MX CommDTM-HART

Software Manual

Art.no.:
Version: 1.0
September 2009

MITSUBISHI ELECTRIC INDUSTRIAL AUTOMATION

About this Manual

The texts, illustrations, diagrams and examples in this manual are only intended as aids to help explain the functioning, operation and use of the software described therin.
Separate manuals are available for the programmable logic controllers of MITSUBISHI ELECTRIC.

This manual is only intended for users with experience in handling automation and communication networks.
The responsibility of the use of the software is with the user himself.
If you have any questions regarding the installation and operation of the software described in this manual, please do not hesitate to contact your sales office or one of your MITSUBISHI ELECTRIC distribution partners.
You can also obtain information and answers to frequently asked questions from our MITSUBISHI ELECTRIC website under www.mitsubishi-automation.com.

The software is supplied under a legal license agreement and may only be used and copied subject to the terms of this License Agreement.

MITSUBISHI ELECTRIC reserves the right to change the specifications of its products and/or the contents of this manual at any time and without prior notice.

Table of Contents

1 Introduction

The ‘MX CommDTM-HART’, which is described in this document, is a communication driver for integration of the Q-series HART module 026ME1AD8HAI-Q into an FDT/DTM application architecture.

1.1 FDT/DTM Architecture

The Field Device Tool (FDT) technology has the objective of allowing flexible combinations of software components from different vendors for configuration and diagnosis of devices with fieldbus interfaces. It is based on the concept of drivers known from the office world, where e.g. a printer with the appropriate driver can be accessed by any word processor without the word processor knowing the printer type or the printer knowing the word processor. The FDT concept is independent of the specific type of fieldbus and covers several of existing fieldbus protocols.
The main components of the FDT architecture are:

- the **'Communication Device Type Manager' (CommDTM)** is a specialized form of a 'Device Type Manager' (DTM), which provides a communication channel for other DTMs. A DTM for a HART field device for example requires access to the HART network, to which the slave is attached. The access could be via a PLC HART module, to which the field device is connected. Each type of network access requires a different CommDTM. The DTM of the field device however is the same in all scenarios and does not require to know how the network is accessed. It passes its HART protocol requests to the underlying CommDTM via a standardized interface.

- the **DeviceDTM** contains the user interface with configuration and diagnostic functions for a specific field device. To to communicate with the corresponding device it requires a CommDTM, to which it can pass the communication requests via a standardized interface.

- the **FDT container** is part of a standalone application, called the FDT framework, and provides the runtime environment, in which both the CommDTM and the DeviceDTM are executed. A DTM can usually not run on its own. The FDT container also offers other services like printer access, project saving and loading etc.

CommDTMs can be layered to represent a communication network consisting of several layers with different protocol. One CommDTM can for example provide access to a PROFIBUS master via Ethernet, while another CommDTM covers the communication between the master and a specific slave. The DeviceDTM for a module of that slave is then connected to the last CommDTM, using a standardized interface, which hides the underlying layers. This modular structure makes the DeviceDTM independent of changes in the communication layer. CommDTMs, which serve as a bridge between different protocol layers, are typically called GatewayDTMs.

1.2 CommDTM for Q-Series Module

The MELSOFT 'MX CommDTM-HART' is a 'Communication Device Type Manager' (CommDTM), conforming to the Field Device Tool (FDT) specification version 1.2. It can be used with the 026ME1AD8HAI-Q module for the MELSEC Q-series PLCs. The CommDTM handles the connection to the PLC and transfers the HART requests, which are generated by a DeviceDTM, to the 026ME1AD8HAI-Q module.
It cannot be started as a stand-alone application, but must be loaded into a FDT frame application like PACTware™.

The 026ME1AD8HAI-Q module provides access to HART field devices from either the PLC program or from PC-based applications like the HART ‘Device Type Manager’ (DTM).
It contains eight channels with each channel providing a point-to-point connection between the Q-PLC and the HART field device based on the 4-20mA current loop physical layer. Therefore a

maximum of eight field devices can be connected.

1.3 Before you start

Before using the CommDTM you must have installed an FDT framework application compatible with FDT specification 1.2 and should be familiar with its operation.
For information on the 026ME1AD8HAI-Q module, please consult the corresponding hardware manual.

2 Installation

2.1 System Requirements

The MX CommDTM-HART provides communication channels for DeviceDTMs to communicate with HART field devices, which are connected to a 026ME1AD8HAI-Q intelligent function module.
The CommDTM uses Easysocket for communication with the PLC. The network connection can be any type, which is supported by Easysocket and the transfer setup of the CommDTM.

Minimum Hardware Requirements

- Pentium II 350 Mhz processor (for Vista: 1 GHz processor)
- 128 MB RAM for Microsoft ® Windows 2000
- 256 MB RAM for Microsoft ® Windows XP
- 1 GB RAM for Microsoft ® Windows Vista
- VGA compatible graphics adapter
- 17"/43 cm diag. VGA monitor
- At least 200 MB free hard disk space
- CD-ROM drive
- interface for communication with the PLC system

Software Requirements

MX CommDTM-HART is a 32-bit software that runs on the following operating systems

- Microsoft ® Windows 2000 (Service Pack 2 or later installed)
- Microsoft ® Windows XP Home or Professional Edition
- Microsoft ® Windows Vista Home (or higher)

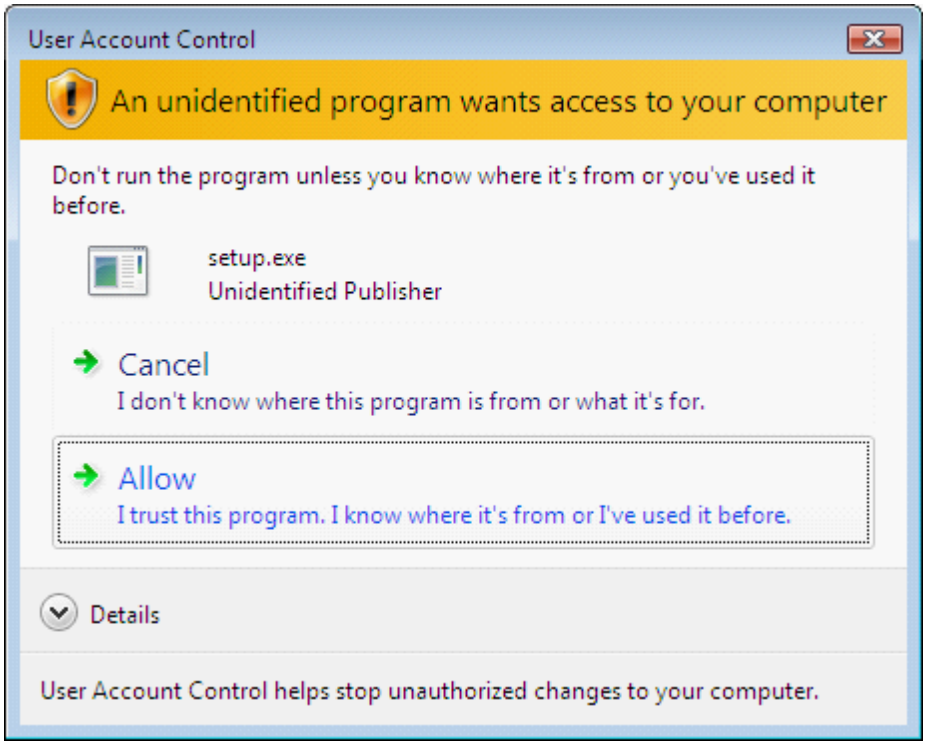
The CommDTM can only be used within an FDT container application. There are several FDT container applications available from different vendors. For more information see the FDT Group.

2.2 Installing the CommDTM

The setup program of the CommDTM copies the software to the installation directory and registers the COM interfaces implemented by the DTM with the operating system.

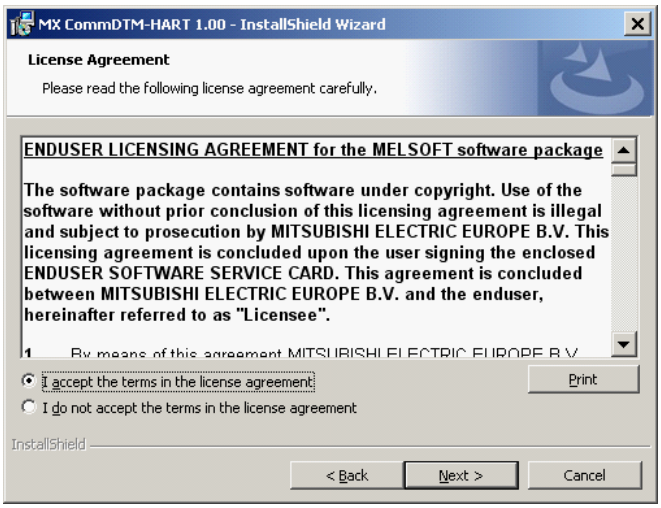
To start the installation, proceed as follows:

1. Insert the installation CD-ROM into your CD-ROM drive.
2. If you have 'Autorun' enabled for the drive, the setup should start automatically.
3. If the setup is not started automatically, please locate the 'setup.exe' file and execute it.
4. If you see the following message on a Windows ® Vista operating system, please select 'Allow'

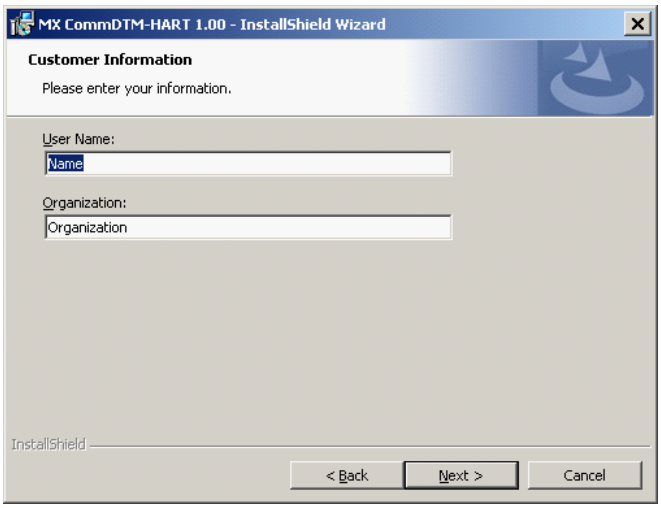


5. When the setup.exe is started, the 'welcome' page is displayed.

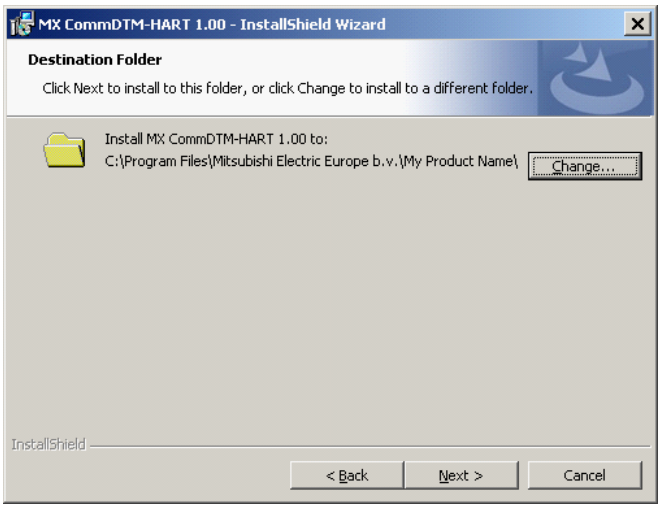
6. The license agreement is displayed. The user must accept the agreement in order to proceed with the installation.



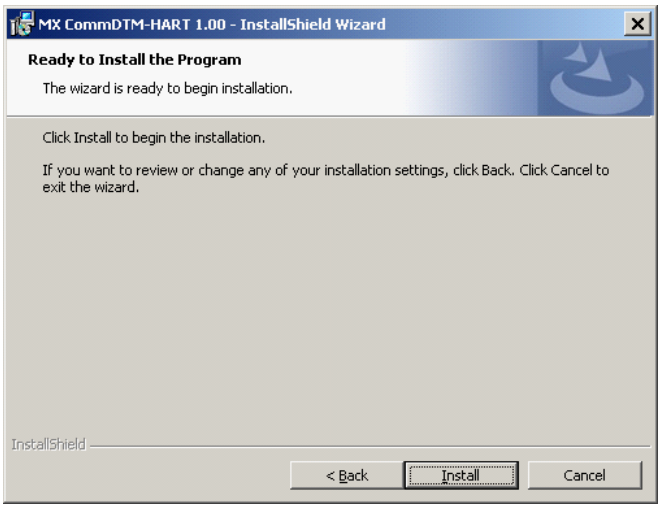
7. The user enters name and organization.



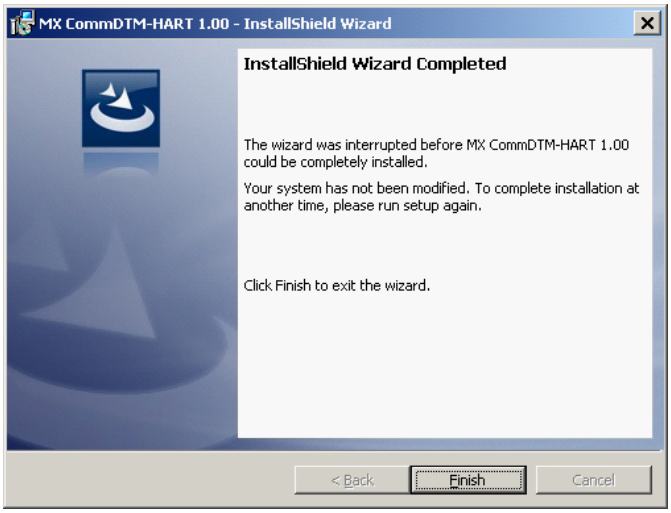
8. Select the installation directory for the CommDTM.



9. Start the installation of the software by pressing ‘Install’.



10. When the installation has been completed, the user is informed and can now close the setup program by pressing ‘Finish’.

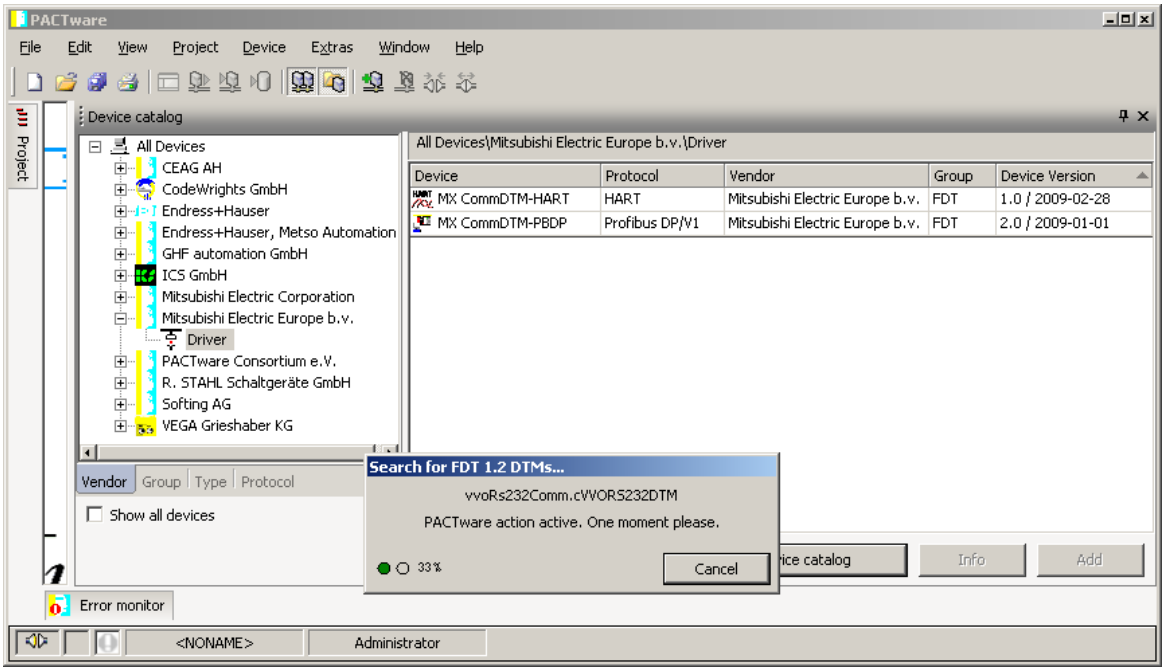


3 Using the CommDTM

The MX CommDTM-HART can only be used within an FDT frame application, which conforms to FDT specification 1.2. The following description uses the FDT application PACTware™ as an example for an FDT frame application. The operation in other FDT frame application may differ in certain aspects.

3.1 Adding the CommDTM to an FDT Container

In order to use the CommDTM within an FDT container, it must be added to the specific device database of the container. While the exact handling differs for each FDT application, in general each FDT container provides a menu item or button with which the user can start a scan of the Windows registry for installed DTMs. After the scan the FDT container lists all DTMs found and the user can add these to the database of the container.

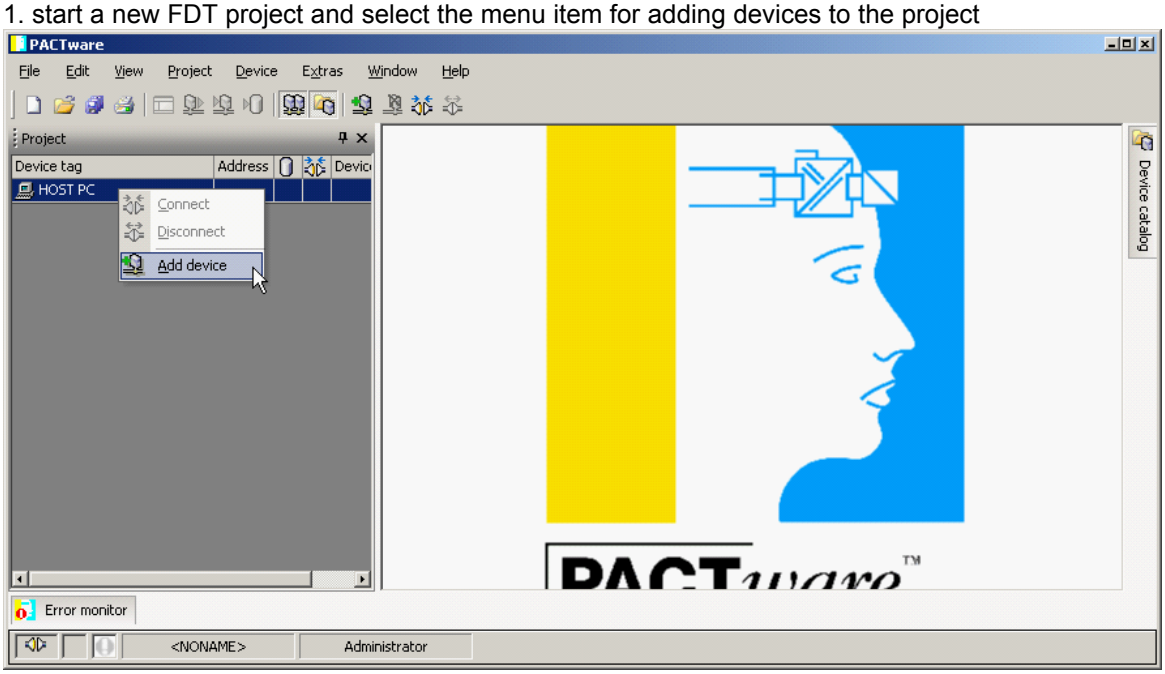


The MX CommDTM-HART is added to the device database with the following properties:

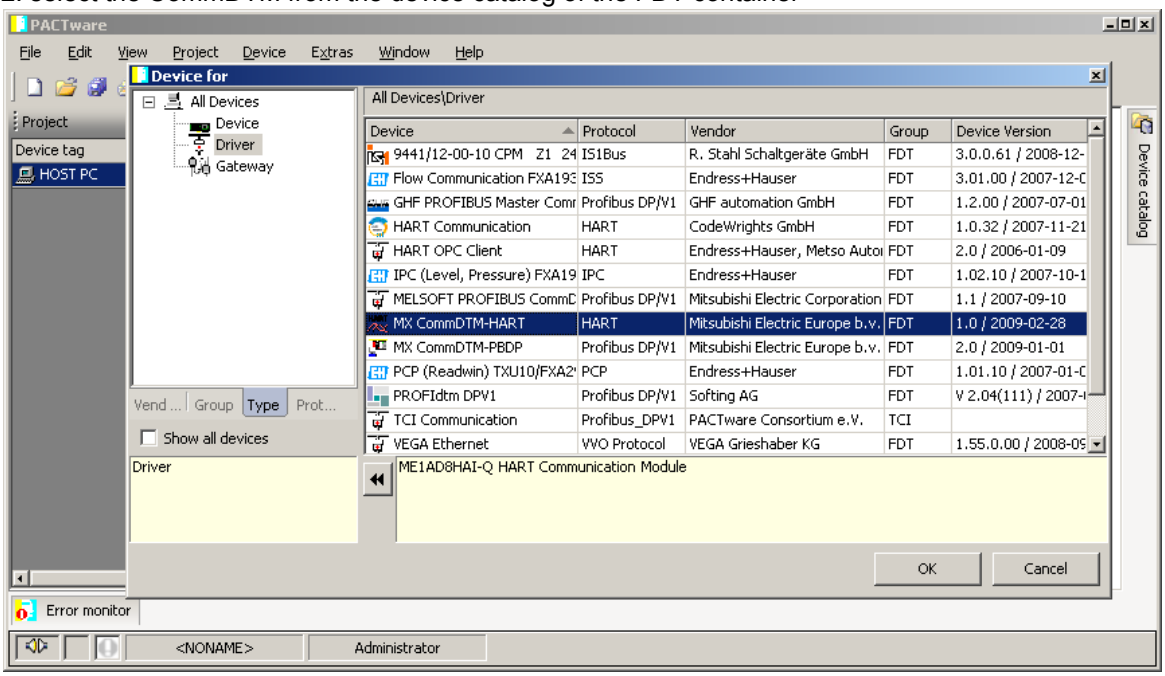
Device Name	MX CommDTM-HART
Vendor	Mitsubishi Electric Europe B.V.
Protocol	HART
Version	1.0

3.2 Adding CommDTM to an FDT Container Project

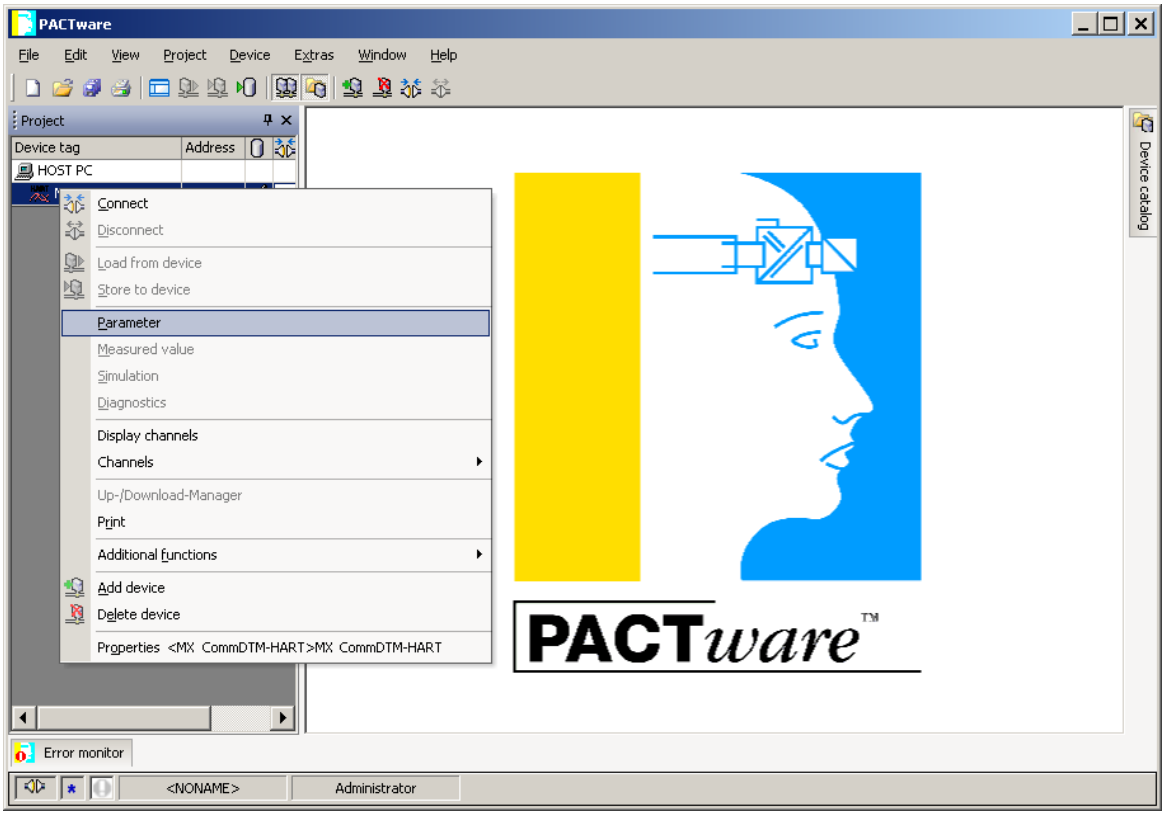
1. start a new FDT project and select the menu item for adding devices to the project



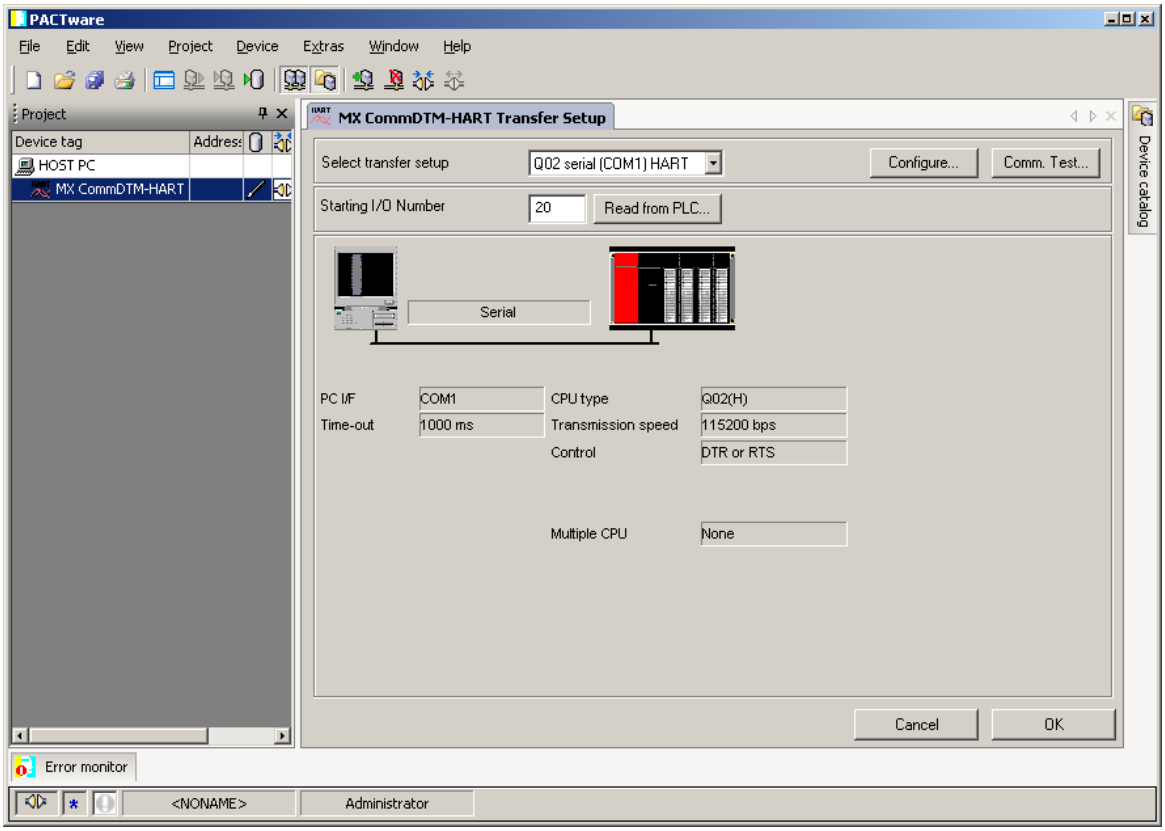
2. select the CommDTM from the device catalog of the FDT container



3. the CommDTM is appended to the device list of the FDT project. By double-clicking the device node or by selecting the item ‘Parameter’ from its context menu, the transfer settings can be edited.

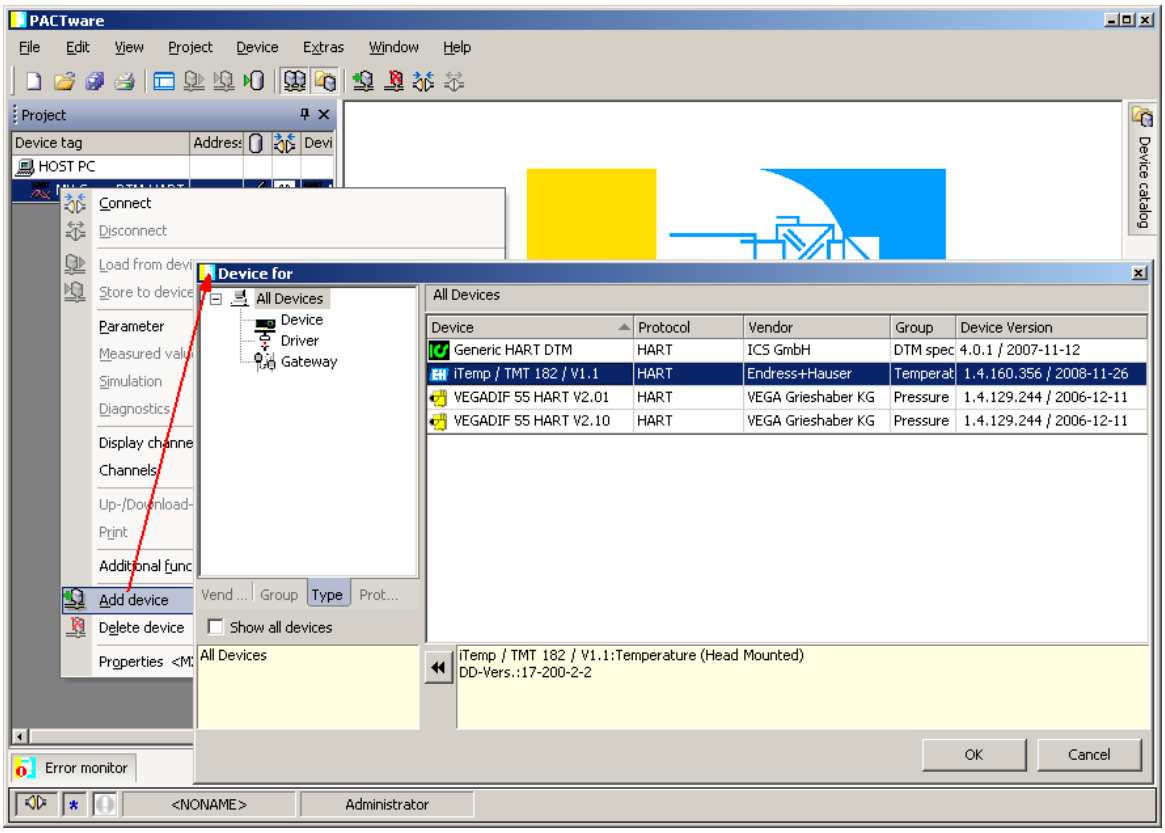


4. the user must enter the parameters for the connection to the PLC and the starting I/O number of the module within the PLC rack.

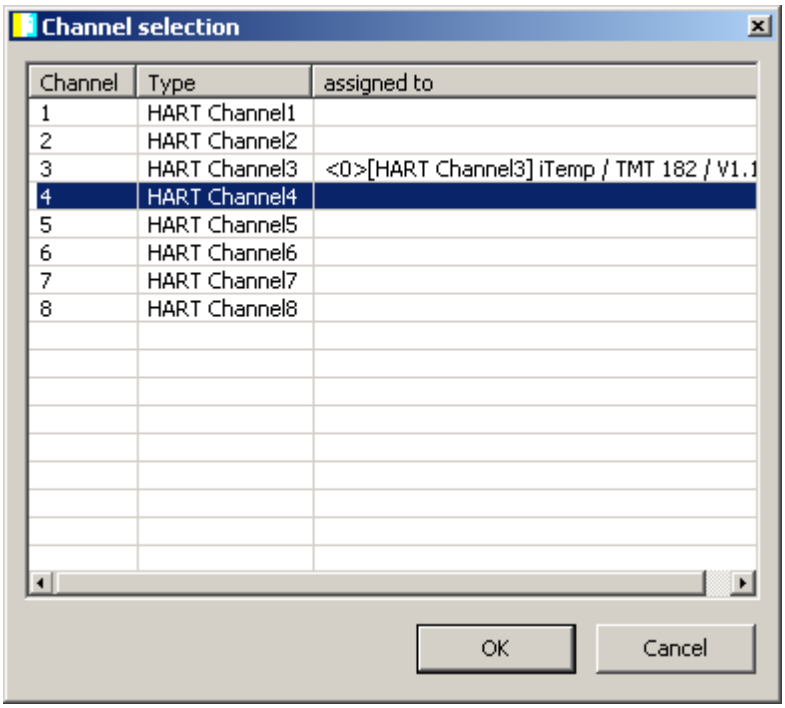


3.3 Adding DeviceDTM to CommDTM

After adding the CommDTM to an FDT container project, DeviceDTMs can be added to the project. Each channel of the CommDTM is able to connect to a single HART device. By using the bus scan the user can check which device is connected to which channel.



After pressing the **OK** button the FDT container opens the channel selection dialog to assign the DeviceDTM being inserted to a physical channel of the CommDTM. If another DeviceDTM is already attached to the channel, the FDT container displays an error message.

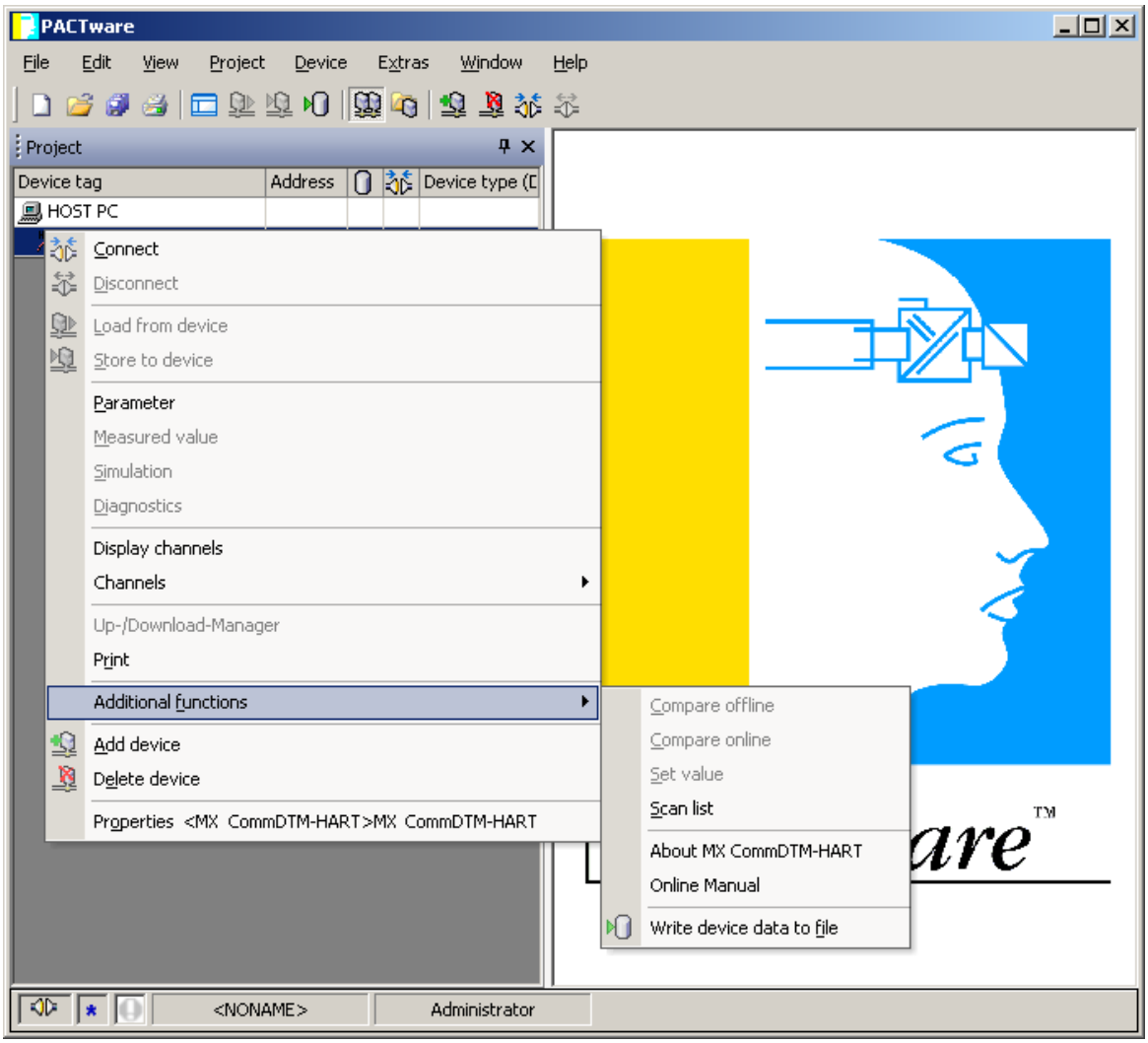


Note: some FDT container applications allow creating a network topology by scanning the communication channels of the CommDTM for connected devices.

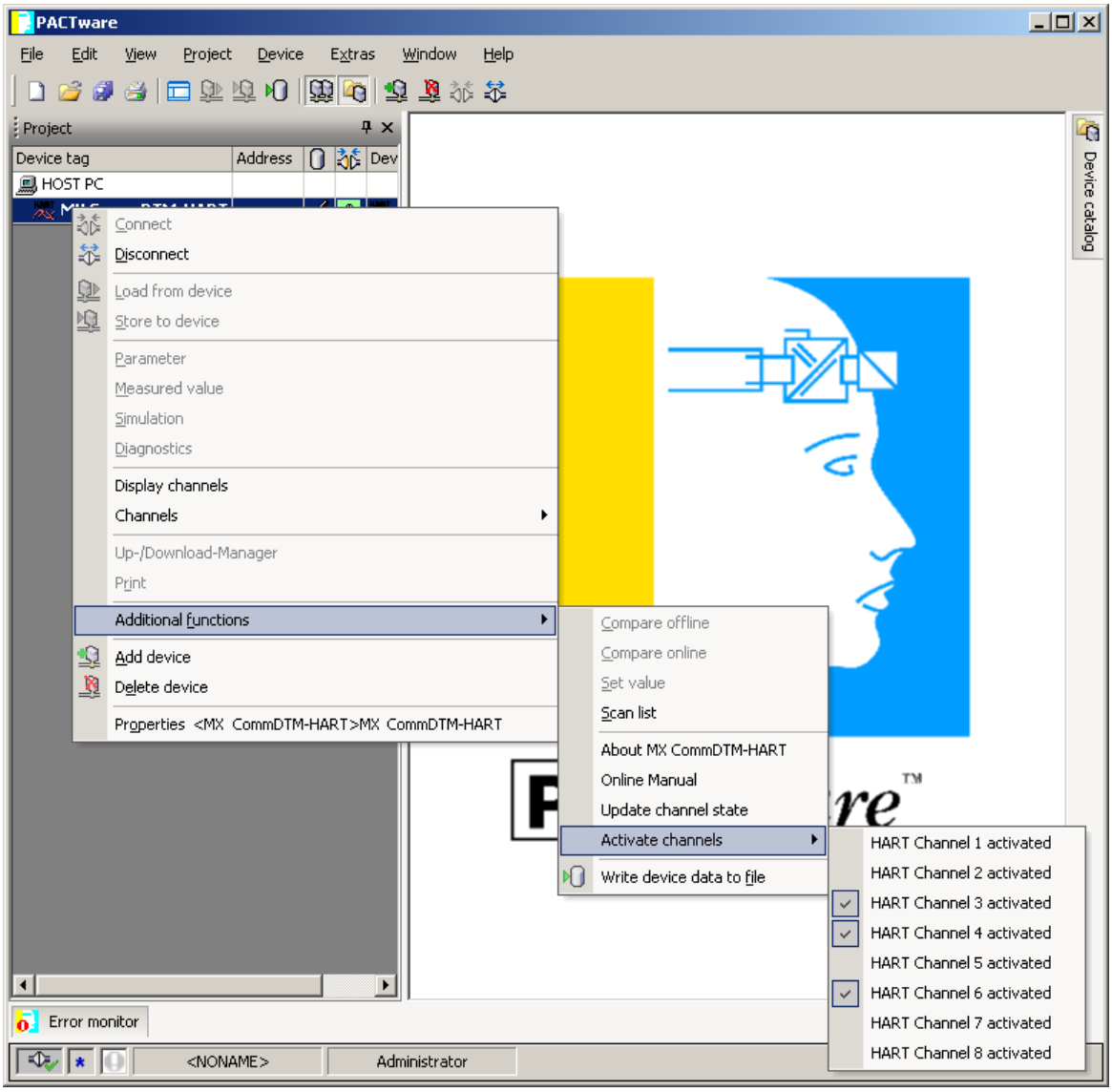
3.4 Context Menu

The FDT container provides a context menu for DTM nodes in its ‘Project’ tree. Most entries are predefined by the FDT container. A DTM can extend its context menu with specific items. The available menu items differ between the 'Online' (i.e. 'Connected') and the 'Offline' (i.e. 'Disconnected') state of the DTM.

'Offline' Context Menu



'Online' Context Menu



Update Channel State

When this menu item is selected, the CommDTM checks the activation status of all HART channels and updates the state of the items in the 'Activate channels' submenu.

Activate Channels → HART Channel <n> Activated

The HART communication must be activated for each channel, before the DTM can communicate with the HART field device attached to the respective channel. By default HART communication is turned off.

To activate HART communication for a specific channel either

- set the channel-specific flag in the buffer memory of the 026ME1AD8HAI-Q module
- connect to a field device, which will automatically activate HART communication if it is not yet activated
- select the corresponding **'HART channel <n> activated'** menu item

A 'check' mark in front of the menu item representing the channel signals that HART communication is enabled for the corresponding channel.

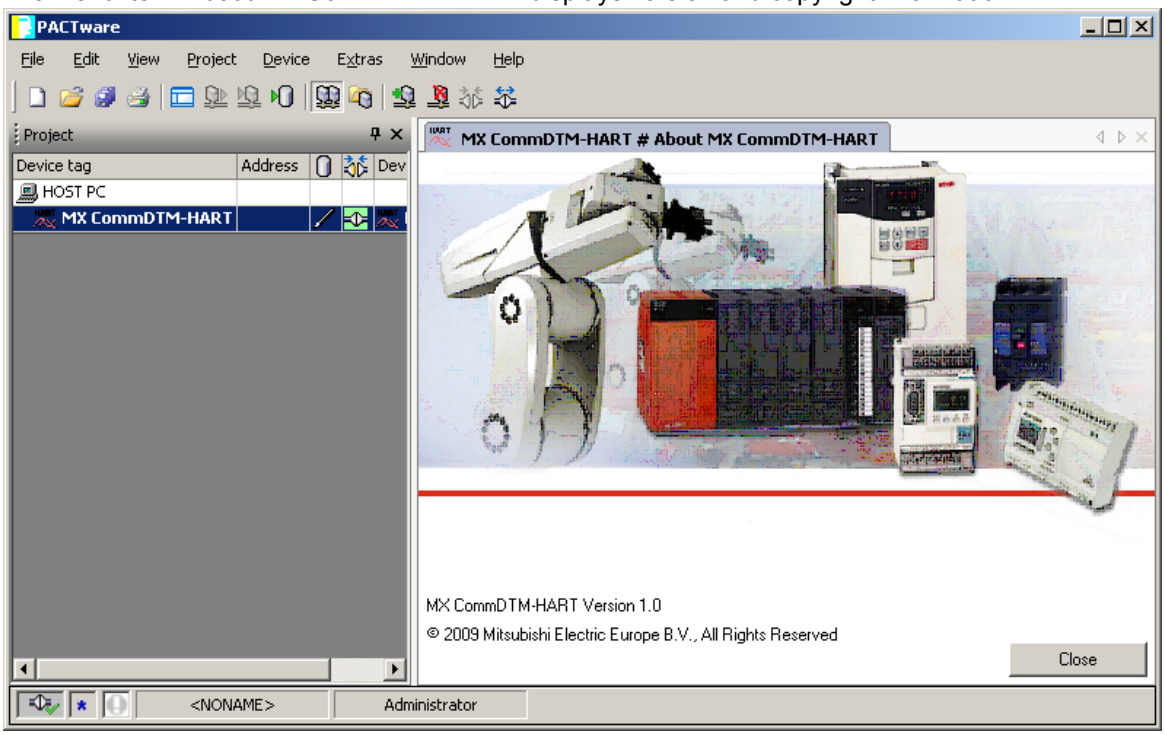
HART communication is disabled	HART Channel 3 activated
HART communication is enabled	✓ HART Channel 3 activated

Please select 'Update channel state' first to make sure that the 'check' mark reflects the actual state of the channel.

Note: please be aware that HART devices, which are connected to a channel of the 026ME1AD8HAI-Q module, cannot be detected e.g. during a topology scan, unless HART communication has been activated for that channel.

About... Function

The menu item 'About MX CommDTM-HART' displays version and copyright information.

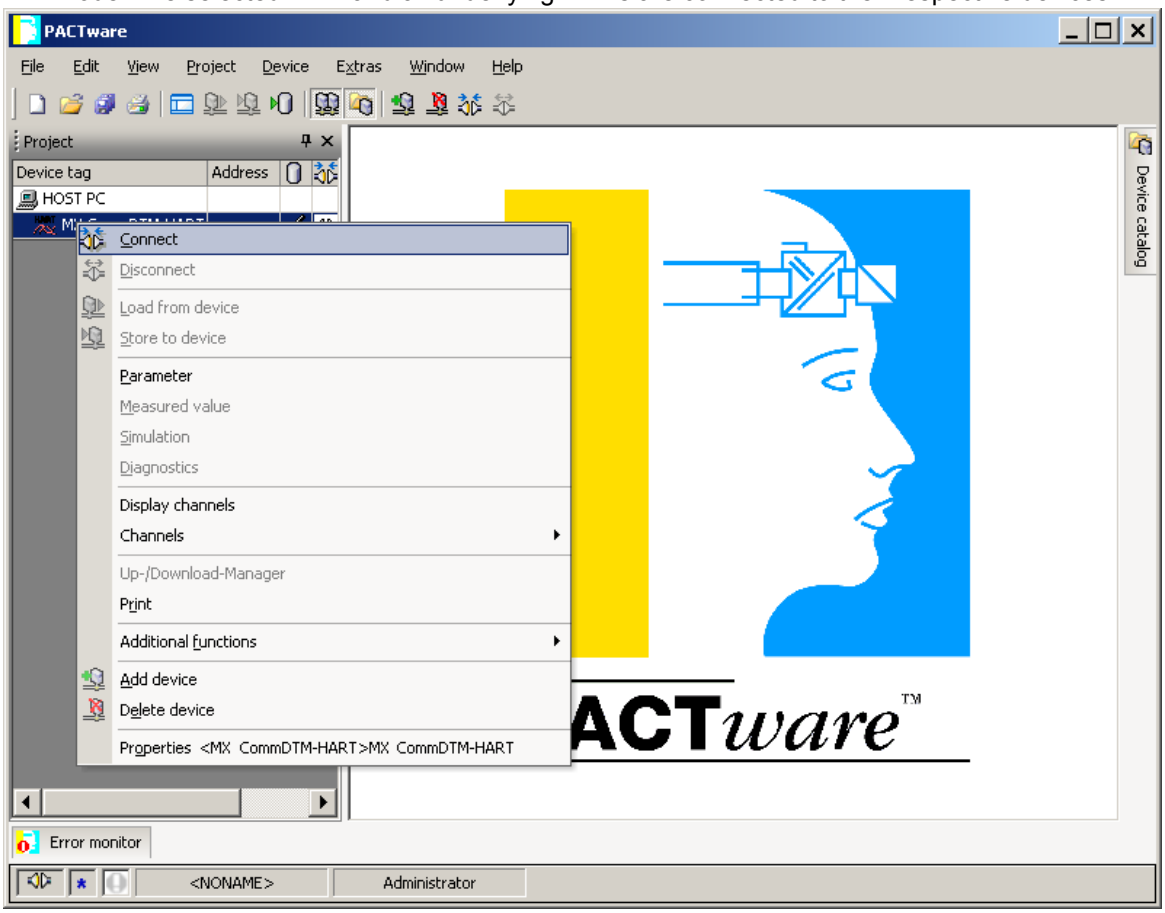


Online Manual

This menu item opens the online help.

3.5 Going Online

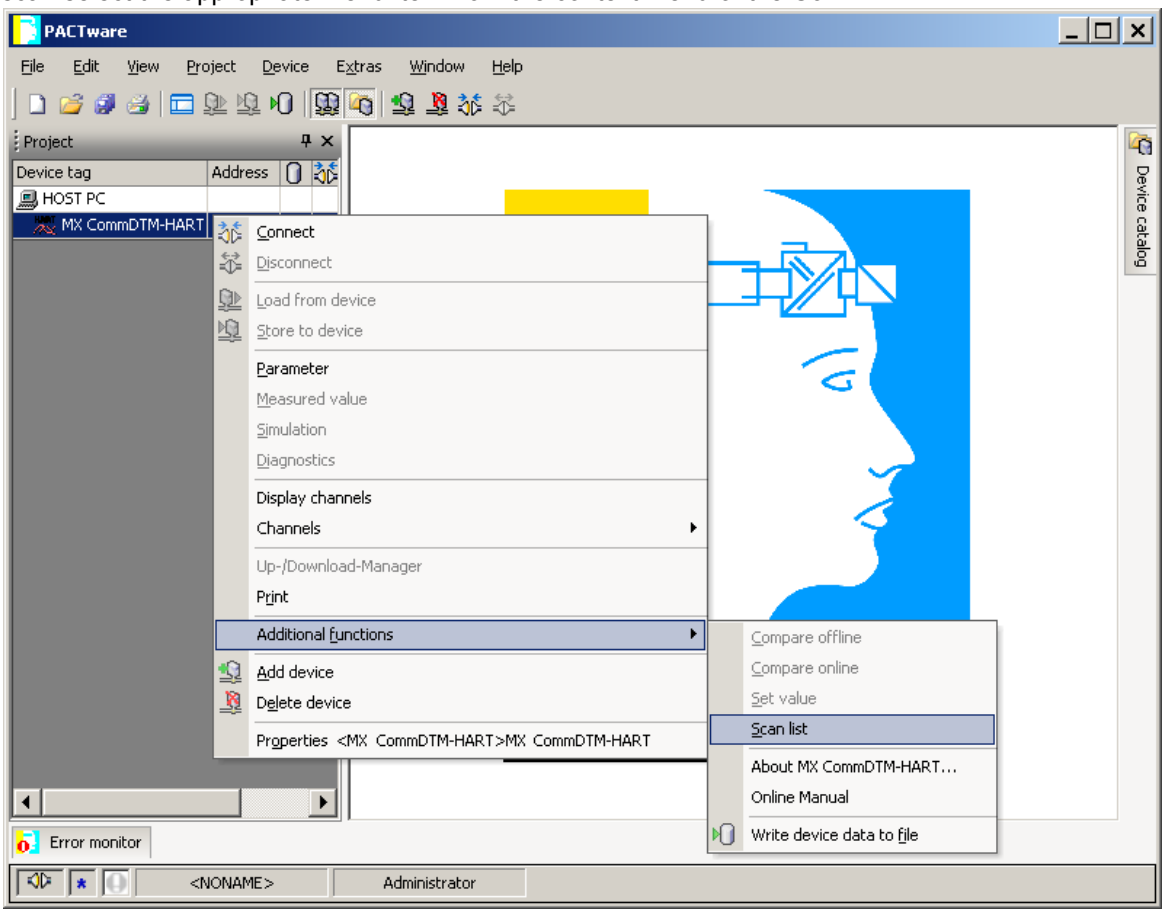
To actually connect a DTM to the device the item '**Connect**' is selected from the context menu of the DTM node. The selected DTM and all underlying DTMs are connected to their respective devices.

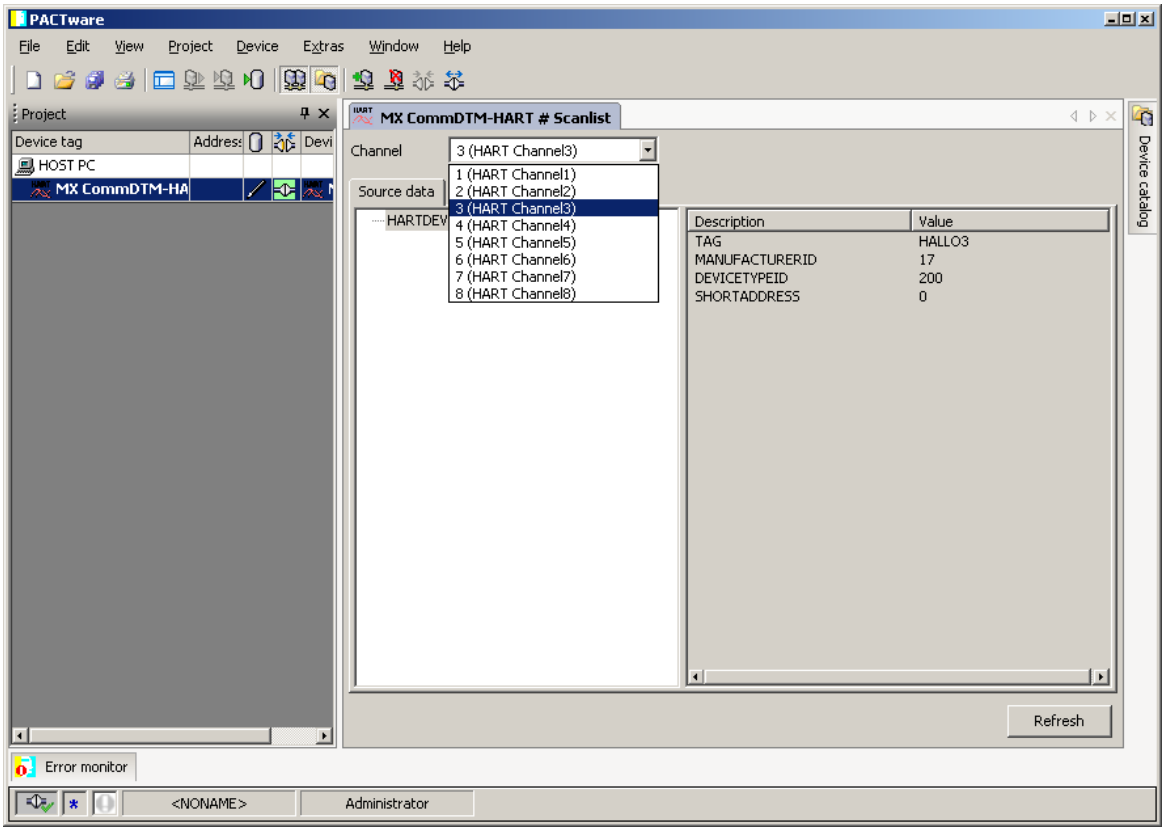


When the device is connected, the online functions in the menu of the respective DeviceDTM are enabled and the offline functions are disabled.

3.6 Bus Scan

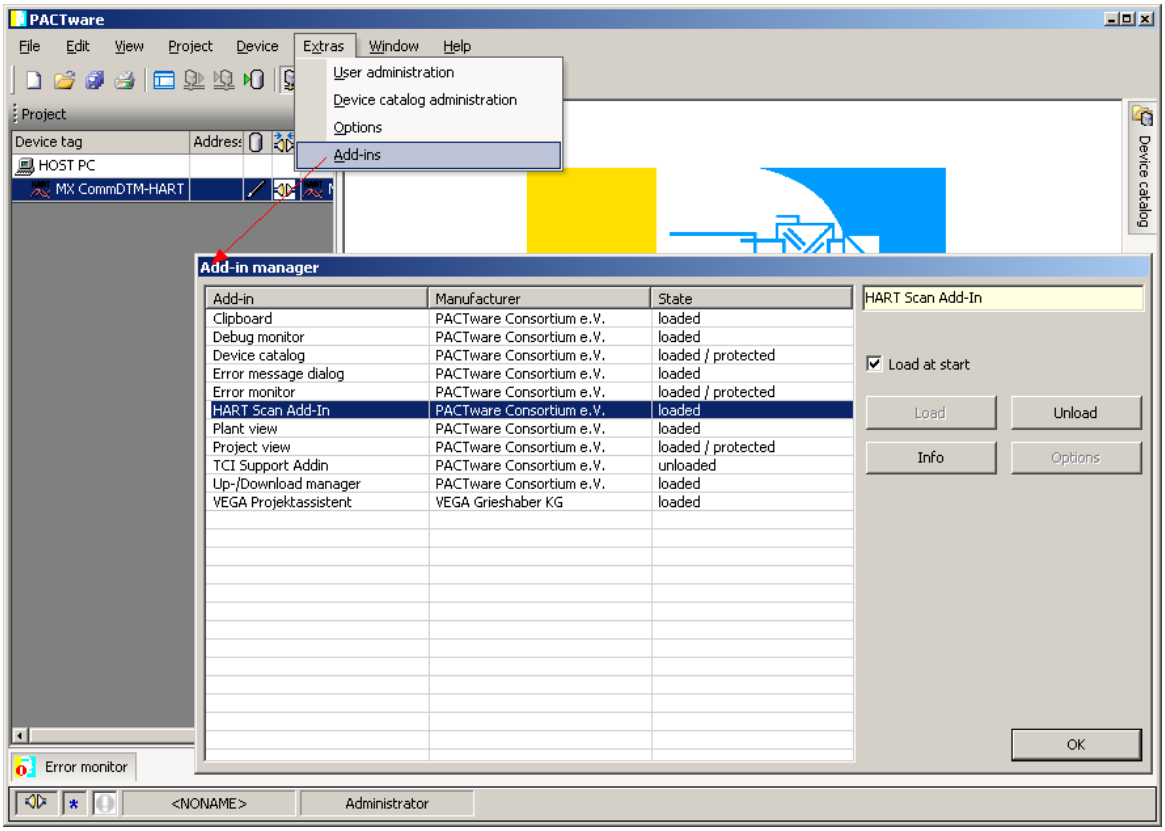
The CommDTM supports scanning for devices connected to the 026ME1AD8HAI-Q. To start the bus scan select the appropriate menu item from the context menu of the CommDTM.





The FDT container application PACTware™ supports the bus scan only for the selected channel. Some other FDT framework applications are able to scan all channels in a single run.

Note: if the menu item 'Scan list' is not displayed in PACTware™, the PACTware™ 'HART Scan Add-in' is probably not loaded. In order to enable scanning for HART devices this PACTware™ addin must be loaded via the item '**Extras/Add-Ins**' of the PACTware™ application menu.


PACTware
File Edit View Project Device Extras Window Help
User administration
Device catalog administration
Options
Add-ins
Project
Device tag
Address
HOST PC
MX CommDTM-HART
Device catalog
Add-in manager
Add-in
Manufacturer
State
Clipboard PACTware Consortium e.V. loaded
Debug monitor PACTware Consortium e.V. loaded
Device catalog PACTware Consortium e.V. loaded / protected
Error message dialog PACTware Consortium e.V. loaded
Error monitor PACTware Consortium e.V. loaded / protected
HART Scan Add-In PACTware Consortium e.V. loaded
Plant view PACTware Consortium e.V. loaded
Project view PACTware Consortium e.V. loaded / protected
TCI Support Addin PACTware Consortium e.V. unloaded
Up-/Download manager PACTware Consortium e.V. loaded
VEGA Projektassistent VEGA Grieshaber KG loaded
HART Scan Add-In
Load at start
Load
Unload
Info
Options
OK
Error monitor
<NONAME>
Administrator

4 Transfer Setup

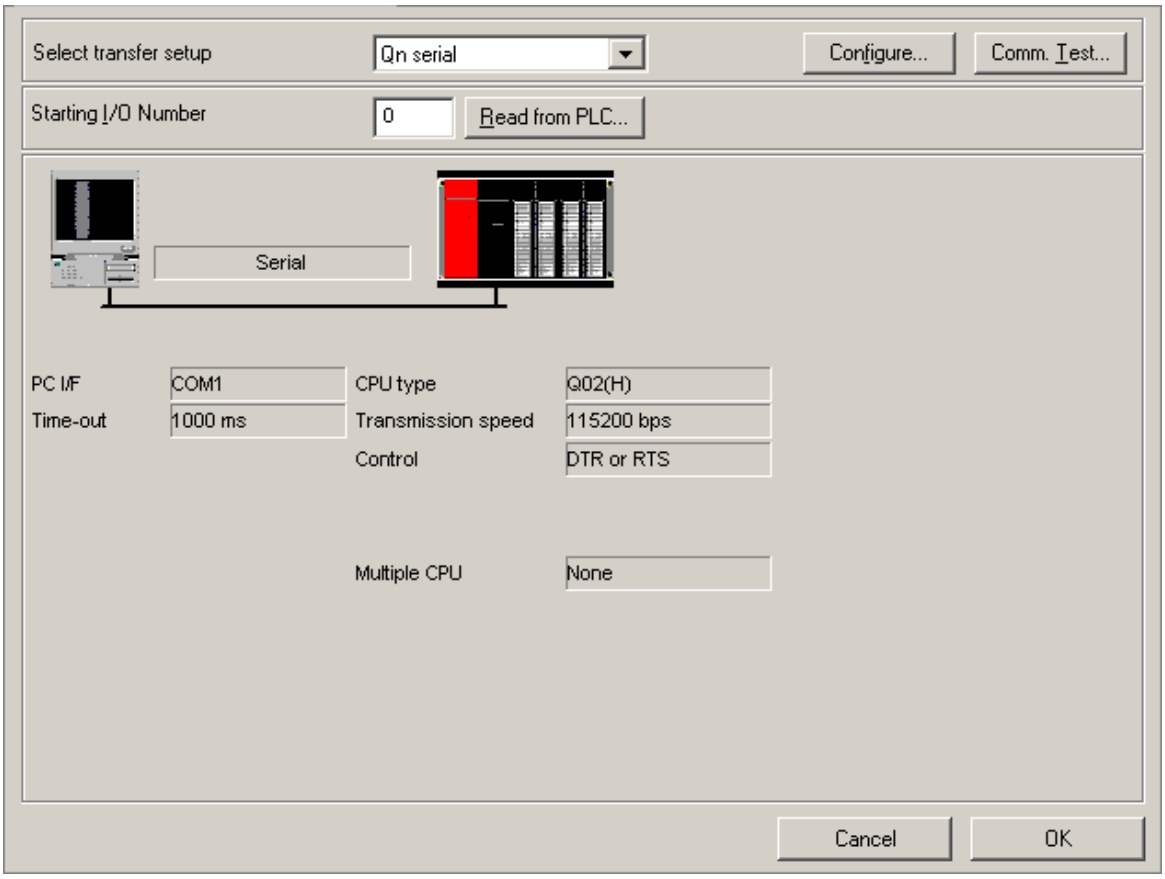
4.1 Configuring Transfer Setups

Transfer Setup Selection

The main dialog of the transfer setup provides access to the configured transfer setups. The user can

- add new setups
- remove existing setups
- modify a setup
- select a setup to be used
- test the communication with a selected setup

The network architecture and settings are displayed with bitmaps representing the network nodes. The parameters associated with a node are listed underneath the respective bitmap.



Name	Description	Choices / Setting range	Default
Select transfer setup	lists the names of existing transfer setups and the functions 'New' and 'Rename/Remove'	1-32 characters	name of selected transfer setup
Configure	edit the selected transfer setup	-	-
Comm. Test	test the connection to the PLC	-	-

Name	Description	Choices / Setting range	Default
	respectively to the module		
Starting I/O Number	starting I/O number respectively slot of the module in the PLC	0x0 - 0xFE0 (Q, QnA, A) 0 - 7 (FX)	0
Read from PLC	read the modules installed in the PLC	-	-

Pressing the **OK** button closes the dialog and uses the settings of the currently selected transfer setup to the device, for which the transfer setup has been opened. If the dialog is closed by pressing the 'Cancel' button, the transfer settings of the device remain unchanged.

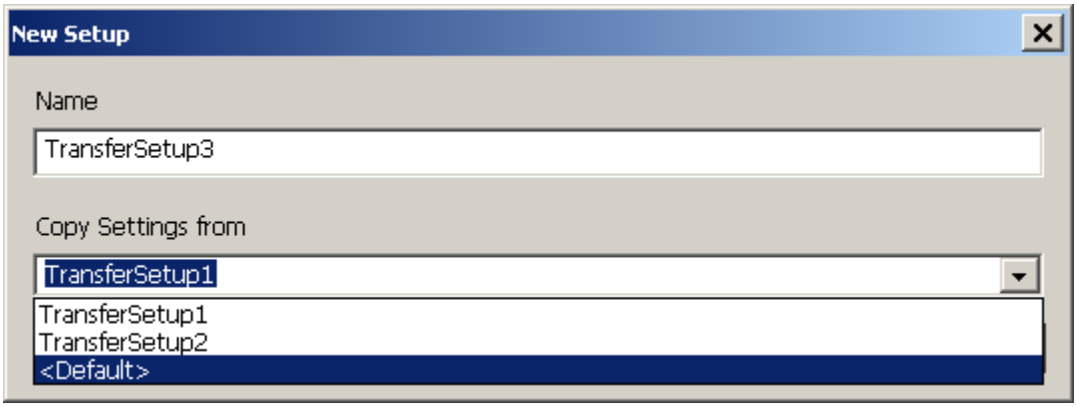
Note: please notice that devices using the same transfer setup name are not automatically updated. You need to select each device separately, open the transfer setup dialog and reassign the settings to the device.

New Transfer Setup

For defining a new transfer setup, the user selects the entry '**<New...>**' from the selection list.

If the maximum number of transfer setups (default is max. 32 setups) has been reached, a message is displayed.

In this case the user must either delete a setup or modify an existing one.
If there is sufficient space for a new transfer setup, a dialog prompts the user to enter the name of the new transfer setup.
The user can select an existing transfer setup, from which the settings are copied, or select < **Default**>.

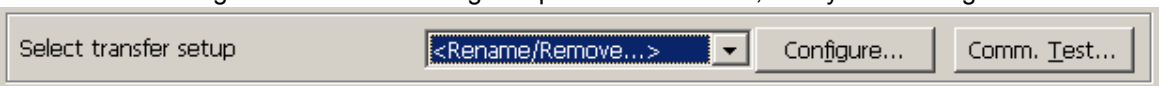


Name	Description	Choices / Setting range	Default
Name	name of new transfer setup	1-32 characters	TransferSetup<n>
Copy Settings from	uses the current settings of the selected setup for the new setup	- existing transfer setup names - <Default>	selected setup

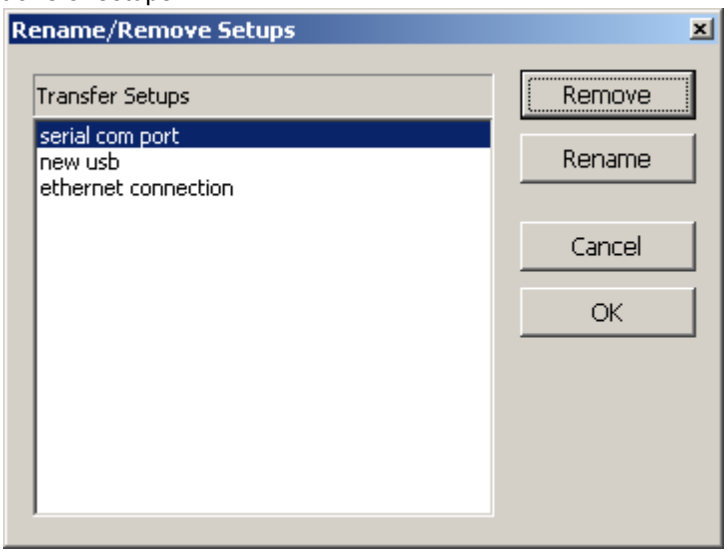
The name assigned to the transfer setup must meet the following restrictions
- must be unique
- must not be empty
- must not exceed 32 characters in length
- must not start or end with blanks (automatically removed)

Rename / Remove Transfer Setup

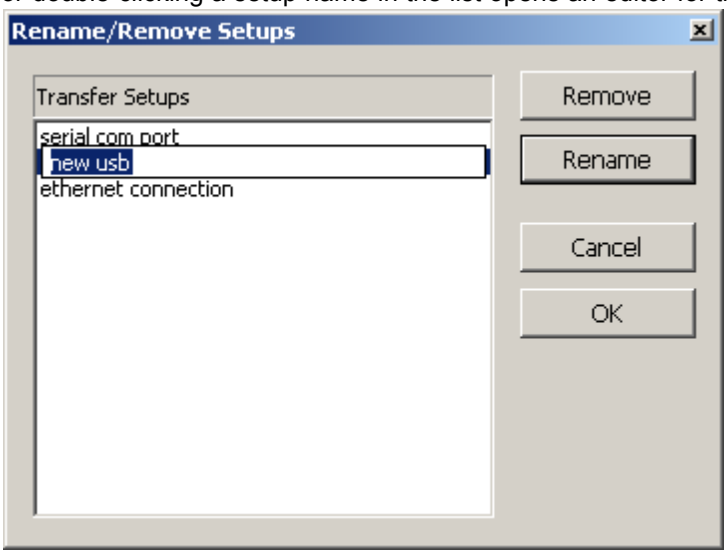
The user can change the name of existing setups or remove them, if they are no longer used.



When the entry '**<Rename/Remove…>** is selected, a dialog is displayed, which lists the existing transfer setups.



Pressing the '**Remove**' button deletes the currently selected setup. Pressing the '**Rename**' button or double-clicking a setup name in the list opens an editor for the name within the list.



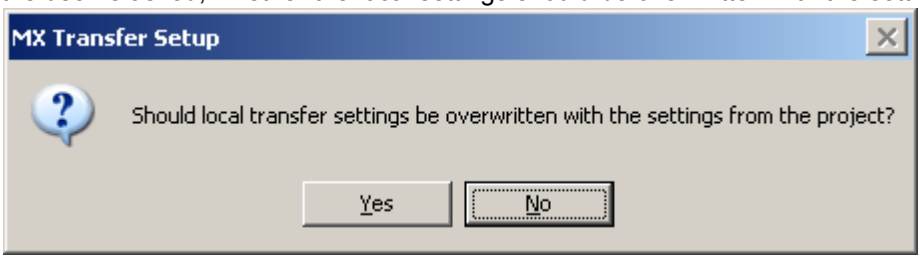
A setup name is rejected, if it does not meet the requirements for setup names.

Editing an Existing Transfer Setup

Pressing the '**Configure**' button opens the transfer setup wizard for the selected transfer setup.

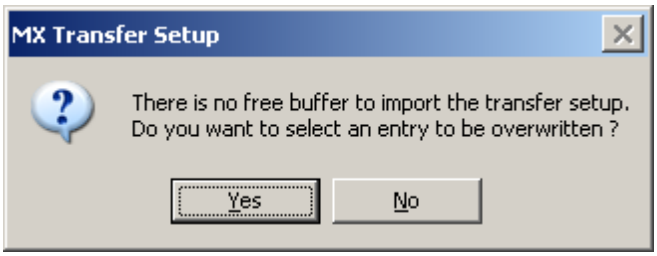
Replace Transfer Setup Dialog

When the transfer setup dialog is opened, it imports the transfer setup of the currently selected device into the local transfer setup database. This database is kept in the Windows™ registry.
If the registry already contains a setup with the same name as the one of the selected device, the settings in the registry are compared with the settings used by the device. In case the settings differ, the user is asked, whether the local settings should be overwritten with the settings from the device.



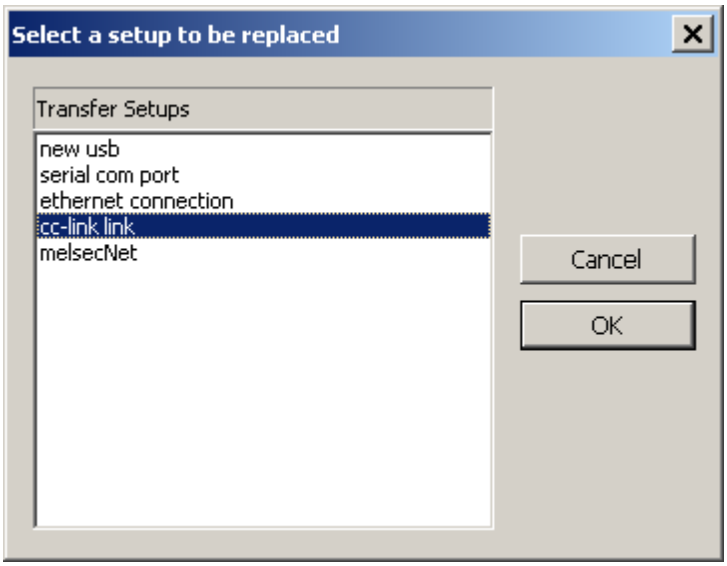
Selecting '**Yes**' causes the transfer settings from the device to overwrite the settings currently kept in the registry under the given transfer setup name. Otherwise the settings of the transfer setup in the registry remain unchanged.

If no setup with the name exists, a new setup is added to the database. In case there is insufficient space for a new setup, the following message is displayed.



If the user selects 'Yes', a list of existing setups is displayed. The user can select a setup in the

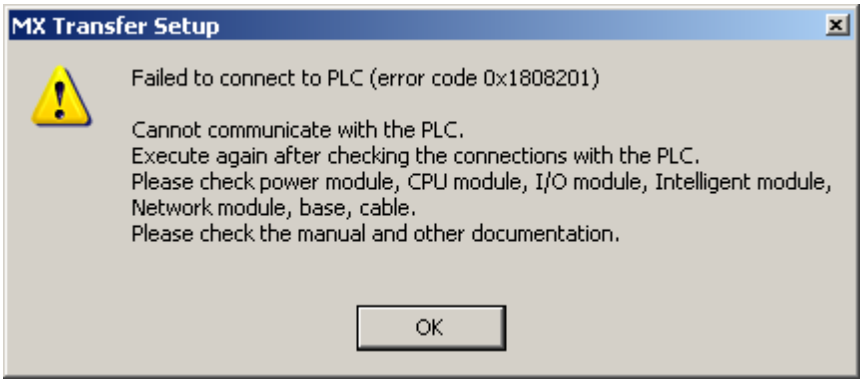
list, which is overwritten with the new settings.



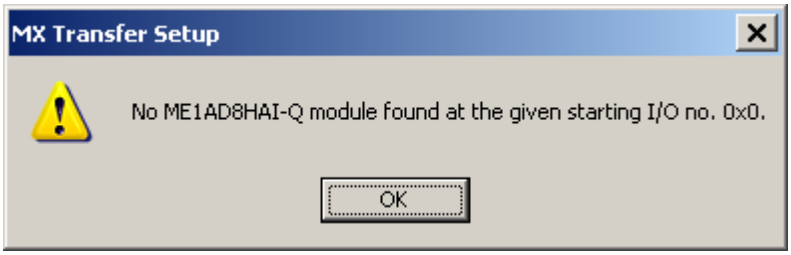
Connection Test

The '**Comm. Test**' button uses the settings of the selected transfer setup to connect to the module in the PLC. If the connection can be established, a success message is displayed.

If the connection to the PLC fails, the Easysocket error code is displayed, together with an explanatory message.

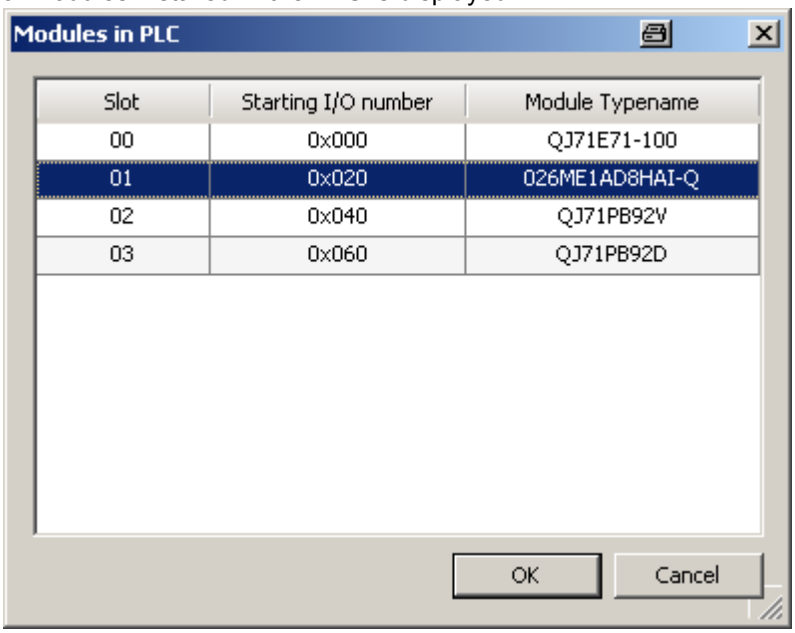


If the connection attempt to the PLC succeeds, the connection to the module with the given starting I/O number is established. If this connection to the module fails, the following error message is displayed:



Read Module List From PLC

If the connection to the PLC can be established using the currently selected transfer setup, the list of modules installed in the PLC is displayed.

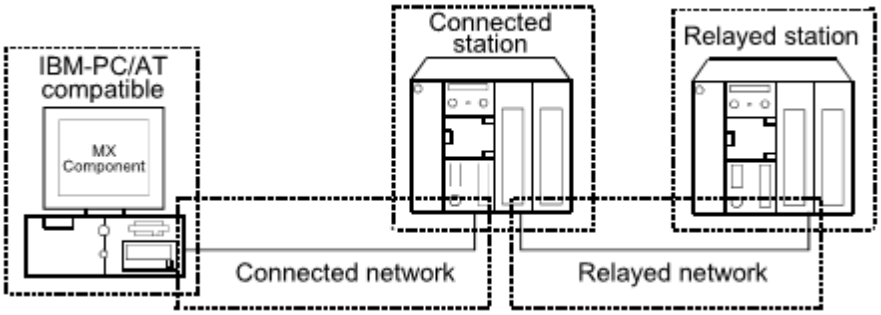


Name	Description	Choices / Setting range	Default
Modules in PLC	<table><tr><th>Column</th><th>Contents</th></tr><tr><td>Slot</td><td>0-based index of the PLC slot</td></tr><tr><td>Starting I/O number</td><td>offset of the module-specific X/Y devices (empty for FX)</td></tr><tr><td>Module Type name</td><td>identifier of module type retrieved from GXDP product database</td></tr></table>		
OK	Close dialog and save selected module type and starting I/O number		Default button
Cancel	Close dialog and discard selection		-

If the user selects a supported module type, the starting I/O number respectively slot of the selected module is used.

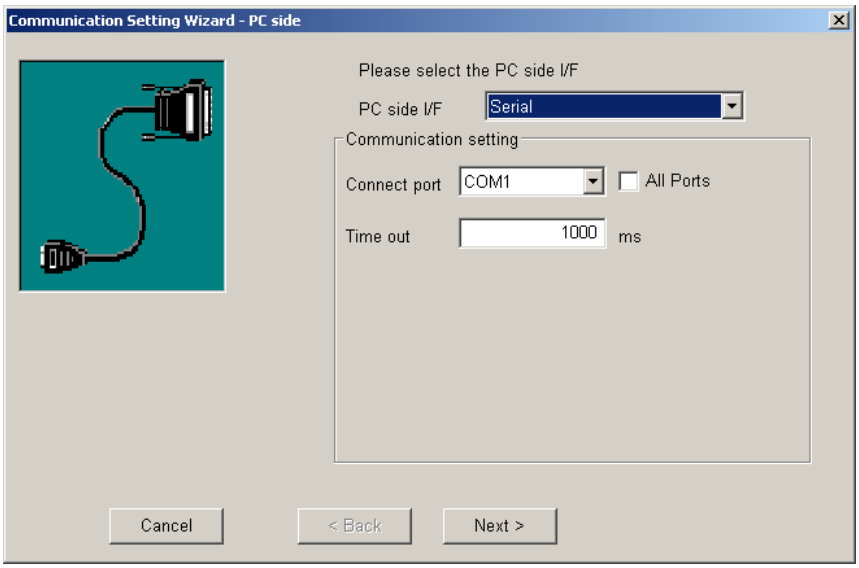
4.2 Transfer Setup Wizard

The transfer setup is used for the configuration of communication links from the PC to a PLC system.
The settings for a communication link between PC and PLC are entered in a set of dialogs. These are organized as a series of sequential pages. Moving between adjoining pages is done via the '**Back** ' and '**Next**' buttons.



Screen Name	Description
Wizard 1)	set the connected network between the IBM-PC/AT compatible and connected station (PLC CPU and module).
Wizard 2)	set the connected station (PLC CPU and module).
Wizard 3)	set the relayed network between the connected station (PLC CPU and module) and relayed station (PLC CPU and module).
Wizard 4)	set the relayed station PLC CPU.
Wizard 5)	add a comment

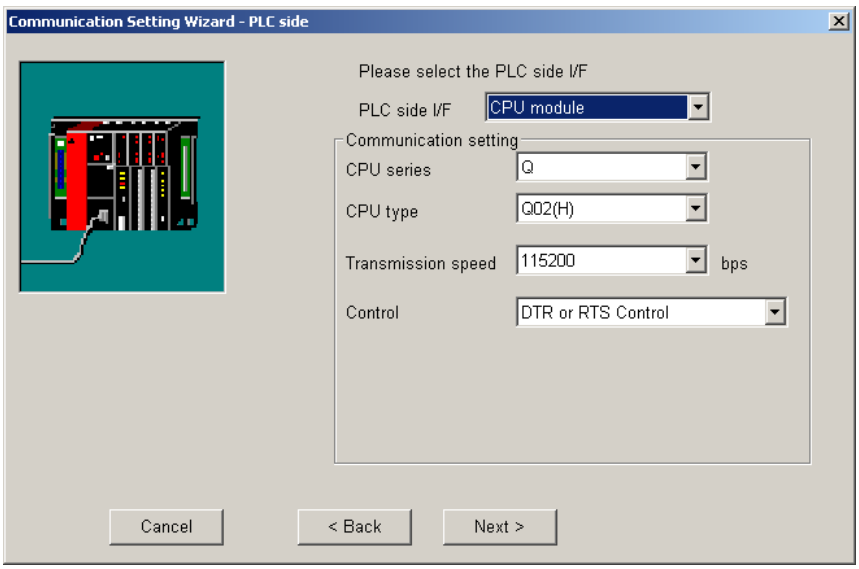
Start the communication setting wizard.



The items shown in the 'Communication setting' box depend on the selected PC side interface. Choose the 'PC side I/F' to communicate with. The available interface types are listed below:

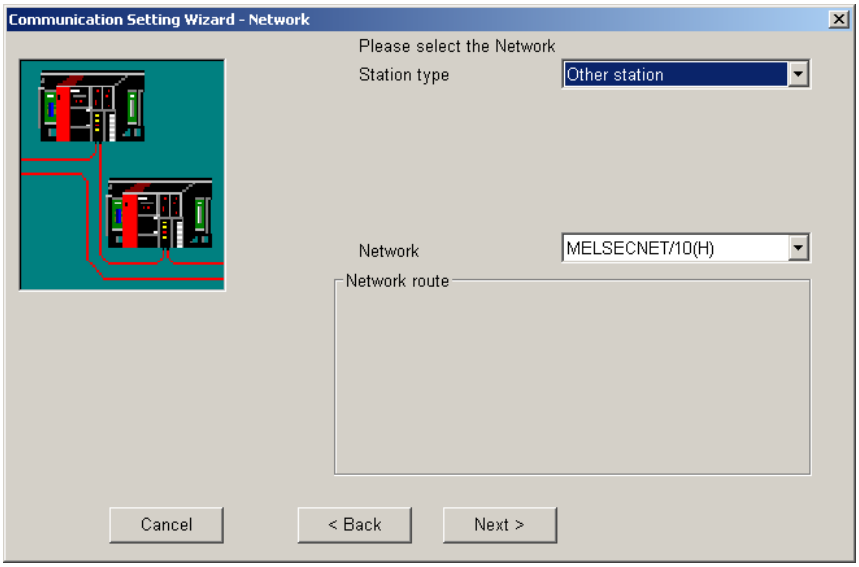
'PC side I/F' Selection	Communication Type
USB	USB communication
Serial	Computer link communication, CPU COM communication, CC-Link G4 communication
Ethernet board	Ethernet communication
Modem	Modem communication
CC-Link IE board	CC-Link IE communication
MELSECNET/H board	MELSECNET/H communication
MELSECNET/10 board	MELSECNET/10 communication
CC-Link board	CC-Link communication
Q Series Bus	Q Series bus communication
GX Simulator	GX Simulator communication
CPU board	CPU board communication

After setting the parameters continue by pressing the '**Next**' button.



The contents of the 'PLC side I/F' page depend on the selected PC side interface.

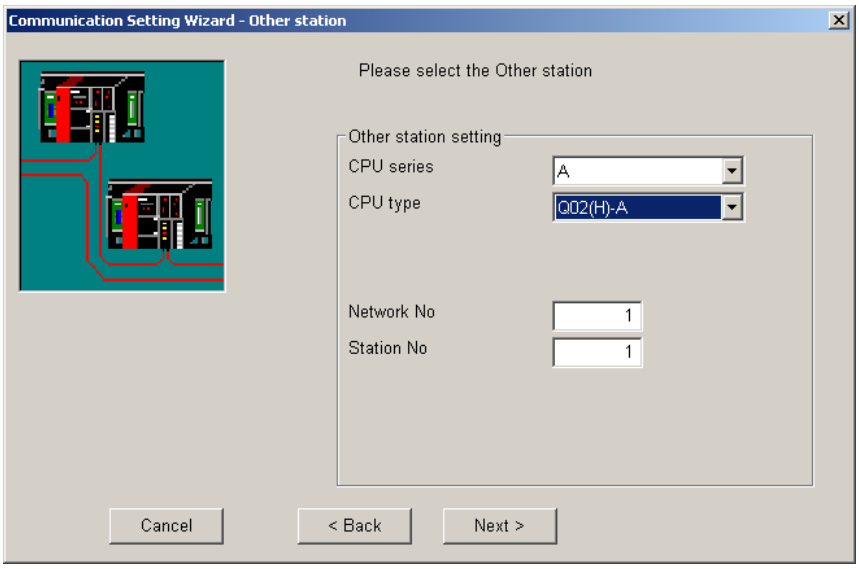
Set all available parameters and click the **Next** button.



The contents of the 'Network' page depend on the selections in the previous pages.

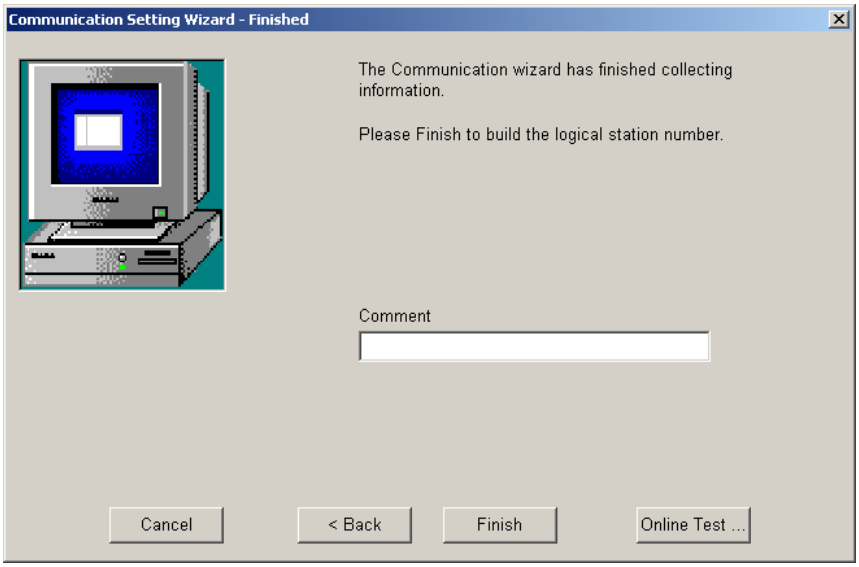
Set all available parameters and click the **Next** button.

Note: when 'Modem' has been selected as 'PC side I/F', the line setting screen appears next. For details of the line setting screen refer to 'Modem Line Settings'.



The contents of the 'Other station' page depend on the selections in the previous pages.

Set all available setting items and click the **Next** button.



You can enter an optional comment of up to 32 characters for the connection.

When pressing the '**Online Test** ...' button, the wizard tries to establish a connection to the target system with the current settings.

Pressing the **Finish** button stores the current settings and closes the wizard.

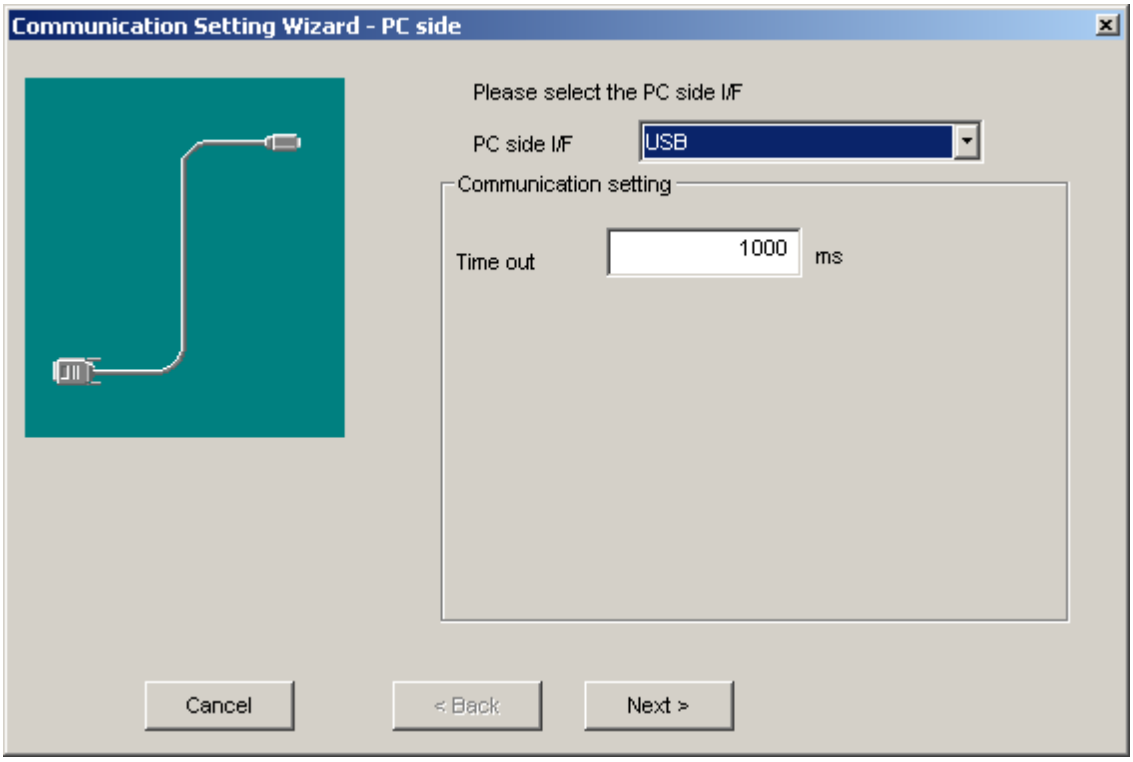
	Note: The enclosed sample programs should serve as examples when writing the user program. They must be modified to match the specific application requirements. The use of code taken from the sample programs is done at the customer's own risk.

4.2.1 PC Universal Serial Bus (USB) Interface

Configure a connection from an USB port of the PC to a PLC.

PC side USB parameters

Parameter	Values	Description
Time out	1 - 2147483647	communication timeout in milliseconds



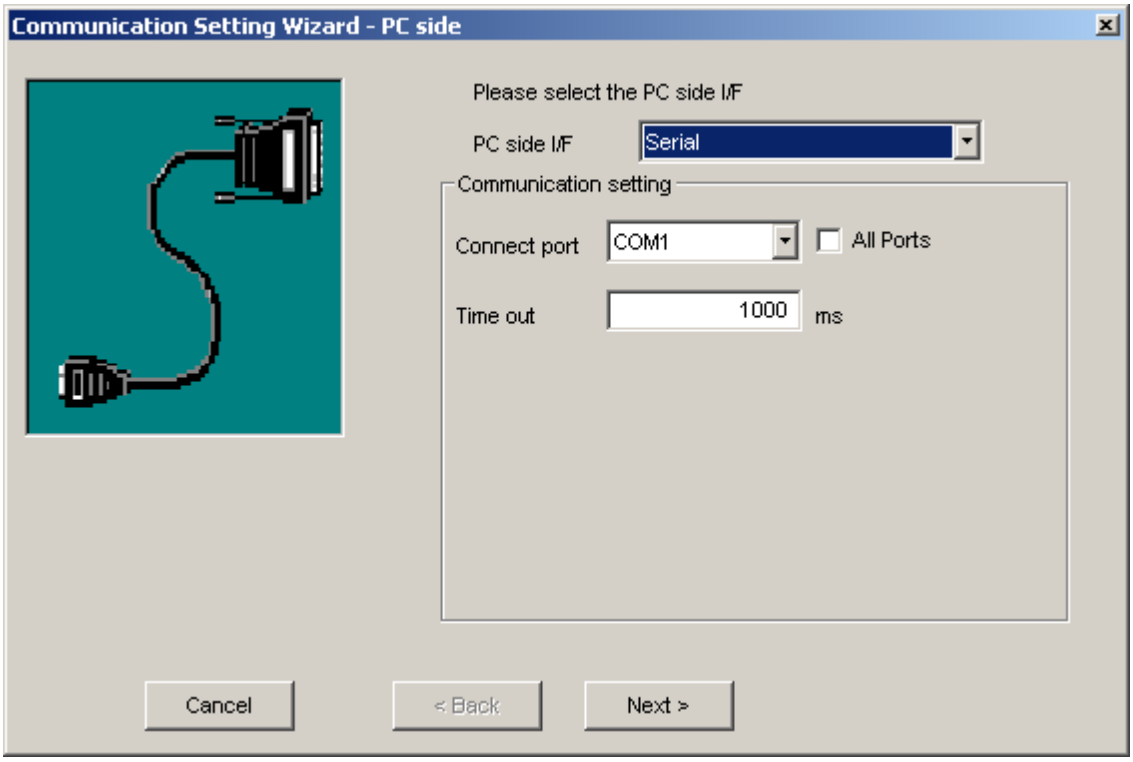
For a description of the editable parameters on the page see PC side USB parameters.
The connected interface on the PLC side is a CPU module.

4.2.2 PC RS232 Serial Interface

Configure a serial connection to a PLC.

PC side serial parameters

Parameter		Values	Description
All Ports			if cleared, only one of the serial interfaces actually installed in the PC can be selected. if checked, any COM port can be selected. This may be useful when defining a configuration for a different PC.
Connect port	'All Ports' cleared	COM1 - COMn	selects the serial interface in the PC from a list of serial interfaces found on the PC
	'All Ports' checked	COM1 - COM256	selects the serial interface in the PC from a list of possible serial interfaces
Time out		1 - 2147483647	communication timeout in milliseconds



For a description of the editable parameters on the page see PC side serial parameters.
The connected interface on the PLC side can be

- a CPU module (either RS422 or USB interface)
- a C24 module
- a G4 module
- an FX extended port

4.2.3 PC Ethernet Board

Configure the PC side ethernet interface

PC side Ethernet parameters

Parameter	Values	Description
Connect module	AJ71E71, AJ71QE71, QJ71E71, GOT, FX-ENET(-ADP), CPU module	type of PLC ethernet module
Protocol	UDP, TCP	connection-less (UDP) or connection-oriented (TCP) protocol **not for GOT and FX-ENET(-ADP) modules** Precautions for use of TCP protocol (a) Provide an interval longer than the sequence scan time of the Ethernet module loaded station from when the Open method is executed until the Close method is executed.

Parameter	Values	Description
		(b) Provide an interval of at least 500ms from when the Close method is executed until the Open method is executed again.
Packet type	ASCII, Binary	selects ASCII or binary packet type for communication **only for AJ71E71 and AJ71QE71 modules**
Network No	1 - 239	network number of the E71 ethernet module, the PC is connected to. The E71 network number is configured in the 'Network Parameters' of the PLC settings. **only for AJ71QE71(UDP) and QJ71E71 modules**
Station No.	1 - 64	station number of the PC side interface. This number can be freely chosen, but must be unique within the network specified by the network number. **only for AJ71QE71(UDP) and QJ71E71 modules**
Port No.	0 - 65535	free UDP port number on the PC side for data sent by the PLC. Port numbers below 1025 should not be used. **only for UDP protocol and for GOT module**
Time out	1 - 2147483647	communication timeout in milliseconds

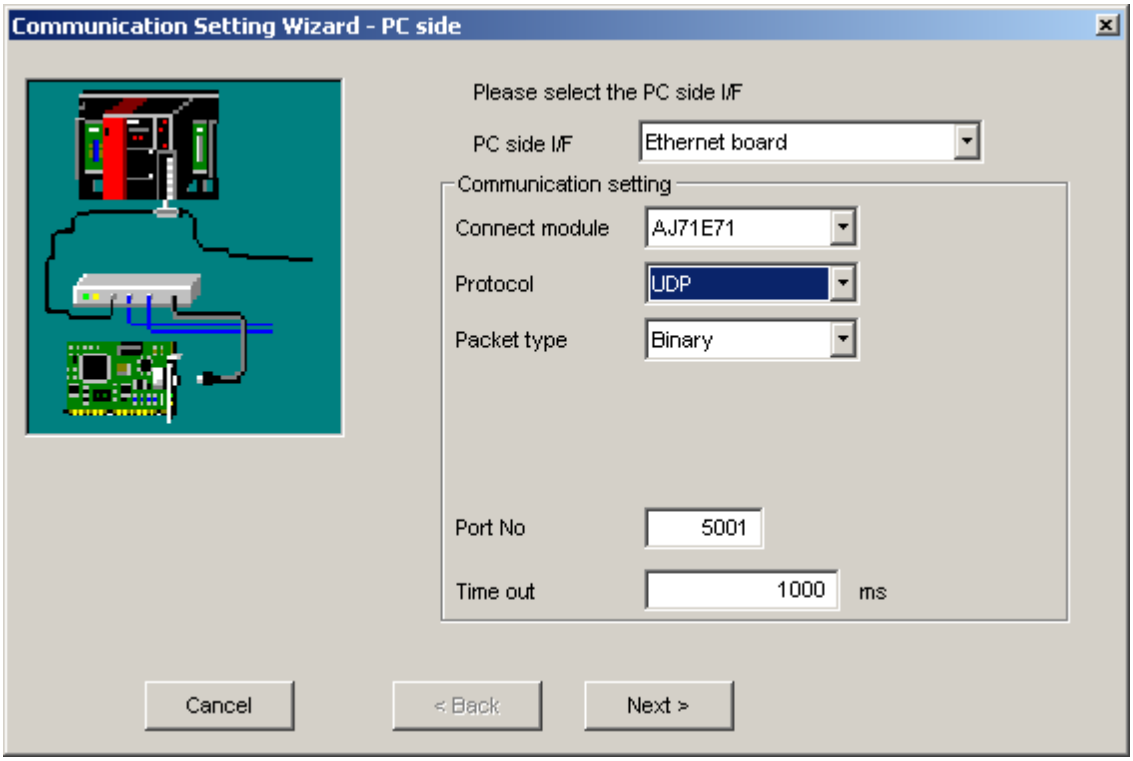
Note:
When connecting from several MELSOFT applications to the same E71 module, make the following settings:
(a) set the protocol of the communication setting wizard screen to 'UDP'.
(b) set "SW2" of the communications setting switches of the E71 module to OFF (binary).

The following restrictions apply to simultaneous connections from multiple PCs to the same E71 module using the TCP/IP protocol:
- for Q series-compatible E71 modules (except QJ71E71-100) the first five digits of the serial number must be '02122' or later and the function version must at least be 'B'
- select 'MELSOFT connection' in the Ethernet parameter 'open system' (via the network parameters in GID/GD)

Note:
Connecting to the PLC CPU through Ethernet depends on the correct PLC CPU status:
1) **TCP** selected: the target PLC CPU must be in RUN mode
2) **UDP** selected: the target PLC CPU must have been in RUN mode once

Note:
When a QnA-, AnU-, Q- (A mode) or motion controller CPU (via E71) are accessed, the device range is equivalent to that of an AnA CPU.

AJ71E71



For a description of the editable parameters on the page see PC side Ethernet parameters.
Pressing the <**Next**> button opens a page for entering the address of the PLC ethernet module.

TCP connections

Connected Station CPU			Relayed Network	Relayed Station CPU				
QCPU (A mode)	QnA CPU	A CPU *1		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FX CPU
	*2		MELSECNET/H	x	x	x	x	x
			MELSECNET/10	x	o	*2	o	x
			MELSECNET(II)	x	o	*2	o	x
			Ethernet	x	x	x	x	x
			Computer link	x	x	x	x	x
			CC-Link	x	x	x	x	x
			CC-Link IE	x	x	x	x	x

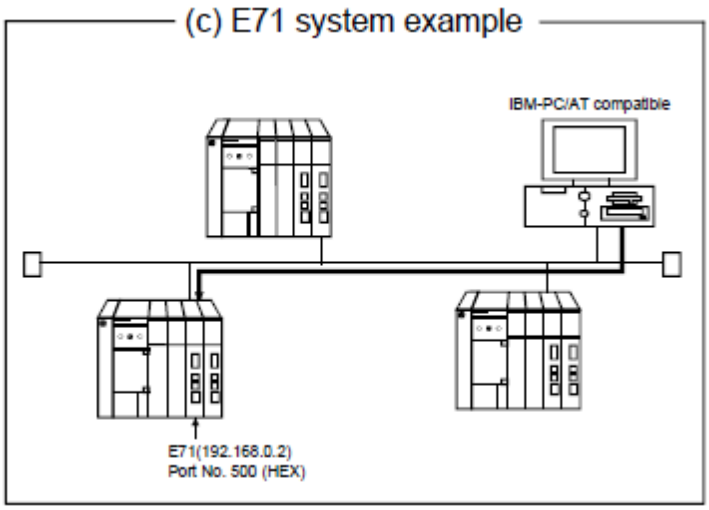
o: Accessible
x: Inaccessible

*1 : Including motion controller CPU
*2 : Operates as the one equivalent to AnACPU

UDP connections

Connected Station CPU			Relayed Network	Relayed Station CPU				
QCPU (A mode)	QnA CPU	A CPU *1		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FX CPU
	*2		MELSECNET/H	x	x	x	x	x
			MELSECNET/10	x	o	*2	o	x
			MELSECNET(II)	x	o	*2	o	x
			Ethernet	x	x	x	x	x
			Computer link	x	x	x	x	x
			CC-Link	x	x	x	x	x
			CC-Link IE	x	x	x	x	x

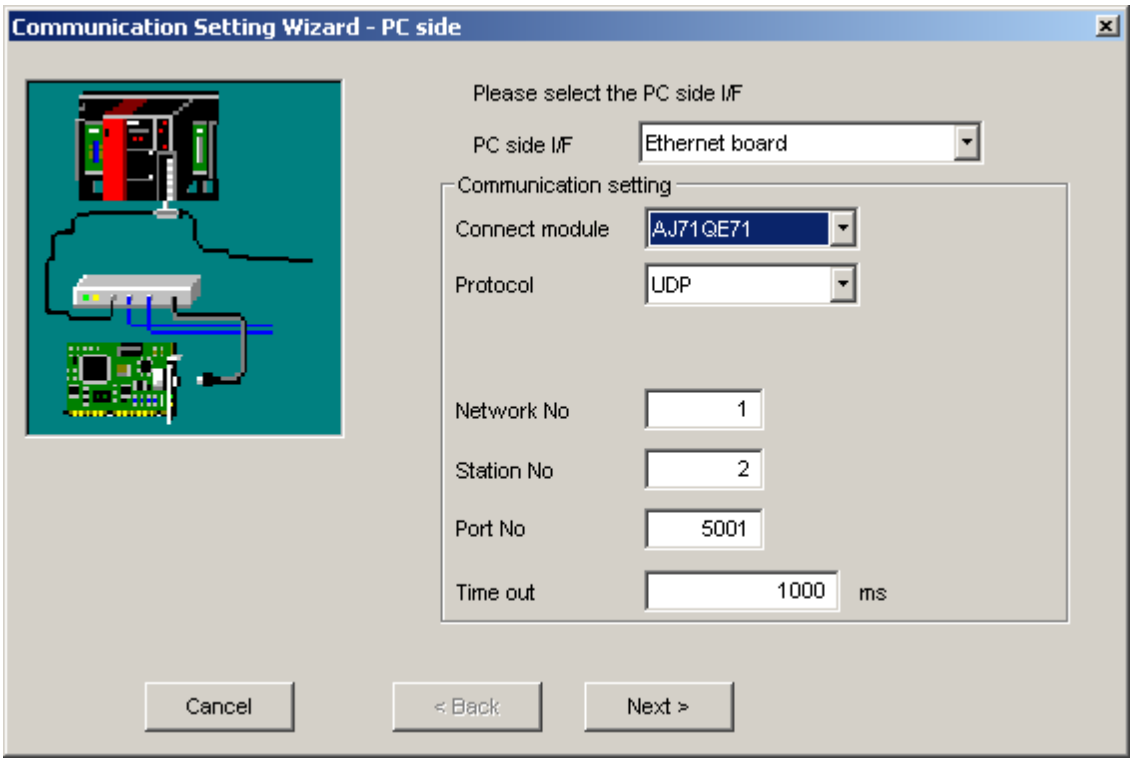
o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : Operates as the one equivalent to AnACPU



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

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

AJ71QE71



For a description of the editable parameters on the page see PC side Ethernet parameters.
Pressing the <**Next**> button opens a page for entering the address of the PLC ethernet module.

TCP connections

Connected Station CPU	Relayed Network	Relayed Station CPU				
QnACPU		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FX CPU
	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	x	o	x	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	x	x	x	x	x
	Computer link	x	x	x	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	x	x	x	x	x

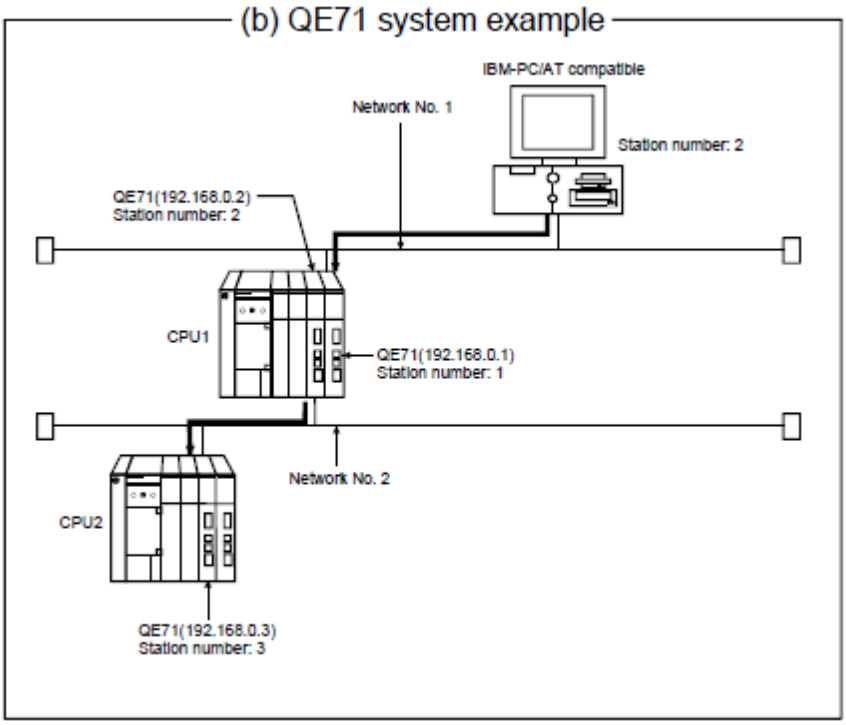
o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

UDP connections

Connected Station CPU	Relayed Network	Relayed Station CPU				
QnACPU		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FX CPU
	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	x	o	x	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	x	x	o	x	x
	Computer link	x	x	o	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

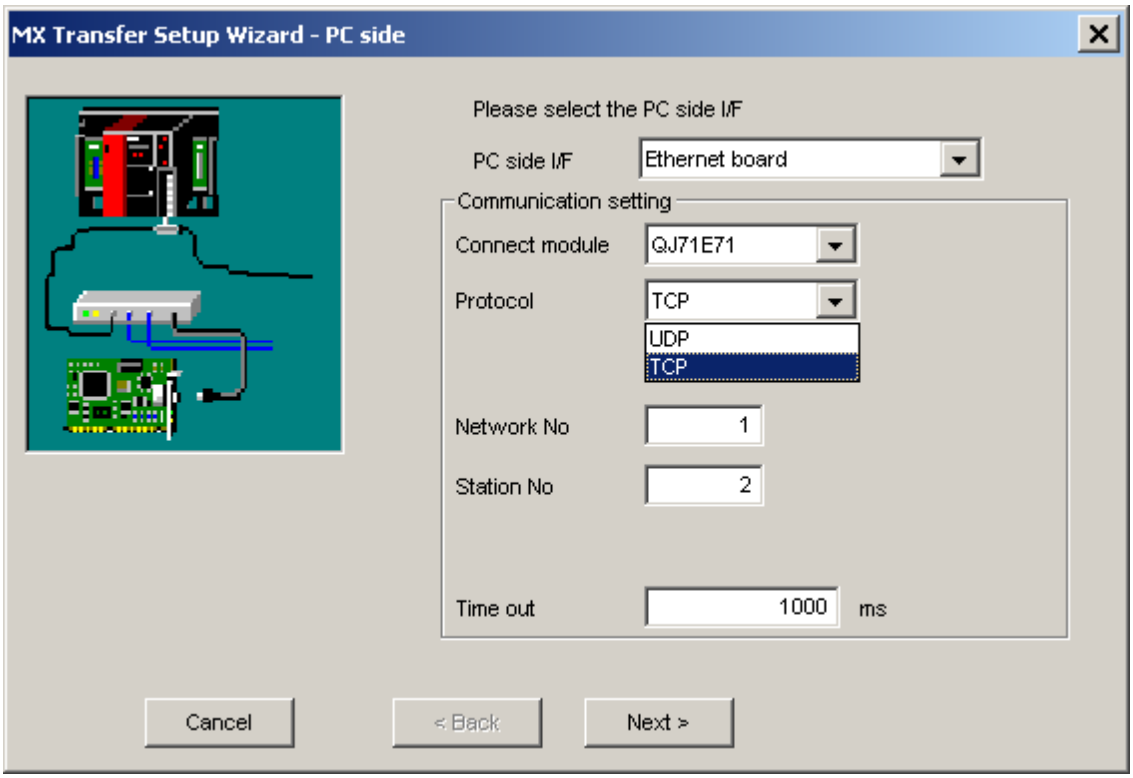
(b) QE71 system example



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

QJ71E71

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



For a description of the editable parameters on the page see PC side Ethernet parameters.
Pressing the <**Next**> button opens a page for entering the address of the PLC ethernet module.

TCP connections

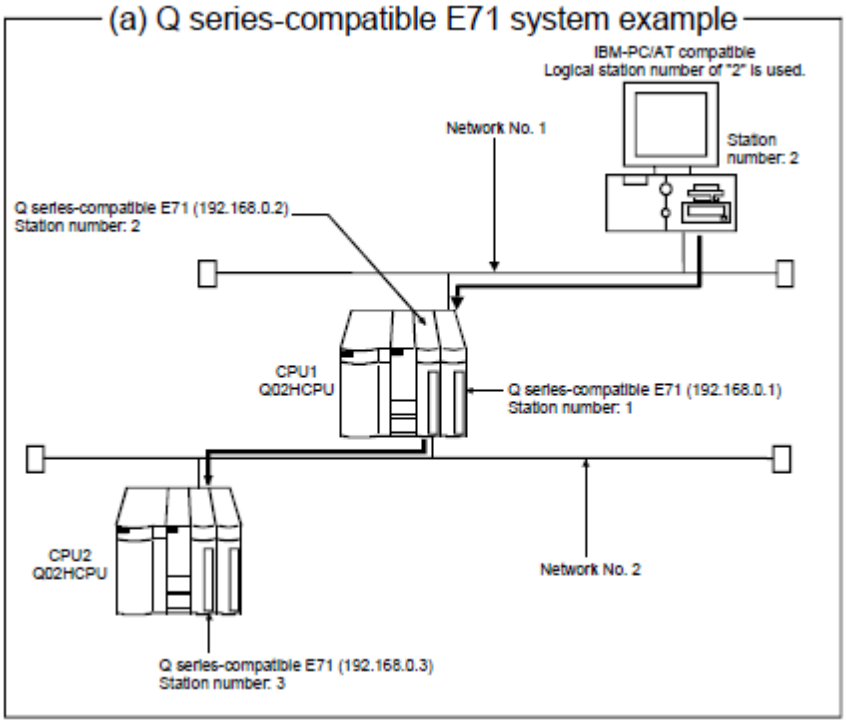
Connected Station CPU		Relayed Station CPU				
QCPU (Q mode)	Relayed Network	QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FX CPU
	MELSECNET/H	o	x	x	x	o
	MELSECNET/10	o	o	o	o	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	o	x	o	x	x
	Computer link	*2	x	x	x	x
	CC-Link	o	o	o	o	x
	CC-Link IE	*3	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : For the Redundant PLC, access is disabled
*3 : partially supported, depends on CPU type

UDP connections

Connected Station CPU	Relayed Network	Relayed Station CPU				
QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FX CPU
	MELSECNET/H	o	x	x	x	o
	MELSECNET/10	o	o	o	o	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	o	x	o	x	x
	Computer link	*2	o	x	x	x
	CC-Link	o	o	o	o	x
	CC-Link IE	*3	x	x	x	x

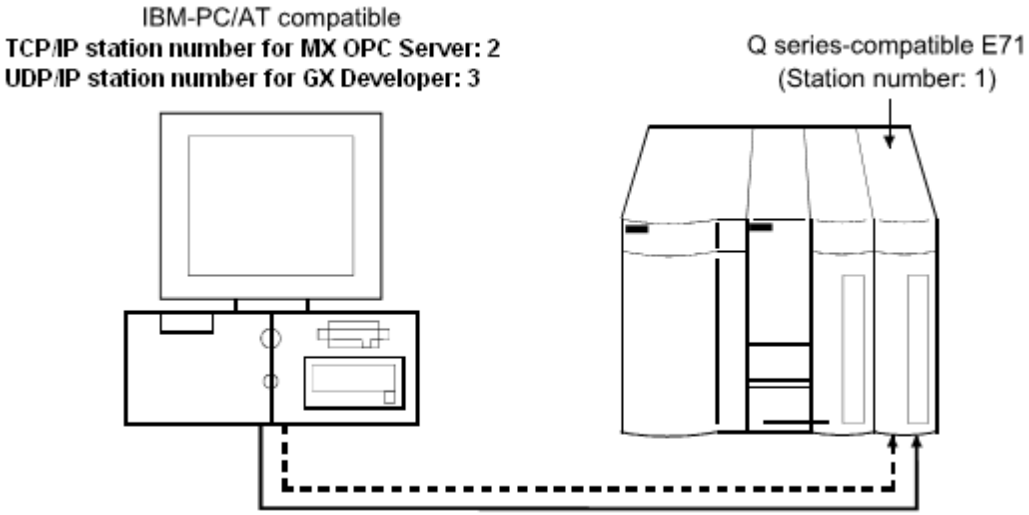
o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : For the Redundant PLC, access is disabled
*3 : partially supported, depends on CPU type



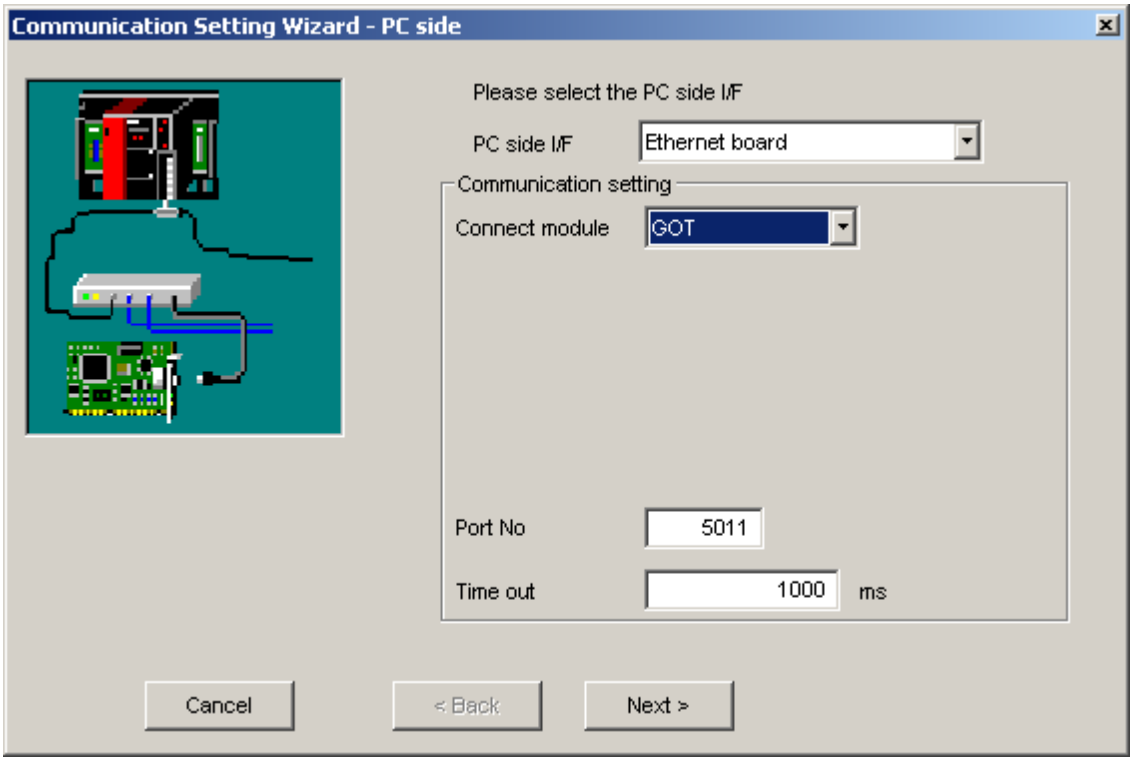
Simultaneous use of different protocol types

When two different communication systems (protocols) are used to access the same Q series-compatible E71 with a serial number before 05051 from one PC, different station numbers must be set for TCP/IP and for UDP/IP.

(Example) When MX OPC Server uses TCP and GX Developer uses UDP

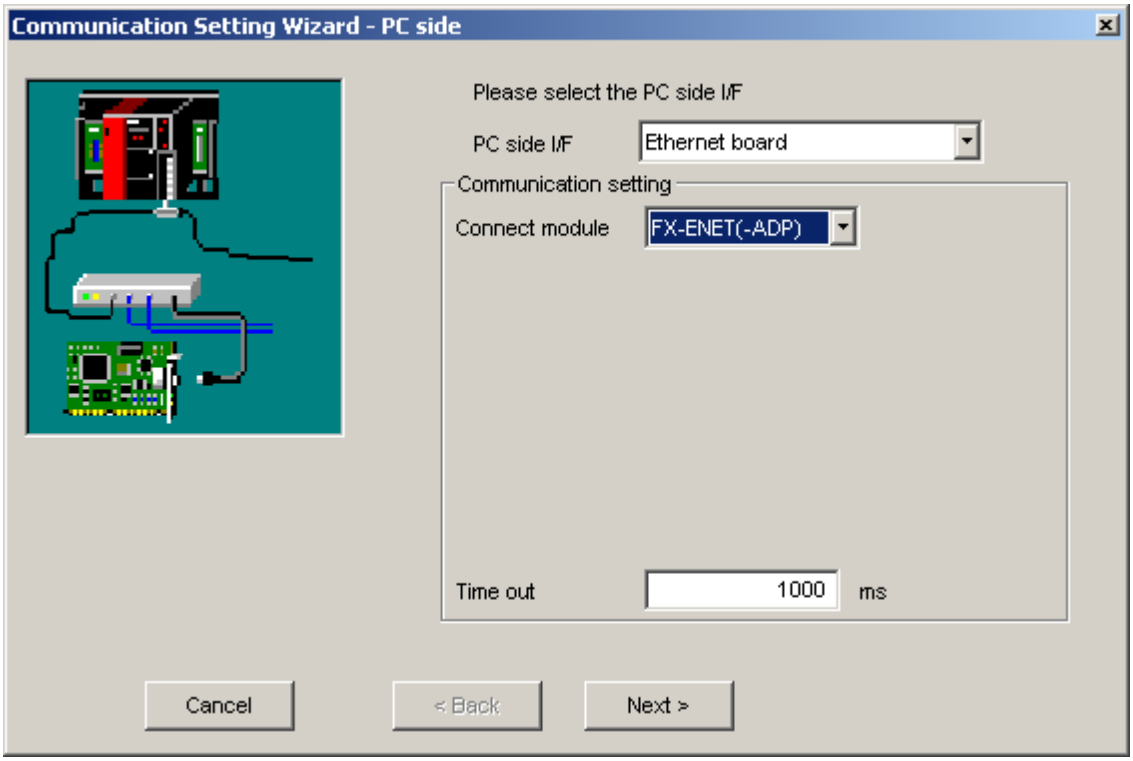


GOT Module



For a description of the editable parameters on the page see PC side Ethernet parameters.
Pressing the <**Next**> button opens a page for entering the address of the PLC ethernet module.

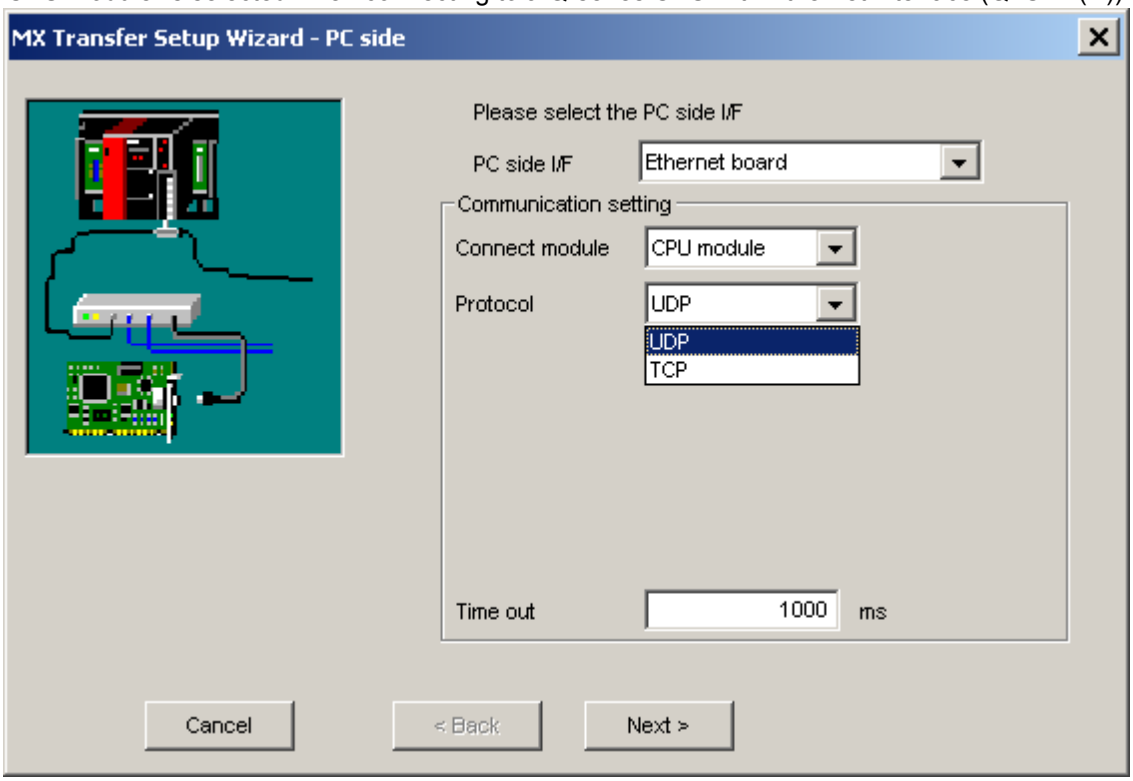
FX Ethernet Module



For a description of the editable parameters on the page see PC side Ethernet parameters.
Pressing the <**Next**> button opens a page for entering the address of the PLC ethernet module.

CPU Module

'CPU module' is selected when connecting to a Q-series CPU with Ethernet interface (QnUDE(H)).



Pressing the <**Next**> button opens a page to search for the PLC CPU or to manually enter its IP

address.

4.2.4 PC Modem

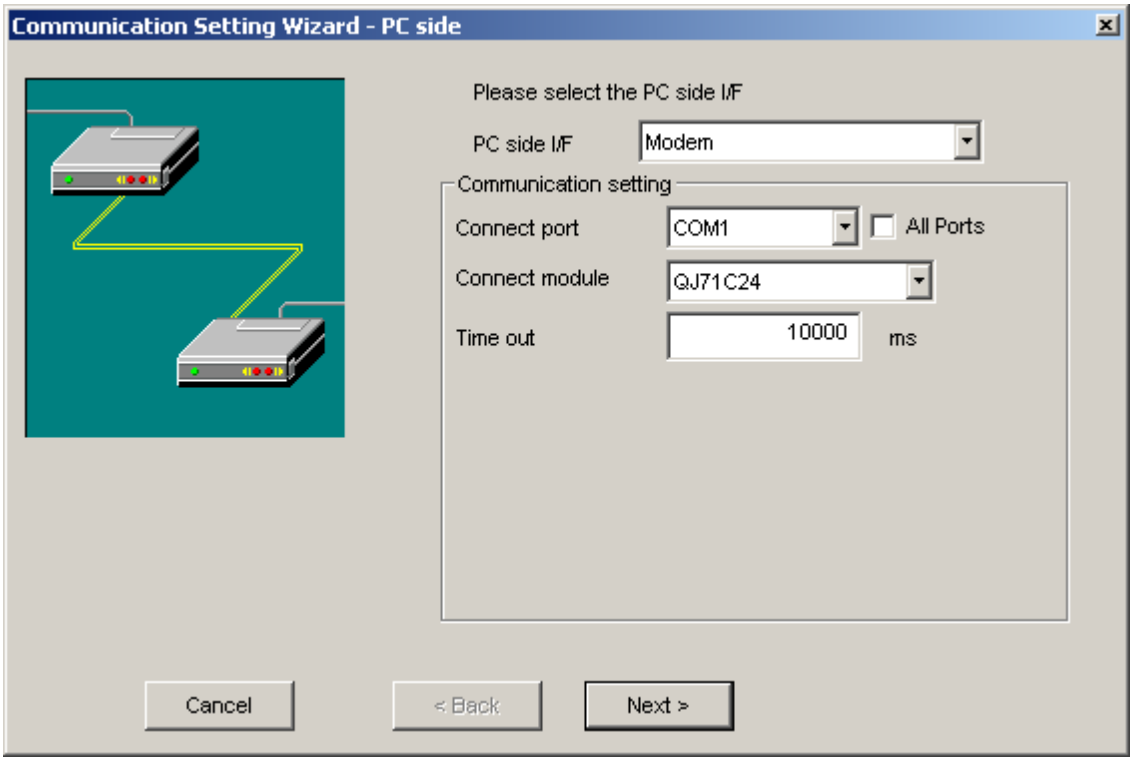
Configure a dial-up connection via modem.

	Note: It is recommended to configure and test the connection in GX Developer or GX IEC Developer before using this wizard.

PC side modem parameters

Parameter	Values	Description
All Ports		if cleared, only one of the serial interfaces actually installed in the PC can be selected if checked, any COM port can be selected. This may be useful when defining a configuration to a different PC
Connect port	'All Ports' flag cleared	selects the serial interface in the PC from a list of serial interfaces found on the PC
	'All Ports' flag checked	selects the serial interface in the PC from al list possible serial interfaces
Connect module	Q6TEL(QnA), FXCPU, AJ71QC24N, QJ71C24, QJ71CMO	type of remote PLC module
Time out	1 - 2147483647	communication timeout in milliseconds

	Note: Simultaneous modem communication by several MELSOFT applications is not supported. Communication errors, a disconnection of the telephone line or similar problems may occur.



For a description of the editable parameters on the page see PC side modem parameters. Pressing the <**Next**> button opens a page for configuring the modem connection (e.g. telephone number etc.).

4.2.4.1 Modem Line Settings

Enter the parameters for the modem connection to a remote PLC including the phone number and any AT commands to configure the local modem.

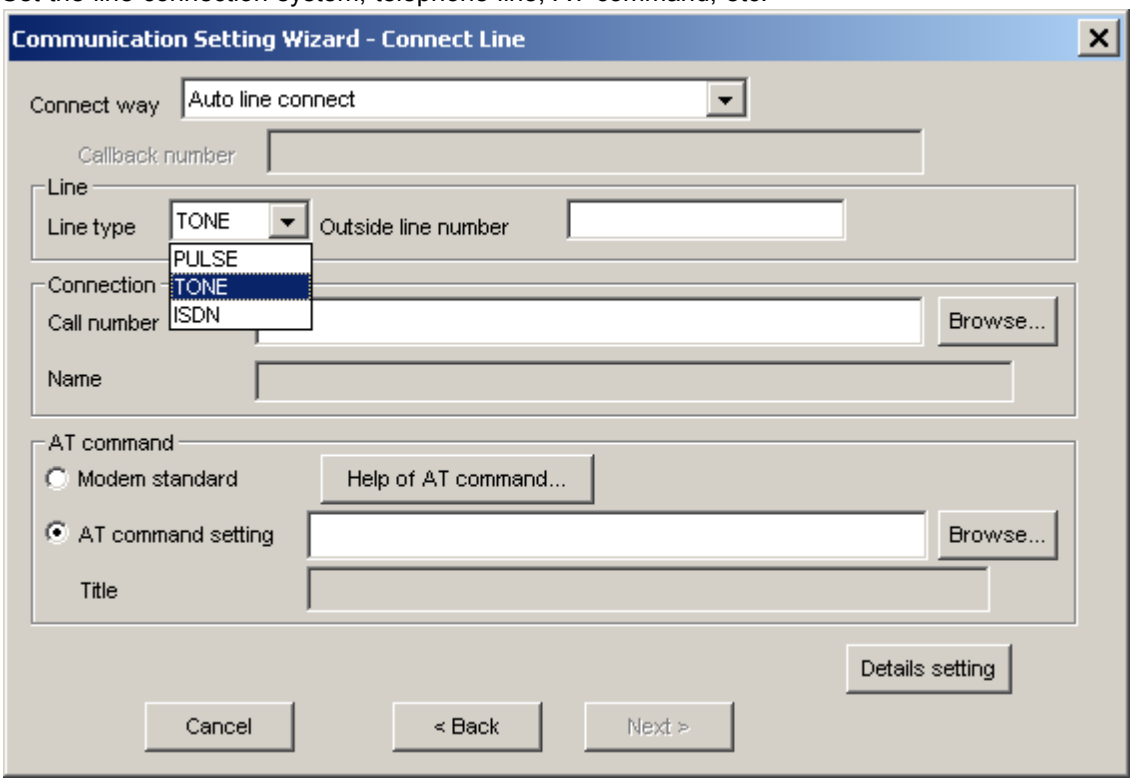
⚠	**Note:** (a) Do not use a call-waiting phone line. On a call-waiting phone line, data corruption, telephone line disconnection or similar may occur due to interrupt reading sounds. (b) Do not connect the line to master/slave phones. If the slave phone picks up while the telephone line is connecting to the master/slave phones, the telephone line may be disconnected. (c) Use an analog 2 wire type telephone line. When using a digital line, use a terminal adaptor. When the telephone line is of 4 wire type, the line may not be connected depending on the wiring type of the modular jack. For the 4 wire type conduct connection tests in advance to check for connection.

⚠	**Note:** (a) Modem for radio communication using a cellular phone Although the modem name is different depending on the maker, the modem is generically referred to as the cellular phone communication unit in this manual. Select the model of the cellular phone communication unit according to the cellular phone used. For details, contact the company of your cellular phone. (b) Cellular phone without auto answer function For a cellular phone without auto answer function, use a cellular phone communication unit that has the ANS/ORG/TEL select switch. If the cellular phone communication unit

	does not have the ANS/ORG/TEL select switch, it is impossible to connect the line. The line connection procedure is different depending on the cellular phone company and cellular phone model. For details, contact the maker of your cellular phone.

Connect line dialog

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

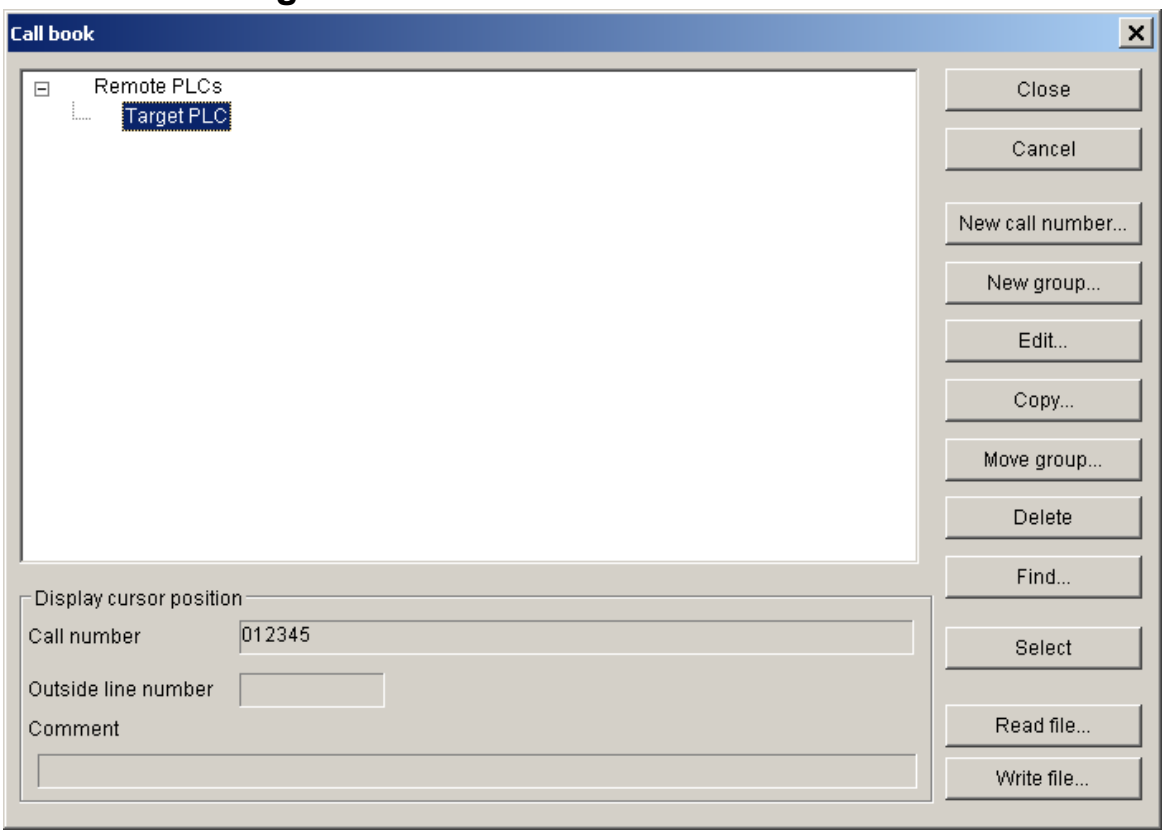


	Note: The '**Next**' button is disabled, if no number has been entered in the 'Call number' field.

Item		Description
Connect way		fixed to 'Auto line connect'
Callback number		not available
Line	Line type	set the line type (Default: Tone)
	Outside line number	set the outside line access number. The number must not exceed a length of 10 characters and can consist of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -, #
Connection target	Call number	enter the telephone number of the connection target. When the connection target has been selected on the phone book screen, the telephone number of the connection target appears. The phone number must not exceed a length of 50 characters and

Item		Description
		can consist of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -, #
	Name	an optional name, which has been assigned to the phone number in the phone book
	Browse	displays the phone book screen. For details see 'Call book dialog'
AT command	Modem standard	when selected the standard AT commands are used
	AT command setting	AT command sequence to initialize the local modem The command must not exceed a length of 70 ASCII characters
	Title	the optional title of the AT command selected in the AT command registration screen
	Browse	displays the AT command registration screen. For details see 'AT command registration dialog'
	Help of AT command	displays the AT command help
Details setting		displays the 'Details setting dialog'

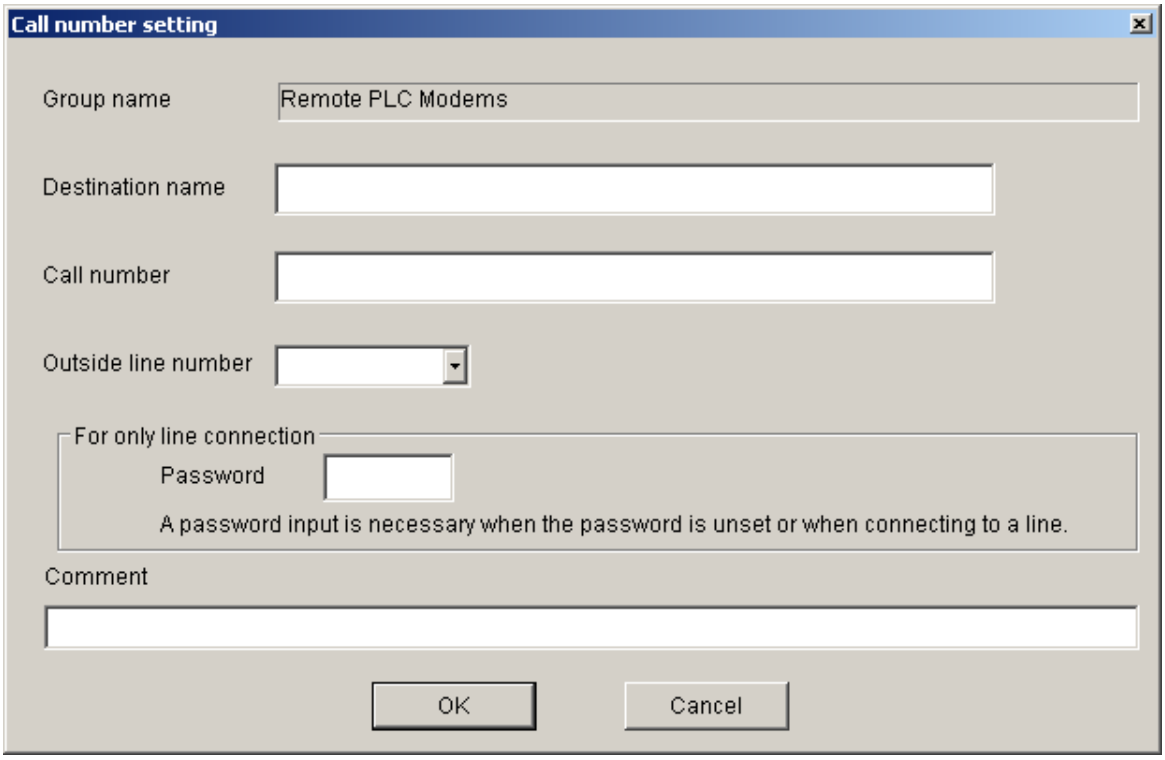
Call book dialog



Item	Description
Close	store the edited data and close the phone book dialog
Cancel	discard the edited data and close the phone book dialog
New call number	open the 'Call number setting dialog' to enter a new phone number
New group	create a new group; opens the 'Group setting' dialog for entering the group name
Edit	if a group is selected, the 'Group setting' dialog is opened. Otherwise it opens the 'Call number setting dialog' to edit a phone number
Copy	copies the selected phone number to a different group (see 'Select phone group name')
Move group	moves the selected phone number to a different group (see 'Select phone group name')
Delete	deletes the selected phone number or group. Only empty groups can be deleted. If a group is not empty, the phone numbers must be deleted first.
Find	used to search phone numbers and associated names (see 'Find a phone number')
Select	closes the dialog and copies the selected phone number to the line dialog
Read file	reads phone numbers from a file selected by the user
Write file	stores the contents of the phone book in a file selected by the user

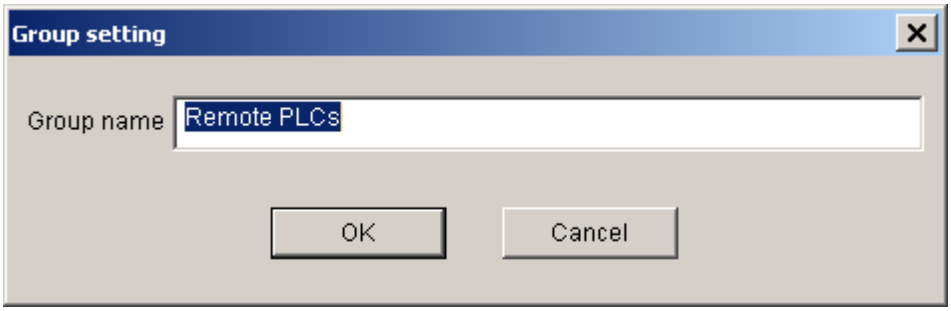
Call number setting dialog

Set the telephone number to be registered to the phone book.



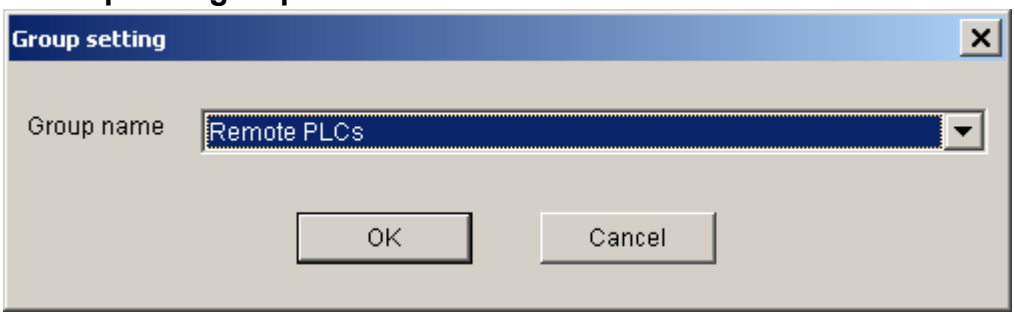
Item	Description
Group name	the group name of the registration destination.
Destination name	name associated with the phone number
Call number	enter the telephone number of the connection target. The phone number must not exceed a length of 50 characters and can consist of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -, , #
Outside line number	set the outside line access number. The number must not exceed a length of 10 characters and can consist of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -, , #
For only line connection	if a password has been set in A6TEL, Q6TEL or Q series C24 for remote access, the password must be entered here in order to access the target PLC
Comment	an optional comment describing the phone number

Edit phone group name



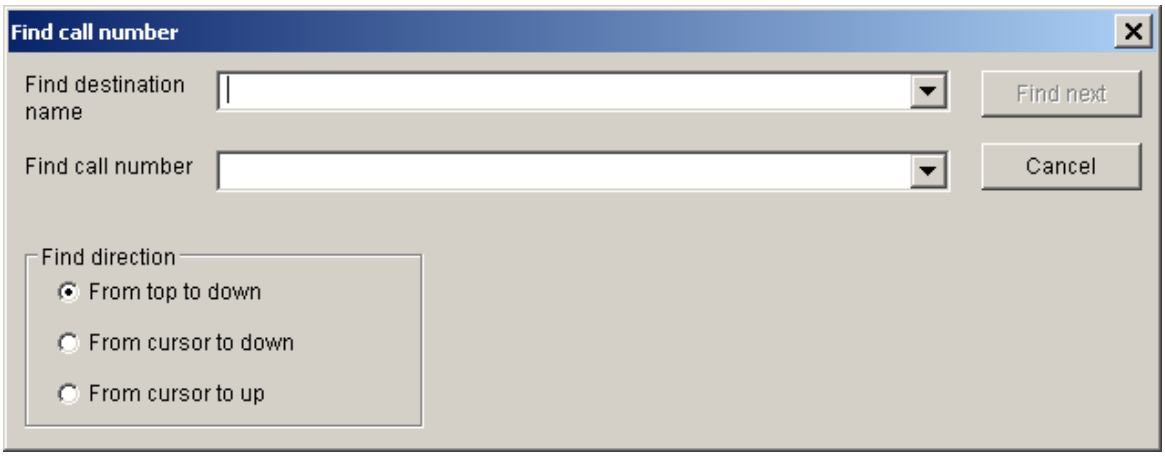
Enter the name for a group of telephone numbers.

Select phone group name



Select the name of the group, where the selected phone number is copied to.

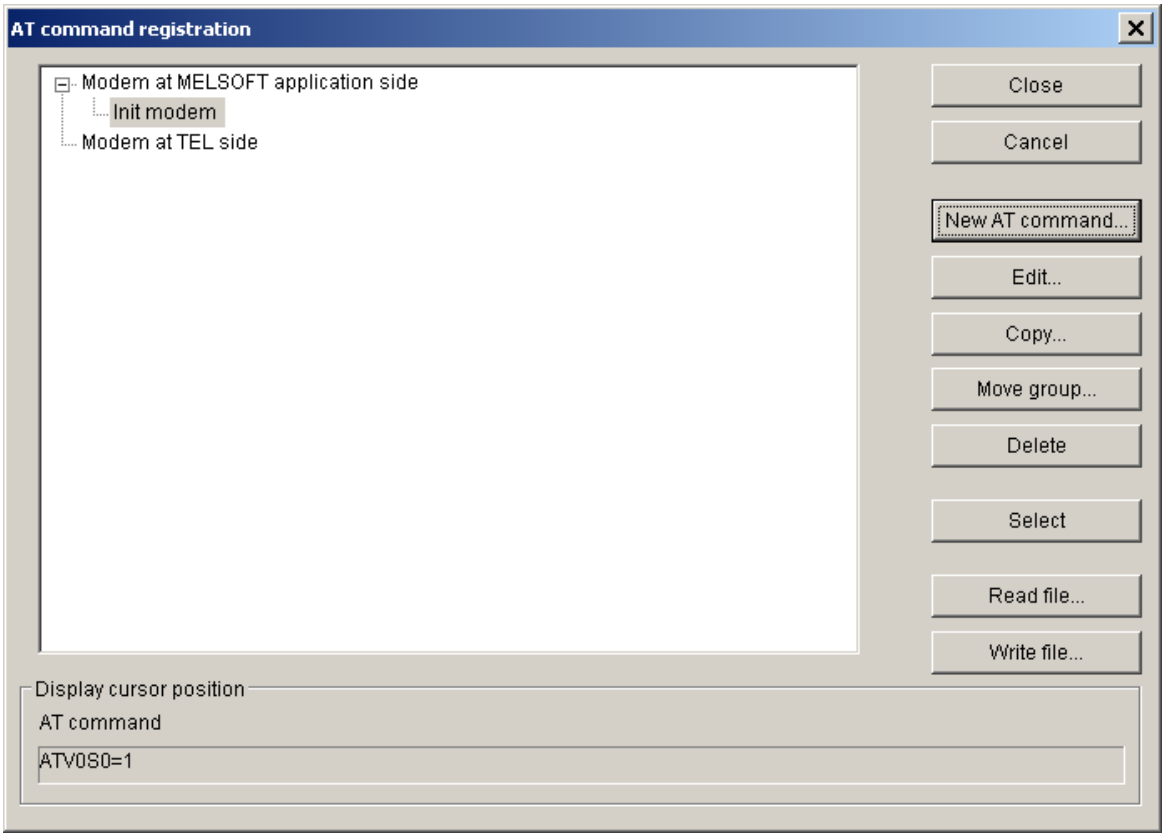
Find a phone number



Search the phone book for a given name or number.

AT command registration dialog

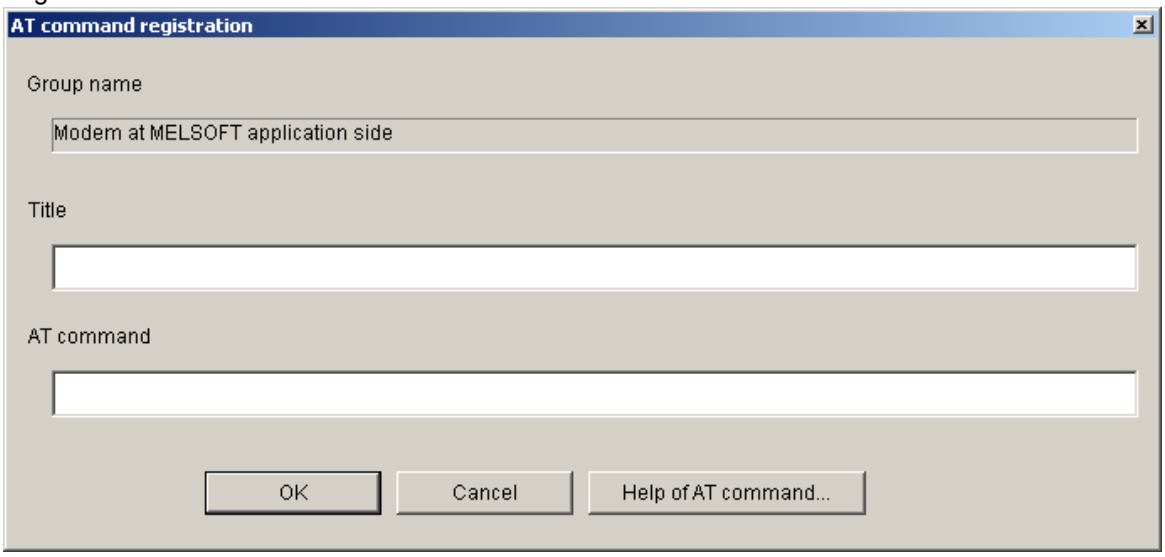
Set the AT commands used on the line setting screen.



Item	Description
Close	store the edited data and close the AT command registration dialog
Cancel	discard the edited data and close the AT command registration dialog
New AT command	define a new AT command. For details see 'AT command edit dialog'
Edit	edit an existing AT command. For details see 'AT command edit dialog'
Copy	copy the selected command to a different group (see 'Select AT command group name')
Move group	move the selected command to a different group (see 'Select AT command group name')
Delete	delete the selected AT command
Select	Used to display the AT command selected in the AT command display list on the line setting screen.
Read file	reads AT commands from a file selected by the user
Write file	stores the AT commands in a file selected by the user

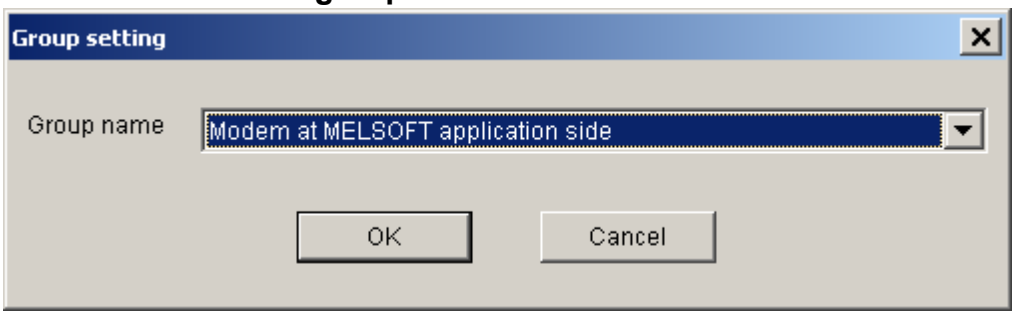
AT command edit dialog

Register a new AT command and edit the AT command.



Item	Description
Group name	displays the name of the group to which the AT command is assigned
Title	a name for the AT command (max 60 ASCII characters)
AT command	enter the AT command for modem initialization (max. 70 ASCII characters)
Help of AT command	displays the AT command help

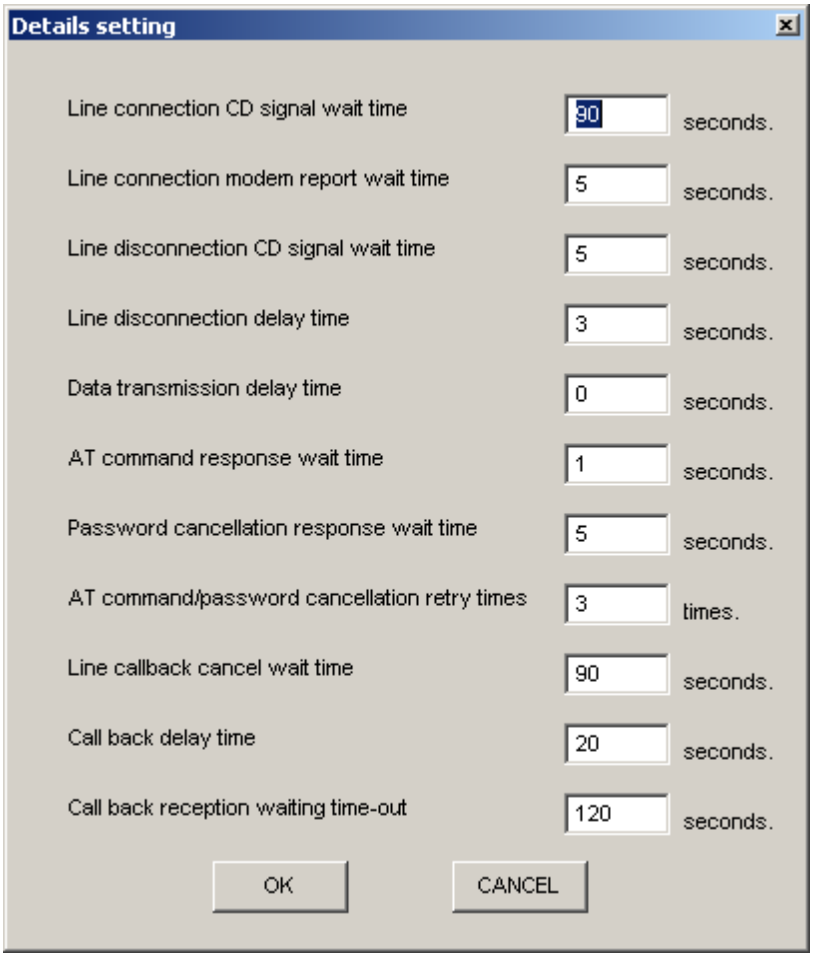
Select AT command group name



Select the name of the group, where the selected AT command is copied to.

Details setting dialog

Set details for telephone line connection.



Item	Description
Line connection CD signal wait time	Set the maximum time to wait for the carrier-detect signal to be set (Default: 90) Increase the time, if the CD signal does not turn ON within the set time depending on the line-connected region (example: overseas). Setting range: 1 to 999
Line connection modem report waiting time	Set the line connection modem report wait time. (Default: 5) Increase the set time if the response speed of the modem is low. Setting range: 1 to 999
Line disconnection CD signal wait time	Set the maximum time to wait for the carrier-detect signal to be dropped (Default: 5) Increase the set time if the CD signal does not turn OFF within the preset time depending on the line-connected region (example: overseas). Setting range: 1 to 999
	Set the line disconnection delay time. (Default: 3)

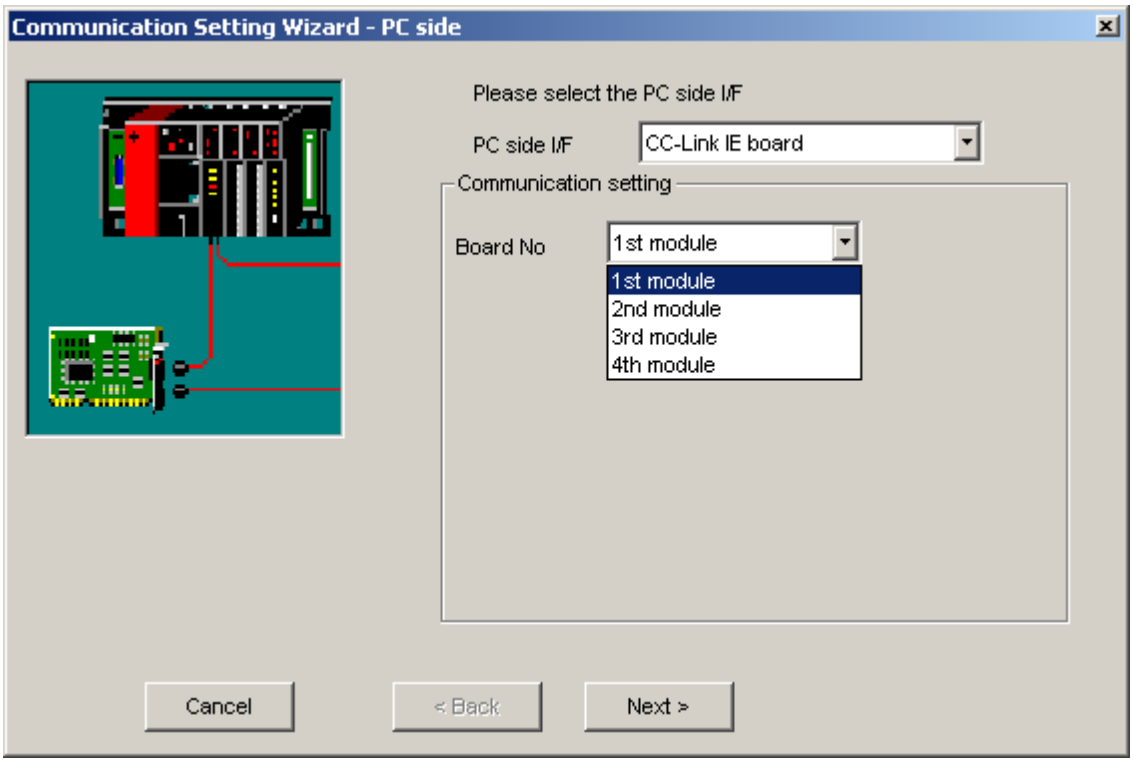
Item	Description
Line disconnection delay time	Increase the set time if the response speed of the modem is low. Setting range: 1 to 999
Data transmission delay time	Set the data transmission delay time. (Default: 0) Increase the set time if the response speed of the modem is low. Setting range: 1 to 999
AT command response wait time	Set the AT command response wait time. (Default: 1) Increase the set time if the response speed of the modem is low. Setting range: 1 to 999
Password cancellation response wait time	Set the password cancellation response wait time. (Default: 5) Increase the set time if the quality of the line with the other end is low. Setting range: 1 to 999
AT command/ password cancellation retry times	Set the AT command/password cancellation retry count. (Default: 3) Increase the set count if the AT command cannot be sent or the password cannot be canceled. Setting range: 1 to 999
Line callback cancel wait time	Set the Line callback cancel wait time. (Default: 90) Increase the set time if the line at the other end (Q series corresponding C24 side) is not disconnected within the set time depending on the line-connected region (example: overseas). Setting range: 1 to 180
Call back delay time	Set the callback delay time. (Default: 20) Increase the set time if the device for relaying connection to the line (example: modem, etc.) requires the set time for reconnection after line disconnection. Setting range: 1 to 999
Call back reception waiting time-out	Set the callback reception waiting time-out. (Default: 120) Increase the set time if a time-out occurs in a callback receive waiting status. Setting range: 1 to 3600

4.2.5 PC CC-Link IE Board

A connection between PC and PLC via CC-Link IE requires the CC-Link IE interface board and the corresponding driver to be installed in the PC.

PC side CC-Link IE parameters

Parameter	Values	Description
Board No.	1st, 2nd, 3rd, 4th module	selects the interface board in the PC



For a description of the editable parameters on the page see PC side CC-Link IE parameters.
The PLC station, to which a connection is established, can be either

- the host station
- a different station in an attached network
- a different station in a separate network

Q CPU (Q mode)

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	o	x	x	x	x
		MELSECNET/10	o	x	x	x	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	o	x	x	x	x
		Computer link	x	x	x	x	x
		CC-Link	x	x	x	x	x
		CC-Link IE	*2	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : partially supported, depends on CPU type

Q CPU (A mode)

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QCPU (A mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	x	x	x	x	x
		MELSECNET/10	x	x	x	x	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	x	x	x	x	x
		Computer link	x	x	x	x	x
		CC-Link	x	x	x	x	x
		CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

QnA CPU

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QnACPU		QCPU (Q mode)	QCPU (A mode)	QnACPU	ACPU *1	FXCPU
o	o	MELSECNET/H	x	x	x	x	x
		MELSECNET/10	x	x	o	x	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	x	x	o	x	x
		Computer link	x	x	x	x	x
		CC-Link	x	x	x	x	x
		CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

A CPU

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	ACPU *1		QCPU (Q mode)	QCPU (A mode)	QnACPU	ACPU *1	FXCPU
o	o	MELSECNET/H	x	x	x	x	x
		MELSECNET/10	x	x	x	x	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	x	x	x	x	x
		Computer link	x	x	x	x	x
		CC-Link	x	x	x	x	x
		CC-Link IE	x	x	x	x	x

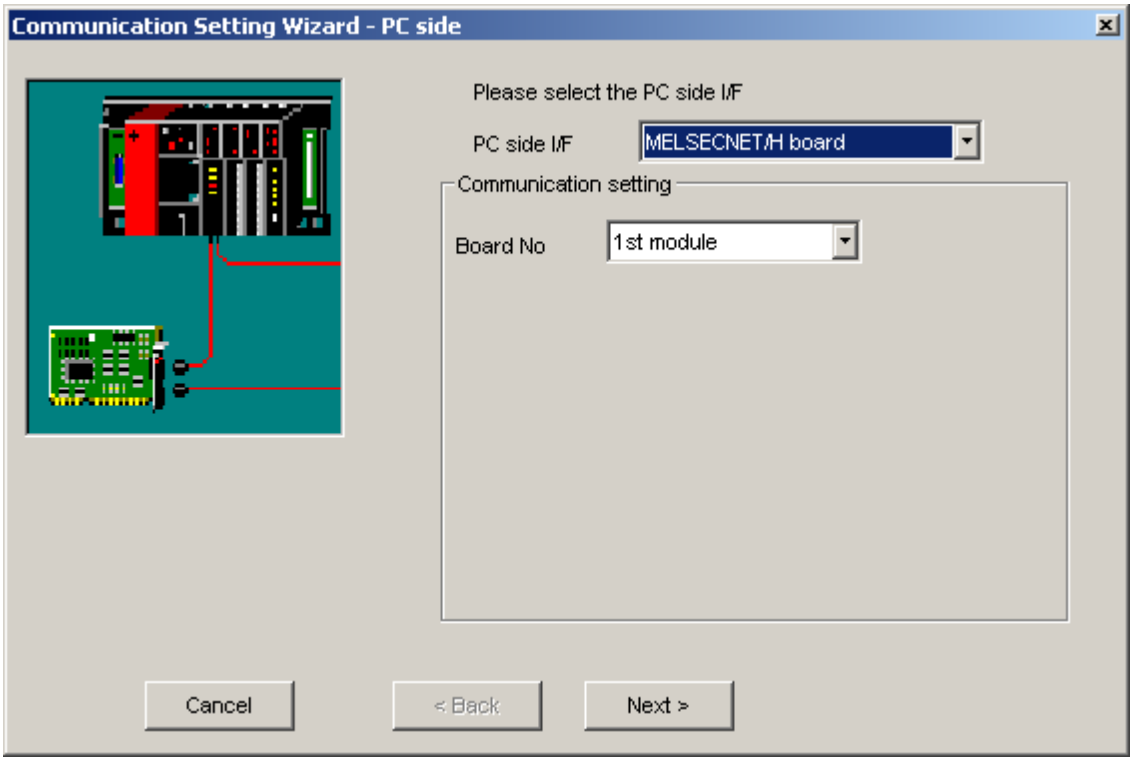
o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

4.2.6 PC MELSECNET/H Board

A connection between PC and PLC via MELSECNET/H requires the MELSECNET/H interface board and the corresponding driver to be installed in the PC.

PC side MELSECNET/H parameters

Parameter	Values	Description
Board No.	1st, 2nd, 3rd, 4th module	selects the interface board in the PC



For a description of the editable parameters on the page see PC side MELSECNET/H parameters.
The PLC station, to which a connection is established, can be either

- the host station
- a different station in an attached network
- a different station in a separate network

MELSECNET/H mode to Q CPU (Q mode)

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	o	x	x	x	x
		MELSECNET/10	o	o	o	o	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	o	x	x	o	x
		Computer link	*3	x	o	x	x
		CC-Link	o	x	x	x	o
		CC-Link IE	*4	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : Operates only when QCPU (Q mode) is used.
*3 : For the Redundant PLC, access is disabled.
*4 : partially supported, depends on CPU type

MELSECNET/10 mode to Q CPU (Q mode)

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	x	x	x	x	x
		MELSECNET/10	o	o	o	o	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	o	x	x	x	x
		Computer link	*2	x	o	x	x
		CC-Link	o	x	x	x	x
		CC-Link IE	*3	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : For the Redundant PLC, access is disabled
*3 : partially supported, depends on CPU type

MELSECNET/10 mode to Q CPU (A mode) and A CPU

Own Board	Connected Station CPU		Relayed Network	Relayed Station CPU				
	QCPU (A mode)	ACPU *1		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	o	MELSECNET/H	x	x	x	x	x
			MELSECNET/10	o	o	o	o	x
			MELSECNET(II)	x	x	x	x	x
			Ethernet	x	x	x	x	x
			Computer link	x	x	x	x	x
			CC-Link	x	x	x	x	x
			CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

MELSECNET/10 mode to QnA CPU

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QnACPU		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	x	x	x	x	x
		MELSECNET/10	o	o	o	o	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	x	x	o	x	x
		Computer link	x	x	o	x	x
		CC-Link	x	x	x	x	x
		CC-Link IE	x	x	x	x	x

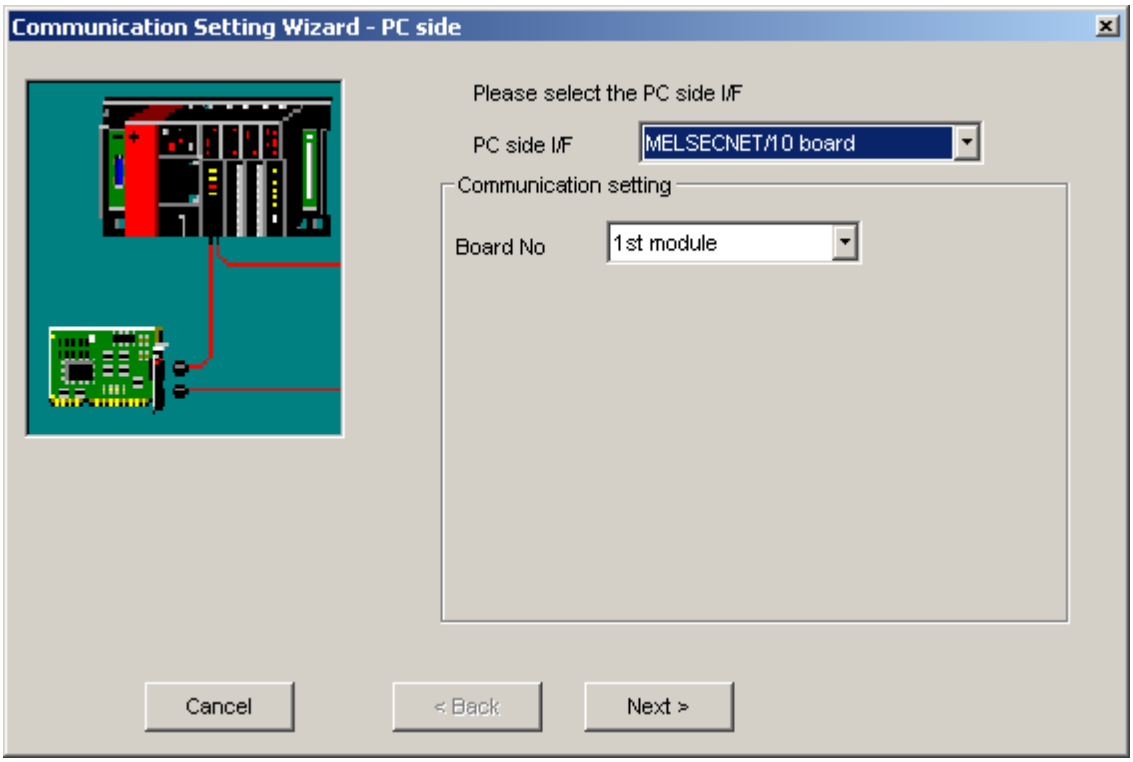
o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

4.2.7 PC MELSECNET/10 Board

A connection between PC and PLC via MELSECNET/10 requires the MELSECNET/10 interface board and the corresponding driver to be installed in the PC.

PC side MELSECNET/10 parameters

Parameter	Values	Description
Board No.	1st, 2nd, 3rd, 4th module	selects the interface board in the PC



For a description of the editable parameters on the page see PC side MELSECNET/10 parameters.
The PLC station, to which a connection is established, can be either

- the host station
- a different station in an attached network
- a different station in a separate network

Q CPU (Q mode)

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	o	x	x	x	x
		MELSECNET/10	o	o	o	o	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	o	x	x	o	x
		Computer link	*2	x	o	x	x
		CC-Link	o	x	x	x	o
		CC-Link IE	*3	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : For the Redundant PLC, access is disabled
*3 : partially supported, depends on CPU type

Q CPU (A mode) and A CPU

Own Board	Connected Station CPU		Relayed Network	Relayed Station CPU				
	QCPU (A mode)	ACPU *1		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	o	MELSECNET/H	x	x	x	x	x
			MELSECNET/10	o	o	o	o	x
			MELSECNET(II)	x	x	x	x	x
			Ethernet	x	x	x	x	x
			Computer link	x	x	x	x	x
			CC-Link	x	o	x	x	x
			CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

QnA CPU

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QnACPU		QCPU (Q mode)	QCPU (A mode)	QnACPU	ACPU *1	FXCPU
o	o	MELSECNET/H	x	x	x	x	x
		MELSECNET/10	o	o	o	o	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	x	x	o	x	x
		Computer link	x	x	o	x	x
		CC-Link	x	o	x	x	x
		CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

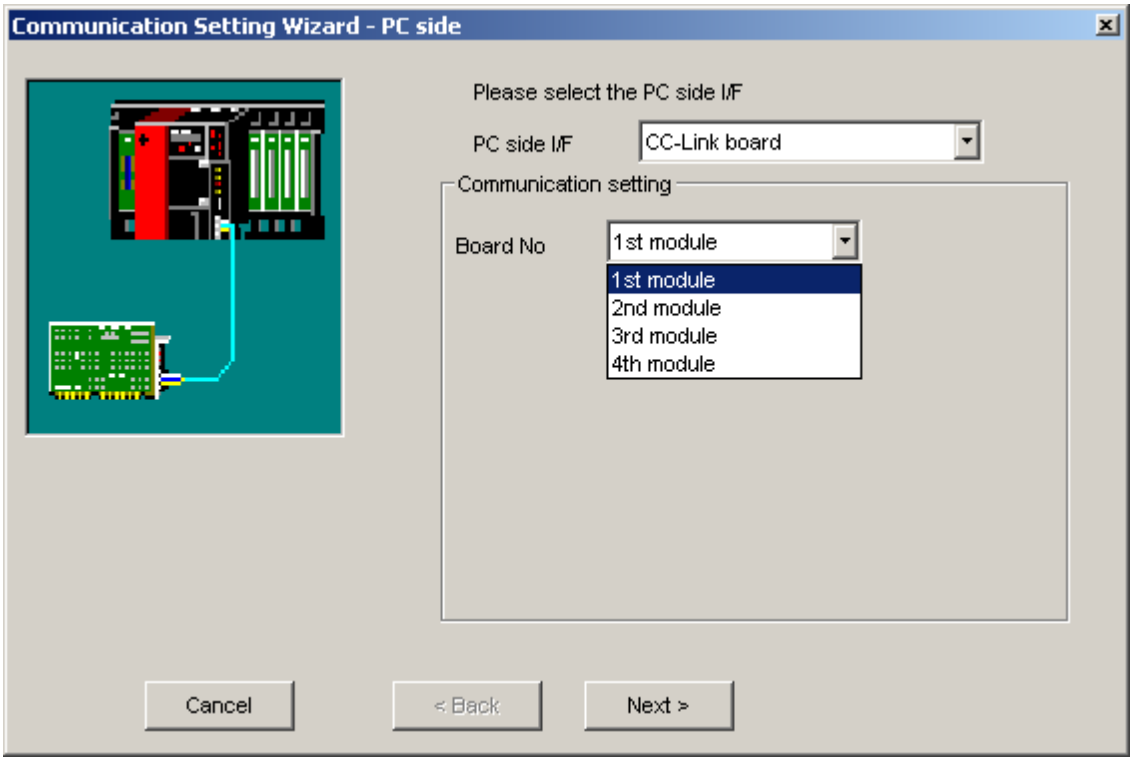
4.2.8 PC CC-Link Board

A connection between PC and PLC via CC-Link requires the CC-Link interface board and the corresponding driver to be installed in the PC.

PC side CC-Link parameters

Parameter	Values	Description
Board No.	1st, 2nd, 3rd, 4th module	selects the interface board in the PC

Note:
The CC-Link master/local module used in CC-Link communication or CC-Link G4 communication (only when the AJ65BT-G4 is used), must have software version 'N' or later. Modules with software version 'M' or earlier will not operate properly.



For a description of the editable parameters on the page see PC side CC-Link parameters.
The PLC station, to which a connection is established, can be either

- the host station
- a different station in an attached network
- a different station in a separate network

Q CPU (Q mode)

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	o	x	x	x	x
		MELSECNET/10	o	x	x	x	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	o	x	x	x	x
		Computer link	x	x	x	x	x
		CC-Link	x	x	x	x	x
		CC-Link IE	*2	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : partially supported, depends on CPU type

Q CPU (A mode)

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QCPU (A mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	x	x	x	x	x
		MELSECNET/10	x	x	x	x	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	x	x	x	x	x
		Computer link	x	x	x	x	x
		CC-Link	x	x	x	x	x
		CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

QnA CPU

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	QnACPU		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	x	x	x	x	x
		MELSECNET/10	x	x	o	x	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	x	x	o	x	x
		Computer link	x	x	x	x	x
		CC-Link	x	x	x	x	x
		CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

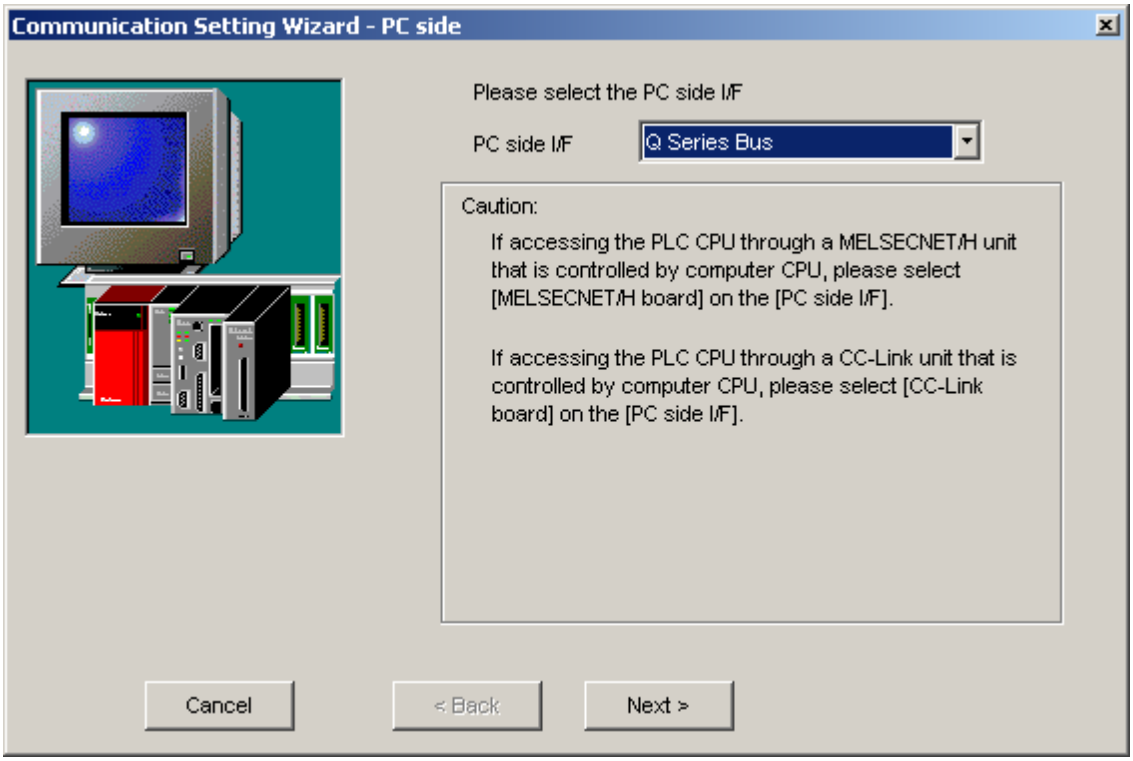
A CPU

Own Board	Connected Station CPU	Relayed Network	Relayed Station CPU				
	ACPU *1		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	o	MELSECNET/H	x	x	x	x	x
		MELSECNET/10	x	x	x	x	x
		MELSECNET(II)	x	x	x	x	x
		Ethernet	x	x	x	x	x
		Computer link	x	x	x	x	x
		CC-Link	x	x	x	x	x
		CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

4.2.9 PC Q Series Bus

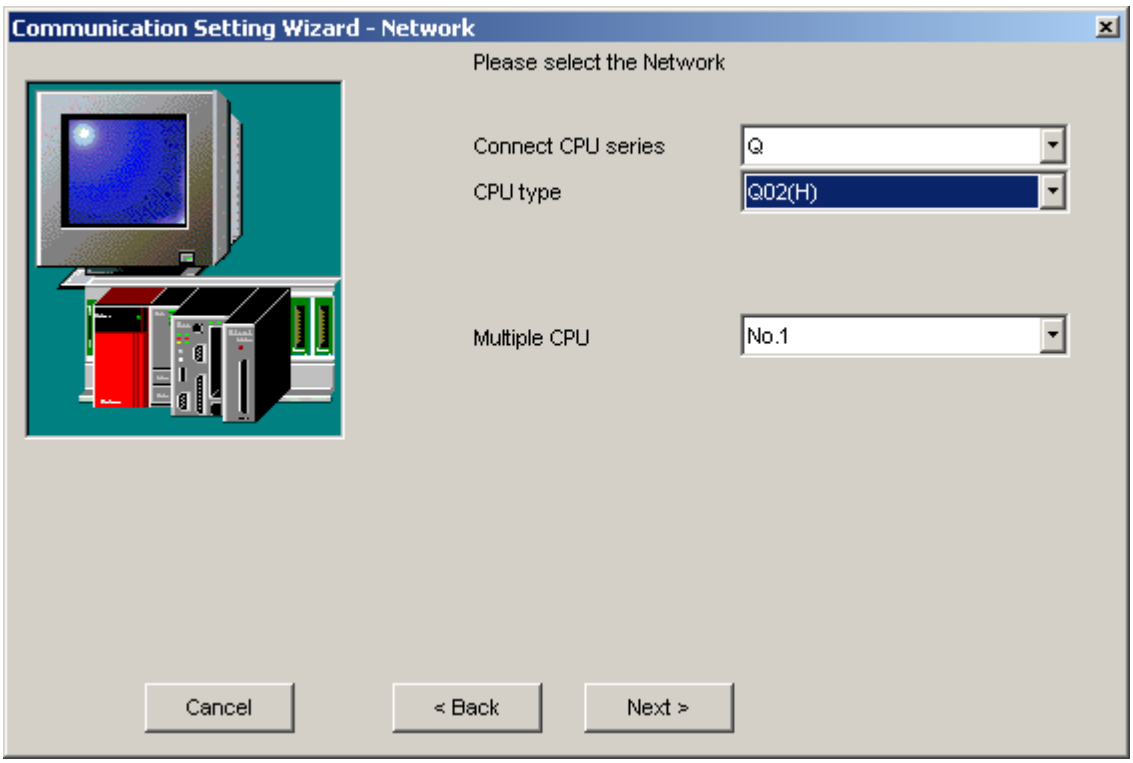
Configure a connection from the PC CPU module installed in a Q series rack to a PLC CPU within the same rack, using the back panel bus. Alternatively the communication between PC CPU and PLC CPU module can use a MELSECNET/H or a CC-Link interface.



Pressing the <**Next**> button opens a page for selecting the connected CPU type.

Q Series Bus - Network

Parameter	Values	Description
CPU type	see list of supported CPU types	type of PLC CPU module
Multiple CPU	No. 1, No. 2, No. 3	selects the CPU module in the PLC



Pressing the <**Next**> button opens a page for entering a comment for the connection.

4.2.10 PC GX Simulator

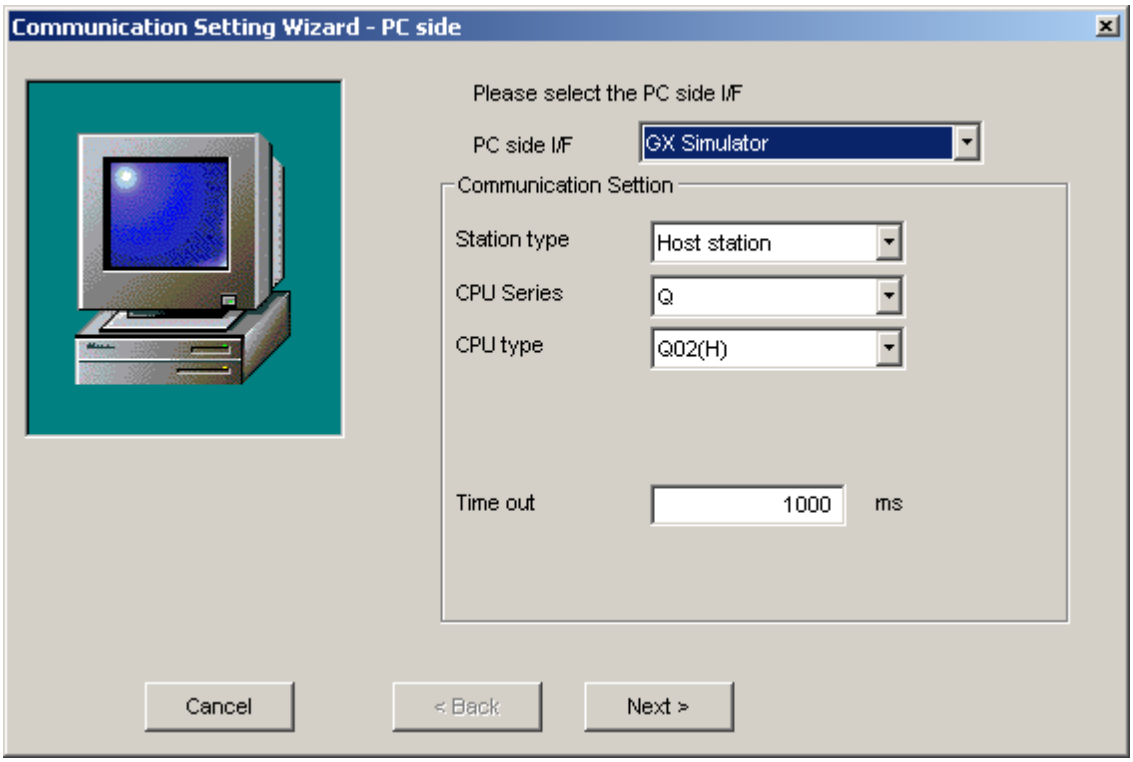
Define a connection to an instance of GX Simulator running on the same or a different computer.

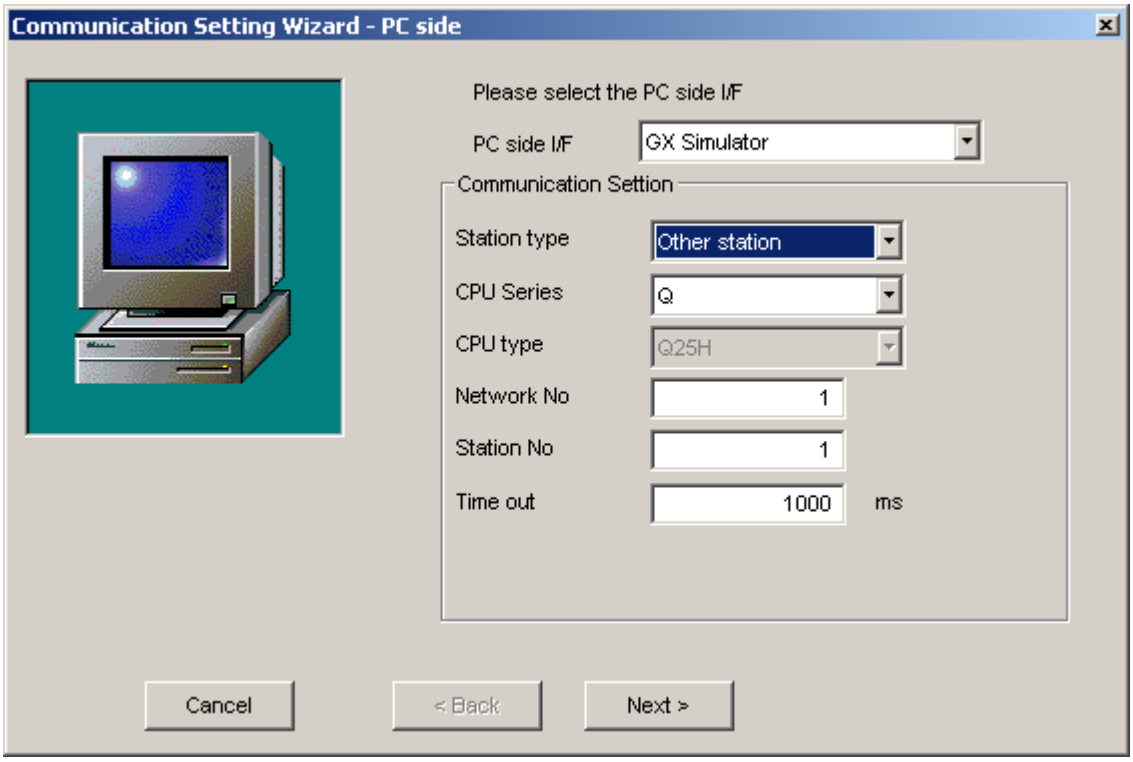
PC side GX Simulator parameters

Parameter	Values	Description
Station type	'Host station' or 'Other station'	type of PLC ethernet module
CPU series	Q, QnA, A, FX	series of the CPU type selected in GX Simulator (FX is only available for station type 'Host station')
CPU type	see list of supported CPU types	type of CPU selected in GX Simulator **not selectable for 'Other station' as 'Station type'**

Parameter	Values	Description
Network No	1 - 239	network number of the E71 ethernet module, the PC is connected to. The E71 network number is configured in the 'Network Parameters' of the PLC settings. **only for 'Other station' as 'Station type'**
Station No.	1 - 64	station number of the PC side interface. This number can be freely chosen, but must be unique within the network specified by the network number. **only for 'Other station' as 'Station type'**
Time out	1 - 2147483647	communication timeout in milliseconds

Note:
Before configuring the connection please make sure that GX Simulator and GX Developer are operating.
In addition, do not terminate GX Simulator and GX Developer while the user program is running.
If you do so, you will not be able to terminate the user program normally.

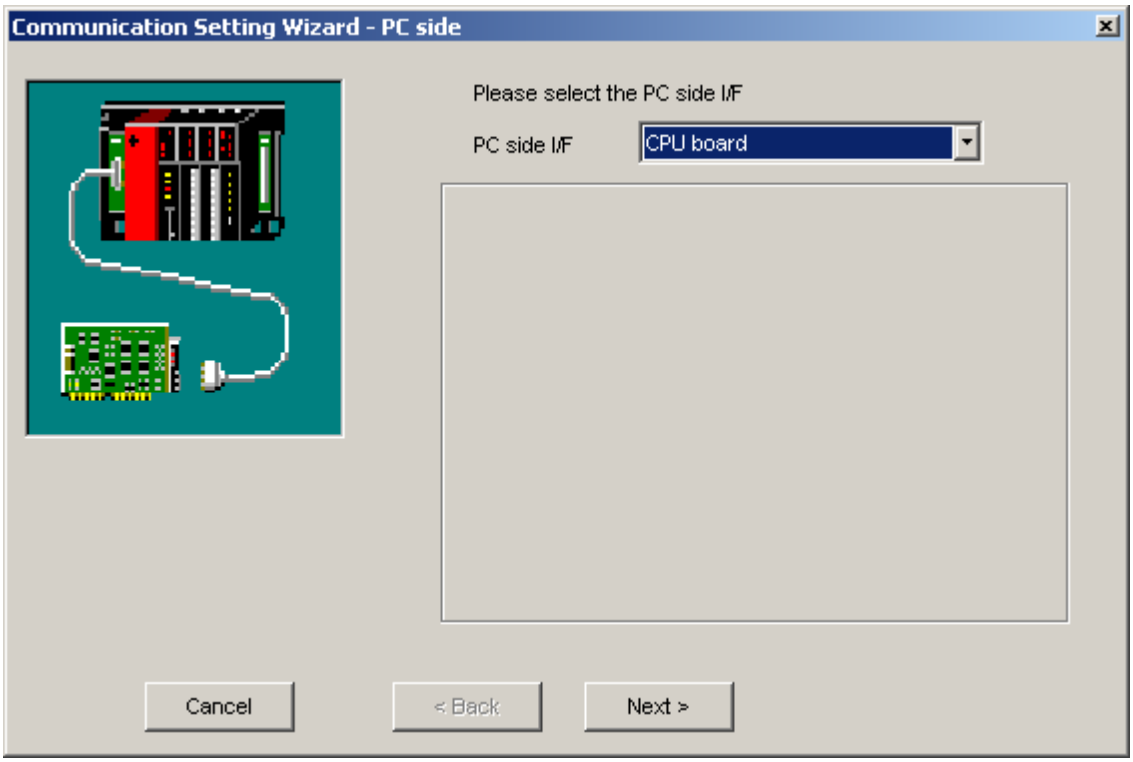




For a description of the editable parameters on the page see PC side GX Simulator parameters. Pressing the <**Next**> button opens a page for entering a comment for the connection.

4.2.11 PC CPU Board

A connection between PC and PLC using a CPU board requires the CPU board and the corresponding driver to be installed in the PC.



The PLC station, to which a connection is established, can be either

- the host station
- a different station in an attached network
- a different station in a separate network

4.2.12 PLC CPU Interface

Enter the settings for the serial interface of a PLC CPU module.

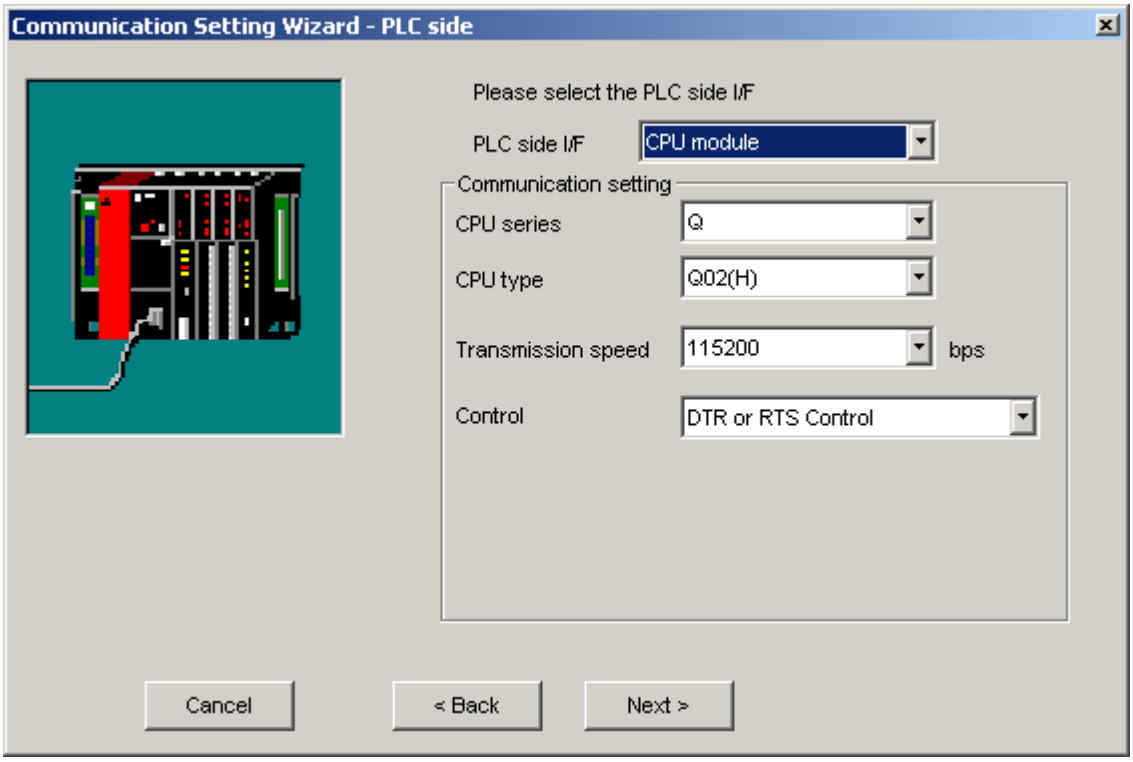
PLC side CPU interface parameters

Parameter	Values	Description
CPU series	Q, QnA, A, FX	series of the CPU type selected in serial PC side interface
CPU type	see list of supported CPU types	type of PLC CPU module
Transmission speed	300 - 115200	baudrate on the serial link
Control	DTR only, RTS only, DTR and RTS, DTR or RTS	handshake signals

Note for Q00J/Q00/Q01 CPUs:
If the baudrate set in the PC differs from the baudrate in the CPU module, the actual baudrate is fixed at 9600 bps. To increase the communication speed, match the personal computer side transmission speed with the Q00J/Q00/Q01CPU side transmission speed.

Supported transmission speeds:
As the transmission speed of the QCPU(Q mode) and QCPU(A mode), you can set 9600bps, 19200bps, 38400bps, 57600bps or 115200bps.
For the QnACPU of version 9707B or later, you can set the transmission speed of 9600bps, 19200bps or 38400bps.
For the QnACPU of other versions, you can set 9600bps or 19200bps.
The transmission speeds of the ACPU (except A2USHCPU-S1), FXCPU and motion controller CPU are fixed to 9600bps. (The A2USHCPU-S1 may be set to 19200bps.)

PLC CPU Standard Serial Interface (RS 422)



For a description of the editable parameters on the page see PLC side CPU interface parameters.
Pressing the <**Next**> button opens a page for entering a comment for the connection.

Q CPU (Q mode)

Connected Station CPU	Relayed Network	Relayed Station CPU				
QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
	MELSECNET/H	o	x	x	x	x
	MELSECNET/10	o	o	o	o	o
	MELSECNET(II)	x	x	x	x	x
	Ethernet	o	x	o	x	x
	Computer link	*3	x	o	x	x
	CC-Link	o	*2	*2	*2	x
	CC-Link IE	*4	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : Use the QnA or ACPU side CC-Link module whose ROM version is "S" or later
*3 : For the Redundant PLC, access is disabled
*4 : partially supported, depends on CPU type

Q CPU (A mode)

Connected Station CPU	Relayed Network	Relayed Station CPU				
QCPU (A mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	o	x	o	x
	MELSECNET(II)	x	o	x	o	x
	Ethernet	x	x	x	x	x
	Computer link	x	x	x	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

QnA CPU

Connected Station CPU	Relayed Network	Relayed Station CPU				
QnACPU		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	x	o	x	o
	MELSECNET(II)	x	x	o	x	x
	Ethernet	x	x	o	x	x
	Computer link	x	x	o	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

A CPU

Connected Station CPU	Relayed Network	Relayed Station CPU				
ACPU *1		QCPU (Q mode)	QCPU (A mode)	QnACPU	ACPU *1	FXCPU
	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	o	x	o	x
	MELSECNET(II)	x	o	x	o	x
	Ethernet	x	x	x	x	x
	Computer link	x	x	x	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

FX CPU

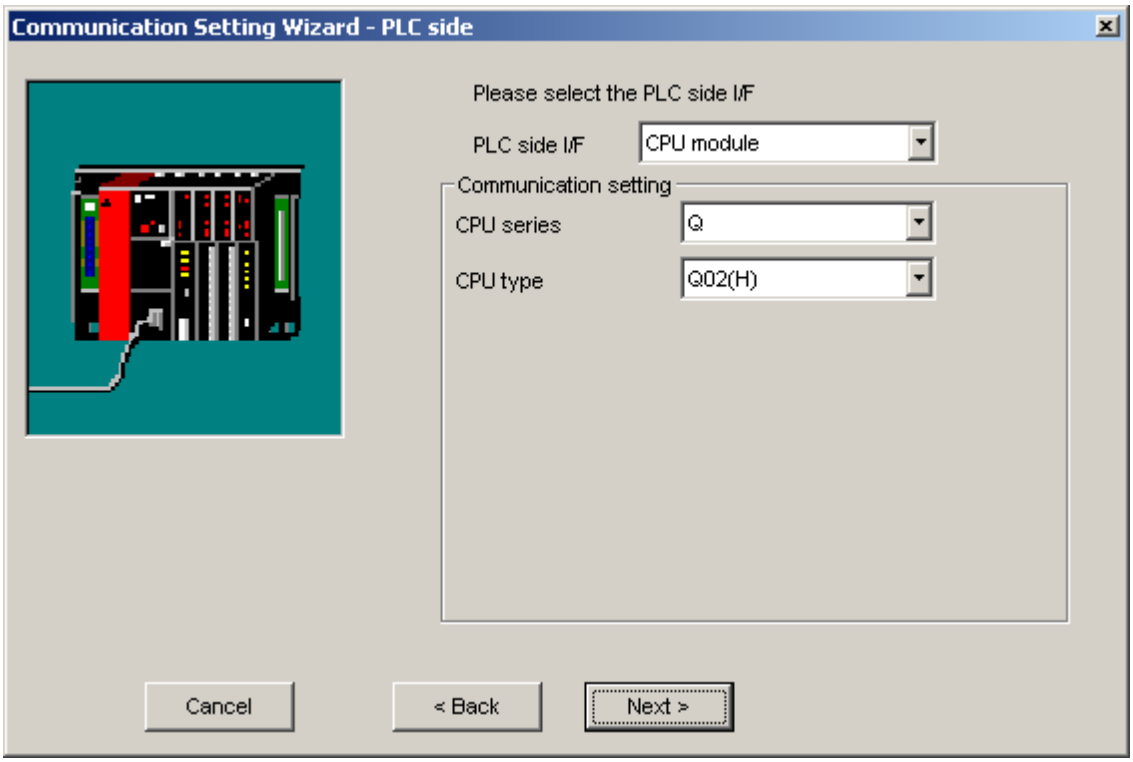
Connected Station CPU	Relayed Network	Relayed Station CPU				
FXCPU		QCPU (Q mode)	QCPU (A mode)	QnACPU	ACPU *1	FXCPU
	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	x	x	x	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	x	x	x	x	x
	Computer link	x	x	x	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

PLC CPU Universal Serial Bus Interface (USB)

PLC side CPU USB interface parameters

Parameter	Values	Description
CPU series	Q	series of the CPU type selected in USB PC side interface **USB interface only supported by Q series modules**
CPU type	see list of supported CPU types	type of PLC CPU module



For a description of the editable parameters on the page see PLC side CPU USB interface parameters.
Pressing the <**Next**> button opens a page for entering a comment for the connection.

Q CPU (Q mode)

Connected Station CPU	Relayed Network	Relayed Station CPU				
QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
	MELSECNET/H	o	x	x	x	x
	MELSECNET/10	o	o	o	o	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	o	x	o	x	x
	Computer link	*3	x	o	x	x
	CC-Link	o	*2	*2	*2	x
	CC-Link IE					

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : Use the QnA or ACPU side CC-Link module whose ROM version is "S" or later
*3 : For the Redundant PLC, access is disabled

Warning:
Frequently disconnecting/reconnecting the USB cable or resetting or powering ON/OFF the PLC CPU during communications with the PLC CPU may cause a communication error which cannot be recovered.
If it is not recovered, completely disconnect the USB cable once and then reconnect it after 5 or more seconds have elapsed.

PLC Ethernet CPU

Please see PLC Ethernet Interface.

4.2.13 PLC C24 Interface

Enter the settings for a serial interface module in the PLC.

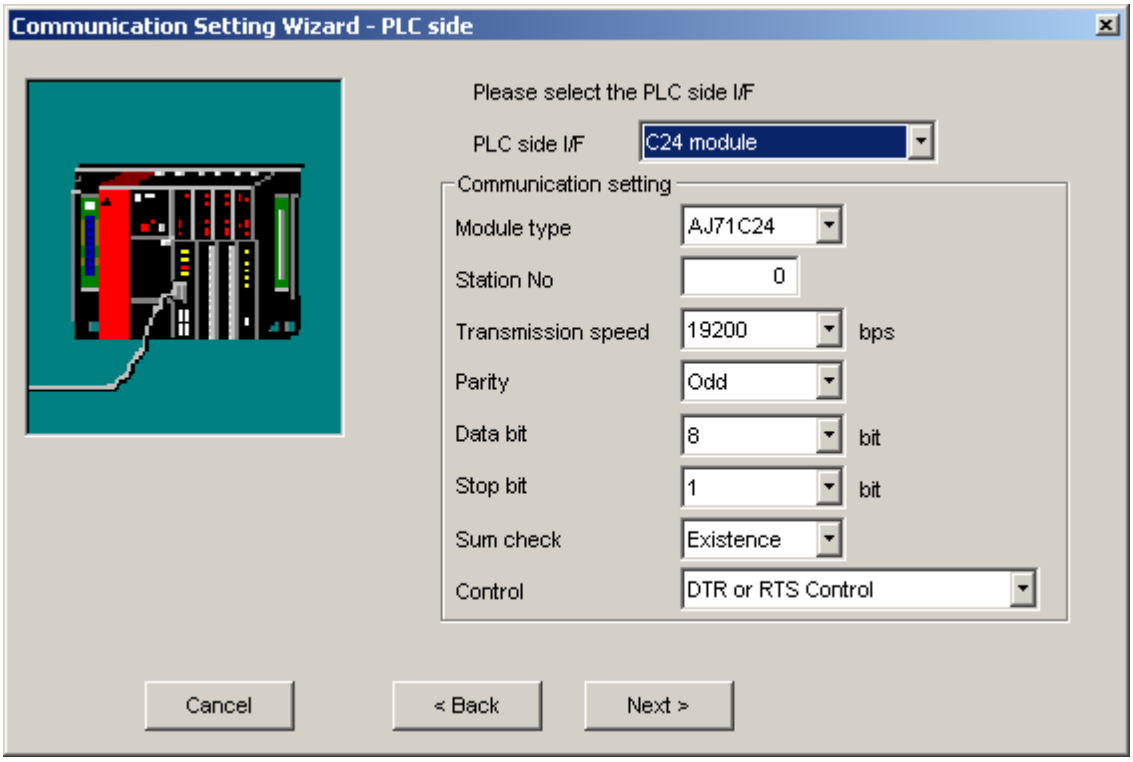
PLC side C24 module parameters

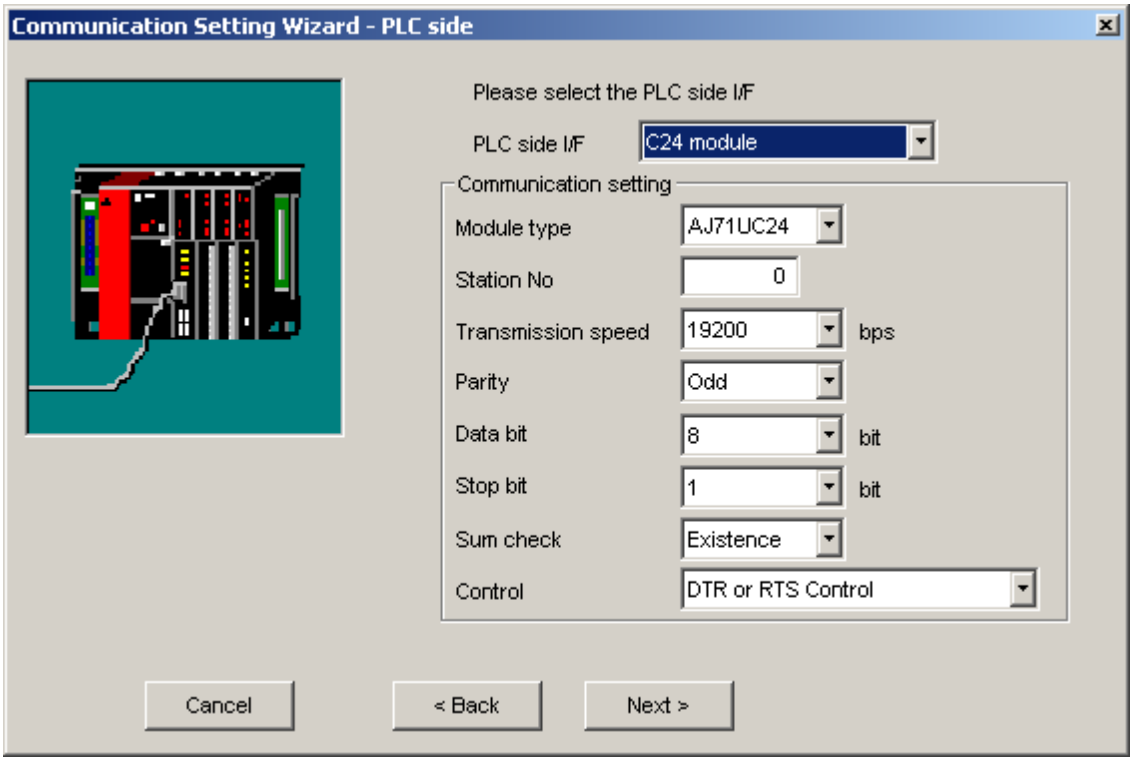
Parameter	Values	Description
Module type	AJ71C24, AJ71UC24, AJ71QC24, QJ71C24	type of PLC C24 module
Station No.	1 - 64	station number of the PC side interface. This number can be freely chosen, but must be unique within the network specified by the network number.
Transmission speed	300 - 115200	baudrate on the serial link

Parameter	Values	Description
Parity	Odd, None, Even	parity
Data bit	7, 8	number of data bits in a byte **only for AJ71C24 and AJ71UC24**
Stop bit	1, 2	number of stop bits **only for AJ71C24 and AJ71UC24**
Sum check	Existence, None	enable/disable sumcheck **only for AJ71C24 and AJ71UC24**
Control	DTR only, RTS only, DTR and RTS, DTR or RTS	handshake signals

Note:
In any connection form (direct coupling, relaying), where the target station of the UC24 or C24 is the QnACPU, an error is returned, if clock data read/write is executed.

AJ71C24 / AJ71UC24





For a description of the editable parameters on the page see PLC side C24 module parameters.
Pressing the <Next> button opens a page for specifying an optional additional network layer.

Note:
If the connected station CPU is the AnUCPU and the computer link module is the UC24 for computer link connection, remote operation will result in an error when access is made to the AnNCPU, AnACPU or QnACPU via the MELSECNET/10.

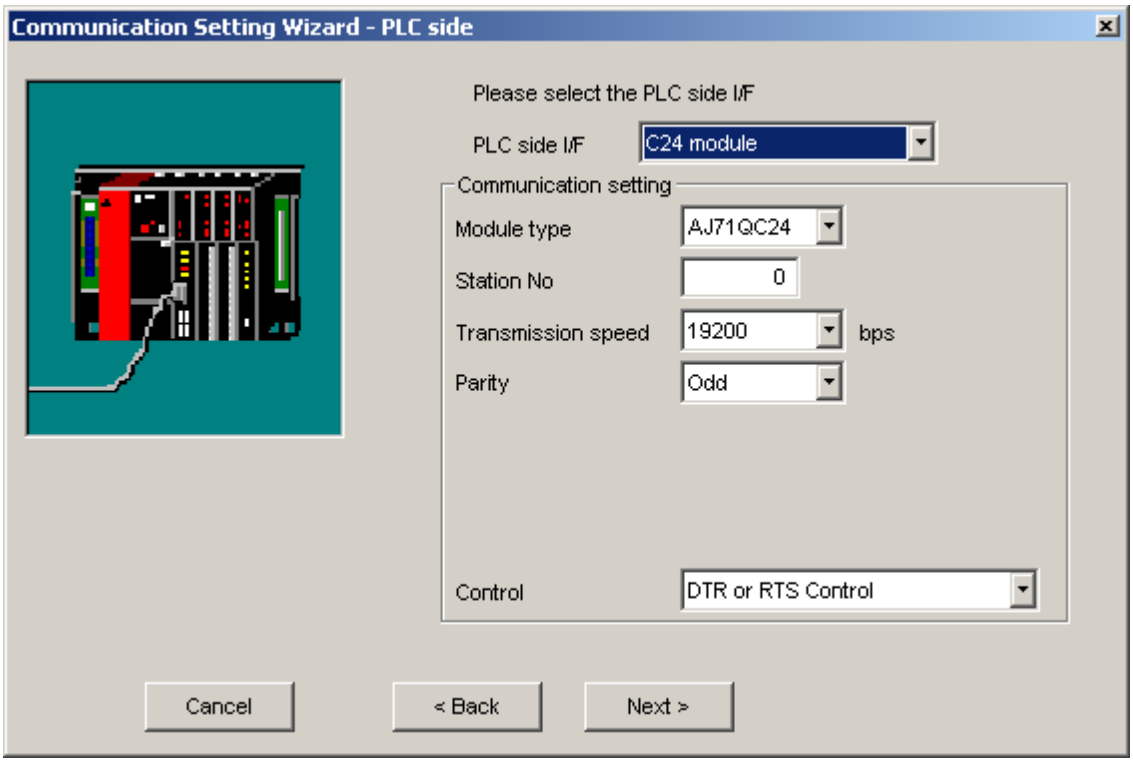
Connected Station CPU			Relayed Network	Relayed Station CPU				
QCPU (A mode)	QnACPU	A CPU *1		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FX CPU
	*2		MELSECNET/H	x	x	x	x	x
			MELSECNET/10	x	o	*2	o	x
			MELSECNET(II)	x	o	*2	o	x
			Ethernet	x	x	x	x	x
			Computer link	x	x	x	x	x
			CC-Link	x	x	x	x	x
			CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : Operates as the one equivalent to AnACPU

Switch *1		Settings		
		For 1:1 communication	For 1:n communication	
			Module 1)	Module 2)
Mode setting switch		1 (format 1)	A (format 1)	5 (format 1)
Station number setting switches		0	As set by user	
Transmission specifications setting switches	Main channel setting	OFF (RS-232)	OFF (RS-232)	ON (RS-422)
	Data bit setting	As set by user	As set by user *2	
	Transmission speed setting	As set by user	As set by user *2	
	Parity bit yes/no setting	As set by user	As set by user *2	
	Stop bit setting	As set by user	As set by user *2	
	Sum check yes/no setting	As set by user	As set by user *2	
	Online change enable/ disable setting	As set by user		
	Computer link/multidrop setting	ON (computer link)	ON (computer link)	ON (computer link)

*1: For switch numbers, refer to the computer link module manual.
*2: Make the same settings to Module 1 and Module 2.

AJ71QC24



For a description of the editable parameters on the page see PLC side C24 module parameters.
Pressing the <Next> button opens a page for specifying an optional additional network layer.

Note:
For the QC24, note that the illegal case of specifying the first I/O number of a nonexisting module and reading/writing U \G will not return an error if the software version of the module is 'k" or earlier.

With AJ71QC24-R2, A1SJ71QC4-R2, AJ71QC24N-R2 or A1SJ71QC24N-R2 modules only CH1 can be used.

Connected Station CPU	Relayed Network	Relayed Station CPU				
QnACPU		QCPU (Q mode)	QCPU (A mode)	QnACPU	ACPU *1	FXCPU
	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	x	o	x	x
	MELSECNET(II)	x	x	o	x	x
	Ethernet	x	x	o	x	x
	Computer link	x	x	o	x	x
	CC-Link	x	x	o	x	x
	CC-Link IE	x	x	x	x	x

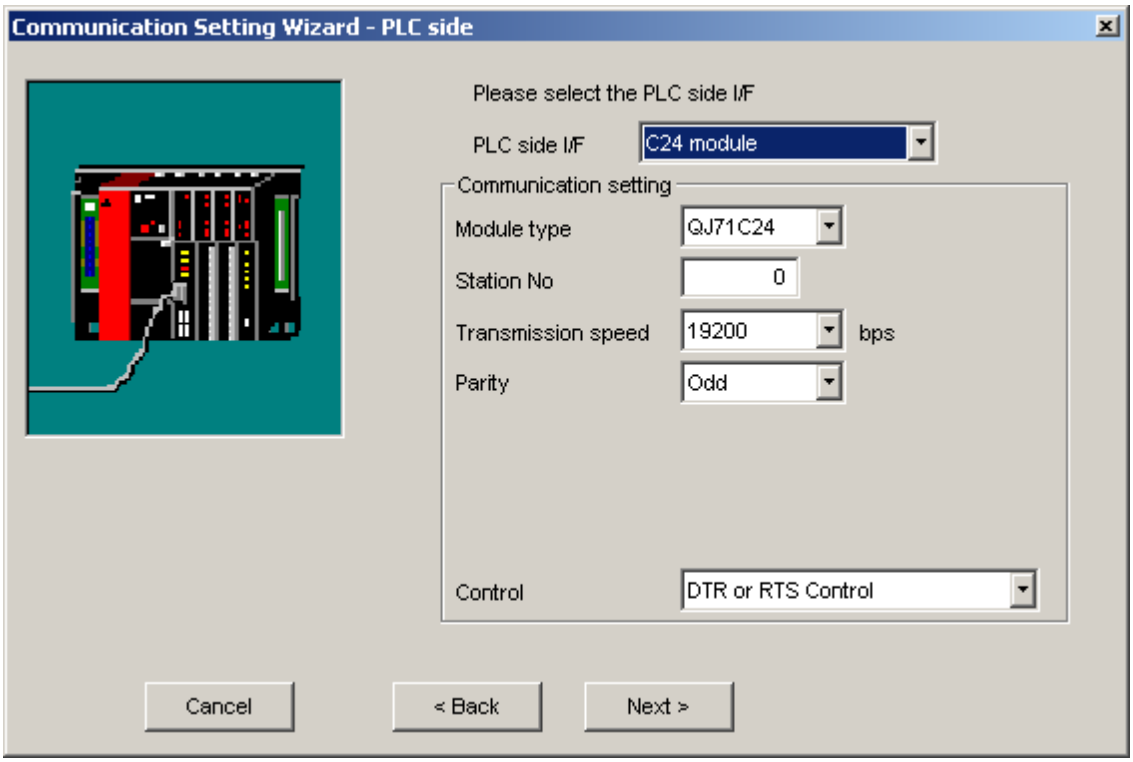
o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

Switch (Switch Number)		Settings					
		For 1:1 communication		For 1:n communication			
				Module 1)		Module 2)	
		CH1 side	CH2 side	CH1 side	CH2 side	CH1 side	CH2 side
Mode setting switch		5 (format 5)		0 or 5 (format 5)	5 (format 5)	5 (format 5)	
Station number setting switch		0		As set by user			
	Operation setting switch (SW01)	OFF (independent operation)		OFF (independent operation)	ON or OFF *1	OFF (independent operation)	
	Data bit setting (SW02)	ON (8 bit)					
	Parity bit yes/no setting (SW03)	As set by user		As set by user *2			
	Even parity/odd parity setting (SW04)	As set by user		As set by user *2			

Transmission specifications setting switches	Stop bit setting (SW05)	OFF (1 bit)	
	Sum check yes/no setting (SW06)	ON (yes)	
	Online change enable/disable setting (SW07)	As set by user	
	Setting change enable/disable setting (SW08)	As set by user	As set by user *2
	Transmission speed setting (SW09 to SW12)	As set by user	As set by user *2
	— (SW13 to SW15)	All OFF	

*1: Set to ON if the CH1 side mode setting switch setting is 0 or to OFF if the setting is 5 (format 5).
*2: Make the same settings to Module 1 and Module 2.

QJ71C24



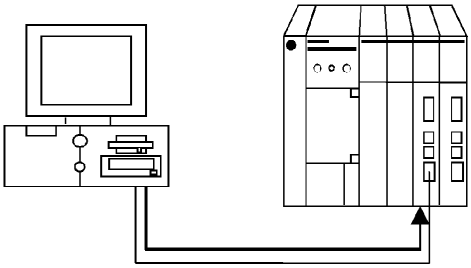
For a description of the editable parameters on the page see PLC side C24 module parameters.
Pressing the <Next> button opens a page for specifying an optional additional network layer.

⚠	**Note:** When QJ71C24-R2 of function version A is used, only either of CH1 and CH2 can be used. When the MELSOFT product, such as GX Developer or GOT, is using one channel, the application cannot use the other channel. When the QJ71C24-R2 of function version B is used, the application can use both channels.

Connected Station CPU	Relayed Network	Relayed Station CPU				
QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
	MELSECNET/H	o	x	x	x	x
	MELSECNET/10	o	o	o	o	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	o	x	o	x	x
	Computer link	*2	x	o	x	x
	CC-Link	o	o	o	o	x
	CC-Link IE	*2	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : For the Redundant PLC, access is disabled

(a) For 1:1 communication



Item	Settings		Set Value
	b15 to b8	b7 to b0	
Switch 1	CH1 communication speed	CH1 transmission setting *1	0000H
Switch 2	—	CH1 communications protocol	0000H
Switch 3	CH2 communication speed	CH2 transmission setting *1	0000H
Switch 4	—	CH2 communications protocol	0000H
Switch 5	Module station number		0000H

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

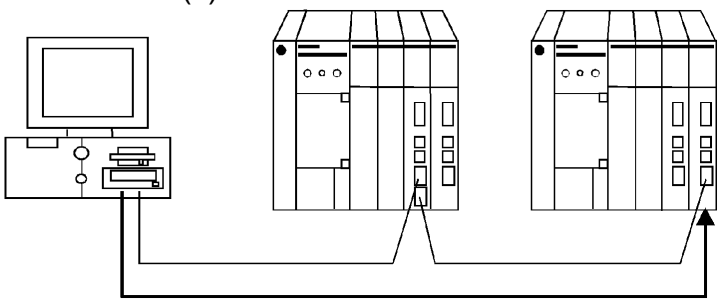
Bit	Description	CH1 transmission setting	CH2 transmission setting
b0	Operation setting	0 (independent)	0 (independent)
b1	Data bit	0 (7)	0 (7)

Bit	Description	CH1 transmission setting	CH2 transmission setting
b2	Parity bit	0 (no) *3	0 (no) *3
b3	Odd/even parity	0 (odd) *3	0 (odd) *3
b4	Stop bit	0 (1)	0 (1)
b5	Sum check code	0 (no)	0 (no)
b6	Online change *2	0 (disable)	0 (disable)
b7	Setting change	0 (disable)	0 (disable)

*2: When the communication protocol is set to GX Developer connection (0H), the online change bit (b6) setting is made invalid to enable online change regardless of the online change setting.
*3: Set the followings to odd:
"Parity bit" of the communication setting utility/"ActParity" of the ActQJ71C24 control property.

Setting CH1/CH2 communication protocol to GX Developer connection (0H) makes the communication speed/transmission settings to 0H (all OFF).
Refer to the Q series-compatible C24 manual for details.

(b) For 1:n communication



Module 1)

Item	Settings		Set Value
	b15 to b8	b7 to b0	Synchronous operation
Switch 1	CH1 communication speed	CH1 transmission setting *1	0726H
Switch 2	—	CH1 communications protocol	0008H
Switch 3	CH2 communication speed	CH2 transmission setting *1	0727H
Switch 4	—	CH2 communications protocol	0000H
Switch 5	Module station number		As set by user

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

Bit	Description	Settings Synchronous operation	
		CH1 transmission setting	CH2 transmission setting
b0	Operation setting	Match to module 2) setting.	
b1	Data bit	Match to module 2) setting.	
b2	Parity bit	Match to module 2) setting.	
b3	Odd/even parity	Match to module 2) setting.	
b4	Stop bit	Match to module 2) setting.	
b5	Sum check code	Match to module 2) setting.	
b6	Online change	Match to module 2) setting.	
b7	Setting change	Match to module 2) setting.	

Module 2)

Item	Settings		Set Value
	b15 to b8	b7 to b0	Synchronous operation
Switch 1	CH1 communication speed	CH1 transmission setting *1	0726H
Switch 2	—	CH1 communications protocol	0008H
Switch 3	CH2 communication speed	CH2 transmission setting *1	0727H
Switch 4	—	CH2 communications protocol	0000H
Switch 5	Module station number		As set by user

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

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)
b3	Odd/even parity	0 (odd)	0 (odd)
b4	Stop bit	0 (1)	0 (1)
b5	Sum check code	1 (yes)	1 (yes)
b6	Online change *2	0 (disable)	0 (disable)
b7	Setting change	0 (disable)	0 (disable)

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

<table>
<tr><td colspan="2" rowspan="3">Switch (Switch Number)</td><td colspan="4">Settings</td></tr>
<tr><td colspan="2">Module 1)</td><td colspan="2">Module 2)</td></tr>
<tr><td>CH1 side</td><td>CH2 side</td><td>CH1 side</td><td>CH2 side</td></tr>
<tr><td colspan="2">Mode setting switch</td><td>0</td><td>5 (format 5)</td><td colspan="2">5 (format 5)</td></tr>
<tr><td colspan="2">Station number setting switches</td><td colspan="2">1</td><td colspan="2">3</td></tr>
<tr><td rowspan="9">Transmission specifications setting switches</td><td>Operation setting switch (SW01)</td><td>OFF (independent operation)</td><td>ON (synchronous operation)</td><td colspan="2">OFF (independent operation)</td></tr>
<tr><td>Data bit setting (SW02)</td><td colspan="2">ON (8 bit)</td><td colspan="2">ON (8 bit)</td></tr>
<tr><td>Parity bit yes/no setting (SW03)</td><td colspan="2">ON (yes)</td><td colspan="2">ON (yes)</td></tr>
<tr><td>Even parity/odd parity setting (SW04)</td><td colspan="2">OFF (odd)</td><td colspan="2">OFF (odd)</td></tr>
<tr><td>Stop bit setting (SW05)</td><td colspan="2">OFF (1 bit)</td><td colspan="2">OFF (1 bit)</td></tr>
<tr><td>Sum check yes/no setting (SW06)</td><td colspan="2">ON (yes)</td><td colspan="2">ON (yes)</td></tr>
<tr><td>Online change enable/ disable setting (SW07)</td><td colspan="2">ON (enable)</td><td colspan="2">ON (enable)</td></tr>
<tr><td>Setting change enable/ disable setting (SW08)</td><td colspan="2">OFF (disable)</td><td colspan="2">OFF (disable)</td></tr>
<tr><td>Transmission speed setting (SW09 to SW12)</td><td colspan="2">19200bps
<table><tr><th>SW</th><th>Setting</th></tr><tr><td>SW09</td><td>OFF</td></tr><tr><td>SW10</td><td>ON</td></tr><tr><td>SW11</td><td>ON</td></tr><tr><td>SW12</td><td>OFF</td></tr></table></td><td colspan="2">19200bps
<table><tr><th>SW</th><th>Setting</th></tr><tr><td>SW09</td><td>OFF</td></tr><tr><td>SW10</td><td>ON</td></tr><tr><td>SW11</td><td>ON</td></tr><tr><td>SW12</td><td>OFF</td></tr></table></td></tr>
<tr><td>— (SW13 to SW15)</td><td colspan="2">All OFF</td><td colspan="2">All OFF</td></tr>
</table>

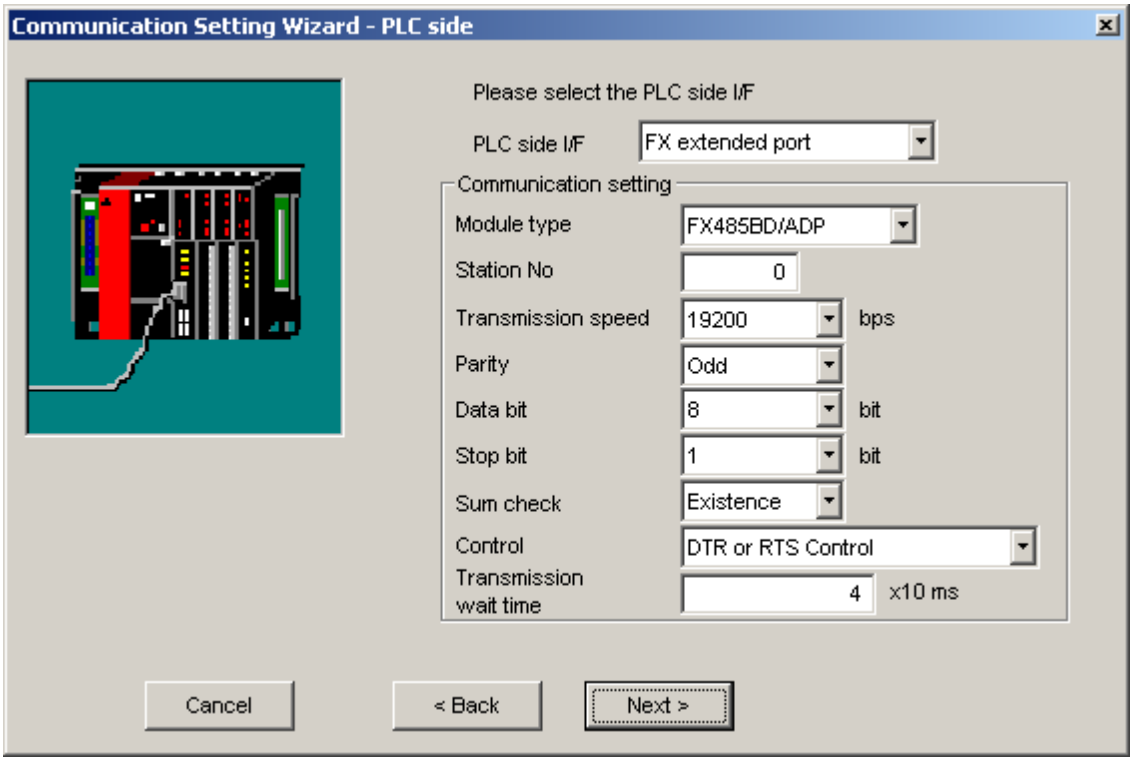
4.2.14 PLC FX Extended Port

Enter the settings for the serial port of an FX CPU.

PLC side FX port parameters

Parameter	Values	Description
Module type	FX485BD/ADP	type of PLC C24 module
Station No.	0 - 15	station number of the PLC side interface
Transmission speed	300 - 19200	baudrate on the serial link
Parity	Odd, None, Even	parity
Data bit	7, 8	number of data bits in a byte
Stop bit	1, 2	number of stop bits
Sum check	Existence, None	enable/disable sumcheck
Control	DTR only, RTS only, DTR and RTS, DTR or RTS	handshake signals
Transmission wait time	1 - 65535	transmission timeout as multiple of 10 milliseconds

Note:
The FX extended port is required when using computer link communication with FX0N, FX1S, FX1N(C), FX2N(C), FX3U(C)CPU.



For a description of the editable parameters on the page see PLC side FX port parameters.
Pressing the <Next> button opens a page for specifying an optional additional network layer.

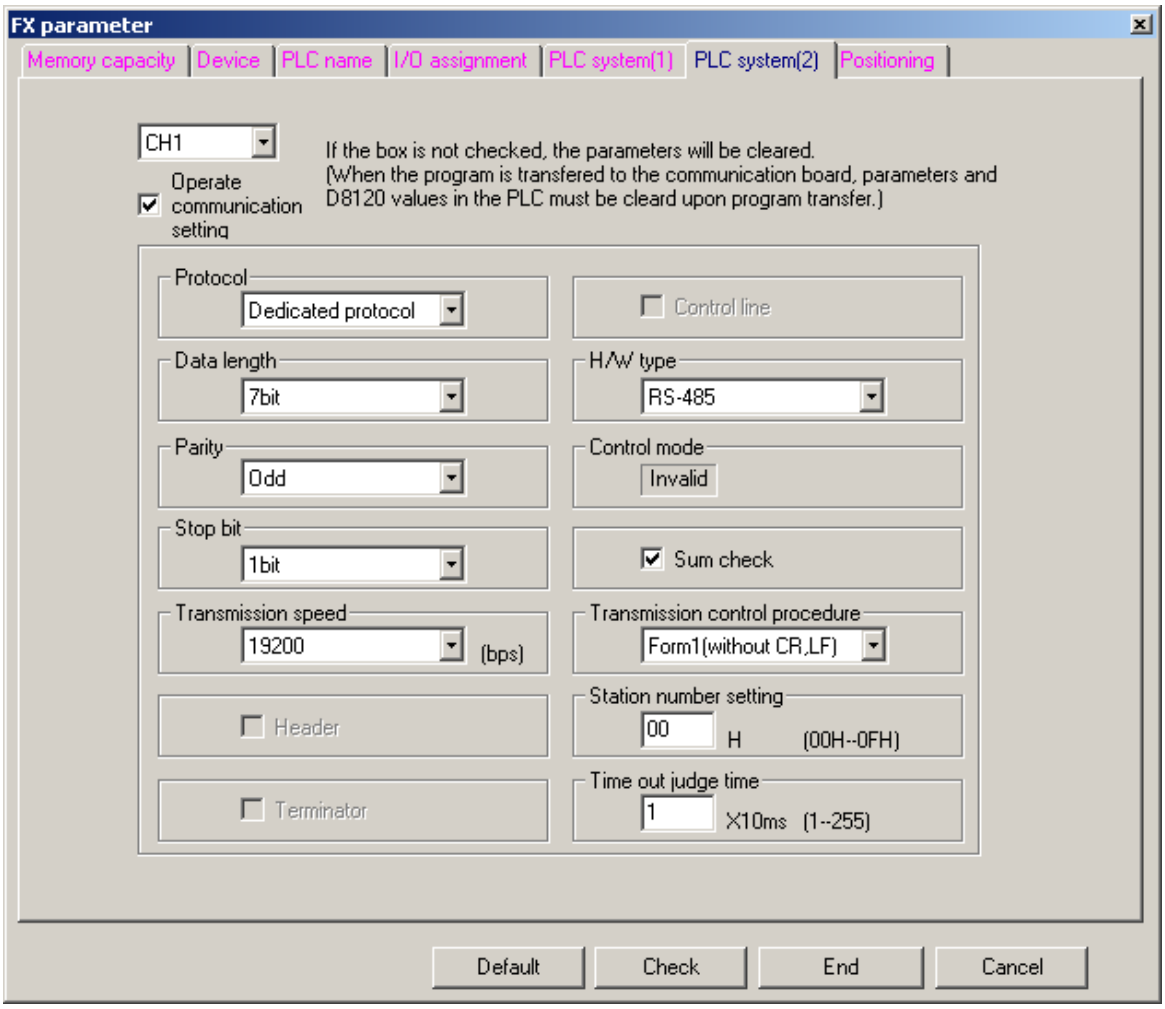
Connected Station CPU	Relayed Network	Relayed Station CPU				
FXCPU		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
	MELSECNET/H	x	x	x	o	x
	MELSECNET/10	x	x	x	x	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	x	x	x	x	x
	Computer link	x	x	x	x	o
	CC-Link	o	x	x	x	x
	CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

Before use the FX extended port must be configured for communication. There are two ways of configuring the FX extended port module:
1. use PLC parameters
2. write values to special data registers (D8120, D8121, D8129) in a sequence program. This is the only apporach for FX0N CPUs.

Set PLC parameters

Start GX Developer or GX IEC Developer and select [Parameter]-[PLC parameter] in the project list. Then select the "PLC system (2)" tab.



Item	Setting value
Operate communication setting	Check the corresponding check box.
Protocol	Dedicated protocol
Data length	As set by user.
Parity	As set by user.
Stop bit	As set by user.
Transmission speed	As set by user.
H/W type	RS-485
Sum check	As set by user.
Transmission control procedure	Form1

Item	Setting value
Station number setting	00H to 0FH
Time out judge time	1 to 255

Note:
· When communication setting is made, power the FX CPU again after writing to the PLC.
· When performing multi-drop connection, make the same communication settings for the devices. However, make sure that the station numbers do not overlap.

Special data registers

1) D8120 (Communication format)

<table>
<tr><th>Bit</th><th>Description</th><th>Setting details</th></tr>
<tr><td>b0</td><td>Data length</td><td>0: 7 bit
1: 8 bit</td></tr>
<tr><td>b1
b2</td><td>Parity</td><td><table><tr><th></th><th>b2</th><th>b1</th></tr><tr><td>None</td><td>0</td><td>0</td></tr><tr><td>Odd number</td><td>0</td><td>1</td></tr><tr><td>Even number</td><td>1</td><td>1</td></tr></table></td></tr>
<tr><td>b3</td><td>Stop bit</td><td>0: 1 bit
1: 2 bit</td></tr>
<tr><td>b4
b5
b6
b7</td><td>Transmission speed</td><td><table><tr><th></th><th>b7</th><th>b6</th><th>b5</th><th>b4</th></tr><tr><td>300bps</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>600bps</td><td>0</td><td>1</td><td>0</td><td>0</td></tr><tr><td>1200bps</td><td>0</td><td>1</td><td>0</td><td>1</td></tr><tr><td>2400bps</td><td>0</td><td>1</td><td>1</td><td>0</td></tr><tr><td>4800bps</td><td>0</td><td>1</td><td>1</td><td>1</td></tr><tr><td>9600bps</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>19200bps</td><td>1</td><td>0</td><td>0</td><td>1</td></tr></table></td></tr>
<tr><td>b8</td><td rowspan="2">---</td><td>0</td></tr>
<tr><td>b9</td><td>0</td></tr>
<tr><td>b10
b11</td><td>H/W type</td><td><table><tr><th></th><th>b11</th><th>b10</th></tr><tr><td>RS-485</td><td>0</td><td>0</td></tr></table></td></tr>
<tr><td>b12</td><td>---</td><td>0</td></tr>
<tr><td>b13</td><td>Sum check</td><td>0: N/A</td></tr>
</table>

Bit	Description	Setting details
		1: Available
b14	Communication protocol	1: Computer link
b15	Transmission control procedure	0: Form 1

2) D8121 (Station No. setting)
Specify the station No. in the range of 00H to 0FH

3) D8129 (Time out judge time setting)
Specify the FX CPU timeout as a multiple of 10ms. The range depends on the CPU type:

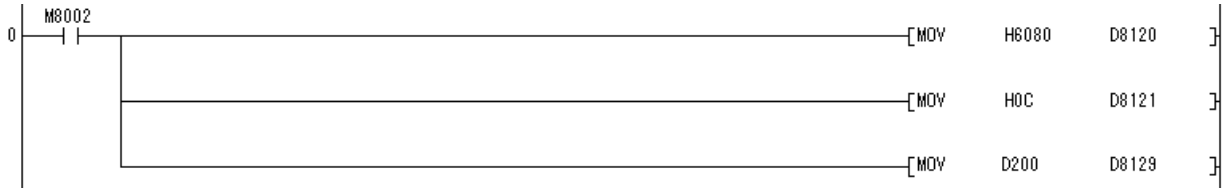
CPU Type	Range
FX0N, FX1S and FX1N(C)	1 to 255 (10 to 2550ms)
FX2N(C)	1 to 3276 (10 to 32760ms)

A value of 0 corresponds to 100ms.

Note:
· when communication settings have been downloaded, reset the FX CPU
· when setting up a multi-drop connection, apply the same communication settings for all devices. However make sure that the station numbers do not overlap.

REMARK

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



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

(1) D8120
Transmission control procedure : Form 1
Communication protocol : Computer link
Sum check : Available
H/W type : RS-485
Transmission speed : 9600bps Stop bit : 1 bit Parity : N/A
Data length : 7 bit

(2) D8121
Station No. : 12

(3) D8129
Time out time : 200ms

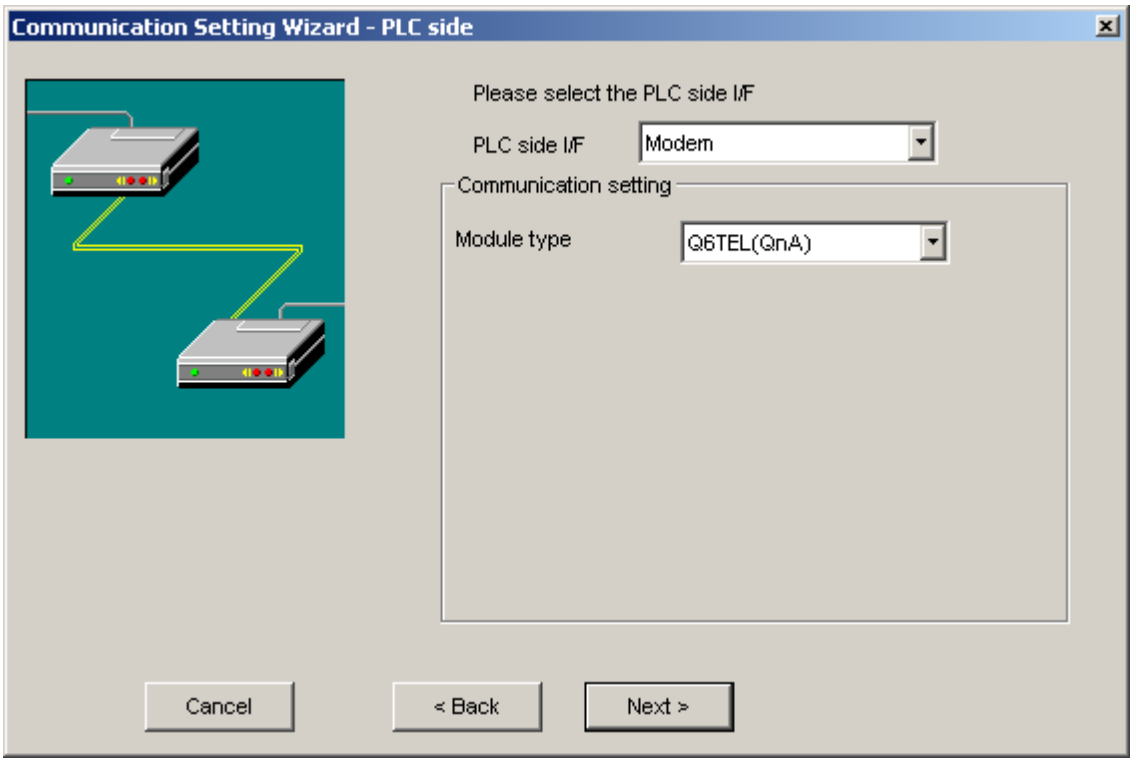
4.2.15 PLC Modem

Enter the settings for a modem interface module in the PLC.

PLC side modem parameters

Parameter	Values	Description
Module type	Q6TEL(QnA), FXCPU, AJ71QC24N, QJ71C24, QJ71CMO	type of PLC modem or serial interface module
Station No.	0 - 31	station number of the PLC side interface **only for AJ71QC24N, QJ71C24, QJ71CMO**
Transmission speed	300 - 115200	baudrate on the serial link **only for AJ71QC24N, QJ71C24, QJ71CMO**

Q6TEL



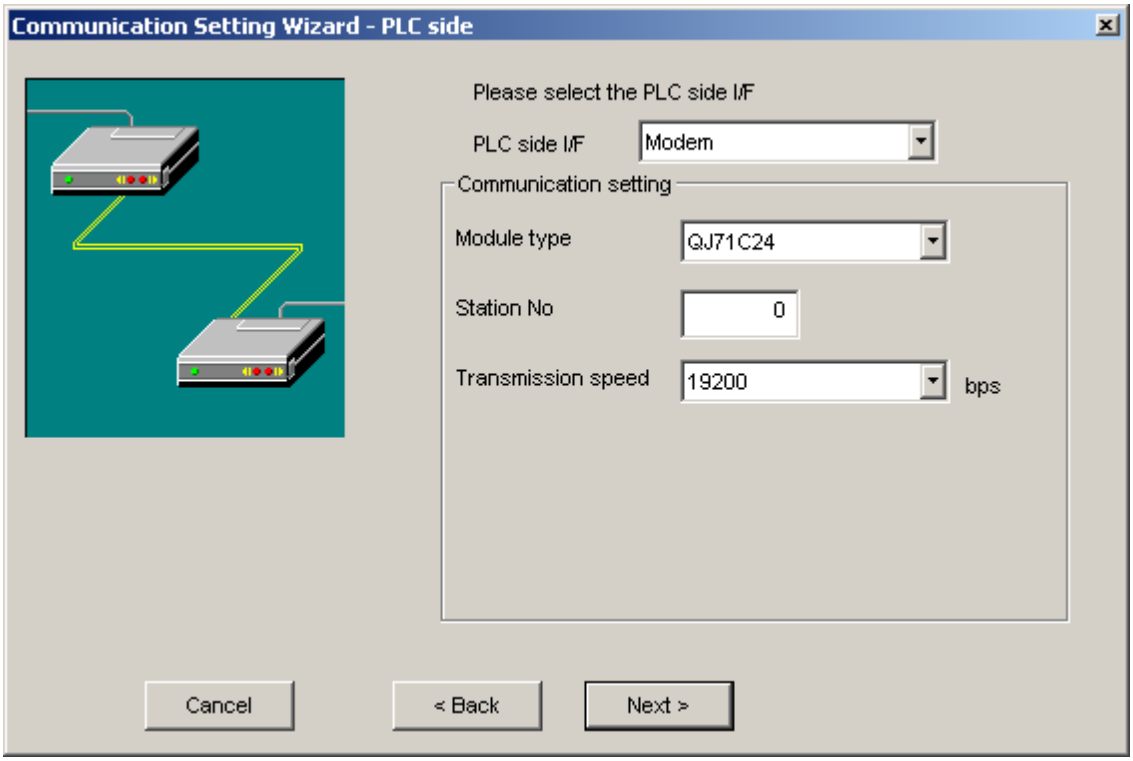
For a description of the editable parameters on the page see PLC side modem parameters.
Pressing the <Next> button opens a page for specifying an optional additional network layer.

Q6TEL CPU

Connected Station CPU	Relayed Network	Relayed Station CPU				
QnACPU		QCPU (Q mode)	QCPU (A mode)	QnACPU	ACPU *1	FXCPU
o	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	x	o	x	x
	MELSECNET(II)	x	x	o	x	x
	Ethernet	x	x	o	x	x
	Computer link	x	x	o	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

AJ71QC24N / QJ71C24 / QJ71CMO



For a description of the editable parameters on the page see PLC side modem parameters.
Pressing the <Next> button opens a page for specifying an optional additional network layer.

QJ71C24 CPU

Connected Station CPU	Relayed Network	Relayed Station CPU				
QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	MELSECNET/H	o	x	x	x	x
	MELSECNET/10	o	o	o	o	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	o	x	o	x	x
	Computer link	*2	x	o	x	x
	CC-Link	o	o	o	o	x
	CC-Link IE	*3	x	x	x	x

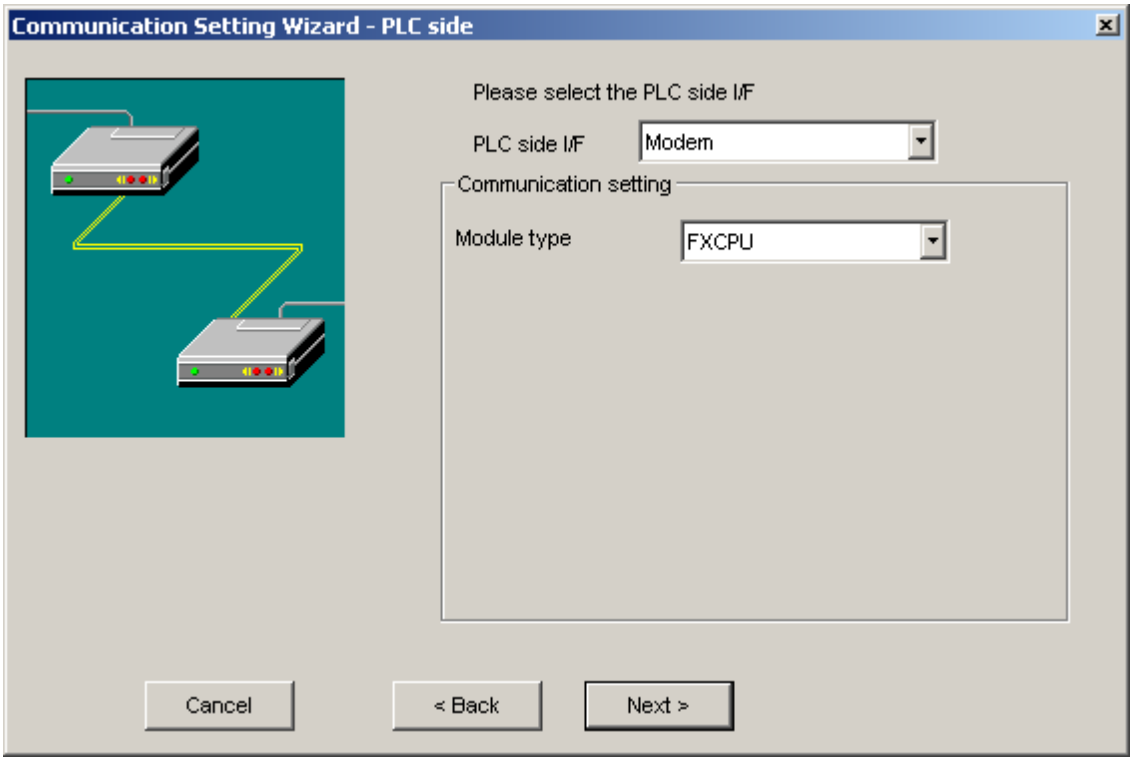
o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 :For the Redundant PLC, access is disabled
*3 : partially supported, depends on CPU type

AJ71QC24 CPU

Connected Station CPU	Relayed Network	Relayed Station CPU				
QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
o	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	x	o	x	x
	MELSECNET(II)	x	x	o	x	x
	Ethernet	x	x	o	x	x
	Computer link	x	x	o	x	x
	CC-Link	x	x	o	x	x
	CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

FX CPU



For a description of the editable parameters on the page see PLC side modem parameters.
Pressing the <Next> button opens a page for specifying an optional additional network layer.

Connected Station CPU	Relayed Network	Relayed Station CPU				
FXCPU		QCPU (Q mode)	QCPU (A mode)	QnACPU	ACPU *1	FXCPU
o	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	x	x	x	x
	MELSECNET(II)	x	x	x	x	x
	Ethernet	x	x	x	x	x
	Computer link	x	x	x	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

4.2.16 PLC Ethernet Interface

Enter the settings for an Ethernet module in the PLC.

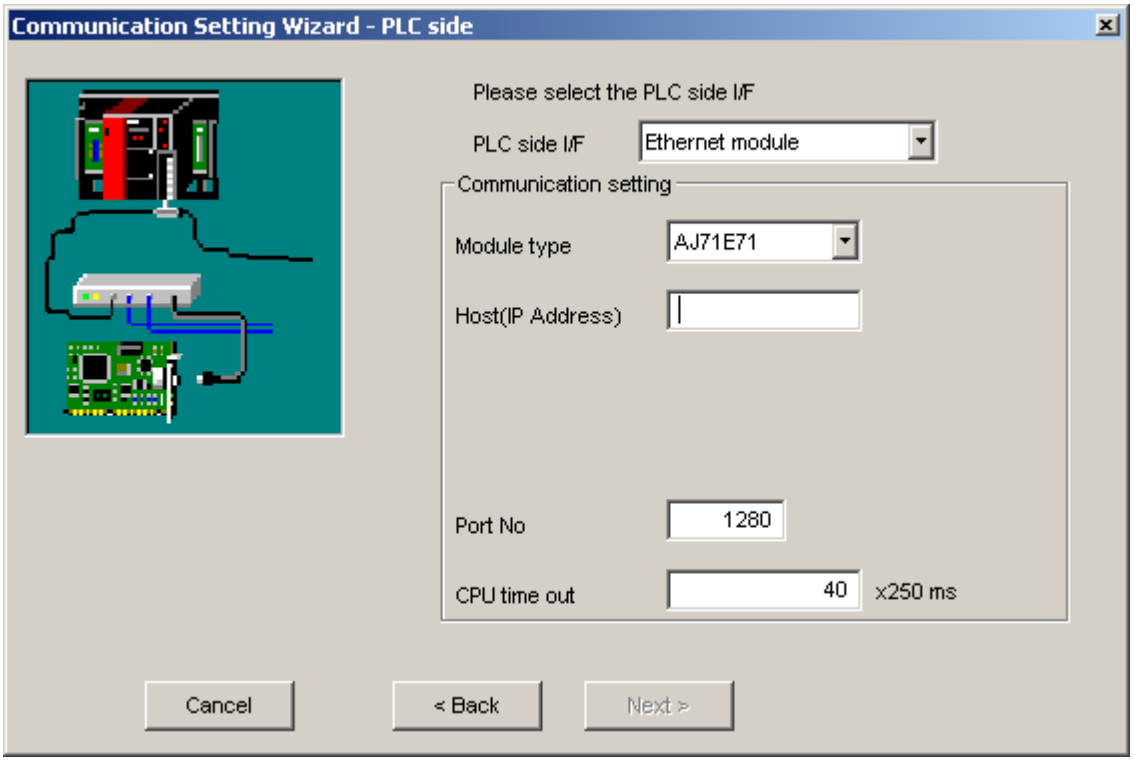
PLC side Ethernet module parameters

Parameter	Values	Description
Connect module	AJ71E71, AJ71QE71, QJ71E71, GOT, FX-ENET(-ADP), CPU module	type of PLC ethernet module
Host (IP address)	nnn.nnn.nnn.nnn	IP address of the PLC side interface. This value must equal the address, which has been configured in the 'Network Parameters' of the PLC settings.
Network No	1 - 239	network number of the E71 ethernet module. This value can only be edited in the 'PC Ethernet board' page. **only for QJ71E71 modules**
Station No.	1 - 64	station number of the PLC side interface. This value must equal the station number, which has been configured in the 'Network Parameters' of the PLC settings. **only for QJ71E71 modules**
Port No.	0 - 65535	free UDP port number on the PC side for data sent by the PLC. Port numbers below 1025 should not be used. **only for AJ71E71 (UDP and TCP), AJ71QE71 (TCP), FX-ENET-ADP modules**
CPU time out	1 - 65535	CPU timeout as multiple of 250 milliseconds **only for AJ71E71 modules**

Note:
The 'Next >' button is disabled, if no IP address has been entered.

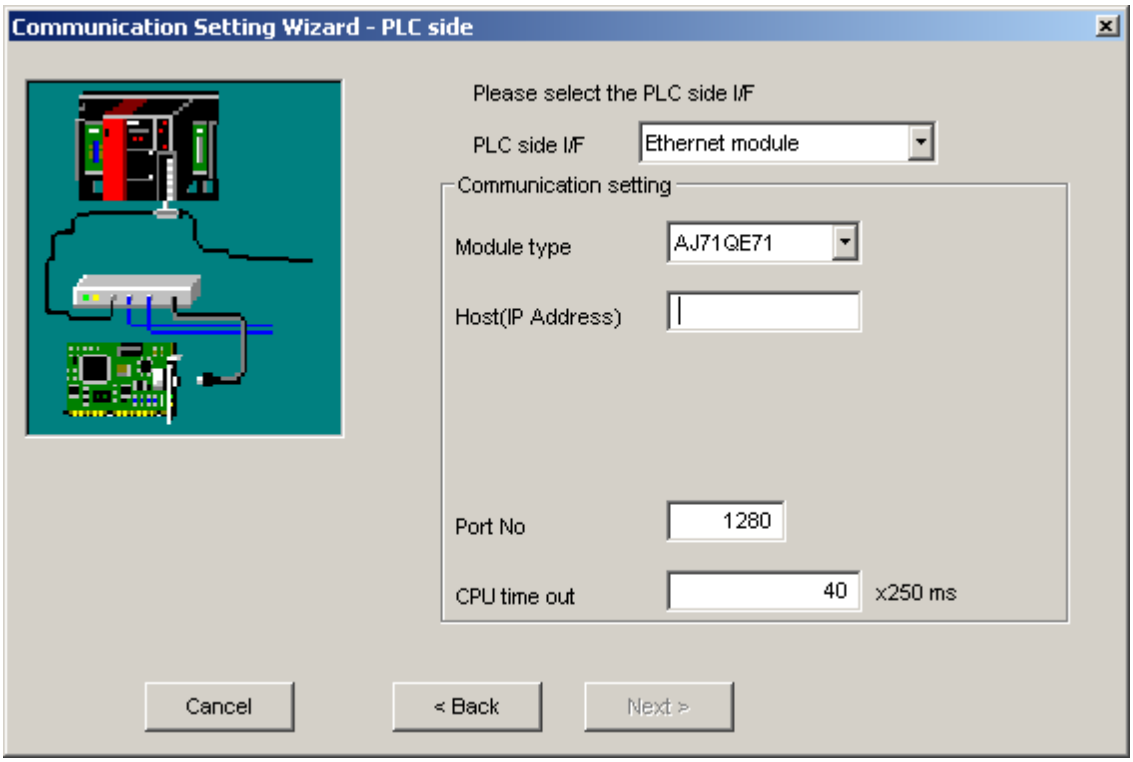
Note:
Replacement of Ethernet modules
If the PLC Ethernet module has been replaced during Ethernet communication, the communication on the PC must be restarted, because Ethernet (MAC) address is different.

AJ71E71



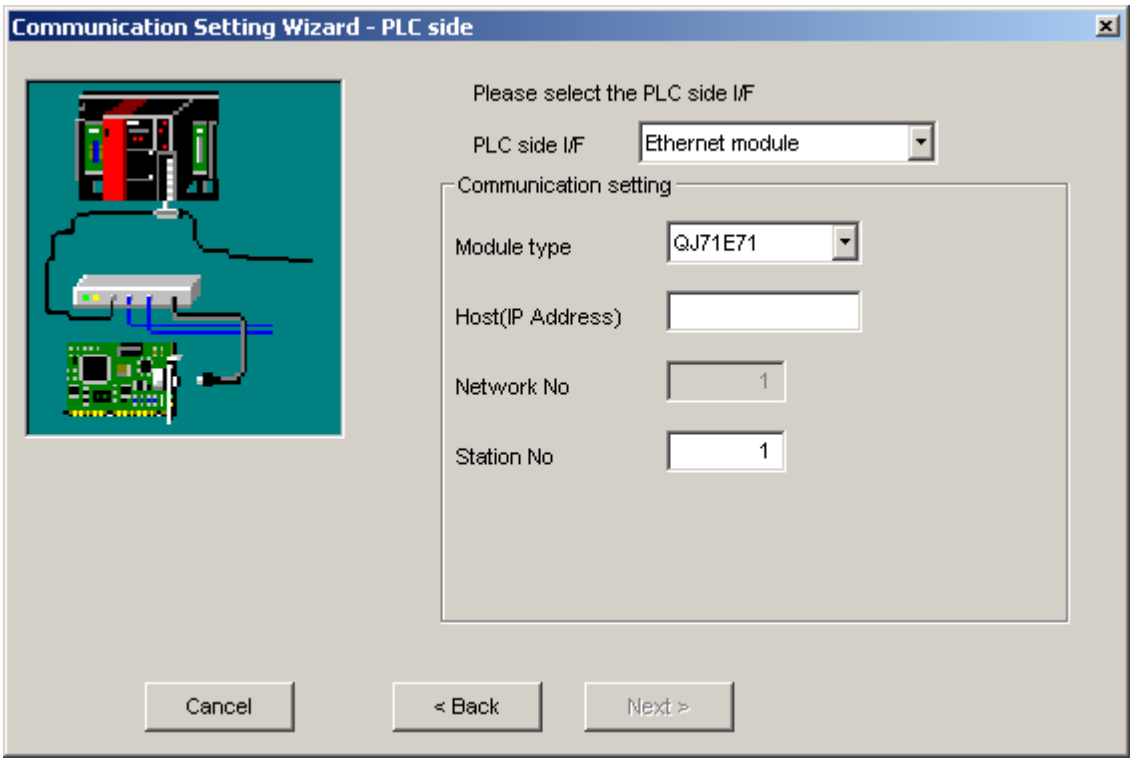
For a description of the editable parameters on the page see PLC side Ethernet module parameters. Pressing the <Next> button opens a page for specifying an optional additional network layer.

AJ71QE71



For a description of the editable parameters on the page see PLC side Ethernet module parameters. Pressing the <Next> button opens a page for specifying an optional additional network layer.

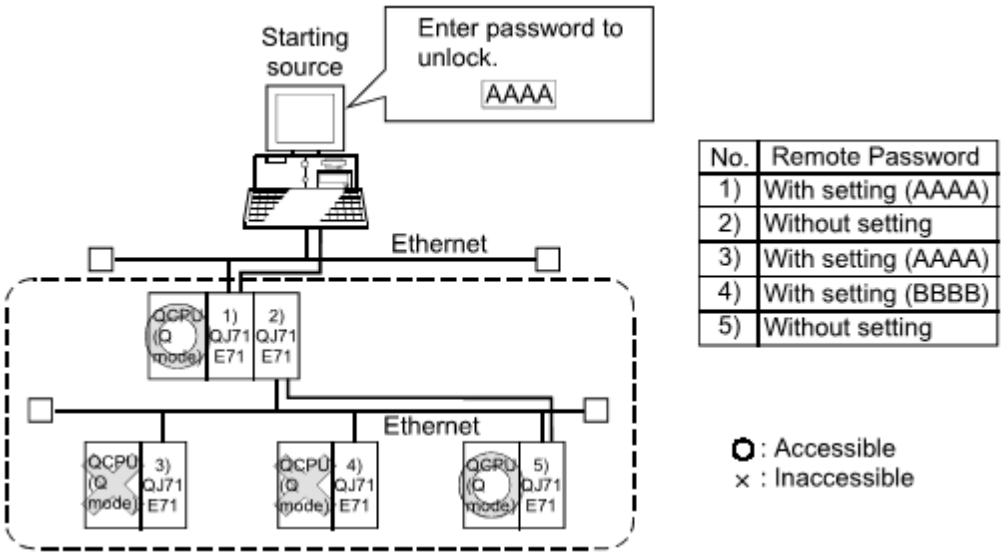
QJ71E71



For a description of the editable parameters on the page see PLC side Ethernet module parameters. Pressing the <Next> button opens a page for specifying an optional additional network layer.

Unlocking password when using QJ71E71

If a password has been set in a QJ71E71 for remote access, the corresponding PLC cannot be accessed as target PLC. A password has however no effect, when the E71 module is used as a relay.

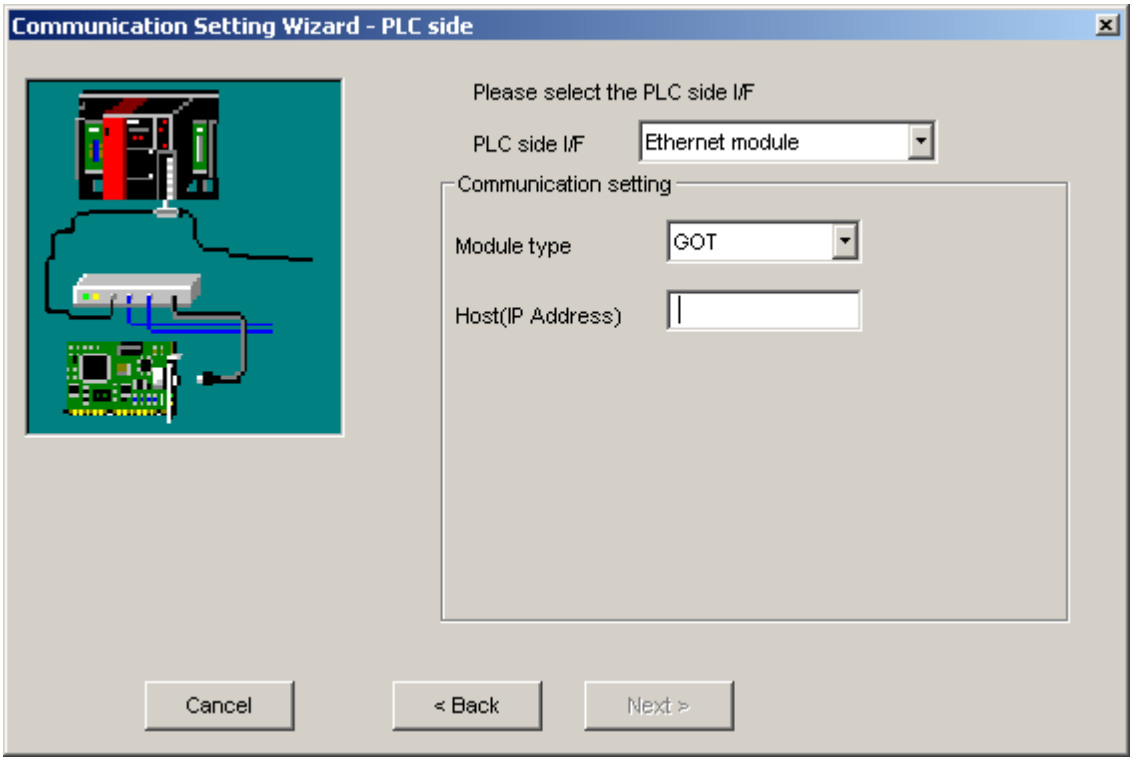


1) Unlocking QJ71E71 password enables access to PLC CPUs in this range.

Use of Q4AR CPU

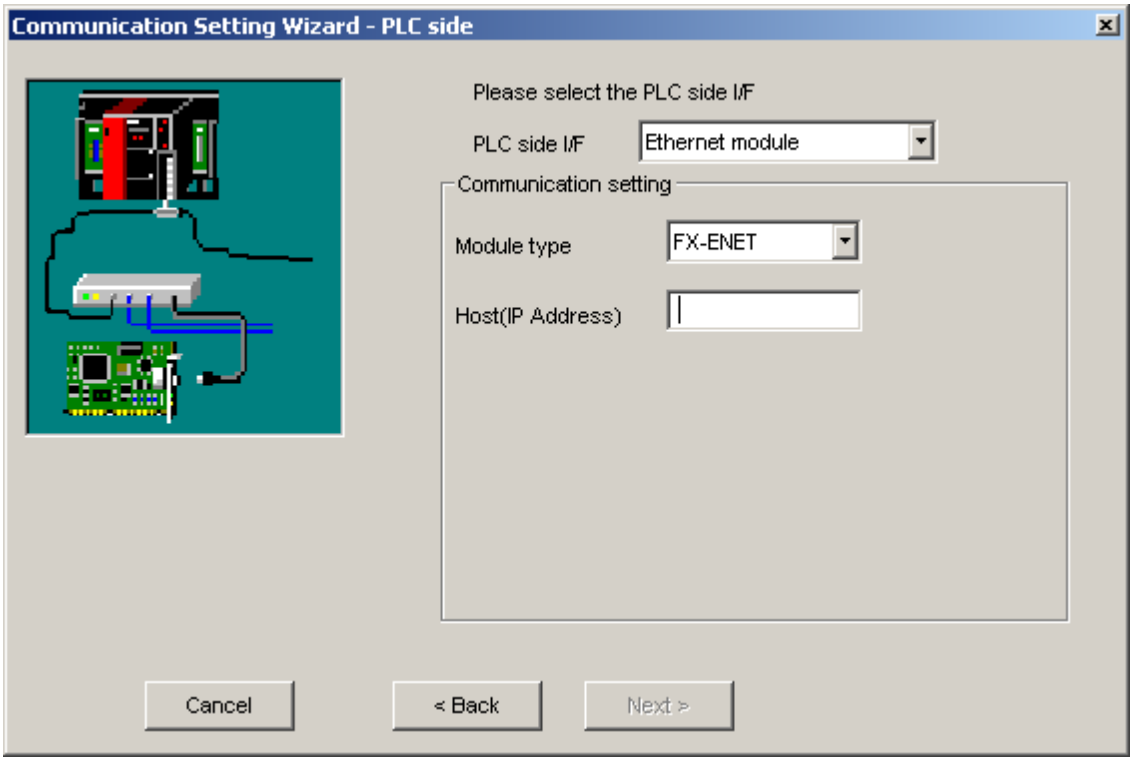
For using UDP/IP protocol the manufacture date (year and month) of the Q4AR CPU must be "0012" or later and the function version must be 'B' at least.

GOT Module



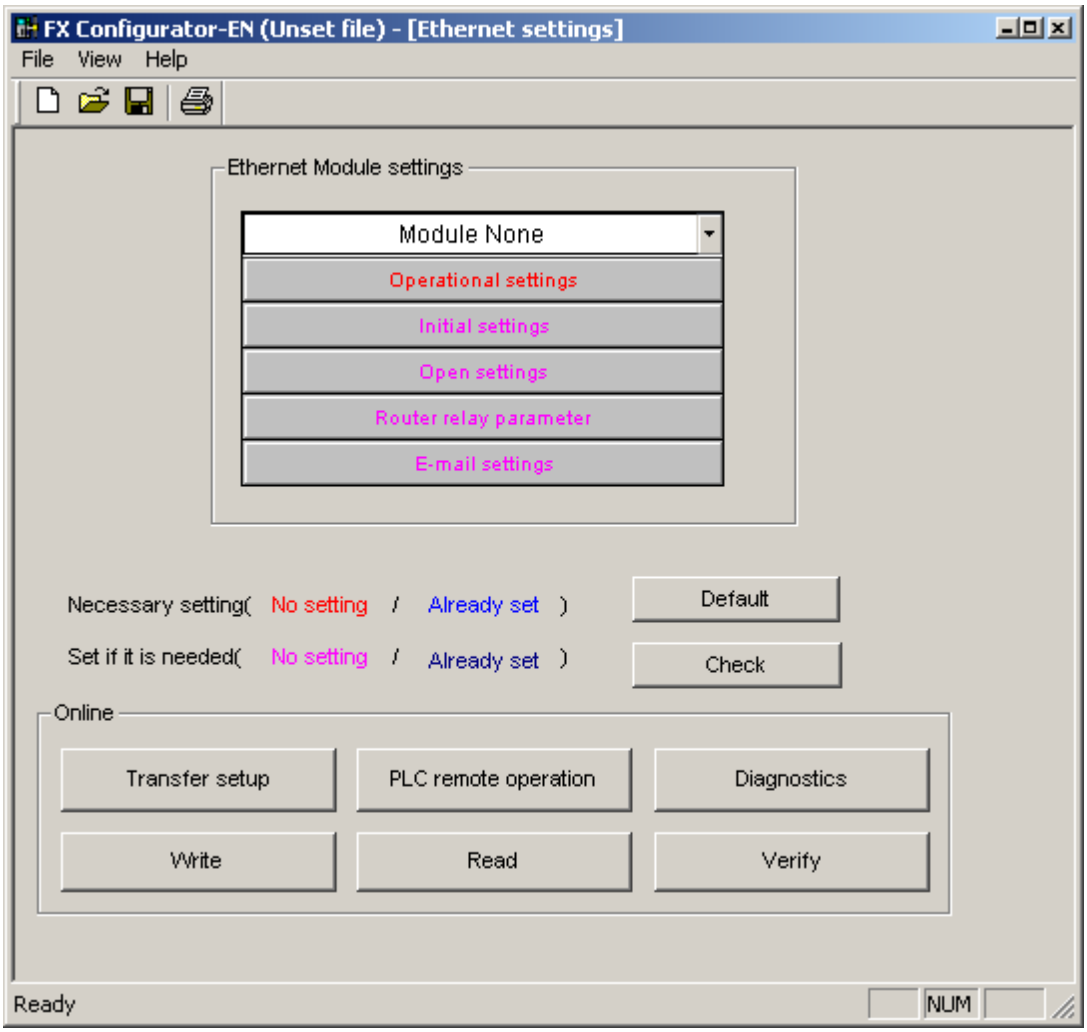
For a description of the editable parameters on the page see PLC side Ethernet module parameters.
Pressing the <Next> button opens a page for entering a comment for the connection.

FX Ethernet Module

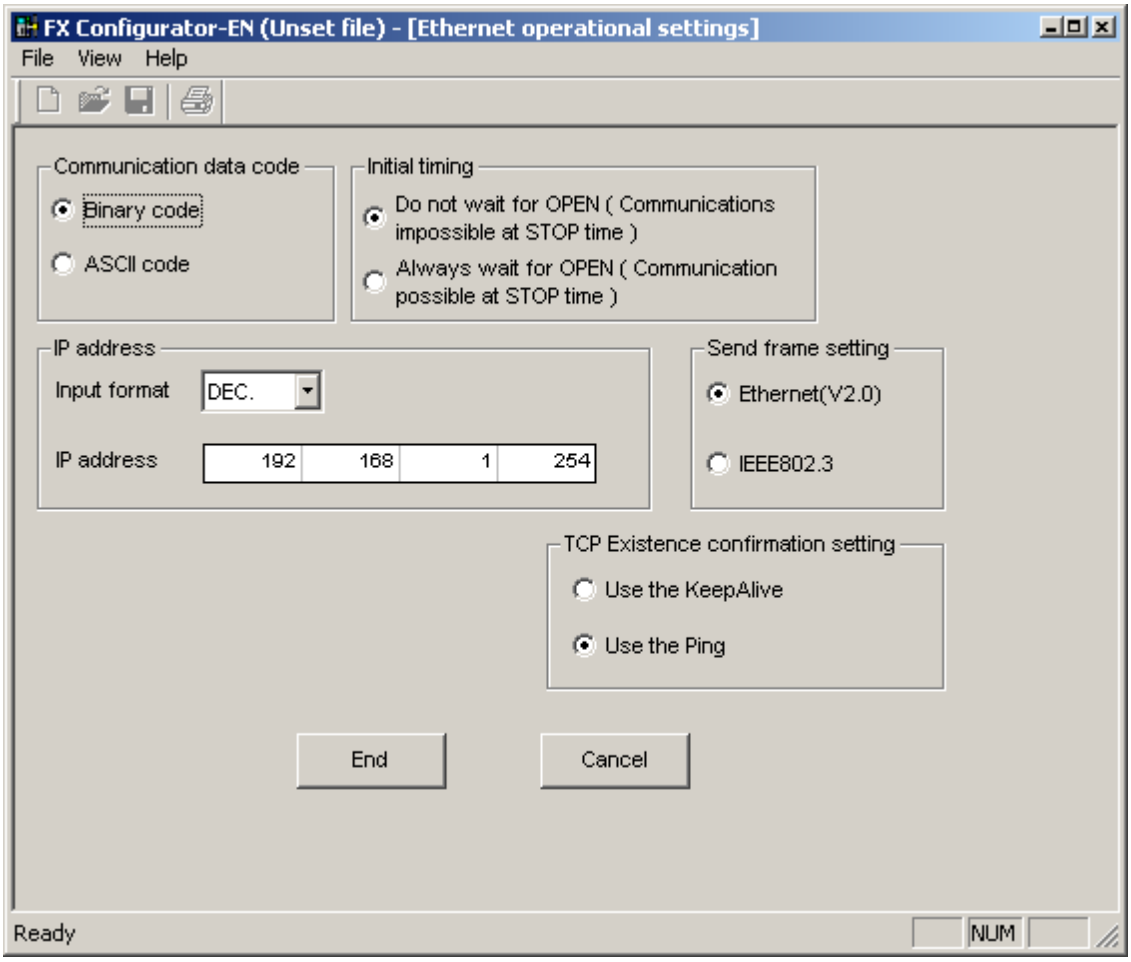


For a description of the editable parameters on the page see PLC side Ethernet module parameters. Pressing the <Next> button opens a page for specifying an optional additional network layer.

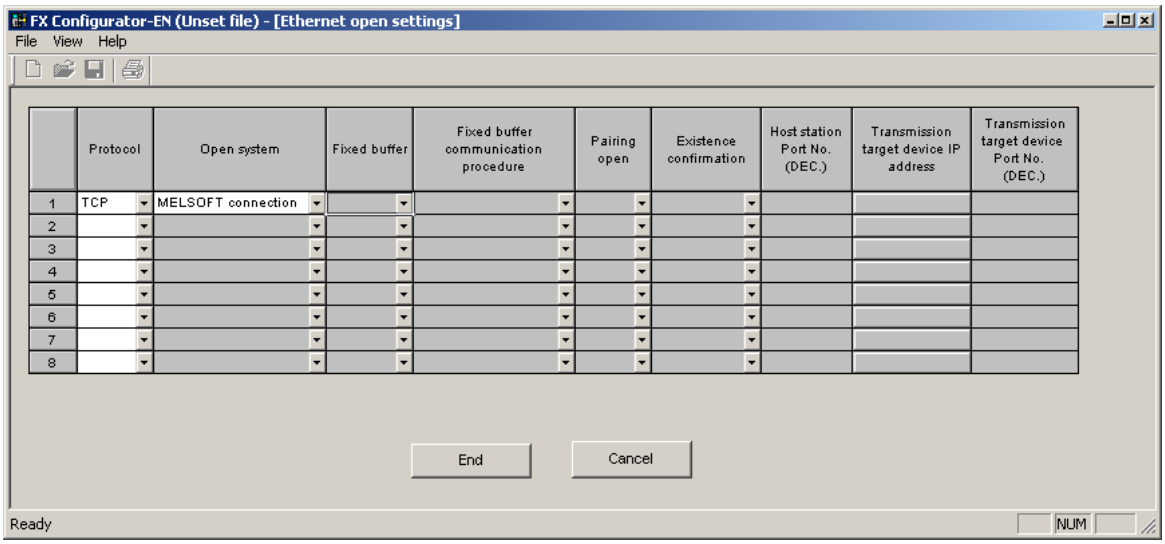
Because GX Developer and GX IEC Developer cannot configure the FX-ENET Ethernet module for FX3U(C) PLCs, there is another tool (FX Configurator-EN) to set up the communication parameters:



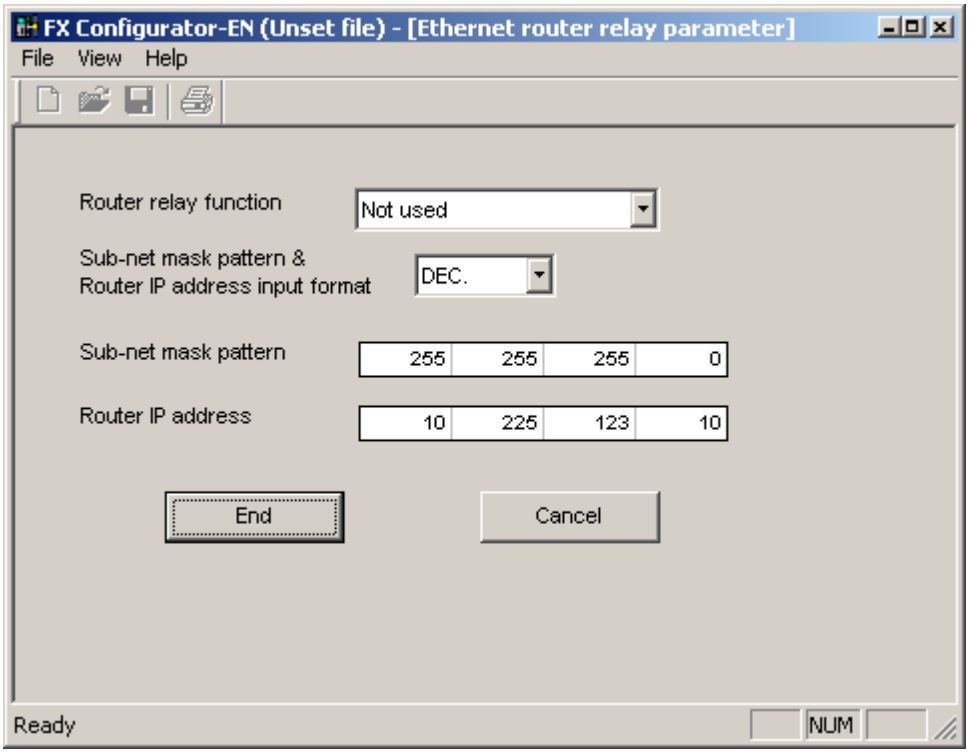
(1) Select the module, up to 8 modules can be selected.
(2) Dialog to select the operational setting:



(3) Set the ethernet open setting:



(4) Dialog to select the router:



(5) Transfer setup is used to download the Ethernet parameter to the FX-ENET. The transfer happens through the PLC, so that the corresponding setting should be selected, for example serial communication to transfer the Ethernet parameters.

The ethernet communication via FX-ENET-ADP for FX1S, FX1N(C) and FX2N(C) is configured through settings in special PLC devices.
Set the ethernet parameters to nine data registers from D1000 to D1008. If these data registers are used for any other purpose, the ethernet parameters can be set to nine registers 'D' starting from D2000, D3000, D4000, D5000, D6000 or D7000.

Data registers	Setting Item	Default parameter	Description
Dn000, Dn001	Header	-	Set H454E4554 ("ENET")
Dn002, Dn003	IP address	192.168.0.100	Set the IP address of the FX-ENET module
Dn004, Dn005	subnet mask	255.255.255.0	Set the sub net mask of the FX-ENET module
Dn006, Dn007	Gateway address	192.168.0.1	Set the gateway address ofthe FX-ENET module
Dn008	TCP port number	1024	Set the TCP port number within the range from 1024 to 65535

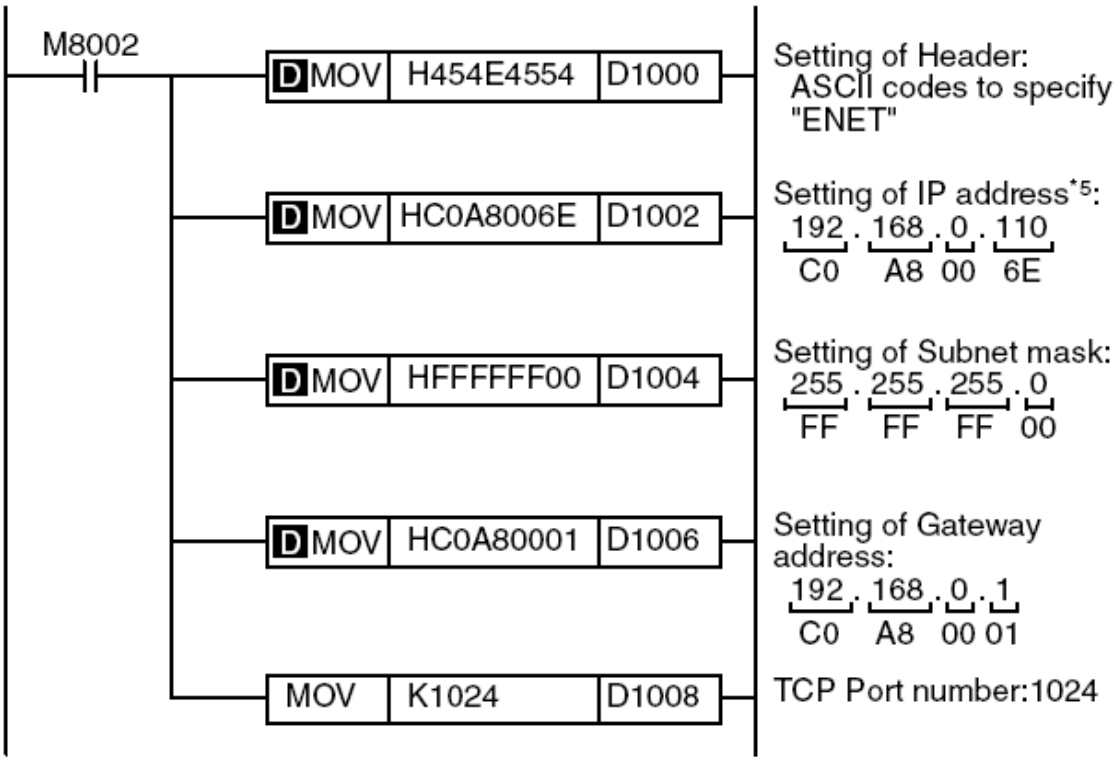
n: Choose any number in the range between 1 and 7

When a PLC program is used to set the ethernet parameters

The ethernet parameters for the FX-ENET-ADP can be set using the PLC program below:

Note:
In the FX-ENET-ADP the ethernet parameters become valid only when the power is turned ON and the setting data is stored in specified data registers.
In any of the following cases, turn off the power of the PLC once, and turn it on again.

- when a parameter is set for the first time
- when the setting of a parameter is changed during operation

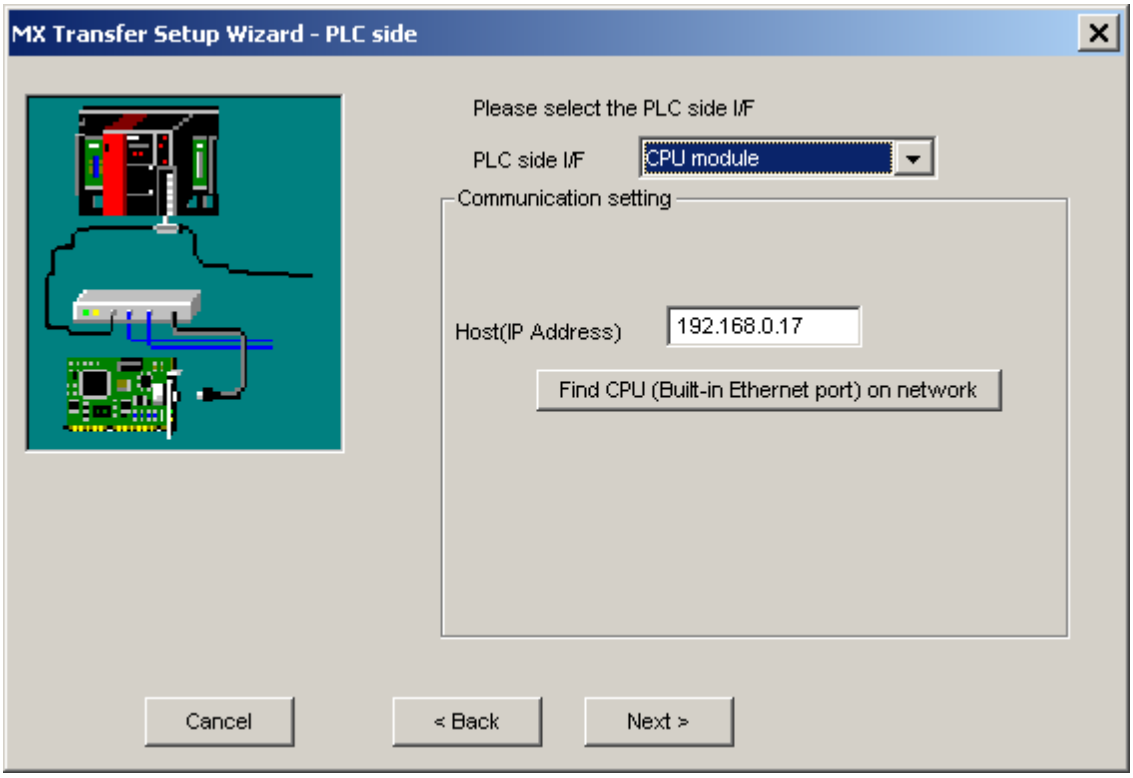


*5: When connecting two or more PLCs to a network, do not use the IP address twice.

Example:	Personal Computer (GX IEC Developer)	192.168.0.10
	PLC1	192.168.0.110
	PLC2	192.168.0.111

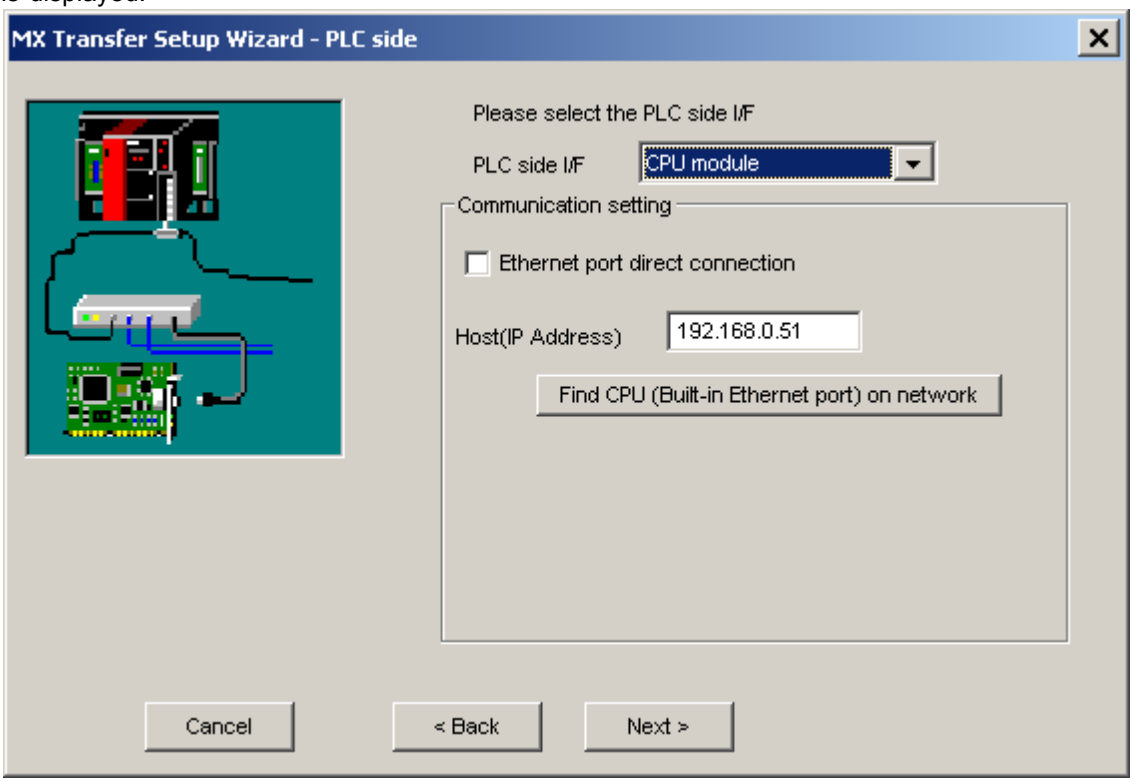
PLC Ethernet CPU

If **TCP** has been selected in the previous page, the following page is displayed:



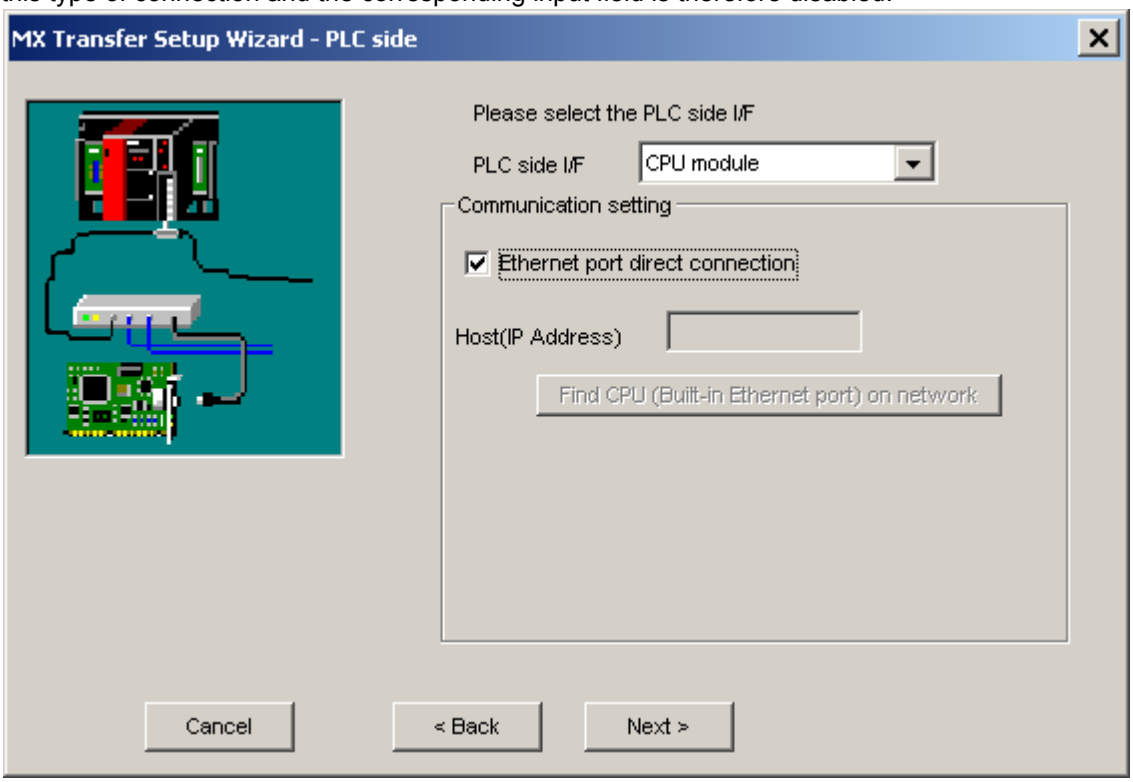
The IP address of the Ethernet interface can be manually entered or looked up online. Pressing the 'Find CPU' button opens the 'Find CPU' dialog, in which the QnUDE CPUs in the local network are listed.

If **UDP** has been selected in the previous page, the additional option 'Ethernet port direct connection' is displayed.

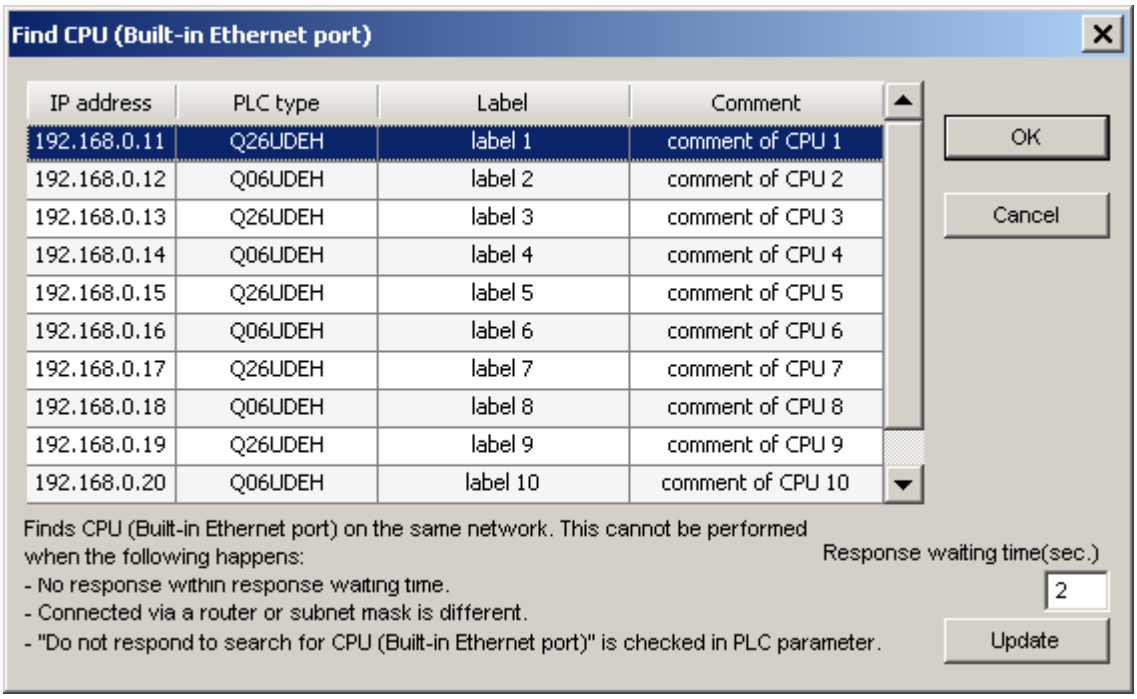


If the option 'Ethernet port direct connection' has been selected, the Ethernet interfaces of PC and

PLC CPU must be connected point-to-point with a single cable. The IP address is not required for this type of connection and the corresponding input field is therefore disabled.



Find CPU



This dialog lists the QnUDE CPUs found in the local Ethernet network. When a CPU in the list is selected and the **OK** button pressed, the IP address of the selected CPU is copied to the 'Host(IP Address)' field. By pressing '**Update**' the local Ethernet network is scanned again for QnUDE CPUs and the list is updated. The time to wait for CPUs to respond during the search is entered in the field '**Response waiting time**'.

4.2.17 PLC G4 Module

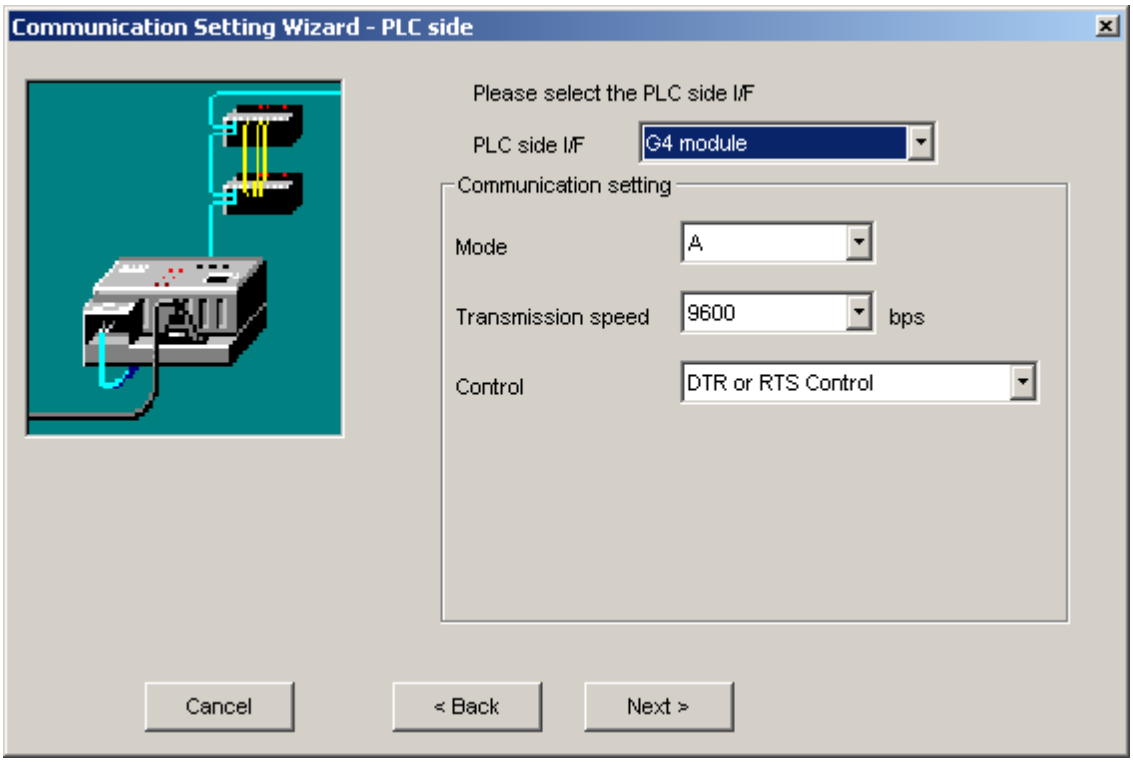
Enter the settings for a G4 module connected to the PC.

PLC side G4 module parameters

Parameter	Values	Description
Mode	A, QnA, Q	type of PLC C24 module
Transmission speed	9600 - 115200	baudrate on the serial link **available baudrates depend on selected mode**
Control	DTR only, RTS only, DTR and RTS, DTR or RTS	handshake signals

Note:
The CC-Link G4 module used in CC-Link G4 communication (only when the AJ65BT-G4 is used) must have software version 'D' or later. Modules with software version 'C' or earlier will not operate properly.

G4 Module connected to PC



For a description of the editable parameters on the page see PLC side G4 module parameters.
Pressing the <**Next**> button opens a page for specifying an optional additional network layer.

Q mode

Connected Station CPU	Relayed Network	Relayed Station CPU				
QCPU (Q mode)		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
	MELSECNET/H	o	x	x	x	o
	MELSECNET/10	o	o	o	o	o
	MELSECNET(II)	x	x	x	x	o
	Ethernet	o	o	o	x	x
	Computer link	o	x	o	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	*2	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU
*2 : partially supported, depends on CPU type

QnA mode

Connected Station CPU	Relayed Network	Relayed Station CPU				
QnACPU		QCPU (Q mode)	QCPU (A mode)	QnA CPU	ACPU *1	FXCPU
	MELSECNET/H	x	x	x	x	x
	MELSECNET/10	x	x	o	x	x
	MELSECNET(II)	x	x	o	x	x
	Ethernet	x	x	o	x	x
	Computer link	x	x	o	x	x
	CC-Link	x	x	x	x	x
	CC-Link IE	x	x	x	x	x

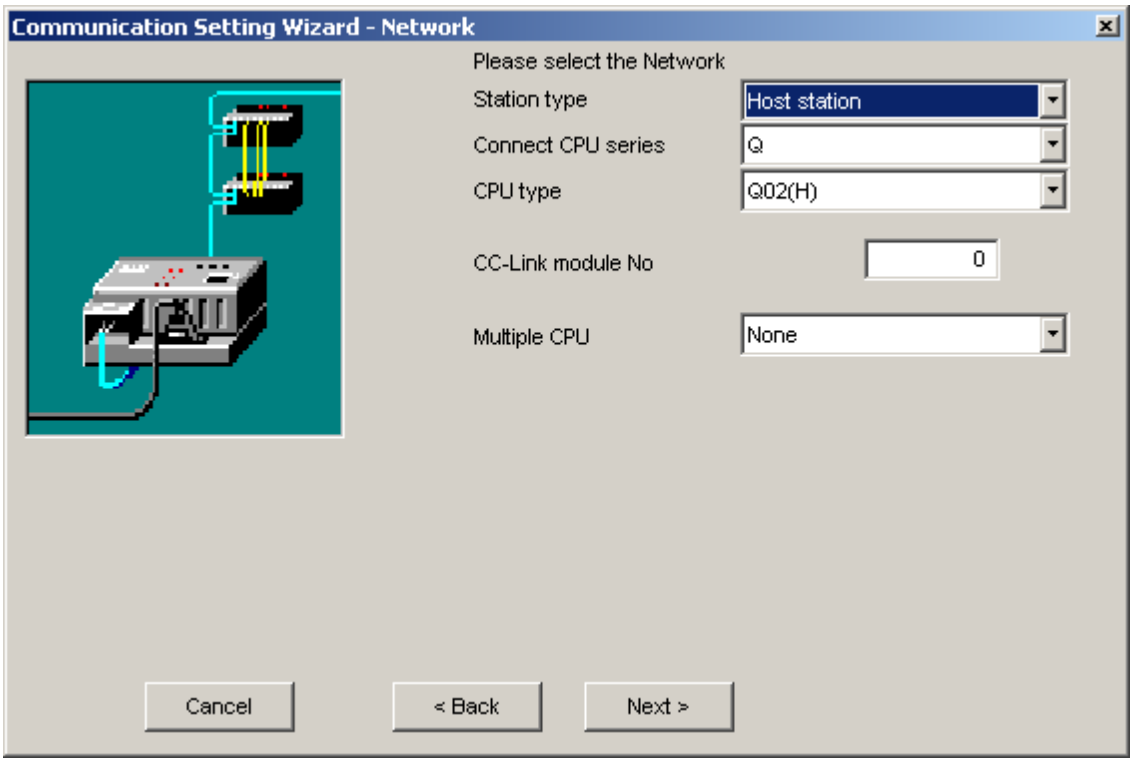
o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

A mode

Connected Station CPU			Relayed Network	Relayed Station CPU				
QCPU (A mode)	QnACPU	A CPU *1		QCPU (Q mode)	QCPU (A mode)	QnACPU	ACPU *1	FX CPU
o	x	o	MELSECNET/H	x	x	x	x	x
			MELSECNET/10	x	x	x	x	x
			MELSECNET(II)	x	x	x	x	x
			Ethernet	x	x	x	x	x
			Computer link	x	x	x	x	x
			CC-Link	x	x	x	x	x
			CC-Link IE	x	x	x	x	x

o: Accessible
x: Inaccessible
*1 : Including motion controller CPU

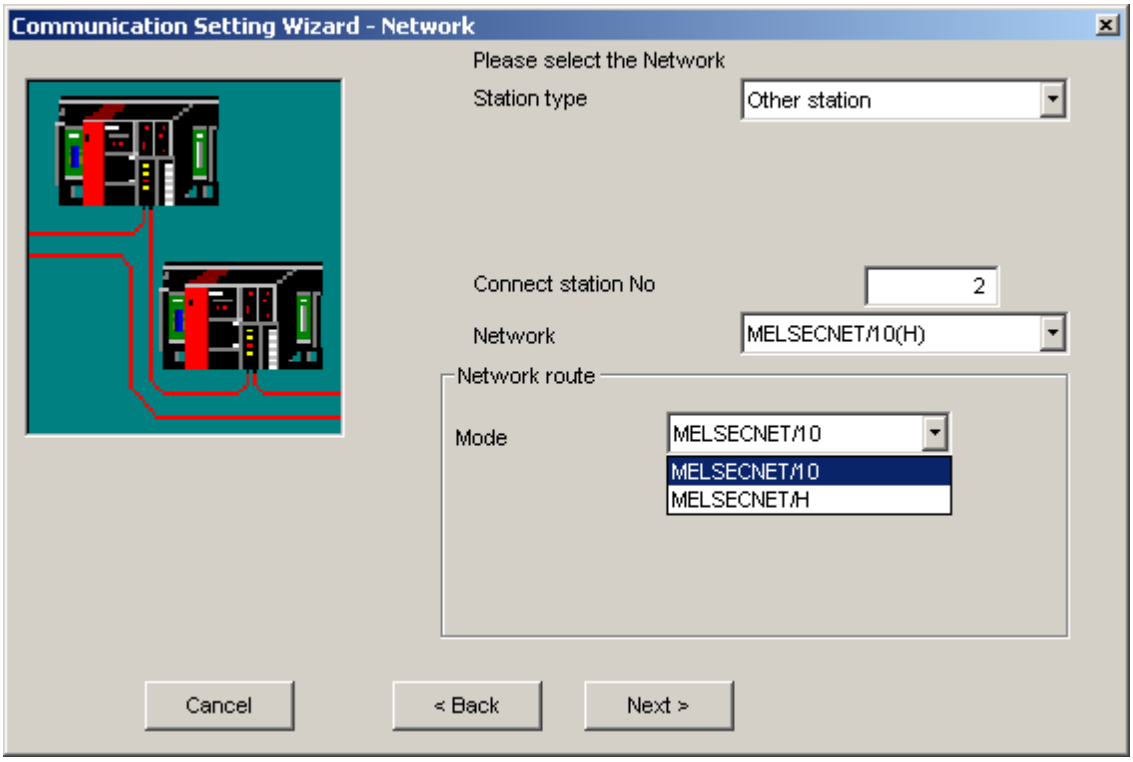
Host station attached to G4 module



Pressing the <**Next**> button opens a page for entering a comment for the connection.

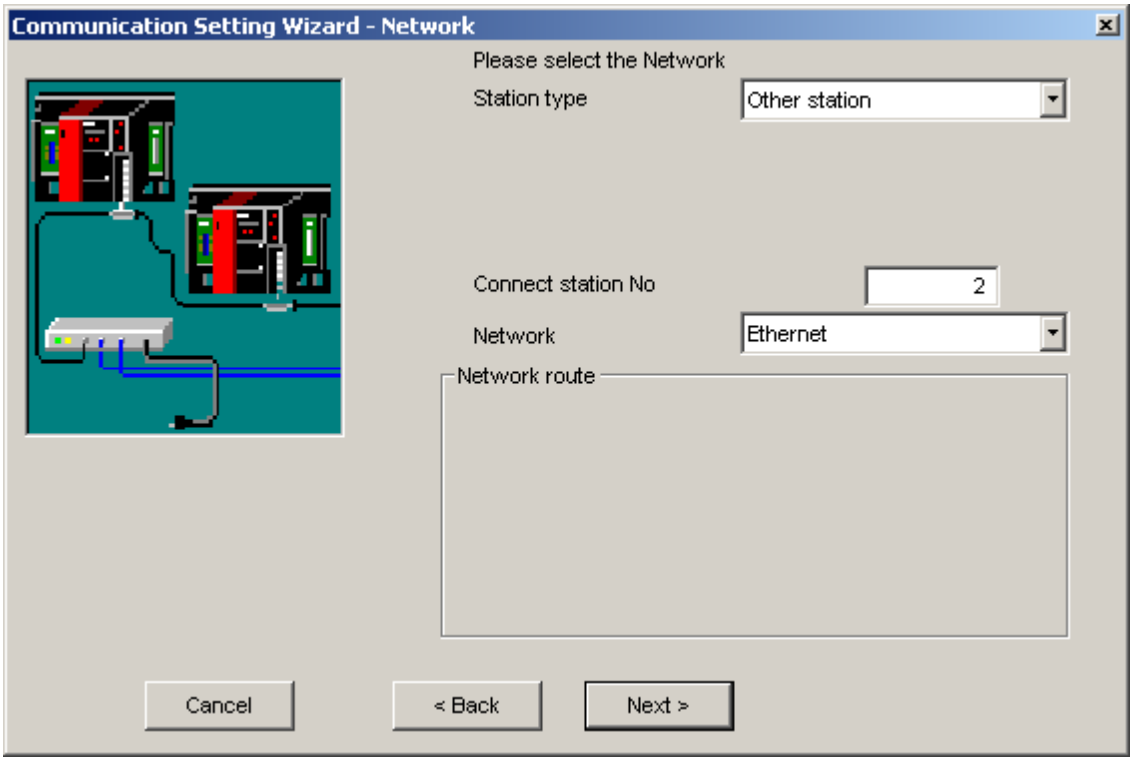
Other station in a network attached to G4 module

In a MELSECNET/10 network



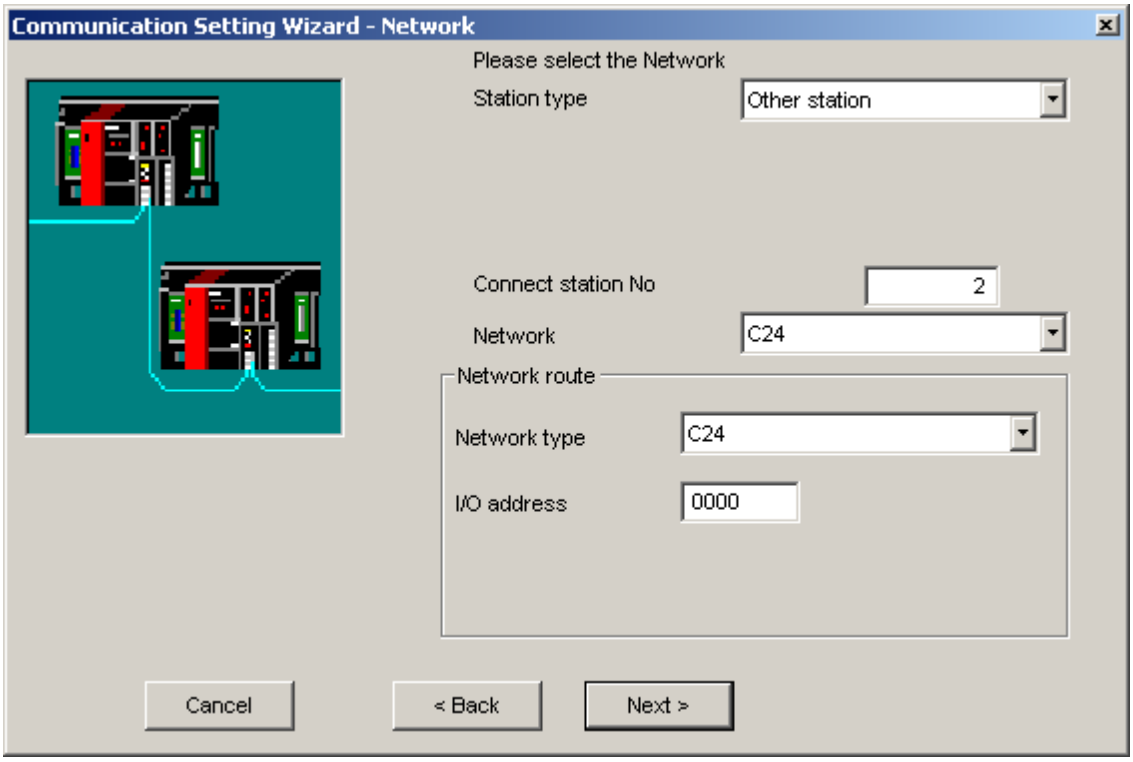
Pressing the <**Next**> button opens a page for specifying the station type and address.

In an Ethernet network



Pressing the <**Next**> button opens a page for specifying the station type and address.

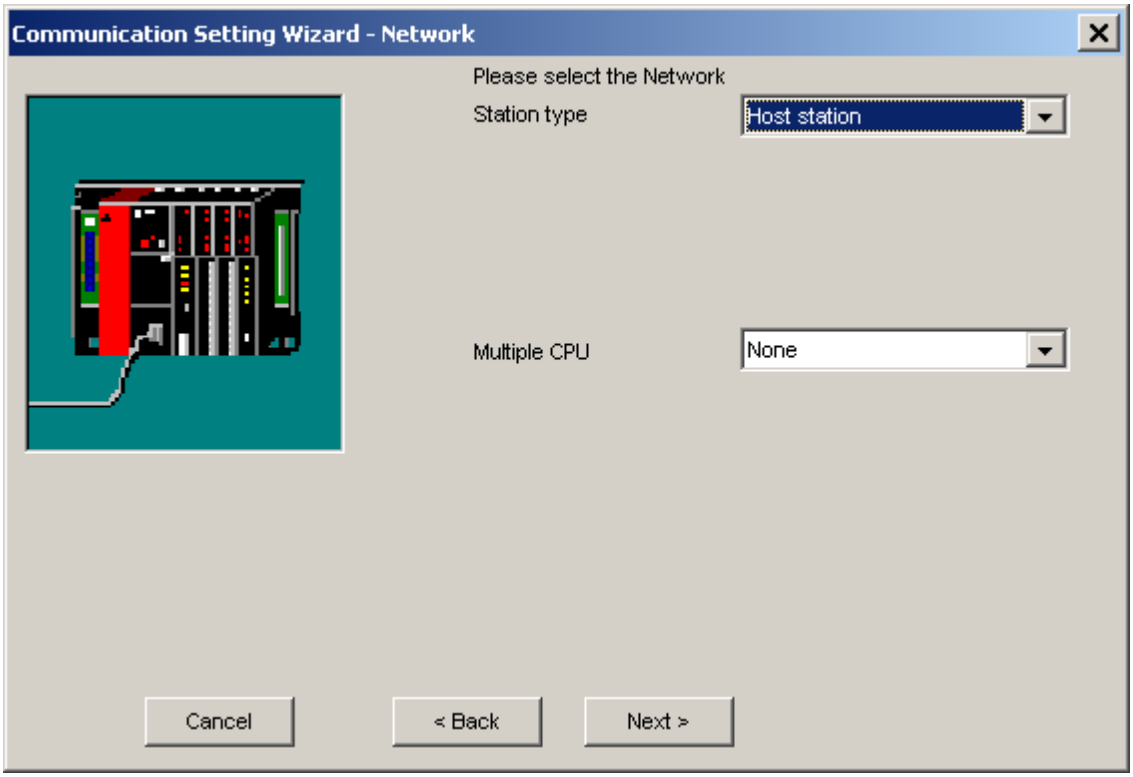
In a C24 network



Pressing the <**Next**> button opens a page for specifying the station type and address.

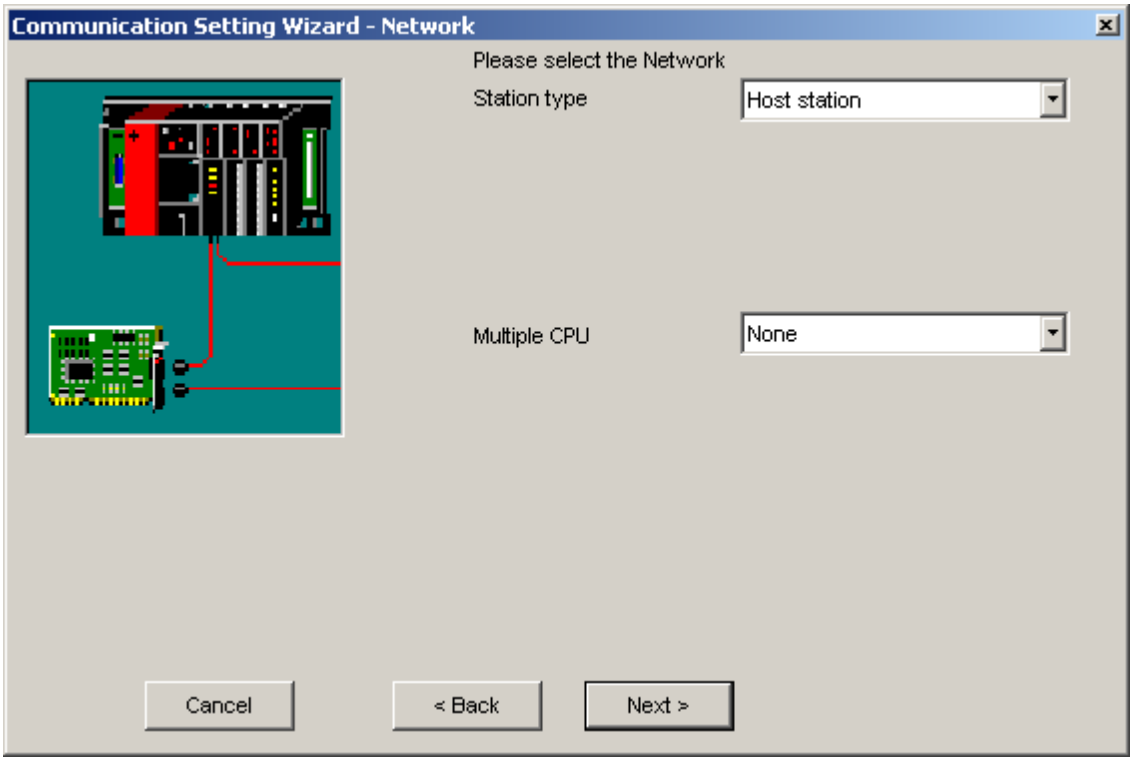
4.2.18 Network

Host station for CPU connections



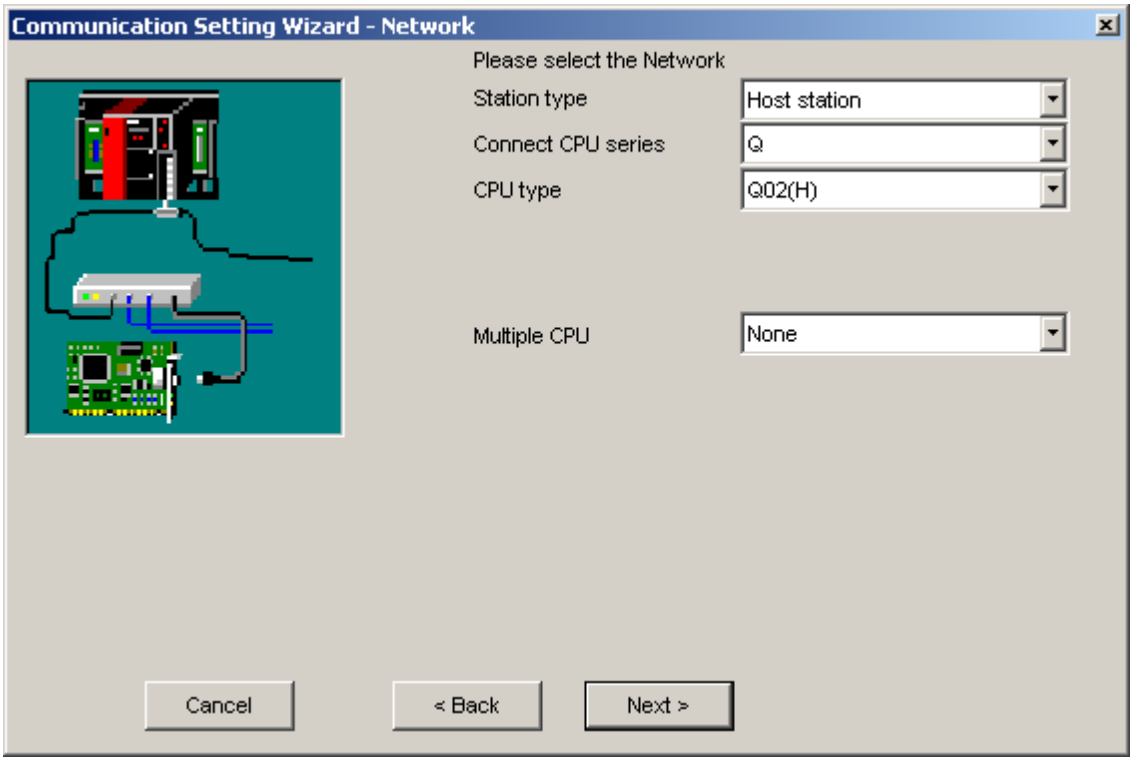
If the target PLC contains multiple CPUs, the number of the target CPU must be selected in the 'Multiple CPU' parameter. For details see 'Appendix Multi-CPU'.
Pressing the <**Next**> button opens a page for entering a comment for the connection.

Host station for MELSECNET connections



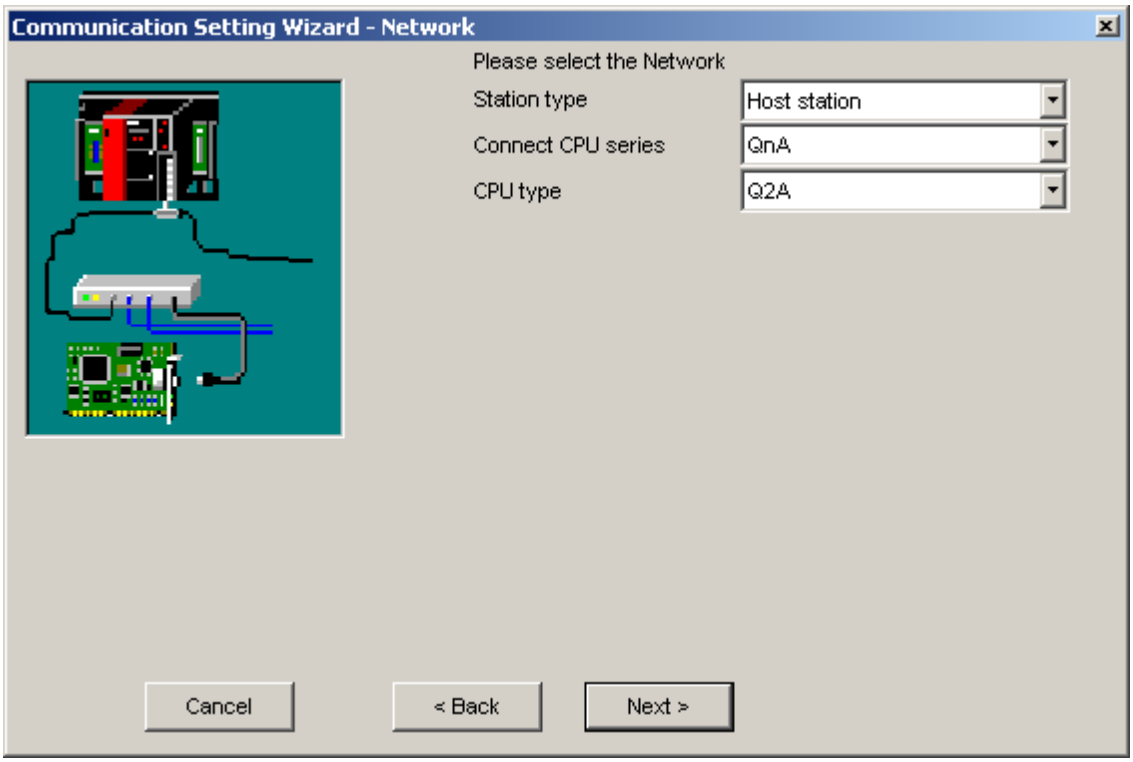
If the target PLC contains multiple CPUs, the number of the target CPU must be selected in the 'Multiple CPU' parameter. For details see 'Appendix Multi-CPU'.
Pressing the <**Next**> button opens a page for entering a comment for the connection.

Host station for C24 connections

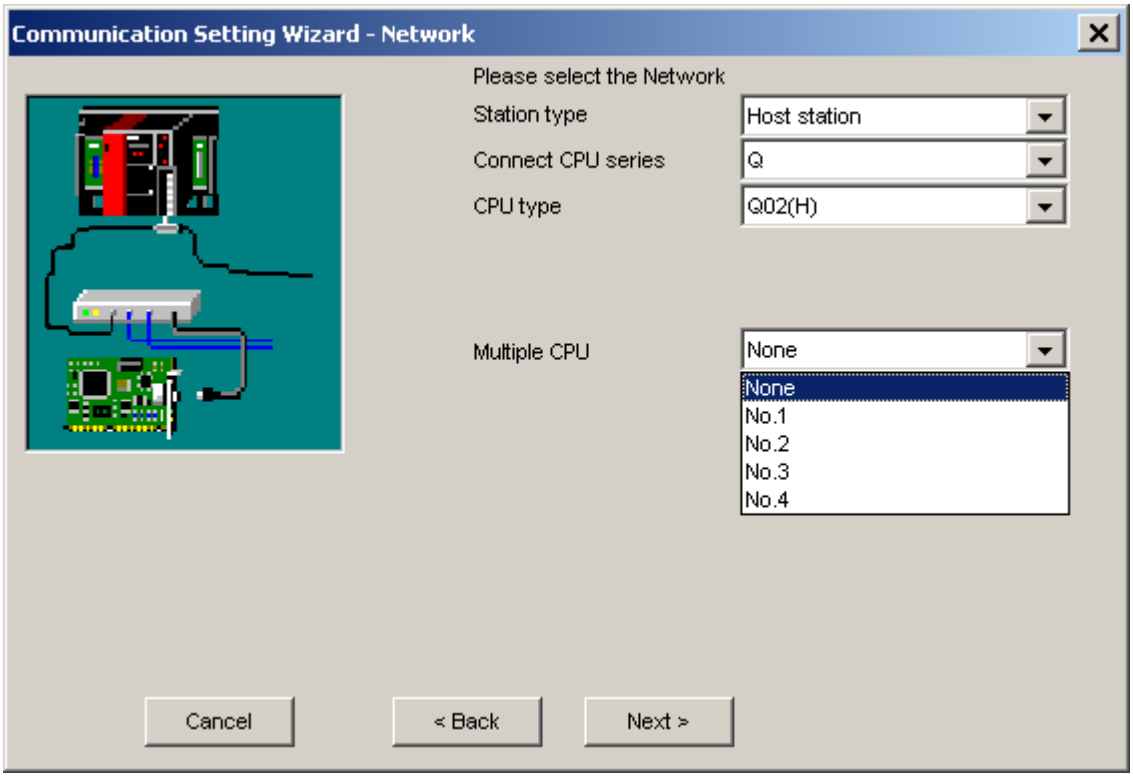


Select the type of the target CPU. If the target PLC contains multiple CPUs, the number of the target CPU must be selected in the 'Multiple CPU' parameter. For details see 'Appendix Multi-CPU'.
Pressing the <**Next**> button opens a page for entering a comment for the connection.

Host station for Ethernet connections

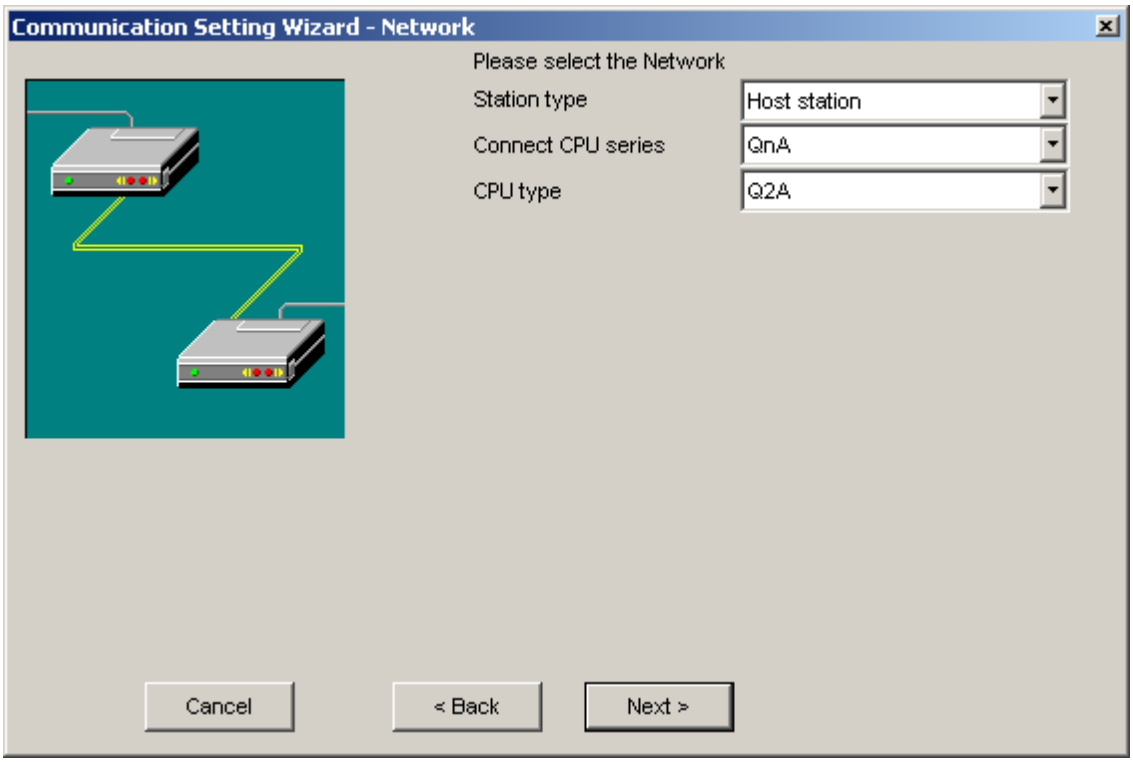


For Q-series PLCs the index of the CPU in a multi-CPU system can optionally be selected.



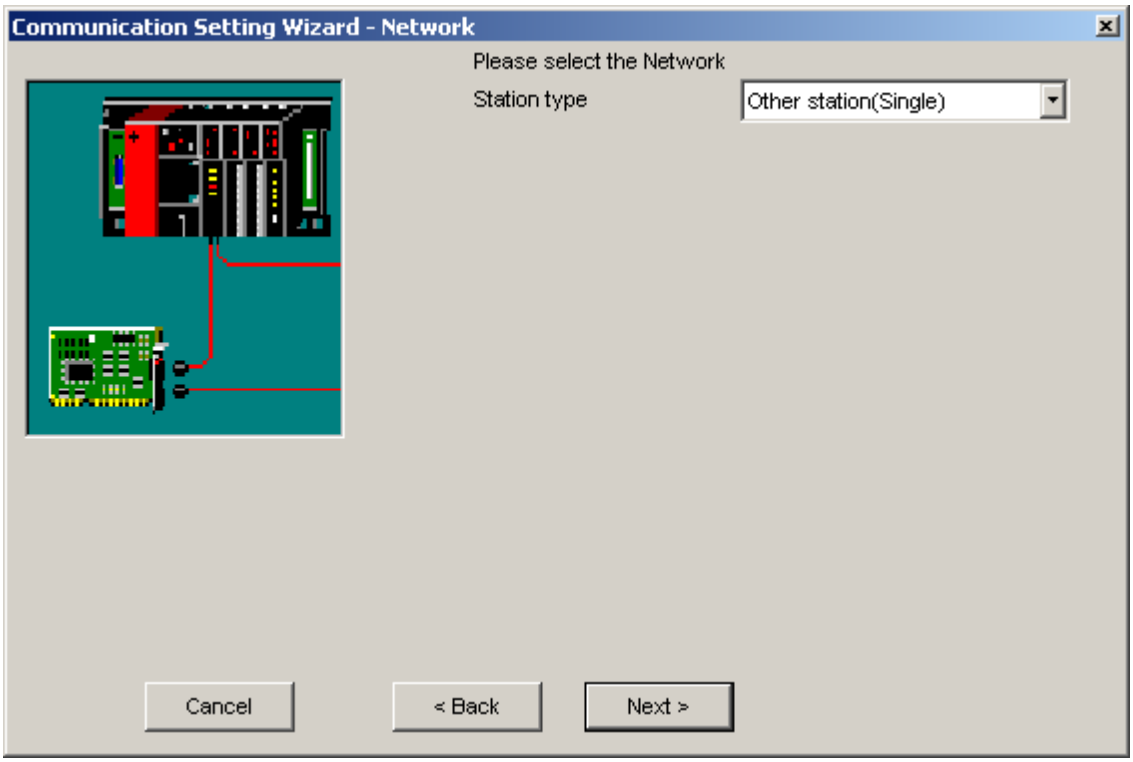
Select the type of the target CPU and press the <**Next**> button to open a page for entering a comment for the connection.

Host station for modem connections



Pressing the <**Next**> button opens a page for entering a comment for the connection.

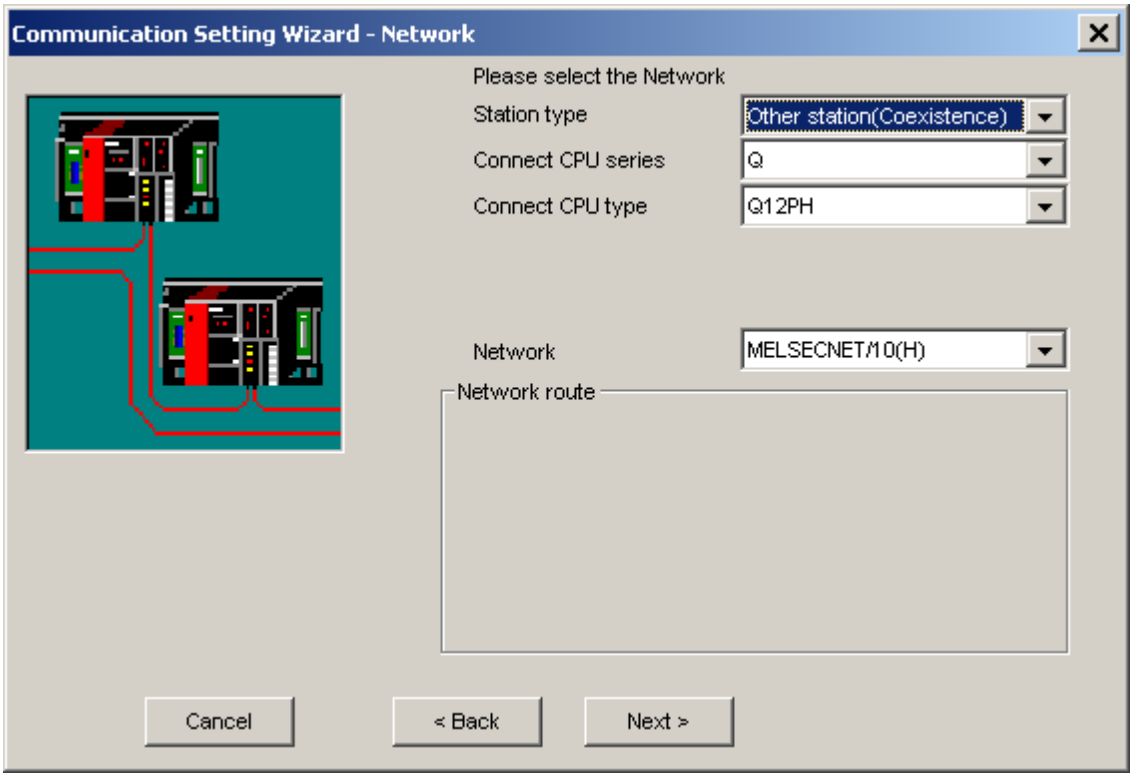
Station in single network



Pressing the <**Next**> button opens a page for entering the MELSECNET address of the target PLC.

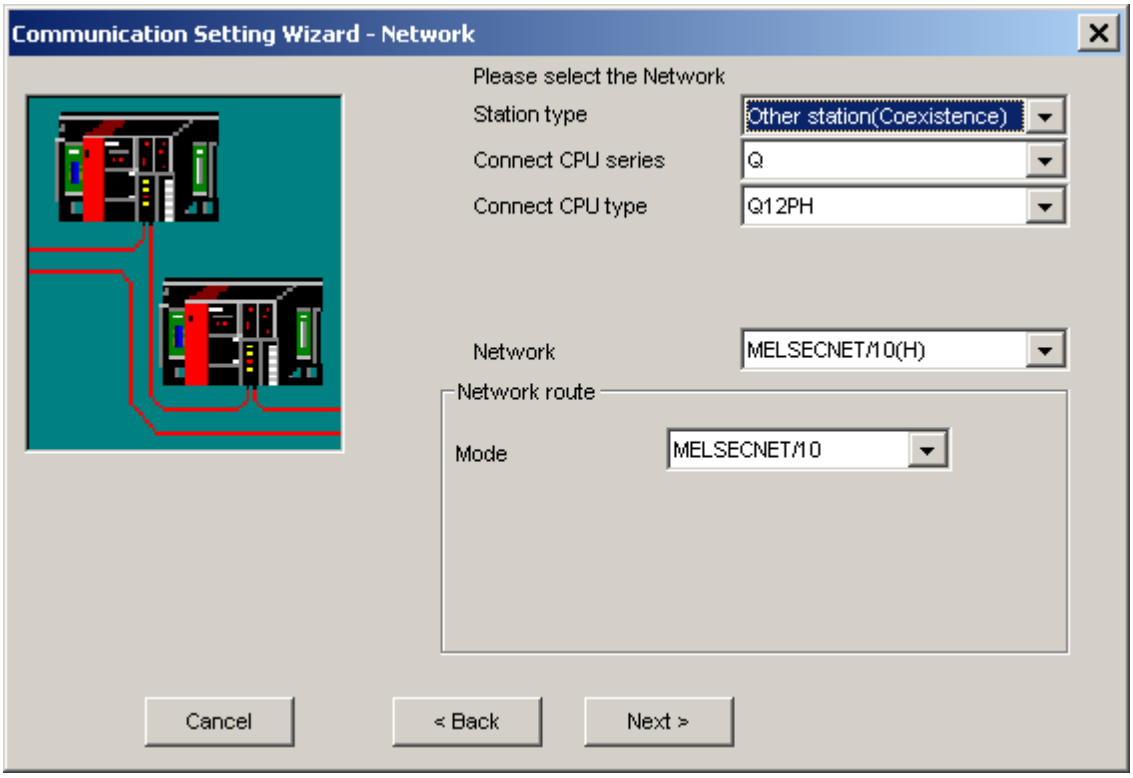
Station in coexisting network

For MELSECNET/10 interfaces



Select the type of the coexisting network and press the <**Next**> button to open a page for entering parameters of the target PLC in the coexisting network.

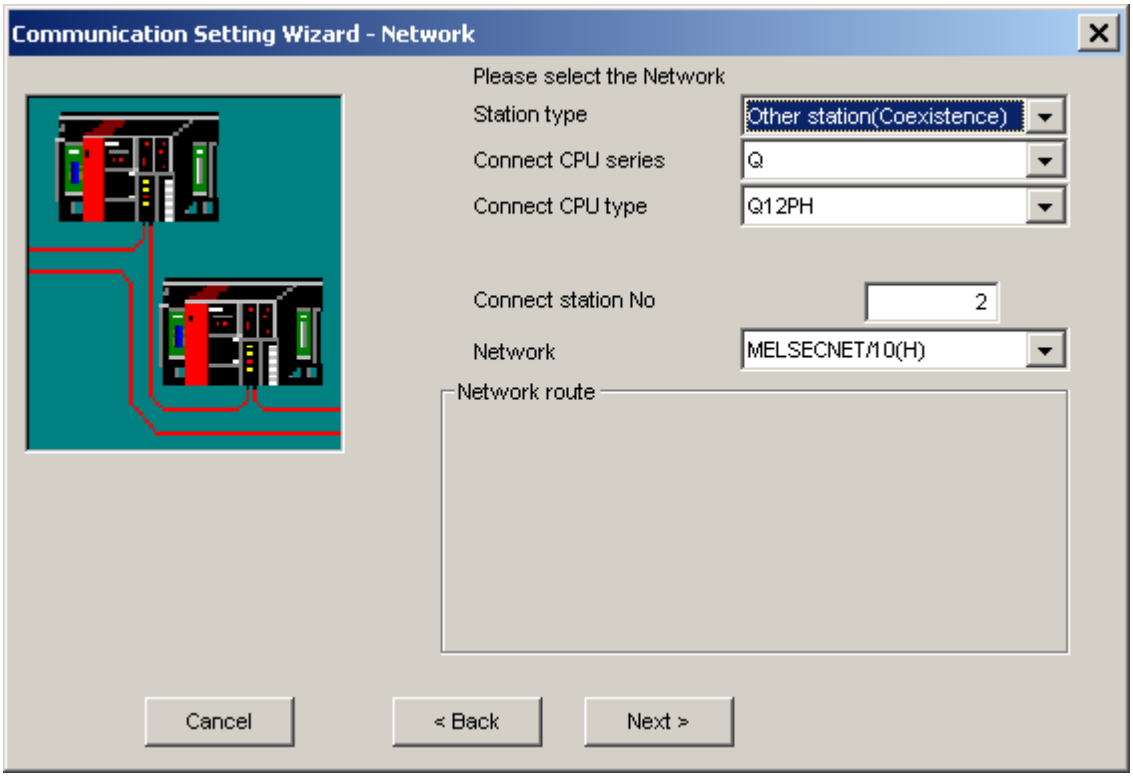
For MELSECNET/H interfaces



Select the type of the coexisting network and press the <**Next**> button to open a page for entering parameters of the target PLC in the coexisting network.

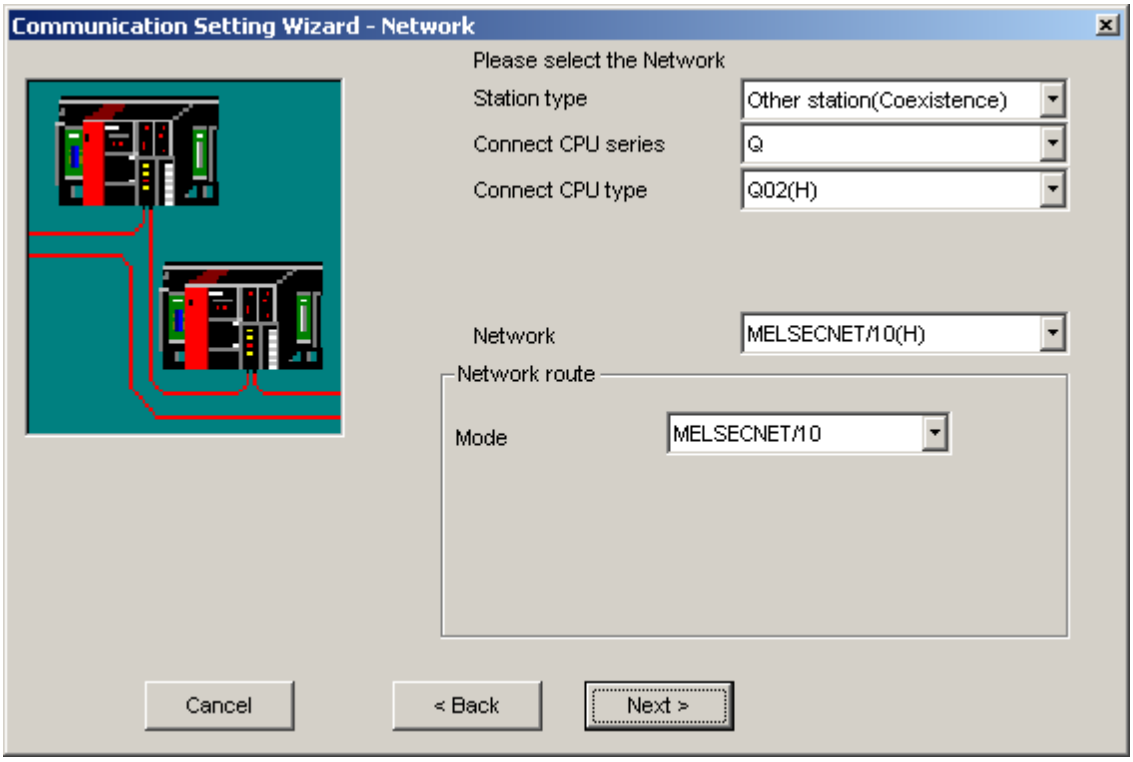
For CC-Link interfaces

Parameter	Values	Description
Connect station no.	0 - 64	station number of the CC-link module in the target station



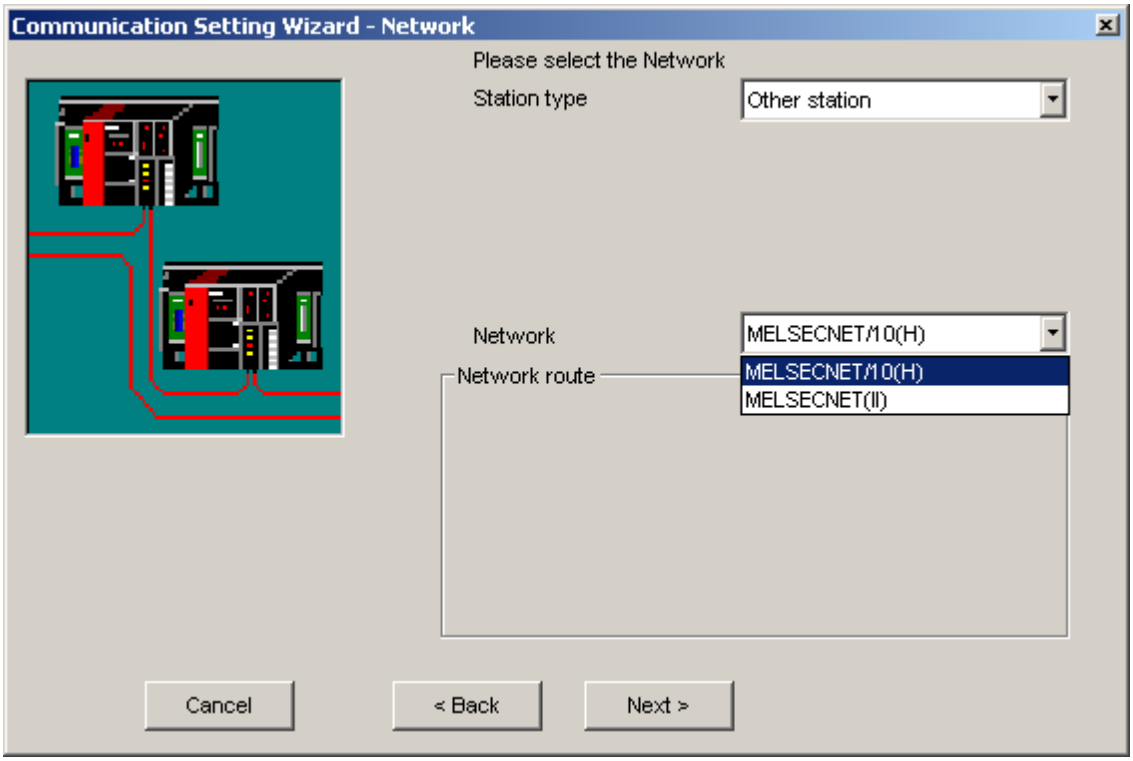
Select the type of the coexisting network and press the <**Next**> button to open a page for entering parameters of the target PLC in the coexisting network.

For CC-Link IE interfaces

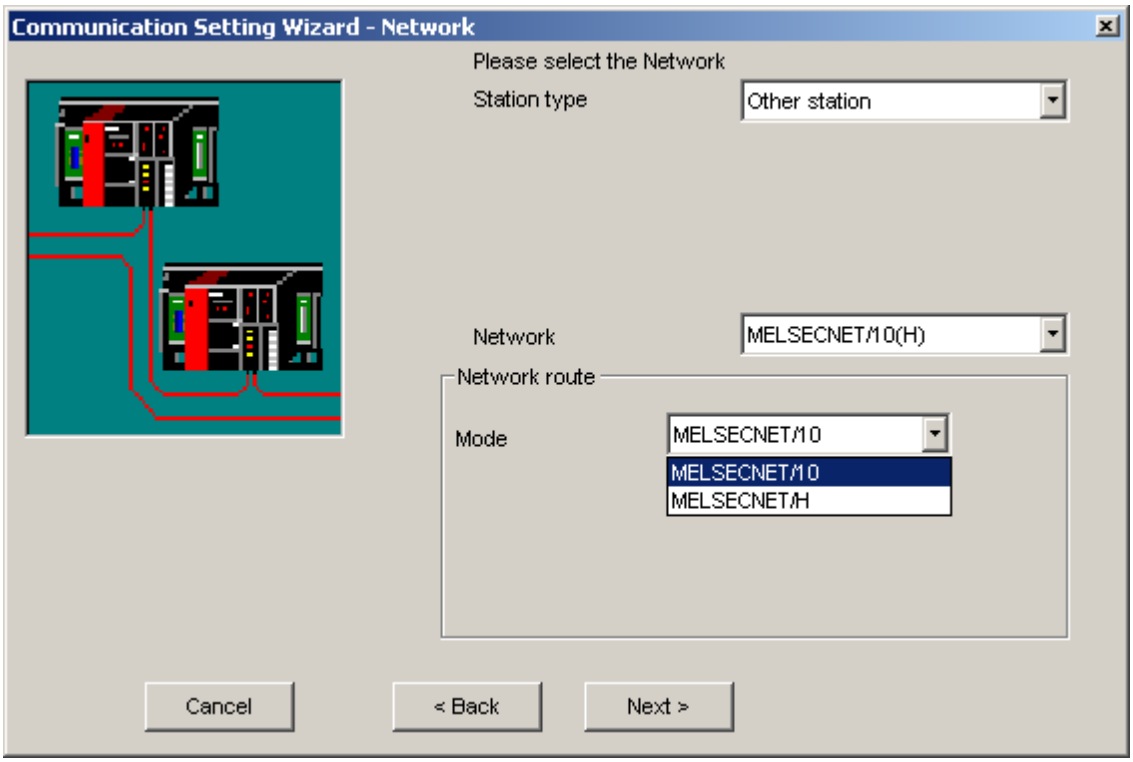


Select the type of the coexisting network and press the <**Next**> button to open a page for entering parameters of the target PLC in the coexisting network.

Station in MELSECNET/10 network

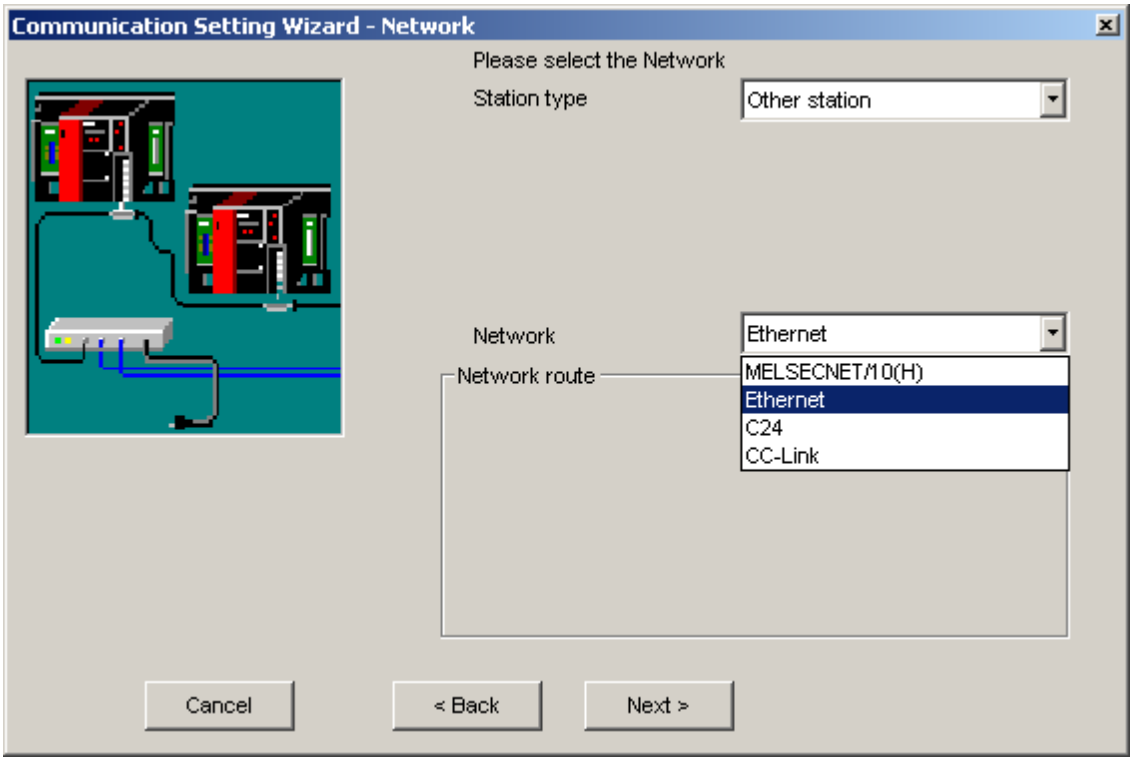


Select the type of the network, to which the target PLC is connected. Additionally the mode may also be selectable.

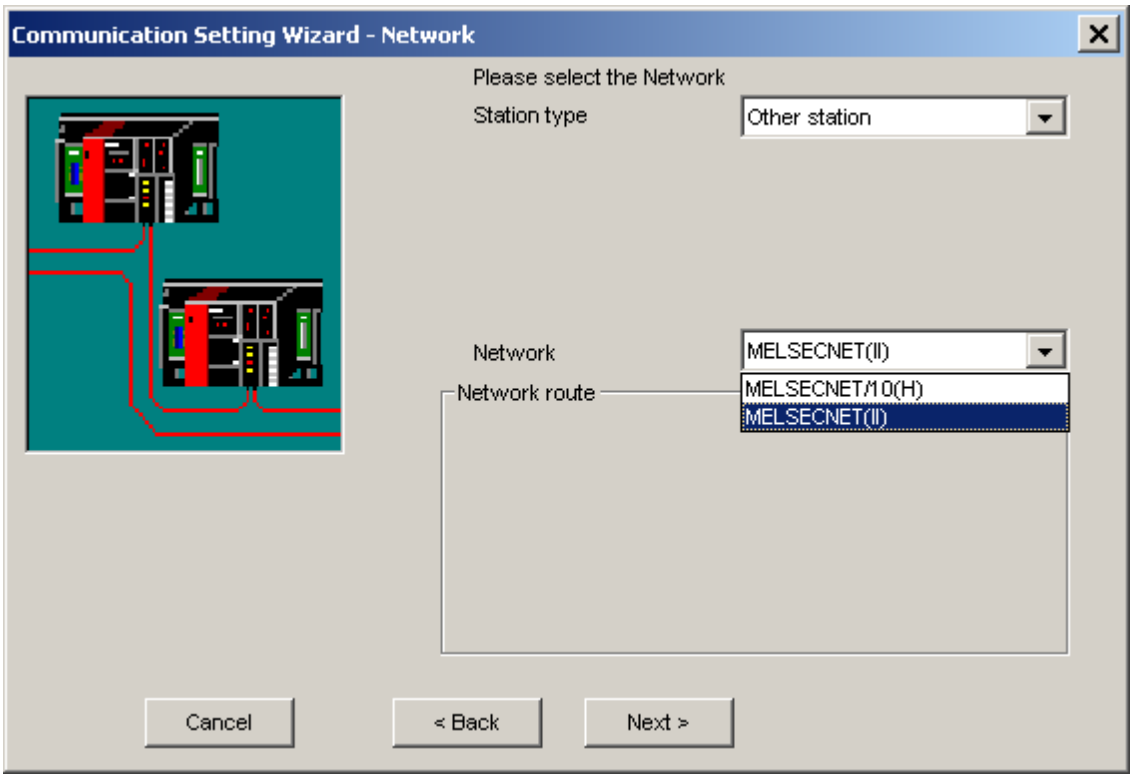


Pressing the <**Next**> button opens a page for entering the MELSECNET address of the target PLC.

Station in Ethernet network



Station in MELSECNET(II) network

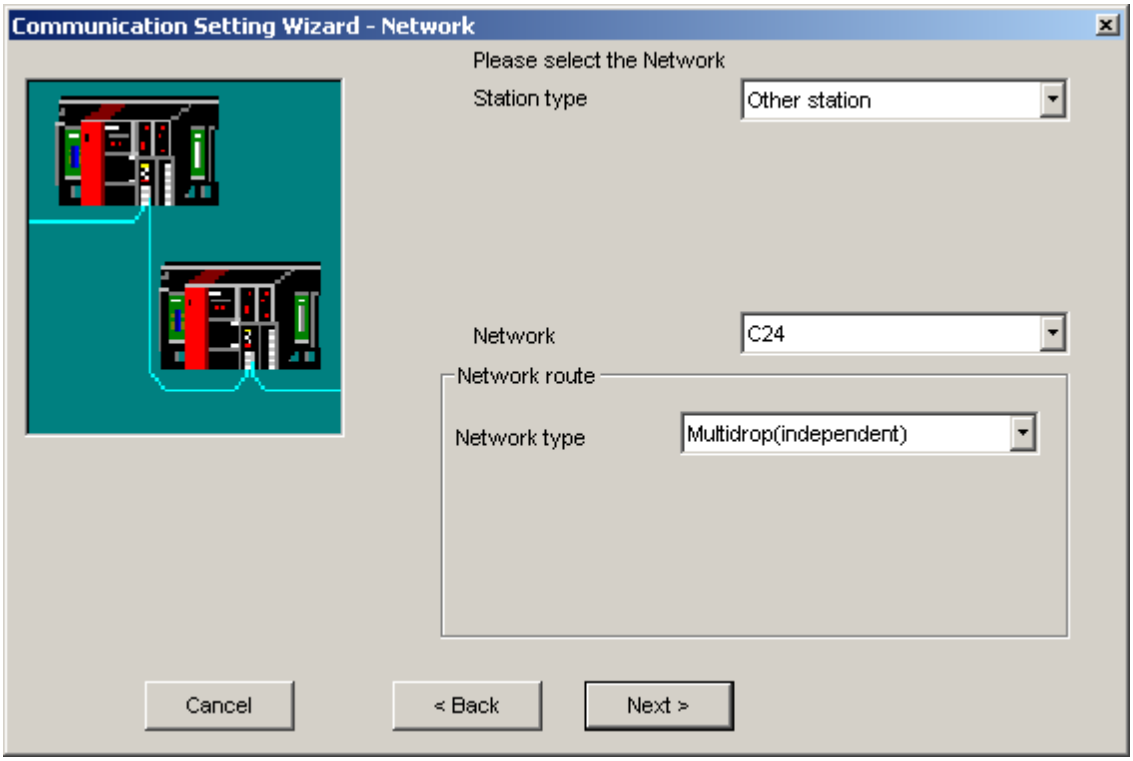


Pressing the <**Next**> button opens a page for entering the MELSECNET address of the target PLC.

⚠	**Note:** When access is made to the QnACPU, AnUCPU, QCPU (A mode) or motion controller

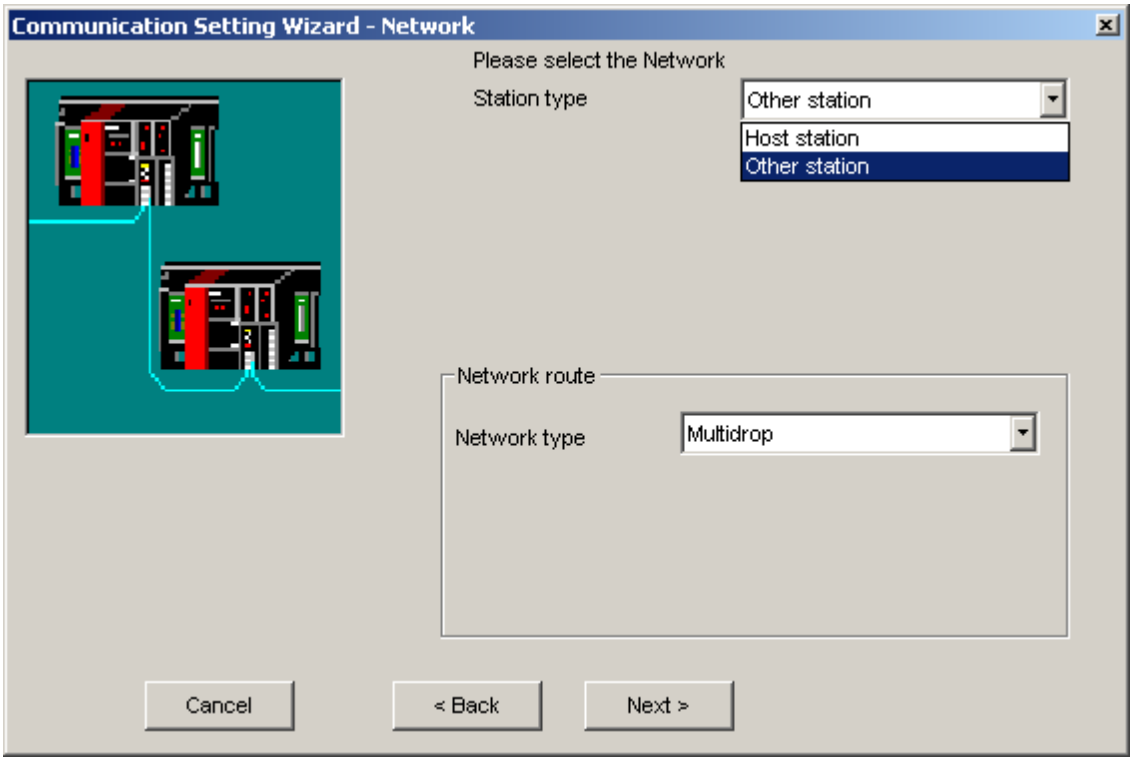
	CPU via the MELSECNET(II), the device range is equivalent to that of the AnACPU.

Station in C24 multi drop network



Pressing the <**Next**> button opens a page for entering the station address of the target PLC in multi drop network.

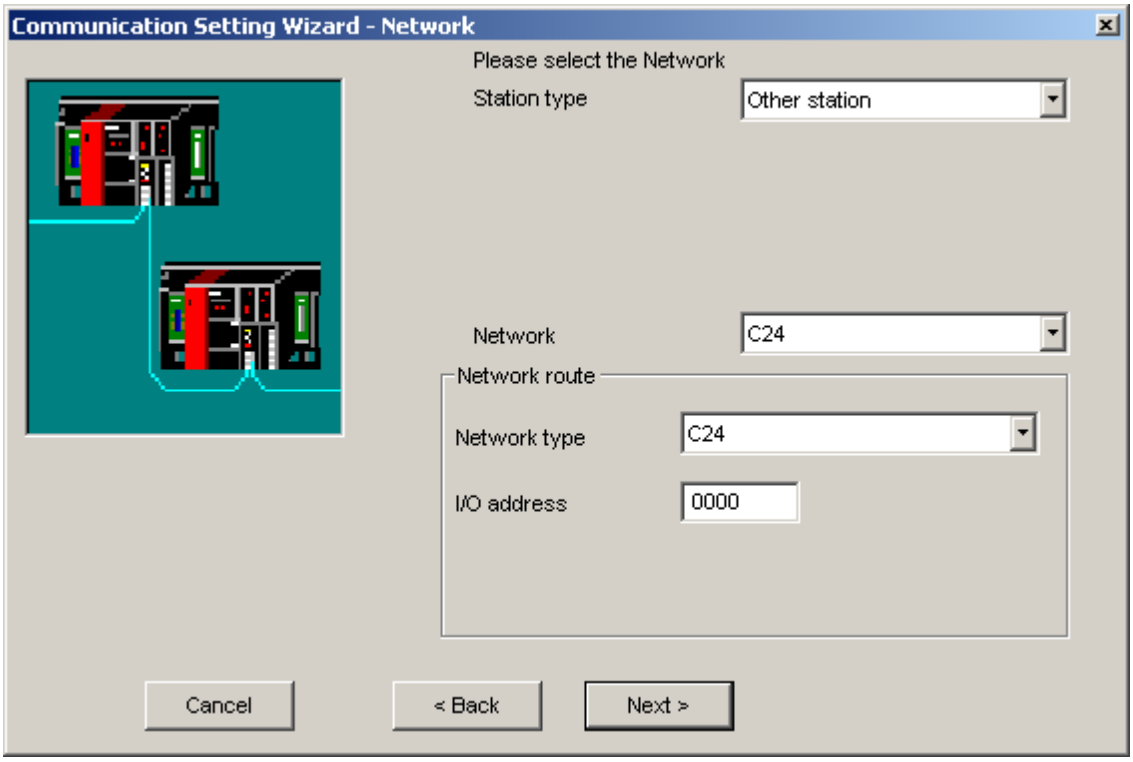
Station in FX multi drop network



Pressing the <**Next**> button opens a page for entering the station address of the target PLC in multi drop network.

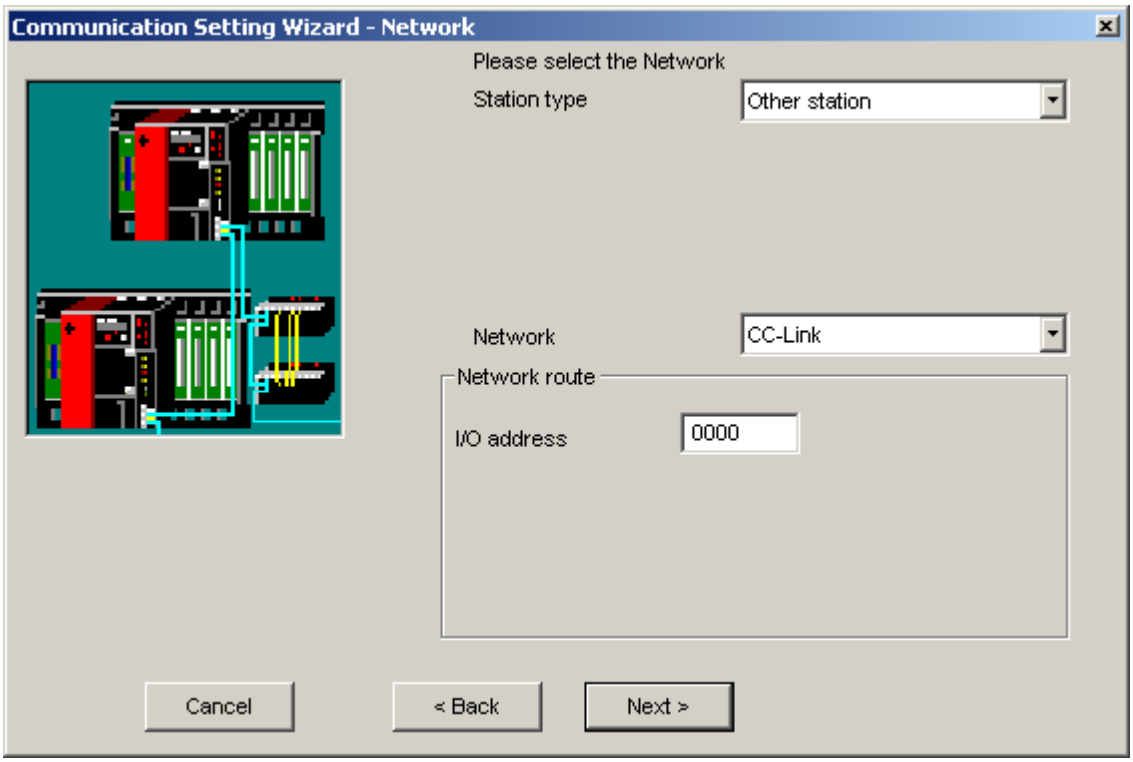
Network with C24 station

Parameter	Values	Description
Network type	C24	fixed
I/O address	I/O number divided by 0x10	module I/O address of connected station

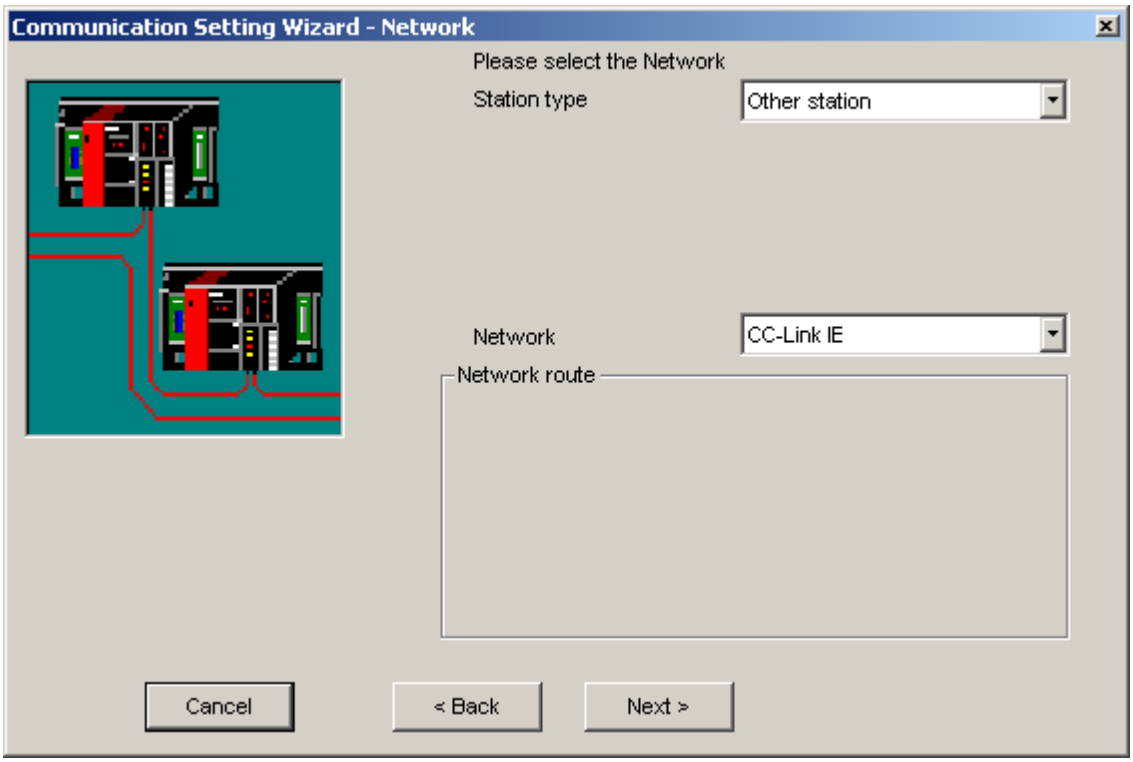


Network with CC-Link station

Parameter	Values	Description
I/O address	I/O number divided by 0x10	module I/O address of connected station



Network with CC-Link IE station

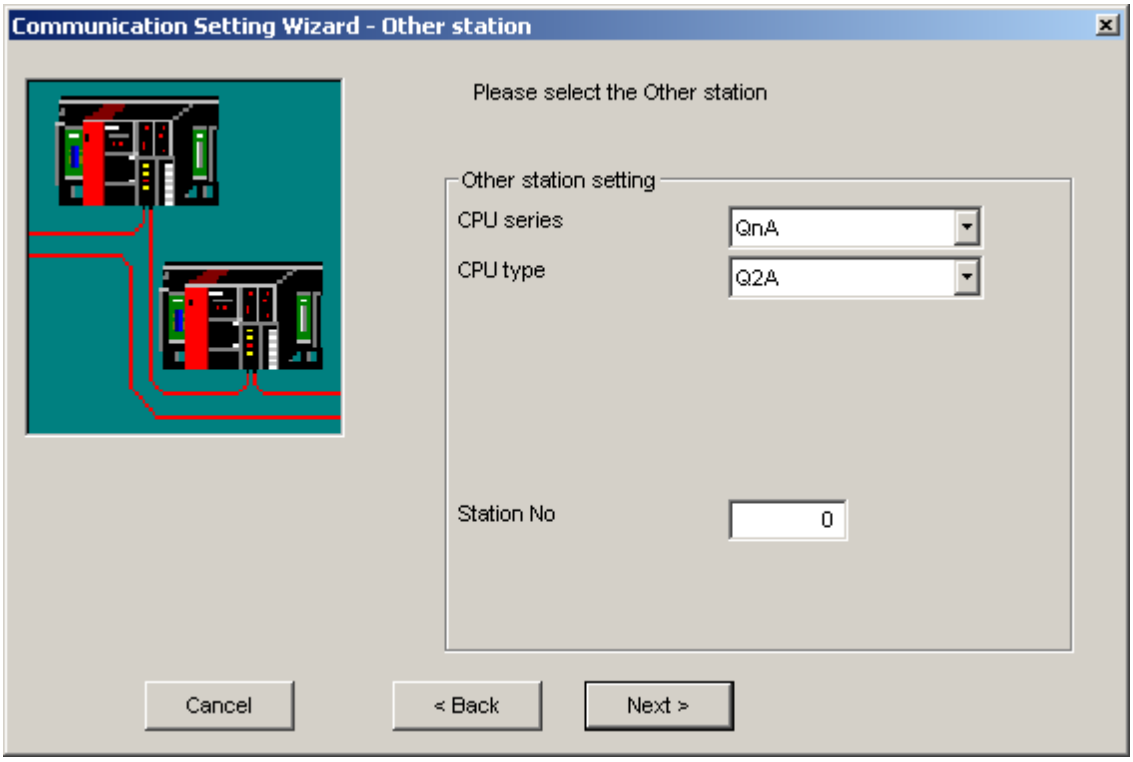


4.2.19 Other station

This page is used to provide type and network address information of the target PLC in a multi-layered network.

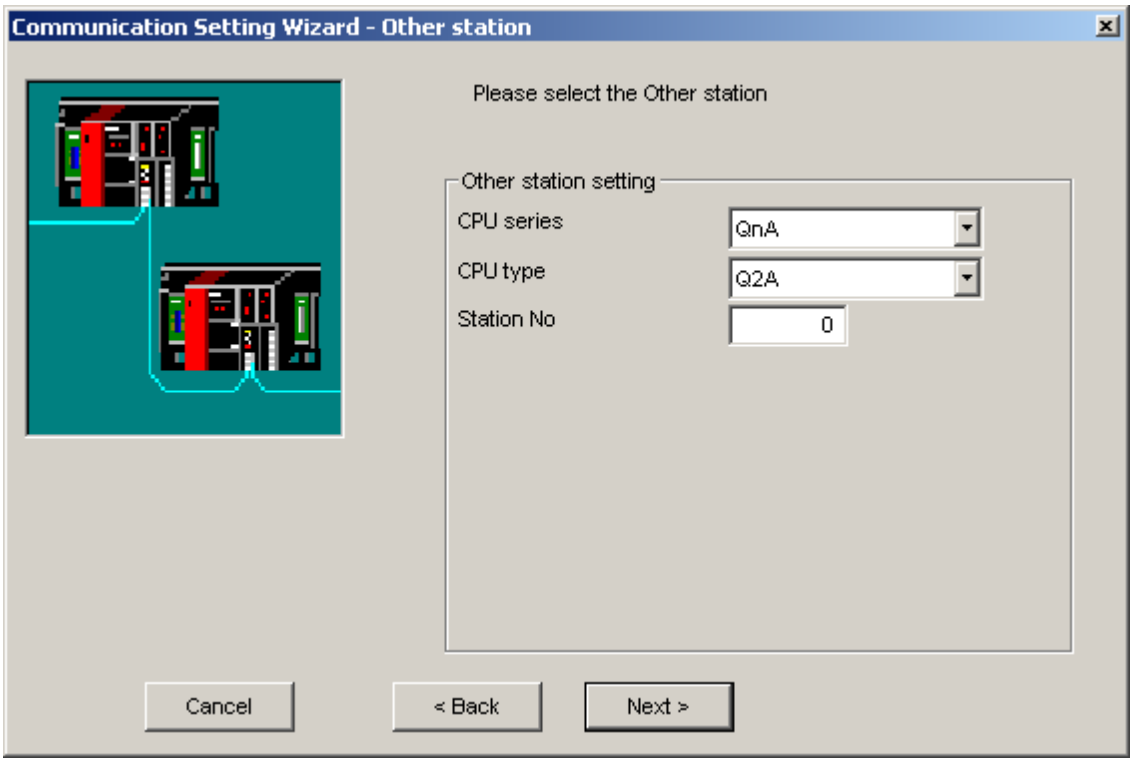
Parameter	Values	Description
CPU series	Q, QnA, A depending on previous choices	series of the CPU type
CPU type	see list of supported CPU types	type of PLC CPU module
Network No	1 - 239	network number of the target interface
Station No.	1 - 64	station number of the target interface

Station in same network for MELSECNET(II)

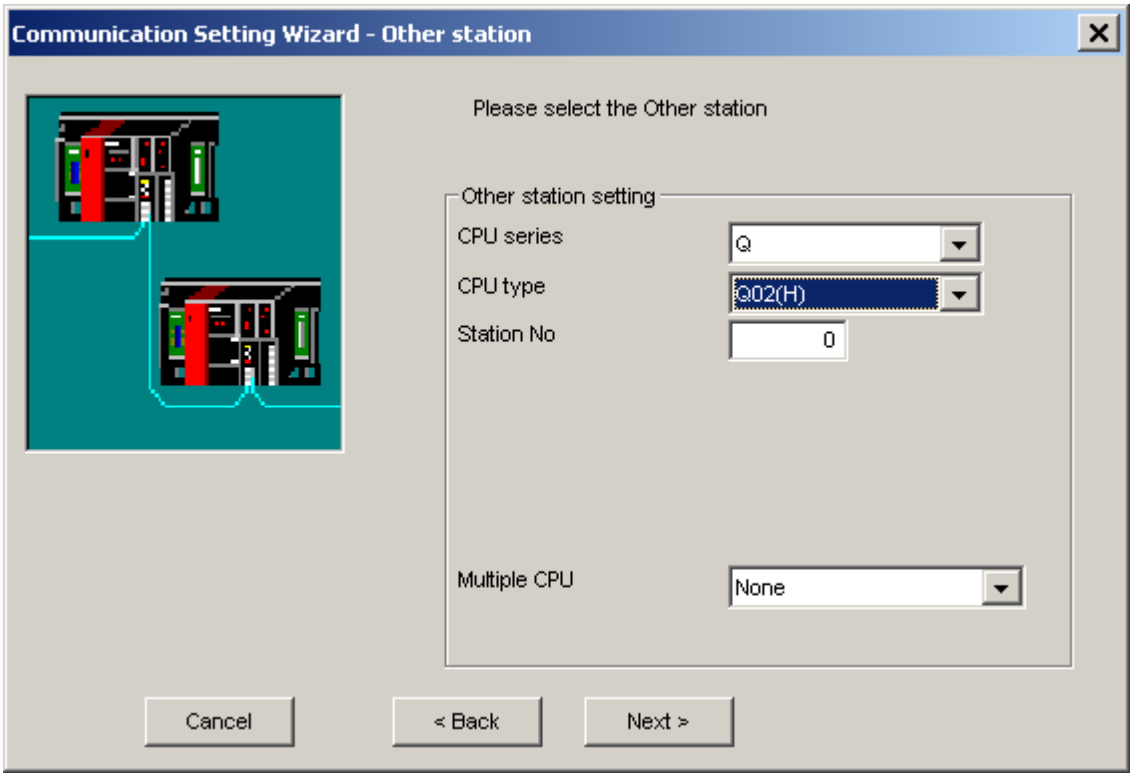


Pressing the <**Next**> button opens a page for entering a comment for the connection.

Station in same network for C24 or FX

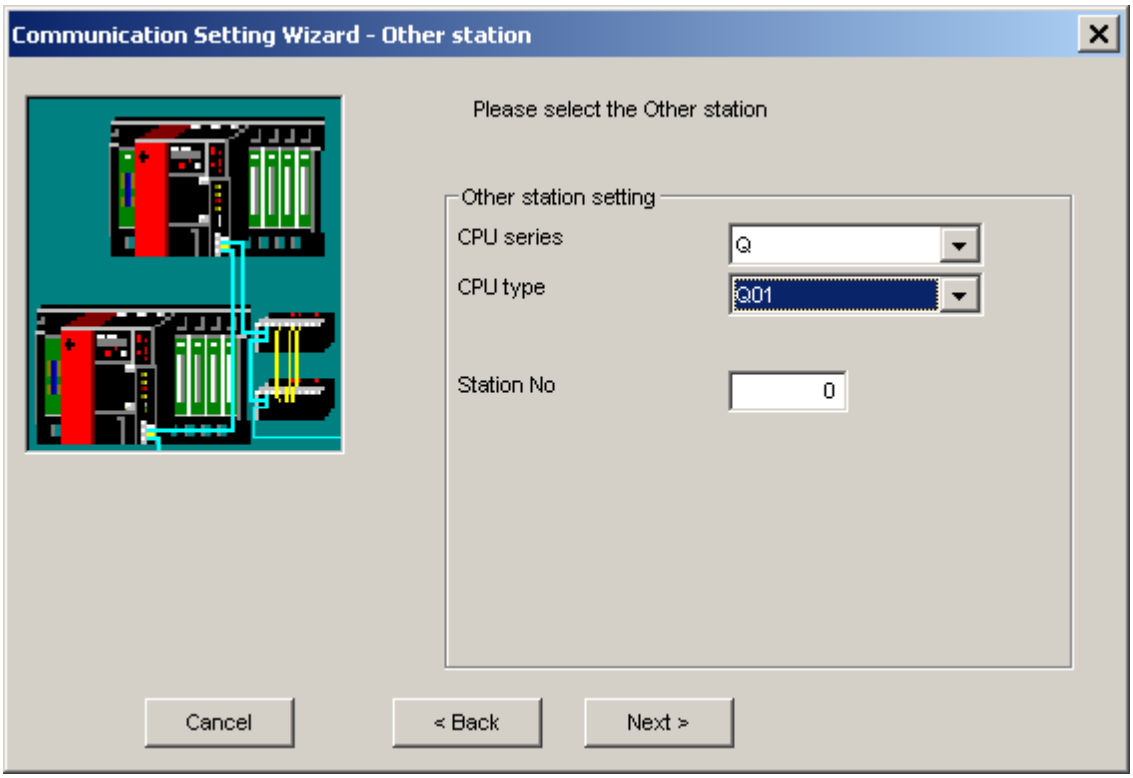


For Q-series PLCs the index of the CPU in a multi-CPU system can optionally be selected.

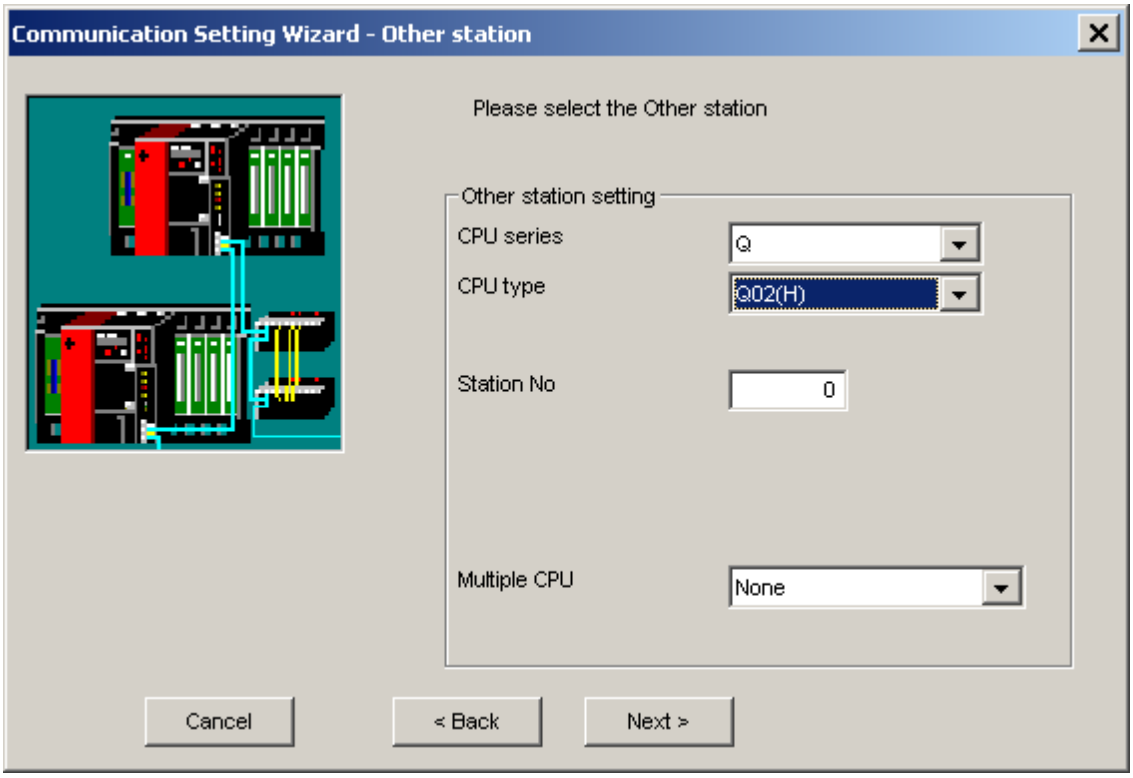


Pressing the <**Next**> button opens a page for entering a comment for the connection.

Station in same network for CC-Link

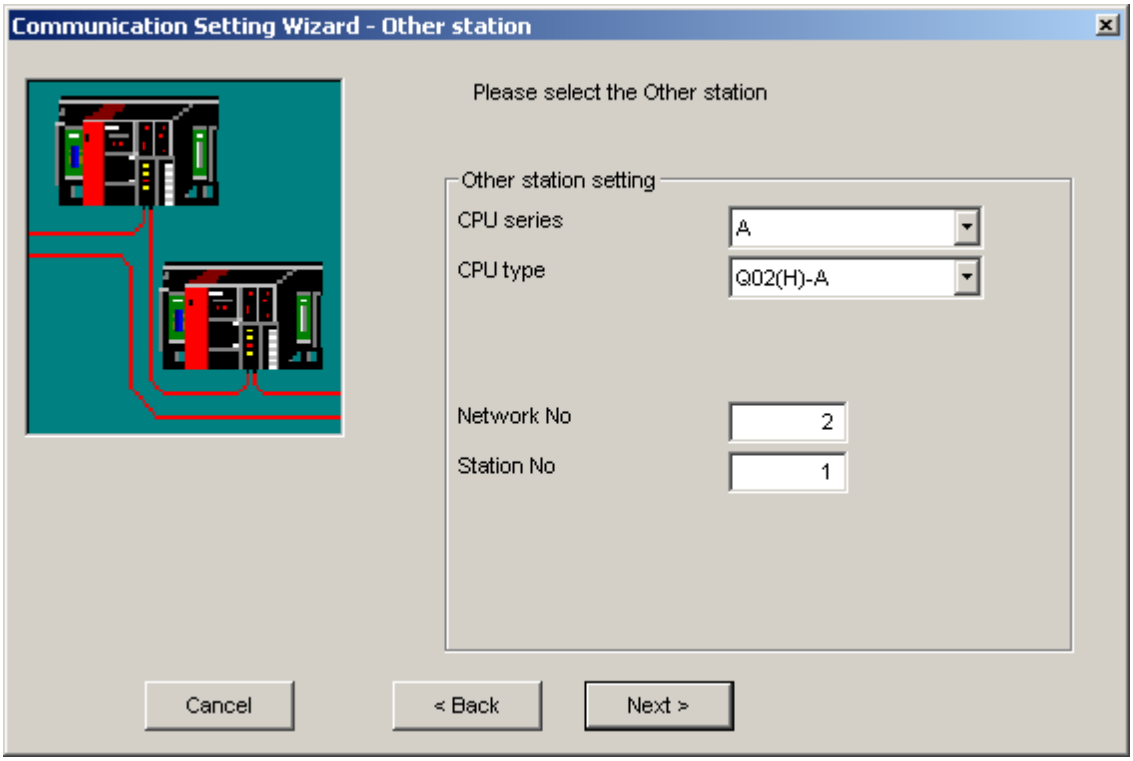


For Q-series PLCs the index of the CPU in a multi-CPU system can optionally be selected.

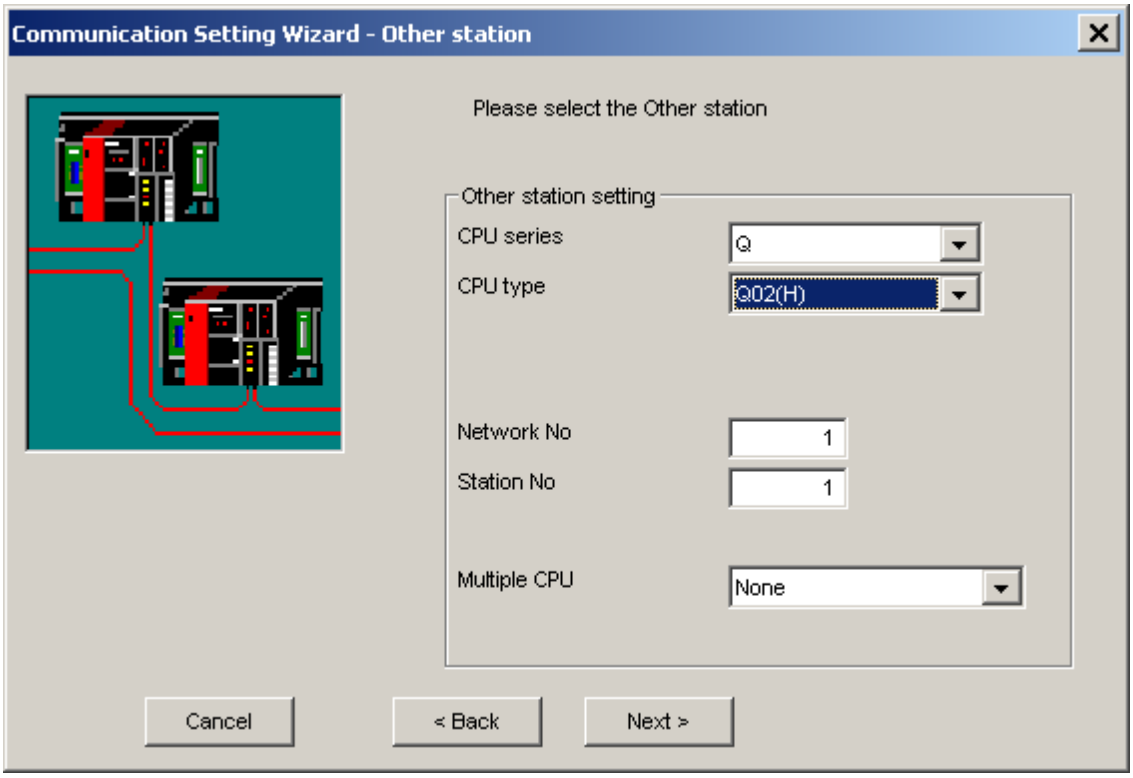


Pressing the <**Next**> button opens a page for entering a comment for the connection.

Station in same or different network



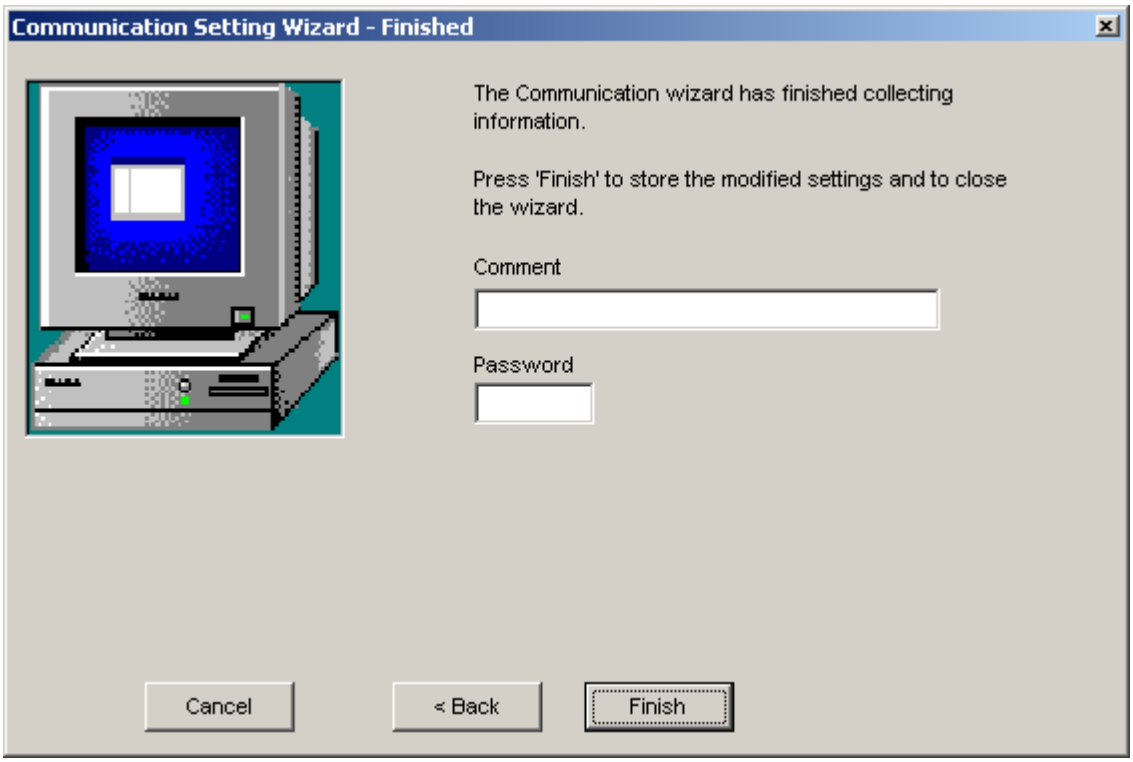
For Q-series PLCs the index of the CPU in a multi-CPU system can optionally be selected.



If the target PLC is in a different network, the network number of that network must be provided additionally to the station number of the target PLC.
Pressing the <**Next**> button opens a page for entering a comment for the connection.

4.2.20 Enter Comment

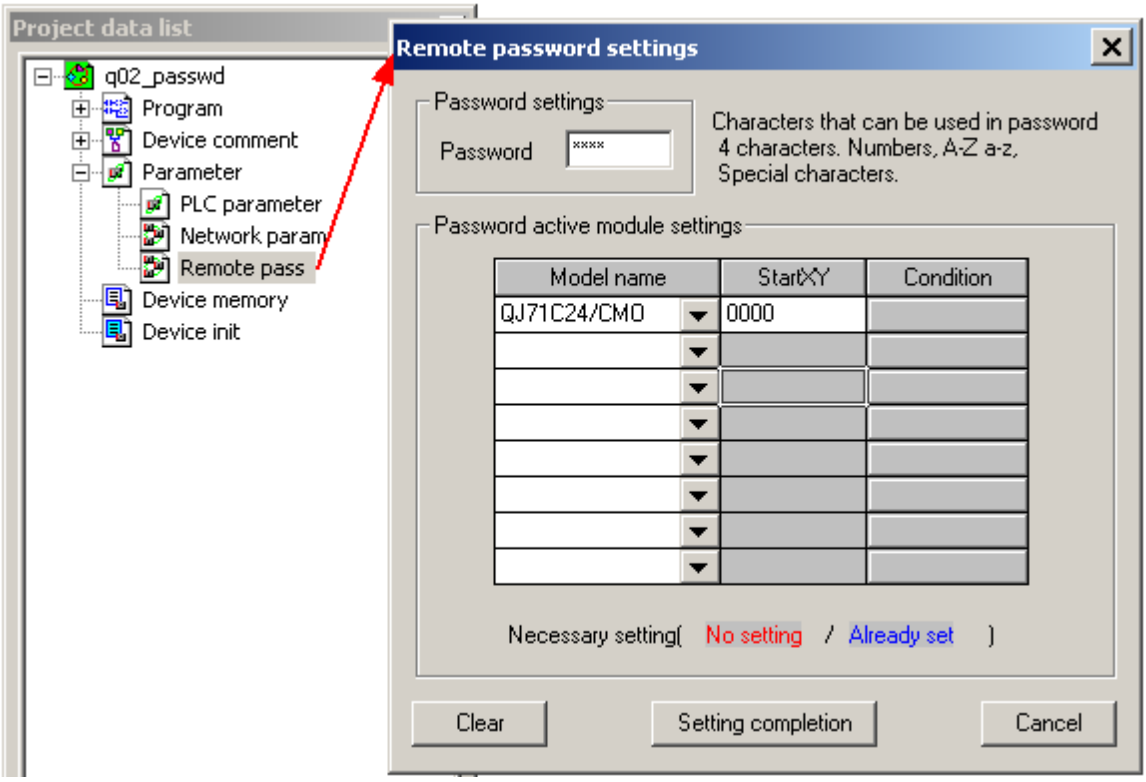
Enter a comment to describe the configured PLC connection and test the PLC connection with the current settings.



For modem connections to QJ71C24 and QJ71CMO modules a password may be required in order to gain access to the CPU. Enter the password, which has been set in the CPU parameters. For other connection types the password input field is disabled.
The password must not exceed four characters and can consist of alphanumerical characters and standard signs. Blanks are not allowed.

Remote access password

The password for remote access via QJ71E71 and QJ71C24 is assigned in the CPU parameters of a GX Developer project and downloaded to the target PLC. Passwords set in any relaying units have no effect.



Enter the same password in the 'Password' input field for the connection to gain access to the target PLC.

4.3 Communication Error Codes

This chapter describes the error codes returned by the communication layer..

⚠	**Note:** If the four lower digits of the error code that occurred during Ethernet communication using the E71 or QE71 is not indicated in the E71 or QE71 manual, check the DIP switch (SW2) setting of the E71 or QE71. If the DIP switch is not set correctly, a difference has occurred in the packet format (ASCII/binary) and therefore the error code returned from the module cannot be recognized correctly.

Error Code	Error Definition	Corrective action
0x01802002	Device number error The device character string number specified in the method is an unauthorised device number.	Review the device number.
0x01802003	Program Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x01802004	Sumcheck error The sumcheck value of the received data is abnormal.	Check the module side sumcheck setting. Check the sumcheck property of the control. Check the cable. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x01802005	Size error The number of points specified in the method is unauthorised.	Check the number of points specified in the method. Review the system, e.g. PLC CPU, module setting and cable status. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x01802006	Block number error The block specifying number in the device character string specified in the method is unauthorised.	Review the block specifying number in the device character string specified in the method.
0x01802007	Receive data error The data received is abnormal.	Review the system, e.g. PLC CPU, module setting and cable status. Check the cable. Exit the program and restart the IBM-PC/AT compatible.
0x01802008	Write Protect Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802009	Reading Parameters error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180200A	Writing Parameters error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180200B	PLC type mismatch The CPU type set to the property and the CPU type set on the communication settings utility do not match the CPU type on the other end of communication.	Set the correct CPU type as the CPU type of the property. Set the correct CPU type on the communication settings utility. Review the system, e.g. PLC CPU, module setting and cable status.

Error Code	Error Definition	Corrective action
0x0180200C	Request Cancel Error The request was cancelled while being processed.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180200D	Drive Name Error The specified drive name is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180200E	Beginning Step Error The beginning step specified is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180200F	Parameter Type Error The parameter type is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802010	File Name Error The file name is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802011	Status Error The status of Registration/ Cancellation/Setting is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802012	Detailed Condition Field Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802013	Step Condition Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802014	Bit Device Condition Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802015	Parameter Settings Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x01802016	Error in specifying telephone exchange number. Method does not support the operations corresponding to the specified telephone exchange number.	Check the telephone exchange number. Check if the method being executed is supported or not. Check the system configuration such as PLC, unit, etc.
0x01802017	Keyword Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802018	Read/Write Flag Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802019	Refresh Method Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180201A	Buffer Access Method Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180201B	Start Mode/Stop Mode Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180201C	Written clock data error Clock data specified for write cannot be written properly since that data is in error.	Review the clock data to be written.
0x0180201D	Online clock data write error Write of clock data failed. Clock data cannot be written since the PLC CPU is during RUN.	Place the PLC CPU in the STOP status.
0x0180201E	ROM drive Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180201F	While Tracing error Invalid operation was carried	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
	out during trace.	
0x01802020	First I/O number error The first I/O number specified in the method is an unauthorised value.	Check the value of the first I/O number specified in the method. Using the GPP function, check the PLC CPU parameters (I/O assignment). Exit the program and restart the IBM-PC/AT compatible.
0x01802021	First address error The buffer address specified in the method is an unauthorised value.	Check the value of the buffer address specified in the method. Exit the program and restart the IBM-PC/AT compatible.
0x01802022	Pattern Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802023	SFC Block No. Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802024	SFC Step No. Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802025	Step No. Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802026	Data Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802027	System Data Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802028	Error in number of TC settings Value	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802029	Clear Mode Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.

Error Code	Error Definition	Corrective action
		Inform the telephone center of our company.
0x0180202A	Signal Flow Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180202B	Version Control Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180202C	Monitor Not Registered error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180202D	PI Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180202E	PI No Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180202F	Error in Number of PIs	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802030	Shift Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802031	File Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802032	Specified Unit error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802033	Error check flag Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
		Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.

Error Code	Error Definition	Corrective action
0x01802034	Step RUN operation error	Inform the telephone center of our company.
0x01802035	Step RUN data error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802036	During Step RUN error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802037	Write error while running program corresponding to E2PROM	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802038	Clock data read/write error The clock data read/write method was executed for the PLC CPU which does not have the clock devices.	Do not execute clock data read/write.
0x01802039	Trace not completed error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180203A	Registration Clear Flag Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180203B	Operation error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180203C	Error in the number of exchanges	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180203D		Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
	Error in number of loops specified	
0x0180203E	Retrieve data selection	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180203F	Error in number of SFC cycles	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802040	Motion PLC Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802041	Motion PLC Communication error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802042	Fixed execution time setting error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802043	Error in number of functions	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802044	System information specification error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802045	Registration Condition Not Formed error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802046	Function No. Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x01802047	RAM drive error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802048	ROM drive error at the booting side	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802049	Transfer mode specification error at the booting side	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180204A	Insufficient memory error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180204B	Back up drive ROM error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180204C	Block size error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180204D	Detached during RUN state error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180204E	Unit Already Registered error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0180204F	Password Registration Data Full error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802050	Password Not Registered error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x01802051	Remote Password Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802052	IP Address Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802053	Timeout value out of range error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802054	Command not detected error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802055	Trace execution type error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802056	Version error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01802057	Tracking cable error The tracking cable is faulty. The PLC CPU status is error.	Reexamine the system such as the PLC CPU, module setting and cable status.
0x0180205C	Keyword protection error PLC is protected by the key word.	Disable the keyword and execute again.
0x0180205D	Keyword disable error The inputted keyword is wrong.	Input a correct keyword.
0x0180205E	Keyword protecting error PLC did not accept the protecting command.	Execute again or re-switch the power of the PLC.

Error Code	Error Definition	Corrective action
0x0180205F	Keyword entry error An illegal character is included in the inputted keyword.	Input a correct keyword.
0x01802060	Keyword deletion error The inputted keyword is wrong.	Input a correct keyword.
0x01808001	Multiple Open Error Open method was executed while it was open	Exit the program and restart the IBM-PC/AT compatible. Execute any method other than Open.
0x01808002	Channel number specifying error The port number set to the property and the port number set on the communication settings utility are unauthorised values.	Set the correct value to the port number of the property. Make communication settings again on the communication settings utility.
0x01808003	Driver not yet started The network board driver is not started.	The network board driver is not started. Start the driver.
0x01808004	Error in overlap event generation	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01808005	MUTEX generation error Creation of MUTEX to exercise exclusive control failed.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x01808006	Error in socket object generation Socket object could not be created	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x01808007	Socket object generation error Creation of the Socket object failed.	Check for a running application which uses the same port number. Retry after changing the port number value of the property. Retry after changing the port number value on the communication settings utility. Make Ethernet board and protocol settings on the control panel of the OS. Exit the program and restart the IBM-PC/AT compatible.
0x01808008	Port connection error Establishment of connection failed. The other end does not respond.	Review the IP address and port number values of the properties. Review the port number value on the communication settings utility. Review the system, e.g. PLC CPU, module setting and cable status. Exit the program and restart the IBM-PC/AT compatible.
0x01808009	COM port handle error The handle of the COM port cannot be acquired. The COM port objet cannot be copied. The SOCKET object cannot be copied.	Check for an application which uses the COM port. Exit the program and restart the IBM-PC/AT compatible.
0x0180800A	Buffer size setting error Setting of the COM port buffer size failed.	Check for an application which uses the COM port. Make COM port setting on the control panel of the OS. Exit the program and restart the IBM-PC/AT compatible.
0x0180800B	DCB value acquisition error Acquisition of the COM port DCB value failed.	Check for an application which uses the COM port. Make COM port setting on the control panel of the OS. Exit the program and restart the IBM-PC/AT compatible.
	DCB setting error	Check for an application which uses the COM port. Make COM port setting on the control panel of the OS.

Error Code	Error Definition	Corrective action
0x0180800C	Setting of the COM port DCB value failed.	Exit the program and restart the IBM-PC/AT compatible.
0x0180800D	Time-out value setting error Setting of the COM port time-out value failed.	Review the time-out value of the property. Review the time-out value on the communication settings utility. Check for an application which uses the COM port. Make COM port setting on the control panel of the OS. Exit the program and restart the IBM-PC/AT compatible.
0x0180800E	Shared memory open error Open processing of shared memory failed.	Check whether the GX Simulator has started. Exit the program and restart the IBM-PC/AT compatible.
0x01808101	Duplex close error	Exit the program and restart the IBM-PC/AT compatible.
0x01808102	Handle close error Closing of the COM port handle failed.	Exit the program and restart the IBM-PC/AT compatible.
0x01808103	Driver close error Closing of the driver handle failed.	Exit the program and restart the IBM-PC/AT compatible.
0x01808104	Overlap Event Close Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01808105	Mutex Handle Close Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01808106	COM Port Handle Close Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01808201	Send error	Review the system, e.g. PLC CPU, module setting and cable status. Make COM port setting on the control panel of the OS. Make Ethernet board and protocol settings on the control panel.

Error Code	Error Definition	Corrective action
	Data send failed.	Retry the method. Exit the program and restart the IBM-PC/AT compatible.
0x01808202	Send data size error Data send failed.	Exit the program and restart the IBM-PC/AT compatible.
0x01808203	Queue clear error Clearing of the COM port queue failed.	Exit the program and restart the IBM-PC/AT compatible. Perform Close once and execute Open again.
0x01808301	Receive error Data receive failed.	Review the system, e.g. PLC CPU, module setting and cable status. Review the time-out value of the property. Review the time-out value on the communication settings utility. Retry the method. Exit the program and restart the IBM-PC/AT compatible.
0x01808302	Not Sent error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01808303	Error in retrieving Overlap Event	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01808304	Receive buffer size shortage Receive data was larger than the receive buffer size prepared for the system.	Exit the program and restart the IBM-PC/AT compatible.
0x01808401	Control error Changing of the COM port communication control failed.	Exit the program and restart the IBM-PC/AT compatible.
0x01808402	Signal Line Control Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x01808403	Signal line specifying error Changing of the COM port communication control failed.	Exit the program and restart the IBM-PC/AT compatible.
0x01808404	Open not yet executed	Execute Open. Exit the program and restart the IBM-PC/AT compatible.
0x01808405	Communication parameter error The data bit and stop bit combination of the properties is unauthorised.	Review the data bit and stop bit values of the properties. Set them again on the communication settings utility.
0x01808406	Transmission speed value specifying error The transmission speed of the property is unauthorised.	Review the transmission speed value of the property. Set it again on the communication settings utility.
0x01808407	Data length error The data bit value of the property is unauthorised.	Review the data bit value of the property. Set it again on the communication settings utility.
0x01808408	Parity specifying error The parity value of the property is unauthorised.	Review the parity value of the property. Set it again on the communication settings utility.
0x01808409	Stop bit specifying error The stop bit value of the property is unauthorised.	Review the stop bit value of the property. Set it again on the communication settings utility.
0x0180840A	Communication control setting error The control value of the property is unauthorised.	Review the control value of the property. Set it again on the communication settings utility.
0x0180840B	Time-out error Though the time-out period had elapsed, data could not be received.	Review the time-out value of the property. Set it again on the communication settings utility. Review the system, e.g. PLC CPU, module setting and cable status. Perform Close once and execute Open again. Exit the program and restart the IBM-PC/AT

Error Code	Error Definition	Corrective action
		compatible.
0x0180840C	Connect error	Exit the program and restart the IBM-PC/AT compatible.
0x0180840D	Duplex connect error	Exit the program and restart the IBM-PC/AT compatible.
0x0180840E	Attach failure Attaching of the socket object failed.	Exit the program and restart the IBM-PC/AT compatible.
0x0180840F	Signal line status acquisition failure Acquisition of the COM port signal line status failed.	Exit the program and restart the IBM-PC/AT compatible.
0x01808410	CD signal line OFF The CD signal on the other end of communication is in the OFF status.	Review the system, e.g. PLC CPU, module setting and cable status. Exit the program and restart the IBM-PC/AT compatible.
0x01808411	Password mismatch error	Check the remote password of the property.
0x01808412	TEL Communication Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01808501	USB driver load error Loading of the USB driver failed.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x01808502	USB driver connect error Connection of the USB driver failed.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x01808503	USB driver send error Data send failed.	Review the system, e.g. PLC CPU, module setting and cable status. Make USB setting on the control panel (device manger) of the OS. Retry the method. Exit the program and restart the IBM-PC/AT compatible.
0x01808504		Review the system, e.g. PLC CPU, module setting and cable status.

Error Code	Error Definition	Corrective action
	USB driver receive error Data receive failed.	Make USB setting on the control panel (device manger) of the OS. Retry the method. Exit the program and restart the IBM-PC/AT compatible.
0x01808505	USB Driver Timeout Error	Recheck the timeout value. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x01808506	USB driver initialisation error Initialisation of the USB driver failed.	Make USB setting on the control panel (device manger) of the OS. Exit the program and restart the IBM-PC/AT compatible.
0x01808507	Other USB error Error related to data send/ receive occurred.	Disconnect the cable once, then reconnect. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x02000001	Points Exceeded error The number of points registered in the monitoring server is very high.	Reduce the no. of points registered by the monitor. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x02000002	Shared memory creation error Failed in creating shared memory.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x02000003	Shared memory access error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x02000004	Memory Secure error Failed in securing memory for the monitoring server.	Close the other applications. Increase the system memory. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x02000005	Device Not Registered error Monitor has not been registered	Register the monitor in the monitoring server. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x02000006	Monitoring Server Startup Error Monitoring Server is not started.	Start the Monitoring Server. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x02000010	Yet to retrieve Device Value error Monitoring is not yet completed	Try to retrieve the value again after waiting for a fixed amount of time. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03000001	Command not Supported. Command is not supported.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03000002	Memory Lock Error Failed while locking memory.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03000003	Error Securing Memory Failed in securing the memory.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03000004	DLL read error Failed in reading DLL.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03000005	Error in securing Resources. Failed in securing the resources.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010001	File Creation Error	Check if there is enough space on the hard disk. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.

Error Code	Error Definition	Corrective action
	Failed in creating the file.	Inform the telephone center of our company.
0x03010002	File Open Error Failed to open the file.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010003	Buffer Size Error The buffer size specified is either incorrect or not enough.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010004	SIL Sentence formation error SIL sentence formation is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010005	Filename Error The specified filename is too long.	Specify a shorter filename. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010006	File does not exist error. The specified file does not exist.	Check the filename. Check if the file exists or not. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010007	File Structure Error The data structure in the specified file is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010008	File already exists error The specified file already exists.	Check the filename. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010009	File does not exist error The specified file does not exist.	Check the filename. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
		Exit the program and restart the IBM-PC/AT

Error Code	Error Definition	Corrective action
0x0301000A	File Deletion Error The specified file could not be deleted.	compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0301000B	Multiple Open Error The specified project has been opened twice.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0301000C	Filename Error The specified filename is incorrect.	Check the filename. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0301000D	File Read Error Falied in reading the file.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0301000E	File Write Error Failed in writing the file.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0301000F	File Seek Error File seek failed.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010010	File Close Error Failed while closing the file.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010011	Folder Creation Error Failed while creating the folder.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010012	File Copy Error Failed while copying the file.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010013	Project Path Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
	The length of the project path is incorrect.	
0x03010014	Project Type Error The project type is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010015	File Type Error The file type is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010016	Sub-File Type Error The sub-file type is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03010017	Insufficient Disk space error The disk space is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020002	Multiple Open Error Tried to open DBProduct more than once.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020003	Not Opened error DBProduct is not opened.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020004	Extract Error DBProduct is not extracted.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020010	Parameter Error The parameters of DBProduct are incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020011	Language Error The language parameter is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x03020012	Error in specifying Maker The maker parameter is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020013	Error in specifying Unit The unit parameter is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020014	SQL Parameter Error SIL, SQL Parameter of DBProduct is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020015	SIL Sentence formation error SIL sentence formation is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020016	Field Key Input Error The field key entered is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020050	Record Data Construction Error. Failed in reconstructing the record data of DBProduct.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020060	Error Retreiving Record Data Failed while retrieving DBProduct record data.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03020061	Last Record error Cannot retrieve the next record since the current record is the last record.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0000	Initialization error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x03FF0001	Not Initialized error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0002	Multiple Initialization error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0003	Workspace Initialization Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0004	Database Initialization Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0005	Recordset Initialization Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0006	Error Closing Database	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0007	Error Closing Recordset	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0008	Database Not Opened error Database is not opened.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0009	Recordset Not Opened error Recordset is not opened.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF000A	Table Initialization Error Failed in initializing TtableInformation table	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x03FF000B	Table Initialization Error Failed in initializing TfieldInformation table	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF000C	Table Initialization Error Failed in initializing TrelationInformation table	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF000D	Table Initialization Error Failed in initializing Tlanguage table	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF000E	Table Initialization Error Failed in initializing Tmaker table	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF000F	Table Initialization Error Failed in initializing TOpenDatabase table	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0010	Field Value Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0011	Field Value Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0012	Exit Error Failed to exit the database.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0100	Moving Record error Failed while moving the record.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x03FF0101	Retreiving Record Count Error Failed to retrieve the record count.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0110	Retreiving Field Value Error Failed in retrieving the field value.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FF0111	Setting Field Value Error Failed in setting the field value.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x03FFFFFF	Other Errors	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04000001	No command error The specified CPU type cannot be used to perform processing.	Check the CPU type set to ActCpuType. Check whether the system configuration is supported or not. Exist the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x04000002	Memory lock error Failed in locking memory.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04000003	Securing Memory Error Failed in securing the memory.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04000004	Internal server DLL load error Start of the internal server failed.	Check for the deleted or moved installation file of MX Component. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x04000005	Securing Resources Error Failed in securing the resources.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04000006	Error Loading Main Object Failed in reading the file.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04000007	Error Loading Conversion Table Failed in reading table data.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04000100	Incorrect Intermediate Code Size error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04010001	Intermediate Code Not Converted error The converted machine code for one command is more than 256 bytes.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04010002	Intermediate Code Completion Error Intermediate code area of the code to be converted ended abruptly.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04010003	Insufficient Intermediate Code error The intermediate code of the code to be converted was insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04010004	Intermediate Code Data Error The intermediate code to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04010005	Intermediate Code Structure Error The number of steps in the intermediate code is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04010006	Error in Number of Steps The number of steps in comment intermediate code is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04010007	Insufficient Storage Space for Machine Code error The storage space for machine code is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04010008	Other Errors (Other errors generated during the conversion of Intermediate code to machine code.)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04011001	Machine Code Not Converted error The converted intermediate code for one command is more than 256 bytes.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04011002	Machine Code Completion Error The machine code area to be converted ended abruptly.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04011003	Abnormal Machine Code Could not convert since the machine code to be converted was abnormal.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04011004	Insufficient Storage Space for Intermediate Code error The storage area for intermediate code is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04011005	Other Errors Other errors generated while converting machine code to Intermediate code.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04020001	Text Code Not Converted error The converted intermediate code for one command is more than 256 bytes.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04020002	No Input error The input list code is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04020003	Command Error The command name of list code to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04020004	Device Error The device name of list code to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04020005	Device Number Error The device number of the list code to be converted is out of range.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04020006	Conversion Error The list code to be converted conversion could not be identified.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04020007	Text Data Error The list code to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04020008	Error in SFC Operation Output The output command of SFC operation is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04020009	SFC Shift Condition Error SFC shift condition command is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0402000A	Error in Statements between lines The statements entered between lines are incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x0402000B	P.I Statement Error The P.I statement entered is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0402000C	Note Error The Note entered is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0402000D	Comment Error The comment entered is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0402000E	Other Errors (Other errors generated during the conversion of list to Intermediate code)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04021001	Intermediate Code Not Converted error The converted list code for one command has exceeded 256 bytes.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04021002	Intermediate Code Area Full error Intermediate code area to be converted is full.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04021003	Command Error The command specified by the intermediate code to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04021004	Device Error The device specified in the intermediate code to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04021005	Intermediate Code Error The structure of intermediate code to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04021006	Insufficient List Storage Space error The space for storing the converted list code is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04021007	Other Errors (Other errors generated during the conversion of intermediate code to list)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04030001	Not Converted error The storage space for converted intermediate code is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04030002	Bad Circuit Creation error The character memory circuit is not completed in a sequence.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04030003	Specified Circuit Size Exceeded Specified circuit size is too big.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04030004	Incorrect Return Circuit error There is no consistency before and after the return circuit. The setting for the return circuit is too high.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04030005	Other Errors (Other errors generated while converting from Character Memory to Intermediate Code)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04031001	Not Converted error The size (vertical/horizontal) of the character memory specified is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04031002	Abnormal Command Code error The command intermediate code to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04031003	Bad Circuit Creation error Could not be converted to Sequence Circuit. There is no END command.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04031004	Specified Circuit Size exceeded error Specified circuit size is too big.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04031005	Fatal Error Fatal Error has occured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04031006	Insufficient number of storage blocks error The space to store the converted character memory circuit blocks is not sufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04031007	Circuit Block Search Error Data is broken off in the circuit block.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04031008	Other Errors (Other errors generated during the conversion of intermediate code to character memory)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04040001	CAD Data Error There is no CAD data to be converted. The CAD data format is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04040002	Output Data Error The input CAD data type and the output CAD data type are not matching.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04040003	Library Load Error Failed to load the library.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04040004	Storage Space Secure Error The space secured to store the converted data is not sufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04040005	No END Command error There is no END command in the CAD data to be converted.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04040006	Abnormal Command Code There is abnormal command code in the CAD data to be converted.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04040007	Device No. Error The device number is out of range.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04040008	Step No. Error The step number is out of range.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04040009	The specified circuit size exceeded error. 1 circuit block is too big.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404000A	Return Circuit Error The return circuit is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404000B	Bad Circuit Creation error The circuit data is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x0404000C	SFC Data Error The SFC data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404000D	List Data Error The list data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404000E	Comment Data Error The comment data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404000F	Statement Error The statement data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04040010	Other Errors (Other errors generated during the conversion of CAD code to Intermediate code.)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041001	Intermediate Code Data Error There is no intermediate code to be converted. The format of the intermediate code is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041002	CAD Data Type Error The input CAD data type and the output CAD data type are not matching.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041003	Library Error Failed to load the library.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04041004	Insufficient Input Data error Data to be converted is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041005	Insufficient Storage Space error There is not enough space to store the CAD data to be converted.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041006	No END Command error There is no END command in the CAD data to be converted.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041007	Abnormal Command Code There is abnormal command code in the CAD data to be converted.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041008	Device No. Error The device number is out of range.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041009	Step No. Error The step number is out of range.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404100A	The specified circuit size exceeded error. 1 circuit block is too big.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404100B	Return Circuit Error The return circuit is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404100C	Bad Circuit Creation error The circuit data is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x0404100D	SFC Data Error The SFC data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404100E	List Data Error The list data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0404100F	Comment Data Error The comment data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041010	Statement Error The statement data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04041011	Other Errors (Other errors generated during the conversion of Intermediate code to CAD code.)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A0001	Insufficient Intermediate Code Storage Space The space to store the data after conversion is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A0002	The space to store addition SFC information is not sufficient	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A0003	Conversion Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A0004	Non-SFC Program Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x040A1001	Step Not Used / No Output error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A1002	Step No out of range error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A1003	Step Not Used / No Output error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A1004	Transition No out of range.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A1005	Maximum Number Exceeded error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A1006	Microcontroller Program space Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040A1007	Non-SFC Program Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B0001	Insufficient Intermediate Code Storage Space. The space to store the data after conversion is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B0002	Conversion Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x040B1001	Failed in creating Step Start position table	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B1002	Error Reading Step Information	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B1003	Step No. Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B1004	Failed in reading the output of operation/Transition condition intermediate code error.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B1005	Securing Internal Work Area Failed error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B1006	Error in setting the maximum value of X direction for character memory	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B1007	Insufficient Internal Work Area error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B1008	Stack Overflow, Abnormal Character Memory	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x040B1009	Insufficient No of Storage Blocks error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x040B100A	Non-SFC Program Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04050001	Abnormal Character String Specified error Device character string specified is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04050002	Device Points Error Device points are out of range	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04050003	Other Errors (The errors generated during the conversion of the Device Character String to Device Intermediate Code)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04051001	Device Name Error The classification specified for the device intermediate code is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04051002	Device Name Error The classification specified for the extended specification device intermediate code is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04051003	Other Errors (The errors generated during the conversion of the Device Intermediate Code to Device Character String)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04052001	Abnormal Character String Specified error Device character string specified is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04052002	Device Points Error Device points are out of range.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04052003	Other Errors (The errors generated during the conversion of the Device Character String to Device Representation Code)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04053001	Device Representation Error The classification specified for the device intermediate code is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04053002	Device Representation Error The classification specified for the extended specification device intermediate code is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04053003	Device Representation Error The rectification part specified for the device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04053004	Device Representation Error The rectification part specified for the extended device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04053005	Other Errors (The errors generated during the conversion of the Device Representation Code to Device Character String)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04064001	Abnormal Device Intermediate Code error The intermediate code for the device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04064002	Other Errors (Other errors generated during the conversion of the Intermediate code for the Device to Device Name)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04065001	Abnormal Device Name error The classification specified for the intermediate code of the device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04065002	Abnormal Device Name error The classification for the intermediate code of the extended specification device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04065003	Other Errors (Other errors generated during the conversion of the device name to Intermediate code)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04066001	Device Intermediate Code Error The intermediate code for the device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04066002	Other Errors (Other errors generated during the conversion of the device intermediate code to device representation code.)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04067001	Device Representation Error The classification specified for the intermediate code of the device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04067002	Device Representation Error The classification for the intermediate code of the extended specification device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04067003	Device Representation Error The rectification part specified for the device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04067004	Device Representation Error The rectification part specified for the extended device is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04067005	Other Errors (Other errors generated during the conversion of device representation code to the device intermediate code)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04070001	Common Data Conversion Error The input data of the device comment conversion is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04070002	Insufficient Common Data The data to be converted is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04070003	Insufficient Storage Area The area where the conversion data is stored is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04071001	Error in PLC Data Conversion The input data of the device comment conversion is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04071002	Insufficient PLC Data error The data to be converted is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04071003	Insufficient Storage Area The area where the conversion data is stored is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04072001	Open Error Failed in creating conversion object	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04072002	PLC Type Error The specified PLC type does not exist.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04072003	Not Converted error Converted object does not exist	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04072004	Input Data Error The input data is incorrect	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04073001	Program Common Data Conversion Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04073002	Program Common Data Conversion Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04073101	Program PLC Data Conversion Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074001	Common Data Parameter Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074002	Network Parameter Common Data Error The parameter block exists, but the data inside is not set.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074101	Parameter PLC Data Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04074102	Network Parameter PLC Data Error The parameter block exists, but the data inside is not set.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074103	Offset Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074201	Error in Specifying Network Type The PLC specified does not support the network type.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074202	Parameter Block Number Error The Block corresponding to the parameter block number specified does not exist.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074203	Parameter Block Content Error It is different from the content supported by the specified.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074204	Parameter Block Information Error The specified block number does not exist.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074205	Default Parameter Block is Abnormal The specified block number does not exist.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074301	Error in Conversion of the Common Parameter Block	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074302	Error in Common Parameter Block No. 1001 The value of the RUN-PAUSE settings existence flag is	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
	incorrect.	
0x04074303	Error in Common Parameter Block No. 1003	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074304	Error in Common Parameter Block No. 1008	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074305	Error in Common Parameter Block No. 1100	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074306	Error in Common Parameter Block No. 2001 The device intermediate code specified does not exist.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074307	Error in Common Parameter Block No. 3000	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074308	Error in Common Parameter Block No. 3002	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074309	Error in Common Parameter Block No. 3004 The settings for the annunciator display mode is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407430A	Error in Common Parameter Block No. 4000 I/O Allotment Data is not	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
	created.	
0x0407430B	Error in Common Parameter Block No. 5000 The specified network is not supported.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407430C	Error in Common Parameter Block No. 5001 Valid unit No is not set while accessing other exchange.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407430D	Error in Common Parameter Block No. 5002	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407430E	Error in Common Parameter Block No. 5003	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407430F	Error in Common Parameter Block No. 5NM0	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074310	Error in Common Parameter Block No. 5NM1	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074311	Error in Common Parameter Block No. 5NM2	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04074312	Error in Common Parameter Block No. 5NM3	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074313	Error in Common Parameter Block No. 6000	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074314	Error in Common Parameter Block No. FF18 Link parameter Capacity is not set.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074315	Error in Common Parameter Block No. FF25 Calculation circuit check is not set.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074316	Error in Common Parameter Block No. FF30 Sampling Trace Data is not created.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074317	Error in Common Parameter Block No. FF31 Status latch data is not created.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074318	Error in Common Parameter Block No. FF42 Timer processing points are not set.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074319	Error in Common Parameter Block No. FF30 Setting value device for specified extended timer does	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
	not exist.	
0x0407431A	Error in Common Parameter Block No. FF44	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407431B	Error in Common Parameter Block No. FF45	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407431C	Error in Common Parameter Block No. FF60 Terminal Settings are not set.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407431D	Error in Common Parameter Block No. FF70 User Release area is not set.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074401	Error in Conversion of PLC Parameter Block	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074402	Error in PLC Parameter Block No.1001	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074403	Error in PLC Parameter Block No.1003	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074404	Error in PLC Parameter Block	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
	No.1008	
0x04074405	Error in PLC Parameter Block No.1100	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074406	Error in PLC Parameter Block No.2001	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074407	Error in PLC Parameter Block No.3000	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074408	Error in PLC Parameter Block No.3002	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074409	Error in PLC Parameter Block No.3004	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407440A	Error in PLC Parameter Block No.4000	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407440B	Error in PLC Parameter Block No.5000 The specified network type is not supported.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x0407440C	Error in PLC Parameter Block No.5001	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407440D	Error in PLC Parameter Block No.5002	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407440E	Error in PLC Parameter Block No.5003	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407440F	Error in PLC Parameter Block No. 5NM0 The specified network type is not supported.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074410	Error in PLC Parameter Block No. 5NM1	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074411	Error in PLC Parameter Block No. 5NM2 The specified network type is not supported.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074412	Error in PLC Parameter Block No. 5NM3	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074413	Error in PLC Parameter Block No. 6000	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04074414	Error in PLC Parameter Block No. FF18	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074415	Error in PLC Parameter Block No. FF25	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074416	Error in PLC Parameter Block No. FF30	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074417	Error in PLC Parameter Block No. FF31	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074418	Error in PLC Parameter Block No. FF42	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04074419	Error in PLC Parameter Block No. FF43	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407441A	Error in PLC Parameter Block No. FF44	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407441B	Error in PLC Parameter Block No. FF45	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x0407441C	Error in PLC Parameter Block No. FF60	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407441D	Error in PLC Parameter Block No. FF70	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04075001	Common Data Conversion Error Failed while converting the device memory settings portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04075002	Common Data Conversion Error Failed while converting the device memory data portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04075003	Common Data Conversion Error Device memory data portion did not exist.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04075101	PLC Data Conversion Error Failed while converting the settings portion of the device memory.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04075102	PLC Data Conversion Error Failed while converting the data portion of the device memory.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04076001	Common Data Conversion Error Failed while converting the settings portion of the device comments.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04076002	Common Data Conversion Error Failed while converting the data portion of the device comments.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04076101	PLC Data Conversion Error Failed while converting the settings portion of the device comments.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04076102	PLC Data Conversion Error Failed while converting the settings portion of the device comments.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04077001	Common Data Conversion Error Failed during the conversion of sampling trace settings portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04077002	Common Data Conversion Error Failed during the conversion of sampling trace data portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04077101	PLC Data Conversion Error Failed during the conversion of sampling trace settings portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04077102	PLC Data Conversion Error Failed during the conversion of sampling trace data portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04078001	Common Data Conversion Error Failed in the conversion of the status latch settings portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04078002	Common Data Conversion Error Failed in the conversion of the status latch data portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04078101	PLC Data Conversion Error Failed in the conversion of the status latch settings portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04078102	PLC Data Conversion Error Failed in the conversion of the status latch data portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04079101	Failure history PLC Data Conversion error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407A101	File List PLC Data Conversion Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407B101	Error Information PLC Data Conversion Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C001	Error in Conversion of Indirect Address to Device Name The device name storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C002	Error in Conversion of Device Name to Indirect Address Indirect Address storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C003	Error in Conversion of Indirect Address to Device Representation The device representation storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C004	Error in Conversion of Device Representation to Indirect Address Indirect Address storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x0407C005	Error in Conversion of Indirect Address to Device Character String Device Character String storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C006	Error in Conversion of Device Character String to Indirect Address Indirect Address storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C007	Error in Conversion of Intermediate Code to Device Name Device Name storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C008	Error in Conversion of Device Name to Intermediate Code Intermediate Code storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C009	Error in Conversion of Intermediate Code to Device representation Device Representation storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C00A	Error in Conversion of Device Representation to Intermediate Code Intermediate Code storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C00B	Error in Conversion of Intermediate Code to Indirect Address Indirect Address storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x0407C00C	Error in Conversion of Indirect Address to Intermediate Code Intermediate Code storage area is not secured.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C00D	PLC Type Error The specified PLC type is not supported.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C00E	Device Character String Error The specified device is not supported.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C00F	Device Character String Error The specified device character string, type is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C010	Device Error The specified device is not supported by the specified PLC	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C011	PLC Type Error The specified PLC is not supported.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407C012	Device out of Range Error For AnA system, a device out of AnA system range was specified.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407D001	Common Data Conversion Error Error in Conversion of SFC trace condition settings portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407D002	Common Data Conversion Error Error in Conversion of SFC trace condition data portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x0407D101	PLC Data Conversion Error Error in Conversion of SFC trace condition settings portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x0407D102	PLC Data Conversion Error Error in Conversion of SFC trace condition data portion.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04080001	Intermediate Code classification out of range error The intermediate code classification specified is out of range.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04080002	Extended specification Intermediate Code classification out of range error The extended specification intermediate code specified is out of range.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04080003	Device Points check absent error The device does not check the device points.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04090001	GPP Project Error The specified PLC type and GPP project type are not matching.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04090002	File Type Error The specified GPP project type and file type are not matching.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04090010	Insufficient GPP Data to be converted There is no data to be converted. The data size specified is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x04090011	Insufficient Storage Space for Converted Data The space for storing converted data is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04090012	Error in GPP Data to be converted The GPP data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04090110	Insufficient Data to be converted error There is no data to be converted. The data size specified is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04090111	Insufficient Storage Space for Converted Data error. The storage space for converted data is insufficient.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04090112	Error in data to be converted The data to be converted is incorrect.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x04FFFFF F	Other Errors	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000001	No Command error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000002	Start of communication DLL of MX Component failed.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x10000003	Open failed. (DiskDrive)	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x10000004	Duplex open error	Exit the program and restart the IBM-PC/AT compatible.

Error Code	Error Definition	Corrective action
0x10000005	File Access Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000006	Incorrect Folder Name error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000007	File Access Denied error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000008	Disk Full Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000009	File Delete Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000000A	Incorrect File Name error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000000C	Execution failed since another application or thread is making a request.	Execute again after some time. Perform programming according to the multithread rules of COM and ActiveX. Exit the program and restart the IBM-PC/AT compatible.
0x1000000D	Folder Creation Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000000E	Folder/ File Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x1000000F	Offset Address Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000010	Request Cancel Cancel Process has occurred.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000011	Memory securing error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0x10000012	Open not yet executed	Exit the program and restart the IBM-PC/AT compatible.
0x10000013	Attach Not Executed error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000014	Object Invalid error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000015	Request Cancel Failed error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000016	Failed in Reading Status error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000017	The specified size (number of devices) is unauthorised.	Check the number of points specified in the method. Exit the program and restart the IBM-PC/AT compatible.
0x10000018	There is no registered device.	Exit the program and restart the IBM-PC/AT compatible.
0x10000019	Dataset Not Executed	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x1000001A	Read Not Executed error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000001B	Incorrect Create Flag error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000001C	Operation Over Access	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000001D	Redundant Device error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000001E	Registry search failed.	Exit the program and restart the IBM-PC/AT compatible. Exit other programs and secure free memory area. Reinstall MX Component.
0x1000001F	File Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000020	Device Memory Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000021	Program Range Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000022	TEL Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000023	TEL Access Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x10000024	Cancel Flag Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000030	Multiple Device Registration Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000031	Device Not Registered error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000032	Specified device error	Review the specified device data. Exit the program and restart the IBM-PC/AT compatible. Exit other programs and secure free memory area.
0x10000033	Specified device range error	Review the specified device data. Exit the program and restart the IBM-PC/AT compatible. Exit other programs and secure free memory area.
0x10000034	File Write Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000040	Server start failed.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000041	Server Stop Error Failed while stopping the server	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000042	Server Started Twice error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000043	Server Not Started error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x10000044	Resource Timeout Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000045	Server Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000046	Failed to Access Server error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000047	Server Already Accessed error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000048	Failed in Simulator Startup	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x10000049	Failed in exiting Simulator	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000004A	Simulator Not Started error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000004B	Simulator Type Error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000004C	Simulator Not Supported error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0x1000004D	Simulator Started Twice error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.

Error Code	Error Definition	Corrective action
0x1000004E	Shared Memory Not Started error	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0xF0000001	No-license error The license is not given to the IBM-PC/AT compatible.	Using the license FD, give the license to the IBM-PC/AT compatible.
0xF0000002	Set data read error Reading of the set data of the logical station number failed.	Specify the correct logical station number. Set the logical station number on the communication settings utility.
0xF0000003	Already open error The Open method was executed in the open status.	When changing the communication target CPU, execute the Open method after performing Close.
0xF0000004	Not yet open error The Open method is not yet executed.	After executing the Open method, execute the corresponding method.
0xF0000005	Initialisation error Initialisation of the object possessed internally in MX Component failed.	Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component.
0xF0000006	Memory securing error Securing of MX Component internal memory failed.	Exit the program and restart the IBM-PC/AT compatible. Exit other programs and secure free memory area.
0xF0000007	Function non-support error The method does not support.	Can not use because the corresponding method is not supported.

Error Code	Error Definition	Corrective action
0xF1000001	Character code conversion error Character code conversion (UNICODE ASCII code or ASCII code UNICODE) failed.	Check the character string specified in the method. The ASCII character string acquired from the PLC CPU is abnormal. Review the system, e.g. PLC CPU, module setting and cable status. Exit the program and restart the IBM-PC/AT compatible. Retry the GetCpuType method.
0xF1000002	First I/O number error The first I/O number specified is an unauthorised value. A matching first I/O number does not exist.	Check the value of the first I/O number specified in the method. Using the GPP function, check the PLC CPU parameters (I/O assignment).
0xF1000003	Buffer address error The buffer address specified is an unauthorised value. The buffer address is outside the range.	Check the value of the buffer address specified in the method.
0xF1000004	Buffer read size error As a result of buffer read, the specified size could not be acquired.	Perform reopen processing. Review the system, e.g. PLC CPU, module setting and cable status. Retry. Exit the program.
0xF1000005	Size error The size specified in the read/ write method is abnormal. The read/write first number plus size exceeds the device or buffer area.	Check the size specified in the method.
0xF1000006	Operation error The operation specified for remote operation is an abnormal value.	Check the operation specifying value specified in the method.

Error Code	Error Definition	Corrective action
0xF1000007	Clock data error The clock data is abnormal.	Check the clock data specified in the method. Set the correct clock data to the clock data of the PLC CPU.
0xF1000008	Monitored device registration count excess The number of device points registered in the EntryDeviceStatus method was 0 or less. The number of device points registered in the EntryDeviceStatus method was more than 20.	Register the device points between 1 and 20 in the EntryDeviceStaus method.
0xF1000009	Monitored device data registration error	After making deregistration in the FreeDeviceStatus method, execute the EntryDeviceStatus method again.
0xF1000010	Device status monitor processing failed to start. Device status monitor processing failed to end.	Start/end the device status monitor processing again in the EntryDeviceStatus method.
0xF1000011	The VARIANT argument data type is wrong.	Reexamine the data type specified for the VARIANT argument. • Check whether the array variable size is large enough. • Check whether the data type specified in the corresponding method has been set.
0xF1000012	The device status monitoring time interval is a value outside the range 1 second to 1 hour (1 to 3600).	Specify the device status monitoring time between 1 and 3600.
0xF1000013	Already Connected error. Connect was executed again after it was executed for the same object.	Execute the Connect method after executing the Disconnect method.

Error Code	Error Definition	Corrective action
0xF1000014	Invalid Telephone Number error. Characters other than “0123456789-*#” that are allowed for telephone numbers are included.	Rectify the Telephone number and try to Connect again.
0xF1000015	Exclusive Control Failure error. There was failure in the exclusive control process while executing the Connect and Disconnect method.	In case if Connect/Disconnect method is being executed for any other object, execute the failed method (Connect/Disconnect) again after the completion of the Connect/ Disconnect method of that object. If the Connect/Disconnect process is in progress only for the self object, perform the following. Exit the program. Restart the IBM-PC/AT compatible. Reinstall MX Component.
0xF1000016	While connecting to the telephone line error. The telephone line is connected to some other application, other than the one using MXComponent.	Try Connecting again after disconnecting the application that is using the telephone line.
0xF1000017	Telephone line not connected error. Telephone line is not connected. Connect was executed and the telephone line was connected, but it got disconnected due to some reason.	(When Connect method has failed) Execute Connect again after executing Disconnect method. (When method other than Connect has failed) Execute Disconnect method, Execute Connect and connect to the telephone line. After connecting, execute the method that failed once again.

Error Code	Error Definition	Corrective action
0xF1000018	No Telephone number error. The telephone No. is not set. The telephone No. or call back No. is not set,if the connection method is Automatic (when specifying the call back No.), call back connection (when specifying the number), or call back Request(when specifying the number).	In case of program settings type,set the telephone No. to the property ActDialNumber. (Set the telephone No. to the properties ActDialNumber and ActCallbackNumber, if the connection method is automatic (when specifying the call back No.), call back connection (when specifying the telephone No.), or call back request (when specifying the number).) In case of utility settings type,set the telephone No. using the wizard. (Set the telephone No. and call back No. , if the connection method is automatic (when specifying the call back No.), call back connection (when specifying the telephone No.), or call back request (when specifying the number).)
0xF1000019	Not Closed error. Disconnect was executed while in Open state.	Try Disconnect again after executing Close.
0xF100001A	Target telephone line connection mismatch error. Connect was tried for a different telephone number using the port which is already connected to a telephone line. (When the method of connection is a callback reception, it is considered that the telephone number is different from methods of connection in other than the callback reception.)	If you want to connect to a different telephone number, Execute Disconnect with respect to the telephone line that is already connected and executes Connect after it gets disconnected. In case of connecting the telephone line with callback reception, use the Connect of the connection method that is executed at the earliest in the same port as callback reception.
0xF100001B	Control Type Mismatch error. An object, whose control type is different from that of the object already connected to the telephone line, tried to Connect.	Execute Disconnect for the object currently connected to the telephone line and execute Connect once again after the telephone line gets disconnected.

Error Code	Error Definition	Corrective action
0xF100001C	Not Disconnected error. When Disconnect method is executed for the object connected to the telephone line, it is found that other objects are in connected state.	Execute Disconnect for all the Connected objects. Try Disconnect again for the object that actually performed the telephone line connection.
0xF100001D	Not Connected error. Open was executed before Connect Or, Disconnect was executed.	Execute Open again after executing Connect. Or execute Disconnect again after executing Connect.
0xF100001E	Fatal Error.	Exit the program. Restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0xF100001F	Open time setting error There is some difference in telephone number and the port number settings used during Connect and Open.There is some error in Connect way.	Check the telephone number and the port number. Check the Connect way.
0xF2000002	There is an error response from the target telephone. Causes can be the following. * Communication error has occurred.	Check the value of the properties set in case of program settings type and check the contents of the detailed settings that were set using the wizard in case of utility settings type.
0xF2000003	Invalid data was received. Causes can be the following. * Incorrect data packet received due to noise. * Communicated with a device other than A(Q)6TEL/C24.	Retry. Check the communication device used at the other end.

Error Code	Error Definition	Corrective action
0xF2000004	There is no response from the modem. Causes can be the following. Abnormality in the modem. Telephone number setting mistake.	Check the status of the modem. Check the telephone number. If the problem persists even after checking the above points, change the value of the properties set (Properties such as ActConnectionCDWaitTime etc. , which set the timings) in case of program settings type and change the contents of the detailed settings that were set using the wizard in case of utility settings type
0xF2000005	There are chances that the line is not disconnected.	Check the line.
0xF2000006	The PC modem did not receive the AT command. Causes can be the following. * Invalid AT command was specified. * Abnormality in the modem.	Check the contents of the AT command. Check the status of the modem.
0xF2000007	Modem did not respond properly to the standard escape command.	Check the modem. Confirm whether the value of the time-out is too small. (5000ms or more is recommended.)
0xF2000009	Modem does not respond properly to the line Disconnect command	Check the modem.

Error Code	Error Definition	Corrective action
0xF200000A	Target did not receive the signal. * The Receive settings of the modem at the other end may be incorrect. * The other end may be busy. * The telephone number may be incorrect.	Check the Receive settings of the modem at the other end. Check if the other end is busy. Check the telephone number.
0xF200000B	Timeout reached for the call back receive waiting time.	Increase the call back receive waiting time ActCallbackReveptionWaitingTimeOut and execute connect again.
0xF200000C	Password of A6TEL, Q6TEL, QJ71C24 units could not be resolved.	Set the password to ActPassword property and execute the failed method again.
0xF2010001	The callback line disconnect wait time is other than 0 -180 Seconds. The callback execution delay time is other than 0 -1800 Seconds. The telephone number is more than 62 characters.	Check whether the callback line disconnect wait time is with in 0 – 180 Seconds. Check whether the callback execution delay time is with in 0 - 1800 Seconds. Check whether the telephone number is less than or equal to 62 characters. Exit the program and restart the IBM-PC/AT compatible. Reinstall MX Component. Inform the telephone center of our company.
0xF2010002	QJ71C24 did not receive the specified connection method. Causes can be the following. * Incorrect Connection method. * Incorrect telephone number for Call back.	Check whether the settings of QJ71C24 and the MXComponent are matching.

Error Code	Error Definition	Corrective action
0xF2010003	QJ71C24 does not permit the automatic connection (during fixed Call back or when the number is specified.)	Check the settings of QJ71C24.
0xF2100005	There are chances that the line is not disconnected	If there is no problem with the modem or the telephone line, change the value of the properties set (Properties like ActConnectionCDWaitTime etc. , which set the timings) in case of program settings type and change the contents of the detailed settings that were set using the wizard in case of utility settings type.
0xF2100008	There was no response from the modem for the data sent from the PC.	Change the value of the properties set (Properties such as ActConnectionCDWaitTime etc. , which set the timings) in case of program settings type and change the contents of the detailed settings that were set using the wizard in case of utility settings type.
0xF2100006	Modem did not receive the startup command AT.	Change the settings of the property ActATCommand. in case of program settings type and change the command AT that were set using the wizard in case of utility settings type.
0xF2100007	The PC modem does not respond to the Escape command.	If there is no problem with the modem or the telephone line, change the value of the properties set (Properties like ActConnectionCDWaitTime etc. , which set the timings) in case of program settings type and change the contents of the detailed settings that were set using the wizard in case of utility settings type.

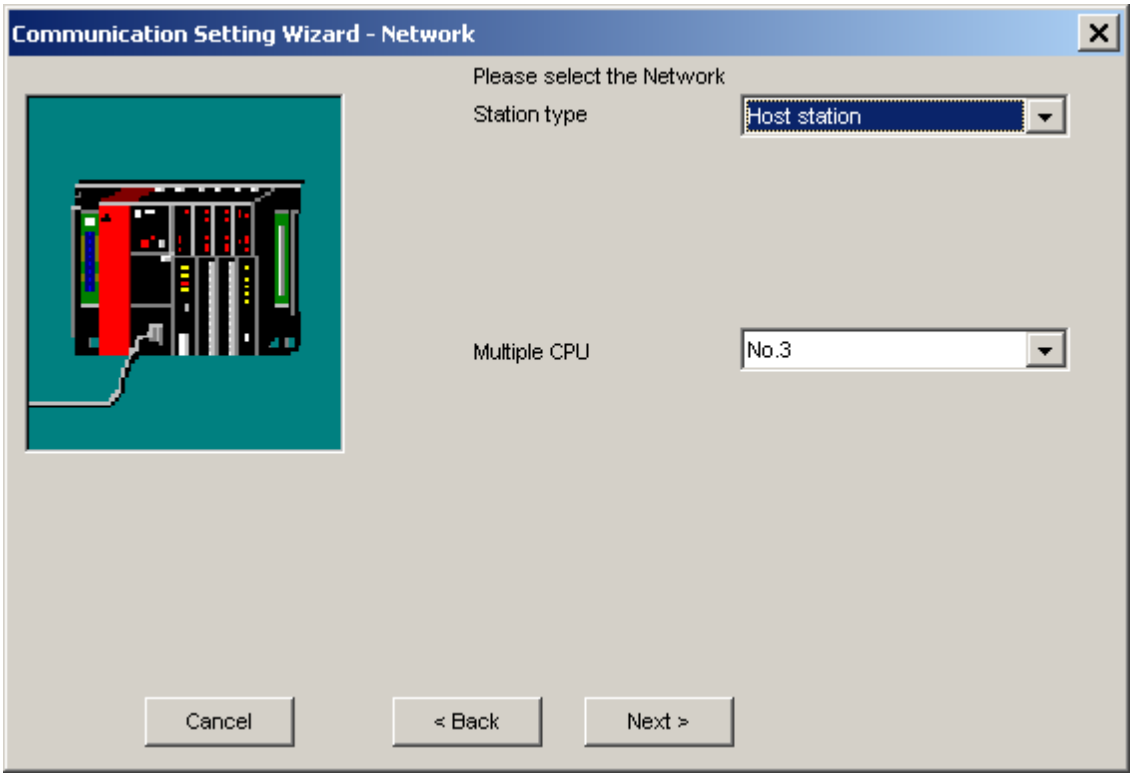
Error Code	Error Definition	Corrective action
0xF21000**	There is no response from the modem. Causes can be the following. Abnormality in the modem. Telephone number setting mistake.	Check the status of the modem. Check the telephone number. If the problem persists even after checking the above points, change the value of the properties set (Properties such as ActConnectionCDWaitTime etc. , which set the timings) in case of program settings type and change the contents of the detailed settings that were set using the wizard in case of utility settings type.
0xF21001**	There is no response from A(Q) 6TEL/C24. Causes can be the following. Setting mistake w.r.t. A(Q) 6TEL/C24 A(Q)6TEL/C24 got connected to a non-existant modem.	Re-examine the settings of A(Q)6TEL/C24. Confirm whether the modem exists. If the problem persists even after checking the above points, change the value of the properties set (Properties such as ActConnectionCDWaitTime etc. , which set the timings) in case of program settings type and change the contents of the detailed settings that were set using the wizard in case of utility settings type.
0xF202****	There was a communication failure. Following causes can be considered depending on the status. Communication time over (Break in cable, the specified port not supported, mistake in specifying the COM port) Modem's power is switched OFF	Check whether the cable is broken. Check whether the specified port is not supported. Check whether correct COM port is set. Check if the modem power is switched OFF. For detailed troubleshooting, please refer to the details of the error code got after replacing the first four digits with "0x0180". eg In case of "0xF202480B", please refer to the code "0x0180480B".

4.4 Special Setups

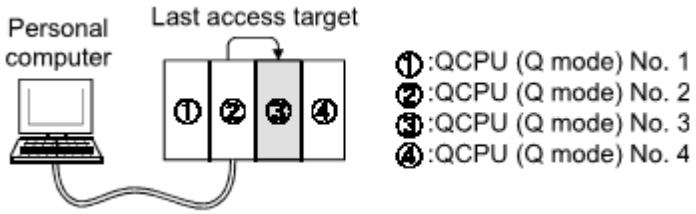
4.4.1 Communication with Multi-CPU Systems

For a multi-CPU system the user must specify the CPU number of the target CPU, i.e. the last accessed station.
When making access to the non-control CPU of the relay module on the accessed station, use the modules of function version B as the relay modules and Q-CPUs (Q mode) on the own station, all relay stations and accessed station.

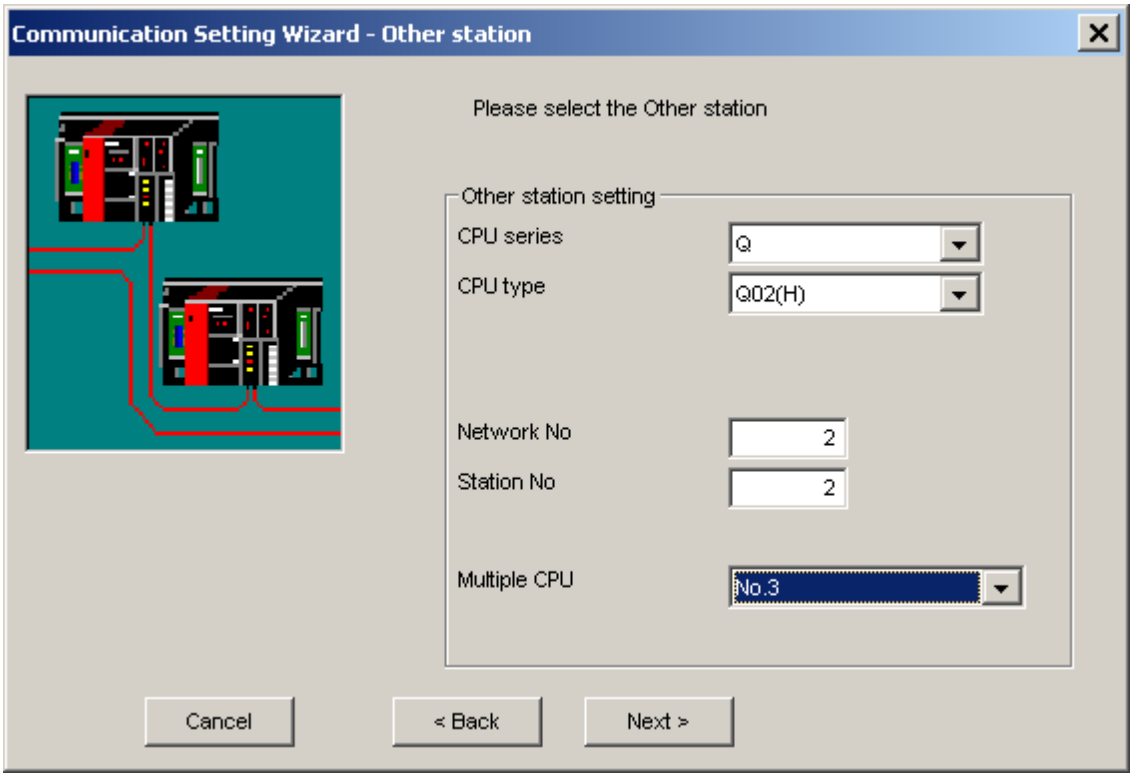
(Example 1) CPU COM communication



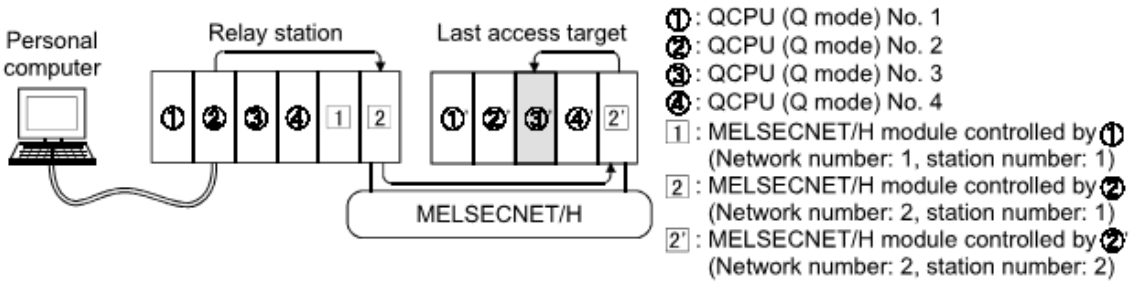
When the user has selected 'No. 3' (0x3E2) in the 'Multiple CPU' field, the connection is established to the third CPU in the rack, marked as (3) in the following figure.



(Example 2) CPU COM communication (via MELSECNET/H)



When the user has selected 'No. 3' (0x3E2) in the 'Multiple CPU' field and entered '2' for network and station number, the connection is established to the third CPU in the 'Last access target' rack, marked as (3)' and grayed in the following figure.
The CPU number in the 'Relay station' rack cannot be specified. Therefore, if '1' has been entered as network number for the sample below, an error will occur, because the network number controlled by the CPU (2) is only '2'.

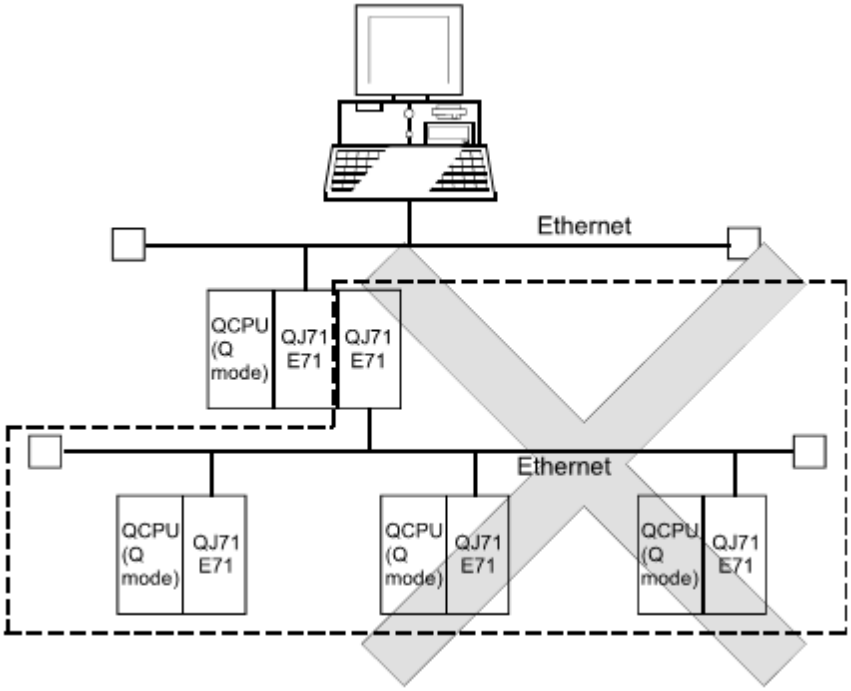


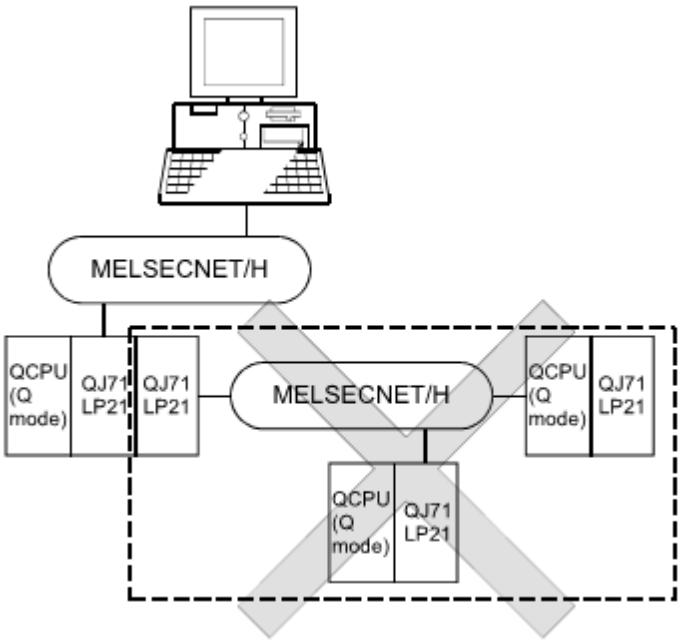
4.4.2 Restrictions with Q00, Q00J and Q01 CPUs

The number of network modules is restricted for Q00J, Q00 and Q01 CPUs.

Type of Network Module	Max. Number of Modules
MELSECNET/H module	1 module
Ethernet module	1 module
CC-Link module(Function version B or later)	2 modules

The following figures mark network architectures for Ethernet and MELSECNET/H, which are not supported in combination with Q00J, Q00 and Q01 CPUs.

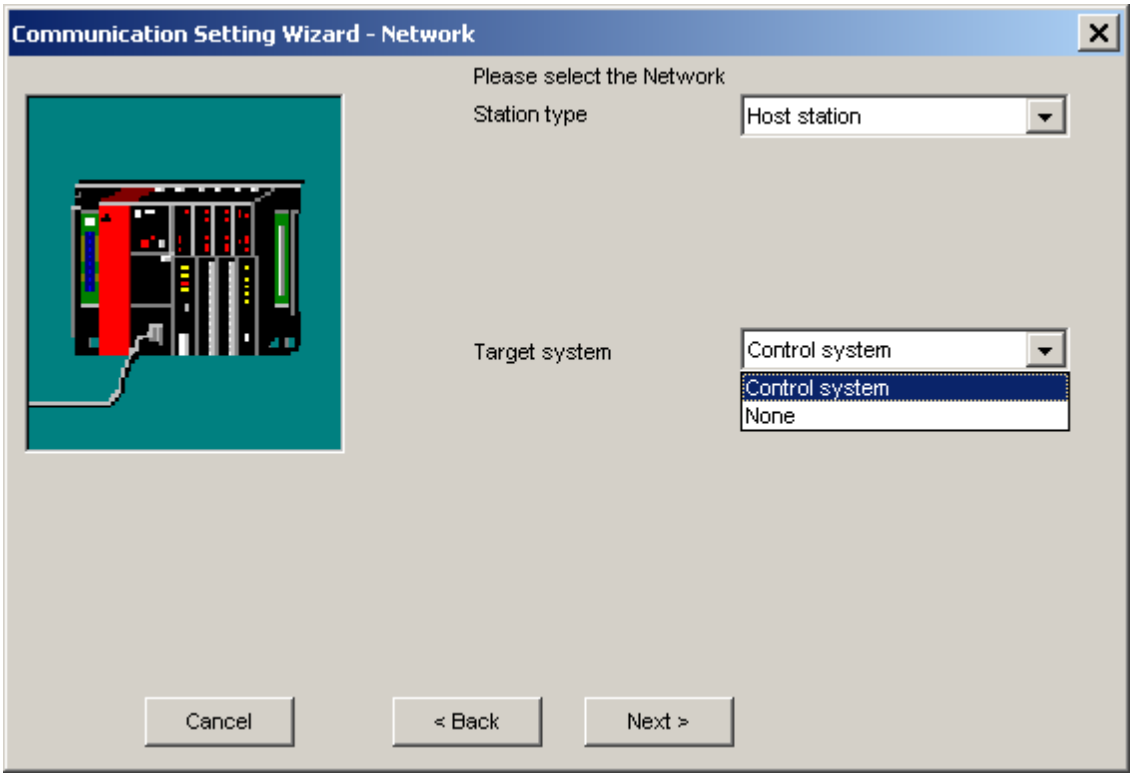




4.4.3 Redundant CPUs

The following text describes the configuration for accessing redundant Q series PLC systems, i.e. Q12PRH and Q25PRH.

(1) Target system



As 'Target system' either 'Control system' or 'None' can be selected.

Parameter	Values	Description
Target system	Control system	Connects to the control system and maintains access to the control system after switching control and standby CPU
	None	Connects to the target PLC CPU independently of whether it is control or standby system

Note: to determine which CPU in the redundant PLC system is being accessed, the following special relays can be checked.

(1) To distinguish, whether system A or B are accessed

SM1511	System A identification flag	· identifies system A/system B of a redundant system. · remains ON/OFF even if the tracking cable is disconnected while the redundant system is running.
SM1512	System B identification flag	

	System A	System B	during TRK.CABLE ERR. (= code 6120) (System not determined)
SM1511	ON	OFF	OFF
SM1512	OFF	ON	OFF

(2) When checking the operation system status

SM1515	Control/ Standby system status	· indicates the CPU module operation status · remains ON/OFF even if the tracking cable is disconnected while the redundant system is running.
SM1516		

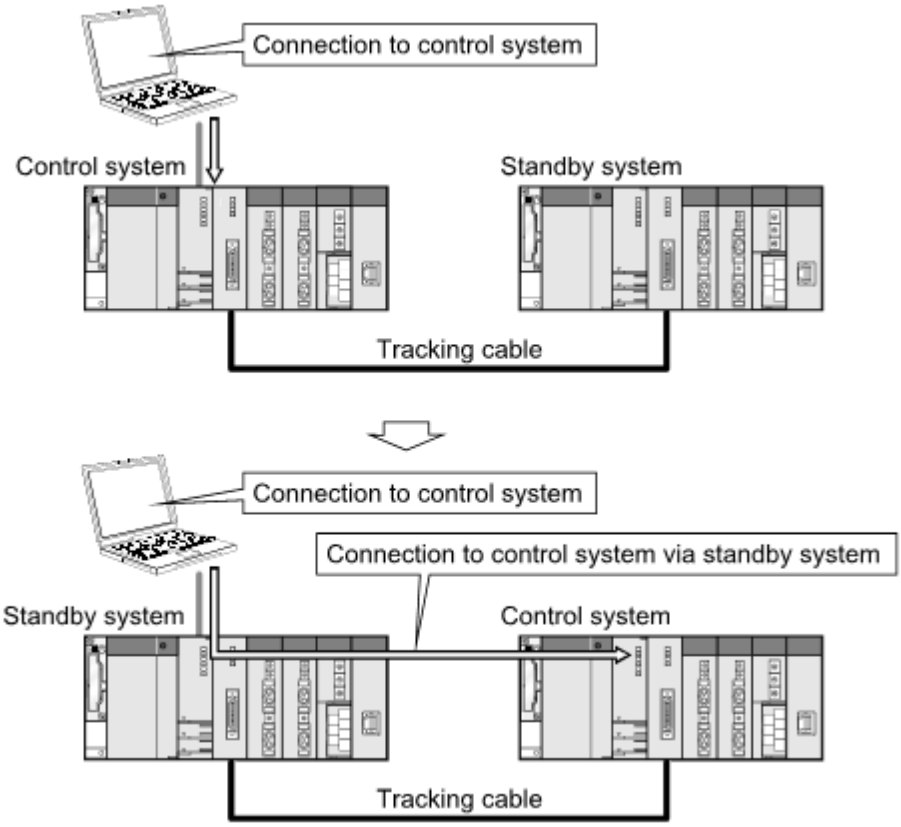
	Control system	Standby system	during TRK.CABLE ERR. (= code 6120) (System not determined)
SM1515	ON	OFF	OFF
SM1516	OFF	ON	OFF

(2) Operation at occurrence of system switching

When system switching occurs during access to the redundant CPU and 'Control system' has been selected as target system, access is continued as described below.

(a) Connection via other than MELSECNET/H or Ethernet

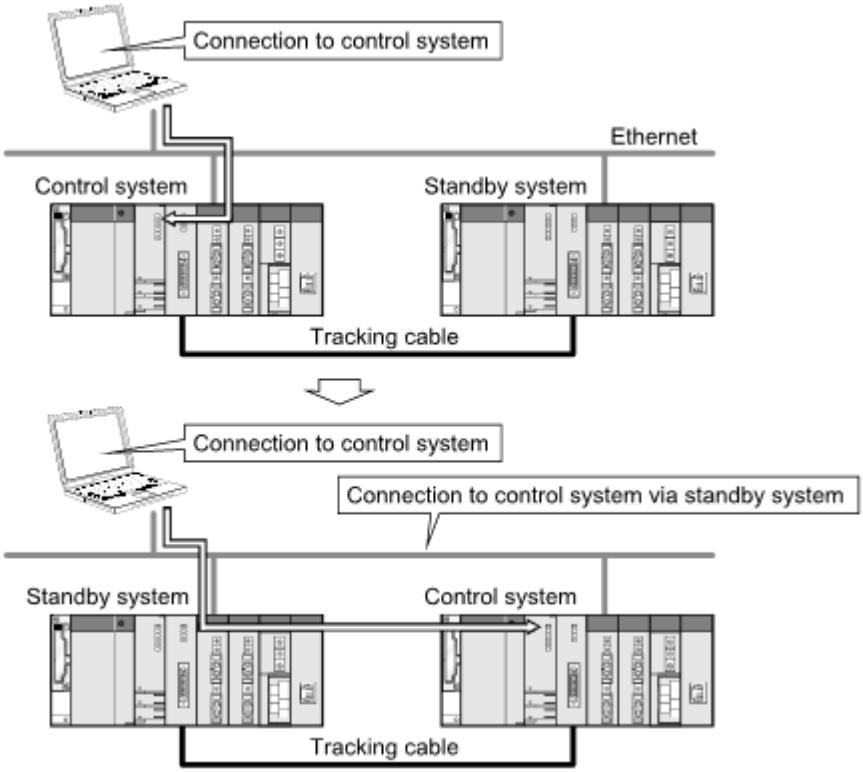
Access to the control system after system switching is continued.



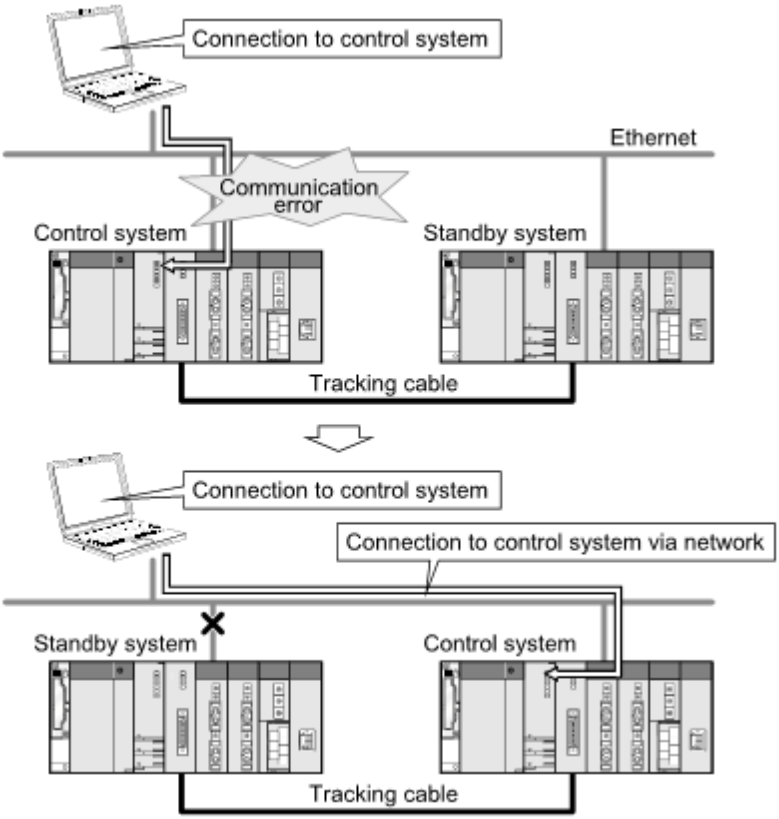
(b) Connection to MELSECNET/H or Ethernet
Access to the control system after system switching is continued as shown below, depending on whether a communication error occurs or not.

The following shows an example of Ethernet connection.

<When communication is normal>



<When communication error occurs>



Note: in the case of Ethernet connection, it may take time from when a communication error occurs until communication starts after connection to the control system.

(3) Automatic switching of communication route

If a communication error occurs during access to the redundant CPU via a MELSECNET/H or Ethernet network, the
communication route is automatically switched to continue access to the control system.
In the following text this automatic switching of the communication route is referred to as 'route switching'.

The following describes the route switching conditions, how to check for route switching occurrence, and examples of access by route switching.

(a) Route switching conditions

When access is being made under the following conditions, access to the Redundant CPU is continued by route switching if a communication error occurs.

Mode	Conditions for continued access
Operation mode	Backup mode, Separate mode
Target system	Control system

However, if a tracking error had already occurred at a start of communication (caused for example by power off or reset of the redundant system), access to the control system is not continued by route switching even if tracking is recovered after that.

(b) How to check for route switching occurrence and examples of access by route switching

1) How to check whether route switching occurred or not

Special devices and registers allow to detect whether route switching has occurred.

SM1600[1]	SD1590 [2]	SD1690 [2]	Possibility of route switching	Reference
OFF	either one is other than 0		Since a system switching request from the network module was detected, route switching may have been executed.	see example 1
ON	0	0	Since an other system fault occurred, route switching may have been executed.	see example 2
ON	either one is other than 0		Since an other system fault occurred or a system switching request from the network module was detected, route switching may have been executed.	see example 1 and 2

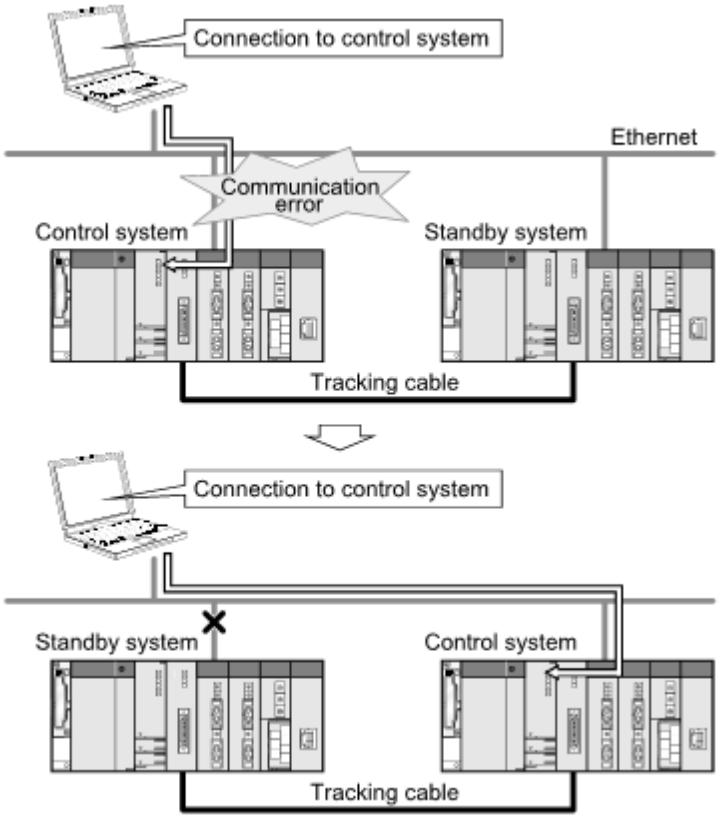
[1]: even if SM1600 is ON, route switching does not occur when the CPU is not accessed via the tracking cable.
[2]: when using SM1600, SD1590 and SD1690 to estimate whether route switching has occurred or not for the Redundant CPU connected to Ethernet, check the following items in the redundant setting of the network parameter dialog box of GX Developer.
·issue a system switching request at disconnection detection.
·issue a system switching request at communication error.

Check the following based on the states of the above special relay and special registers and remove the error cause.
· Check the Redundant CPU for an error.
· Check the tracking cable status and whether the tracking cable is correctly connected.
· Check the relevant network module for an error and the network where the relevant network module is connected for an error.

2) Examples of access by route switching

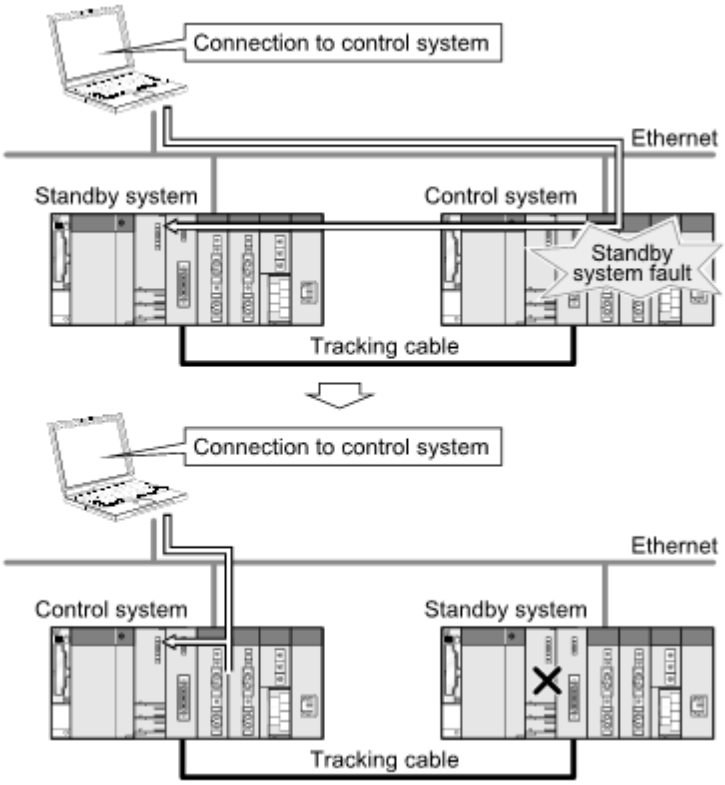
The following shows examples of route switching during access to the control system by Ethernet connection.

When system switching occurs at communication error:



Route switching example 1

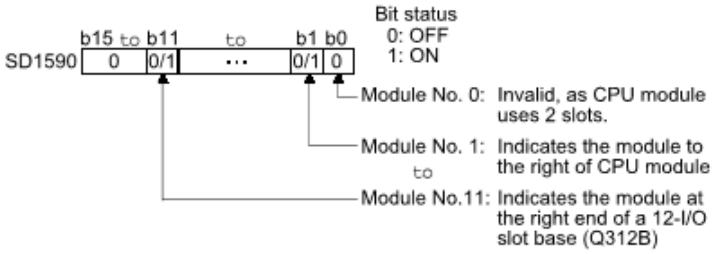
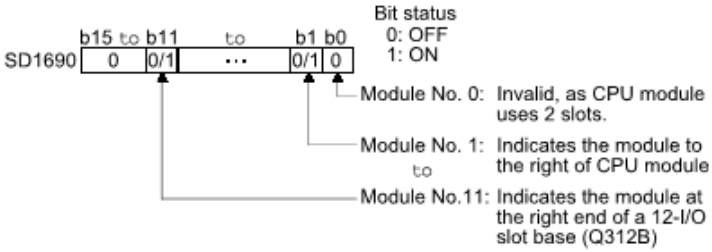
When standby system fault occurs:



Route switching example 2

Note: the following table indicates details of the special relay and special registers to be monitored when estimating whether route switching occurred or not.

Device	Meaning	Explanation
SM1600	Other system error flag OFF: No error ON: Error	· turns on when an error occurs during redundant system error check. (Turns on when either of bits for SD1600.) · remains off when no errors are present.

Device	Meaning	Explanation
SD1590	Module no. for network module requesting route switching in host system	· any of the following bits turns on corresponding to module No. for network module requesting route switching in host system. · turns off by the system after recovery from error of the relevant module by user.  · refer to SD1690 for module No. for network module requesting route switching in other system.
SD1690	Module no. for network module requesting route switching in other system	· any of the following bits turns on corresponding to module No. for network module requesting route switching in other system. · turns off by the system after recovery from error of the relevant module by user.  · refer to SD1590 for module no. for network module requesting route switching in host system.

5 Troubleshooting

5.1 After updating the DTM catalogue the installed CommDTM is not listed

Situation:

After successful installation of MX CommDTM-HART on the engineering PC and updating the DTM catalogue in PACTware™ the user cannot find the CommDTM in the device list of new found devices.

Solution:

- Open a DOS command window from the Start/Run menu item in the installation directory of the CommDTM
- Execute the following command: **regsvr32 MXCommDTM-HART.dll**
- Restart the FDT frame application and select 'Device Catalogue' -> 'Update device catalogue' -> now the new installed CommDTM should be listed

5.2 Fails to connect to module

Situation:
When selecting 'Connect' from the CommDTM context menu, the connection cannot be established

Solution:
The transfer setup dialog has a connection test function to check both the connection to the CPU and to the module.
Please check
1. physical connection (cables etc.)
2. power supply to PLC
3. for Ethernet connections make sure to use correct MELSECNET network and station numbers as specified in the PLC 'Network' parameters
4. starting I/O number of module

6 Glossary

COM	**C**ommon **O**bject **M**odel a technology developed by Microsoft® for interlacing software modules independent of their implementation
DLL	**D**ynamic **L**ink **L**ibrary file format for software modules, which can be used by an application (executable)
DTM	**D**evice **T**ype **M**anager hardware specific software module containing device specific logic and user interface
FDT	**F**ield **D**evice **T**ool engineering tool with runtime environment for DTMs
HART	**H**ighway **A**dressable **R**emote **T**ransducer HART Communication is a bi-directional industrial field communication protocol used to communicate between intelligent field instruments and host systems

Table of Contents

Q

R

S

T

U

V

W