard has finished collecting                                     |  |  |
|                                       | Information.                                                                         |  |  |
|                                       | riease i man to build the logical station number.                                    |  |  |
|                                       |                                                                                      |  |  |
|                                       |                                                                                      |  |  |
|                                       | Comment                                                                              |  |  |
|                                       | GX Simulator2_Sample                                                                 |  |  |
|                                       |                                                                                      |  |  |
|                                       |                                                                                      |  |  |
|                                       |                                                                                      |  |  |
| Cancel                                | < Back Next >                                                                        |  |  |
|                                       | <u>۲</u> ۲                                                                           |  |  |
|                                       | $\sim$                                                                               |  |  |

Registration complete

- **1.** Start Communication Setup Utility and click the www.
- 2. Enter "10" in Logical station number and click the Next> button.

3. Set the following items and click the Next > button.

| PC side I/F      | : GX Simulator2 |
|------------------|-----------------|
| Target Simulator | : Simulator A   |
| CPU series       | : QCPU (Q mode) |

**4.** Enter a comment and click the **Finish** button.

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

Check the GX Simulator2 communication settings, using the logical station number set in (2) in this section.

#### Operating procedure

| nu meip                                                                                                                                                                                                                                    |              |            |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|-------|
| rnet setting [1 ist view ] Consection test]                                                                                                                                                                                                |              |            |       |
| List view   Connection test                                                                                                                                                                                                                |              | <br>       |       |
| VF GX Simulator2                                                                                                                                                                                                                           |              | <br>THEUU. | DURL. |
| get Simulator Simulator A                                                                                                                                                                                                                  |              |            |       |
|                                                                                                                                                                                                                                            |              |            |       |
|                                                                                                                                                                                                                                            |              |            | Evit  |
|                                                                                                                                                                                                                                            |              |            |       |
|                                                                                                                                                                                                                                            |              |            |       |
| Committee Colore Halling                                                                                                                                                                                                                   | $\checkmark$ |            |       |
| Communication Setup Utility                                                                                                                                                                                                                | $\checkmark$ |            |       |
| Communication Setup Utility<br>nu Help<br>Irget setting List view Connection test 1                                                                                                                                                        | $\checkmark$ |            |       |
| Communication Setup Utility<br>nu Help<br>rget setting   List view [Connection test]]<br>ogical station number [10-GX Simulator                                                                                                            | 2_Sample     | •          | Test  |
| Communication Setup Utility<br>nu Help<br>riget esting List view (Connection test.))<br>opical station number 10.03X Smuletor<br>5                                                                                                         | 2_Sample     | •          | Test  |
| Communication Setup Utility<br>nu Help<br>gret setting List view [Connection test]<br>ogical station number 10.GX Smuletor<br>ommunication diagnosis count 5<br>Resut                                                                      | 2_Sample     | v          | Test  |
| Communication Setup Utility<br>nu Help<br>urget setting   List view [Connection test]]<br>opical station number 10.GX Smuletor<br>ommunication diagnosis count 5<br>Resut<br>Diagnosis count                                               | 2_Sample     |            | Test  |
| Communication Setup Utility<br>nu Help<br>gret setting List view [Connection test]<br>jogical station number 10.GX Simuleior<br>ommunication diagnosis count 5<br>Resut<br>Diagnosis count<br>Resut                                        | 2_Sample     | ×          | Test  |
| Communication Setup Utility<br>nu Help<br>rget setting   List view [Connection test]]<br>opical station number 10:0X Smulator<br>ommunication diagnosis count 5<br>Resut<br>Resut<br>CPU name                                              | 2_5ample     | ×          | Test  |
| Communication Setup Utility<br>nu Help<br>Triget setting   List view [Connection test]<br>opical slation number 10:GX Simulator<br>ommunication diagnosis count 5<br>Result<br>Result<br>CPU name<br>Mean time of communication            | 2_Sample     | Y          | Test  |
| Communication Setup Utility<br>nu Help<br>Signal station number [Connection text]]<br>gical station number 10.GX Simulator<br>mmunication diagnosis count 5<br>Resut<br>Diagnosis count<br>Resut<br>CPU name<br>Mean time of communication | 2_5ample     | <br>×      | Test  |

 Click the <<Target setting>> tab and select the logical station number "10".
 Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "10".

|   | $\sim$ |             |
|---|--------|-------------|
|   |        |             |
|   | ×      | Test Click! |
| 0 |        |             |

 $\neg \neg$ 

Communication test complete

Click the Test button to check that communication is being performed normally.
 If an error occurs, check the error code and remove the error.
 The error code is displayed in Result. (At normal

termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

Through the above steps, it is confirmed that the logical station number settings are correct. This logical station number can be used for user program creation and PLC Monitor Utility. Collect device data, using this logical station number.

# 8.11 MELSECNET/H Communication

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

## 8.11.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using MELSECNET/H communication.



## (1) System example

The following system example is used in this section.



### (2) Checking the MELSECNET/H board

Check whether the personal computer is connected properly to MELSECNET/H.

#### Operating procedure

| MELSECNET/H utility                                                                                                                 |                                                                                    |                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Board list         Board information         Loop monit           Channel         51.MELSECNET/H (1 slot)                           | or   Each sta status   Eir history monitor<br>Control / Normal Sta.<br>Normal Sta. | Memory I/O Test   Target () Routing Param Setting Routing Param Transfer |
| LED<br>NUN MIG<br>SWE SIMIG<br>SWE TASS<br>MIG<br>SWE TASS<br>MIG<br>SWE CONC<br>CRC<br>CRC<br>CRC<br>CRC<br>CRC<br>CRC<br>CRC<br>C | Board Set Mode Online (such connection)  Boardrate ToMbps V NET Mode MNET/H mode V | Common Param Setting                                                     |
| Device Monitor                                                                                                                      |                                                                                    | Egit <u>H</u> elp                                                        |





Continued on next page

- 1. <sup>™</sup> [Start] ⇔ [All Programs] ⇔ [MELSEC] ⇔ [MELSECNET/H Utility]
- 2. Click the <<Board information>> tab and set the following items, and click the Board Set button.

| Channel   | : 51: MELSECNET/H (1 slot)              |
|-----------|-----------------------------------------|
| Mode      | : Online (auto.reconnection)            |
| Baud rate | : Any (10Mbps is set for this example.) |
| NET mode  | : MNET/H mode                           |

Then, click the Bouting Param.Setting button.

**3.** Set the following items and click the set button.

| Transfer to Network No.  | : 2 |
|--------------------------|-----|
| Intermediate Network No. | : 1 |
| Intermediate Sta.No.     | : 2 |

Then, click the <u>k</u> button to close the dialog box.

4. Click the Red range Transfer button to transfer the routing parameters to the MELSECNET/H board.



- Continued from previous page
- 5. Click the <<Loop monitor>> tab. Check that the loop is normal.

6. Click the button to exit from the utility.

## (3) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure



Continued on next page

- **1.** Start Communication Setup Utility and click the wizard button.
- 2. Enter "11" in Logical station number and click the Next> button.

- - PC side I/F Board No
- : MELSECNET/H board : 1st module

| Continue                              | d from prev                            | vious page                    |
|---------------------------------------|----------------------------------------|-------------------------------|
|                                       | $\sqrt{r}$                             |                               |
| Communication Cotting Missed - Nature | ~                                      |                               |
|                                       | Please select the Netv<br>Station type | vork Other station(Single)    |
|                                       |                                        |                               |
| Cancel                                | < Back                                 | ext> Finish                   |
|                                       | $\mathbf{r}$                           |                               |
| Communication Setting Wizard - Other  | r station                              | <b>—</b>                      |
|                                       | Please select the Othe                 | er station                    |
|                                       | Other station setting                  |                               |
|                                       | CPU type                               | Q06PH 💌                       |
|                                       | Network No                             | 2                             |
|                                       | Station No                             | 2                             |
|                                       | Multiple CPU                           | No.2                          |
| Cancel                                | < Back                                 | lext > Finish                 |
|                                       | $\mathbf{r}$                           |                               |
| Communication Setting Wizard - Finish | ned                                    |                               |
|                                       | The Communication w                    | izard has finished collecting |
|                                       | Please Finish to build t               | he logical station number.    |
|                                       |                                        |                               |
|                                       | Comment<br>MNETH Sample                |                               |
|                                       | , 2 .                                  |                               |
|                                       |                                        |                               |
| Cancel                                | < Back                                 | lext > Finish                 |
|                                       | $\sqrt{r}$                             |                               |

Registration complete

4. Set the following items and click the Next> button.

Station type

: Other station (Single)

5. Set the following items and click the Next> button.

| CPU type     | : Q06H |
|--------------|--------|
| Network No   | : 2    |
| Station No   | : 2    |
| Multiple CPU | : No.2 |

6. Enter a comment and click the Finish button.

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

Check the MELSECNET/H communication settings, using the logical station number set in (3) in this section.

#### Operating procedure

| Sommunica       | tion Setup Utility   |              |       |        | - • •  |
|-----------------|----------------------|--------------|-------|--------|--------|
| Menu Help       |                      |              |       |        |        |
| Target setting  | List view Connection | in test      |       |        |        |
| Logical station | number 11:MNETH      | Sample       | •     | Wizard | Delete |
|                 | MNET/H               |              |       |        |        |
| PC VF           | MNET/H               | CPU type     | Q06PH |        |        |
| Board No        | No.1                 | Network No   | 1     | _      |        |
|                 |                      | Station No   | 1     |        |        |
|                 |                      | Multiple CPU | No.2  |        |        |
|                 |                      |              |       |        |        |
|                 |                      |              |       |        |        |
|                 |                      |              |       |        |        |
|                 |                      |              |       |        |        |
|                 |                      |              |       |        |        |
|                 |                      |              |       |        |        |
|                 |                      |              |       |        |        |
|                 |                      |              |       |        | Exit   |
|                 |                      |              |       |        |        |
|                 |                      | ~            | いて    |        |        |

| Communication Setup Utility              |      |   | - • • |
|------------------------------------------|------|---|-------|
| Menu Help                                |      |   |       |
| Target setting List view Connection test |      |   |       |
| Logical station number 11:MNETH_Sa       | mple | • | Test  |
| Communication diagnosis count            |      |   |       |
| Result                                   |      |   |       |
| Diagnosis count                          | 0    |   |       |
| Result                                   |      |   |       |
| CPU name                                 |      |   |       |
| Mean time of communication               | 0 ms |   |       |
|                                          |      |   |       |
|                                          |      |   | Exit  |

 $\nabla$ 

Communication test complete

 Click the <<Target setting>> tab and select the logical station number "11". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "11".

3. Click the <u>Test</u> button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x0000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility. Collect device data, using this logical station number.

# 8.12 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.

## 8.12.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using CC-Link IE Controller Network communication.



### (1) System example

The following system example is used in this section.



## (2) Checking the CC-Link IE Controller Network board

Check whether the personal computer is connected properly to CC-Link IE Controller Network.

#### Operating procedure

| CC IE Cor   | trol utility |                   |                     |             |                      |
|-------------|--------------|-------------------|---------------------|-------------|----------------------|
| Channel N   | lo. 151      | Network No. 1     | Group No. 0         | Station No. | 1                    |
| Туре        | Normal sta   | tion Status       | Start data linking  | Boar        | d detail information |
| - Board 2-  |              |                   |                     |             |                      |
| Channel N   | 0.           | Network No.       | Group No.           | Station No. |                      |
| Туре        |              | Status            |                     | Boar        | d detail information |
| Board 3-    |              |                   |                     |             |                      |
| Channel N   | 0.           | Network No.       | Group No.           | Station No. |                      |
| Туре        |              | Status            |                     | Boar        | d detail information |
| Board 4-    |              |                   |                     |             |                      |
| Channel N   | 0.           | Network No.       | Group No.           | Station No. |                      |
| Туре        |              | Status            |                     | Boar        | d detail information |
| Start monil | or           |                   |                     |             |                      |
| Stop moni   | or Ch        | annel No. confirm | <u>D</u> iagnostics | Setting     | Close                |

| $\mathbf{c}$                                                          |
|-----------------------------------------------------------------------|
| Parameter setting                                                     |
| Target board specification<br>✓ Board 1 □ Board 2 □ Board 3 □ Board 4 |
| Board 1 v                                                             |
| Channel No. 151 💌                                                     |
| Operational setting                                                   |
| Network type CC IE Control(Normal station)                            |
| Mode Online 💌                                                         |
| Network No. 1 Group No. 0 Station No. 2                               |
| Network range assignment Driver setting Eyent setting Target setting  |
| Refresh parameter Check Default                                       |
| Load file Save file Verify End Cancel                                 |



- 1. <sup>™</sup> [Start] ⇔ [All Programs] ⇔ [MELSEC] ⇔ [CC IE Control Utility]
- 2. Click the Setting button.

**3.** Set the following items and click the <u>End</u> button.

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

**4.** Click the <u>Yes</u> button and write the parameter to the CC-Link IE Controller Network board.



## (3) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure



Continued on next page

- **1.** Start Communication Setup Utility and click the wizard button.
- 2. Enter "12" in Logical station number and click the Next> button.

- 3. Set the following items and click the <u>Next></u> button.
  - PC side I/F Board No
- : CC IE Control board : 1st module



Registration complete

4. Set the following items and click the Next> button.

Station type

: Host station

**5.** Enter a comment and click the **Finish** button.

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

Check the CC-Link IE Controller Network communication settings, using the logical station number set in (3) in this section.

#### Operating procedure

| enu Help                                                                                                                                                                                                                                                    |      |    |          |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----------|--------|
| arget setting List view Connection test                                                                                                                                                                                                                     |      |    |          |        |
| Logical station number 12:CC IE Control_Sample                                                                                                                                                                                                              | •    | •  | Wizard   | Delete |
| C UF CC E Control<br>eard No 1                                                                                                                                                                                                                              |      |    |          |        |
|                                                                                                                                                                                                                                                             | ₽    |    |          | Exit   |
|                                                                                                                                                                                                                                                             |      |    |          |        |
| Communication Setup Utility                                                                                                                                                                                                                                 |      |    |          |        |
| Communication Setup Utility<br>enu Help                                                                                                                                                                                                                     |      |    |          |        |
| Communication Setup Utility<br>enu Help<br>arget setting   List view [Connection test]                                                                                                                                                                      |      |    |          |        |
| Communication Setup Utility<br>enu Help<br>arget setting   List view [Connection test]<br>.ogical station number  12:CC E Control_Sam                                                                                                                       | iple |    |          | Test   |
| Communication Setup Utility<br>enu Help<br>arget setting List view Connection test<br>.ogical station number 12.CC E Control_Sam<br>communication diagnosis count 5                                                                                         | iple |    | V        | Test   |
| Communication Setup Utility<br>enu Help<br>Tarpet setting   List view [Connection test]<br>Logical station number   12.CC & Control_Sam<br>Communication disgnosis count   5                                                                                | iple |    | •        | Test   |
| Communication Setup Utility<br>enu Help<br>arget setting   List view [Connection test]<br>.ogical station number 12 CC E Control_Sam<br>Communication disgnosis count 5<br>.Resut                                                                           | iple |    | ×        | Test   |
| Communication Setup Utility enu Help arget setting   List view [Connection test]                                                                                                                                                                            | iple |    | T        | Test   |
| Communication Setup Utility<br>enu Help<br>arget setting   List view [Connection test]]<br>.ogical station number   12:CC & ControL Sam<br>Communication disgnosis count   5<br>                                                                            | iple |    | T        | Test   |
| Communication Setup Utility<br>enu Help<br>arget setting   List view [Connection test]]<br>.ogical station number   12 CC E Control_Sam<br>Communication disgnosis count   5<br>                                                                            | iple |    | Ţ        | Test   |
| Communication Setup Utility<br>enu Help<br>arget aeting   List view [Connection test]<br>Logical station number 12 CC E Control_Sam<br>Communication disgnosis count 5<br>Resut [Control_Sam]<br>Disgnosis count [Control_Sam]<br>Result [Control_Sam]      | pie  |    | •        | Test   |
| Communication Setup Utility enu Help arget setting   List view [Connection test]                                                                                                                                                                            | pie  |    | •        | Test   |
| Communication Setup Utility enu Help arget setting   List view [Connection test]                                                                                                                                                                            | pie  |    | •        | Test   |
| Communication Setup Utility enu Help arget seting   List view [Connection test] Logical station number 12.CC E Control_Sam Communication disgnosis count 5 Resut Disgnosis count  Resut CPU name Utage time of communication                                | pie  | ms | Y        | Test   |
| Communication Setup Utility enu Help arget setting   List view [Connection test] Logical station number 12 CC E Control_Sam Communication disgnosis count 5 Resut Disgnosis count 6 Result 6 CPU name 6 Mean time of communication 6                        | pie  | ms | ¥        | Test   |
| Communication Setup Utility enu Help Target setting   List view [Connection test] Logical station number 12:CC & ControL Sam Communication disprosis count 5 Resut Disprosis count  CPU name Mean time of communication                                     | pie  | ms | ×        | Test   |
| Communication Setup Utility<br>enu Help<br>arget setting   List view [Connection test]]<br>.ogical station number   12 CC E Control_Sam<br>Communication disgnosis count   5<br>.Result   0<br>Result   0<br>CPU name   0<br>Mean time of communication   0 | ple  | ms | <b>x</b> | Test   |

Communication test complete

 Click the <<Target setting>> tab and select the logical station number "12". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "12".

3. Click the <u>Test</u> button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x0000000" is displayed in Result.) For details of error code, refer to the following manual.

Through the above steps, it is confirmed that the logical station number settings are correct. This logical station number can be used for user

program creation and PLC Monitor Utility. Collect device data, using this logical station number.

# 8.13 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.

## 8.13.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using CC-Link IE Field Network communication.



## (1) System example

The following system example is used in this section.



### (2) Checking the CC-Link IE Field Network board

Check whether the personal computer is connected properly to CC-Link IE Field Network.

#### Operating procedure



- C [Start] ⇔ [All Programs] ⇔ [MELSEC] ⇔
   [CC IE Field Board] ⇔ [CC IE Control Utility]
- **2.** <sup>™</sup> [Project] ⇒ [New]

| Belevisk Type     CC IR Field Network Statuto     To      None     Nonexiste     To      Nonexiste     To      Nonexiste     Software Texas     Software Texas     Nonexiste Configuration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | None  | None | • |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|---|---|
| Operations         111           Tead Stations         1           Tead Stations         1           State Tead         1           Mode         0           Mode         0           Wathers Charge and States         0           Wathers Charge and States         0           Part Answer         0           Free Charge         0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ×     |      |   |   |
| Network No. 1 Solation Solatio | ×     | ×    |   |   |
| Teld Station 1 Station No. 0 Node Critine (Suma Mode)  Node Critine (Suma Mode)  Note Station (Station) Network Operation Station Destination Count Station Count Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       | •    |   |   |
| Staton No. 0 Mode Critine Doznati Mode)  Network Carding automative Setting Petrosk Corection Setting Petrosk Corection Setting Davat Setting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | •     |      |   |   |
| Station No. 0 Mode Online (Namal Mode)  Network Configuration Setting  Network Configuration Setting  Network Configuration Setting  Network Configuration Setting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | •     |      |   |   |
| Node Chine (Isonia Mode)  Network Configuration Setting Network Ciperation Setting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | •<br> | -    |   |   |
| Network Computation Setting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |      |   |   |
| Persons Operation Sectory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |      |   |   |
| Event Setting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |      |   |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |      |   |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |      |   |   |
| Driver Setting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       |      |   |   |
| Target Setting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       |      |   |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |      |   |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |      |   | - |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |      |   | • |

**3.** Set the following items and click the button.

| : CC IE Field (Master station) |
|--------------------------------|
| : 181                          |
| : 1                            |
| : 1                            |
| : Online (Normal Mode)         |
|                                |

 4. <a>○ [Online] </a> [Write to Board] Write the parameter settings of the project to the CC-Link IE Field Network board.

Continued on next page



## (3) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| Communication Setting Wizard - Intro | duction                                                                                                                                                                                                                          |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                      | This Communication Setting Wizard will set the<br>communication information for ACT.<br>You can press Back at any time to change your<br>selections.<br>Please click Next to begin.<br>Please select the logical station number. |
|                                      | Logical station number 13 💌                                                                                                                                                                                                      |
| Cancel                               | < Back Finish                                                                                                                                                                                                                    |
| Communication Setting Wizard - PC si | ide                                                                                                                                                                                                                              |
| Cancel                               | < Back Finish                                                                                                                                                                                                                    |

Continued on next page

- **1.** Start Communication Setup Utility and click the wizard button.
- 2. Enter "13" in Logical station number and click the Next> button.

- 3. Set the following items and click the Next> button.
  - PC side I/F Board No
- : CC IE Field board : 1st module



Registration complete

4. Set the following items and click the Next> button.

Station type

: Other station (Single)

5. Set the following items and click the <u>Next></u> button.

| : Q13UDH |
|----------|
| : 1      |
| : 1      |
| : None   |
|          |

**6.** Enter a comment and click the **Finish** button.

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

Check the CC-Link IE Field Network communication settings, using the logical station number set in (3) in this section.

#### Operating procedure

| enu Help                                |                                                      |                          |        |        |
|-----------------------------------------|------------------------------------------------------|--------------------------|--------|--------|
| arget setting List view Connection te   | st                                                   |                          |        |        |
| Logical station number 13:CC IE Field   | Sample                                               | -                        | Wizard | Delete |
| CC E Field                              | CPU type<br>Network No<br>Station No<br>Multiple CPU | 013UDH<br>1<br>1<br>None |        |        |
|                                         | ~                                                    | ₽<br>₽                   |        | Exit   |
| Communication Setup Utility             |                                                      |                          |        |        |
| enu Help                                |                                                      |                          |        |        |
| arget setting   List view Connection te | st                                                   |                          |        |        |
| Logical station number 13:CC IE Fiel    | d_Sample                                             |                          | •      | Test   |
| Communication diagnosis count           | 5                                                    |                          |        |        |
| Result                                  |                                                      |                          |        |        |
| Diagnosis count                         | 0                                                    |                          |        |        |
|                                         | 1                                                    |                          |        |        |
| Result                                  |                                                      |                          |        |        |
|                                         |                                                      |                          |        |        |
| CPU name                                |                                                      |                          |        |        |
|                                         | 0                                                    | ms                       |        |        |
| Mean time of communication              |                                                      |                          |        |        |

Communication test complete

 Click the <<Target setting>> tab and select the logical station number "13". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "13".

3. Click the <u>Test</u> button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.
The error code is displayed in Pacult (At permal.

The error code is displayed in Result. (At normal termination, "0x0000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility.

Collect device data, using this logical station number.

8

# 8.14 Q Series Bus Communication

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

## 8.14.1 Access procedure

The following is the procedure for accessing the programmable controller CPU using Q series bus communication.



#### (1) System example

The following system example is used in this section.



Logical station number of "14" is used.

(2) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| Communication Setting Wizard - Introd | luction                                                                                                       |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------|
|                                       | This Communication Setting Wizard will set the<br>communication information for ACT.                          |
| in the second                         | 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 14                                                                                     |
| Cancel                                | <back finish<="" th=""></back>                                                                                |
|                                       | $\mathbf{c}$                                                                                                  |
| Communication Setting Wizard - PC sid | le 💽                                                                                                          |
|                                       | Please select the PC side VF                                                                                  |
|                                       | PC side VF Q Series Bus                                                                                       |
|                                       | Caution:                                                                                                      |
|                                       | If accessing the PLC CPU through a MELSECNET/H unit<br>that is controlled by computer CPU, please select      |
|                                       | [MELSECNET/H board] on the [PC side VF].                                                                      |
|                                       | If accessing the PLC CPU through a CC-Link unit that is<br>controlled by computer CPU, please select [CC-Link |
|                                       | board] on the [PC side VF].                                                                                   |
|                                       |                                                                                                               |
|                                       |                                                                                                               |
|                                       |                                                                                                               |
| Cancel                                | <back next=""> Finish</back>                                                                                  |
|                                       |                                                                                                               |
|                                       | ↔                                                                                                             |
| Communication Setting Wizard - Netwo  | Please select the Network                                                                                     |
|                                       | Fieldse select the Network                                                                                    |
|                                       | CPU type Q12H 💌                                                                                               |
|                                       |                                                                                                               |
|                                       |                                                                                                               |
|                                       | Multiple CPU No.3                                                                                             |
|                                       |                                                                                                               |
|                                       |                                                                                                               |
|                                       |                                                                                                               |
|                                       |                                                                                                               |
|                                       |                                                                                                               |
| Cancel                                | < Back Next > Finish                                                                                          |
|                                       |                                                                                                               |
|                                       | $\mathbf{r}$                                                                                                  |

Continued on next page

- **1.** Start Communication Setup Utility and click the www.
- 2. Enter "14" in Logical station number and click the Next> button.

3. Set the following items and click the Next button.

Next >

PC side I/F

: Q series Bus

4. Set the following items and click the Next> button.

| CPU type     | : Q12H |
|--------------|--------|
| Multiple CPU | : No.3 |

| Continued from previous page           |                                                                                                                                       |  |  |  |  |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Communication Setting Wizard - Finishe | d 💌                                                                                                                                   |  |  |  |  |
|                                        | The Communication wizard has finished collecting information. Please Finish to build the logical station number. Comment Ω Bus_Sample |  |  |  |  |
| Cancel                                 | < Back Next > Finish                                                                                                                  |  |  |  |  |
|                                        | $\mathbf{\nabla}$                                                                                                                     |  |  |  |  |

Registration complete

**5.** Enter a comment and click the **Finish** button.

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

Check the Q series bus communication settings, using the logical station number set in (2) in this section.

#### Operating procedure

| 🖣 Communication Setup Utility          |              |          |        |        |
|----------------------------------------|--------------|----------|--------|--------|
| Menu Help                              |              |          |        |        |
| Target setting List view Connection te | st           |          |        |        |
| Logical station number 14:Q Bus_Sam    | ple          | <b>~</b> | Wizard | Delete |
| Q Series Bus                           |              |          |        |        |
| PC VF Q Series Bus                     | CPU type     | Q12H     |        |        |
|                                        | Multiple CPU | No.3     |        |        |
|                                        |              |          |        |        |
|                                        |              |          |        |        |
|                                        |              |          |        |        |
|                                        |              |          |        |        |
| l                                      |              |          |        |        |
|                                        |              |          |        | Exit   |
|                                        | г            | 7        |        |        |



|   | $\sim$ |      |        |
|---|--------|------|--------|
|   |        |      | 0      |
|   | •      | Test | Click! |
| 0 |        |      |        |

Communication test complete

 Click the <<Target setting>> tab and select the logical station number "14". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "14".

 Click the Test button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x0000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility.

Collect device data, using this logical station number.

8

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

Point P

When performing modem communication for the first time on MX Component, check whether normal modem communication can be performed using GX Works2, and then start modem communication using MX Component.

# 8.15.1 Switch settings of Q series-compatible C24, L series-compatible C24

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

Point P

When MX Component is used, the settings of other than "As set by user" in the table are fixed to the settings in the table.

| Itom     | Set                        | Setting value               |       |  |  |
|----------|----------------------------|-----------------------------|-------|--|--|
| item     | b15 to b8                  | b7 to b0                    |       |  |  |
| Switch 1 | CH1 communication speed *1 | CH1 transmission setting *2 | *3    |  |  |
| Switch 2 | -                          | CH1 communications protocol | 0005н |  |  |
| Switch 3 | CH2 communication speed    | CH2 transmission setting *2 | *4    |  |  |
| Switch 4 | -                          | CH2 communications protocol | *4    |  |  |
| Switch 5 | Module sta                 | As set by user              |       |  |  |

\*1: Set the settings to meet the modem specifications.

\*2 : Settings of CH1 and CH2 are indicated below.

\*3: Confirm the settings of the CH1 communication speed and CH1 transmission setting, and enter the set values.

\*4 : When using CH2, enter the values as set by the user.



\*4: When using CH2, enter the values as set by the user.

## 8.15.2 Access procedure

The following is the procedure for accessing the programmable controller CPU using modem communication.





\*1: If normal communication cannot be performed, refer to "Flowchart for When Access cannot be Performed during Modem Communication" (SP Page 317, Appendix 6) and take corrective action.



\*1: If normal communication cannot be performed, refer to "Flowchart for When Access cannot be Performed during Modem Communication" (

## (1) System examples

The following system examples are used in this section.



### (2) Setting the switch of Q series-compatible C24, L series-compatible C24

| ltom     | Set                     | Setting value               |       |  |  |
|----------|-------------------------|-----------------------------|-------|--|--|
| Item     | b15 to b8               | b7 to b0                    |       |  |  |
| Switch 1 | CH1 communication speed | CH1 transmission setting *1 | 0762н |  |  |
| Switch 2 | -                       | CH1 communications protocol | 0005н |  |  |
| Switch 3 | CH2 communication speed | CH2 transmission setting *1 | 0000н |  |  |
| Switch 4 | -                       | CH2 communications protocol | 0000н |  |  |
| Switch 5 | Module sta              | 0000н                       |       |  |  |

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

| b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 | _        |                        |                          |                          |
|----|----|----|----|----|----|----|----|----------|------------------------|--------------------------|--------------------------|
|    |    |    |    |    |    |    |    | CH1 side |                        |                          |                          |
|    |    |    |    |    |    |    |    | CH2 side |                        |                          |                          |
| 1  | 1  | Î  | Î  | Î  | Î  | Î  | 1  |          |                        | Set                      | ting                     |
|    |    |    |    |    |    |    |    | Bit      | Description            | CH1 transmission setting | CH2 transmission setting |
|    |    |    |    |    |    |    |    | - b0     | Operation setting      | 0 (Independent)          | 0 (Independent)          |
|    |    |    |    |    |    |    |    | — b1     | Data bit               | 1 (8)                    | 0 (7)                    |
|    |    |    |    |    |    |    |    | - b2     | Parity bit             | 0 (No)                   | 0 (No)                   |
|    |    |    |    |    |    |    |    | — b3     | Odd/even number parity | 0 (Odd number)           | 0 (Odd number)           |
|    |    |    |    |    |    |    |    | b4       | Stop bit               | 0 (1)                    | 0 (1)                    |
|    |    |    |    |    |    |    |    | b5       | Sum check code         | 1 (Yes)                  | 0 (No)                   |
|    |    |    |    |    |    |    |    | b6       | Online change          | 1 (Enable)               | 0 (Disable)              |
| L  |    |    |    |    |    |    |    | b7       | Setting change         | 0 (Disable)              | 0 (Disable)              |

# (3) Connect Q series-compatible C24, L series-compatible C24 or FXCPU and the modem

#### (a) 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)                                    | Setting                                                                          |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|                                                                         | 0: Not connected (modem function is not used)                                    |
| Modem connection channel designation ( $2E_H$ )                         | 1: CH1 side interface                                                            |
|                                                                         | 2: CH2 side interface                                                            |
|                                                                         | 0H : Send of initialization data specified in the sending user                   |
| Initialization data number designation (34 <sub>H</sub> ) <sup>*1</sup> | registration frame specifying area                                               |
|                                                                         | 7D0н to 7DDн : Initialization data number                                        |
| CX Developer connection designation (36)                                | 0: Not connected                                                                 |
| GA Developer connection designation (30H)                               | 1: Connected                                                                     |
|                                                                         | 0н : Auto line connect                                                           |
|                                                                         | 1 <sub>H</sub> : Callback connect (Fixation)                                     |
|                                                                         | 3H : Callback connect (Number specification)                                     |
| Callback function designation (2001)                                    | 7 <sub>H</sub> : Callback connect (Number specification (maximum of 10 modules)) |
| Caliback function designation (200 fr)                                  | 9 <sub>H</sub> : Auto line connect (Callback fixation)                           |
|                                                                         | B <sub>H</sub> : Auto line connect (Callback number specification)               |
|                                                                         | F <sub>H</sub> : Auto line connect (Callback number specification                |
|                                                                         | (maximum of 10 modules))                                                         |

\*1: The following initialization data are factory-registered to Q series-compatible C24.
 When the modem used corresponds to the initialization data (7D0н to 7DAн), specify the following registration number.
 When using the modem where the initialization data is not registered, register the AT command to the buffer memory address (1B00н) of Q series-compatible C24.

| Registration Number |         |                                | Corresponding Device                                                                                              |                                                                     |  |  |  |
|---------------------|---------|--------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--|--|--|
| Hexadecimal         | Decimal |                                | Manufacturer                                                                                                      | Model                                                               |  |  |  |
| 7D0⊦                | 2000    | ATQ0V1E1X1\J0\Q2\V2\N3S0=1     | Aiwa                                                                                                              | PV-AF2881WW<br>PV-BF288M2                                           |  |  |  |
| 7D1⊦                | 2001    | ATQ0V1E1X1\Q2\V2\N3S0=1        | Micro General Laboratory                                                                                          | MC288XE<br>MC288X1                                                  |  |  |  |
| 7D2 <sub>H</sub>    | 2002    | ATQ0V1E1X1&K3\N3S0=1           | Microcom                                                                                                          | DESKPORTE22.8S<br>DESKPORTE33.6S                                    |  |  |  |
| 7D3н                | 2003    | ATQ0V1E1X1&H1&R2&A3&D2S0=1     | Omron                                                                                                             | ME3314B                                                             |  |  |  |
| 7D4 <sub>H</sub>    | 2004    | ATQ0V1E1X1\J0\Q2\N3S0=1        | Sun Electronic                                                                                                    | MS336AF                                                             |  |  |  |
| 7D5н                | 2005    | ATE1Q0V1&C1&D2&H1&I0&R2&S0S0=1 | Omron                                                                                                             | ME5614B                                                             |  |  |  |
|                     |         |                                | Sun Electronic                                                                                                    | MS56KAF                                                             |  |  |  |
| 7D6н                | 2006    | ATE1Q0V1&C1&D2&K3&S0S0=1       | Micro General Laboratory                                                                                          | MRV56XL                                                             |  |  |  |
|                     |         |                                | Motouchita Electric                                                                                               | VS-2621A                                                            |  |  |  |
| 7D7н                | 2007    | ATE1Q0V1&C1&D2&K3&S1S0=1       |                                                                                                                   | VC-173                                                              |  |  |  |
| 7D8н                | 2008    | ATE1Q0V1&C1&D2&K3&S0S0=1       | Omron                                                                                                             | MT128B-D                                                            |  |  |  |
| 7D9н                | 2009    | ATE1Q0V1&C1&D1\Q2&S0S0=1       | Sun Electronic                                                                                                    | TS128JX                                                             |  |  |  |
| 7DAH                | 2010    | ATE1Q0V1&C1&D2\Q3&S0S0=1       | Sharp                                                                                                             | DN-TA1                                                              |  |  |  |
| 7DCH                | 2012    | AT&S0S0=1                      | General                                                                                                           |                                                                     |  |  |  |
| 7DDH                | 2013    | ATX1&S0S0=1                    | * Use this device for operat<br>If the device does not operatinitialization command wh<br>modem specifications on | ion check.<br>rate, create the<br>ich matches the<br>the user side. |  |  |  |

1) When callback function is not used

| Setting Item (Buffer Memory Address)            | Setting         |
|-------------------------------------------------|-----------------|
| Modem connection channel designation ( $2E_H$ ) | 1 (CH1)         |
| Initialization data number designation (34H)    | 2006 (No. 2006) |

| Setting Item (Buffer Memory Address)      | Setting       |
|-------------------------------------------|---------------|
| GX Developer connection designation (36н) | 1 (Connected) |
| Callback function designation (2001н)     | -             |

| * Initial processing                                                                                                                                                                                                 |         |    | <turn on="" qj<="" th=""><th>71C24 acce</th><th>sible</th><th>&gt;</th></turn>                                                      | 71C24 acce | sible                                                  | >  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----|-------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------|----|
| QJ71C24 WDT erro<br>ready r                                                                                                                                                                                          |         |    |                                                                                                                                     |            | —(M0<br>QJ71C24<br>accessib<br>le                      | )  |
| M0 M3 X10 X12 X13 Y10<br>19 X X X1 X12 X13 Y10<br>QJ71C24 Initiali Initiali Connecti Abnormal Initiali<br>accessib zation c zation c on in pr complet zation r<br>le ompletio ompletio ogress ion equest<br>n flag n |         |    | <turn in<="" on="" th=""><th>itializati</th><th>on enabled<br/>——(M30<br/>Initiali<br/>zation e<br/>nabled</th><th>&gt;</th></turn> | itializati | on enabled<br>——(M30<br>Initiali<br>zation e<br>nabled | >  |
| MO                                                                                                                                                                                                                   |         |    | <set modem<="" th=""><th>connection</th><th>channel No</th><th>&gt;</th></set>                                                      | connection | channel No                                             | >  |
| 43<br>QJJ1C24<br>accessib<br>le                                                                                                                                                                                      | [TOP    | HO | H2E                                                                                                                                 | K1         | K1                                                     | }  |
|                                                                                                                                                                                                                      |         |    | <set dev<="" gx="" td=""><td>eloper con</td><td>nection</td><td>&gt;</td></set>                                                     | eloper con | nection                                                | >  |
|                                                                                                                                                                                                                      | TOP     | Н0 | Н36                                                                                                                                 | Kl         | Kl                                                     | }  |
| * Convert the initialization command into pulse                                                                                                                                                                      |         |    | <initializa< th=""><th>tion comma</th><th>nd into pul</th><th>s&gt;</th></initializa<>                                              | tion comma | nd into pul                                            | s> |
| 85      <br>Turning<br>on alway<br>S                                                                                                                                                                                 |         |    |                                                                                                                                     | [PLS       | M31<br>Initiali<br>zation c<br>ommand i<br>nto puls    | ł  |
| M31 M30                                                                                                                                                                                                              |         |    | <set da<="" th="" the=""><th>ta for ini</th><th>tialization</th><th>&gt;</th></set>                                                 | ta for ini | tialization                                            | >  |
| 110<br>Initiali Initiali<br>zation c zation e<br>ommand i nabled<br>nto puls                                                                                                                                         | [TOP    | HO | Н34                                                                                                                                 | K2006      | К1                                                     | }  |
|                                                                                                                                                                                                                      |         |    | <turn in<="" on="" th=""><th>itializati</th><th>on request</th><th>&gt;</th></turn>                                                 | itializati | on request                                             | >  |
|                                                                                                                                                                                                                      |         |    |                                                                                                                                     | [SET       | Y10<br>Initiali<br>zation r<br>equest                  | ]  |
|                                                                                                                                                                                                                      |         |    | <turn in<="" on="" th=""><th>itial requ</th><th>est flag</th><th>&gt;</th></turn>                                                   | itial requ | est flag                                               | >  |
|                                                                                                                                                                                                                      |         |    |                                                                                                                                     | [SET       | M39<br>Initial<br>request<br>flag                      | }  |
|                                                                                                                                                                                                                      |         |    |                                                                                                                                     |            |                                                        |    |
| Continued on ne                                                                                                                                                                                                      | xt page | 9  |                                                                                                                                     |            |                                                        |    |

Point P

This sample sequence program is installed into the following folders after installation of MX Component. [User-specified folder] - [Act] - [Samples] - [GppW] - [QJ71C24TEL]

#### Continued from previous page



| 2) When "Auto line connect (Callback fixation)" | " is used as callback function |
|-------------------------------------------------|--------------------------------|
|-------------------------------------------------|--------------------------------|

| ,                                                 |                 |                                           |                                                              |  |  |  |  |  |
|---------------------------------------------------|-----------------|-------------------------------------------|--------------------------------------------------------------|--|--|--|--|--|
| Setting Item (Buffer Memory Address)              | Setting         | Setting Item (Buffer Memory Address)      | Setting                                                      |  |  |  |  |  |
| Modem connection channel designation ( $2E_H$ )   | 1 (CH1)         | GX Developer connection designation (36H) | 1 (Connected)                                                |  |  |  |  |  |
| Initialization data number designation $(34_{H})$ | 2012 (No. 2012) | Callback function designation (2001н)     | 9 <sub>H</sub><br>(Auto line connect<br>(Callback fixation)) |  |  |  |  |  |

| * Initial p         | rocessir               | g                                                                                      |                                          |                                |        |      | <turi< th=""><th>ı on QJ71</th><th>.C24 access</th><th>ible</th><th>&gt;</th></turi<>               | ı on QJ71         | .C24 access        | ible                                    | >   |
|---------------------|------------------------|----------------------------------------------------------------------------------------|------------------------------------------|--------------------------------|--------|------|-----------------------------------------------------------------------------------------------------|-------------------|--------------------|-----------------------------------------|-----|
| 0<br>Q<br>r         | xiE<br>J71C24<br>eady  | XIF<br>WDT erro<br>r                                                                   |                                          |                                |        |      |                                                                                                     |                   |                    | -(MO<br>QJ71C24<br>accessib<br>le       | )   |
|                     | NO                     | M2 V10 N                                                                               | 10 ¥10                                   | ¥1.0                           |        |      | <turr< th=""><th>n on init</th><th>ializatior</th><th>n enabled</th><th>&gt;</th></turr<>           | n on init         | ializatior         | n enabled                               | >   |
| 19—<br>Q<br>a<br>1  | J71C24<br>ccessib<br>e | Initiali Initiali Comr<br>zation c zation c on i<br>ompletio ompletio ogre<br>n flag n | ecti Abnormal<br>n pr complet<br>ess ion | Initiali<br>zation r<br>equest |        |      |                                                                                                     |                   |                    | -(M30<br>Initiali<br>zation e<br>nabled | >   |
|                     | MO                     |                                                                                        |                                          |                                |        |      | <set< th=""><th>modem co</th><th>nnection o</th><th>hannel No</th><th>&gt; &gt;</th></set<>         | modem co          | nnection o         | hannel No                               | > > |
| 43 -<br>Q<br>a<br>1 | J71C24<br>ccessib      |                                                                                        |                                          |                                | _[TOP  | HO   |                                                                                                     | H2E               | Kl                 | K1                                      | }   |
|                     |                        |                                                                                        |                                          |                                |        |      | <set< th=""><th>GX Devel</th><th>oper conne</th><th>ection</th><th>&gt;</th></set<>                 | GX Devel          | oper conne         | ection                                  | >   |
|                     |                        |                                                                                        |                                          |                                | TOP    | HO   |                                                                                                     | Н36               | Кl                 | K1                                      | }   |
|                     |                        |                                                                                        |                                          |                                |        |      | <set< td=""><td>callback</td><td>function</td><td></td><td>&gt;</td></set<>                         | callback          | function           |                                         | >   |
|                     |                        |                                                                                        |                                          |                                | _[то   | н0   |                                                                                                     | H2001             | Н9                 | K1                                      | }   |
|                     |                        |                                                                                        |                                          |                                |        |      | <set< th=""><th>data for</th><th>callback</th><th></th><th>&gt;</th></set<>                         | data for          | callback           |                                         | >   |
|                     |                        |                                                                                        |                                          |                                | _[то   | Н0   |                                                                                                     | H2101             | H8001              | Kl                                      | }   |
|                     |                        |                                                                                        |                                          |                                |        |      | <set< th=""><th>registra</th><th>tion data</th><th>bytes</th><th>&gt;</th></set<>                   | registra          | tion data          | bytes                                   | >   |
|                     |                        |                                                                                        |                                          |                                | _[то   | Н0   |                                                                                                     | H1B00             | K80                | K1                                      | }   |
|                     |                        |                                                                                        |                                          |                                |        |      | <set< th=""><th>telephor</th><th>e number</th><th></th><th>&gt;</th></set<>                         | telephor          | e number           |                                         | >   |
|                     |                        |                                                                                        |                                          |                                | [\$MOV | "000 | 000                                                                                                 |                   | H                  | D1                                      | 3   |
|                     |                        |                                                                                        |                                          |                                |        |      | <set< th=""><th>"no exte<br/>-[MOV</th><th>rnal-line"<br/>K255</th><th>D10</th><th>&gt;</th></set<> | "no exte<br>-[MOV | rnal-line"<br>K255 | D10                                     | >   |
|                     |                        |                                                                                        |                                          |                                |        |      |                                                                                                     | L                 |                    |                                         | L   |
|                     |                        |                                                                                        |                                          |                                |        |      | <set< th=""><th>line typ<br/>-[MOV</th><th>e<br/>Kl</th><th>D11</th><th>&gt;</th></set<>            | line typ<br>-[MOV | e<br>Kl            | D11                                     | >   |
|                     |                        |                                                                                        |                                          |                                |        |      |                                                                                                     | -                 |                    |                                         | 1   |
|                     |                        |                                                                                        |                                          |                                |        |      | <writ< th=""><th>tes the c</th><th>onnection</th><th>data</th><th>&gt;</th></writ<>                 | tes the c         | onnection          | data                                    | >   |
|                     |                        |                                                                                        |                                          |                                | _[ТО   | Н0   |                                                                                                     | H1B01             | DO                 | K40                                     | 3   |
|                     |                        |                                                                                        |                                          | $\sqrt{2}$                     |        |      |                                                                                                     |                   |                    |                                         |     |
|                     |                        |                                                                                        | Continue                                 | ed on next                     | page   |      |                                                                                                     |                   |                    |                                         |     |

Point P -

This sample sequence program is installed into the following folders after installation of MX Component. [User-specified folder] - [Act] - [Samples] - [GppW] - [QJ71C24Callback]
#### Continued from previous page

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3) When "Auto line connect (Callback number specification (maximum of 10 modules))" is used as callback function

| Setting Item (Buffer Memory Address)                    | Setting         | Setting Item (Buffer Memory Address)      | Setting                                                                                                   |
|---------------------------------------------------------|-----------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Modem connection channel designation (2E <sub>H</sub> ) | 1 (CH1)         | GX Developer connection designation (36H) | 1 (Connected)                                                                                             |
| Initialization data number designation (34н)            | 2012 (No. 2012) | Callback function designation (2001н)     | F <sub>H</sub><br>(Auto line connect<br>(Callback number<br>specification<br>(maximum of 10<br>modules))) |



Point P

This sample sequence program is installed into the following folders after installation of MX Component. [User-specified folder] - [Act] - [Samples] - [GppW] - [QJ71C24Callback\_Number]

#### Continued from previous page

|         |     | <set< th=""><th>the data</th><th>for cal</th><th>lback</th></set<>          | the data                 | for cal          | lback           |
|---------|-----|-----------------------------------------------------------------------------|--------------------------|------------------|-----------------|
| ſπο     | HO  | 1000                                                                        | H2101                    | H8001            | K1              |
| [10     | nu  |                                                                             | H2101                    | H0001            | R1              |
|         |     |                                                                             |                          |                  |                 |
|         |     | <set< td=""><td>the data</td><td>for cal</td><td>lback</td></set<>          | the data                 | for cal          | lback           |
| [то     | HO  |                                                                             | H2102                    | H8002            | K1              |
|         |     |                                                                             |                          |                  |                 |
|         |     |                                                                             |                          |                  |                 |
| -       |     | <set< td=""><td>the data</td><td>for cal</td><td>lback</td></set<>          | the data                 | for cal          | lback           |
| [то     | HO  |                                                                             | H2103                    | H8003            | K1              |
|         |     |                                                                             |                          |                  |                 |
|         |     | <set< td=""><td>registra</td><td>tion dat</td><td>a b<b>y</b>te</td></set<> | registra                 | tion dat         | a b <b>y</b> te |
| <br>[T0 | HO  |                                                                             | H1B00                    | K80              | K1              |
|         |     |                                                                             |                          |                  |                 |
|         |     |                                                                             |                          |                  |                 |
|         |     | <set< td=""><td>telephor</td><td>ie number</td><td></td></set<>             | telephor                 | ie number        |                 |
| [\$MOV  | "1  |                                                                             |                          | •                | D1              |
|         |     |                                                                             |                          |                  |                 |
|         |     |                                                                             | line in f                |                  | . !!            |
| <br>    |     | <set< td=""><td>no exte</td><td>K255</td><td>e"<br/>n1(</td></set<>         | no exte                  | K255             | e"<br>n1(       |
| <br>    |     |                                                                             | L.10.4                   | 11255            | DIC             |
|         |     |                                                                             |                          |                  |                 |
|         |     | <set< td=""><td>line typ</td><td>e</td><td></td></set<>                     | line typ                 | e                |                 |
| <br>    |     |                                                                             | _[MOV                    | Kl               | D11             |
|         |     |                                                                             |                          |                  |                 |
|         |     |                                                                             |                          |                  |                 |
| [mo     | 110 | <wri< td=""><td>tes the o</td><td>connectio</td><td>n data</td></wri<>      | tes the o                | connectio        | n data          |
| [10     | HU  |                                                                             | HIB/A                    | 00               | K4(             |
|         |     |                                                                             |                          |                  |                 |
|         |     | <set< td=""><td>registra</td><td>tion dat</td><td>a byte</td></set<>        | registra                 | tion dat         | a byte          |
| [T0     | HO  |                                                                             | H1B29                    | K80              | K1              |
|         |     |                                                                             |                          |                  |                 |
|         |     |                                                                             |                          |                  |                 |
|         |     | <set< td=""><td>telephor</td><td>e number</td><td></td></set<>              | telephor                 | e number         |                 |
| [\$MOV  | "2  |                                                                             |                          |                  | D1              |
|         |     |                                                                             |                          |                  |                 |
|         |     | <set< td=""><td>"no exte</td><td>rnal-lin</td><td>e"</td></set<>            | "no exte                 | rnal-lin         | e"              |
|         |     |                                                                             | -[MOV                    | K255             | D10             |
|         |     |                                                                             |                          |                  |                 |
|         |     |                                                                             |                          |                  |                 |
|         |     | <set< td=""><td>line typ</td><td>e</td><td></td></set<>                     | line typ                 | e                |                 |
|         |     |                                                                             | -[MOV                    | K1               | D11             |
|         |     |                                                                             |                          |                  |                 |
|         |     | < Mari                                                                      | tos the -                | onnocti          | n data          |
|         |     | 5 M I                                                                       | a state of the filler of | A 100 PE 1 1 1 0 | u ud Le         |

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#### (b) FXCPU

A sequence program is required for the use of FXCPU.

| * The modem initial<br>* The AT command of | ization command is set in D1000-D1025.<br>ATEOS0=2016D06M4\00\J06W is set. |      |                   |          |          |        |        |
|--------------------------------------------|----------------------------------------------------------------------------|------|-------------------|----------|----------|--------|--------|
| M8002                                      |                                                                            | * <" | A" (H4            | l) i     | s set in | D1000. | >      |
|                                            |                                                                            |      | [MO               | 1        | H41      | D1000  | ]      |
|                                            |                                                                            | * <" | T" (H54)          | ) is     | set in   | D1001. | >      |
|                                            |                                                                            |      | [MO               | 7        | Н54      | D1001  | ]      |
|                                            |                                                                            | * <" | E" (H45)          | ) is     | set in   | D1002. | >      |
|                                            |                                                                            |      | [MO               | 7        | H45      | D1002  | ]      |
|                                            |                                                                            | * <" | 0 <b>" (</b> H30) | ) is     | set in   | D1003. | >      |
|                                            |                                                                            |      | [MO               | v        | н30      | D1003  | ]      |
|                                            |                                                                            | * <" | s" (H53)          | ) is     | set in   | D1004. | >      |
|                                            |                                                                            |      | [MO'              | v        | Н53      | D1004  | ]      |
|                                            |                                                                            | * <" | 0 <b>" (H</b> 30) | ) is     | set in   | D1005. | >      |
|                                            |                                                                            |      | [MO               | 7        | H30      | D1005  | ]      |
|                                            |                                                                            | * <" | =" (H3D           | ) is     | set in   | D1006. | >      |
|                                            |                                                                            |      | [MO'              | v        | H3D      | D1006  | ٦      |
|                                            |                                                                            | * <" | -<br>2" (H32)     | ) is     | set in   | D1007. | >      |
|                                            |                                                                            |      | [MO               | 7        | Н32      | D1007  | ٦      |
|                                            |                                                                            | * <" | 0" (851)          | ) is     | set in   | D1008  |        |
|                                            |                                                                            |      | [MO               | 7        | Н51      | D1008  | ۔<br>۲ |
|                                            |                                                                            | t ~" | 1.11 (11.21)      |          | act in   | D1000  |        |
|                                            |                                                                            | - \  | ENO               | 7 15     | usi      | D1009. | 1      |
|                                            |                                                                            |      | [                 |          |          | 51005  |        |
|                                            |                                                                            | * <" | &" (H26)          | 1 15     | set in   | D1010. | ><br>ר |
|                                            |                                                                            |      | [MO               | <i>'</i> | H20      | D1010  | 1      |
|                                            |                                                                            | * <" | D" (H44)          | is       | set in   | D1011. | >      |
|                                            |                                                                            |      | [MO               | /        | H44      | D1011  |        |
|                                            |                                                                            | * <" | 0"(H30)           | is       | set in   | D1012. | >      |
|                                            |                                                                            |      | [MO               | 7        | H30      | D1012  | ]      |
|                                            |                                                                            |      |                   |          |          |        |        |

Continued on next page

Point P

This sample sequence program is installed into the following folders after installation of MX Component. [User-specified folder] - [Act] - [Samples] - [GppW] - [FXCPUTEL]

#### Continued from previous page

| N9002 | * <"&"(H26) is set in D10  |
|-------|----------------------------|
|       | [MOV H26                   |
|       | * <"M"(H4D) is set in D10  |
|       | [MOV H4D                   |
|       | * <"4"(H34) is set in D10  |
|       | [MOV H34                   |
|       | * <"\"(H5C) is set in D10  |
|       | [MOV H5C                   |
|       | * <"Q"(H51) is set in D10  |
|       | [MOV H51                   |
|       | * <"0"(H30) is set in D10: |
|       | [MOV H30                   |
|       | * <"\"(H5C) is set in D10  |
|       | [MOV H5C                   |
|       | * <"J"(H4A) is set in D10: |
|       | [MOV H4A                   |
|       | * <"0"(H30) is set in D10; |
|       | [MOV H30                   |
|       | * <"&"(H26) is set in D10: |
|       | [MOV H26                   |
|       | * <"W"(H57) is set in D10: |
|       | MOV H57                    |
|       | * <"CR"(HOD) is set in D1  |
|       | [MOV HOD                   |
|       | * <"LF"(HOA) is set in D1  |
|       | A0H VOM]                   |

(4) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for Q seriescompatible C24.

Operating procedure

| ~                                    |                                                                                                                                                       |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication Setting Wizard - Intro | duction                                                                                                                                               |
|                                      | This Communication Setting Wizard will set the<br>communication information for ACT.<br>You can press Back at any time to change your<br>seterctions. |
|                                      | Please click Next to begin.                                                                                                                           |
|                                      | Please select the logical station number.                                                                                                             |
|                                      | Logical station number 15 💌                                                                                                                           |
| Cancel                               | < Back Finish                                                                                                                                         |
|                                      |                                                                                                                                                       |
| Communication Setting Wizard - PC -  | ide                                                                                                                                                   |
| PC S                                 |                                                                                                                                                       |
|                                      | PC side VF Modem  Communication setting Connect module QJ71C24 Time out 100000 ms                                                                     |
| Cancel                               | < Back Next > Finish                                                                                                                                  |
|                                      | $\mathcal{C}$                                                                                                                                         |
| Communication Setting Wizard - Con   | nect Line                                                                                                                                             |
| Connect way Auto line connect        | -                                                                                                                                                     |
| Callback number                      |                                                                                                                                                       |
| Line type TONE _ Outside lin         | e number Port COM1 💌                                                                                                                                  |
| Connection<br>Call number            | Browse                                                                                                                                                |
| Name                                 |                                                                                                                                                       |
| AT command                           |                                                                                                                                                       |
| Modem standard     Help of           | AT command                                                                                                                                            |
| C AT command setting Title           | Browse                                                                                                                                                |
|                                      | Details setting                                                                                                                                       |
| Cancel                               | < Back Next > Finish                                                                                                                                  |
|                                      |                                                                                                                                                       |



- **1.** Start Communication Setup Utility and click the Wizard. button.
- 2. Enter "15" in Logical station number and click the Next > button.

**3.** Set the following items and click the Next > button.

| PC side I/F    | : Modem   |
|----------------|-----------|
| Connect module | : QJ71C24 |
| Time out       | : 10000   |

**4.** Set the following items and click the Next > button.

| Line type           | : Tone                         |
|---------------------|--------------------------------|
| Outside line number | : None                         |
| Port                | : COM1                         |
| Call number         | *******                        |
|                     | (Enter the programmable        |
|                     | controller side phone number.) |
| AT command          | : Modem standard               |



Registration complete

5. Set the following items and click the Next> button.

| PLC side I/F       | : Modem   |
|--------------------|-----------|
| Module type        | : QJ71C24 |
| Station No         | : 0       |
| Transmission speed | : 19200   |

6. Set the following items and click the Next> button.

| Station type | : Host station |
|--------------|----------------|
| CPU type     | : Q25H         |
| Multiple CPU | : None         |

7. Enter a comment and click the Finish button.

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

Check the modem communication settings, using the logical station number set in (4) in this section.

#### Operating procedure

| 🔄 Communicati     | on Setup Utility        |                    |           |        |        |
|-------------------|-------------------------|--------------------|-----------|--------|--------|
| Menu Help         |                         |                    |           |        |        |
| Target setting    | .ist view Connection te | st                 |           |        |        |
| Logical station n | umber 15:Modem_San      | nple               | •         | Wizard | Delete |
|                   | Modem                   |                    |           |        |        |
| PC VF             | COM1                    | Module type        | QJ71C24   |        |        |
| Time-out          | 10000 ms                | CPU type           | Q25H      |        |        |
|                   |                         | Transmission speed | 19200 bps |        |        |
|                   |                         | Station No         | 0         |        |        |
|                   |                         | Multiple CPU       | None      |        |        |
| Connect way       | Auto line connect       |                    |           |        |        |
| Line type         | Tone                    |                    |           |        |        |
| Call number       | *****                   |                    |           |        |        |
|                   |                         |                    |           |        |        |
|                   |                         |                    |           |        |        |
|                   |                         |                    |           |        | Exit   |
|                   |                         | Г                  | ٦         |        |        |



|   | $\sim$ |      |         |
|---|--------|------|---------|
|   |        |      | 0       |
|   | •      | Test | -Click! |
|   |        |      |         |
| 0 |        |      |         |
|   |        |      |         |

Communication test complete

 Click the <<Target setting>> tab and select the logical station number "15". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "15".

 Click the Test button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

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

This logical station number can be used for user program creation and PLC Monitor Utility. Collect device data, using this logical station number.

# 8.16 Gateway Function Communication

This section describes the gateway function communication procedure and setting example for the utility setting type.

# 8.16.1 Access procedure

The following is the procedure for accessing the GOT using gateway function communication.



\*1: The HOSTS file is not required to be edited when the IP address is entered into the host name (IP Address) of Communication Setup Utility and the ActHostAddress property of the gateway function communication control.

#### (1) System example

The following system example is used in this section.



#### (2) Checking communication

After completion of preparations for performing 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<sup>®</sup> side IP address and others.

#### (3) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

#### Operating procedure

| Communication Setting Wizard - Introd | luction                                                                              |  |  |  |
|---------------------------------------|--------------------------------------------------------------------------------------|--|--|--|
| communication setting wizard * Introc |                                                                                      |  |  |  |
|                                       | This Communication Setting Wizard will set the<br>communication information for ACT. |  |  |  |
|                                       | You can press Back at any time to change your<br>selections.                         |  |  |  |
|                                       | Please click Next to begin.                                                          |  |  |  |
|                                       | Please select the logical station number.                                            |  |  |  |
|                                       |                                                                                      |  |  |  |
|                                       | Logical station number 16 💌                                                          |  |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |  |
|                                       | $\mathbf{r}$                                                                         |  |  |  |
| Communication Setting Wizard - PC sid | de e                                                                                 |  |  |  |
|                                       | Please select the PC side VF                                                         |  |  |  |
|                                       | PC side VF Ethernet board                                                            |  |  |  |
|                                       | Connect module GOT                                                                   |  |  |  |
|                                       |                                                                                      |  |  |  |
|                                       |                                                                                      |  |  |  |
|                                       |                                                                                      |  |  |  |
|                                       |                                                                                      |  |  |  |
|                                       | Port No 5011                                                                         |  |  |  |
|                                       | Time out 60000 ms                                                                    |  |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |  |
|                                       |                                                                                      |  |  |  |
| Communication Setting Wizard - PLCs   | ide 📰                                                                                |  |  |  |
|                                       | Place elect the DI C side //F                                                        |  |  |  |
|                                       | PLC side VF Ethernet module                                                          |  |  |  |
|                                       | Communication setting                                                                |  |  |  |
|                                       | Module type GOT                                                                      |  |  |  |
|                                       | Host(IP Address) 192.168.0.1                                                         |  |  |  |
|                                       |                                                                                      |  |  |  |
| · · · · · · · · · · · · · · · · · · · |                                                                                      |  |  |  |
|                                       |                                                                                      |  |  |  |
|                                       |                                                                                      |  |  |  |
|                                       |                                                                                      |  |  |  |
| Cancel                                | < Back Finish                                                                        |  |  |  |
| $\mathbf{\nabla}$                     |                                                                                      |  |  |  |
| Contin                                | lued on next page                                                                    |  |  |  |

- **1.** Start Communication Setup Utility and click the wizard button.
- 2. Enter "16" in Logical station number and click the Next> button.

3. Set the following items and click the <u>Next></u> button.

| PC side I/F    | : Ethernet board |
|----------------|------------------|
| Connect module | : GOT            |
| Port No        | : 5011           |
| Time out       | : 60000          |

4. Set the following items and click the Next> button.

| PLC side I/F      | : Ethernet board |
|-------------------|------------------|
| Module type       | : GOT            |
| Host (IP Address) | : 192.168.0.1    |

| Continued from previous page           |                                                                                                                        |  |  |  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------|--|--|--|
|                                        | $\mathbf{r}$                                                                                                           |  |  |  |
| Communication Setting Wizard - Finishe | d 🗾                                                                                                                    |  |  |  |
|                                        | The Communication wizard has finished collecting<br>information.<br>Please Finish to build the logical station number. |  |  |  |
|                                        | Comment<br>GOT_Sample                                                                                                  |  |  |  |
| Cancel                                 | < Back Next > Finish                                                                                                   |  |  |  |
| $\overline{\mathbf{C}}$                |                                                                                                                        |  |  |  |
| Registration complete                  |                                                                                                                        |  |  |  |

**5.** Enter a comment and click the Finish button.

# 8.16 Gateway Function Communication 8.16.1 Access procedure

8

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

Check the gateway function communication settings, using the logical station number set in (3) in this section.

#### Operating procedure

| 🖥 Communica     | tion Setup Utility   |                  |             |        |        |
|-----------------|----------------------|------------------|-------------|--------|--------|
| Menu Help       |                      |                  |             |        |        |
| Target setting  | List view Connection | test             |             |        |        |
| Logical station | number 16:GOT_Sar    | nple             | •           | Wizard | Delete |
|                 | Ethernet             |                  |             |        |        |
| PC VF           | Ethernet             | CPU type         | GOT         | -      |        |
| Port No         | 5011                 | Module type      | GOT         |        |        |
| Time-out        | 60000 ms             | Host(IP Address) | 192.168.0.1 |        |        |
|                 |                      |                  |             |        |        |
|                 |                      |                  |             |        | Exit   |
|                 |                      | ۲                | ጉ           |        |        |
| Communicat      | ion Setup Utility    |                  |             |        |        |
|                 |                      |                  |             |        |        |

| Communication Setup ounty                |      |
|------------------------------------------|------|
| Menu Help                                |      |
| Target setting List view Connection test |      |
| Logical station number 16:GOT_Sample     | Test |
| Communication diagnosis count 5          |      |
| Result                                   |      |
| Diagnosis count 0                        |      |
| Result                                   |      |
| CPU name                                 |      |
| Mean time of communication 0 ms          |      |
|                                          |      |
|                                          | Exit |



Communication test complete

 Click the <<Target setting>> tab and select the logical station number "16". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "16".

3. Click the <u>Test</u> button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

Through the above steps, it is confirmed that the logical station number settings are correct. This logical station number can be used for user program creation and PLC Monitor Utility. Collect device data, using this logical station number.

# 8.17 GOT Transparent Communication

This section describes the GOT transparent communication procedure and setting example for the utility setting type.

Point P For applicable system configuration, refer to the following manual. GOT1000 Series Connection Manual

### 8.17.1 Access procedure

The following is the procedure for accessing the GOT using GOT transparent communication.



#### (1) System example

The following system example is used in this section.



#### (2) Setting the logical station number (setting on Communication Setting Wizard)

The following explains how to set the logical station number setting using the system example for (1) in this section.

Operating procedure

| Communication Setting Wizard - Introd | uction 💌                                                                             |
|---------------------------------------|--------------------------------------------------------------------------------------|
|                                       | This Communication Setting Wizard will set the<br>communication information for ACT. |
|                                       | You can press Back at any time to change your<br>selections.                         |
|                                       | Please click Next to begin.                                                          |
|                                       | Please select the logical station number.                                            |
|                                       | Logical station number 17 💌                                                          |
| Cancel                                | < Back Finish                                                                        |
|                                       | $\mathbf{c}$                                                                         |
| Communication Setting Wizard - PC sid | e 💌                                                                                  |
|                                       | Please select the PC side VF PC side VF USB(via GOT)  Communication setting          |
|                                       | 10000                                                                                |
|                                       | Timeout 1 10000 ms                                                                   |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
| Cancel                                | < Back Next > Finish                                                                 |
|                                       |                                                                                      |
|                                       | $\overline{\mathbf{v}}$                                                              |
| Communication Setting Wizard - GOT s  | ide 🗾                                                                                |
| Please select the GOT - PLC VF        |                                                                                      |
| GOT-PLC VF Serial                     | •                                                                                    |
| Connect module CPU module             | <b>_</b>                                                                             |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
|                                       |                                                                                      |
| Cancel                                | < Back Finish                                                                        |
|                                       | $\mathbf{r}$                                                                         |
| Contin                                | ued on next page                                                                     |

- **1.** Start Communication Setup Utility and click the wizard button.
- 2. Enter "17" in Logical station number and click the Next> button.

3. Set the following items and click the <u>Next></u> button.

| PC side I/F |  |
|-------------|--|
| Time out    |  |

: USB (via GOT) : 10000

4. Set the following items and click the Next> button.

| GOT - PLC I/F  | : Serial     |
|----------------|--------------|
| Connect module | : CPU module |

| Continued from previous page                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------|
| Communication Setting Wizard - PLC side  Pease select the PLC side VF PLC side | 5. | Set the following items and click the Next ><br>button.<br>PLC side I/F : CPU module<br>CPU type : Q02(H)                                  |
| Communication Setting Wizard - Network<br>Please select the Network<br>Station type Other station  Network MeLSECNET/T0(H)  Network MeLSECNET/T0(H)  Cancel Cancel Cancel Frich Frich                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6. | Set the following items and click the Next ><br>button.<br>Station type : Other station<br>Network : MELSECNET/10(H)<br>Mode : MELSECNET/H |
| Communication Setting Wizard - Other station         Please select the Other station         Other station setting         CPU type         CPU type         CPU type         Station No         Station No         Cancel         < Back                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7. | Set the following items and click the Next><br>button.<br>CPU type : Q02(H)<br>Network No : 1<br>Station No : 8<br>Multiple CPU : None     |
| Communication Setting Wizard - Finished       Image: Communication wizard has finished collecting information.         Desse Finish to build the logical station number.         Desse Finish to build the logical station number.         Comment         GOT Transparent_Sample         Eack       Med >         Finish                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8. | Enter a comment and click the Finish button.                                                                                               |

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

Check the GOT transparent communication settings, using the logical station number set in (2) in this section.

#### Operating procedure



| Setup Utility                          |                 |   |      |
|----------------------------------------|-----------------|---|------|
| Menu Help                              |                 |   |      |
| Target setting List view Connection te | st              |   |      |
| Logical station number 17:GOT Train    | nsparent_Sample | • | Test |
| Communication diagnosis count          | 5               |   |      |
| Result                                 |                 |   |      |
| Diagnosis count                        | 0               |   |      |
| Result                                 |                 |   |      |
| CPU name                               |                 |   |      |
| Mean time of communication             | 0 ms            |   |      |
|                                        |                 |   |      |
|                                        |                 |   | Exit |

 Click the <<Target setting>> tab and select the logical station number "17". Check the logical station number settings.

2. Click the <<Connection test>> tab and select the logical station number "17".



Communication test complete

 Click the Test button to check that communication is being performed normally. If an error occurs, check the error code and remove the error.

The error code is displayed in Result. (At normal termination, "0x00000000" is displayed in Result.) For details of error code, refer to the following manual.

Through the above steps, it is confirmed that the logical station number settings are correct. This logical station number can be used for user program creation and PLC Monitor Utility. Collect device data, using this logical station number.

# CHAPTER 9 COMMUNICATION SETTING EXAMPLES OF PROGRAM SETTING TYPE

To perform communication using the program setting type, the properties of the corresponding ACT controls is required to be set.

For the properties of the corresponding ACT controls, directly enter them on the property window or change their settings in the user program.

For details of the properties which must be set for the corresponding ACT controls, refer to the following manual.

For the use if MX Component, refer to the following sections.

Remark

| Item                                                           | Reference              |
|----------------------------------------------------------------|------------------------|
| Serial communication                                           | Page 133, Section 8.1  |
| Ethernet communication (when using Ethernet interface modules) | Page 146, Section 8.2  |
| CC-Link G4 communication                                       | Page 175, Section 8.8  |
| Modem communication                                            | Page 208, Section 8.15 |

On MX Component, the following property setting method is available for those who are not familiar with property setting.



Specify the communication path where the property settings are to be set using the "Communication Setting Wizard" on Communication Setup Utility. For details of Communication Setting Wizard, refer to the following section.

Section 7.1.6 Operations on Communication Setting Wizard screens

2. Click the <<List View>> tab.

Communication Setup Utility
 Connection test
 Target setting List View Connection test
 Conn

Continued on next page

following section.

For details of the <<List View>> tab, refer to the

Page 91, Section 7.1.2 Operations on List view tab

Continued from previous page



0x0010

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0x0004,

0x0005,

0x0008,

0x0005,

0x0004,

Delete..

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5.

on test

0x0019 0x001A 0x002D 0x0059 0x0013 0x0016 0x0006

x001 Jx001 0x002F 0x001F 0x0019 0x0021

Con enu Help Target setting List view Co

File Edit I

ACTLOGI IgTimeOut

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rmat View Help calstationNumber, Actu , ActTargetSimulator, 1, 0

nit⊤ype,

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0x002D.

0x0059,

0x0013,

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2, 0, 3,

4, <sub>0,</sub>

5,

3. Select "Program" from "Display".

4. Control the scroll bar to confirm the properties. Control names to be used and properties to be set are displayed.

> The file can be saved in the .txt format by clicking the Save text.. button on the <<List View>> tab.

- Saved into file in .txt format.  $\bigcirc$ m
  - 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 Basic<sup>®</sup>.

Directly enter properties in property window or change property setting on the user program.

# **CHAPTER 10** ACCESSIBLE DEVICES AND RANGES

This chapter describes the accessible devices and accessible ranges in each communication form.

# **10.1** Considerations for Accessing Devices

For accessible devices, the devices not described or devices marked with "×" (inaccessible) in the accessible device list indicated in Section 10.2 and later are not supported by MX Component. Do not specify the inaccessible devices.

# **10.2** For Serial Communication

This section provides the accessible devices and accessible ranges for serial communication.

# 10.2.1 Accessible devices

The following table indicates the accessible devices for serial communication.

#### (1) When access target is programmable controller CPU

|                            |                     | Access Target    |            |      |       |                 |
|----------------------------|---------------------|------------------|------------|------|-------|-----------------|
| D                          | evice (Device Name) | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU | QSCPU | FXCPU           |
| Function inp               | out (FX)            | 0                | ×          | 0    | ×     | ×               |
| Function ou                | tput (FY)           | 0                | ×          | 0    | ×     | ×               |
| Function reg               | gister (FD)         | 0                | ×          | 0    | ×     | ×               |
| Special rela               | y (SM)              | 0                | 0          | 0    | ×     | ×               |
| Special regi               | ster (SD)           | 0                | 0          | 0    | ×     | ×               |
| Input relay (              | X)                  | 0                | 0          | 0    | ×     | O <sup>*1</sup> |
| Output relay               | / (Y)               | 0                | 0          | 0    | ×     | O <sup>*1</sup> |
| Internal rela              | y (M)               | 0                | 0          | 0    | ×     | O <sup>*1</sup> |
| Latch relay                | (L)                 | 0                | ×          | 0    | ×     | ×               |
| Annunciator                | - (F)               | 0                | ×          | 0    | ×     | ×               |
| Edge relay                 | (V)                 | 0                | ×          | 0    | ×     | ×               |
| Link relay (E              | 3)                  | 0                | ×          | 0    | ×     | ×               |
| Data register (D)          |                     | 0                | 0          | 0    | ×     | O <sup>*1</sup> |
| Link register              | r (W)               | 0                | ×          | 0    | ×     | Х               |
| Timor                      | Contact (TS)        | 0                | ×          | 0    | ×     | O <sup>*1</sup> |
| (T)                        | Coil (TC)           | 0                | ×          | 0    | ×     | ×               |
| (1)                        | Present value (TN)  | 0                | ×          | 0    | ×     | O <sup>*1</sup> |
| Counton                    | Contact (TS)        | 0                | ×          | 0    | ×     | O <sup>*1</sup> |
| Counter<br>(C)             | Coil (TC)           | 0                | ×          | 0    | ×     | ×               |
| (0)                        | Present value (TN)  | 0                | ×          | 0    | ×     | O <sup>*1</sup> |
| Retentive                  | Contact (TS)        | 0                | ×          | 0    | ×     | ×               |
| timer                      | Coil (TC)           | 0                | ×          | 0    | ×     | ×               |
| (ST)                       | Present value (TN)  | 0                | ×          | 0    | ×     | ×               |
| Link special relay (SB)    |                     | 0                | ×          | 0    | ×     | ×               |
| Link special register (SW) |                     | 0                | ×          | 0    | ×     | ×               |
| Step relay (               | S)                  | ×                | ×          | ×    | ×     | O <sup>*1</sup> |
| Direct input               | (DX)                | ×                | ×          | ×    | ×     | ×               |
| Direct output              | it (DY)             | ×                | ×          | ×    | ×     | ×               |
| Accumulato                 | r (A)               | ×                | ×          | ×    | ×     | ×               |

\*1: Accessible to only FX0NCPU, FX1sCPU, FX1N(C)CPU, FX2N(C)CPU, FX3GCPU, FX3U(C)CPU when using the FX extended port.

(Continued on next page)

|                 |                   |                |                  | Acc        | ess Target |       |                    |
|-----------------|-------------------|----------------|------------------|------------|------------|-------|--------------------|
| De              | evice (Device     | Name)          | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU | FXCPU              |
| Index registe   | or                | (Z)            | 0                | ×          | 0          | ×     | ○*1,*2             |
|                 |                   | (V)            | ×                | ×          | ×          | ×     | O <sup>*1,*2</sup> |
| File register ( |                   | (R)            | ⊖* <b>3</b>      | ×          | 0          | ×     | O <sup>*4</sup>    |
|                 |                   | (ZR)           | ⊖ <sup>*3</sup>  | ×          | 0          | ×     | ×                  |
| Extended file   | e register (ER*\F | R)             | ×                | ×          | ×          | ×     | ×                  |
|                 | Link input (J*\X  | ()             | 0                | 0          | 0          | ×     | ×                  |
|                 | Link output (J*)  | \Y)            | 0                | 0          | 0          | ×     | ×                  |
| Direct link     | Link relay (J*\E  | 3)             | 0                | 0          | 0          | ×     | ×                  |
| Direct link     | Link special rel  | lay (J*\SB)    | 0                | 0          | 0          | ×     | ×                  |
| -               | Link register (J  | *\W)           | 0                | 0          | 0          | ×     | ×                  |
|                 | Link special reg  | gister (J*\SW) | 0                | 0          | 0          | ×     | ×                  |
| Special direct  | t buffer memory   | v (U*\G)       | O <sup>*5</sup>  | 0          | 0          | 0     | ×                  |

\*1: Accessible to only FX0NCPU, FX1sCPU, FX1N(C)CPU, FX2N(C)CPU, FX3GCPU, FX3U(C)CPU when using the FX extended port.

\*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 FX series CPU other than FX3GCPU and FX3U(C)CPU, specify the data register (D). The file register (R) can be specified only when accessing FX3GCPU or FX3U(C)CPU.

\*5: In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless of the host or other CPU.

#### (2) When access target is Q motion CPU

|                                 |                           | Access Target |                 |
|---------------------------------|---------------------------|---------------|-----------------|
| Device (Device Name)            | Q172/Q173/<br>Q172H/Q173H | Q172D/Q173D   | Q172DS/Q173DS   |
| Input relay (X)                 | 0                         | 0             | 0               |
| Output relay (Y)                | 0                         | 0             | 0               |
| Internal relay (M)              | 0                         | 0             | 0               |
| Latch relay (L)                 | 0                         | ×             | ×               |
| Annunciator (F)                 | 0                         | 0             | 0               |
| Link relay (B)                  | 0                         | 0             | 0               |
| Data register (D)               | 0                         | 0             | 0               |
| Link register (W)               | 0                         | 0             | 0               |
| Special register M (SPM)        | 0                         | ×             | ×               |
| Special register D (SPD)        | 0                         | ×             | ×               |
| Motion register (#)             | 0                         | 0             | 0               |
| Coasting timer (FT)             | ×                         | ×             | ×               |
| Special register (SD)           | ×                         | 0             | 0               |
| Special relay (SM)              | ×                         | 0             | 0               |
| Multiple CPU area device (U*\G) | ×                         | O*1           | O <sup>*1</sup> |

\*1: In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless of the host or other CPU.

This section indicates the accessible ranges for serial communication.

#### (1) Configuration



#### (2) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

| Con              | nected Station          |                                             |                  |                 | Relayed s       | tation CPU | l               |                 |
|------------------|-------------------------|---------------------------------------------|------------------|-----------------|-----------------|------------|-----------------|-----------------|
| CPU              | Connected Module        | Relayed Network                             | QCPU<br>(Q mode) | Q12DC<br>CPU-V  | LCPU            | QSCPU      | Q motion<br>CPU | FXCPU           |
|                  |                         | CC IE Control<br>CC IE Field                | 0                | ⊖ <sup>*1</sup> | ⊖ <sup>*2</sup> | O*1        | O <sup>*1</sup> | ×               |
| QCPU<br>(Q mode) |                         | MELSECNET/H                                 | 0                | 0               | ×               | 0          | 0               | ×               |
|                  |                         | Ethernet                                    | ⊖* <b>3</b>      | ×               | ×               | 0          | 0               | ×               |
|                  | Q series-compatible C24 | Serial communication                        | O <sup>*4</sup>  | ×               | 0               | ×          | 0               | ×               |
|                  |                         | CC-Link                                     | 0                | 0               | 0               | ×          | 0               | O <sup>*5</sup> |
|                  |                         | Multi-drop connection (Independent mode)    | O <sup>*4</sup>  | ×               | 0               | ×          | ×               | ×               |
|                  |                         | Multi-drop connection (Synchronous mode) *6 | O <sup>*4</sup>  | ×               | 0               | ×          | ×               | ×               |
|                  |                         | CC IE Control<br>CC IE Field                | ×                | ×               | ×               | ×          | ×               | ×               |
| O motion CDU     | O corico compatible C24 | MELSECNET/H                                 | ×                | ×               | ×               | ×          | ×               | ×               |
| Q motion CPU     | Q series-compatible C24 | Ethernet                                    | ×                | ×               | ×               | ×          | ×               | ×               |
|                  |                         | Serial communication                        | ×                | ×               | ×               | ×          | ×               | ×               |
|                  |                         | CC-Link                                     | ×                | ×               | ×               | ×          | ×               | ×               |

\*1: Inaccessible to Q12DCCPU-V, QSCPU and Q motion CPU 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 : Set the parameter-set values of the target station side Q series-compatible E71 to the network number and station number. Also set the "Station No.⇔IP information" of the Q series-compatible E71 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 serial communication module which is on the main base.

\*5 : Accessible to FX3GCPU, FX3U(C)CPU only.

\*6: Validate "SW6 (sum check)" for the transmission specification software switch setting of the Q series-compatible C24 parameter.

(Continued on next page)

| Con   | nected Station          |                                             |                  |                | Relayed st | tation CPU | l               |                 |
|-------|-------------------------|---------------------------------------------|------------------|----------------|------------|------------|-----------------|-----------------|
| CPU   | Connected Module        | Relayed Network                             | QCPU<br>(Q mode) | Q12DC<br>CPU-V | LCPU       | QSCPU      | Q motion<br>CPU | FXCPU           |
|       |                         | CC IE Field *2                              | 0                | ×              | 0          | ×          | ×               | ×               |
| LCPU  |                         | MELSECNET/H                                 | ×                | ×              | ×          | ×          | ×               | ×               |
|       |                         | Ethernet                                    | ×                | ×              | ×          | ×          | ×               | ×               |
|       |                         | Serial communication                        | O <sup>*4</sup>  | ×              | 0          | ×          | ×               | ×               |
|       | L series-compatible C24 | CC-Link                                     | 0                | 0              | 0          | ×          | ×               | ×               |
|       |                         | Multi-drop connection<br>(Independent mode) | O <sup>*4</sup>  | ×              | 0          | ×          | ×               | ×               |
|       |                         | Multi-drop connection<br>(Synchronous mode) | O <sup>*4</sup>  | ×              | 0          | ×          | ×               | ×               |
|       |                         | CC IE Control<br>CC IE Field                | ×                | ×              | ×          | ×          | ×               | ×               |
|       |                         | MELSECNET/H                                 | ×                | ×              | ×          | ×          | ×               | ×               |
| FXCPU | FX extended port        | Ethernet                                    | ×                | ×              | ×          | ×          | ×               | ×               |
|       |                         | Serial communication                        | ×                | ×              | ×          | ×          | ×               | O <sup>*7</sup> |
|       |                         | CC-Link                                     | ×                | ×              | ×          | ×          | ×               | ×               |
|       |                         | Multi-drop connection                       | ×                | ×              | ×          | ×          | ×               | O*7             |

\*2: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*4: The Redundant CPU is inaccessible to the serial communication module which is on the main base.

\*7: Accessible to FX0NCPU, FX1sCPU, FX1N(C)CPU, FX2N(C)CPU, FX3GCPU, FX3U(C)CPU only.

This section provides the accessible devices and accessible ranges for Ethernet communication.

### 10.3.1 Accessible devices

The following table indicates the accessible devices for Ethernet communication.

#### (1) When access target is programmable controller CPU

|                            |                     | Access Target    |            |      |                     |                     |  |  |  |  |
|----------------------------|---------------------|------------------|------------|------|---------------------|---------------------|--|--|--|--|
| De                         | evice (Device Name) | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU | QSCPU <sup>*1</sup> | FXCPU <sup>*2</sup> |  |  |  |  |
| Function inp               | out (FX)            | 0                | ×          | 0    | ×                   | ×                   |  |  |  |  |
| Function out               | tput (FY)           | 0                | ×          | 0    | ×                   | ×                   |  |  |  |  |
| Function reg               | gister (FD)         | 0                | ×          | 0    | ×                   | ×                   |  |  |  |  |
| Special relay              | y (SM)              | 0                | 0          | 0    | 0                   | ×                   |  |  |  |  |
| Special regis              | ster (SD)           | 0                | 0 0 C      |      | 0                   | ×                   |  |  |  |  |
| Input relay (X)            |                     | 0                | 0          | 0    | 0                   | 0                   |  |  |  |  |
| Output relay (Y)           |                     | 0                | 0          | 0    | 0                   | 0                   |  |  |  |  |
| Internal rela              | y (M)               | 0                | 0          | 0    | 0                   | 0                   |  |  |  |  |
| Latch relay                | (L)                 | 0                | ×          | 0    | ×                   | ×                   |  |  |  |  |
| Annunciator                | (F)                 | 0                | ×          | 0    | 0                   | ×                   |  |  |  |  |
| Edge relay (V)             |                     | 0                | ×          | 0    | 0                   | ×                   |  |  |  |  |
| Link relay (B)             |                     | 0                | ×          | 0    | 0                   | ×                   |  |  |  |  |
| Data register (D)          |                     | 0                | 0          | 0    | 0                   | 0                   |  |  |  |  |
| Link register              | - (W)               | 0                | ×          | 0    | 0                   | ×                   |  |  |  |  |
| <b>T</b> :                 | Contact (TS)        | 0                | ×          | 0    | 0                   | 0                   |  |  |  |  |
| Timer<br>(T)               | Coil (TC)           | 0                | ×          | 0    | 0                   | 0                   |  |  |  |  |
| (1)                        | Present value (TN)  | 0                | ×          | 0    | 0                   | 0                   |  |  |  |  |
| Counton                    | Contact (TS)        | 0                | ×          | 0    | 0                   | 0                   |  |  |  |  |
| Counter<br>(C)             | Coil (TC)           | 0                | ×          | 0    | 0                   | 0                   |  |  |  |  |
| (0)                        | Present value (TN)  | 0                | ×          | 0    | 0                   | 0                   |  |  |  |  |
| Retentive                  | Contact (TS)        | 0                | ×          | 0    | 0                   | ×                   |  |  |  |  |
| timer                      | Coil (TC)           | 0                | ×          | 0    | 0                   | ×                   |  |  |  |  |
| (ST)                       | Present value (TN)  | 0                | ×          | 0    | 0                   | ×                   |  |  |  |  |
| Link special relay (SB)    |                     | 0                | ×          | 0    | 0                   | ×                   |  |  |  |  |
| Link special register (SW) |                     | 0                | ×          | 0    | 0                   | ×                   |  |  |  |  |
| Step relay (S              | 5)                  | ×                | ×          | ×    | ×                   | 0                   |  |  |  |  |
| Direct input               | (DX)                | ×                | ×          | ×    | ×                   | ×                   |  |  |  |  |
| Direct outpu               | t (DY)              | ×                | ×          | ×    | ×                   | ×                   |  |  |  |  |
| Accumulato                 | r (A)               | ×                | ×          | ×    | ×                   | ×                   |  |  |  |  |

\*1 : Writing to device data cannot be performed.

\*2 : For the supported FXCPU and devices, refer to the manuals of Ethernet module and setting software.

(Continued on next page)

|                |                               |                    |                  | Acc        | ess Target |                     |                     |
|----------------|-------------------------------|--------------------|------------------|------------|------------|---------------------|---------------------|
| De             | evice (Device                 | Name)              | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU <sup>*1</sup> | FXCPU <sup>*2</sup> |
| Index registe  | ar                            | (Z)                | 0                | ×          | 0          | ×                   | 0                   |
| Index registe  | 51                            | (V)                | ×                | ×          | ×          | ×                   | 0                   |
| File register  |                               | (R)                | ⊖ <sup>*3</sup>  | ×          | 0          | ×                   | 0                   |
|                |                               | (ZR)               | ⊖* <b>3</b>      | ×          | 0          | ×                   | ×                   |
| Extended file  | e register (ER*\F             | R)                 | ×                | ×          | ×          | ×                   | ×                   |
|                | Link input (J*\>              | ()                 | 0                | 0          | 0          | ×                   | ×                   |
|                | Link output (J*               | Link output (J*\Y) |                  | 0          | 0          | ×                   | ×                   |
| Diroct link    | Link relay (J*\E              | 3)                 | 0                | 0          | 0          | ×                   | ×                   |
| Direct link    | Link special re               | lay (J*\SB)        | 0                | 0          | 0          | ×                   | ×                   |
|                | Link register (J              | *\W)               | 0                | 0          | 0          | ×                   | ×                   |
|                | Link special register (J*\SW) |                    | 0                | 0          | 0          | ×                   | ×                   |
| Special direct | t buffer memory               | י (U*\G)           | O <sup>*4</sup>  | 0          | 0          | 0                   | 0                   |

\*1: Writing to device data cannot be performed.

\*2: For the supported FXCPU and devices, refer to the manuals of Ethernet module and setting software.

\*3 : Disabled for the use of Q00JCPU or Q00UJCPU.

\*4 : In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless of the host or other CPU.

#### (2) When access target is Q motion CPU

For accessible device list of Q motion CPU, refer to the following section.

Page 237, Section 10.2.1 (2) When access target is Q motion CPU

### **10.3.2** Accessible ranges (when using 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 the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or imes (inaccessible).

Point P

The Ethernet parameters are required to be set in the PLC parameter setting of GX Works2.

| Con                              | nected Station          |                              | Relayed station CPU |                 |                 |                 |                 |       |  |  |
|----------------------------------|-------------------------|------------------------------|---------------------|-----------------|-----------------|-----------------|-----------------|-------|--|--|
| CPU                              | Connected Module        | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V  | LCPU            | QSCPU           | Q motion<br>CPU | FXCPU |  |  |
|                                  | Q series-compatible E71 | CC IE Control<br>CC IE Field | 0                   | ⊖ <sup>*2</sup> | ⊖ <sup>*3</sup> | ⊖ <sup>*2</sup> | ⊖ <sup>*2</sup> | ×     |  |  |
| QCPU                             |                         | MELSECNET/H *4               | 0                   | 0               | ×               | 0               | 0               | ×     |  |  |
| (Q mode),<br>OSCPU <sup>*1</sup> |                         | Ethernet                     | O <sup>*5</sup>     | ×               | ×               | 0               | 0               | ×     |  |  |
| QOULD                            |                         | Serial communication         | ○*6                 | ×               | 0               | ×               | 0               | ×     |  |  |
|                                  |                         | CC-Link                      | 0                   | 0               | 0               | ×               | 0               | ×     |  |  |

\*1: Relayed stations cannot be accessed through QSCPU.

\*2 : Inaccessible to Q12DCCPU-V, QSCPU and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller 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 to the network number and station number. Also set the "Station No.⇔IP information" of the Q series-compatible E71 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".

\*6: The Redundant CPU is inaccessible to the serial communication module which is on the main base.

### **10.3.3** Accessible ranges (when using 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 the CPUs can be accessed. The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or imes (inaccessible).

Point P

When using TCP/IP on the built-in Ethernet port CPU, the Ethernet parameters are required to be set in the PLC parameter setting of GX Works2.

|                       |                              | Relayed station CPU |                 |                 |                 |                 |       |  |  |  |
|-----------------------|------------------------------|---------------------|-----------------|-----------------|-----------------|-----------------|-------|--|--|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V  | LCPU            | QSCPU           | Q motion<br>CPU | FXCPU |  |  |  |
| QnUDE(H)CPU           | CC IE Control<br>CC IE Field | 0                   | O <sup>*1</sup> | ⊖ <sup>*2</sup> | O <sup>*1</sup> | O <sup>*1</sup> | ×     |  |  |  |
|                       | MELSECNET/H                  | 0                   | 0               | ×               | 0               | 0               | ×     |  |  |  |
|                       | Ethernet                     | 0                   | ×               | ×               | 0               | 0               | ×     |  |  |  |
|                       | Serial communication         | ⊖ <sup>*3</sup>     | ×               | 0               | ×               | 0               | ×     |  |  |  |
|                       | CC-Link                      | 0                   | 0               | 0               | ×               | 0               | ×     |  |  |  |
|                       | CC IE Control<br>CC IE Field | 0                   | O <sup>*1</sup> | ⊖ <sup>*2</sup> | O <sup>*1</sup> | O <sup>*1</sup> | ×     |  |  |  |
| o (op o op) / / *4    | MELSECNET/H                  | 0                   | 0               | ×               | 0               | 0               | ×     |  |  |  |
| Q12DCCPU-V 4          | Ethernet                     | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |  |
|                       | Serial communication         | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |  |
|                       | CC-Link                      | 0                   | 0               | 0               | ×               | 0               | ×     |  |  |  |

\*1: Inaccessible to Q12DCCPU-V, QSCPU and Q motion CPU 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: The Redundant CPU is inaccessible to the serial communication 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.

(Continued on next page)

|                       |                              | Relayed station CPU |                |      |       |                 |       |  |  |  |
|-----------------------|------------------------------|---------------------|----------------|------|-------|-----------------|-------|--|--|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |  |  |
|                       | CC IE Control<br>CC IE Field | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
|                       | MELSECNET/H                  | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
| Q motion CPU          | Ethernet                     | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
|                       | Serial communication         | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
|                       | CC-Link                      | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
|                       | CC IE Field *2               | 0                   | ×              | 0    | ×     | ×               | ×     |  |  |  |
|                       | MELSECNET/H                  | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
| LCPU                  | Ethernet                     | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
|                       | Serial communication         | O <sup>*3</sup>     | ×              | 0    | ×     | ×               | ×     |  |  |  |
|                       | CC-Link                      | 0                   | 0              | 0    | ×     | ×               | ×     |  |  |  |

\*2 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.
 \*3 : The Redundant CPU is inaccessible to the serial communication module which is on the main base.

# **10.3.4** Accessible ranges (when using 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 the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or imes (inaccessible).

|                       |                              | Relayed station CPU |                 |             |       |                 |       |  |  |  |
|-----------------------|------------------------------|---------------------|-----------------|-------------|-------|-----------------|-------|--|--|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V  | LCPU        | QSCPU | Q motion<br>CPU | FXCPU |  |  |  |
|                       | CC IE Control<br>CC IE Field | 0                   | O <sup>*1</sup> | ⊖* <b>2</b> | ×     | ×               | ×     |  |  |  |
|                       | MELSECNET/H                  | 0                   | 0               | ×           | ×     | ×               | ×     |  |  |  |
| QNUDE(H)CPU           | Ethernet                     | 0                   | ×               | ×           | ×     | ×               | ×     |  |  |  |
|                       | Serial communication         | 0                   | ×               | 0           | ×     | ×               | ×     |  |  |  |
|                       | CC-Link                      | 0                   | 0               | 0           | ×     | ×               | ×     |  |  |  |
|                       | CC IE Field *2               | 0                   | ×               | 0           | ×     | ×               | ×     |  |  |  |
|                       | MELSECNET/H                  | ×                   | ×               | ×           | ×     | ×               | ×     |  |  |  |
| LCPU                  | Ethernet                     | ×                   | ×               | ×           | ×     | ×               | ×     |  |  |  |
|                       | Serial communication         | 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.

This section provides the accessible devices and accessible ranges for CPU COM communication.

# **10.4.1** Accessible devices

The following table indicates the accessible devices for CPU COM communication.

#### (1) When access target is programmable controller CPU

|                   |                     | Access target    |            |      |       |       |  |  |  |  |
|-------------------|---------------------|------------------|------------|------|-------|-------|--|--|--|--|
| D                 | evice (Device Name) | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU | QSCPU | FXCPU |  |  |  |  |
| Function inp      | out (FX)            | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Function out      | tput (FY)           | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Function reg      | gister (FD)         | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Special relay     | y (SM)              | 0                | 0          | 0    | ×     | ×     |  |  |  |  |
| Special regi      | ster (SD)           | 0                | 0          | 0    | ×     | ×     |  |  |  |  |
| Input relay (     | X)                  | 0                | 0          | 0    | ×     | 0     |  |  |  |  |
| Output relay      | ′ (Y)               | 0                | 0          | 0    | ×     | 0     |  |  |  |  |
| Internal rela     | y (M)               | 0                | 0          | 0    | ×     | 0     |  |  |  |  |
| Latch relay       | (L)                 | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Annunciator       | · (F)               | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Edge relay (      | (V)                 | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Link relay (B)    |                     | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Data register (D) |                     | 0                | 0          | 0    | ×     | 0     |  |  |  |  |
| Link register     | r (W)               | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Time en           | Contact (TS)        | 0                | ×          | 0    | ×     | 0     |  |  |  |  |
| Timer             | Coil (TC)           | 0                | ×          | 0    | ×     | 0     |  |  |  |  |
| (.)               | Present value (TN)  | 0                | ×          | 0    | ×     | 0     |  |  |  |  |
| Countor           | Contact (TS)        | 0                | ×          | 0    | ×     | 0     |  |  |  |  |
| Counter<br>(C)    | Coil (TC)           | 0                | ×          | 0    | ×     | 0     |  |  |  |  |
| (0)               | Present value (TN)  | 0                | ×          | 0    | ×     | 0     |  |  |  |  |
| Retentive         | Contact (TS)        | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| timer             | Coil (TC)           | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| (ST)              | Present value (TN)  | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Link special      | relay (SB)          | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Link special      | register (SW)       | 0                | ×          | 0    | ×     | ×     |  |  |  |  |
| Step relay (      | S)                  | ×                | ×          | ×    | ×     | 0     |  |  |  |  |
| Direct input      | (DX)                | ×                | ×          | ×    | ×     | ×     |  |  |  |  |
| Direct output     | t (DY)              | ×                | ×          | ×    | ×     | ×     |  |  |  |  |
| Accumulato        | r (A)               | ×                | ×          | ×    | ×     | ×     |  |  |  |  |

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|                |                               |             |                  | Aco        | cess target |       |                 |
|----------------|-------------------------------|-------------|------------------|------------|-------------|-------|-----------------|
| De             | evice (Device                 | Name)       | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU        | QSCPU | FXCPU           |
| Index regist   | or                            | (Z)         | 0                | ×          | 0           | ×     | O <sup>*1</sup> |
|                |                               | (V)         | ×                | ×          | ×           | ×     | O <sup>*1</sup> |
| File register  |                               | (R)         | O*2              | ×          | 0           | ×     | O*3             |
|                |                               | (ZR)        | ⊖* <b>2</b>      | ×          | 0           | ×     | ×               |
| Extended file  | e register (ER*\F             | R)          | ×                | ×          | ×           | ×     | ×               |
|                | Link input (J*\>              | ()          | 0                | 0          | 0           | ×     | ×               |
|                | Link output (J*               | \Y)         | 0                | 0          | 0           | ×     | ×               |
| Diroct link    | Link relay (J*\E              | 3)          | 0                | 0          | 0           | ×     | ×               |
| Direct link    | Link special re               | lay (J*\SB) | 0                | 0          | 0           | ×     | ×               |
|                | Link register (J              | *\W)        | 0                | 0          | 0           | ×     | ×               |
|                | Link special register (J*\SW) |             | 0                | 0          | 0           | ×     | ×               |
| Special direct | ct buffer memory              | ∕ (U*\G)    | O <sup>*4</sup>  | 0          | 0           | 0     | O <sup>*5</sup> |

\*1: WriteDeviceBlock or WriteDeviceBlock2 cannot be used to write data to 2 or more points consecutively. (Data can be written to one point only.)

\*2 : Disabled for the use of Q00JCPU or Q00UJCPU.

\*3 : When accessing FX series CPU other than FX3GCPU and FX3U(C)CPU, specify the data register (D). The file register (R) can be specified only when accessing FX3GCPU or FX3U(C)CPU.

\*4: In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed.

Writing to the shared memory cannot be performed regardless 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 FX3U(c)CPU.

#### (2) When access target is Q motion CPU

For accessible device list of Q motion CPU, refer to the following section.

 $\ensuremath{\boxtimes}^{\ensuremath{\square}}$  Page 237, Section 10.2.1 (2) When access target is Q motion CPU

This section indicates the accessible ranges for CPU COM communication.

#### (1) Configuration



#### (2) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or imes (inaccessible).

|                            |                              | Relayed station CPU |                 |                 |                 |                 |       |  |
|----------------------------|------------------------------|---------------------|-----------------|-----------------|-----------------|-----------------|-------|--|
| Connected Station CPU      | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V  | LCPU            | QSCPU           | Q motion<br>CPU | FXCPU |  |
| QCPU(Q mode) <sup>*1</sup> | CC IE Control<br>CC IE Field | 0                   | ⊖ <sup>*2</sup> | ⊖ <sup>*3</sup> | ⊖ <sup>*2</sup> | ⊖* <b>2</b>     | ×     |  |
|                            | MELSECNET/H                  | 0                   | 0               | ×               | 0               | 0               | ×     |  |
|                            | Ethernet                     | O <sup>*4</sup>     | ×               | ×               | 0               | 0               | ×     |  |
|                            | Serial communication         | ⊖ <sup>*5</sup>     | ×               | 0               | ×               | 0               | ×     |  |
|                            | CC-Link                      | 0                   | 0               | 0               | ×               | 0               | ○*6   |  |
| LCPU                       | CC IE Field *3               | 0                   | ×               | 0               | ×               | ×               | ×     |  |
|                            | MELSECNET/H                  | ×                   | ×               | ×               | ×               | ×               | ×     |  |
|                            | Ethernet                     | ×                   | ×               | ×               | ×               | ×               | ×     |  |
|                            | Serial communication         | O <sup>*5</sup>     | ×               | 0               | ×               | ×               | ×     |  |
|                            | CC-Link                      | 0                   | 0               | 0               | ×               | ×               | ×     |  |

\*1: For Q00J/Q00UJ/Q00UJ/Q01/Q01UCPU, restrictions on the number of mountable modules are applied to some network cards. ( Page 316, Appendix 5)

\*2 : Inaccessible to Q12DCCPU-V, QSCPU and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*4 : Set the parameter-set values of the target station side Q series-compatible E71 to the network number and station number.

Also set the "Station No.⇔IP information" of the Q series-compatible E71 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 serial communication module which is on the main base.

\*6 : Accessible to  $FX_{3G}CPU$ ,  $FX_{3U(C)}CPU$  only.

(Continued on next page)

|                       |                              | Relayed station CPU |                |      |       |                 |       |  |
|-----------------------|------------------------------|---------------------|----------------|------|-------|-----------------|-------|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |
| Q motion CPU          | CC IE Control<br>CC IE Field | ×                   | ×              | ×    | ×     | ×               | ×     |  |
|                       | MELSECNET/H                  | ×                   | ×              | ×    | ×     | ×               | ×     |  |
|                       | Ethernet                     | ×                   | ×              | ×    | ×     | ×               | ×     |  |
|                       | Serial communication         | ×                   | ×              | ×    | ×     | ×               | ×     |  |
|                       | CC-Link                      | ×                   | ×              | ×    | ×     | ×               | ×     |  |
| FXCPU                 | CC IE Control<br>CC IE Field | ×                   | ×              | ×    | ×     | ×               | ×     |  |
|                       | MELSECNET/H                  | ×                   | ×              | ×    | ×     | ×               | ×     |  |
|                       | Ethernet                     | ×                   | ×              | ×    | ×     | ×               | ×     |  |
|                       | Serial communication         | ×                   | ×              | ×    | ×     | ×               | ×     |  |
|                       | CC-Link                      | ×                   | ×              | ×    | ×     | ×               | ×     |  |

# **10.5** For CPU USB Communication

This section provides the accessible devices and accessible ranges for CPU USB communication.

### 10.5.1 Accessible devices

The following table indicates the accessible devices for CPU USB communication.

#### (1) When access target is programmable controller CPU

| Device (Device Name)       |                    | Access Target    |            |      |                     |                 |  |  |  |
|----------------------------|--------------------|------------------|------------|------|---------------------|-----------------|--|--|--|
|                            |                    | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU | QSCPU <sup>*1</sup> | FXCPU           |  |  |  |
| Function inp               | out (FX)           | 0                | ×          | 0    | ×                   | ×               |  |  |  |
| Function out               | tput (FY)          | 0                | ×          | 0    | ×                   | ×               |  |  |  |
| Function reg               | gister (FD)        | 0                | ×          | 0    | ×                   | ×               |  |  |  |
| Special relay (SM)         |                    | 0                | 0          | 0    | 0                   | ×               |  |  |  |
| Special register (SD)      |                    | 0                | 0          | 0    | 0                   | ×               |  |  |  |
| Input relay (X)            |                    | 0                | 0          | 0    | 0                   | ⊖ <sup>*2</sup> |  |  |  |
| Output relay (Y)           |                    | 0                | 0          | 0    | 0                   | ⊖* <b>2</b>     |  |  |  |
| Internal relay (M)         |                    | 0                | 0          | 0    | 0                   | ⊖ <sup>*2</sup> |  |  |  |
| Latch relay (L)            |                    | 0                | ×          | 0    | ×                   | ×               |  |  |  |
| Annunciator (F)            |                    | 0                | ×          | 0    | 0                   | ×               |  |  |  |
| Edge relay (V)             |                    | 0                | ×          | 0    | 0                   | ×               |  |  |  |
| Link relay (B)             |                    | 0                | ×          | 0    | 0                   | ×               |  |  |  |
| Data register (D)          |                    | 0                | 0          | 0    | 0                   | ⊖* <b>2</b>     |  |  |  |
| Link register (W)          |                    | 0                | ×          | 0    | 0                   | ×               |  |  |  |
| Timer<br>(T)               | Contact (TS)       | 0                | ×          | 0    | 0                   | ⊖ <sup>*2</sup> |  |  |  |
|                            | Coil (TC)          | 0                | ×          | 0    | 0                   | O*2             |  |  |  |
|                            | Present value (TN) | 0                | ×          | 0    | 0                   | O <sup>*2</sup> |  |  |  |
| Counter<br>(C)             | Contact (TS)       | 0                | ×          | 0    | 0                   | O <sup>*2</sup> |  |  |  |
|                            | Coil (TC)          | 0                | ×          | 0    | 0                   | ⊖* <b>2</b>     |  |  |  |
|                            | Present value (TN) | 0                | ×          | 0    | 0                   | O <sup>*2</sup> |  |  |  |
| Retentive<br>timer<br>(ST) | Contact (TS)       | 0                | ×          | 0    | 0                   | ×               |  |  |  |
|                            | Coil (TC)          | 0                | ×          | 0    | 0                   | ×               |  |  |  |
|                            | Present value (TN) | 0                | ×          | 0    | 0                   | ×               |  |  |  |
| Link special relay (SB)    |                    | 0                | ×          | 0    | 0                   | ×               |  |  |  |
| Link special register (SW) |                    | 0                | ×          | 0    | 0                   | ×               |  |  |  |
| Step relay (S)             |                    | ×                | ×          | ×    | ×                   | ⊖* <b>2</b>     |  |  |  |
| Direct input (DX)          |                    | ×                | ×          | ×    | ×                   | ×               |  |  |  |
| Direct output (DY)         |                    | ×                | ×          | ×    | ×                   | ×               |  |  |  |
| Accumulator (A)            |                    | ×                | ×          | ×    | ×                   | ×               |  |  |  |

\*1: Writing to device data cannot be performed.

\*2 : Accessible to FX3GCPU only.

(Continued on next page)
|                |                      |                    |                  | Acc        | ess Target | :                   |                    |
|----------------|----------------------|--------------------|------------------|------------|------------|---------------------|--------------------|
| De             | Device (Device Name) |                    | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU <sup>*1</sup> | FXCPU              |
| Index register |                      | (Z)                | 0                | ×          | 0          | ×                   | ⊖ <sup>*2,*3</sup> |
|                |                      | (V)                | ×                | ×          | ×          | ×                   | ⊖ <sup>*2,*3</sup> |
| File register  |                      | (R)                | O <sup>*4</sup>  | ×          | 0          | ×                   | O*2                |
|                |                      | (ZR)               | O <sup>*4</sup>  | ×          | 0          | ×                   | ×                  |
| Extended file  | e register (ER*\F    | R)                 | ×                | ×          | ×          | ×                   | ×                  |
|                | Link input (J*\X     | ()                 | 0                | 0          | 0          | ×                   | ×                  |
|                | Link output (J*)     | Link output (J*\Y) |                  | 0          | 0          | ×                   | ×                  |
| Diroct link    | Link relay (J*\E     | 3)                 | 0                | 0          | 0          | ×                   | ×                  |
| Direct link    | Link special rel     | lay (J*\SB)        | 0                | 0          | 0          | ×                   | ×                  |
|                | Link register (J     | *\W)               | 0                | 0          | 0          | ×                   | ×                  |
|                | Link special re      | gister (J*\SW)     | 0                | 0          | 0          | ×                   | ×                  |
| Special direct | t buffer memory      | √ (U*\G)           | O <sup>*5</sup>  | 0          | 0          | 0                   | ×                  |

\*1: Writing to device data cannot be performed.

\*2 : Accessible to FX3GCPU only.

\*3: WriteDeviceBlock or WriteDeviceBlock2 cannot be used to write data to 2 or more points consecutively. (Data can be written to one point only.)

\*4 : Disabled for the use of Q00JCPU or Q00UJCPU.

\*5: In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless of the host or other CPU.

#### (2) When access target is Q motion CPU

For accessible device list of Q motion CPU, refer to the following section.

Page 237, Section 10.2.1 (2) When access target is Q motion CPU

This section indicates the accessible ranges for CPU USB communication.

### (1) Configuration



#### (2) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                                       |                              |                  |                 | Relayed s       | tation CPU      |                 |                 |
|---------------------------------------|------------------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Connected Station CPU                 | Relayed Network              | QCPU<br>(Q mode) | Q12DC<br>CPU-V  | LCPU            | QSCPU           | Q motion<br>CPU | FXCPU           |
| QCPU (Q mode),<br>QSCPU <sup>*1</sup> | CC IE Control<br>CC IE Field | 0                | ⊖ <sup>*2</sup> | ⊖ <sup>*3</sup> | ⊖ <sup>*2</sup> | ⊖* <b>2</b>     | ×               |
|                                       | MELSECNET/H                  | 0                | 0               | ×               | 0               | 0               | ×               |
|                                       | Ethernet                     | O <sup>*4</sup>  | ×               | ×               | 0               | 0               | ×               |
|                                       | Serial communication         | ⊖ <sup>*5</sup>  | ×               | 0               | ×               | 0               | ×               |
|                                       | CC-Link                      | 0                | 0               | 0               | ×               | 0               | O <sup>*6</sup> |
|                                       | CC IE Control<br>CC IE Field | 0                | ⊖ <sup>*2</sup> | ⊖ <sup>*3</sup> | ⊖ <sup>*2</sup> | ⊖*²             | ×               |
|                                       | MELSECNET/H                  | 0                | 0               | ×               | 0               | 0               | ×               |
| Q12DCCPU-V                            | Ethernet                     | ×                | ×               | ×               | ×               | ×               | ×               |
|                                       | Serial communication         | ×                | ×               | ×               | ×               | ×               | ×               |
|                                       | CC-Link                      | 0                | 0               | 0               | ×               | 0               | ×               |

\*1 : Relayed stations cannot be accessed through QSCPU.

\*2 : Inaccessible to Q12DCCPU-V, QSCPU and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*4 : Set the parameter-set values of the target station side Q series-compatible E71 to the network number and station number.

Also set the "Station No. $\Leftrightarrow$ IP information" of the Q series-compatible E71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No. $\Leftrightarrow$ IP information system".

\*5: The Redundant CPU is inaccessible to the serial communication module which is on the main base.

\*6 : Accessible to FX3GCPU, FX3U(C)CPU only.

(Continued on next page)

|                       |                              |                  |                | Relayed s | tation CPU |                 |       |
|-----------------------|------------------------------|------------------|----------------|-----------|------------|-----------------|-------|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode) | Q12DC<br>CPU-V | LCPU      | QSCPU      | Q motion<br>CPU | FXCPU |
|                       | CC IE Field *3               | 0                | ×              | 0         | ×          | ×               | ×     |
|                       | MELSECNET/H                  | ×                | ×              | ×         | ×          | ×               | ×     |
| LCPU                  | Ethernet                     | ×                | ×              | ×         | ×          | ×               | ×     |
|                       | Serial communication         | O <sup>*5</sup>  | ×              | 0         | ×          | ×               | ×     |
|                       | CC-Link                      | 0                | 0              | 0         | ×          | ×               | ×     |
|                       | CC IE Control<br>CC IE Field | ×                | ×              | ×         | ×          | ×               | ×     |
|                       | MELSECNET/H                  | ×                | ×              | ×         | ×          | ×               | ×     |
| Q motion CPU          | Ethernet                     | ×                | ×              | ×         | ×          | ×               | ×     |
|                       | Serial communication         | ×                | ×              | ×         | ×          | ×               | ×     |
|                       | CC-Link                      | ×                | ×              | ×         | ×          | ×               | ×     |
|                       | CC IE Control<br>CC IE Field | ×                | ×              | ×         | ×          | ×               | ×     |
| EX ODU                | MELSECNET/H                  | ×                | ×              | ×         | ×          | ×               | ×     |
| FXCPU                 | Ethernet                     | ×                | ×              | ×         | ×          | ×               | ×     |
|                       | Serial communication         | ×                | ×              | ×         | ×          | ×               | ×     |
|                       | CC-Link                      | ×                | ×              | ×         | ×          | ×               | ×     |

\*3 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*5: The Redundant CPU is inaccessible to the serial communication module which is on the main base.

This section provides the accessible devices and accessible ranges for CC-Link communication.

## 10.6.1 Accessible devices

The following table indicates the accessible devices for CC-Link communication.

### (1) For another station access

|                   |                     |                  | Acc        | ess Target |       |                 |
|-------------------|---------------------|------------------|------------|------------|-------|-----------------|
| De                | evice (Device Name) | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU | FXCPU           |
| Function inp      | ut (FX)             | 0                | ×          | 0          | ×     | ×               |
| Function out      | tput (FY)           | 0                | ×          | 0          | ×     | ×               |
| Function reg      | jister (FD)         | 0                | ×          | 0          | ×     | ×               |
| Special relay     | y (SM)              | 0                | 0          | 0          | ×     | ×               |
| Special regis     | ster (SD)           | 0                | 0          | 0          | ×     | ×               |
| Input relay (X)   |                     | 0                | 0          | 0          | ×     | O <sup>*1</sup> |
| Output relay      | r (Y)               | 0                | 0          | 0          | ×     | O <sup>*1</sup> |
| Internal relag    | y (M)               | 0                | 0          | 0          | ×     | O <sup>*1</sup> |
| Latch relay (     | (L)                 | 0                | ×          | 0          | ×     | ×               |
| Annunciator       | (F)                 | 0                | ×          | 0          | ×     | ×               |
| Edge relay (V)    |                     | 0                | ×          | 0          | ×     | ×               |
| Link relay (B)    |                     | 0                | ×          | 0          | ×     | ×               |
| Data register (D) |                     | 0                | 0          | 0          | ×     | O <sup>*1</sup> |
| Link register (W) |                     | 0                | ×          | 0          | ×     | ×               |
| <b>—</b> .        | Contact (TS)        | 0                | ×          | 0          | ×     | O <sup>*1</sup> |
| Timer<br>(T)      | Coil (TC)           | 0                | ×          | 0          | ×     | O <sup>*1</sup> |
| ( )               | Present value (TN)  | 0                | ×          | 0          | ×     | O <sup>*1</sup> |
| <b>0</b> 1        | Contact (TS)        | 0                | ×          | 0          | ×     | O <sup>*1</sup> |
| Counter<br>(C)    | Coil (TC)           | 0                | ×          | 0          | ×     | O <sup>*1</sup> |
| ( )               | Present value (TN)  | 0                | ×          | 0          | ×     | O <sup>*1</sup> |
| Retentive         | Contact (TS)        | 0                | ×          | 0          | ×     | ×               |
| timer             | Coil (TC)           | 0                | ×          | 0          | ×     | ×               |
| (ST)              | Present value (TN)  | 0                | ×          | 0          | ×     | ×               |
| Link special      | relay (SB)          | 0                | ×          | 0          | ×     | ×               |
| Link special      | register (SW)       | 0                | ×          | 0          | ×     | ×               |
| Step relay (S     | 3)                  | ×                | ×          | ×          | ×     | O*1             |
| Direct input      | (DX)                | ×                | ×          | ×          | ×     | ×               |
| Direct outpu      | t (DY)              | ×                | ×          | ×          | ×     | ×               |
| Accumulator       | r (A)               | ×                | ×          | ×          | ×     | ×               |

\*1 : Accessible to FX3GCPU, FX3U(c)CPU only.

\*2: WriteDeviceBlock or WriteDeviceBlock2 cannot be used to write data to 2 or more points consecutively. (Data can be written to one point only.)

|                |                   |                |                  | Acc        | ess Target | :     |                    |
|----------------|-------------------|----------------|------------------|------------|------------|-------|--------------------|
| De             | evice (Device     | Name)          | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU | FXCPU              |
| Index register |                   | (Z)            | 0                | ×          | 0          | ×     | O <sup>*1,*2</sup> |
|                |                   | (V)            | ×                | ×          | ×          | ×     | O <sup>*1,*3</sup> |
| File register  |                   | (R)            | O <sup>*4</sup>  | ×          | 0          | ×     | ×                  |
|                |                   | (ZR)           | O <sup>*4</sup>  | ×          | 0          | ×     | ×                  |
| Extended file  | e register (ER*\F | R)             | ×                | ×          | ×          | ×     | ×                  |
|                | Link input (J*\X) |                | 0                | 0          | 0          | ×     | ×                  |
|                | Link output (J*)  | (Y)            | 0                | 0          | 0          | ×     | ×                  |
| Diroct link    | Link relay (J*\E  | 3)             | 0                | 0          | 0          | ×     | ×                  |
| Direct link    | Link special rel  | ay (J*\SB)     | 0                | 0          | 0          | ×     | ×                  |
|                | Link register (J  | *\W)           | 0                | 0          | 0          | ×     | ×                  |
|                | Link special reg  | gister (J*\SW) | 0                | 0          | 0          | ×     | ×                  |
| Special direct | t buffer memory   | √ (U*\G)       | ⊖ <sup>*5</sup>  | 0          | 0          | ×     | ○*1,*6             |

\*1: Accessible to FX3GCPU, FX3U(c)CPU only.

\*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 : When accessing FX series CPU other than FX3GCPU and FX3U(C)CPU, specify the data register (D). The file register (R) can be specified only when accessing FX3GCPU or FX3U(C)CPU.

\*4 : Disabled for the use of Q00JCPU or Q00UJCPU.

\*5: In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless 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 FX3U(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                         | WW          | RWw                                                                 |
| (write area for CC-Link)                |             |                                                                     |
| 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              |

This section indicates the accessible ranges for CC-Link communication.

### (1) Configuration



#### (2) Accessibility list

The following table indicates whether the CPUs can be accessed. The connected station CPUs and own board (CC-Link board) are all accessible. Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                                              |                              |                  |                 | Relayed s | tation CPU      |                 |       |
|----------------------------------------------|------------------------------|------------------|-----------------|-----------|-----------------|-----------------|-------|
| Connected Station CPU                        | Relayed Network              | QCPU<br>(Q mode) | Q12DC<br>CPU-V  | LCPU      | QSCPU           | Q motion<br>CPU | FXCPU |
|                                              | CC IE Control<br>CC IE Field | 0                | <b>○</b> *2     | ○*3       | ⊖*²             | ⊖* <b>2</b>     | ×     |
| QCPU (Q mode),<br>Q motion CPU <sup>*1</sup> | MELSECNET/H                  | 0                | 0               | ×         | 0               | 0               | ×     |
|                                              | Ethernet                     | 0                | ×               | ×         | 0               | 0               | ×     |
|                                              | Serial communication         | ×                | ×               | ×         | ×               | ×               | ×     |
|                                              | CC-Link                      | ×                | ×               | ×         | ×               | ×               | ×     |
|                                              | CC IE Control<br>CC IE Field | 0                | O <sup>*2</sup> | ×         | ⊖ <sup>*2</sup> | ⊖*²             | ×     |
|                                              | MELSECNET/H                  | 0                | 0               | ×         | 0               | 0               | ×     |
| Q12DCCPU-V                                   | Ethernet                     | ×                | ×               | ×         | ×               | ×               | ×     |
|                                              | Serial communication         | ×                | ×               | ×         | ×               | ×               | ×     |
|                                              | CC-Link                      | ×                | ×               | ×         | ×               | ×               | ×     |
|                                              | CC IE Field *3               | ×                | ×               | ×         | ×               | ×               | ×     |
|                                              | MELSECNET/H                  | ×                | ×               | ×         | ×               | ×               | ×     |
| LCPU                                         | Ethernet                     | ×                | ×               | ×         | ×               | ×               | ×     |
|                                              | Serial communication         | ×                | ×               | ×         | ×               | ×               | ×     |
|                                              | CC-Link                      | ×                | ×               | ×         | ×               | ×               | ×     |

\*1: Relayed stations cannot be accessed through Q motion CPU.

\*2 : Inaccessible to Q12DCCPU-V, QSCPU and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

## **10.7** For CC-Link G4 Communication

This section provides the accessible devices and accessible ranges for CC-Link G4 communication.

## **10.7.1** Accessible devices

The following table indicates the accessible devices for CC-Link G4 communication.

#### (1) When access target is programmable controller CPU

|                       |                     |                  | Acc        | ess Target | 1     |       |
|-----------------------|---------------------|------------------|------------|------------|-------|-------|
| D                     | evice (Device Name) | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU | FXCPU |
| Function inp          | out (FX)            | 0                | ×          | 0          | ×     | ×     |
| Function ou           | tput (FY)           | 0                | × O        |            | ×     | ×     |
| Function reg          | gister (FD)         | 0                | ×          | 0          | ×     | ×     |
| Special rela          | y (SM)              | 0                | 0          | 0          | ×     | ×     |
| Special register (SD) |                     | 0                | 0 0        |            | ×     | ×     |
| Input relay (X)       |                     | 0                | 0          | 0          | ×     | ×     |
| Output relay (Y)      |                     | 0                | 0          | 0          | ×     | ×     |
| Internal relay (M)    |                     | 0                | 0          | 0          | ×     | ×     |
| Latch relay           | (L)                 | 0                | ×          | 0          | ×     | ×     |
| Annunciator (F)       |                     | 0                | ×          | 0          | ×     | ×     |
| Edge relay (V)        |                     | 0                | ×          | 0          | ×     | ×     |
| Link relay (B)        |                     | 0                | ×          | 0          | ×     | ×     |
| Data register (D)     |                     | 0                | 0          | 0          | ×     | ×     |
| Link register (W)     |                     | 0                | ×          | 0          | ×     | ×     |
| Time e r              | Contact (TS)        | 0                | ×          | 0          | ×     | ×     |
| (T)                   | Coil (TC)           | 0                | ×          | 0          | ×     | ×     |
| (1)                   | Present value (TN)  | 0                | ×          | 0          | ×     | ×     |
| Countor               | Contact (TS)        | 0                | ×          | 0          | ×     | ×     |
| (C)                   | Coil (TC)           | 0                | ×          | 0          | ×     | ×     |
| (0)                   | Present value (TN)  | 0                | ×          | 0          | ×     | ×     |
| Retentive             | Contact (TS)        | 0                | ×          | 0          | ×     | ×     |
| timer                 | Coil (TC)           | 0                | ×          | 0          | ×     | ×     |
| (ST)                  | Present value (TN)  | 0                | ×          | 0          | ×     | ×     |
| Link special          | relay (SB)          | 0                | ×          | 0          | ×     | ×     |
| Link special          | register (SW)       | 0                | ×          | 0          | ×     | ×     |
| Step relay (          | S)                  | ×                | ×          | ×          | ×     | ×     |
| Direct input          | (DX)                | ×                | ×          | ×          | ×     | ×     |
| Direct output         | it (DY)             | ×                | ×          | ×          | ×     | ×     |
| Accumulato            | r (A)               | ×                | ×          | ×          | ×     | ×     |

(Continued on next page)

|                                |                  |                    |                  | Acc        | ess Target |       |       |
|--------------------------------|------------------|--------------------|------------------|------------|------------|-------|-------|
| Device (Device Name)           |                  |                    | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU | FXCPU |
| Index register                 |                  | (Z)                | 0                | ×          | 0          | ×     | ×     |
|                                |                  | (V)                | ×                | ×          | ×          | ×     | ×     |
| File register                  |                  | (R)                | O <sup>*1</sup>  | ×          | 0          | ×     | ×     |
|                                |                  | (ZR)               | O*1              | ×          | 0          | ×     | ×     |
| Extended file register (ER*\R) |                  | ×                  | ×                | ×          | ×          | ×     |       |
|                                | Link input (J*\> | Link input (J*\X)  |                  | 0          | 0          | ×     | ×     |
|                                | Link output (J*  | Link output (J*\Y) |                  | 0          | 0          | ×     | ×     |
| Direct link                    | Link relay (J*\E | 3)                 | 0                | 0          | 0          | ×     | ×     |
|                                | Link special re  | lay (J*\SB)        | 0                | 0          | 0          | ×     | ×     |
|                                | Link register (J | I*\W)              | 0                | 0          | 0          | ×     | ×     |
|                                | Link special re  | gister (J*\SW)     | 0                | 0          | 0          | ×     | ×     |
| Special direct                 | ct buffer memory | / (U*\G)           | 0                | 0          | 0          | 0     | ×     |

\*1: Disabled for the use of Q00JCPU or Q00UJCPU.

### (2) When access target is Q motion CPU

For accessible device list of Q motion CPU, refer to the following section.

 $\ensuremath{\mathbb{I}}\xspace$  Page 237, Section 10.2.1 (2) When access target is Q motion CPU

## 10.7.2 Accessible ranges

This section indicates the accessible ranges for CC-Link G4 communication.

### (1) Configuration



#### (2) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                            |                              |                  |                 | Relayed s | tation CPU      |                 |       |
|----------------------------|------------------------------|------------------|-----------------|-----------|-----------------|-----------------|-------|
| Connected Station CPU      | Relayed Network              | QCPU<br>(Q mode) | Q12DC<br>CPU-V  | LCPU      | QSCPU           | Q motion<br>CPU | FXCPU |
|                            | CC IE Control<br>CC IE Field | 0                | ⊖ <sup>*2</sup> | ○*3       | <b>○</b> *2     | ⊖* <b>2</b>     | ×     |
| QCPU (Q mode),             | MELSECNET/H                  | 0                | 0               | ×         | 0               | 0               | ×     |
| Q motion CPU <sup>*1</sup> | Ethernet                     | 0                | ×               | ×         | 0               | 0               | ×     |
|                            | Serial communication         | ×                | ×               | ×         | ×               | ×               | ×     |
|                            | CC-Link                      | ×                | ×               | ×         | ×               | ×               | ×     |
|                            | CC IE Control<br>CC IE Field | 0                | O <sup>*2</sup> | ○*3       | O <sup>*2</sup> | ⊖*²             | ×     |
|                            | MELSECNET/H                  | 0                | 0               | ×         | 0               | 0               | ×     |
| Q12DCCPU-V                 | Ethernet                     | ×                | ×               | ×         | ×               | ×               | ×     |
|                            | Serial communication         | ×                | ×               | ×         | ×               | ×               | ×     |
|                            | CC-Link                      | ×                | ×               | ×         | ×               | ×               | ×     |
|                            | CC IE Field *3               | ×                | ×               | ×         | ×               | ×               | ×     |
|                            | MELSECNET/H                  | ×                | ×               | ×         | ×               | ×               | ×     |
| LCPU                       | Ethernet                     | ×                | ×               | ×         | ×               | ×               | ×     |
|                            | Serial communication         | Х                | ×               | ×         | ×               | ×               | ×     |
|                            | CC-Link                      | ×                | ×               | ×         | ×               | ×               | ×     |

\*1: Relayed stations cannot be accessed through Q motion CPU.

\*2 : Inaccessible to Q12DCCPU-V, QSCPU and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

## **10.8** For MELSECNET/H Communication

This section provides the accessible devices and accessible ranges for MELSECNET/H communication.

## **10.8.1** Accessible devices

The following table indicates the accessible devices for MELSECNET/H communication.

### (1) When access target is programmable controller CPU or own board

|                   |                     |                  |            | Access | Target              |       |              |
|-------------------|---------------------|------------------|------------|--------|---------------------|-------|--------------|
| De                | evice (Device Name) | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU   | QSCPU <sup>*1</sup> | FXCPU | Own<br>board |
| Function inp      | ut (FX)             | 0                | ×          | 0      | ×                   | ×     | ×            |
| Function out      | tput (FY)           | 0                | ×          | 0      | ×                   | ×     | ×            |
| Function reg      | jister (FD)         | 0                | ×          | 0      | ×                   | ×     | ×            |
| Special relay     | ∉ (SM)              | 0                | 0          | 0      | 0                   | ×     | 0            |
| Special regis     | ster (SD)           | 0                | 0          | 0      | 0                   | ×     | 0            |
| Input relay (X)   |                     | 0                | 0          | 0      | 0                   | ×     | 0            |
| Output relay      | r (Y)               | 0                | 0          | 0      | 0                   | ×     | 0            |
| Internal rela     | y (M)               | 0                | 0          | 0      | 0                   | ×     | ×            |
| Latch relay       | (L)                 | 0                | ×          | 0      | ×                   | ×     | ×            |
| Annunciator       | (F)                 | 0                | ×          | 0      | 0                   | ×     | ×            |
| Edge relay (V)    |                     | 0                | ×          | 0      | 0                   | ×     | ×            |
| Link relay (B)    |                     | 0                | ×          | 0      | 0                   | ×     | 0            |
| Data register (D) |                     | 0                | 0          | 0      | 0                   | ×     | ×            |
| Link register (W) |                     | 0                | ×          | 0      | 0                   | ×     | 0            |
| Timere            | Contact (TS)        | 0                | ×          | 0      | 0                   | ×     | ×            |
| Timer<br>(T)      | Coil (TC)           | 0                | ×          | 0      | 0                   | ×     | ×            |
| (')               | Present value (TN)  | 0                | ×          | 0      | 0                   | ×     | ×            |
| 0                 | Contact (TS)        | 0                | ×          | 0      | 0                   | ×     | ×            |
| Counter<br>(C)    | Coil (TC)           | 0                | ×          | 0      | 0                   | ×     | ×            |
| (0)               | Present value (TN)  | 0                | ×          | 0      | 0                   | ×     | ×            |
| Retentive         | Contact (TS)        | 0                | ×          | 0      | 0                   | ×     | ×            |
| timer             | Coil (TC)           | 0                | ×          | 0      | 0                   | ×     | ×            |
| (ST)              | Present value (TN)  | 0                | ×          | 0      | 0                   | ×     | ×            |
| Link special      | relay (SB)          | 0                | ×          | 0      | 0                   | ×     | 0            |
| Link special      | register (SW)       | 0                | ×          | 0      | 0                   | ×     | 0            |
| Step relay (S     | 5)                  | ×                | ×          | ×      | ×                   | ×     | ×            |
| Direct input      | (DX)                | ×                | ×          | ×      | ×                   | ×     | ×            |
| Direct outpu      | t (DY)              | ×                | ×          | ×      | ×                   | ×     | ×            |
| Accumulato        | r (A)               | ×                | ×          | ×      | ×                   | ×     | ×            |

\*1: Writing to device data cannot be performed.

(Continued on next page)

|                                |                   |                |                  |            | Access | Target              |       |              |
|--------------------------------|-------------------|----------------|------------------|------------|--------|---------------------|-------|--------------|
| Device (Device Name)           |                   |                | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU   | QSCPU <sup>*1</sup> | FXCPU | Own<br>board |
| Index register                 |                   | (Z)            | 0                | ×          | 0      | ×                   | ×     | ×            |
|                                |                   | (V)            | ×                | ×          | ×      | ×                   | ×     | ×            |
| File register                  |                   | (R)            | O <sup>*2</sup>  | ×          | 0      | ×                   | ×     | ×            |
|                                |                   | (ZR)           | O*2              | ×          | 0      | ×                   | ×     | ×            |
| Extended file register (ER*\R) |                   | ×              | ×                | ×          | ×      | ×                   | ×     |              |
|                                | Link input (J*\X) |                | 0                | 0          | 0      | ×                   | ×     | ×            |
|                                | Link output (J*   | \Y)            | 0                | 0          | 0      | ×                   | ×     | ×            |
| Direct link                    | Link relay (J*\E  | 3)             | 0                | 0          | 0      | ×                   | ×     | ×            |
| Direct link                    | Link special re   | lay (J*\SB)    | 0                | 0          | 0      | ×                   | ×     | ×            |
|                                | Link register (J  | *\W)           | 0                | 0          | 0      | ×                   | ×     | ×            |
|                                | Link special re   | gister (J*\SW) | 0                | 0          | 0      | ×                   | ×     | ×            |
| Special dire                   | ct buffer memory  | ∕ (U*\G)       | ⊖* <b>3</b>      | 0          | 0      | ×                   | ×     | ×            |

\*1: Writing to device data cannot be performed.

\*2: Disabled for the use of Q00JCPU or Q00UJCPU.

\*3 : In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless of the host or other CPU.

#### (2) When access target is Q motion CPU

For accessible device list of Q motion CPU, refer to the following section.

 $\ensuremath{\boxtimes}^{\ensuremath{\square}}$  Page 237, Section 10.2.1 (2) When access target is Q motion CPU

This section indicates the accessible ranges for MELSECNET/H communication.

### (1) Configuration



### (2) Accessibility list

The following table indicates whether the CPUs can be accessed. The connected station CPUs and own board (MELSECNET/H board) are all accessible. Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                                                                       |                              | Relayed station CPU |                 |                 |                 |                 |       |  |  |
|-----------------------------------------------------------------------|------------------------------|---------------------|-----------------|-----------------|-----------------|-----------------|-------|--|--|
| Connected Station CPU                                                 | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V  | LCPU            | QSCPU           | Q motion<br>CPU | FXCPU |  |  |
| QCPU (Q mode),<br>QSCPU <sup>*1</sup> ,<br>Q motion CPU <sup>*1</sup> | CC IE Control<br>CC IE Field | 0                   | ⊖ <sup>*2</sup> | ⊖ <sup>*3</sup> | ⊖ <sup>*2</sup> | ×               | ×     |  |  |
|                                                                       | MELSECNET/H *4               | 0                   | 0               | ×               | 0               | ×               | ×     |  |  |
|                                                                       | Ethernet                     | 0                   | ×               | ×               | 0               | ×               | ×     |  |  |
|                                                                       | Serial communication         | $\bigcirc^{*5}$     | ×               | 0               | ×               | 0               | ×     |  |  |
|                                                                       | CC-Link                      | 0                   | 0               | 0               | ×               | 0               | ×     |  |  |
|                                                                       | CC IE Control<br>CC IE Field | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |
|                                                                       | MELSECNET/H *4               | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |
| Q12DCCPU-V                                                            | Ethernet                     | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |
|                                                                       | Serial communication         | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |
|                                                                       | CC-Link                      | 0                   | 0               | 0               | ×               | 0               | ×     |  |  |

\*1 : Relayed stations cannot be accessed through QSCPU, Q motion CPU.

\*2 : Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*4: Accessible when the MELSECNET/H module of the connected station is in the MELSECNET/H mode.

\*5: The Redundant CPU is inaccessible to the serial communication module which is on the main base.

## **10.9** For CC-Link IE Controller Network Communication

This section provides the accessible devices and accessible ranges for CC-Link IE Controller Network communication.

## 10

## **10.9.1** Accessible devices

The following table indicates the accessible devices for CC-Link IE Controller Network communication.

### (1) When access target is programmable controller CPU or own board

|                    |                     | Access Target    |            |      |                     |       |              |  |  |
|--------------------|---------------------|------------------|------------|------|---------------------|-------|--------------|--|--|
| De                 | evice (Device Name) | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU | QSCPU <sup>*1</sup> | FXCPU | Own<br>board |  |  |
| Function inp       | ut (FX)             | 0                | ×          | 0    | ×                   | ×     | ×            |  |  |
| Function out       | tput (FY)           | 0                | ×          | 0    | ×                   | ×     | ×            |  |  |
| Function reg       | jister (FD)         | 0                | ×          | 0    | ×                   | ×     | ×            |  |  |
| Special relay (SM) |                     | 0                | 0          | 0    | 0                   | ×     | 0            |  |  |
| Special regi       | ster (SD)           | 0                | 0          | 0    | 0                   | ×     | 0            |  |  |
| Input relay (      | X)                  | 0                | 0          | 0    | 0                   | ×     | 0            |  |  |
| Output relay       | ' (Y)               | 0                | 0          | 0    | 0                   | ×     | 0            |  |  |
| Internal rela      | y (M)               | 0                | 0          | 0    | 0                   | Х     | ×            |  |  |
| Latch relay        | (L)                 | 0                | ×          | 0    | ×                   | ×     | ×            |  |  |
| Annunciator        | (F)                 | 0                | ×          | 0    | 0                   | ×     | ×            |  |  |
| Edge relay (       | V)                  | 0                | ×          | 0    | 0                   | ×     | ×            |  |  |
| Link relay (B)     |                     | 0                | ×          | 0    | 0                   | ×     | ×            |  |  |
| Data registe       | Data register (D)   |                  | 0          | 0    | 0                   | ×     | ×            |  |  |
| Link register      | - (W)               | 0                | ×          | 0    | 0                   | Х     | 0            |  |  |
| Timor              | Contact (TS)        | 0                | ×          | 0    | 0                   | ×     | ×            |  |  |
| (T)                | Coil (TC)           | 0                | ×          | 0    | 0                   | ×     | ×            |  |  |
| (1)                | Present value (TN)  | 0                | ×          | 0    | 0                   | Х     | ×            |  |  |
| Counton            | Contact (TS)        | 0                | ×          | 0    | 0                   | ×     | ×            |  |  |
| Counter<br>(C)     | Coil (TC)           | 0                | ×          | 0    | 0                   | ×     | ×            |  |  |
| (0)                | Present value (TN)  | 0                | ×          | 0    | 0                   | Х     | ×            |  |  |
| Retentive          | Contact (TS)        | 0                | ×          | 0    | 0                   | ×     | ×            |  |  |
| timer              | Coil (TC)           | 0                | ×          | 0    | 0                   | ×     | ×            |  |  |
| (ST)               | Present value (TN)  | 0                | ×          | 0    | 0                   | Х     | ×            |  |  |
| Link special       | relay (SB)          | 0                | ×          | 0    | 0                   | ×     | 0            |  |  |
| Link special       | register (SW)       | 0                | ×          | 0    | 0                   | ×     | 0            |  |  |
| Step relay (S      | 5)                  | ×                | ×          | ×    | ×                   | ×     | ×            |  |  |
| Direct input       | (DX)                | ×                | ×          | ×    | ×                   | ×     | ×            |  |  |
| Direct output      | t (DY)              | ×                | ×          | ×    | ×                   | ×     | ×            |  |  |
| Accumulato         | r (A)               | ×                | ×          | ×    | ×                   | ×     | ×            |  |  |

\*1 : Writing to device data cannot be performed.

(Continued on next page)

|                       |                               |                |                  |            | Access | Target              |       |              |
|-----------------------|-------------------------------|----------------|------------------|------------|--------|---------------------|-------|--------------|
| De                    | evice (Device                 | Name)          | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU   | QSCPU <sup>*1</sup> | FXCPU | Own<br>board |
| Index register        |                               | (Z)            | 0                | ×          | 0      | ×                   | ×     | ×            |
| index regist          |                               | (V)            | ×                | ×          | ×      | ×                   | ×     | ×            |
| Filo registor         |                               | (R)            | O <sup>*2</sup>  | ×          | 0      | ×                   | ×     | ×            |
|                       |                               | (ZR)           | O*2              | ×          | 0      | ×                   | ×     | ×            |
| Extended fil          | le register (ER*\R) × × × × × |                |                  |            | ×      | ×                   |       |              |
|                       | Link input (J*\)              | <)             | 0                | 0          | 0      | ×                   | ×     | ×            |
|                       | Link output (J*               | \Y)            | 0                | 0          | 0      | ×                   | ×     | ×            |
| Direct link           | Link relay (J*\               | 3)             | 0                | 0          | 0      | ×                   | ×     | ×            |
| Direct link           | Link special re               | lay (J*\SB)    | 0                | 0          | 0      | ×                   | ×     | ×            |
|                       | Link register (               | J*\W)          | 0                | 0          | 0      | ×                   | ×     | ×            |
| Link special register |                               | gister (J*\SW) | 0                | 0          | 0      | ×                   | ×     | ×            |
| Special dire          | ct buffer memory              | γ (U*\G)       | O*3              | 0          | 0      | ×                   | ×     | ×            |

\*1 : Writing to device data cannot be performed.

\*2: Disabled for the use of Q00JCPU or Q00UJCPU.

\*3 : In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless of the host or other CPU.

### (2) When access target is Q motion CPU

For accessible device list of Q motion CPU, refer to the following section.

## 10.9.2 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 the CPUs can be accessed. The connected station CPUs and own board (CC-Link IE Controller Network board) are all accessible. Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                                                    |                              | Relayed station CPU |                 |                 |                 |                 |       |  |  |
|----------------------------------------------------|------------------------------|---------------------|-----------------|-----------------|-----------------|-----------------|-------|--|--|
| Connected Station CPU                              | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V  | LCPU            | QSCPU           | Q motion<br>CPU | FXCPU |  |  |
|                                                    | CC IE Control<br>CC IE Field | 0                   | O <sup>*2</sup> | ⊖ <sup>*3</sup> | ⊖ <sup>*2</sup> | ×               | ×     |  |  |
| QCPU (Q mode),                                     | MELSECNET/H *4               | 0                   | 0               | ×               | 0               | ×               | ×     |  |  |
| QSCPU <sup>+</sup> ,<br>Q motion CPU <sup>*1</sup> | Ethernet                     | 0                   | ×               | ×               | 0               | ×               | ×     |  |  |
|                                                    | Serial communication         | $\bigcirc^{*5}$     | ×               | 0               | ×               | 0               | ×     |  |  |
|                                                    | CC-Link                      | 0                   | 0               | 0               | ×               | 0               | ×     |  |  |
|                                                    | CC IE Control<br>CC IE Field | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |
|                                                    | MELSECNET/H *4               | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |
| Q12DCCPU-V                                         | Ethernet                     | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |
|                                                    | Serial communication         | ×                   | ×               | ×               | ×               | ×               | ×     |  |  |
|                                                    | CC-Link                      | 0                   | 0               | 0               | ×               | 0               | ×     |  |  |

\*1 : Relayed stations cannot be accessed through QSCPU, Q motion CPU.

\*2: Inaccessible to Q12DCCPU-V and QSCPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*4 : Accessible when the MELSECNET/H module of the connected station is in the MELSECNET/H mode.

\*5 : The Redundant CPU is inaccessible to the serial communication module which is on the main base.

This section provides the accessible devices and accessible ranges for CC-Link IE Field Network communication.

## 10.10.1 Accessible devices

The following table indicates the accessible devices for CC-Link IE Field Network communication.

### (1) When access target is programmable controller CPU or own board

|                    |                     |                  | Access Target |      |                     |       |              |  |  |
|--------------------|---------------------|------------------|---------------|------|---------------------|-------|--------------|--|--|
| De                 | evice (Device Name) | QCPU<br>(Q mode) | Q12DCCPU-V    | LCPU | QSCPU <sup>*1</sup> | FXCPU | Own<br>board |  |  |
| Function inp       | ut (FX)             | 0                | ×             | 0    | ×                   | ×     | ×            |  |  |
| Function out       | tput (FY)           | 0                | ×             | 0    | ×                   | ×     | ×            |  |  |
| Function reg       | gister (FD)         | 0                | ×             | 0    | ×                   | ×     | ×            |  |  |
| Special relay (SM) |                     | 0                | 0             | 0    | 0                   | ×     | 0            |  |  |
| Special regis      | ster (SD)           | 0                | 0             | 0    | 0                   | ×     | 0            |  |  |
| Input relay (      | X)                  | 0                | 0             | 0    | 0                   | ×     | 0            |  |  |
| Output relay       | ′ (Y)               | 0                | 0             | 0    | 0                   | ×     | 0            |  |  |
| Internal rela      | y (M)               | 0                | 0             | 0    | 0                   | ×     | ×            |  |  |
| Latch relay        | (L)                 | 0                | ×             | 0    | ×                   | ×     | ×            |  |  |
| Annunciator        | (F)                 | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| Edge relay (       | V)                  | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| Link relay (E      | 3)                  | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| Data registe       | Data register (D)   |                  | 0             | 0    | 0                   | ×     | ×            |  |  |
| Link register (W)  |                     | 0                | ×             | 0    | 0                   | ×     | 0            |  |  |
| Time e e           | Contact (TS)        | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| Timer<br>(T)       | Coil (TC)           | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| (')                | Present value (TN)  | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| Counton            | Contact (TS)        | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| Counter<br>(C)     | Coil (TC)           | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| (0)                | Present value (TN)  | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| Retentive          | Contact (TS)        | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| timer              | Coil (TC)           | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| (ST)               | Present value (TN)  | 0                | ×             | 0    | 0                   | ×     | ×            |  |  |
| Link special       | relay (SB)          | 0                | ×             | 0    | 0                   | ×     | 0            |  |  |
| Link special       | register (SW)       | 0                | ×             | 0    | 0                   | ×     | 0            |  |  |
| Step relay (S      | 5)                  | ×                | ×             | ×    | ×                   | ×     | ×            |  |  |
| Direct input       | (DX)                | ×                | ×             | ×    | ×                   | ×     | ×            |  |  |
| Direct outpu       | t (DY)              | ×                | ×             | ×    | ×                   | ×     | ×            |  |  |
| Accumulato         | r (A)               | ×                | ×             | ×    | ×                   | ×     | ×            |  |  |

\*1: Writing to device data cannot be performed.

(Continued on next page)

|                      |                                        |                |                  |            | Access | Target              |       |              |
|----------------------|----------------------------------------|----------------|------------------|------------|--------|---------------------|-------|--------------|
| Device (Device Name) |                                        |                | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU   | QSCPU <sup>*1</sup> | FXCPU | Own<br>board |
| (Z)                  |                                        | (Z)            | 0                | ×          | 0      | ×                   | ×     | ×            |
| Index regist         | 51                                     | (V)            | ×                | ×          | ×      | ×                   | ×     | ×            |
| File register        |                                        | (R)            | O <sup>*2</sup>  | ×          | 0      | ×                   | ×     | ×            |
|                      |                                        | (ZR)           | O*2              | ×          | 0      | ×                   | ×     | ×            |
| Extended file        | tended file register (ER*\R) × × × × × |                |                  |            | ×      | ×                   |       |              |
|                      | Link input (J*\)                       | ()             | 0                | 0          | 0      | ×                   | ×     | ×            |
|                      | Link output (J*                        | \Y)            | 0                | 0          | 0      | ×                   | ×     | ×            |
| Direct link          | Link relay (J*\E                       | 3)             | 0                | 0          | 0      | ×                   | ×     | ×            |
| Direct link          | Link special re                        | lay (J*\SB)    | 0                | 0          | 0      | ×                   | ×     | ×            |
|                      | Link register (J                       | *\W)           | 0                | 0          | 0      | ×                   | ×     | ×            |
|                      | Link special re                        | gister (J*\SW) | 0                | 0          | 0      | ×                   | ×     | ×            |
| Special dire         | ct buffer memory                       | ∕ (U*\G)       | ⊖* <b>3</b>      | 0          | 0      | ×                   | ×     | ×            |

\*1: Writing to device data cannot be performed.

\*2: Disabled for the use of Q00JCPU or Q00UJCPU.

\*3 : In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless of the host or other CPU.

#### (2) When access target is Q motion CPU

For accessible device list of Q motion CPU, refer to the following section.

 $\ensuremath{\boxtimes}^{\ensuremath{\square}}$  Page 237, Section 10.2.1 (2) When access target is Q motion CPU

This section indicates the accessible ranges for CC-Link IE Field Network communication.

### (1) Configuration



### (2) Accessibility list

The following table indicates whether the CPUs can be accessed. The connected station CPUs and own board (CC-Link IE Field Network board) are all accessible. Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                       |                              | Relayed station CPU |                 |             |       |                 |       |  |  |
|-----------------------|------------------------------|---------------------|-----------------|-------------|-------|-----------------|-------|--|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V  | LCPU        | QSCPU | Q motion<br>CPU | FXCPU |  |  |
| QCPU (Q mode)         | CC IE Control<br>CC IE Field | 0                   | O <sup>*1</sup> | ⊖* <b>2</b> | ×     | ×               | ×     |  |  |
|                       | MELSECNET/H                  | 0                   | 0               | ×           | ×     | ×               | ×     |  |  |
|                       | Ethernet                     | 0                   | ×               | ×           | ×     | ×               | ×     |  |  |
|                       | Serial communication         | 0                   | ×               | 0           | ×     | ×               | ×     |  |  |
|                       | CC-Link                      | 0                   | 0               | 0           | ×     | ×               | ×     |  |  |
|                       | CC IE Field *2               | 0                   | ×               | 0           | ×     | ×               | ×     |  |  |
| LCPU                  | MELSECNET/H                  | ×                   | ×               | ×           | ×     | ×               | ×     |  |  |
|                       | Ethernet                     | ×                   | ×               | ×           | ×     | ×               | ×     |  |  |
|                       | Serial communication         | 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.

## 10.11 For Q Series Bus Communication

This section provides the accessible devices and accessible ranges for Q series bus communication.

## 10.11.1 Accessible devices

The following table indicates the accessible devices for Q series bus communication.

|                         |                    | Access Target                                              |                |                   |                | Access Target                                              |
|-------------------------|--------------------|------------------------------------------------------------|----------------|-------------------|----------------|------------------------------------------------------------|
| Device (I               | Device Name)       | Q02(H), Q06H, Q12H,<br>Q25H, Q02PH, Q06PH,<br>Q12PH, Q25PH | D              | evice (Device N   | lame)          | Q02(H), Q06H, Q12H,<br>Q25H, Q02PH, Q06PH,<br>Q12PH, Q25PH |
| Function input (F       | X)                 | 0                                                          | Link special   | relay (SB)        |                | 0                                                          |
| Function output (       | FY)                | 0                                                          | Link special   | register (SW)     |                | 0                                                          |
| Function register       | (FD)               | 0                                                          | Step relay (S) |                   |                | ×                                                          |
| Special relay (SM       | 1)                 | 0                                                          | Direct input   | (DX)              |                | ×                                                          |
| Special register (      | SD)                | 0                                                          | Direct output  | t (DY)            |                | ×                                                          |
| Input relay (X)         |                    | 0                                                          | Accumulato     | ulator (A)        |                | ×                                                          |
| Output relay (Y)        |                    | 0                                                          | Indox rogist   | er (Z)            |                | 0                                                          |
| Internal relay (M)      | 1                  | 0                                                          | Index register |                   | (V)            | ×                                                          |
| Latch relay (L)         |                    | 0                                                          | (R)            |                   | (R)            | 0                                                          |
| Annunciator (F)         |                    | 0                                                          | (ZR)           |                   | 0              |                                                            |
| Edge relay (V)          |                    | 0                                                          | Extended file  | e register (ER*\I | र)             | ×                                                          |
| Link relay (B)          |                    | 0                                                          |                | Link input (J*V   | <b>K</b> )     | 0                                                          |
| Data register (D)       |                    | 0                                                          |                | Link output (J*   | (Y)            | 0                                                          |
| Link register (W)       |                    | 0                                                          | Direct link    | Link relay (J*\I  | 3)             | 0                                                          |
| <b>T</b> ime on         | Contact (TS)       | 0                                                          | Direct link    | Link special re   | lay (J*\SB)    | 0                                                          |
| Timer<br>(T)            | Coil (TC)          | 0                                                          |                | Link register (   | J*\W)          | 0                                                          |
| (')                     | Present value (TN) | 0                                                          |                | Link special re   | gister (J*\SW) | 0                                                          |
| Countor                 | Contact (TS)       | 0                                                          | Special dire   | ct buffer memor   | y (U*\G)       | O*1                                                        |
| (C)                     | Coil (TC)          | 0                                                          |                |                   |                |                                                            |
| (C)                     | Present value (TN) | 0                                                          |                |                   |                |                                                            |
| Retentive timer<br>(ST) | Contact (TS)       | 0                                                          |                |                   |                |                                                            |
|                         | Coil (TC)          | 0                                                          | 1              |                   |                |                                                            |
|                         | Present value (TN) | 0                                                          | 1              |                   |                |                                                            |

\*1: In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless of the host or other CPU.

## 10.11.2 Accessible ranges

This section indicates the accessible ranges for Q series bus communication.

- (1) Another CPU on the same base can be accessed. However, another CPU cannot be accessed via the network of another CPU.
- (2) Another CPU can be accessed via the MELSECNET/H module controlled by the PC CPU module. In this case, the accessible ranges are as in MELSECNET/H communication. (IP Page 262, Section 10.8.2)

The personal computer used for MELSECNET/H communication corresponds to the PC CPU module, and the MELSECNET/H board to the MELSECNET/H module.

(3) Another CPU can be accessed via the CC-Link module controlled by the PC CPU module. In this case, the accessible ranges are as in CC-Link communication. ( 🖙 Page 256, Section 10.6.2)

The personal computer used for CC-Link communication corresponds to the PC CPU module, and the CC-Link board to the CC-Link module.

## 10.12 For Modem Communication

This section explains the accessible devices and accessible ranges for modem communication.

## 10.12.1 Accessible devices

The following table indicates the accessible devices for modem communication.

|                               | Access Target              |                  |            |                 |       |                 |  |
|-------------------------------|----------------------------|------------------|------------|-----------------|-------|-----------------|--|
| D                             | evice (Device Name)        | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU            | QSCPU | FXCPU           |  |
| Function inp                  | out (FX)                   | 0                | ×          | 0               | ×     | ×               |  |
| Function ou                   | tput (FY)                  | 0                | ×          | 0               | ×     | ×               |  |
| Function reg                  | gister (FD)                | 0                | ×          | 0               | ×     | ×               |  |
| Special rela                  | y (SM)                     | 0                | 0          | 0               | ×     | ×               |  |
| Special regi                  | Special register (SD)      |                  | 0          | 0               | ×     | ×               |  |
| Input relay (                 | relay (X)                  |                  | 0          | 0               | ×     | ○*1             |  |
| Output relay                  | Dutput relay (Y)           |                  | 0          | 0               | ×     | O*1             |  |
| Internal rela                 | nal relay (M) O            |                  | 0          | 0               | ×     | O*1             |  |
| Latch relay                   | (L)                        | 0                | ×          | 0               | ×     | ×               |  |
| Annunciator                   | · (F)                      | 0                | ×          | 0               | ×     | ×               |  |
| Edge relay                    | (V)                        | 0                | ×          | 0               | ×     | ×               |  |
| Link relay (B)                |                            | 0                | ×          | 0               | ×     | ×               |  |
| Data registe                  | xer (D) O O ×              |                  | ×          | O <sup>*1</sup> |       |                 |  |
| Link register (W)             |                            | 0                | ×          | 0               | ×     | ×               |  |
| <b>.</b>                      | Contact (TS)               | 0                | ×          | 0               | ×     | O*1             |  |
| Link register<br>Timer<br>(T) | Coil (TC)                  | 0                | ×          | 0               | ×     | ⊜*1             |  |
| (')                           | Present value (TN)         | 0                | ×          | 0               | ×     | O*1             |  |
|                               | Contact (TS)               | 0                | ×          | 0               | ×     | ⊜*1             |  |
| Counter                       | Coil (TC)                  | 0                | ×          | 0               | ×     | O <sup>*1</sup> |  |
| (0)                           | Present value (TN)         | 0                | ×          | 0               | ×     | O*1             |  |
| Retentive                     | Contact (TS)               | 0                | ×          | 0               | ×     | ×               |  |
| timer                         | Coil (TC)                  | 0                | ×          | 0               | ×     | ×               |  |
| (ST)                          | Present value (TN)         | 0                | ×          | 0               | ×     | ×               |  |
| Link special                  | relay (SB)                 | 0                | ×          | 0               | ×     | ×               |  |
| Link special                  | cial register (SW) O × O × |                  | ×          |                 |       |                 |  |
| Step relay (                  | y (S) × × × ×              |                  | ×          | O <sup>*1</sup> |       |                 |  |
| Direct input                  | (DX)                       | ×                | ×          | ×               | ×     | ×               |  |
| Direct outpu                  | ut (DY)                    | ×                | ×          | ×               | ×     | ×               |  |
| Accumulato                    | r (A)                      | ×                | ×          | ×               | ×     | ×               |  |

\*1: Only FX1sCPU, FX1nCPU, FX1ncCPU, FX2nCPU, FX2ncCPU, FX3gCPU, FX3ucCPU can be used.

(Continued on next page)

|                |                   |                |                  | Acc        | ess Target |       |                    |
|----------------|-------------------|----------------|------------------|------------|------------|-------|--------------------|
| De             | evice (Device     | Name)          | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU | FXCPU              |
| Index register |                   | (Z)            | 0                | ×          | 0          | ×     | O <sup>*1,*2</sup> |
| index registe  | 51                | (V)            | ×                | ×          | ×          | ×     | O <sup>*1,*2</sup> |
| File register  |                   | (R)            | ⊖* <b>3</b>      | ×          | 0          | ×     | O <sup>*4</sup>    |
|                |                   | (ZR)           | ⊜*3              | ×          | 0          | ×     | ×                  |
| Extended file  | e register (ER*\F | R)             | ×                | ×          | ×          | ×     | ×                  |
|                | Link input (J*\X  | ()             | 0                | 0          | 0          | ×     | ×                  |
|                | Link output (J*)  | Y)             | 0                | 0          | 0          | ×     | ×                  |
| Diroct link    | Link relay (J*\E  | 3)             | 0                | 0          | 0          | ×     | ×                  |
| Direct link    | Link special rel  | ay (J*\SB)     | 0                | 0          | 0          | ×     | ×                  |
| -              | Link register (J  | *\W)           | 0                | 0          | 0          | ×     | ×                  |
|                | Link special re   | gister (J*\SW) | 0                | 0          | 0          | ×     | ×                  |
| Special direct | t buffer memory   | ′ (U*\G)       | ⊖ <sup>*5</sup>  | 0          | 0          | ×     | ○*6                |

\*1: Only FX1sCPU, FX1nCPU, FX1ncCPU, FX2nCPU, FX2ncCPU, FX3gCPU, 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 FX series CPU other than FX3GCPU and FX3U(C)CPU, specify the data register (D). The file register (R) can be specified only when accessing FX3GCPU or FX3U(C)CPU.

\*5 : In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed. Writing to the shared memory cannot be performed regardless 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 FX3U(c)CPU.

## 10.12.2 Accessible ranges

This section indicates the accessible ranges for Modem communication.

### (1) When using Q series-compatible C24 and L series-compatible C24

### (a) Configuration



Personal computer

#### (b) Accessibility list

The following table indicates whether the CPUs can be accessed. The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

| Con                              | nected Station          |                                                           |                  | Relayed station CPU |                 |                 |                 |       |  |  |  |
|----------------------------------|-------------------------|-----------------------------------------------------------|------------------|---------------------|-----------------|-----------------|-----------------|-------|--|--|--|
| CPU                              | Connected Module        | Relayed Network                                           | QCPU<br>(Q mode) | Q12DC<br>CPU-V      | LCPU            | QSCPU           | Q motion<br>CPU | FXCPU |  |  |  |
|                                  |                         | CC IE Control<br>CC IE Field                              | 0                | O <sup>*1</sup>     | ⊖ <sup>*2</sup> | O <sup>*1</sup> | ×               | ×     |  |  |  |
| QCPU<br>(Q mode)<br>Q series-com |                         | MELSECNET/H                                               | 0                | 0                   | ×               | 0               | ×               | ×     |  |  |  |
|                                  |                         | Ethernet                                                  | 0                | ×                   | ×               | 0               | ×               | ×     |  |  |  |
|                                  | Q series-compatible C24 | Serial communication                                      | ⊖ <sup>*3</sup>  | ×                   | 0               | ×               | ×               | ×     |  |  |  |
|                                  |                         | CC-Link                                                   | 0                | 0                   | 0               | ×               | ×               | ×     |  |  |  |
|                                  |                         | Multi-drop connection<br>(Independent mode) *4            | ⊖ <sup>*3</sup>  | ×                   | 0               | ×               | ×               | ×     |  |  |  |
|                                  |                         | CC IE Field *2                                            | 0                | ×                   | 0               | ×               | ×               | ×     |  |  |  |
|                                  |                         | MELSECNET/H                                               | ×                | ×                   | ×               | ×               | ×               | ×     |  |  |  |
|                                  |                         | Ethernet                                                  | ×                | ×                   | ×               | ×               | ×               | ×     |  |  |  |
| LCPU                             | L series-compatible C24 | Serial communication                                      | O <sup>*3</sup>  | ×                   | 0               | ×               | ×               | ×     |  |  |  |
|                                  |                         | CC-Link                                                   | 0                | 0                   | 0               | ×               | ×               | ×     |  |  |  |
|                                  |                         | Multi-drop connection<br>(Independent mode) <sup>*4</sup> | O <sup>*3</sup>  | ×                   | 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 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*3 : The Redundant CPU is inaccessible to the serial communication module which is on the main base.

\*4 : Indicates the CH2 side setting. (The CH1 side is fixed to the independent mode.)

10.12 For Modem Communication 10.12.2 Accessible ranges

### (2) When using FXCPU

#### (a) Configuration



Personal computer

#### (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                       |                              | Relayed station CPU |                |      |       |                 |       |  |  |  |
|-----------------------|------------------------------|---------------------|----------------|------|-------|-----------------|-------|--|--|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode)    | Q12DC<br>CPU-V | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |  |  |
|                       | CC IE Control<br>CC IE Field | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
| 5×001 *1              | MELSECNET/H                  | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
| FXCPU '               | Ethernet                     | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
|                       | Serial communication         | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |
|                       | CC-Link                      | ×                   | ×              | ×    | ×     | ×               | ×     |  |  |  |

\*1: Only FX1sCPU, FX1nCPU, FX1ncCPU, FX2nCPU, FX2ncCPU, FX3gCPU, FX3ucCPU can be used.

## 10.13 For Gateway Function Communication

This section describes the accessible devices and accessible ranges for gateway function communication.

### 10.13.1 Accessible devices

This section indicates the accessible devices for gateway function communication. Only the following device is accessible for gateway function communication. Device : Gateway device Device name: EG

## 10.13.2 Accessible ranges

This section indicates the accessible ranges for gateway function communication.

### (1) Configuration



#### (2) Accessible ranges

Only the connected GOT can be accessed.

## 10.14 For GX Simulator Communication

This section describes the accessible devices and accessible ranges for GX Simulator communication.

### 10.14.1 Accessible devices

The accessible devices of other station during GX Simulator communication depends on the other station device settings set on the device manager of GX Simulator.

For other station device setting, refer to the following manual.

GX Simulator Version 7 Operating Manual

## 10.14.2 Accessible ranges

The following table indicates the accessible ranges for GX Simulator communication. Whether the target CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                | Target CPU        |                |      |       |                 |       |  |  |  |
|----------------|-------------------|----------------|------|-------|-----------------|-------|--|--|--|
| Target Station | QCPU<br>( Q mode) | Q12DC<br>CPU-V | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |  |  |
| Host station   | 0                 | ×              | ×    | ×     | ×               | 0     |  |  |  |
| Other station  | 0                 | ×              | ×    | ×     | ×               | ×     |  |  |  |

## 10.15 For GX Simulator2 Communication

This section describes the accessible devices and accessible ranges for GX Simulator2 communication.

### 10.15.1 Accessible devices

The accessible devices during GX Simulator2 communication depend on the device supported by GX Simulator2. For details, refer to the following manual.

GX Works2 Version 1 Operating Manual (Common)

## 10.15.2 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).

|                | Target CPU        |                |      |       |                 |       |  |  |
|----------------|-------------------|----------------|------|-------|-----------------|-------|--|--|
| Target Station | QCPU<br>( Q mode) | Q12DC<br>CPU-V | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |  |
| Other station  | 0                 | ×              | 0    | ×     | ×               | 0     |  |  |

This section provides the accessible devices and accessible ranges for GOT transparent communication.

## 10.16.1 Accessible devices

The following table indicates the accessible devices for GOT transparent communication.

### (1) When access target is programmable controller CPU

|                       |                     |                  | Acc        | ess Target | :     |       |
|-----------------------|---------------------|------------------|------------|------------|-------|-------|
| D                     | evice (Device Name) | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU | FXCPU |
| Function inp          | out (FX)            | 0                | ×          | 0          | ×     | ×     |
| Function out          | tput (FY)           | 0                | ×          | 0          | ×     | ×     |
| Function reg          | gister (FD)         | 0                | ×          | 0          | ×     | ×     |
| Special relay         | y (SM)              | 0                | 0          | 0          | ×     | ×     |
| Special register (SD) |                     | 0                | 0          | 0          | ×     | ×     |
| Input relay (X)       |                     | 0                | 0          | 0          | ×     | 0     |
| Output relay          | ′ (Y)               | 0                | 0          | 0          | ×     | 0     |
| Internal rela         | y (M)               | 0                | 0          | 0          | ×     | 0     |
| Latch relay           | (L)                 | 0                | ×          | 0          | ×     | ×     |
| Annunciator           | · (F)               | 0                | ×          | 0          | ×     | ×     |
| Edge relay (V)        |                     | 0                | ×          | 0          | ×     | ×     |
| Link relay (B)        |                     | 0                | ×          | 0          | ×     | ×     |
| Data register (D)     |                     | 0                | 0          | 0          | ×     | 0     |
| Link register (W)     |                     | 0                | ×          | 0          | ×     | ×     |
| Time e e              | Contact (TS)        | 0                | ×          | 0          | ×     | 0     |
| Timer<br>(T)          | Coil (TC)           | 0                | ×          | 0          | ×     | 0     |
| (1)                   | Present value (TN)  | 0                | ×          | 0          | ×     | 0     |
| 0                     | Contact (TS)        | 0                | ×          | 0          | ×     | 0     |
| Counter<br>(C)        | Coil (TC)           | 0                | ×          | 0          | ×     | 0     |
| (0)                   | Present value (TN)  | 0                | ×          | 0          | ×     | 0     |
| Retentive             | Contact (TS)        | 0                | ×          | 0          | ×     | ×     |
| timer                 | Coil (TC)           | 0                | ×          | 0          | ×     | ×     |
| (ST)                  | Present value (TN)  | 0                | ×          | 0          | ×     | ×     |
| Link special          | relay (SB)          | 0                | ×          | 0          | ×     | ×     |
| Link special          | register (SW)       | 0                | ×          | 0          | ×     | ×     |
| Step relay (          | S)                  | ×                | ×          | ×          | ×     | 0     |
| Direct input          | (DX)                | ×                | ×          | ×          | ×     | ×     |
| Direct outpu          | t (DY)              | ×                | ×          | ×          | ×     | ×     |
| Accumulato            | r (A)               | ×                | ×          | ×          | ×     | ×     |

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|                |                   |                |                  | Acc        | ess Target |       |                 |
|----------------|-------------------|----------------|------------------|------------|------------|-------|-----------------|
| De             | evice (Device     | Name)          | QCPU<br>(Q mode) | Q12DCCPU-V | LCPU       | QSCPU | FXCPU           |
| Index registe  | or                | (Z)            | 0                | ×          | 0          | ×     | O <sup>*1</sup> |
|                |                   | (V)            | ×                | ×          | ×          | ×     | O <sup>*1</sup> |
| File register  |                   | (R)            | O*2              | ×          | 0          | ×     | O <sup>*3</sup> |
|                |                   | (ZR)           | O <sup>*2</sup>  | ×          | 0          | ×     | ×               |
| Extended file  | e register (ER*\F | R)             | ×                | ×          | ×          | ×     | ×               |
|                | Link input (J*\X  | ()             | 0                | 0          | 0          | ×     | ×               |
|                | Link output (J*   | \Y)            | 0                | 0          | 0          | ×     | ×               |
| Diroct link    | Link relay (J*\E  | 3)             | 0                | 0          | 0          | ×     | ×               |
| Direct link    | Link special re   | lay (J*\SB)    | 0                | 0          | 0          | ×     | ×               |
|                | Link register (J  | *\W)           | 0                | 0          | 0          | ×     | ×               |
|                | Link special re   | gister (J*\SW) | 0                | 0          | 0          | ×     | ×               |
| Special direct | t buffer memory   | ∕ (U*\G)       | O <sup>*4</sup>  | 0          | 0          | 0     | ○ <sup>*5</sup> |

\*1: WriteDeviceBlock or WriteDeviceBlock2 cannot be used to write data to 2 or more points consecutively. (Data can be written to one point only.)

\*2 : Disabled for the use of Q00JCPU or Q00UJCPU.

\*3 : When accessing FX series CPU other than FX3GCPU and FX3U(C)CPU, specify the data register (D). The file register (R) can be specified only when accessing FX3GCPU or FX3U(C)CPU.

\*4: In a multi-CPU configuration, reading from the shared memory of the host CPU cannot be performed.

Writing to the shared memory cannot be performed regardless 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 FX3U(c)CPU.

#### (2) When access target is Q motion CPU

For accessible device list of Q motion CPU, refer to the following section.

 ${\ensuremath{\boxtimes}}^{\ensuremath{\square}}$  Page 237, Section 10.2.1 (2) When access target is Q motion CPU

## 10.16.2 Accessible ranges

This section indicates the accessible ranges for GOT transparent communication.

**Point** For usable system configuration, refer to GOT1000 series connection manual.

### (1) Personal computer side port: Serial, GOT1000 side port: Serial, CPU side port: Direct connection

(a) Configuration



### (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or imes (inaccessible).

|                               |                              | Relayed station CPU            |                |             |       |                 |       |  |  |
|-------------------------------|------------------------------|--------------------------------|----------------|-------------|-------|-----------------|-------|--|--|
| Connected Station CPU         | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V | LCPU        | QSCPU | Q motion<br>CPU | FXCPU |  |  |
|                               | CC IE Control<br>CC IE Field | 0                              | ○*3            | <b>○</b> *4 | ×     | ⊖* <del>3</del> | ×     |  |  |
| QCPU (Q mode) <sup>*1</sup> , | MELSECNET/H                  | 0                              | 0              | ×           | ×     | 0               | ×     |  |  |
| Q motion CPU *2               | Ethernet                     | ⊖ <sup>*5</sup>                | ×              | ×           | ×     | 0               | ×     |  |  |
|                               | Serial communication         | 0                              | ×              | 0           | ×     | 0               | ×     |  |  |
|                               | CC-Link                      | 0                              | 0              | 0           | ×     | 0               | ×     |  |  |

\*1: Inaccessible to Redundant CPU.

\*2: Relayed stations cannot be accessed through Q motion CPU.

\*3 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*4 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*5: Set the parameter-set values of the target station side Q series-compatible E71 to the network number and station number.

Also set the "Station No.⇔IP information" of the Q series-compatible E71 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".

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|                       |                              |                                | Relayed station CPU |      |       |                 |       |  |  |  |  |
|-----------------------|------------------------------|--------------------------------|---------------------|------|-------|-----------------|-------|--|--|--|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V      | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |  |  |  |
|                       | CC IE Field *4               | 0                              | ×                   | 0    | ×     | ×               | ×     |  |  |  |  |
|                       | MELSECNET/H                  | ×                              | ×                   | ×    | ×     | ×               | ×     |  |  |  |  |
| LCPU                  | Ethernet                     | ×                              | ×                   | ×    | ×     | ×               | ×     |  |  |  |  |
|                       | Serial communication         | 0                              | ×                   | 0    | ×     | ×               | ×     |  |  |  |  |
|                       | CC-Link                      | 0                              | 0                   | 0    | ×     | ×               | ×     |  |  |  |  |
|                       | CC IE Control<br>CC IE Field | ×                              | ×                   | ×    | ×     | ×               | ×     |  |  |  |  |
|                       | MELSECNET/H                  | ×                              | ×                   | ×    | ×     | ×               | ×     |  |  |  |  |
| FXCPU                 | Ethernet                     | ×                              | ×                   | ×    | ×     | ×               | ×     |  |  |  |  |
|                       | Serial communication         | ×                              | ×                   | ×    | ×     | ×               | ×     |  |  |  |  |
|                       | CC-Link                      | ×                              | ×                   | ×    | ×     | ×               | ×     |  |  |  |  |

\*1: Inaccessible to Redundant CPU.

\*4 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

# (2) Personal computer side port: USB, GOT1000 side port: USB, CPU side port: Direct connection

#### (a) Configuration



Personal computer

#### (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                       |                              |                                |                 | Relayed s | tation CPU |                 |       |
|-----------------------|------------------------------|--------------------------------|-----------------|-----------|------------|-----------------|-------|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V  | LCPU      | QSCPU      | Q motion<br>CPU | FXCPU |
|                       | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*2</sup> | ○*3       | ×          | ⊖*²             | ×     |
| *1                    | MELSECNET/H                  | 0                              | 0               | ×         | ×          | 0               | ×     |
| QCPU (Q mode)         | Ethernet                     | O <sup>*4</sup>                | ×               | ×         | ×          | 0               | ×     |
|                       | Serial communication         | 0                              | ×               | 0         | ×          | 0               | ×     |
|                       | CC-Link                      | 0                              | 0               | 0         | ×          | 0               | ×     |
|                       | CC IE Field *3               | 0                              | ×               | 0         | ×          | ×               | ×     |
|                       | MELSECNET/H                  | ×                              | ×               | ×         | ×          | ×               | ×     |
| LCPU                  | Ethernet                     | ×                              | ×               | ×         | ×          | ×               | ×     |
|                       | Serial communication         | 0                              | ×               | 0         | ×          | 0               | ×     |
|                       | CC-Link                      | 0                              | 0               | 0         | ×          | 0               | ×     |
|                       | CC IE Control<br>CC IE Field | ×                              | ×               | ×         | ×          | ×               | ×     |
|                       | MELSECNET/H                  | ×                              | ×               | ×         | ×          | ×               | ×     |
| FACPU                 | Ethernet                     | ×                              | ×               | ×         | ×          | ×               | ×     |
|                       | Serial communication         | ×                              | ×               | ×         | ×          | ×               | ×     |
|                       | CC-Link                      | ×                              | ×               | ×         | ×          | ×               | ×     |

\*1: Inaccessible to Redundant CPU.

\*2 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*4 : Set the parameter-set values of the target station side Q series-compatible E71 to the network number and station number.

Also set the "Station No. $\Leftrightarrow$ IP information" of the Q series-compatible E71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No. $\Leftrightarrow$ IP information system".

### (3) Personal computer side port: Serial, GOT1000 side port: Serial, CPU side port: Bus connection

#### (a) Configuration



Personal computer

#### (b) Accessibility list

The following table indicates whether the CPUs can be accessed. The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                                                             |                              |                                | Relayed station CPU |                 |       |                 |       |  |  |  |  |
|-------------------------------------------------------------|------------------------------|--------------------------------|---------------------|-----------------|-------|-----------------|-------|--|--|--|--|
| Connected Station CPU                                       | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V      | LCPU            | QSCPU | Q motion<br>CPU | FXCPU |  |  |  |  |
| QCPU (Q mode) <sup>*1</sup> ,<br>Q motion CPU <sup>*2</sup> | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*3</sup>     | <b>O</b> *4     | ×     | ⊖* <b>3</b>     | ×     |  |  |  |  |
|                                                             | MELSECNET/H                  | 0                              | 0                   | ×               | ×     | 0               | ×     |  |  |  |  |
|                                                             | Ethernet                     | ⊖ <sup>*5</sup>                | ×                   | ×               | ×     | 0               | ×     |  |  |  |  |
|                                                             | Serial communication         | 0                              | ×                   | 0               | ×     | 0               | ×     |  |  |  |  |
|                                                             | CC-Link                      | 0                              | 0                   | 0               | ×     | 0               | ×     |  |  |  |  |
|                                                             | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*3</sup>     | O <sup>*4</sup> | ×     | ○*3             | ×     |  |  |  |  |
|                                                             | MELSECNET/H                  | 0                              | 0                   | ×               | ×     | 0               | ×     |  |  |  |  |
| Q12DCCPU-V                                                  | Ethernet                     | ×                              | ×                   | ×               | ×     | ×               | ×     |  |  |  |  |
|                                                             | Serial communication         | ×                              | ×                   | ×               | ×     | ×               | ×     |  |  |  |  |
|                                                             | CC-Link                      | 0                              | 0                   | 0               | ×     | 0               | ×     |  |  |  |  |

\*1: Inaccessible to Redundant CPU.

\*2: Relayed stations cannot be accessed through Q motion CPU.

\*3 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*4: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*5 : Set the parameter-set values of the target station side Q series-compatible E71 to the network number and station number.

Also set the "Station No. $\Leftrightarrow$ IP information" of the Q series-compatible E71 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) Personal computer side port: USB, GOT1000 side port: USB, CPU side port: Bus connection

#### (a) Configuration



Personal computer

#### (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                       |                              |                                |                 | Relayed s       | tation CPU |                 |       |
|-----------------------|------------------------------|--------------------------------|-----------------|-----------------|------------|-----------------|-------|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V  | LCPU            | QSCPU      | Q motion<br>CPU | FXCPU |
| QCPU (Q mode) *1      | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*2</sup> | ⊖ <sup>*3</sup> | ×          | ⊖* <b>2</b>     | ×     |
|                       | MELSECNET/H                  | 0                              | 0               | ×               | ×          | 0               | ×     |
|                       | Ethernet                     | O <sup>*4</sup>                | ×               | ×               | ×          | 0               | ×     |
|                       | Serial communication         | 0                              | ×               | 0               | ×          | 0               | ×     |
|                       | CC-Link                      | 0                              | 0               | 0               | ×          | 0               | ×     |
|                       | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*2</sup> | ○*3             | ×          | ×               | ×     |
|                       | MELSECNET/H                  | 0                              | 0               | ×               | ×          | ×               | ×     |
| Q12DCCPU-V            | Ethernet                     | ×                              | ×               | ×               | ×          | ×               | ×     |
|                       | Serial communication         | ×                              | ×               | 0               | ×          | ×               | ×     |
|                       | CC-Link                      | 0                              | 0               | 0               | ×          | ×               | ×     |

\*1: Inaccessible to Redundant CPU.

\*2 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*4 : Set the parameter-set values of the target station side Q series-compatible E71 to the network number and station number.

Also set the "Station No.⇔IP information" of the Q series-compatible E71 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) Personal computer side port: Serial, GOT1000 side port: Serial, CPU side port: Q series-compatible C24 or L series-compatible C24

#### (a) Configuration



#### (b) Accessibility list

The following table indicates whether the CPUs can be accessed. The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

| Conn                       | ected Station           |                                                |                                | R              | elayed st       | ation CPU | I               |       |
|----------------------------|-------------------------|------------------------------------------------|--------------------------------|----------------|-----------------|-----------|-----------------|-------|
| CPU                        | Connected Module        | Relayed Network                                | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V | LCPU            | QSCPU     | Q motion<br>CPU | FXCPU |
|                            |                         | CC IE Control<br>CC IE Field                   | 0                              | ⊖* <b>3</b>    | O <sup>*4</sup> | ×         | ⊖ <sup>*3</sup> | ×     |
|                            |                         | MELSECNET/H                                    | 0                              | 0              | ×               | ×         | 0               | ×     |
| QCPU                       | O carico compatible C24 | Ethernet                                       | 0                              | ×              | ×               | ×         | 0               | ×     |
| Q motion CPU <sup>*2</sup> | Q series-compatible C24 | Serial communication                           | 0                              | ×              | 0               | ×         | 0               | ×     |
|                            |                         | CC-Link                                        | 0                              | 0              | 0               | ×         | 0               | ×     |
|                            |                         | Multi-drop connection<br>(Independent mode) *5 | 0                              | ×              | 0               | ×         | ×               | ×     |
|                            |                         | CC IE Field *4                                 | 0                              | ×              | 0               | ×         | ×               | ×     |
|                            |                         | MELSECNET/H                                    | ×                              | ×              | ×               | ×         | ×               | ×     |
|                            |                         | Ethernet                                       | ×                              | ×              | ×               | ×         | ×               | ×     |
| LCPU                       | L series-compatible C24 | Serial communication                           | 0                              | ×              | 0               | ×         | 0               | ×     |
|                            |                         | CC-Link                                        | 0                              | 0              | 0               | ×         | 0               | ×     |
|                            |                         | Multi-drop connection<br>(Independent mode) *5 | 0                              | ×              | 0               | ×         | ×               | ×     |

\*1: Inaccessible to Redundant CPU.

\*2: Relayed stations cannot be accessed through Q motion CPU.

\*3 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*4 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*5 : Indicates the CH2 side setting. (The CH1 side is fixed to the independent mode.)

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### (6) Personal computer side port: USB, GOT1000 side port: USB, CPU side port: Q series-compatible C24 or L series-compatible

#### (a) Configuration



#### (b) Accessibility list

The following table indicates whether the CPUs can be accessed. The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

| Conr        | nected Station          |                                                |                                | R               | elayed st       | ation CPU | I               |       |
|-------------|-------------------------|------------------------------------------------|--------------------------------|-----------------|-----------------|-----------|-----------------|-------|
| CPU         | Connected Module        | Relayed Network                                | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V  | LCPU            | QSCPU     | Q motion<br>CPU | FXCPU |
|             |                         | CC IE Control<br>CC IE Field                   | 0                              | O <sup>*2</sup> | O* <sup>3</sup> | ×         | O* <sup>2</sup> | ×     |
|             |                         | MELSECNET/H                                    | 0                              | 0               | ×               | ×         | 0               | ×     |
| QCPU        | O series competible C24 | Ethernet                                       | 0                              | ×               | ×               | ×         | 0               | ×     |
| (Q mode) *1 | Q series-compatible C24 | Serial communication                           | 0                              | ×               | 0               | ×         | 0               | ×     |
|             |                         | CC-Link                                        | 0                              | 0               | 0               | ×         | 0               | ×     |
|             |                         | Multi-drop connection (Independent mode) *4    | 0                              | ×               | 0               | ×         | ×               | ×     |
|             |                         | CC IE Field *2                                 | 0                              | ×               | 0               | ×         | ×               | ×     |
|             |                         | MELSECNET/H                                    | ×                              | ×               | ×               | ×         | ×               | ×     |
|             |                         | Ethernet                                       | ×                              | ×               | Х               | ×         | ×               | ×     |
| LCPU        | L series-compatible C24 | Serial communication                           | 0                              | ×               | 0               | ×         | 0               | ×     |
|             |                         | CC-Link                                        | 0                              | 0               | 0               | ×         | 0               | ×     |
|             |                         | Multi-drop connection<br>(Independent mode) *4 | 0                              | ×               | 0               | ×         | ×               | ×     |

\*1: Inaccessible to Redundant CPU.

\*2 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*4 : Indicates the CH2 side setting. (The CH1 side is fixed to the independent mode.)
# (7) Personal computer side port: Serial, GOT1000 side port: Serial, CPU side port: Q series-compatible E71

# (a) Configuration



# (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

| Connected Station      |                                      |                      | Relayed station CPU            |                 |      |       |                 |       |  |
|------------------------|--------------------------------------|----------------------|--------------------------------|-----------------|------|-------|-----------------|-------|--|
| CPU                    | Connected Module                     | Relayed Network      | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V  | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |
|                        | CC IE Control<br>CC IE Field         | 0                    | ⊖* <b>3</b>                    | ⊖ <sup>*4</sup> | ×    | ×     | ×               |       |  |
| QCPU                   |                                      | MELSECNET/H          | 0                              | 0               | ×    | ×     | ×               | ×     |  |
| (Q mode) <sup>*1</sup> | Q series-compatible E71 <sup>2</sup> | Ethernet             | 0                              | ×               | ×    | ×     | ×               | ×     |  |
|                        |                                      | Serial communication | 0                              | ×               | 0    | ×     | ×               | ×     |  |
|                        |                                      | CC-Link              | 0                              | 0               | 0    | ×     | ×               | ×     |  |

\*1: Inaccessible to Redundant CPU.

\*2: Cannot perform communication if a remote password is set to the connected station side Q series-compatible E71.

\*3 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*4: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

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# (8) Personal computer side port: USB, GOT1000 side port: USB, CPU side port: Q series-compatible E71

# (a) Configuration



#### (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

| Con                    | Connected Station         |                              | Relayed station CPU            |                |                 |       |                 |       |  |
|------------------------|---------------------------|------------------------------|--------------------------------|----------------|-----------------|-------|-----------------|-------|--|
| CPU                    | Connected Module          | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V | LCPU            | QSCPU | Q motion<br>CPU | FXCPU |  |
|                        |                           | CC IE Control<br>CC IE Field | 0                              | ○*3            | O <sup>*4</sup> | ×     | ×               | ×     |  |
|                        | o                         | MELSECNET/H                  | 0                              | 0              | ×               | ×     | ×               | ×     |  |
| (Q mode) ', Q<br>QSCPU | Q series-compatible E/1 2 | Ethernet                     | 0                              | ×              | ×               | ×     | ×               | ×     |  |
|                        |                           | Serial communication         | 0                              | ×              | 0               | ×     | ×               | ×     |  |
|                        |                           | CC-Link                      | 0                              | 0              | 0               | ×     | ×               | ×     |  |

\*1: Inaccessible to Redundant CPU.

\*2: Cannot perform communication if a remote password is set to the connected station side Q series-compatible E71.

\*3 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*4 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

# (9) Personal computer side port: Serial, GOT1000 side port: Serial, CPU side port: Ethernet port

# (a) Configuration



# (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                          |                              |                                | I               | Relayed st      | tation CPU |                 |       |
|--------------------------|------------------------------|--------------------------------|-----------------|-----------------|------------|-----------------|-------|
| Connected Station CPU *1 | Relayed Network              | QCPU<br>(Q mode) <sup>*2</sup> | Q12DC<br>CPU-V  | LCPU            | QSCPU      | Q motion<br>CPU | FXCPU |
| QnUDE(H)CPU              | CC IE Control<br>CC IE Field | 0                              | ⊖* <b>3</b>     | O <sup>*4</sup> | ×          | ×               | ×     |
|                          | MELSECNET/H                  | 0                              | 0               | ×               | ×          | ×               | ×     |
|                          | Ethernet                     | O <sup>*5</sup>                | ×               | ×               | ×          | ×               | ×     |
|                          | Serial communication         | 0                              | ×               | 0               | ×          | ×               | ×     |
|                          | CC-Link                      | 0                              | 0               | 0               | ×          | ×               | ×     |
|                          | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*3</sup> | O <sup>*4</sup> | ×          | ×               | ×     |
|                          | MELSECNET/H                  | 0                              | 0               | ×               | ×          | ×               | ×     |
| Q12DCCPU-V               | Ethernet                     | ×                              | ×               | ×               | ×          | ×               | ×     |
|                          | Serial communication         | ×                              | ×               | ×               | ×          | ×               | ×     |
|                          | CC-Link                      | 0                              | 0               | 0               | ×          | ×               | ×     |

\*1: Cannot perform communication if a remote password is set to the connected station CPU.

\*2: Inaccessible to Redundant CPU.

\*3 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*4 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*5: Set the parameter-set values of the target station side Q series-compatible E71 to the network number and station number.

Also set the "Station No. $\Leftrightarrow$ IP information" of the Q series-compatible E71 parameter setting. At that time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No. $\Leftrightarrow$ IP information system".

(Continued on next page)

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|                          |                      | Relayed station CPU            |                |      |       |                 |       |  |  |
|--------------------------|----------------------|--------------------------------|----------------|------|-------|-----------------|-------|--|--|
| Connected Station CPU *1 | Relayed Network      | QCPU<br>(Q mode) <sup>*2</sup> | Q12DC<br>CPU-V | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |  |
|                          | CC IE Field *4       | 0                              | ×              | 0    | ×     | ×               | ×     |  |  |
|                          | MELSECNET/H          | ×                              | ×              | ×    | ×     | ×               | ×     |  |  |
| LCPU                     | Ethernet             | ×                              | ×              | ×    | ×     | ×               | ×     |  |  |
|                          | Serial communication | 0                              | ×              | 0    | ×     | ×               | ×     |  |  |
|                          | CC-Link              | 0                              | 0              | 0    | ×     | ×               | ×     |  |  |

\*1: Cannot perform communication if a remote password is set to the connected station CPU.

\*2 : Inaccessible to Redundant CPU.

\*4 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

# (10)Personal computer side port: USB, GOT1000 side port: USB, CPU side port: Ethernet port

# (a) Configuration



# (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                          |                              | Relayed station CPU            |                 |                 |       |                 |       |  |  |
|--------------------------|------------------------------|--------------------------------|-----------------|-----------------|-------|-----------------|-------|--|--|
| Connected Station CPU *1 | Relayed Network              | QCPU<br>(Q mode) <sup>*2</sup> | Q12DC<br>CPU-V  | LCPU            | QSCPU | Q motion<br>CPU | FXCPU |  |  |
| QnUDE(H)CPU              | CC IE Control<br>CC IE Field | 0                              | ○*3             | O <sup>*4</sup> | ×     | ×               | ×     |  |  |
|                          | MELSECNET/H                  | 0                              | 0               | ×               | ×     | ×               | ×     |  |  |
|                          | Ethernet                     | ⊖ <sup>*5</sup>                | ×               | ×               | ×     | ×               | ×     |  |  |
|                          | Serial communication         | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                          | CC-Link                      | 0                              | 0               | 0               | ×     | ×               | ×     |  |  |
|                          | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*3</sup> | O <sup>*4</sup> | ×     | ×               | ×     |  |  |
|                          | MELSECNET/H                  | 0                              | 0               | ×               | ×     | ×               | ×     |  |  |
| Q12DCCPU-V               | Ethernet                     | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
|                          | Serial communication         | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
|                          | CC-Link                      | 0                              | 0               | 0               | ×     | ×               | ×     |  |  |
|                          | CC IE Field *4               | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                          | MELSECNET/H                  | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
| LCPU                     | Ethernet                     | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
|                          | Serial communication         | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                          | CC-Link                      | 0                              | 0               | 0               | ×     | ×               | ×     |  |  |

\*1: Cannot perform communication if a remote password is set to the connected station CPU.

\*2: Inaccessible to Redundant CPU.

\*3 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*4: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

\*5: Set the parameter-set values of the target station side Q series-compatible E71 to the network number and station number.

Also set the "Station No.⇔IP information" of the Q series-compatible E71 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".

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# (11)Personal computer side port: Serial, GOT1000 side port: Serial, CPU side port: CC-Link IE Field Network Ethernet adapter module

# (a) Configuration



# (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                       |                              | Relayed station CPU            |                 |      |       |                 |       |  |  |
|-----------------------|------------------------------|--------------------------------|-----------------|------|-------|-----------------|-------|--|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V  | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |  |
| QnUDE(H)CPU           | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*2</sup> | ⊜*3  | ×     | ×               | ×     |  |  |
|                       | MELSECNET/H                  | 0                              | 0               | ×    | ×     | ×               | ×     |  |  |
|                       | Ethernet                     | 0                              | ×               | ×    | ×     | ×               | ×     |  |  |
|                       | Serial communication         | 0                              | ×               | 0    | ×     | ×               | ×     |  |  |
|                       | CC-Link                      | 0                              | 0               | 0    | ×     | ×               | ×     |  |  |
|                       | CC IE Field *3               | 0                              | ×               | 0    | ×     | ×               | ×     |  |  |
|                       | MELSECNET/H                  | ×                              | ×               | ×    | ×     | ×               | ×     |  |  |
| LCPU                  | Ethernet                     | ×                              | ×               | ×    | ×     | ×               | ×     |  |  |
|                       | Serial communication         | 0                              | ×               | 0    | ×     | ×               | ×     |  |  |
|                       | CC-Link                      | 0                              | 0               | 0    | ×     | ×               | ×     |  |  |

\*1: Inaccessible to Redundant CPU.

\*2 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

# (12)Personal computer side port :USB, GOT1000 side port: USB, CPU side port: CC-Link IE Field Network Ethernet adapter module

# (a) Configuration



#### (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                       |                              | Relayed station CPU            |                 |                 |       |                 |       |  |  |
|-----------------------|------------------------------|--------------------------------|-----------------|-----------------|-------|-----------------|-------|--|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V  | LCPU            | QSCPU | Q motion<br>CPU | FXCPU |  |  |
| QnUDE(H)CPU           | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*2</sup> | ⊖ <sup>*3</sup> | ×     | ×               | ×     |  |  |
|                       | MELSECNET/H                  | 0                              | 0               | ×               | ×     | ×               | ×     |  |  |
|                       | Ethernet                     | 0                              | ×               | ×               | ×     | ×               | ×     |  |  |
|                       | Serial communication         | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                       | CC-Link                      | 0                              | 0               | 0               | ×     | ×               | ×     |  |  |
|                       | CC IE Field *3               | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                       | MELSECNET/H                  | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
| LCPU                  | Ethernet                     | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
|                       | Serial communication         | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                       | CC-Link                      | 0                              | 0               | 0               | ×     | ×               | ×     |  |  |

\*1: Inaccessible to Redundant CPU.

\*2 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

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# (13)Personal computer side port: Ethernet board, GOT1000 side port: Ethernet port, CPU side port: Serial

# (a) Configuration



Personal computer

# (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or imes (inaccessible).

|                       |                              | Relayed station CPU            |                 |                 |       |                 |       |  |  |
|-----------------------|------------------------------|--------------------------------|-----------------|-----------------|-------|-----------------|-------|--|--|
| Connected Station CPU | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V  | LCPU            | QSCPU | Q motion<br>CPU | FXCPU |  |  |
|                       | CC IE Control<br>CC IE Field | 0                              | ⊖* <b>2</b>     | ⊖* <sup>3</sup> | ×     | ×               | ×     |  |  |
| 0000 (0 m a d a) *1   | MELSECNET/H                  | 0                              | 0               | ×               | ×     | ×               | ×     |  |  |
| QCPU (Q mode) '       | Ethernet                     | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
|                       | Serial communication         | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                       | CC-Link                      | 0                              | 0               | 0               | ×     | ×               | ×     |  |  |
|                       | CC IE Control<br>CC IE Field | 0                              | O <sup>*2</sup> | ⊖ <sup>*3</sup> | ×     | ×               | ×     |  |  |
|                       | MELSECNET/H                  | 0                              | 0               | ×               | ×     | ×               | ×     |  |  |
| Q12DCCPU-V            | Ethernet                     | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
|                       | Serial communication         | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                       | CC-Link                      | 0                              | 0               | 0               | ×     | ×               | ×     |  |  |
|                       | CC IE Field *3               | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                       | MELSECNET/H                  | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
| LCPU                  | Ethernet                     | ×                              | ×               | ×               | ×     | ×               | ×     |  |  |
|                       | Serial communication         | 0                              | ×               | 0               | ×     | ×               | ×     |  |  |
|                       | CC-Link                      | 0                              | 0               | 0               | ×     | ×               | ×     |  |  |

\*1: Inaccessible to Redundant CPU.

\*2 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

# (14)Personal computer side port: Ethernet board, GOT1000 side port: Ethernet port, CPU side port: Q series-compatible C24 or L series-compatible C24

# (a) Configuration



# (b) Accessibility list

The following table indicates whether the CPUs can be accessed. The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

| Conr                                                 | Connected Station       |                              | Relayed station CPU            |                |      |       |                 |       |  |  |
|------------------------------------------------------|-------------------------|------------------------------|--------------------------------|----------------|------|-------|-----------------|-------|--|--|
| CPU                                                  | Connected Module        | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V | LCPU | QSCPU | Q motion<br>CPU | FXCPU |  |  |
| QCPU<br>(Q mode) <sup>*1</sup> Q series-compatible C |                         | CC IE Control<br>CC IE Field | 0                              | O*2            | ○*3  | ×     | ×               | ×     |  |  |
|                                                      | O corico compatible C24 | MELSECNET/H                  | 0                              | 0              | ×    | ×     | ×               | ×     |  |  |
|                                                      | Q series-compatible C24 | Ethernet                     | ×                              | ×              | ×    | ×     | ×               | ×     |  |  |
|                                                      |                         | Serial communication         | 0                              | ×              | 0    | ×     | ×               | ×     |  |  |
|                                                      |                         | CC-Link                      | 0                              | 0              | 0    | ×     | ×               | ×     |  |  |
|                                                      |                         | CC IE Control<br>CC IE Field | 0                              | O*2            | ○*3  | ×     | ×               | ×     |  |  |
|                                                      |                         | MELSECNET/H                  | 0                              | 0              | ×    | ×     | ×               | ×     |  |  |
| Q12DCCPU-V                                           | Q series-compatible C24 | Ethernet                     | ×                              | ×              | ×    | ×     | ×               | ×     |  |  |
|                                                      |                         | Serial communication         | 0                              | ×              | 0    | ×     | ×               | ×     |  |  |
|                                                      |                         | CC-Link                      | 0                              | 0              | 0    | ×     | ×               | ×     |  |  |
|                                                      |                         | CC IE Field *3               | 0                              | ×              | 0    | ×     | ×               | ×     |  |  |
|                                                      |                         | MELSECNET/H                  | ×                              | ×              | ×    | ×     | ×               | ×     |  |  |
| LCPU                                                 | L series-compatible C24 | Ethernet                     | ×                              | ×              | ×    | ×     | ×               | ×     |  |  |
|                                                      |                         | Serial communication         | 0                              | ×              | 0    | ×     | ×               | ×     |  |  |
|                                                      |                         | CC-Link                      | 0                              | 0              | 0    | ×     | ×               | ×     |  |  |

\*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.

\*3: Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

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# (15)Personal computer side port: Ethernet board, GOT1000 side port: Ethernet port, CPU side port: Bus connection

# (a) Configuration



Personal computer

# (b) Accessibility list

The following table indicates whether the CPUs can be accessed.

The connected station CPUs are all accessible.

Whether the relayed station CPU is accessible or not is indicated by  $\bigcirc$  (accessible) or  $\times$  (inaccessible).

|                             |                              |                                | Relayed station CPU |             |       |                 |       |  |  |  |
|-----------------------------|------------------------------|--------------------------------|---------------------|-------------|-------|-----------------|-------|--|--|--|
| Connected Station CPU       | Relayed Network              | QCPU<br>(Q mode) <sup>*1</sup> | Q12DC<br>CPU-V      | LCPU        | QSCPU | Q motion<br>CPU | FXCPU |  |  |  |
| QCPU (Q mode) <sup>*1</sup> | CC IE Control<br>CC IE Field | 0                              | ⊖* <b>2</b>         | ○*3         | ×     | ×               | ×     |  |  |  |
|                             | MELSECNET/H                  | 0                              | 0                   | ×           | ×     | ×               | ×     |  |  |  |
|                             | Ethernet                     | ×                              | ×                   | ×           | ×     | ×               | ×     |  |  |  |
|                             | Serial communication         | 0                              | ×                   | 0           | ×     | ×               | ×     |  |  |  |
|                             | CC-Link                      | 0                              | 0                   | 0           | ×     | ×               | ×     |  |  |  |
|                             | CC IE Control<br>CC IE Field | 0                              | ⊖ <sup>*2</sup>     | ⊖* <b>3</b> | ×     | ×               | ×     |  |  |  |
|                             | MELSECNET/H                  | 0                              | 0                   | ×           | ×     | ×               | ×     |  |  |  |
| Q12DCCP0-V                  | Ethernet                     | ×                              | ×                   | ×           | ×     | ×               | ×     |  |  |  |
|                             | Serial communication         | ×                              | ×                   | 0           | ×     | ×               | ×     |  |  |  |
|                             | CC-Link                      | 0                              | 0                   | 0           | ×     | ×               | ×     |  |  |  |

\*1: Inaccessible to Redundant CPU.

\*2 : Inaccessible to Q12DCCPU-V and Q motion CPU relayed by CC-Link IE Field Network since CC-Link IE Field Network is not supported.

\*3 : Inaccessible to LCPU relayed by CC-Link IE Controller Network since CC-Link IE Controller Network is not supported.

# APPENDIX

# Appendix 1 Concept of Routing Parameters

The routing function is used by the station of the programmable controller CPU in a multi-level system to perform the transient transmission to the station of another network number.

To perform the routing function, the "Routing parameters" must be set to associate the network numbers and stations acting as bridges.

# (1) The routing parameters must be set to the request source and relayed station of the programmable controller CPU.

- · The request source must be set to access the request target.
- The relayed station must be set to access from the request source to the request target and vice versa.
- The request target is not required to be set.

For example, to perform the transient transmission from 1Ns3 to 3Ns4 in the following diagram, the routing parameters must be set to the programmable controller 1Ns3 which performs 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 numbers" can be set to the programmable controller CPU.

16 different network numbers allow the host station to be a request source or other stations to be accessed via the host station.

# (3) Routing parameter setting areas and data

For transient transmission, the routing parameter setting areas differ according to the system.

#### (a) Two-level system

The routing parameters are not required to be set because transient transmission is performed to within the same network.



#### (b) Multi-level 1 (two networks)

Set the routing parameters only to the station of the request source. <sup>\*1</sup> To the request source, set the data to access the request target (network number 2).



#### (c) Multi-level 2 (three networks)

Set the routing parameters to the request source and relayed stations. <sup>\*1</sup> To the request source, set the data to access the request target (network number 3). To the relayed station 1), set the data to access the request target (network number 3).

To the relayed station 2), set the data to access the request source (network number 1).



#### (d) Multi-level 3 (four or more networks)

Set the routing parameters to the request source and relayed stations. \*1

To the request source, set the data to access the request target (network number 4).

To the relayed station 1) (the nearest relayed station to the request source), set the data to access the request target (network number 4).

To the relayed station 2) (the nearest relayed station to the request target), set the data to access the request source (network number 1).

To the relayed station 3) (relayed station other than 1) and 2)), set the data to access the request target (network number 4) and request source (network number 1).



\*1: The following explains the case when the request source is the personal computer connected to Ethernet. The routing parameter settings are not necessary for the request source.

The routing parameter settings are necessary for relay stations so that they can access the request source. For settings, refer to the following manual.

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

Α

# Appendix 2 How to Configure 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<sup>®</sup>) via the Internet/intranet.

# Appendix 2.1 Operating procedure



The following is the procedure to configure the Internet/intranet environment.

# Point P

Web pages using MX Component will not perform 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 can be used as a Web server and a Web client.

# (1) Personal computer that can be used 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                                                                                                   |
|-------------|---------------------------------------------------------------------------------------------------------------|
|             | Any of the following Operating Systems is operating on the personal computer.                                 |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> XP Professional Operating System                                  |
|             | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Home Premium Operating System                               |
| Condition 1 | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Business Operating System                                   |
|             | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Ultimate Operating System                                   |
|             | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Enterprise Operating System                                 |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Home Premium Operating System                                   |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Professional Operating System                                   |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Ultimate Operating System                                       |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Enterprise Operating System                                     |
| Condition 2 | The personal computer can be connected to the Internet or intranet.                                           |
| Condition 3 | When Web pages are released on the Internet, external access must not be inhibited by a firewall or the like. |
| Condition 4 | MX Component is installed and settings are set for communication with the programmable controller CPU.        |

# (2) Personal computer that can be used 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                                                                     |
|-------------|---------------------------------------------------------------------------------|
|             | Any of the following Operating Systems is operating on the personal computer.   |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> XP Professional Operating System    |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> XP Home Edition Operating System    |
| Condition 1 | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Home Basic Operating System   |
|             | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Home Premium Operating System |
|             | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Business Operating System     |
|             | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Ultimate Operating System     |
|             | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Enterprise Operating System   |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Starter Operating System          |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Home Premium Operating System     |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Professional Operating System     |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Ultimate Operating System         |
|             | Microsoft <sup>®</sup> Windows <sup>®</sup> 7 Enterprise Operating System       |
| Condition 2 | The personal computer can be connected to the Internet or intranet.             |

Install the Web server in the following method.

# (1) When using Windows<sup>®</sup> XP Professional

Operating procedure

- **1.** <sup>∞</sup> [Start] ⇔ [Control Panel] ⇔ [Add/Remove Programs]
- **2.** Install the Windows component "Internet Information Service (IIS)". The Windows<sup>®</sup> XP Professional setup CD is required for installation.

# (2) When using Windows Vista<sup>®</sup> or Windows<sup>®</sup> 7

Operating procedure

- 1. <sup>™</sup> [Start] ⇔ [Control Panel] ⇔ [Program] ⇔ [Turn Windows features on or off]
- 2. Install "Internet Information Services".

Point *P* 

For details of Web server installation method corresponding to the operating system, refer to the installation procedure attached to the corresponding operating system.

# Appendix 2.4 Setting the Internet access account

Set the authorities to Internet access accounts.

# (1) When using Windows<sup>®</sup> XP Professional

When the Active Server Pages (ASP) pages using MX Component are released, the IUSR\_Name (Internet Server Anonymous Access) must be given the "Debug programs" right. Set the settings in the following procedure.

#### Operating procedure



Debug programs Properties

Continued on next page

Control Panel] ⇔
 [Administrative Tools] ⇔ [Local Security Policy]

 Select [Local Policies] ⇔ [User Rights Assignment] in the tree structure and double-click "Debug programs".

3. Click the Add User or Group... button.

#### Continued from previous page



|                       |                   | - |              |
|-----------------------|-------------------|---|--------------|
| Select Users or I     | Groups            |   | ? 🛛          |
| Select this object ty | /pe:              |   |              |
| Users or Built-in se  | curity principals |   | Dbject Types |
| From this location:   |                   |   |              |
| MX-PC                 |                   |   | Locations    |
| Common Queries        |                   |   |              |
|                       | itarts with 🔽     |   | Eolumns      |
|                       |                   |   | Circl Man    |
| Description: S        | itarts with 💌     |   | Find Now     |
| Disa <u>b</u> led acc | counts            |   | Stop         |
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| D Gy P GINCE ISAN     | iogon.            |   | ~            |
|                       |                   |   |              |
|                       |                   |   | OK Cancel    |
| Name (BDN)            | In Folder         |   |              |
| DIALUP                |                   |   |              |
| Everyone E            |                   |   |              |
| So Guest              | MX-PC             |   |              |
| HelpAssistant         | MX-PC             |   |              |
| 1USR                  |                   |   | =            |
| DCAL SERV             |                   |   |              |
| <b>METWORK</b>        |                   |   |              |
| REIWORK S             |                   |   |              |
| SERVICE               |                   |   | ~            |
|                       |                   |   |              |

| Select Users or Groups                       | ? 🛛          |
|----------------------------------------------|--------------|
| Select this object type:                     |              |
| Users or Built-in security principals        | Dbject Types |
| Erom this location:                          |              |
| MX-PC                                        | Locations    |
| Enter the object names to select (examples): |              |
| IUSR                                         | Eheck Names  |
|                                              |              |
| Advanced                                     | OK Cancel    |
|                                              |              |
| イト                                           |              |

Setting complete

 $\bigcirc$ 

- 4. If the computer name (name of the computer where Internet Information Service is set) is not displayed in "Locations", select the computer name. After confirming the above setting, click the Advanced... button.
- 5. Click the Find Now button, and select the "IUSR\_Name (Internet Server Anonymous Access)" account from the "Name" list box, and click the OK button.

**6.** After checking that the account is added, restart the personal computer.

Α

# (2) When using Windows Vista<sup>®</sup> or Windows<sup>®</sup> 7

When the Active Server Pages (ASP) pages using MX Component are released, the IUSR must be given the "Debug programs" right.

Set the settings in the following procedure.

#### Operating procedure

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| Re Andreas T<br>Re Andreas T<br>Re Andreas Re Andreas Re<br>Re Andreas Re                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MEM02A0        |                                         |                   |          |      |    |     |  |
| # AM001<br># AM001<br># AM041<br># AM041                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | METWO32F       |                                         |                   |          |      |    |     |  |
| # NENOSA           # NENOSA           # NENOSA           # NENOSA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MET/0333       |                                         |                   |          |      |    |     |  |
| # NEXNOLI<br># NEXNOLI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | IN MEMORY      |                                         |                   |          |      |    |     |  |
| MEMORAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ME2N044F       |                                         |                   |          |      |    |     |  |
| Toriant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MEI/0841       |                                         |                   |          |      |    |     |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                         |                   |          |      |    |     |  |
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1. ৺ [Start] ⇔ [Control Panel] ⇔

[Administrative Tools] ⇔ [Local Security Policy]

When user account control is enabled, the following screen is displayed.

| Click the <u>continue</u> button or <u>yes</u> button.                                     |                                                                                     |  |  |  |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|--|--|
| <windows vista<sup="">®&gt;</windows>                                                      | <windows<sup>® 7&gt;</windows<sup>                                                  |  |  |  |
| 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.<br>Microsoft Management Console<br>Microsoft Windows | Program name: Microsoft Management Console<br>Verified publisher: Microsoft Windows |  |  |  |
| <u>Details</u> <u>Continue</u> <u>Cancel</u>                                               | Show getails                                                                        |  |  |  |
| User Account Control helps stop unauthorized changes to your computer.                     | Change when these notifications appear                                              |  |  |  |







Continued on next page

#### Continued from previous page



| lect Users or Gr                                                                                              | oups                        | ? 🗙          |
|---------------------------------------------------------------------------------------------------------------|-----------------------------|--------------|
| Select this object                                                                                            | type:                       |              |
| Users or Built-in s                                                                                           | ecurity principals          | Object Types |
| from this location:                                                                                           |                             |              |
| MX-PC                                                                                                         |                             | Locations    |
| Common Querie                                                                                                 | S                           |              |
| N <u>a</u> me: [                                                                                              | Starts with 🔻               | Columns      |
| Description:                                                                                                  | Starts with 🔻               | Find Now     |
| Disabled ad                                                                                                   | ccounts                     | Stop         |
| Non expirin                                                                                                   | g password                  |              |
| Davs since las                                                                                                | t logon:                    |              |
|                                                                                                               |                             |              |
| Search res <u>u</u> lts:                                                                                      |                             | OK Cancel    |
| Gearch res <u>u</u> lts:<br>Jame (RDN)                                                                        | In Folder                   | OK Cancel    |
| Search res <u>ul</u> ts:<br>lame (RDN)<br>DIALUP<br>Everyone                                                  | In Folder                   | OK Cancel    |
| Search res <u>ults:</u><br>lame (RDN)<br>DIALUP<br>Everyone<br>Guest<br>NTERACTIVE                            | In Folder<br>MX-PC          | OK Cancel    |
| Search results:<br>lame (RDN)<br>DIALUP<br>Everyone<br>Guest<br>INTERACTIVE                                   | In Folder                   | OK Cancel    |
| Search results:<br>lame (RDN)<br>DIALUP<br>Everyone<br>Guest<br>INTERACTIVE<br>LIUSR<br>LOCAL SERV.           | In Folder<br>MX-PC<br>MX-PC | OK Cancel    |
| Search results:<br>lame (RDN)<br>DIALUP<br>Guest<br>INTERACTIVE<br>LOCAL SERV.<br>MX<br>NETWORK<br>NETWORK S. | In Folder<br>MX-PC<br>MX-PC | OK Cancel    |

ዏ

Setting complete

Object Types...

Locations...

Check Names

OK Cancel

elect Users or Group

From this location MX-PC

Enter the object n

Advanced...

IUSR

Users or Built-in security prin

es to :

- 4. If the computer name (name of the computer where Internet Information Service is set) is not displayed in "Locations", select the computer name. After confirming the above setting, click the <u>Advanced</u>... button.
- 5. Click the Find Now button, and select the "IUSR" account from the "Name" list box, and click the OK button.

**6.** After checking that the account is added, restart the personal computer.

# Appendix 2.5 Releasing Web pages

To release Web pages on the Internet/intranet, the folder must be Web shared.

The following is the procedure to share the folders on the Web.

Though the screen slightly varies according to the Web server operating system, the setting procedure is the same.

# (1) When using Microsoft<sup>®</sup> Windows<sup>®</sup> XP Professional Operating System

#### Operating procedure



**1.** Start Explorer and right-click desired folder that contains the Web file (\*.html, \*.asp) to be released, and select [Properties].

2. Select the <<Web Sharing>> tab and select "Share this folder".

**3.** For changing the alias, change the settings on the <u>Edit Alias</u> window.

The alias is the underlined part of the URL to be specified on the Web browser. http://\*\*.\*\*.\*\*/<u>Mxcomponent</u>/NetTest.asp

# (2) When using Windows Vista<sup>®</sup>

#### Operating procedure

|                                                        |                                                                                  |                                        |                      |              | - • • |
|--------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------|----------------------|--------------|-------|
| 🚱 🕒 🗢 🖄 🕨 Control F                                    | Panel  Administrative Tools                                                      |                                        | <b>- - ↓ ↓</b>       | Search       | ٩     |
| 🌗 Organize 👻 📗 Views                                   | 🔹 🖬 Open                                                                         | _                                      | _                    | _            | 0     |
| Favorite Links                                         | Name                                                                             | Date modified                          | Туре                 | Size         |       |
| Documents                                              | Data Sources (ODBC)                                                              | 11/2/2006 5:53 AM<br>11/2/2006 5:52 AM | Shortcut             | 2 KB<br>2 KB |       |
| Music                                                  | Event Viewer                                                                     | 11/2/2006 5:53 AM<br>7/9/2012 4:12 PM  | Shortcut<br>Shortcut | 2 KB<br>2 KB |       |
| <ul> <li>Recently Changed</li> <li>Searches</li> </ul> | 🔝 iSCSI Initiator                                                                | 11/2/2006 5:53 AM<br>11/2/2006 5:54 AM | Shortcut<br>Shortcut | 2 KB<br>2 KB |       |
| Public                                                 | Memory Diagnostics T                                                             | 11/2/2006 5:51 AM<br>11/2/2006 5:54 AM | Shortcut<br>Shortcut | 2 KB<br>2 KB |       |
|                                                        | Services                                                                         | 11/2/2006 5:52 AM<br>11/2/2006 5:52 AM | Shortcut             | 2 KB<br>2 KB |       |
|                                                        | Task Scheduler                                                                   | 11/2/2006 5:53 AM                      | Shortcut             | 2 KB<br>2 KB |       |
|                                                        | ar windows rirewail with                                                         | 11/2/2006 5:52 AM                      | Shortcut             | 2 ND         |       |
|                                                        |                                                                                  |                                        |                      |              |       |
|                                                        |                                                                                  |                                        |                      |              |       |
|                                                        |                                                                                  |                                        |                      |              |       |
| Folders ^                                              |                                                                                  |                                        |                      |              |       |
| IIS Manager<br>Shortcut                                | Date modified: 7/9/2012 4:12 P<br>Size: 1.71 KB<br>Date created: 7/9/2012 4:12 P | M<br>M                                 |                      |              |       |

 Select [Start] ⇔ [Control Panel] ⇔ [Classic View] ⇔ [Administrative Tools], and double-click [IIS Manager].

When user account control is enabled, the following screen is displayed.



2. Expand the tree on the [Connections] window, right-click on [Default Web Site], and select [Add Virtual Directory...].



Add Virtual Directory

Web Site name: Default Web Site
Path: /

Alia:
Macomponent
Example: images
Physical path:
C:MELSEC\Act\Samples\VBScript\SampleASP
...
Connect as...
OK Cance

Setting complete

**3.** Specify the desired name for "Alias:" and a folder path name to be released for "Physical path:", and click the ok button.

The alias is the underlined part of the URL to be specified on the Web browser. http://\*\*.\*\*.\*\*/<u>Mxcomponent</u>/NetTest.asp

Δ

# (3) When using Windows<sup>®</sup> 7

#### Operating procedure

Windows Features

Turn Windows features on or off

Games
 Games
 Games
 Indexing Service
 Jindexing Service
 Microsoft Network Services
 Microsoft NETF Framework 35.1
 Microsoft NETF Framework 35.1

MICrosoft .VE: I Framework 33.1
 MICrosoft Message Queue (MSMQ) Server
 Microsoft Message Queue (MSMQ) Server
 Ads Connection Manager Administration
 Rep Listener

To turn a feature on, select its check box. To turn a feature off, cle check box. A filled box means that only part of the feature is turne

stable Web Core

ation Kit (CMAK)

OK Cancel



- <u>×</u>

C [Start] ⇔ [Control Panel] ⇔ [Programs] ⇔
 [Turn Windows features on or off]

2. Select "Internet Information Services".

 Image: Constraint of the service of

Setting complete

3. Expand the tree at [Application Development Features] under [Internet Information Services] ⇔ [World Wide Web Services], select "ASP" and click the OK button.

When using 64-bit Windows<sup>®</sup> 7, configure the settings on the next page.

# (4) When using 64-bit Windows<sup>®</sup> 7

Operating procedure



 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 the ok button.

| (General)                  | -                       | • |
|----------------------------|-------------------------|---|
| .NET Framework Version     | v2.0                    |   |
| Enable 32-Bit Applications | True 💌                  |   |
| Managed Pipeline Mode      | Integrated              |   |
| Name                       | DefaultAppPool =        |   |
| Queue Length               | 1000                    |   |
| Start Automatically        | True                    |   |
| CPU                        |                         |   |
| Limit                      | 0                       |   |
| Limit Action               | NoAction                |   |
| Limit Interval (minutes)   | 5                       |   |
| Processor Affinity Enabled | False                   |   |
| Processor Affinity Mask    | 4294967295              |   |
| Process Model              |                         |   |
| Identity                   | ApplicationPoolIdentity |   |
| Idle Time-out (minutes)    | 20                      |   |
| Load User Profile          | False                   |   |
| Maximum Worker Processes   | 1                       |   |
| Ping Enabled               | True                    | - |

Setting complete

# Appendix 2.6 Checking whether Web server can be accessed properly

When checking the accessibility via the Internet, the personal computer where the Web server is installed must be connected to the Internet.

After confirming that the Web server is connected to the Internet/intranet, start the Web browser (Internet Explorer<sup>®</sup>) on the Web client side personal computer, enter the URL as indicated below, and check that the Web page is displayed properly.

(URL input example) http://192.168.0.1/Mxcomponent/NetTest.asp

- Alias set in Appendix 2.5

IP address of Web server

NetTest.asp is the Web server operation checking test page offered by MX Component.

Check that the system date and system time of the server are displayed on the Web browser.

Point P

 If NetTest.asp cannot be accessed properly, the Web pages using MX Component cannot be accessed either. In such a case, reconfirm the Web server settings and Web client browser setting. Even if the settings are correct, the Web pages may not be displayed because communication cannot be performed properly due to dense traffic or the like of the communication line. In this case, check the status of the communication line.

 NetTest.asp is stored in the following folder. [user-specified folder] - [Act] - [Sample] - [VBScript] - [SampleASP]

# **Appendix 3** RS-232 Cable Wiring Examples for Serial Communication

# Appendix 3.1 Q Series

The connector specifications are indicated below.

| Pin number | Signal Code | Signal Name               | Signal Direction<br>Q series-compatible C24 ⇔ personal computer |
|------------|-------------|---------------------------|-----------------------------------------------------------------|
| 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             | ←                                                               |
| 9          | RI(CI)      | Call indication           | ←                                                               |

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

| Q series-compatible C24 |            | Cable Connection and Signal Direction<br>(Connection example for full duplex/half duplex                                                                | Personal<br>Computer Side |
|-------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Signal Name             | Pin number | communication)                                                                                                                                          | Signal Name               |
| CD                      | 1          |                                                                                                                                                         | CD                        |
| RD(RXD)                 | 2          |                                                                                                                                                         | RD(RXD)                   |
| SD(TXD)                 | 3          |                                                                                                                                                         | SD(TXD)                   |
| DTR(ER)                 | 4          |                                                                                                                                                         | DTR(ER)                   |
| SG                      | 5          | $\bullet \qquad \bullet \qquad$ | SG                        |
| DSR(DR)                 | 6          |                                                                                                                                                         | DSR(DR)                   |
| RS(RTS)                 | 7          |                                                                                                                                                         | RS(RTS)                   |
| CS(CTS)                 | 8          |                                                                                                                                                         | CS(CTS)                   |
| RI(CI)                  | 9          |                                                                                                                                                         |                           |

Α

# (2) Connection example which cannot turn ON/OFF CD signal (No. 1 pin)

Connection example for performing DC code control or DTR/DSR control

| Q series-compatible C24 |            | Cable Connection and Signal Direction | Personal<br>Computer Side |
|-------------------------|------------|---------------------------------------|---------------------------|
| Signal Name             | Pin number |                                       | Signal Name               |
| CD                      | 1          |                                       | CD                        |
| RD(RXD)                 | 2          |                                       | RD(RXD)                   |
| SD(TXD)                 | 3          |                                       | SD(TXD)                   |
| DTR(ER)                 | 4          |                                       | DTR(ER)                   |
| SG                      | 5          | <                                     | SG                        |
| DSR(DR)                 | 6          |                                       | DSR(DR)                   |
| RS(RTS)                 | 7          |                                       | RS(RTS)                   |
| CS(CTS)                 | 8          |                                       | CS(CTS)                   |
| RI(CI)                  | 9          |                                       |                           |

# Appendix 3.2 FX Series

The following shows the example of wiring a personal computer and the FX extended port.

(1) Connection example of a personal computer and FX-485PC-IF converter with the RS-232 cable

| Personal<br>Computer side | Cable Connection and Signal Direction<br>(Connection example for full duplex/half duplex | FX-485P0    | C-IF side  |
|---------------------------|------------------------------------------------------------------------------------------|-------------|------------|
| Signal Name               | communication)                                                                           | Signal Name | Pin number |
| 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)                   |                                                                                          | SG(GND)     | 7          |
| ER(DTR)                   |                                                                                          | ER(DTR)     | 20         |

(2) Connection example of the FX-485PC-IF converter and the FX extended port (2-pair wiring)



- \*1 : R indicates a terminal resistance. The terminal resistances must be installed at both ends of the circuit. (For 2-pair wiring, use the terminal resistance of 330Ω, 1/4W.) For FX<sub>3G</sub>-485-BD, FX<sub>3U</sub>-485-BD and FX<sub>3U</sub>-485ADP, terminal resistances are built in. Set the terminal resistance by the setting switch. For FX<sub>0N</sub>-485ADP, FX<sub>1N</sub>-485-BD, FX<sub>2N</sub>-485-BD, and FX<sub>2NC</sub>-485ADP, use the provided terminal resistances.
- \*2 : Ground the shields connected to FX1N-485-BD, FX2N-485-BD, FX2NC-485ADP, FX3G-485-BD, FX3U-485-BD, FX3U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-485-FX4U-48
- \*3: 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 accessing the non-controlled CPU of the relayed module on the accessed station, use the modules of function version B as the relayed modules and QCPUs (Q mode) on the host station, all relayed stations and accessed station.

# (1) Example CPU COM communication

When the programmable controller CPU number 3 (0x3E2) is specified for access, the CPU ③ can be accessed.



# (2) Example 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, the CPU ③' can be accessed.

The CPU number cannot be specified for the relayed station.

Therefore, if the network number 1 is accessed in the following case, an error will occur because the network number controlled by the CPU ② is only "2".



①: QCPU (Q mode) No. 1

(2) : QCPU (Q mode) No. 2

③: QCPU (Q mode) No. 3

- ④: QCPU (Q mode) No. 4
- 1: MELSECNET/H module controlled by () (Network number: 1, station number: 1)
- 2 : MELSECNET/H module controlled by 2 (Network number: 2, station number: 1)
- P: MELSECNET/H module controlled by (2) (Network number: 2, station number: 2)

# Appendix 5 Number of Mountable Network Modules for Q00JCPU, Q00UJCPU, Q00CPU, Q00UCPU, Q01CPU or Q01UCPU

The following indicates the number of mountable network modules that can be connected when Q00JCPU, Q00UJCPU, Q00UCPU, Q01CPU, or Q01UCPU is used.

| Network Module                               | Number of Mountable Modules |
|----------------------------------------------|-----------------------------|
| MELSECNET/H module                           | 1 module                    |
| Ethernet module                              | 1 module                    |
| 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 applicable Ethernet modules is 1, the part of the system indicated by the dotted line cannot be configured.



(Example 2) Since the number of applicable MELSECNET/H modules is one, the part of the system indicated by the dotted line cannot be configured.



# Appendix 6 Flowchart for When 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) Redundant CPU specification

In Redundant CPU specification<sup>\*1</sup>, select either "Control system" or "Not specified" to access the compatible Redundant CPU.

- Control system: Connect to the control system and continue to access the control system in response to system switching.
- Not specified : Connect to the connection target programmable controller CPU as before.
- \*1: Redundant CPU specification setting can either be set on the utility setting type Communication Setting Wizard screen or on the program setting type control property.

Point P

To judge which system in the Redundant CPU system is being accessed by MX Component, monitor the following special relays.

• When checking which system is being accessed, System A or System B

| SM1511 | System A<br>identification<br>flag | <ul> <li>Indicate system A/system B of a redundant system.</li> <li>Remain ON/OFF even if the tracking cable is disconnected while the redundant system is running.</li> </ul> |          |          |                                                                                        |  |  |
|--------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------------------------------------------------------------------------------------|--|--|
| SM1512 | System B<br>identification<br>flag |                                                                                                                                                                                | System A | System B | At the time of TRK.CABLE ERR.(Error code:<br>6120) occurrence (System not determined.) |  |  |
|        |                                    | SM1511                                                                                                                                                                         | ON       | OFF      | OFF                                                                                    |  |  |
|        |                                    | SM1512                                                                                                                                                                         | OFF      | ON       | OFF                                                                                    |  |  |

• When checking the control/standby system status

| SM1515 | Control/<br>standby<br>system | <ul> <li>Indicate the CPU module control/standby status</li> <li>Remain ON/OFF even if the tracking cable is disconnected while the redundant system is running.</li> </ul> |                   |                   |                                                                                        |  |  |
|--------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|----------------------------------------------------------------------------------------|--|--|
| SM1516 |                               |                                                                                                                                                                             | Control<br>system | Standby<br>system | At the time of TRK.CABLE ERR.(Error code:<br>6120) occurrence (System not determined.) |  |  |
|        | status                        | SM1515                                                                                                                                                                      | ON                | OFF               | OFF                                                                                    |  |  |
|        |                               | 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 direct 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 communication error occurrence.

The following shows an example of Ethernet connection.

<When communication is normal>



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 path

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 path is automatically switched to continue access to the control system.

Hereinafter, this automatic switching of the communication path is referred to as path switch.

The following describes the path switch conditions, how to check for path switch occurrence, and examples of access by path switch.

# (a) Path switch conditions

When a CPU is accessed under the following conditions, access to the Redundant CPU is continued by path switch if a communication error occurs.

|                | Conditions for continued access |
|----------------|---------------------------------|
| Operation mode | Backup mode, separate mode      |
| Target system  | Control system                  |

However, if a tracking error<sup>\*1</sup> occurred at a start of communication, access to the control system is not continued by path switch even if tracking is recovered after that.

\*1: Includes the status in which either Redundant CPU is shut off or reset.

#### (b) How to check for path switch occurrence and examples of access by path switch

1) How to check whether path switch occurred or not

When communication is performed with the redundant system specified, whether communication is continued by path switch due to communication error can be estimated.

| SM1600 *1 | SD1590 *2                  | SD1690 *2 | Possibility of path switch                                                                                                              | Reference                            |
|-----------|----------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| OFF       | Either one is other than 0 |           | Since a system switching request from the network module was detected, path switch may be executed.                                     | 2) in this section<br>Fig. 1         |
| ON        | 0                          | 0         | Since another system error occurred, path switch may be executed.                                                                       | 2) in this section<br>Fig. 2         |
| ON        | Either one is other than 0 |           | Since another system error occurred or a system switching request from<br>the network module was detected, path switch may be executed. | 2) in this section<br>Fig. 1, Fig. 2 |

#### < Special relay and special registers to be monitored and estimated possibility of path switch >

\*1: Even if SM1600 is ON, path switch does not occur when the CPU is not accessed via the tracking cable.

\*2 : When using SM1600, SD1590 and SD1690 to estimate whether path switch has occurred or not for the Redundant CPU connected to Ethernet, select the following items in the redundant setting of the network parameter of GX Works2.

• Issue a system switching request at disconnection detection.

· Issue a system switching request at communication error.

Check the following based on the status 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.

1)Examples of access by path switch

The following shows examples of path switch during access to the control system by Ethernet connection.

<Fig. 1 When system switching occurs at communication error>



<Fig. 2 When standby system error occurs>


### Point P

- Path switch is not executed if a communication error occurs 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 occurs, refer to the following appendix, and remove the communication disturbance. Page 321, (3)(b) in this section How to check for path switch occurrence and examples of access by path switch

#### Remark

The following indicates details of the special relay and special registers to be monitored when estimating whether path switch occurred or not.

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. . . . . . . . . . . .

.

| Number | Name                                                                                | Meaning                                                                             | Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SM1600 | Other system error flag                                                             | OFF : No error<br>ON : Error                                                        | <ul> <li>Turn on when an error occurs during redundant system error check. (Turn on when either of bits for SD1600 is ON.)</li> <li>Remain off when no errors are present.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                           |
| SD1590 | Module number for<br>network module<br>requesting path<br>switch in host<br>system  | Module number for<br>network module<br>requesting path<br>switch in host<br>system  | <ul> <li>Any of the following bits turns on corresponding to module number for network module requesting path switch in host system.</li> <li>Turn off by the system after recovery from error of the relevant module by user.</li> <li>Bit status 0: OFF 1: ON</li> <li>Bit status 0: OFF 1: ON</li> <li>Module No. 0: Invalid, as CPU module uses 2 slots.</li> <li>Module No. 1: Indicates the module to the right of CPU module Module No. 11: Indicates the module at the right end of a 12-I/O slot base (Q312B)</li> </ul>                                                                               |
|        |                                                                                     |                                                                                     | <ul> <li>Refer to SD1690 for module number for network module<br/>requesting path switch in other system.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| SD1690 | Module number for<br>network module<br>requesting path<br>switch in other<br>system | Module number for<br>network module<br>requesting path<br>switch in other<br>system | <ul> <li>Any of the following bits turns on corresponding to module number for network module requesting path switch in other systems.</li> <li>Turns off by the system after recovery from error of the relevant module by user.</li> <li><u>b15 to b11 to b1 b0</u> <ul> <li>Bit status</li> <li>OFF</li> <li>ON</li> <li>Module No. 0: Invalid, as CPU module use 2 slots.</li> <li>Module No. 1: Indicates the module to the right of CPU module to the right of CPU module at the right of a 12-I/O slot base (Q312B)</li> </ul> </li> <li>Refer to SD1590 for module number for network module</li> </ul> |
|        |                                                                                     |                                                                                     | requesting path switch in host system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

#### (4) Combination table

Communications via redundant type extension base unit (Q65WRB) are supported. The following table shows the supported/unsupported combinations.

|                               |                | Eurotion   | Combination     |                    |
|-------------------------------|----------------|------------|-----------------|--------------------|
| Product name                  | Model          | vorsion    | When mounted to | When mounted to    |
|                               |                | Version    | the main base   | the extension base |
|                               | QJ71LP21-25    | D or later | 0               | ×                  |
|                               | QJ71LP21S-25   | D or later | 0               | ×                  |
|                               | QJ71LP21G      | D or later | 0               | ×                  |
| MELSECNET/H modulo            | QJ71BR11       | D or later | 0               | ×                  |
| MELSECINE I/IT IIIOdule       | QJ72LP25-25    | ×          | ×               | ×                  |
|                               | QJ72LP25G      | ×          | ×               | ×                  |
|                               | QJ72BR15       | ×          | ×               | ×                  |
|                               | QJ71LP21       | ×          | ×               | ×                  |
|                               | QJ71E71        | ×          | ×               | ×                  |
| Ethornot modulo               | QJ71E71(N1)-B2 | D or later | 0               | 0                  |
|                               | QJ71E71(N1)-B5 | D or later | 0               | 0                  |
|                               | QJ71E71-100    | D or later | 0               | 0                  |
|                               | QJ71C24N       | ×          | ×               | 0                  |
| Serial communication module   | QJ71C24N-R2    | ×          | ×               | 0                  |
|                               | QJ71C24N-R4    | ×          | ×               | 0                  |
|                               | QJ61BT11       | ×          | ×               | 0                  |
| CC-LINK MODULE                | QJ61BT11N      | ×          | O <sup>*1</sup> | 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 Differences with previous version of MX Component

This section explains the differences between MX Component Version 3 and Version 4.

#### (1) Engineering environment

The following are the changes from MX Component Version 3.

- The names of ACT control are changed.
- A control that supports all communication paths of program setting type is added. (Act(ML)ProgType)
- .NET controls with which the labels can be used are added. (DotUtlType, DotSupportMsg)

| Type of control |                           | Engineering environment where controls are used                                                                                                                    |                                                                                               |  |
|-----------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--|
|                 | Type of control           | Control of Version 3                                                                                                                                               | Control of Version 4                                                                          |  |
|                 | Utility setting type      | Visual Basic <sup>®</sup> 6.0<br>Visual Basic <sup>®</sup> .NET<br>Visual C++ <sup>®</sup> 6.0<br>Visual C++ <sup>®</sup> .NET<br>Excel/Access 2000/2003/2007/2010 | Visual Basic <sup>®</sup> .NET<br>Visual C++ <sup>®</sup> .NET<br>Excel/Access 2003/2007/2010 |  |
| ACT control     | Utility setting type (ML) | VBScript                                                                                                                                                           | VBScript                                                                                      |  |
|                 | Program setting type      | Visual Basic <sup>®</sup> 6.0<br>Visual Basic <sup>®</sup> .NET<br>Visual C++ <sup>®</sup> 6.0<br>Visual C++ <sup>®</sup> .NET<br>Excel/Access 2000/2003/2007/2010 | Visual Basic <sup>®</sup> .NET<br>Visual C++ <sup>®</sup> .NET<br>Excel/Access 2003/2007/2010 |  |
|                 | Program setting type (ML) | -                                                                                                                                                                  | VBScript                                                                                      |  |

#### (2) Communication Setup Utility

When importing the setting file (.ACT file) saved in the previous version, the values are changed to the one that can be used with the controls of MX Component Version 4.

# Appendix 9 Character Strings that cannot be Used for Label Names

#### (1) Reserved word

The reserved words cannot be used for label names.

The following tables shows character strings that cannot be used for label names.

| Category                                                               | Character string                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Class identifier                                                       | VAR, VAR_RETAIN, VAR_ACCESS, VAR_CONSTANT, VAR_CONSTANT_RETAIN, VAR_INPUT,<br>VAR_INPUT_RETAIN, VAR_OUTPUT, VAR_OUTPUT_RETAIN, VAR_IN_OUT, VAR_IN_EXT, VAR_EXTERNAL,<br>VAR_EXTERNAL_CONSTANT, VAR_EXTERNAL_CONSTANT_RETAIN, VAR_EXTERNAL_RETAIN,<br>VAR_GLOBAL, VAR_GLOBAL_CONSTANT, VAR_GLOBAL_CONSTANT_RETAIN, VAR_GLOBAL_RETAIN                                                                            |
| Data type                                                              | BOOL, BYTE, INT, SINT, DINT, LINT, UINT, USINT, UDINT, ULINT, WORD, DWORD, LWORD, ARRAY, REAL,<br>LREAL, TIME, STRING, TIMER, COUNTER, RETENTIVETIMER, POINTER, Bit,<br>Word [Unsigned]/Bit String [16-bit], Double Word [Unsigned]/Bit String [32-bit], Word [Signed],<br>Double Word [Signed], FLOAT (Single Precision), FLOAT (Double Precision), String, Time, Timer, Counter,<br>Retentive Timer, Pointer |
| Data type hierarchy                                                    | ANY, ANY_NUM, ANY_BIT, ANY_REAL, ANY_INT, ANY_DATE ANY_SIMPLE, ANY16, ANY32                                                                                                                                                                                                                                                                                                                                    |
| Device name                                                            | X, Y, D, M, T, B, C, F, L, P, V, Z, W, I, N, U, J, K, H, E, A, SD, SM, SW, SB, FX, FY, DX, DY, FD, TR, BL, SG, VD, ZR, ZZ                                                                                                                                                                                                                                                                                      |
| Character string<br>recognized as device<br>(Device name +<br>numeral) | X0 or the like                                                                                                                                                                                                                                                                                                                                                                                                 |
| ST operator                                                            | NOT, MOD                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                        | (, ), -                                                                                                                                                                                                                                                                                                                                                                                                        |
| ll oporator                                                            | LD, LDN, ST, STN, S, S1, R, R1, AND, ANDN, OR, ORN, XOR, XORN, ADD, SUB, MUL, DIV, GT, GE, EQ, NE, LE, LT, JMP, JMPC, JMPCN, CAL, CALC, CALCN, RET, RETC, RETCN                                                                                                                                                                                                                                                |
|                                                                        | LDI, LDP, LDF, ANI, ANDP, ANDF, ANB, ORI, ORP, ORF, ORB, MPS, MRD, MPP, INV, MEP, MEF, EGP, EGF, OUT(H), SET, RST, PLS, PLF, FF, DELTA(P), SFT(P), MC, MCR, STOP, PAGE, NOP, NOPLF                                                                                                                                                                                                                             |
| SFC instruction                                                        | SFCP, SFCPEND, BLOCK, BEND, TRANL, TRANO, TRANA, TRANC, TRANCA, TRANOA, SEND, TRANOC,<br>TRANOCA, TRANCO, TRANCOC, STEPN, STEPD, STEPSC, STEPSE, STEPST, STEPR, STEPC, STEPG,<br>STEPI, STEPID, STEPISC, STEPISE, STEPIST, STEPIR, TRANJ, TRANOJ, TRANOCJ, TRANCJ, TRANCOJ,<br>TRANCOCJ                                                                                                                        |
| ST code body                                                           | RETURN, IF, THEN, ELSE, ELSIF, END_IF, CASE, OF, END_CASE, FOR, TO, BY, DO, END_FOR, WHILE,<br>END_WHILE, REPEAT, UNTIL, END_REPEAT, EXIT, TYPE, END_TYPE, STRUCT, END_STRUCT, RETAIN,<br>VAR_ACCESS, END_VAR, FUNCTION, END_FUNCTION, FUCTION_BLOCK, END_FUCTION_BLOCK, STEP,<br>INITIAL_STEP, END_STEP, TRANSITION, END_TRANSITION, FROM, UNTILWHILE                                                         |
| Function name in application function                                  | Function names in application functions AND_E, NOT_E or the like                                                                                                                                                                                                                                                                                                                                               |
| Function block name<br>in application function                         | Function block names in application functions CTD, CTU or the like                                                                                                                                                                                                                                                                                                                                             |
|                                                                        | /,  *, ?, <, >,  , ", :, [, ], ,, =, +, %, ', ~, @, {, }, &, ^, ., tab character                                                                                                                                                                                                                                                                                                                               |
| Symbol                                                                 | ;                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                        | !, #, \$, `                                                                                                                                                                                                                                                                                                                                                                                                    |
| Date and time literal                                                  | DATE, DATE_AND_TIME, DT, TIME, TIME_OF_DAY, TOD                                                                                                                                                                                                                                                                                                                                                                |
| Others                                                                 | ACTION, END_ACTION, CONFIGURATION, END_CONFIGURATION, CONSTANT, F_EDGE, R_EDGE, AT,<br>PROGRAM, WITH, END_PROGRAM, TRUE, FALSE, READ_ONLY, READ_WRITE, RESOURCE,<br>END_RESOURCE, ON, TASK, EN, ENO, BODY_CCE, BODY_FBD, BODY_IL, BODY_LD, BODY_SFC,<br>BODY_ST, END_BODY, END_PARAMETER_SECTION, PARAM_FILE_PATH, PARAMETER_SECTION,<br>SINGLE_RETAIN_INTERVAL                                                |

| Category                           | Character string                                                                                                               |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| String that starts with K1 to K8   | K1AAA or the like                                                                                                              |
| Statement in ladder language       | ;FB BLK START, ;FB START, ;FB END, ;FB BLK END, ;FB IN, ;FB OUT, ;FB_NAME, ;INSTANCE_NAME, ;FB, ;INSTANCE                      |
| Common instruction                 | MOV or the like                                                                                                                |
| Windows <sup>®</sup> reserved word | COM1, COM2, COM3, COM4, COM5, COM6, COM7, COM8, COM9, LPT1, LPT2, LPT3, LPT4, LPT5, LPT6, LPT7, LPT8, LPT9, AUX, CON, PRN, NUL |

#### (2) Considerations on using labels

- Character string of over 33 characters cannot be used.
- A space cannot be used.
- A numeral cannot be used at the beginning of label name.
- A label name is not case-sensitive.
- An underscore (\_) cannot be used at the beginning or end of label name. Consecutive underscores (\_) cannot be used for a data name or a label name.
- The digit-specified bit devices cannot be used.
- The indexing cannot be used.
- The buffer memory cannot be specified.
- The device check cannot be executed when registering labels.

# Appendix 10 USB Driver Installation

In order to communicate with a programmable controller CPU via USB, a USB driver is required to be installed.

The following explains the USB driver installation procedure for Windows<sup>®</sup> XP, Windows Vista<sup>®</sup> or Windows<sup>®</sup> 7.

Point

When more than one MELSOFT product is installed, the USB driver is installed in the folder to which the first MELSOFT product is installed.

This section explains using the USB driver installation destination folder: C:\Program Files\MELSOFT\Easysocket\USBdrivers, as an example.

#### (1) Windows<sup>®</sup> XP

The following explains the procedure of USB driver installation for Windows® XP.

Operating procedure

| Found New Hardware Wiz                                                                                                                                                                                                                                                           | ard                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                  | Welcome to the Found New<br>Hardware Wizard                                                                                                                                                                                                        |
|                                                                                                                                                                                                                                                                                  | This wizard helps you install software for:                                                                                                                                                                                                        |
|                                                                                                                                                                                                                                                                                  | MITSUBISHI Easysocket Driver                                                                                                                                                                                                                       |
| 2 mart                                                                                                                                                                                                                                                                           | If your hardware came with an installation CD or floppy disk, insert it now.                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                  | What do you want the wizard to do?                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                  | <ul> <li>Install the software automatically (Recommended)</li> <li>Install from a list or specific location (Advanced)</li> </ul>                                                                                                                  |
|                                                                                                                                                                                                                                                                                  | Click Next to continue.                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                  | < <u>B</u> ack Next> Cancel                                                                                                                                                                                                                        |
|                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                    |
| Found New Hardware Wiz                                                                                                                                                                                                                                                           | ard                                                                                                                                                                                                                                                |
| Found New Hardware Wiz<br>Please choose your searc                                                                                                                                                                                                                               | ard<br>ch and installation options.                                                                                                                                                                                                                |
| Found New Hardware Wiz<br>Please choose your searc                                                                                                                                                                                                                               | ard<br>ch and installation options.                                                                                                                                                                                                                |
| Found New Hardware Wiz<br>Please choose your sear<br>© Search for the best dir<br>Use the check boxes t<br>paths and removable n                                                                                                                                                 | ard ch and installation options. verin these locations local the default search, which includes local needs. The best diver found will be installed.                                                                                               |
| Found New Hardware Wiz<br>Please choose your sear<br>© Search for the best dir<br>Use the check boxes<br>paths and removable<br>Search removab                                                                                                                                   | ard ch and installation options.  veri in these locations leadew to limit or expand the default search, which includes local redia. The best divier found will be installed.  be media. (floppy, CD-ROM)                                           |
| Found New Hardware Wiz<br>Please choose your search<br>Search for the best dir<br>Use the check boxes<br>paths and removable<br>Search removat<br>V Include this loca                                                                                                            | ard  ch and installation options.  veri in these locations:  elew to limit or expand the default search, which includes local edia. The bet diver found will be installed.  bet media (floppy, CD-ROM) bion in the search:                         |
| Found New Hardware Wiz<br>Please choose your search<br>© Search for the best dir<br>Use the check boxes I<br>paths and removable<br>Search removab<br>V Include this loca<br>A                                                                                                   | ard  ch and installation options.  wei in these locations  elew to limit or expand the default search, which includes local edia. The best driver found will be installed.  ele media (floppy, CD-ROM)  bion in the search:  Bjowse  Bjowse        |
| Found New Hardware Wiz<br>Please choose your search<br>© Search for the best dir<br>Use the check boxes I<br>paths and removable<br>C Include this loca<br>A<br>© Don't search. I will cho                                                                                       | ard  ch and installation options.  ver in these locations  below to limit or expand the default search, which includes local  redia. The best driver found will be installed.  below the driver to install.  Bigowse  boose the driver to install. |
| Found New Hardware Wiz<br>Please choose your search<br>© Search for the best dir<br>Use the check boxes to<br>paths and removable n<br>Search removable<br>Plinclude this loce<br>A:<br>Dont search. I will che<br>Choose this option to s<br>the driver you choose the          | ard  th and installation options.  veri in these locations  eleve to limit or expand the default search, which includes local eleved. The bet diver found will be installed.  eleved in (hoppy, CD-ROM)  tion in the search:                       |
| Found New Hardware Wiz<br>Please choose your search<br>© Search for the best diri<br>Use the check boxes to<br>paths and removable n<br>Search removable<br>Note: Search removable<br>Removable<br>Denti search. I will che<br>Choose this option to<br>the driver you choose to | and ch and installation options.                                                                                                                                                                                                                   |

Continued on next page

- Connect the personal computer and the programmable controller CPU with USB cable, and turn on the programmable controller CPU.
   → The screen shown on the left is displayed.
- 2. Select "Install from a list or specific location [Advanced]" and click the Metrix button.
- **3.** Select "Search for the best driver in these locations", and select "Include this location in the search".
- 4. Click the Browse button.

| $\mathbf{c}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Browse For Folder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Select the folder that contains drivers for your hardware.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Communication  Commun |
| To view any subfolders, click a plus sign above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| $\bigcirc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Found New Hardware Wizard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Please select the best match for your hardware from the list below.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| MITSUBISHI Easysocket Driver                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description Version Manufacturer Loci<br>MITSUBISHI Easynocket Driver 2000 MITSUBISHI ELECTRIC CO c \wi<br>MITSUBISHI Easynocket Driver 2000 MITSUBISHI ELECTRIC CO. c \wi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| This driver is not digitally signed!     Tell me why driver signing is important                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| < <u>Back</u> <u>N</u> ext> Cancel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| $\checkmark$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Hardware Installation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| The software you are installing for this hardware:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| MI SUBISH E asysocket Driver                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| with Windows XP. ( <u>fell me why this testing is important</u> .)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Lontinung your installation of this software may impair<br>or destabilize the correct operation of your system<br>either immediately or in the future. Microsoft strongly<br>recommends that you stop this installation now and<br>contact the hardware vendor for software that has<br>passed Windows Logo testing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Continue Anyway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| $\bigcirc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Found New Hardware Wizard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Completing the Found New                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Hardware Wizard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| The wizard has finished installing the software for:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Flick Einish to close the winned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Liko, hinish to close the wizard.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| < <u>B</u> ack <b>Finish</b> Cancel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $\mathbf{c}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Installation complete

 Select the USB driver installation destination folder, select [Easysocket] ⇔ [USBDrivers], and click the
 ok button.

6. Select "MITSUBISHI Easysocket Driver", and click the New> button.

7. Click the Continue Anyway button.

The screen shown on the left is displayed and the USB driver installation is complete.

**8.** Click the Finish button to close the window.

Α

Point P

If the USB driver cannot be installed, confirm the following settings. If "Block - Never install unsigned driver software" is selected under [Control Panel] - [System] - [Hardware] - [Driver Signing], the USB driver may not be installed.

Select "Ignore - Install the software anyway and don't ask for my approval", or "Warn - Prompt me each time to choose an action" in [Driver Signing], and execute the USB driver installation.

#### (2) Windows Vista<sup>®</sup>

The following explains the procedure of USB driver installation for Windows Vista<sup>®</sup>.

#### Operating procedure

| ۰.  | - Found New Hardware                                                                                                                             |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------|
|     | Windows needs to install driver software for your Unknown Device                                                                                 |
|     | Locate and install driver software (recommended)<br>Windows will guide you through the process of installing driver software<br>for your device. |
|     | Ask me again later<br>Windows will ask again the next time you plug in your device or log on.                                                    |
|     | Don't show this message again for this device<br>Your device will not function until you install driver software.                                |
|     | Cancel                                                                                                                                           |
|     | $\mathbf{r}$                                                                                                                                     |
| ſ   | User Account Control                                                                                                                             |
|     | 💮 Windows needs your permission to continue                                                                                                      |
|     | If you started this action, continue.                                                                                                            |
|     | Device driver software installation<br>Microsoft Windows                                                                                         |
|     | Details     Continue     Cancel                                                                                                                  |
|     |                                                                                                                                                  |
|     | User Account Control helps stop unauthorized changes to your computer.                                                                           |
|     | User Account Control helps stop unauthorized changes to your computer.                                                                           |
|     | User Account Control helps stop unauthorized changes to your computer.                                                                           |
| ir  | User Account Control helps stop unauthorized changes to your computer.                                                                           |
| iir | User Account Control helps stop unauthorized changes to your computer.                                                                           |

Continued on next page

Cancel

- Connect the personal computer and the programmable controller CPU with USB cable, and then turn on the programmable controller CPU.
   → The screen shown on the left is displayed.
- 2. Select "Locate and install driver software (recommended)" and wait for a search to finish.
- 3. When User Account Control is turned ON, the screen shown on the left is displayed. Click the Continue button.
- **4.** Select "Browse my computer for driver software (advanced)".

Α



Installation complete

5. Specify "Easysocket\USBdrivers", and click the Next button.

6. Select "Install this driver software anyway".

The screen shown on the left is displayed, and the USB driver installation is complete.

**7.** Click the <u>Glose</u> button.

#### (3) Windows<sup>®</sup> 7

The following explains the procedure of USB driver installation for Windows<sup>®</sup> 7.

#### Operating procedure



Continued on next page

- Connect the personal computer and the programmable controller CPU with USB cable, and then turn on the programmable controller CPU.
   → The screen shown on the left is displayed.
- **2.** Select "System and Security" from the Control Panel.

(To display the Control Panel, select [Start] ⇔ [Control Panel].)

**3.** Select "Administrative Tools".

Α



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | end the set set                           |    |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----|----------------|
| 💎 🍽 🔟 💷 🛤                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 9 😰 🙀 🖏                                   |    |                |
| E Computer Management (Local                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Disk drives                               | *  | Actions        |
| a 👔 System Tools                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Display adapters                          |    | Device Manager |
| O Task Scheduler     O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DVD/CD-ROM drives                         |    | Marr Antions A |
| Event Viewer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | IIII Human Interface Devices              |    | More Actions   |
| § Shared Folders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | IDE ATA/ATAPI controllers                 |    |                |
| Is a stand base of the stand base of the stand base of the standard b | IEEE 1394 Bus host controllers            |    |                |
| Performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 🔉 💇 Jungo                                 |    |                |
| 🚔 Device Manager                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Keyboards                                 |    |                |
| 4 🔄 Storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mice and other pointing devices           |    |                |
| 🚟 Disk Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Monitors                                  |    |                |
| Services and Applications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Network adapters                          | =  |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <ul> <li>Other devices</li> </ul>         |    |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 🕼 Universal Serial Bus (USB) Controller   |    |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | - 🕼 Unknown device                        |    |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unknown dev Update Driver Software        |    |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Portable Devices Disable                  | 13 |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Processors                                |    |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Sound, video and                          |    |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Scan for hardware change                  | 5  |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | C Barrow and the                          |    | 1              |
| aunches the Update Driver Software \                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Vizard for the selected device Properties |    |                |

4. Select "Computer Management" and double-click it.

# **5.** Right-click "Unknown device" in Device Manager, and select "Update Driver Software".

When the USB driver cannot be specified because more than one "Unknown device" exists, right-click "Unknown device" and select "Properties". The "Unknown device", whose "Hardware Ids" is "USB\VID\_06D3&PID\_1800" on the <<Details>> tab of the properties screen, is the update target.

| Unknown device Properties      |
|--------------------------------|
| General Driver Details         |
| Unknown device                 |
| Property                       |
| Hardware Ids -                 |
| Value                          |
| USB\VID_06D3&PID_1800&REV_0100 |
|                                |
|                                |
| OK Cancel                      |







You should only install driver software from publishers you trust. <u>How can I decide which device</u> software is safe to install?

Continued on next page

💀 Windows Security

Would you like to install this device software? Name: Easysocket USB Drivers Publisher: MITSUBISHI ELECTRIC CORPORATION

Always trust software from "MITSUBISHI ELECTRIC CORPORATION". 6. Select "Browse my computer for driver software".

#### 7. Specify "Easysocket\USBdrivers", and click the

#### Next button.

The left screen is an example when C:\MELSEC\Easysocket\USBdrivers is set. If more than one MELSOFT product is installed, browse for the installation destination of the first product.

8. Click the Install button.

x

Install Don't Install



9. Click the Close button.

10. "MITSUBISHI Easysocket Driver" is registered under "Universal Serial Bus controllers".

 $\nabla$ 

4

Installation complete

# Appendix 11 Updating USB Driver

In Windows Vista<sup>®</sup> or Windows<sup>®</sup> 7, when upgrading the MELSOFT version that is incompatible with each operating system to compatible, updating the USB drivers is also required.

The USB driver has the following two types:

- USB driver for programmable controller connection
- USB driver for GOT connection (Used for the GOT transparent mode.)

#### (1) Procedure for updating the USB driver for programmable controller connection

#### (a) Checking method

Whether an update of the USB driver is required or not can be checked by its version.

Start the Windows Device Manager while the personal computer is connected to the programmable controller with USB, right-click "MITSUBISHI Easysocket Driver", and select "Properties".

Update is required if the version shown on the <<Driver>> tab of the properties screen is the following.

- Windows Vista<sup>®</sup>: "2.0.0.0" or earlier
- Windows<sup>®</sup> 7 : "3.0.0.0" or earlier

| MITSUBISHI Easysocket Driver Properties                                        | ×                                       |
|--------------------------------------------------------------------------------|-----------------------------------------|
| General Driver Details                                                         |                                         |
| MITSUBISHI Easysocket Driver                                                   |                                         |
| Driver Provider: MITSUBISHI ELECTRI                                            | C CO.                                   |
| Driver Date: 2/15/2010                                                         |                                         |
| Driver Version: 3.0.0.0                                                        |                                         |
| Digital Signer: MITSUBISHI ELECTRI                                             | CORPORATION                             |
| Driver Details To view details about the o                                     | driver files.                           |
| Update Driver To update the driver softwa                                      | are for this device.                    |
| Roll Back Driver If the device fails after upd<br>back to the previously insta | ating the driver, roll<br>alled driver. |
| Disable Disables the selected devi                                             | DB.                                     |
| Uninstall To uninstall the driver (Adv                                         | anced).                                 |
| C                                                                              | K Cancel                                |

#### (b) Procedure for update

| ) III III III III III III III III III I | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| D Other devices                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| Portable Devices                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| Processors                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| Sound, video and game controllers       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| 🜉 System devices                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| Universal Serial Bus controllers        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| Intel(R) ICH10 Family USB Enhan         | iced Host Controller - 3A3A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Intel(R) ICH10 Family USB Enhan         | iced Host Controller - 3A3C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Intel(R) ICH10 Family USB Univer        | rsal Host Controller - 3A34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Intel(R) ICH10 Family USB Univer        | rsal Host Controller - 3A35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Intel(R) ICH10 Family USB Univer        | rsal Host Controller - 3A36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Intel(R) ICHIO Family USB Univer        | rsal Host Controller - 3A37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Intel(R) ICHI0 Family USB Univer        | rsal Hest Controller - 3A38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| MITSURSHI Expressed                     | sai Host Controller - 5455                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| USB Composite Device                    | Update Driver Software                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| USB Mass Storage Device                 | Disable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| USB Root Hub                            | Uninstall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| USB Root Hub                            | Grand |  |
| USB Root Hub                            | Scan for hardware changes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| 🏺 USB Root Hub                          | Provention                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| 🏺 USB Root Hub                          | Froperues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| 🏺 USB Root Hub                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| 🏺 USB Root Hub                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| USB Root Hub                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |

Continued on next page

- **1.** Connect the personal computer and the programmable controller CPU with USB cable.
- 2. Start the Device Manager, right-click "MITSUBISHI Easysocket Driver", and select "Uninstall".



- **3.** Select the "Delete the driver software for this device" check box, and click the OK button.
- **4.** Disconnect the USB cable and reconnect it to the same USB port after 5 seconds.

When using Windows Vista<sup>®</sup>, the following screen is displayed. Select "Ask me again later".

| 💀 Found New Hardware                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Windows needs to install driver software for your Unknown<br>Device                                                                              |
| Cocate and install driver software (recommended)<br>Windows will guide you through the process of installing driver software<br>for your device. |
| Ask me again later<br>Windows will ask again the next time you plug in your device or log on.                                                    |
| On't show this message again for this device<br>Your device will not function until you install driver software.                                 |
| Cancel                                                                                                                                           |



Α

#### Continued from previous page



5. Right-click "Unknown device" in Device Manager, and select "Update Driver Software".

When the USB driver cannot be specified because more than one "Unknown device" exists, right-click "Unknown device" and select "Properties". The "Unknown device", whose "Hardware Ids" is "USB\VID\_06D3&PID\_1800" on the <<Details>> tab of the properties screen, is the update target.

| General Driver | Details              |   |
|----------------|----------------------|---|
| Unkn           | own device           |   |
| Property       |                      | - |
| Hardware Ids   |                      | • |
| Value          |                      |   |
| USB\VID_06     | D3&PID_1800&REV_0100 |   |
| USB(VID_06     | D38PID_1800          |   |
| O2B/MD_06      | D38PID_1800          |   |

6. Select "Browse my computer for driver software".



| Continued on | next | page |
|--------------|------|------|
|--------------|------|------|

Appendix 11 Updating USB Driver



Complete

#### (2) Procedure for updating the USB driver for GOT connection

#### (a) Checking method

Restart the GOT while the personal computer is connected to the GOT with USB and start the Windows Device Manager. If "MITSUBISHI GOT1000 USB Controller" is not displayed under "Universal Serial Bus controllers", but "Unknown device" is displayed under "Other devices", the device is required to be updated.

The "Unknown device", whose "Hardware Ids" is "USB\VID\_06D3&PID\_01E0" on the <<Details>> tab of the properties screen, is the update target.

| 🚔 Device Manager                                | Unknown device Properties      |  |  |
|-------------------------------------------------|--------------------------------|--|--|
| File Action View Help                           | Council Driver Details         |  |  |
|                                                 | General Driver Docais          |  |  |
| a - MX-PC                                       | Unknown device                 |  |  |
| Disk drives                                     | Property                       |  |  |
| Display adapters                                | Hardware Ids                   |  |  |
| DVD/CD-ROM drives                               | ridiuware ius •                |  |  |
| Human Interface Devices                         | Value                          |  |  |
| De ATA/ATAPI controllers                        | USB\VID_06D3&PID_01E0&REV_0100 |  |  |
| EEE 1394 Bus host controllers                   | USB\VID_06D38PID_01E0          |  |  |
| j - 👰 Jungo                                     |                                |  |  |
| > C Keyboards                                   |                                |  |  |
| Mice and other pointing devices                 |                                |  |  |
| Monitors                                        |                                |  |  |
| Network adapters                                |                                |  |  |
| Other devices                                   |                                |  |  |
| - In Universal Serial Bus (USB) Controller      |                                |  |  |
| Unknown device                                  |                                |  |  |
| Portable Devices     Update Driver Software     |                                |  |  |
| Disable                                         |                                |  |  |
| Sound, video and ga Uninstall                   |                                |  |  |
| System devices                                  | OK Cancel                      |  |  |
| Scan for hardware changes                       |                                |  |  |
| Properties                                      |                                |  |  |
|                                                 |                                |  |  |
|                                                 |                                |  |  |
|                                                 |                                |  |  |
| Opens property sheet for the current selection. |                                |  |  |
|                                                 |                                |  |  |

#### (b) Procedure for update

| File Action View Help                  |                           |  |
|----------------------------------------|---------------------------|--|
| = +>   ==   =    =    =    =    =    = | 12 1 <b>2</b> 15          |  |
| A MY-RC                                |                           |  |
| but Computer                           |                           |  |
| Disk drives                            |                           |  |
| Display adapters                       |                           |  |
| DVD/CD-ROM drives                      |                           |  |
| - 🚛 Human Interface Device             | s                         |  |
| D IDE ATA/ATAPI controll               | ers                       |  |
| 👂 🏺 IEEE 1394 Bus host contr           | ollers                    |  |
| 🦻 💇 Jungo                              |                           |  |
| Keyboards                              |                           |  |
| Mice and other pointing                | devices                   |  |
| Monitors                               |                           |  |
| Network adapters                       |                           |  |
| ▲                                      |                           |  |
| Universal Serial Bus (                 | USB) Controller           |  |
| Dunknown device                        | Hadata Driver Software    |  |
| Portable Devices                       | opdate briver software    |  |
| Sound under and es                     | Disable                   |  |
| Sustem devicer                         | Uninstall                 |  |
| Diversal Serial Bus o                  | Scan for hardware changes |  |
|                                        | Properties                |  |
|                                        |                           |  |
|                                        |                           |  |
|                                        |                           |  |
|                                        |                           |  |

Continued on next page

- **1.** Connect the personal computer and the programmable controller CPU with USB cable.
- 2. Start the Device Manager, right-click "Unknown device", and select "Update Driver Software...".



Complete

3. Select "Browse my computer for driver software".

4. Specify "Easysocket\USBdrivers", and click the Next button.

The left screen is an example when C:\MELSEC\Easysocket\USBdrivers is set. If more than one MELSOFT product is installed, browse the installation destination of the first product.

5. Click the Close button.

<u>C</u>lose

# Appendix 12 Warning Messages on Windows®

## Appendix 12.1 Overview of warning messages

The user account control function is added to Windows Vista<sup>®</sup> and Windows<sup>®</sup> 7. By this function, a warning message is displayed when executing utilities with the administrator authority. ( $\square$  Page 85, Section 6.1)

#### <Windows Vista<sup>®</sup>>



 Image: Series of the series

<Windows<sup>®</sup> 7>

Appendix 12 Warning Messages on Windows<sup>®</sup> Appendix 12.1 Overview of warning messages

### Appendix 12.2 Methods for disabling warning messages

Point P

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.

#### (1) Disabling the user account control function

The following shows a procedure for disabling the user account control function.

#### (a) When using Windows Vista<sup>®</sup>



Continued on next page

**1.** <sup>™</sup> [Start] <sup>⇔</sup> [Control Panel]

2. Select [User Accounts].

Α

#### Continued from previous page



3. Select [User Accounts].

4. Select [Turn User Account Control on or off].

Conce

Setting complete

**5.** Clear [Use User Account Control (UAC) to help protect your computer] and click the vertice button.

345

#### (b) When using Windows<sup>®</sup> 7

#### Operating procedure

Adjust your computer's settings

€.

-0

System and Security

eview your computer's ack up your computer nd and fix problems

twork and Internet inect to the Internet v network status and task

Hardware and Sound View devices and printers Add a device Connect to a projector Adjust commonly used

Programs Uninstall a program



User Accounts and Family Safety Add or remove user accounts Set up parental controls for any user

5

6

Appearance and Personalization Change the theme Change desktop background Adjust screen resolution

Clock, Language, and Region Change keyboards or other input meth

> d drive | 😵 View event logs | 😵 Schedule task:

ase of Access

1. <sup>™</sup> [Start] ⇔ [Control Panel]

2. Select [System and Security].





**3.** Select [Change User Account Control settings].



Administrative Tools Free up disk space | Defragme

Α

Continued from previous page



 $\nabla$ Setting complete

**4.** Set the slide bar "Never notify" and click the ok button.

#### (2) Allowing the setting without displaying the warning message

The following shows a procedure for allowing the setting without displaying the warning message.



1. ♥ [Start] ▷ [Control Panel]

2. Select [System and Security].

When using Windows Vista<sup>®</sup>, select [Classic View].

**3.** Select [Administrative Tools].

Α

#### Continued from previous page



| rganize 👻 🛄 Oper | n burn                                    |                        |          | 952 • |      |
|------------------|-------------------------------------------|------------------------|----------|-------|------|
| 🔶 Favorites      | Name                                      | Date modified          | Туре     | Size  |      |
| Marktop          | 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 |
| 🔰 Libraries      | 🙈 iSCSI Initiator                         | 2009/07/14 13:41       | Shortcut |       | 2 KB |
| Documents        | 📩 Local Security Policy                   | 2010/03/17 5:44        | Shortcut |       | 2 KB |
| 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 |
|                  | 🔗 Windows Firewall with Advanced Security | 2009/07/14 13:41       | Shortcut |       | 2 KB |
| 📭 Network        | 📷 Windows Memory Diagnostic               | 2009/07/14 13:41       | Shortcut |       | 2 KB |
|                  | 😹 Windows PowerShell Modules              | 2009/07/14 13:52       | Shortcut |       | 3 KB |
| Local Security   | / Policy Date modified: 2010/03/17 5:44   | ate created: 2010/03/3 | 17 5:44  |       |      |



### $\bigcirc$

| h Local Security Policy                                                                  |                        |                                            |
|------------------------------------------------------------------------------------------|------------------------|--------------------------------------------|
| Eile Action View Help                                                                    |                        |                                            |
|                                                                                          |                        |                                            |
| Security Settings  Account Policies  Control Policies                                    | Name<br>Audit Policy   | Description<br>Audit Policy                |
| Local Policies     Windows Firewall with Advanced Sect     Network List Manager Policies | User Rights Assignment | User Rights Assignment<br>Security Options |
| Public Key Policies     Grid Software Restriction Policies                               |                        |                                            |
| Application Control Policies     B IP Security Policies on Local Compute                 |                        |                                            |
| Advanced Audit Policy Configuration                                                      |                        |                                            |
|                                                                                          |                        |                                            |
|                                                                                          |                        |                                            |
|                                                                                          |                        |                                            |
|                                                                                          |                        |                                            |
|                                                                                          |                        |                                            |
|                                                                                          |                        |                                            |
| < m >                                                                                    |                        |                                            |
|                                                                                          |                        |                                            |

Continued on next page

#### 4. Select [Local Security Policy].

When user account control is enabled, the following screen is displayed.

#### Click the <u>Continue</u> button or <u>Yes</u> button.

| <windows vista<sup="">®&gt;</windows>                                                      | <windows<sup>® 7&gt;</windows<sup>                                                  |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| User Account Control                                                                       | 😵 User Account Control                                                              |
| 💮 Windows needs your permission to continue                                                | Do you want to allow the following program to make<br>changes to this computer?     |
| If you started this action, continue.<br>Microsoft Management Console<br>Microsoft Windows | Program name: Microsoft Management Console<br>Verified publisher: Microsoft Windows |
| Details     Continue     Cancel                                                            | Show getails                                                                        |
| User Account Control helps stop unauthorized changes to your computer.                     | Change when these notifications appear                                              |

#### 5. Select [Local Policies].

6. Select [Security Options].



7. Select [User Account Control: Behavior of the elevation prompt for administrators in Admin Approval Mode Prompt for consent].

8. Select [Elevate without prompting] on the <<Local Security Setting>> tab, and click the ok button.



Setting complete

## REVISIONS

\*The manual number is written at the bottom left of the back cover.

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# MX Component Version 4

**Operating Manual** 

MODEL SW4DNC-ACT-O-E

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