

Introduction

Thank you for purchasing the Mitsubishi general-purpose MELSEC series sequencer.
Read this manual and make sure you understand the functions and performance of MELSEC series sequencer thoroughly in advance to ensure correct use.
Please make this manual available to the end user.

CONTENTS

Chapter 1 General Description		1- 1 to 1-14
1.1 Functions List	<List of menu which can be selected in GPPW categorized by circuit edit functions, comments and edit >	1- 3
1.2 Abbreviations and Terms in This Manual	.....	1-11
1.3 FX Series Programming	.....	1-12
1.4 Basic Key Specifications	<Instructions of the key used with the GPPW function>	1-14
Chapter 2 Menu Index		2- 1 to 2- 4
2.1 Menu Index	<Find GPPW menus in alphabetical order>.....	2- 1
Chapter 3 Common Operations		3- 1 to 3-18
3.1 List of Shortcut Keys and Access Keys	<Operating GPPW function by shortcut key>.....	3- 1
3.2 Project Designation	.....	3- 5
3.2.1 Saving a project	<Save created programs in peripheral devices>.....	3- 6
3.2.2 Opening a project	<Read existing projects from peripheral device>.....	3- 9
3.3 Cut, Copy, and Paste	.....	3-10
3.3.1 Cut and paste	.....	3-10
3.3.2 Copy and paste	.....	3-12
3.3.3 Notes on cutting, copying and pasting network parameters	.....	3-14
3.4 Toolbar	<Descriptions of customized toolbar>.....	3-16
3.5 Status Bar	<Descriptions of items displayed on the status bar>	3-17
3.6 Zooming in on or out of the Edit Screen	.....	3-18
3.7 Project Data List	.....	3-18
Chapter 4 Initialization		4- 1 to 4- 2
4.1 Creating a Project	<Creating a new program>	4- 1
Chapter 5 Handling Project Files		5- 1 to 5-35
5.1 Opening the Existing Project File	<Read the created project>	5- 1
5.2 Closing a Project File	< Closing the active project>	5- 2
5.3 Saving a Project	< Saving the active project with the designated name>	5- 2
5.4 Saving a Project with a New Name	<Saving the active project with a new name >.....	5- 3
5.5 Deleting a Project	<Deleting the unnecessary project>	5- 3

5.6 Comparing Data in Projects	<Comparing the active data with the selected data> . 5- 4
5.7 Copying a Project	<Copying the selected data in the destination to the active data>..... 5- 6
5.8 Adding Data to a Project	<Adding comments to the active program> 5- 8
5.9 Copying Data within a Project	<Copying an opened project data> 5- 9
5.10 Deleting Data in a Project	<Deleting an opened project>..... 5-10
5.11 Renaming Data in a Project	..... 5-11
5.12 Changing the PLC Type of a Project	<Changing a PLC type, such as ACPU to QnACPU>5-12
5.13 Reading GPPQ, GPPA, FXGP(DOS) or FXGP(WIN) Files	<Reading PPA/GPPQ/FXGP(DOS)/FXGP(WIN) data which is saved in a peripheral device>..... 5-18
5.14 Exporting GPPQ, GPPA, FXGP(DOS) or FXGP(WIN) Files	<Saving PLC program as GPPA/GPPQ/FXGP(DOS)/FXGP(WIN) format> 5-25
5.15 Displaying Macro References	..... 5-32
5.16 Starting Multiple Projects	<Displaying Multiple GPPW>..... 5-35
5.17 Existing GPPW	..... 5-35

Chapter 6 Creating Circuits

6- 1 to 6-73

6.1 Circuit Creation Method	<Describing the circuit creating methods from List Representation, Tool Button, Function Key and Menu Bar> 6- 1
6.2 Restrictions on Circuit Creation	..... 6- 8
6.2.1 Restrictions in circuit display window	..... 6- 8
6.2.2 Restrictions in circuit edit window	..... 6- 9
6.3 Creating and Editing Circuits	..... 6-13
6.3.1 Inputting contacts and application instructions	..... 6-13
6.3.2 Inputting vertical and horizontal lines	..... 6-22
6.3.3 Deleting incorrect inputs	<Deleting a contact and coil>..... 6-27
6.3.4 Deleting connecting lines	<Deleting vertical and horizontal lines> 6-29
6.3.5 Inserting and deleting in circuit blocks	<Inserting and deleting lines> 6-30
6.3.6 Modifying the existing circuit	<Modifying and overwriting a contact and coil> 6-32
6.3.7 Inserting into the existing circuit	<Adding a contact and coil to the existing circuit> 6-33
6.3.8 Undo the last operation	<Undo the cut, copy or paste operation> 6-34
6.3.9 Cutting, copying and pasting circuits	<Describing operations in units of coils and circuit blocks> 6-35
6.3.10 Inserting a line in the cursor-positioned location	..... 6-43
6.3.11 Deleting a line at the cursor-position location	..... 6-43
6.3.12 Inserting NOPs at a time	..... 6-44
6.3.13 Deleting NOPs at a time	..... 6-44
6.4 Find and Replace	..... 6-45
6.4.1 Finding a device	<Finding a circuit by designating the device> 6-45
6.4.2 Finding an instruction	<Finding a circuit by designating an instructing and device> 6-47
6.4.3 Finding a step No.	<Finding a circuit by designating a circuit step No > 6-49
6.4.4 Finding a character string	<Finding a statement or note by designating character>..... 6-50
6.4.5 Replacing a device	<Replacing a designated device> 6-52

6.4.6 Replacing an instruction	<Replacing an instruction>	6-54
6.4.7 Changing A and B contacts	<Changing A contact to B contact and B contact to A contact>	6-56
6.4.8 Replacing a character string	<Replacing a character string by designating statement or note>	6-58
6.4.9 Changing the statement or note type	<Changing the integrated note to peripheral note>	6-60
6.4.10 Searching for a contact coil	<Indicating the steps and instructions in which the designated instruction has been used>	6-62
6.4.11 Searching for a device-use instruction	<Indicating the frequency of device usage>	6-64
6.5 Display	.....	6-66
6.5.1 Displaying comments	<Displaying the circuit and device comments>	6-66
6.5.2 Displaying statements	<Displaying the circuit and statements>	6-67
6.5.3 Displaying notes	<Displaying the circuit and notes>	6-68
6.5.4 Displaying device names	<Displaying the circuit and device names >	6-69
6.5.5 Switching circuit and list modes	.....	6-70
6.6 Switching Read and Write Modes	.....	6-71
6.6.1 Switching to read mode	.....	6-71
6.6.2 Switching to write mode	.....	6-71
6.7 Changing T/C Setting Values	<Changing the values of timers and counters at a time>	6-72

Chapter 7 Creating Instruction List
--

7- 1 to 7-12

7.1 Common Notes on Instruction List Creation	.....	7- 1
7.2 Creating a Program Instruction list	.....	7- 3
7.2.1 Inputting a contact or application instruction.....	.....	7- 3
7.2.2 Changing the existing program in overwrite mode .....	.....	7- 4
7.2.3 Inserting or adding the existing program .....	.....	7- 5
7.2.4 Deleting the existing program list .....	.....	7- 6
7.2.5 Changing the existing program .....	.....	7- 7
7.2.6 Inserting NOPs .....	.....	7- 8
7.2.7 Deleting NOPs .....	.....	7- 8
7.3 Find and Replace	.....	7- 9
7.3.1 Finding a device .....	.....	7- 9
7.3.2 Finding an instruction .....	.....	7- 9
7.3.3 Finding a step No. ....	.....	7- 9
7.3.4 Finding a character string .....	.....	7- 9
7.3.5 Replacing a device .....	.....	7- 9
7.3.6 Replacing an instruction .....	.....	7- 9
7.3.7 Changing an A or B contact .....	.....	7-10
7.3.8 Replacing a character string .....	.....	7-10
7.3.9 Changing the statement or note type .....	.....	7-10
7.3.10 Searching for a contact coil .....	.....	7-10
7.3.11 Searching for an instruction using a device .....	.....	7-10
7.4 Display	.....	7-11
7.4.1 Displaying a device name .....	.....	7-11
7.5 Switching Read and Write Modes	.....	7-12
7.5.1 Switching to read mode .....	.....	7-12
7.5.2 Switching to write mode .....	.....	7-12
7.5.3 Switching to circuit mode .....	.....	7-12
7.6 Changing T/C Setting Values	.....	7-12

Chapter 8 Conversion**8- 1 to 8- 1**

8.1 Converting an Edit Program	8- 1
8.2 Converting Multiple Edit Programs	8- 1

Chapter 9 Setting Device Comments**9- 1 to 9-37**

9.1 Points to be Noted before Comment Creation with GPPW	9- 1
9.1.1 Editing comments only on peripheral devices.....	9- 2
9.1.2 Writing to PLC	9- 4
9.1.2 (1) Writing to ACPU	9- 4
9.1.2 (2) Writing to QnACPU	9- 5
9.1.2 (3) Writing to FXCPU	9- 6
9.1.3 Writing GPPA and GPPQ files to peripheral devices.....	9- 7
9.1.3 (1) Writing a GPPA file	9- 7
9.1.3 (2) Writing a GPPQ file	9- 8
9.1.3 (3) Writing an FXGP(DOS) or FXGP(WIN) file.....	9- 9
9.2 Reading from PLC	9-10
9.2.1 Reading from ACPU	9-10
9.2.2 Reading from QnACPU	9-12
9.2.3 Reading from FXCPU	9-13
9.3 Reading GPPA and GPPQ Files from FD or HD.....	9-14
9.3.1 Reading a GPPA file	9-14
9.3.2 Reading a GPPQ file	9-16
9.3.3 Reading an FXGP(DOS) or FXGP(WIN) file	9-17
9.4 List of Device Comments	9-18
9.5 Common Comments and Comments by Program	9-21
9.6 Creating Device Comments	9-24
9.6.1 Creating device comments on the device comment edit window	9-24
9.6.2 Creating device comments for the created circuit	9-26
9.6.3 Creating device comments after creating a circuit.....	9-27
9.7 Deleting Device Comments	9-28
9.7.1 Deleting all device comments and device names	
<Clear all the comment edit window data>	9-28
9.7.2 Deleting display device comments and device names	
<Clear only the active device>	9-28
9.8 Setting Comment Types	
<Changing the common comments type and comments	
by program >.....	9-29
9.9 Setting Comment Ranges	
<Setting comment ranges when writing to PLC>.....	9-31
9.10 Finding and Replacing a Character String	9-36
9.10.1 Finding a character string	
<Finding the device comments by designating a character	
to be searched>	9-36
9.10.2 Replacing a character string	
<Replacing the device comment by designating character	
to be replaced>	9-37

Chapter 10 Setting Statements and Notes**10- 1 to 10-11**

10.1 Statement	<Descriptions of integrated statement or peripheral statement>	10- 1
----------------------	--	-------

10.2 Note	<Descriptions of integrated statement or peripheral statement >	10- 3
10.3 Creating and Deleting Statements	.....	10- 5
10.3.1(1) Creating statements in the circuit edit window	.....	10- 5
10.3.1(2) Deleting statements in the circuit edit window	.....	10- 6
10.3.2(1) Editing statements on the list edit window	.....	10- 7
10.3.2(2) Deleting statements on the list edit window	.....	10- 7
10.4 Creating and Deleting Notes	.....	10- 8
10.4.1 (1) Creating notes on the circuit edit window	.....	10- 8
10.4.1 (2) Deleting notes in the circuit edit window	.....	10- 9
10.4.2 Creating notes in the list edit window	.....	10-10
10.4.2 (1) Creating notes in the list edit window	.....	10-10
10.4.2 (2) Deleting notes in the list edit window	.....	10-11

Chapter 11 Setting Device Memory (DWR setting)	11- 1 to 11- 6
---	-----------------------

11.1 Device Memory	.....	11- 1
11.2 Device Value Input	.....	11- 2
11.3 All Clear	.....	11- 4
11.3.1 Clearing all devices	.....	11- 4
11.3.2 Clearing all display devices	.....	11- 4
11.4 Making Fill Settings	<Changing the specified range part at a time to designated device value>	11- 5
11.5 Search and Replace	.....	11- 6
11.5.1 Search	<Searching the device value by designating value>	11- 6
11.5.2 Replace	<Replacing the exsisting data to the designated value>	11- 6

Chapter 12 Setting Device Initialization Values	12- 1 to 12- 2
--	-----------------------

Chapter 13 Setting PLC Parameters	13- 1 to 13-39
--	-----------------------

13.1 Displaying the Parameter Setup Dialog Box	.....	13- 1
13.2 Common Notes on Parameters	.....	13- 3
13.3 Comparison Table of Setting Items	.....	13- 5
• PLC Parameters (A Series)		
13.4 Setting the Memory Capacity	<Program capacity, Capacity for debugging, Comment, Expanded comment capacity, File register capacity and memory capacity information>	13- 6
13.5 Setting PLC RAS	<WDT setting, Operation mode when there is an error and Annunciator display mode>	13- 9
13.6 Setting the PLC System	<RUN-PAUSE contacts, System interrupt setting, Output mode during STOP to RUN>	13-10
13.7 Setting I/O Assignments	.....	13-12
13.8 Setting Devices	<Setting latch ranges and timers/counters>	13-14
• PLC Parameters (QnA Series)		
13.9 Assigning PLC Names	<Assigns labels and comments to the PLC>	13-16

13.10	Setting the PLC System	<Timer limit setting, RUN-PAUSE contacts, Remote reset, Outputmode when changing from STOP to RUN, Common pointer NO., Ordinary data processing, Number of empty slots and system interrupt>	13-17
13.11	Setting PLC Files	.....	13-19
13.12	Setting PLC RAS	<WDT setting, Error check, Operating mode when there is an error, Constant scanning, Annunciator display mode, Break down history and Low-speed program execution time>	13-22
13.13	Setting Devices	<Setting the number of points for each device, latch ranges and local devices>	13-24
13.14	Setting Programs	<Setting when two or more programs exist in the PLC>	13-26
13.15	Setting a Boot File	<Transferring a program from the IC memory card to the internal RAM in the PLC >	13-28
13.16	Setting SFC	<Setting the conditions for starting the SFC program>	13-30
13.17	Making I/O Assignments	.....	13-31
	• PLC Parameters (FX Series)		
13.18	Setting the Memory Capacity	.....	13-32
13.19	Setting Devices	.....	13-34
13.20	Assigning PLC Names	.....	13-35
13.21	Making I/O Assignments	.....	13-36
13.22	Setting the PLC System (1)	.....	13-37
13.23	Setting the PLC System (2)	.....	13-38

Chapter 14 Setting Network Parameters

14- 1 to 14-73

	• Network Parameters (A Series)		
14.1	Setting the Network Screen	.....	14- 5
14.2	Setting MELSECNET (II) Link Parameters	.....	14- 7
14.2.1	Setting the refresh parameter	<Set when AnUCPU is selected>	14- 7
14.2.2	Setting the MELSECNET (II) network range	.....	14- 9
14.3	Setting MELSECNET/10 Network Parameters.....		14-11
14.3.1	Setting the refresh parameter	.....	14-11
14.3.2	Setting the MELSECNET/10 network range (common parameter).....		14-14
14.3.2 (1)	Setting the network range in the PLC to PLC network (administration station).....		14-14
14.3.2 (2)	Setting the network range (remote I/O setting)		14-19
14.3.3	Setting station-specific parameters	.....	14-22
14.4	Common Operations in Setting Network Parameters	.....	14-24
14.5	Making Settings for Data Links	.....	14-26
14.6	Setting Routing Parameters	.....	14-28
14.7	Setting MELSECNET/MINI Parameters	14-30	
	• Network Parameters (QnA Series)		
14.8	Setting the Network Setting Dialog Box	.....	14-33
14.9	Setting the Refresh Parameter	.....	14-35
14.10	Setting the MELSECNET (II) Network Range	.....	14-37
14.11	Setting the MELSECNET/10 Network Range.....		14-40
14.11.1	Setting a network range in the PLC-to-PLC network		14-40

14.11.2	Setting a network range between the remote I/Os	14-45
14.11.2 (1)	Setting a network range in the remote master station.....	14-45
14.11.2 (2)	Setting a network range in the multiplex/parallel remote master station.....	14-50
14.11.2 (3)	Setting a multi-remote substation unit.....	14-53
14.11.2 (4)	Setting a parallel remote substation unit	14-54
14.11.2 (5)	Setting a standby station unit	14-55
14.11.3	Setting station-specific parameters	14-56
14.11.4	Setting routing parameters	14-58
14.12	Setting MELSECNET/MINI Parameters	14-60
14.13	Setting CC-Link Parameters	14-63
14.14	Setting Ethernet Parameters	14-67
14.14.1	Setting the IP address	14-67
14.14.2	Setting the NET/10 routing information	
	<Communicating to other PLCs through MELSECNET/10>.....	14-68
14.14.3	Setting the FTP parameter	14-70
14.14.4	Setting the routing information	14-72

Chapter 15 Print

15- 1 to 15-30

15.1	Setting Up a Printer	15- 2
15.2	Setting a Page Layout	15- 4
15.3	Previewing a Print Image	15- 7
15.4	Printing	15- 9
15.5	Setting the Details for Printing	15-12
15.5.1	Creating a title	15-12
15.5.2	Setting a ladder print range	15-13
15.5.3	Setting a Instruction list print range	15-15
15.5.4	Setting a TC setting value print range	15-17
15.5.5	Setting a device comment print range	15-18
15.5.6	Setting a device use list print range	15-20
15.5.7	Setting a device memory print range	15-21
15.5.8	Setting a device initial value print range	15-22
15.5.9	Setting a PLC parameter print item	15-23
15.5.10	Setting a network parameter print item.....	15-24
15.5.11	Setting a list of contact coil used	15-25
15.5.12	Displaying a project contents list	15-26
15.6	Print Examples	15-27

Chapter 16 Other Functions

16- 1 to 16-29

16.1	Checking Programs	16- 1
16.2	Merging Programs	
	<Connecting several PLC programs to make a single program>.....	16- 3
16.3	Checking Parameters	16- 5
16.4	All-clearing the Parameters	16- 7
16.5	Transferring ROM Data	16- 8
	• "A" series program memory configuration	
	• Program memory configuration of the FX series	
16.5.1	ROM reading, writing, and verification	16-15

16.5.2 Writing to files in ROM format	<Saving in a peripheral device>.....	16-17
16.6 Customizing Keys	<Allocating function keys to GPPA/GPPQ format>	16-19
16.7 Setting Options	<Shift the program forward setting, write during run, buffer/link memory monitor, setting comment show number>	16-20
16.8 Displaying Multiple Windows	.....	16-27
16.9 Opening a Specific Project Using a Shortcut	<Creating a shortcut key for a specific project>.....	16-28
16.10 Starting the Ladder Logic Test Tool	.....	16-29
16.11 Outline of Help Function	.....	16-29

Chapter 17 Connecting a PLC

17- 1 to 17-46

17.1 System Configuration when a PLC is Connected.....		17- 1
17.1.1(1) Connection from the serial port	<Connecting a peripheral devices to A series and QnA series CPU (about converter)>	17- 1
17.1.1(2) Connection from the serial port	<Connecting a peripheral devices to A series and QnA series CPU (about converter)>	17- 4
17.1.2 Connecting from an Interface Board for a Personal Computer	<An example of the system configuration of a MELSECNET/10 board>.....	17- 6
17.2 Specifying the Connection Destination•	<Setting connecting destination>•	17- 8
17.2.1 Setting method for communication via a MELSECNET/10 port		17-13
17.2.2 Setting method for communication via an Ethernet board.....		17-15
17.2.3 Setting method for communication via CC-Link (AJ65BT-G4)		17-18
17.2.3 (1) When using A series		17-18
17.2.3 (2) When using QnA series		17-20
17.2.4 Setting method for communication via a computer link module		17-22
17.2.5 Setting method for communication via a serial communication module.....		17-24
17.3 Using PLC Read/Write		17-26
17.3.1 Executing PLC read/PLC write	<Writing and reading of PLC programs>	17-26
17.3.2 Setting the read/write range for device data		17-30
17.3.3 Setting the program reading/writing range.....		17-32
17.3.4 Setting the comment read/write range		17-33
17.4 Verifying Data at the Peripheral Device and PLC.....		17-36
17.5 Deleting Data in the PLC		17-38
17.6 Changing PLC Data Attributes	<Protecting data in PLC>	17-40
17.7 Executing Online Change		17-43
17.7.1 Operating conditions when FXCPU is selected		17-45

Chapter 18 Monitoring

18- 1 to 18-29

18.1 Monitoring, and Stopping/Resuming Monitoring.....		18- 2
18.2 Monitoring/Stopping Monitoring in All Windows.....		18- 4
18.3 Editing Programs During Ladder Monitoring		18- 5
18.4 Switching Present Values Between Decimal and Hexadecimal		18- 7
18.5 Batch Monitoring Devices/Buffer Memories		18- 8
18.6 Monitoring after Registering Devices		18-12
18.7 Setting Monitor Conditions/Stop Conditions	<Start and stop monitor with set conditions>	18-15
18.8 Program List Monitor		18-17
18.9 Monitoring the Interrupt Program List		18-20

18.10 Measuring Scan Time	18-21
18.11 Executing Sampling Trace	18-22
18.11.1 Setting execution & status display	18-23
18.11.2 Setting trace data	18-26
18.11.3 Setting trace conditions	18-28

Chapter 19 Debugging Programs	19- 1 to 19-15
--------------------------------------	-----------------------

19.1 Carrying Out a Device Test	<Change the present value of the turns bit force ON/OFF and word device>	19- 2
19.2 Carrying Out Partial Operation	<Operate steps specified range and stop with set condition>	19- 4
19.3 Executing Step Run	<Executes the designated range by one instruction at a time>	19- 8
19.4 Setting the Scan Range	<Setting the partial operation or step operation of requirement>	19-11
19.5 Operating the PLC Remotely	<Changing PLC status from GPPW to STEP-RUN>	19-13

Chapter 20 Registering Entry Codes	20- 1 to 20- 5
---	-----------------------

20.1 Registering New Entry Codes/Changing Entry Codes	<Registering and changing an entry code for PLC>	20- 1
20.2 Canceling an Entry Code	<Canceling an entry code registered in PLC>	20- 4
20.3 Releasing an Entry Code	<Releasing an entry code registered in PLC>	20- 5

Chapter 21 PLC Memory	21- 1 to 21-11
------------------------------	-----------------------

21.1 Clearing the PLC Memory	21- 1	
21.1.1 All-clearing on ACPU memory	21- 1	
21.1.2 All-Clearing the QnACPU Device Memory	21- 3	
21.1.3 All-Clearing an FXCPU Memory	21- 5	
21.2 Formatting a QnACPU Memory	21- 7	
21.3 Sorting the QnACPU Memory	<Creating a free PLC memory area>	21- 9
21.4 Setting for the PLC's Clock	21-10	

Chapter 22 Diagnosis	22- 1 to 22-14
-----------------------------	-----------------------

22.1 Diagnosing the PLC	22- 1	
22.1.1 Diagnosing an ACPU	<Displaying the key status and fault history of PLC>.....	22- 1
22.1.2 Diagnosing a QnACPU	<Displaying the key status and fault history of PLC>.....	22- 3
22.1.3 Diagnosing an FXCPU	22- 5	
22.2 Diagnosing a Network	<MELSECNET(II,/10) network diagnosis>	22- 6
22.2.1 Monitoring other station information	22- 8	
22.2.2 Testing a network	22-10	
22.2.3 Performing a Setting Confirmation Test	22-11	
22.2.4 Performing a station order confirmation test	22-13	

Appendices	Appendix- 1 to Appendix-92
-------------------	-----------------------------------

Appendix 1 GGP Function Access Ranges in MELSECNET(II/10) Systems	Appendix- 1
1.1 Access Range with MELSECNET (II)	Appendix- 1

1.2 Access Range for an A Series Start	Appendix- 2
1.3 Access Range for a QnA Series Start	Appendix- 4
Appendix 2 MELSECNET (II/10) Board Access Range	Appendix- 7
2.1 MELSECNET/10 Board	Appendix- 7
2.1.1 "A" series start	Appendix- 8
2.1.2 QnA series start	Appendix-10
2.2 Access Range via an Ethernet Board	Appendix-12
2.3 Access Range via CC-Link (AJ65BT-G4)	Appendix-15
2.4 Access Range via C24, UC24	Appendix-17
2.5 Access Range via QC24	Appendix-19
Appendix 3 Using Data of Other Applications	Appendix-20
3.1 Using Excel Files as Device Comments	Appendix-20
3.2 Using a Word File as a Device Comment	Appendix-22
Appendix 4 Restrictions Depending on PLC Type Change	Appendix-24
4.1 A series - Changing to the A series	Appendix-24
4.2 Changing Between A Series and QnA Series.....	Appendix-26
4.3 FX Series Changing to the FX Series	Appendix-28
4.4 A Series Changing to FX Series	Appendix-30
Appendix 5 RS-232C cable setting method to C24, UC24, and QC24	Appendix-31
5.1 RS-232C cable setting method to C24 and UC24	Appendix-31
5.2 RS-232C cable setting method to QC24	Appendix-33
Appendix 6 ROM Writer Wiring Examples	Appendix-35
Appendix 7 QnA Series Version Compatibility Table.....	Appendix-36
Appendix 8 Restrictions and Cautions	Appendix-37
Appendix 9 Compatibility of Japanese version,English version.....	Appendix-45
Appendix 10 GPPW and LLT Operations	Appendix-46
Appendix 11 Notes on FX Series Programming	Appendix-47
11.1 Ladder Monitor Display	Appendix-47
11.2 Handling of Comments	Appendix-50
Appendix 12 Instruction Conversion Lists	Appendix-51
12.1 Instruction Conversion List for A <-> QnA Conversions	Appendix-51
12.2 A Instruction Conversion List for FX Series Conversions	Appendix-80

14.3 Setting MELSECNET/10 Network Parameters

This section describes the network/link settings required to construct a MELSECNET/10 network system.

For further information about each parameter, see the manuals listed below:

- MELSECNET/10 Network System Reference Manual (PC to PC Network)
- MELSECNET/10 Network System Reference Manual (Remote I/O to Network)

14.3.1 Setting the refresh parameter

A	QnA	FX
•	×	×

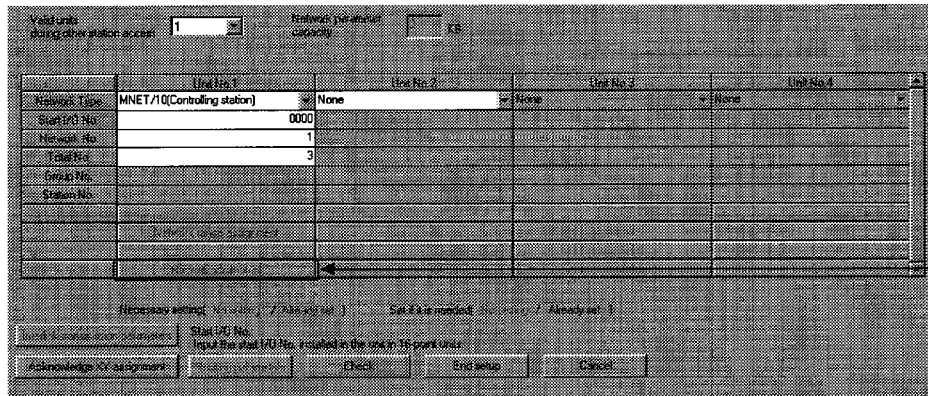
[Purpose]

Sets the range of the link devices (LB, LW, LX, LY) of the network and data link units or the range of the communication status devices (SW, SB) of the data link to be transferred to the link devices (B, W, X, Y) of the PLC.

[Operating procedure]

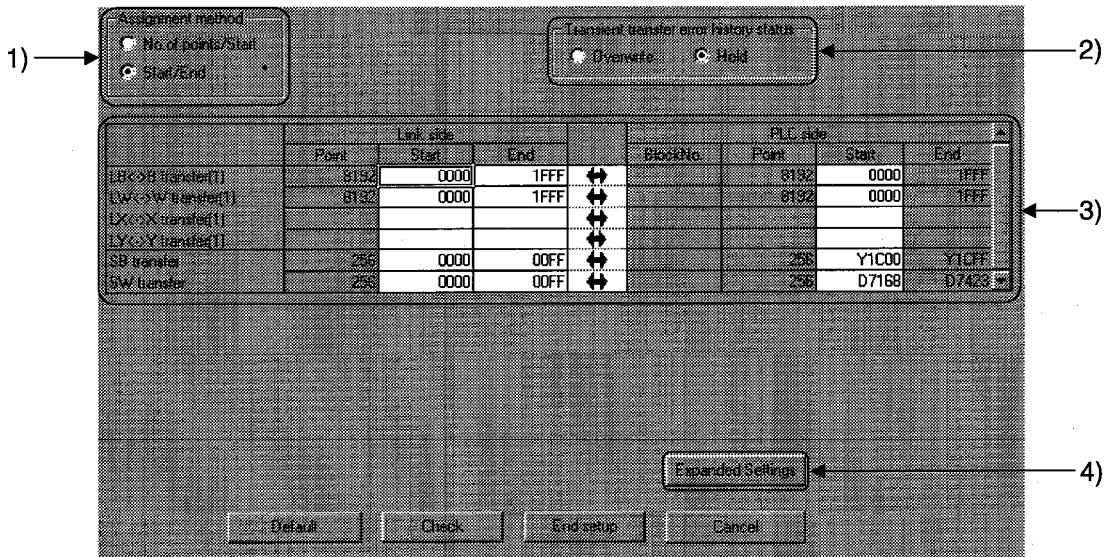
Display the network setting dialog box (set the network type, the start I/O number, the network number, and the total number of (slave) stations on this dialog box), and click the **Refresh Parameters** button.

[Dialog box]



Click here.

[MELSECNET/10 Administration Station Refresh Parameter Dialog box]



[Description]

- 1) Assignment method
Sets the device range to be transmitted by specifying Number of Points/Start or Start/Final.
- 2) Transient transfer error history status
Sets whether to retain or overwrite the error list.
The areas to be retained or overwritten are SWF0 to FF.

3) Link side, PLC side

When Number of Points/Head is selected in 1)

Point..... Sets the number of devices to be transmitted in units of 16points.

Start..... Sets the head number of the devices to be transmitted in units of 16 points.

When Start/Final is selected in 1)

Start..... Sets the head number of the devices to be transmitted in units of 16 points.

End..... Sets the final number of the devices to be transmitted in units of 16 points.

- Set LB, LW, LX, LY, SB, and SW in units of 16 points.

4) Expanded Setting (PLC to PLC network only)

Sets extension devices for LB, LW, LX, and LY.

	Link side			BlockNo	PLC side		
	Point	Start	End		Point	Start	End
LB↔B transfer(1)	0132	0000	1FFF	↔	0132	0000	1FFF
LW↔W transfer(1)	0132	0000	1FFF	↔	0132	0000	1FFF
LX↔X transfer(1)				↔			
LY↔Y transfer(1)				↔			
SB transfer	256	0000	00FF	↔	256	Y1C00	Y1E0F
SW transfer	256	0000	00FF	↔	256	D7168	D7423
LB↔B transfer(2)				↔			
LW↔W transfer(2)				↔			
LX↔X transfer(2)				↔			
LY↔Y transfer(2)				↔			
LB-Extension transfer				→			
LY-Extension transfer				→			

Set the block numbers of the file register (R) for block number.

POINT

- Default values of SB/SW transfer devices
The following ranges (256 points each) are assigned in each unit as default values to the SB/SW transfer devices of the network refresh parameter.

Assignment of SB

Y1C00
Y1D00
Y1E00
Y1F00

Assignment of SW

← First Unit →

← Second Unit →

← Third Unit →

← Fourth Unit →

D7168

D7424

D7680

D7936

14.3.2 Setting the MELSECNET/10 network range (common parameter)***14.3.2 (1) Setting the network range in the PLC to PLC network (Controlling station)***

A	QnA	FX
•	×	×

[Purpose]

Sets the B/W/Y ranges each station can transmit in a network, and make settings related to transient transmission and communication errors.

[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, the network number, and the total number of (slave) stations on this dialog box), and click the **Network range assignment** button.

[Dialog box]

Click here.

[MELSECNET/10 administration station network range dialog box]

1) → Assignment method

2) → Setup common and station relevant parameters

3) → Parameter name

4) → Switch settings

5) → Table for station range settings

6) → Control station specification

7) → Equal assignment

8) → Station No.

9) → Points

10) → Assignment setting

11) → Station No.

Supplementary setting: Monitoring time: 200 / 10ms, No of link slave stations: []

Station No.	Send range for each station			Send range for each station			Send range for each station			Send range for each station		
	Point	Start	End	Point	Start	End	Point	Start	End	Point	Start	End
1												
2												
3												

[Description]

- 1) Assignment method
Sets the device range to be transmitted by specifying Number of Points/Start or Start/End.
- 2) Supplementary settings
This setting is to determine whether the communication between the administration station and the normal station is normal.
The monitoring time can be set between 1 ms and 200 ms (in units of 1 ms).
- 3) Parameter name
Sets the parameter name so that the system parameter to be set can be easily identified.
Set the parameter name within eight characters.
- 4) Switch screens
The window will be switched between BW Setting and XY Setting.
- 5) Send range for each station
Set the number of points, head device, and final device of LX, LY, and LB in units of 16 points.
Set the number of points, head device, and final device of LW in units of one point.
- 6) I/O Master station specification
Sets the station number to serve as the master station for X/Y communication.
- 7) Reserved station specification
Sets the number of the station, which will or may be connected to the network in the future, as a reserved station and its transmission range, or sets an actually connected station as a reserved station.

<Example>

Station No.	Send range for each station						Send range for each station					
	LB			LW			LX			LY		
	Point	Start	End	Point	Start	End	Point	Start	End	Point	Start	End
1												
2												
3												

Move the cursor to this position, and click the **Reserved station specification** button.

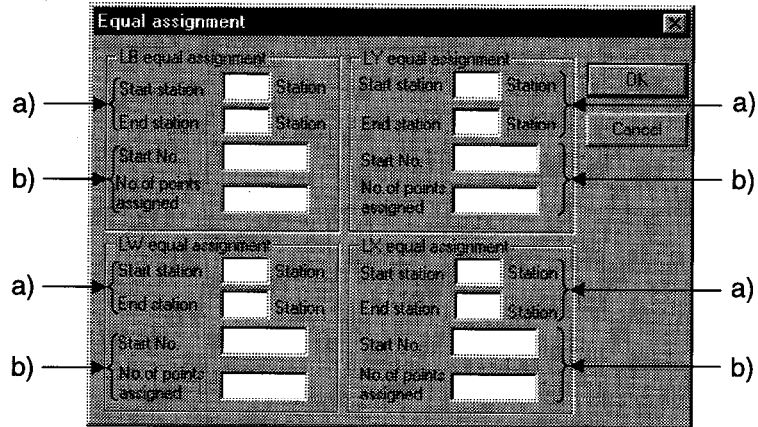
• Window after reservation

Station No.	Send range for each station						Send range for each station					
	LB			LW			LX			LY		
	Point	Start	End	Point	Start	End	Point	Start	End	Point	Start	End
1												
Reserved station 2												

"Reserved station" is displayed here.

- 8) Equal assignment
When the number of stations is large, the link devices of all stations will be assigned equally.

[Dialog box]



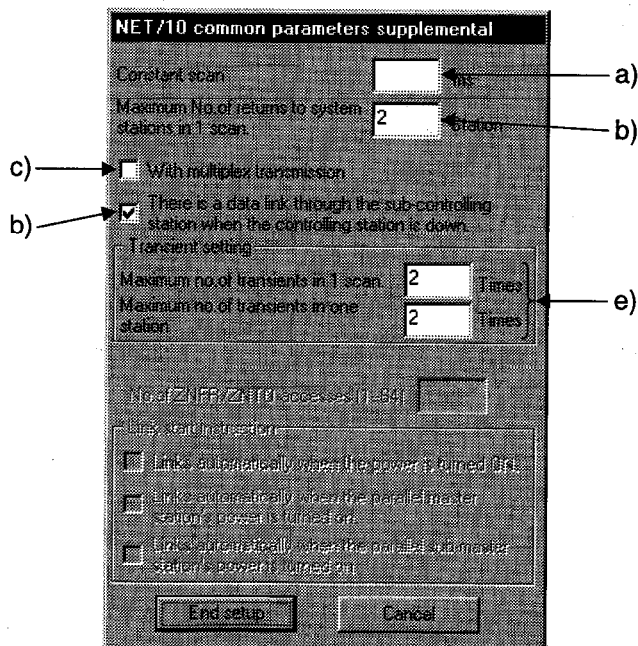
a) Number of equal assignment stations setting
 The number of equal assignment stations can be set within the number of stations from the head equal assignment station number to the final equal assignment station number (total number of link stations - (head station number - 1)).
 If the set number of stations is smaller than the above number, the devices of the set stations will be assigned equally in sequence from the head station number.

b) Head device, number of points assigned
 Set the number of points assigned in the units shown below:

LB, LX, LY..... In units of 16 points
 LW In units of one point

9) Identical point assignment
 Simplified assignment to the same point will take place according to the total number of stations set.

10) Supplementary setting



- a) Constant scan
The constant scan time can be set as desired between 1 ms and 500 ms.
 - b) Maximum No. of returns to system stations in 1 scan
Sets the number of faulty stations that can be returned to the system during a link scan.
 - c) With multiplex transmission
Sets whether to execute the multilevel transmission function.
 - d) There is a data link through the sub-controlling station when the controlling station is down.
Sets whether to transfer the data link administration station move function by the sub administration station when the administration station is down.
 - e) Transient setting
 - Maximum no of transients in 1scan
Sets the number of transient transmission times (the total number of times over the entire network) that can be executed during a link scan.
Set the number of times between one and 16.
 - Maximum no of transients in one station
Sets the number of transient transmission times a station can execute during a link scan.
Set the number of times between one and 16.
- 11) Station inherent parameters
See Section 14.3.3.

14.3.2 (2) Setting the network range (remote I/O setting)

A	QnA	FX
•	×	×

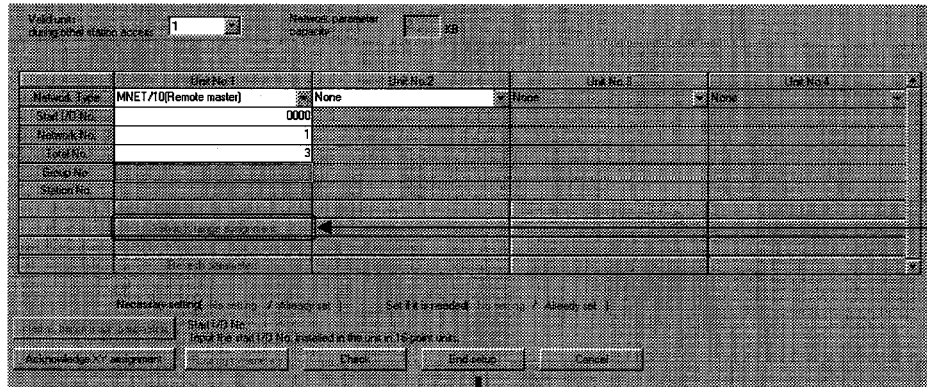
[Purpose]

Sets the B/W/X/Y ranges each station can transmit in a network, and make settings related to transient transmission and communication errors.

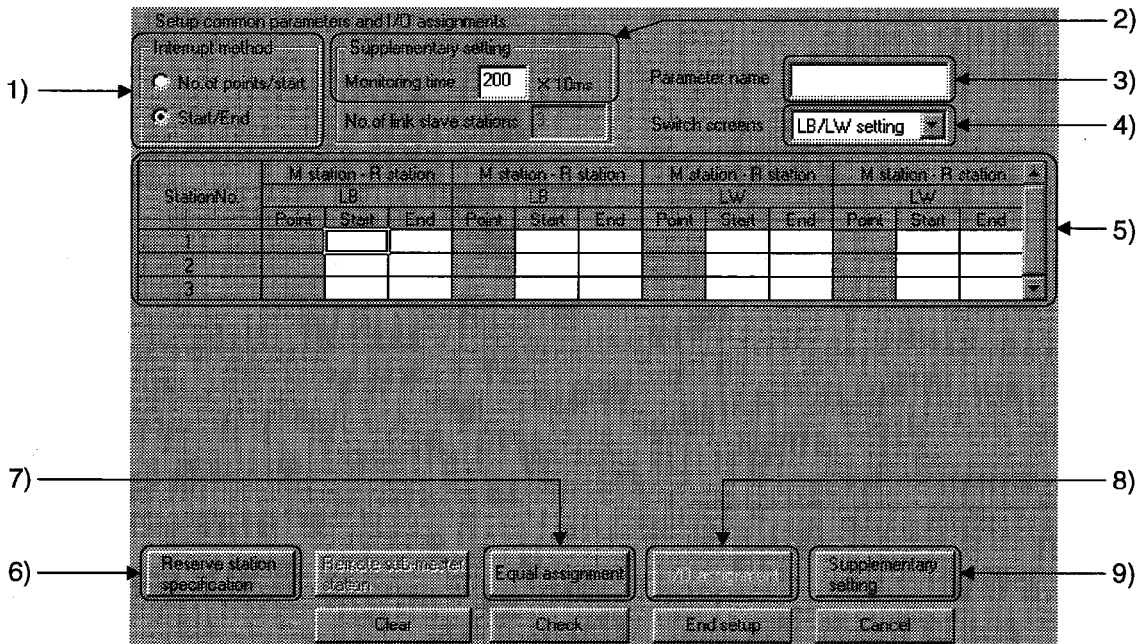
[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, the network number, and the total number of (slave) stations on this dialog box), and click the **Network range assignment** button.

[Dialog box]



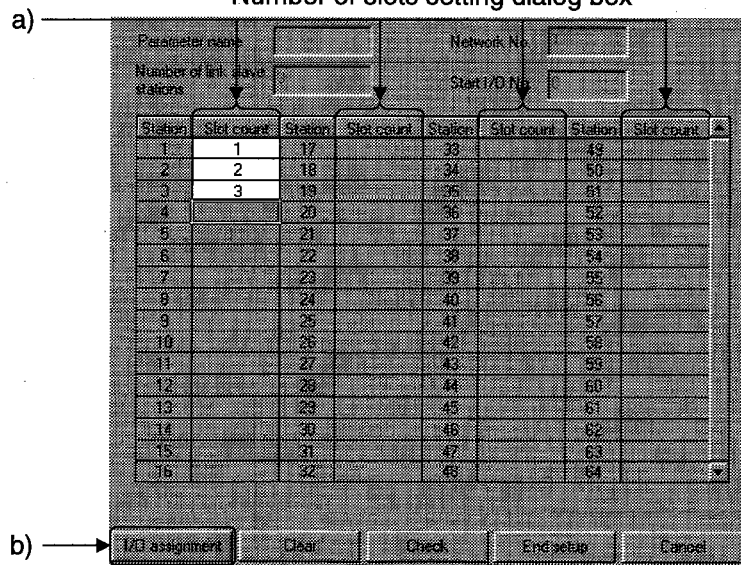
[MELSECNET/10 remote master network range dialog box]



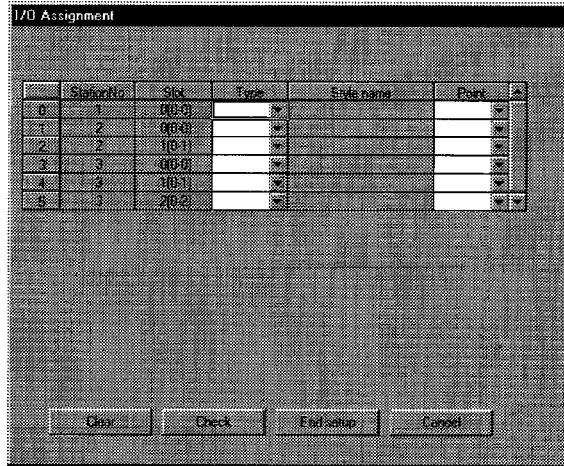
[Description]

- 1) Interrupt method
Sets the device range to be transmitted by specifying Number of Points/Start or Start/End.
- 2) Supplementary setting
This setting is to determine whether the communication between the administration station and the normal station is normal.
The monitoring time can be set between 1 ms and 200 ms (in units of 1 ms).
- 3) Parameter name
Sets the parameter name to easily identify the system parameter to be set.
Set the parameter name within eight characters.
- 4) Switch screens
The window will be switched between BW Setting and XY Setting.
- 5) M station → R station, M station ← R station range specification
Sets the number of points, head device, and final device of LB in units of 16 points.
Sets the number of points, head device, and final device of LW in units of one point.
- 6) Reserved station specification
Sets the number of the station, which will or may be connected to the network in the future, as a reserved station and its transmission range, or sets an actually connected station as a reserved station.
For the operating procedure, see Subsection 14.3.2 (1).
- 7) Equal assignment
See Subsection 14.3.2 (1).
- 8) I/O assignment
Sets the number of occupied slots of each station and execute remote I/O assignment during the construction of a remote I/O network.

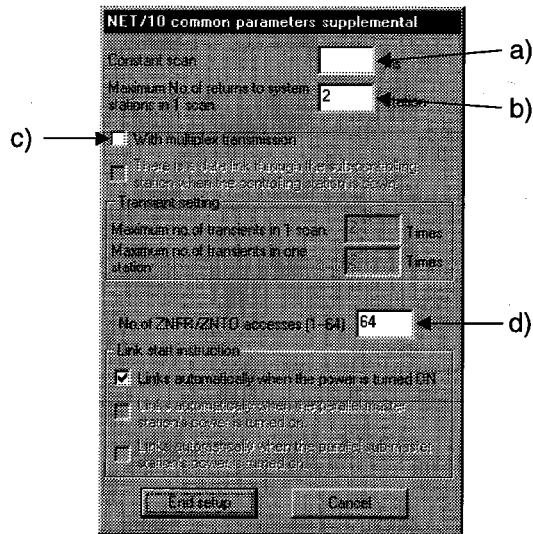
Number of slots setting dialog box



- a) slot count
Sets the number of slots to be occupied.
- b) I/O assignment
Sets the unit type and model (within 16 characters) and the number of points.
By executing the remote I/O assignment, the number of I/O points occupied by vacant slots can be reduced, or the number of I/O points of vacant slots can be reserved for future extension.



9) Supplementary setting



- a) Constant scan
The constant scan time can be set as desired between 1 ms and 500 ms.
- b) Maximum No of returns to system stations in 1 scan
Sets the number of faulty stations that can be returned to the system during a link scan.
- c) With multiplex transmission
Sets whether to execute the multiplex transmission function.
- d) No. of ZNFR/ZNTO access (1-64)
Sets the number of units at which the remote I/O station can execute instructions within a scan.

14.3.3 Setting station-specific parameters

A	QnA	FX
•	×	×

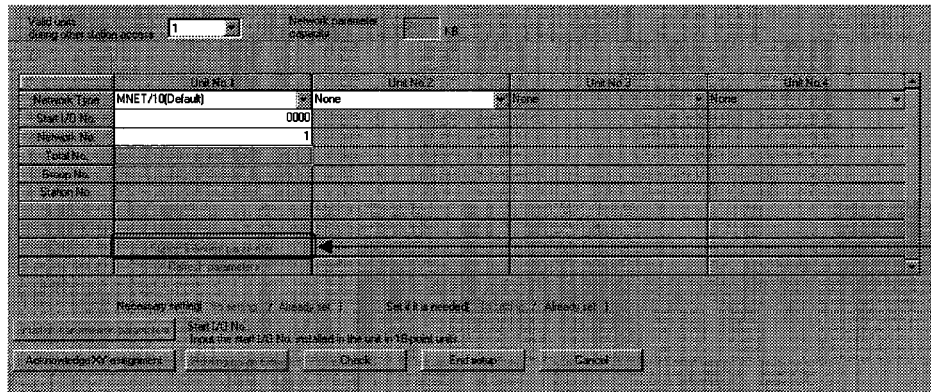
[Purpose]

Makes settings for rearranging the transmission ranges (B, W) of each station assigned by common parameters or for using only necessary ranges. These settings make the modification of the sequence program unnecessary even if the set common parameters are changed in the middle of an operation.

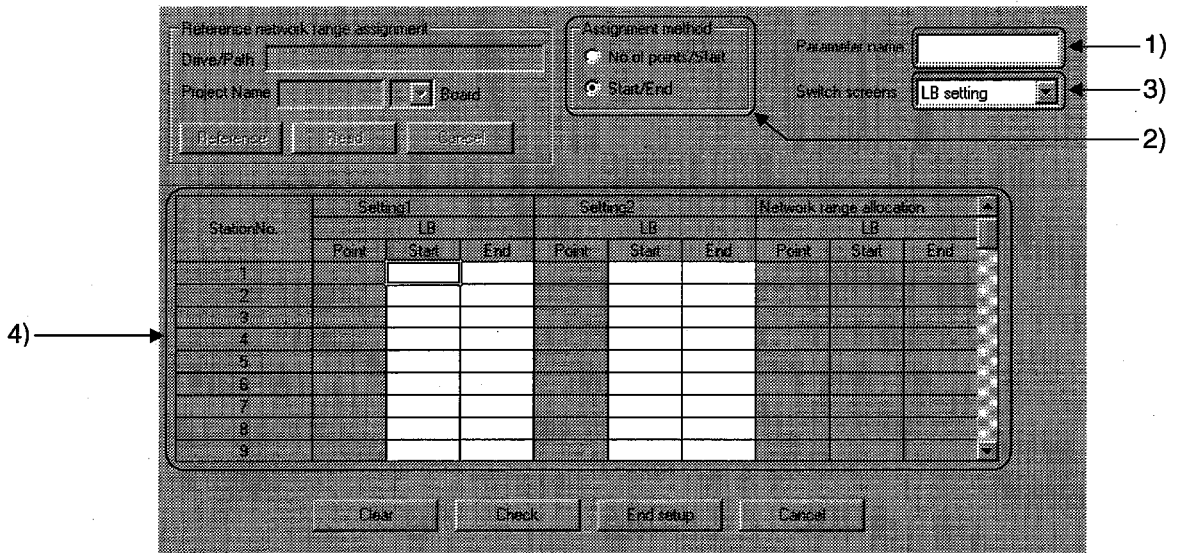
[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, and the network number), and click the **Station inherent parameters** button.

[Dialog box]



[MELSECNET/10 default dialog box]



[Description]

- 1) Parameter name
Sets the parameter name so that the system parameter to be set can be easily identified.
Set the parameter name within eight characters.
- 2) Assignment method
Sets the device range to be transmitted by specifying Number of Points/start or Head/Final.
- 3) Switch screens
The window will be switched between LB Setting and LW Setting.
- 4) Setting 1, setting 2
Sets the number of points, head device, and final device of LB in units of 16 points.
Sets the number of points, head device, and final device of LW in units of one point.

14.4 Common Operations in Setting Network Parameters

A	QnA	FX
•	•	×

[Purpose]

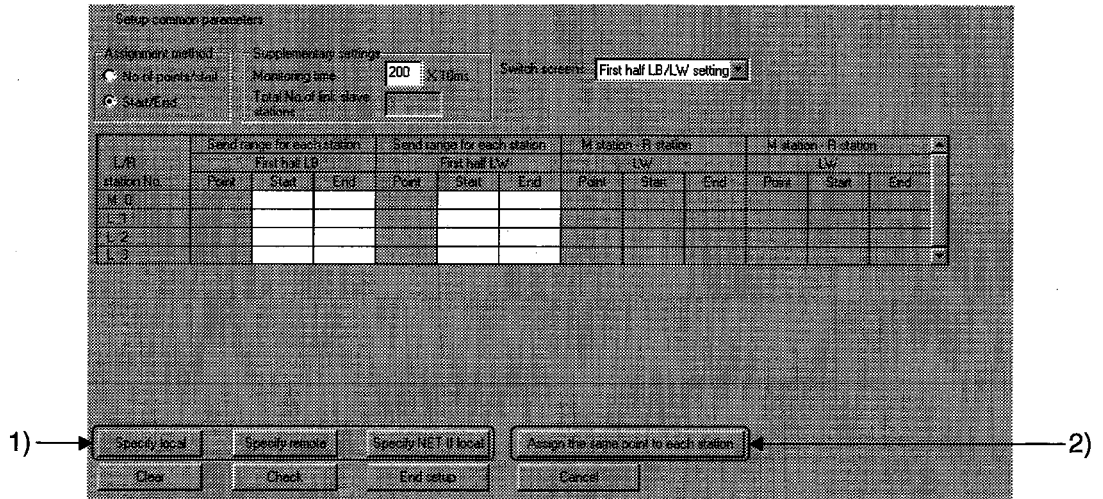
This section describes the operations common to data link system parameter setting and network system parameter setting. The network range assignment parameters for a MELSECNET II mixed (Master station) network are cited as an example.

The following operations cannot be executed as common operations in setting parameters:

- Cutting, copying, pasting
- The [Home] key and [End] keys will become invalid.

[Dialog box]

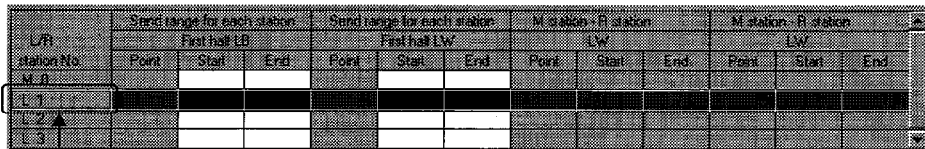
<Example> MELSECNET II mixed (Master station) network range assignment parameter dialog box



[Description]

1) Specify local, Specify remote, Specify NET II local

<Example> When changing a local station to a remote station (Follow the same procedure for NET II local specification.)



Move the cursor to this position, and click the [Specify remote] ([Specify NET II local]) button.

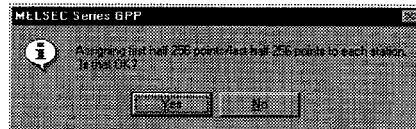
- Display after change

L/R	Send range for each station			Send range for each station			M station - R station			M station - R station		
	Point	Start	End	Point	Start	End	Point	Start	End	Point	Start	End
M 0												
R 1												
L 2												
L 3												

L1 is replaced by R1.

- To change the remote station R1 to a local station, select R1 and click the **Specify local** button.
- 2) Assign the same point of each station
 Use this function to make assignment to the same point of each remote station. Click the **Assign the same point to each station** button, and the dialog box shown below will be displayed:

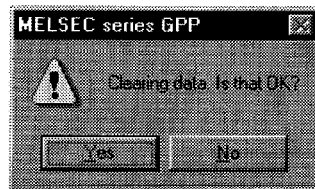
<Example> When the total number of (slave) stations set is three



By clicking the **Yes** button, the devices will be assigned as shown below:

L/R	Send range for each station			Send range for each station			M station - R station			M station - R station		
	Point	Start	End	Point	Start	End	Point	Start	End	Point	Start	End
M 0												
R 1												
L 2	256	0000	00FF	256	0000	00FF						
L 3	256	0100	01FF	256	0100	01FF						

- 3) Clear
 Use this function to change the set parameters to the default values.



- 4) Check
 The set parameter data will be checked.
- 5) Setting end
 By clicking the **End setup** button at the end of data setting, the network setting dialog box will appear.

14.5 Making Settings for Data Links

A	QnA	FX
•	×	×

[Purpose]

Makes settings for transferring the link devices (LB, LW) stored in the network unit to another network system.

[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, the network number, and the total number of (slave) stations), and click the **Interlink transmission parameters** button.

[Dialog box]

[Link-to-Link transfer dialog box]

No.	LB						LW					
	Source			Target			Source			Target		
	Point	Start	End	Point	Start	End	Point	Start	End	Point	Start	End
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

[Description]

- 1) Assignment method
Sets the device range to be transmitted by specifying Number of Points/Start or Start/End.
- 2) Data link-to-data link data transfer range setting tab
Here, transferring data from unit 1 to unit 2 is cited as an example.
Makes settings so that LB and LW of the first link unit will be transferred to LB and LW of the second link unit.
- 3) Source/Target
Set Number of Points, Head, and Final units of 16 points.

POINT

- B/W transfer size
Set the B/W transfer size within 8 K points.
For a MELSECNET II system, set both the transfer size and the device number within 2 K points.

14.6 Setting Routing Parameters

A	QnA	FX
•	×	×

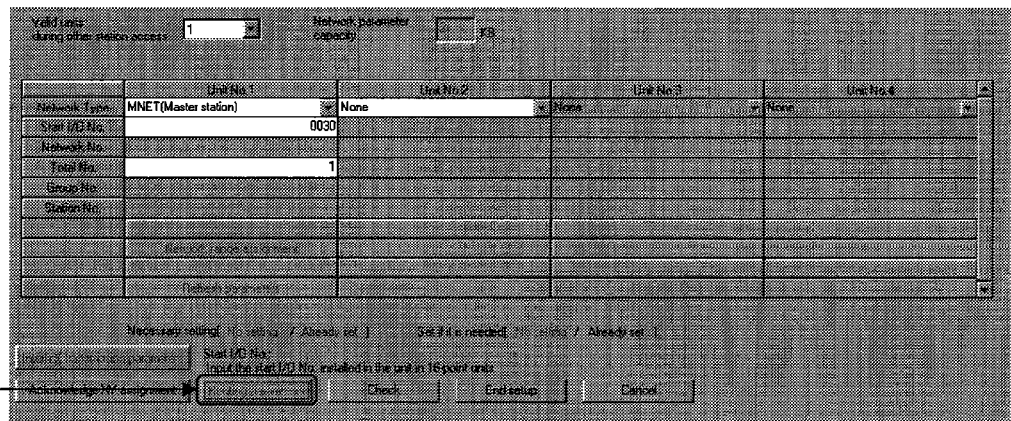
[Purpose]

Sets the transmission route from the source station to the destination station for transient transmission between stations in different networks.

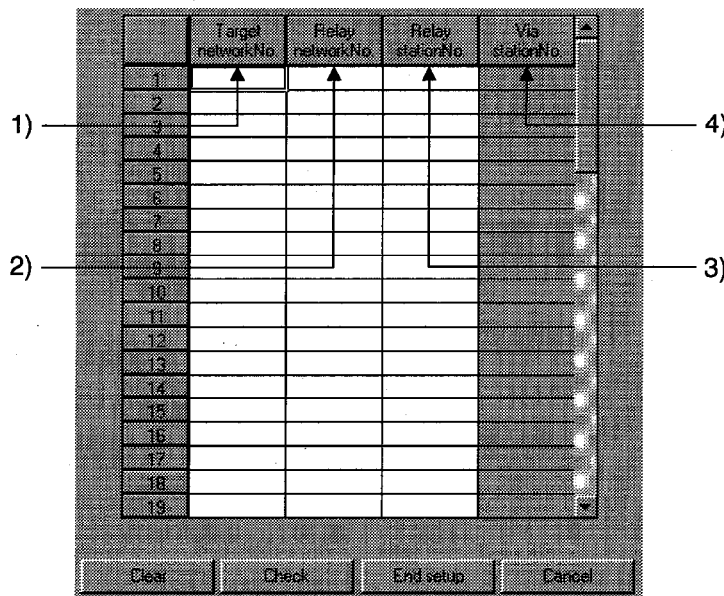
[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, and the total number of (slave) stations), and click the **Routing parameters** button.

[Dialog box]



[Routing parameters setting dialog box]



[Description]

- 1) Target network No. setting
Sets the network number in which the destination station exists.
- 2) Relay network No. setting
Sets the network number which the data to be transmitted to the destination station will first pass through.
- 3) Relay station No. setting
Sets the network relay station which the data to be transmitted to the destination station will first pass through.
- 4) Via station No. setting
Sets a unit for the through station when two or more network units of the same network number are loaded with the source station.
The first network unit will serve as the through network unit when no unit is set.

14.7 Setting MELSECNET/MINI Parameters

A	QnA	FX
•	×	×

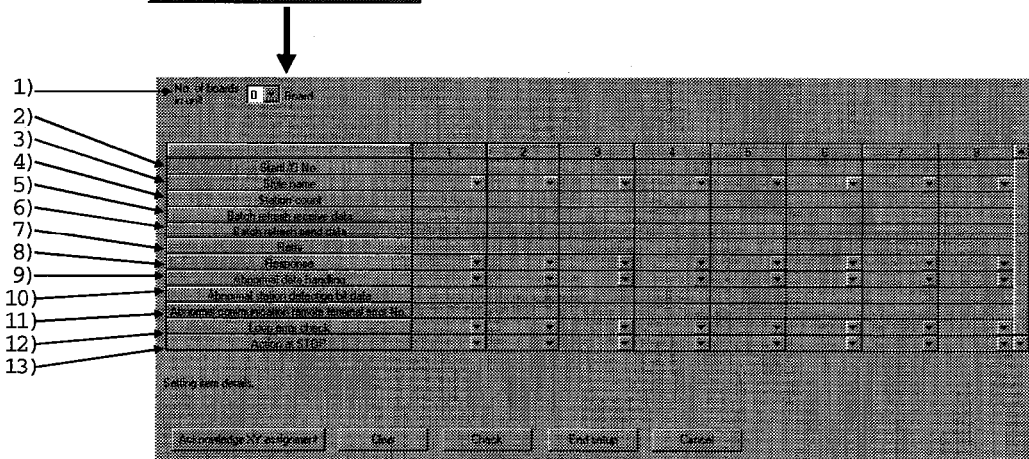
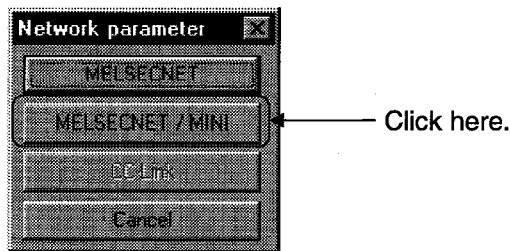
[Purpose]

Makes settings to automatically execute I/O refresh (reading and writing I/O information between the master unit and the remote unit) in the MELSECNET/MINI (S3) data link system.

[Operating procedure]

Display the network parameter selection dialog box, and click the MELSECNET/MINI button.

[Dialog box]



[Description]

- 1) No.of boards in unit
Sets the total number of master units for which parameters will be set.
- 2) Start I/O No.
Sets the start I/O number at which a master unit is loaded.
- 3) Style name
Selects the mode to use.
MELSECNET/MINI!I/O dedicated mode
MELSECNET/MINI-S3I/O dedicated mode, extension mode
- 4) Station count
Sets the number of stations to link.
- 5) Batch refresh receive data
Sets the device in which the received data for batch refresh will be stored.
By setting the device and the head number, all areas set in all stations will be refreshed by word. (The station number area in the output unit will also be refreshed.)
Set the head number at a multiple of 0 or 16 (0, 10, 20, ..., for X and B or 0, 16, 32 ... for M, L, and S) when the device to be refreshed is a bit device.
Leave this box blank (no setting) when refresh is not required (when the received data is to be read by a FROM instruction, all remote I/O units are output units, etc.).
- 6) Batch refresh send data
Sets the device in which the sent data for batch refresh will be stored.
By setting the device and the head number, all areas set in all stations will be refreshed by word. (The station number area in the input and output units will also be refreshed.)
Set the head number at a multiple of 0 or 16 (0, 10, 20, ..., for Y and B or 0, 16, 32 ... for M, L, and S) when the device to be refreshed is a bit device.
Leave this box blank (no setting) when refresh is not required (when the transmitted data is to be written by a TO instruction, all remote I/O units are input units, etc.).
- 7) Retry
Sets the number of retries to the remote I/O when a communication error occurs.
- 8) Response
Sets whether the "link" or the "CPU" is given priority in access to the buffer memory in the master unit.
- 9) Abnormal data handing
Sets whether to "clear" or "retain" the data stored in the station where a communication error has occurred.

- 10) Abnormal station detection bit data
Sets the device in which faulty station detection data will be stored.
When the set model is MELSECNET/MINI, four words of data will be refreshed.
When the set model is MELSECNET/MINI-S3, five words of data will be refreshed.
The number of words remains fixed even though the number of remote stations changes.
Set the head number at a multiple of 0 or 16 when the device to be refreshed is a bit device. Leave this box blank (no setting) when refresh is not required.
- 11) Abnormal communication remote terminal error No.
Sets the device in which the error code will be stored when an error occurs.
When the set model is MELSECNET/MINI, a word of data will be refreshed.
When the set model is MELSECNET/MINI-S3, a word plus the number of remote terminal stations (the number of stations written to the initial data ROM) of data will be refreshed.
Leave this box blank (no setting) when refresh is not required.
- 12) Line error check
Sets the transmission status when a line error occurs.
Test : Test text will be transmitted.
OFF : The data just before a line error occurs will be transmitted to the remote I/O station.
Maintain : 00 text will be transmitted to the remote I/O station.
- 13) Action at stop
This parameter cannot be set in the A series.

Network Parameters (QnA Series)

14.8 Setting the Network Setting Dialog Box

A	QnA	FX
×	•	×

The configuration of MELSECNET systems is different depending on the CPU type used.

The following table shows the master stations for the MELSECNET system, the MELSECNET II system, and the MELSECNET II compound system, and the control stations for the MELSECNET/10 system.

System	CPU Type
MELSECNET	Q2A, Q3A, Q4A, Q4AR, Q2AS(S1), Q2SH(S1)
MELSECNET II	
MELSECNET II compound	
MELSECNET/10	

- Set network parameters if necessary.

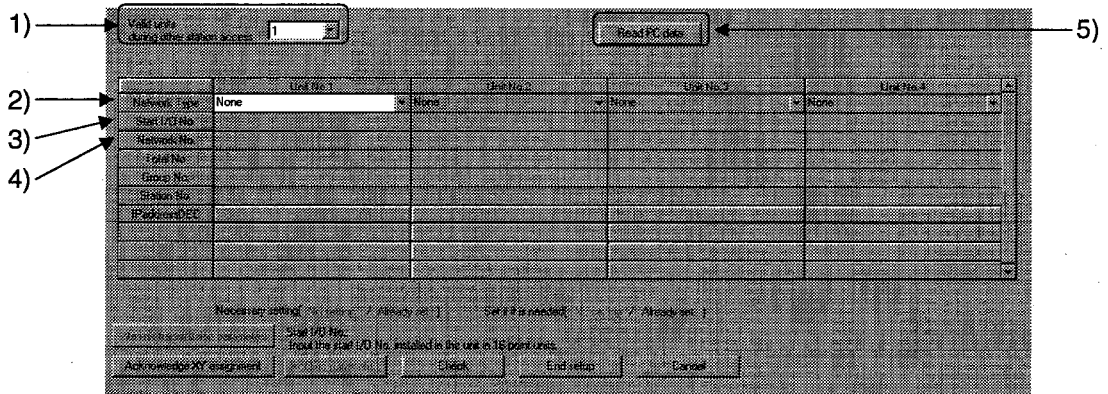
[Purpose]

Sets communication data for constructing a MELSECNET, MELSECNET II or MELSECNET/10 system.

[Operating procedure]

Select [Net Work Parameters] to display the network parameter selection dialog box, and click the MELSECNET/Ethernet button.

[Dialog box]



[Description]

- 1) Valid units during other station access
Sets which network connected to which unit will be made valid when accessing other station from a peripheral unit that does not match the MELSECNET/10.
- 2) Network Type
Sets the network type.
- 3) Start I/O No.
Sets the lower two digits of the start I/O number of the network unit concerned in units of 16 points.
- 4) Network No.
Sets the network number to which the unit will be connected when the network unit concerned is a unit matching the MELSECNET/10.
- 5) Read PLC data
Before reading data, delete the parameter file from the PLC.

14.9 Setting the Refresh Parameter

A	QnA	FX
x	•	x

[Purpose]

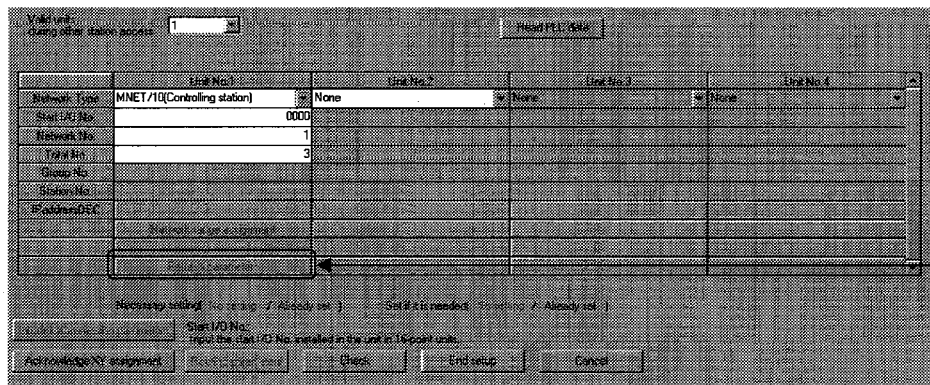
Sets the range of the link devices (B, W, X, Y) of the network and data link units to be transferred to the link devices (B, W, X, Y) of the PLC.

The Refresh Parameter Dialog box for the MELSECNET/10 (Controll station) system is cited as an example.

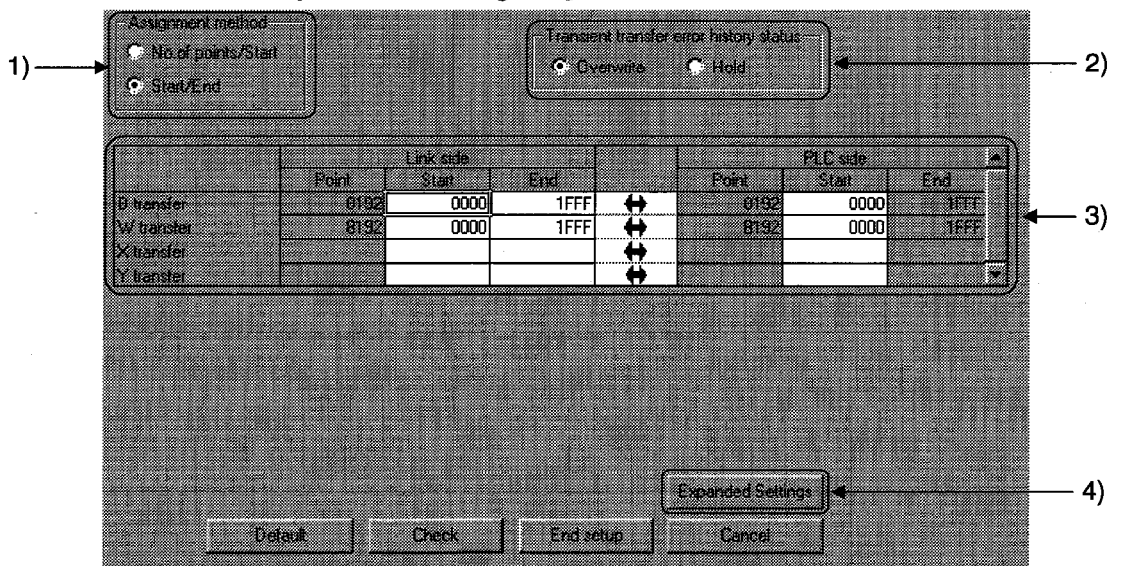
[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, the network number, and the total number of (slave) stations on this dialog box), and click the Refresh parameters button.

[Dialog box]



[MELSECNET/10 controll station refresh parameter dialog box]



[Description]

- 1) Assignment method
Sets the device range to be transmitted by specifying Number of Points/Start or Start/End.
- 2) Transient transfer error history status
Sets whether to retain or overwrite the error list.
The areas to which the error list will be written are SWF0 to SWFF.
- 3) Link side, PLC side
Sets Points/Start and End in units of 16 points.
- 4) Expended settings
Makes settings for the extension of the devices B, W, X, and Y.
The following devices can be set as extension devices:

Device		Device	
Input	(X)	Retentive timer	(current) (ST)
Output	(Y)	Data register	(D)
Internal relay	(M)	Link relay	(B)
Latch relay	(L)	Link register	(W)
Timer	(current) (T)	File register	(R)
Counter	(current) (C)	Through file register	(ZR)

The device (X) cannot be set as a destination for the link register (W).

14.10 Setting the MELSECNET (II) Network Range

A	QnA	FX
×	•	×

[Purpose]

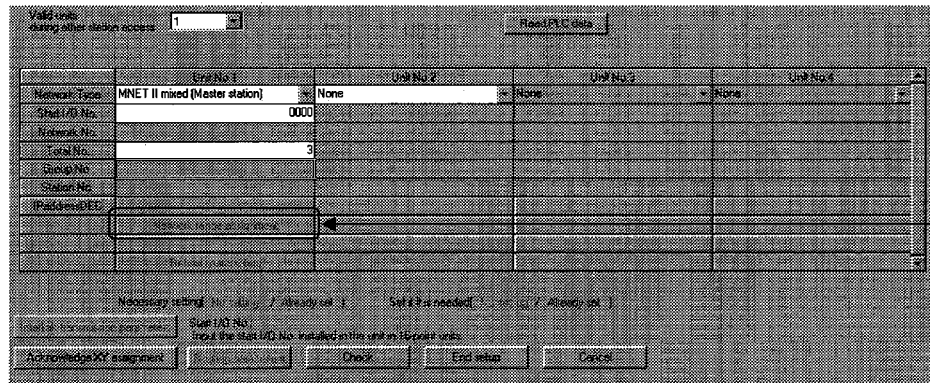
Makes settings for cyclic transmission by link relays (B), link registers (W), link inputs (Y), and link outputs (Y) in the data link system.

The dialog box, on which MELSECNET II compound (master) is specified, is cited for description.

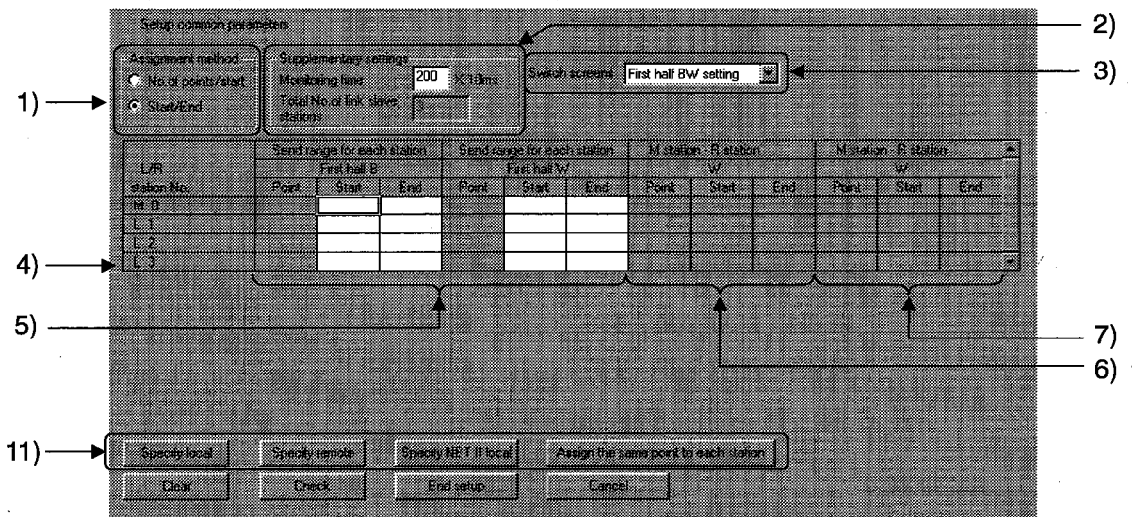
[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, and the total number of (slave) stations on this dialog box), and click the **Network range assignment** button.

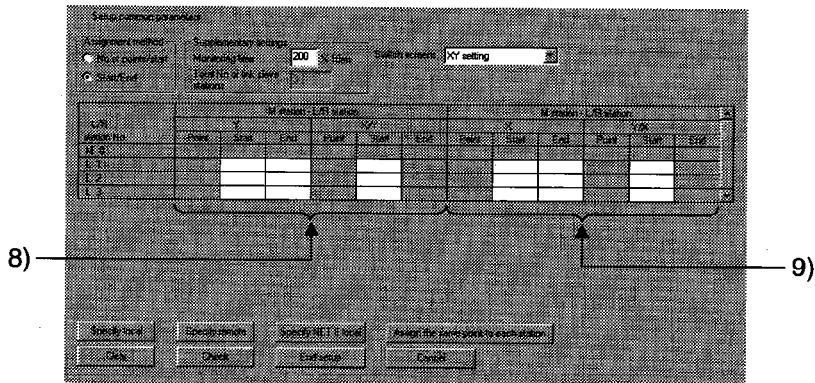
[Dialog box]



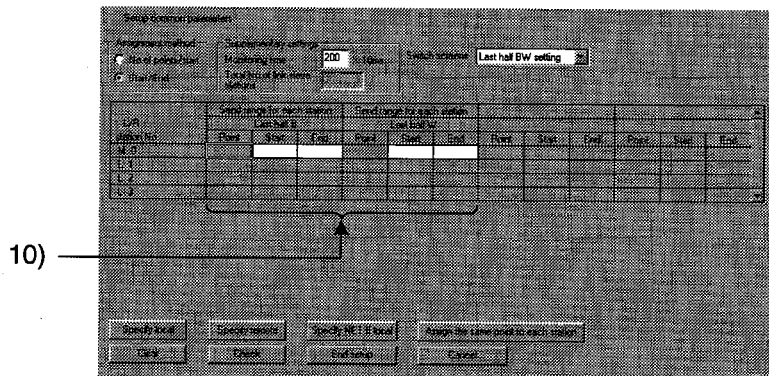
[MELSECNET II network range assignment dialog box]



XY setting dialog box



Second BW setting dialog box



[Description]

- 1) Assignment method
Sets the device range to be transmitted by specifying Number of Points/Start or Start/End.
- 2) Supplementary settings
Sets the time to determine whether the communication between the control station and the normal station is normal.
The time can be set between 1 ms and 200 ms.
- 3) Switch screens
The window will be switched between First BW Setting, XY Setting, and Second BW Setting.
- 4) Master station → Local station
Sets the range of the link relays (B) and the link registers (W) to be linked to the local station.
- 5) Master station ← Local station (first half)
Sets the range of the devices to be linked to the master station and other local stations.
- 6) Master station → Remote I/O station
Sets the range of data transfer to the special function unit in the remote I/O station according to an "RTOP" instruction.

- 7) Master station ← Remote I/O station
Sets the range of data transfer from the special function unit in the remote I/O station to the link registers (W) in the master station according to an "RFRP" instruction.
- 8) Master station → Local station/Remote I/O station
Sets the range of the outputs (Y) of the master station to be assigned to the inputs (X) of the local station or the outputs (Y) of the remote I/O station.
- 9) Master station ← Local station/Remote I/O station
Sets the range of the inputs (X) of the master station to be assigned to the outputs (Y) of the local station or to the outputs (Y) of the remote I/O station.
- 10) Master station ← Local station (last half)
Sets the range of the devices to be linked to the master station and other local stations.
- 11) Description of each button
See Section 14.4.

14.11 Setting the MELSECNET/10 Network Range

Set the B, W, X, and Y ranges each station can transmit in a network.
For clipping, copying, and pasting on the parameter dialog box, see Section 3.3.3.

14.11.1 Setting a network range in the PLC-to-PLC network

A	QnA	FX
×	•	×

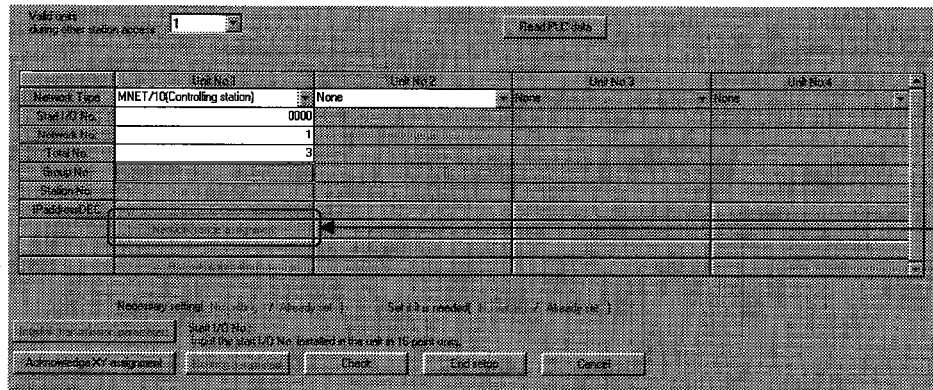
[Purpose]

Sets the range of cyclic transmission by B, W, X, and Y.

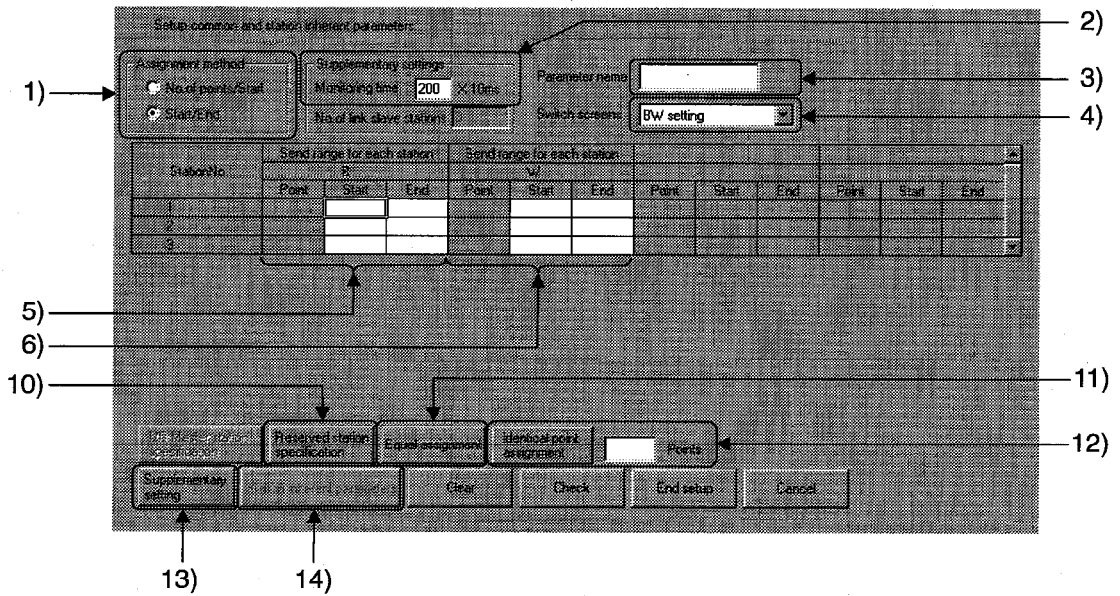
[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, the network number, and the total number of (slave) stations on this dialog box), and click the **Network range assignment** button.

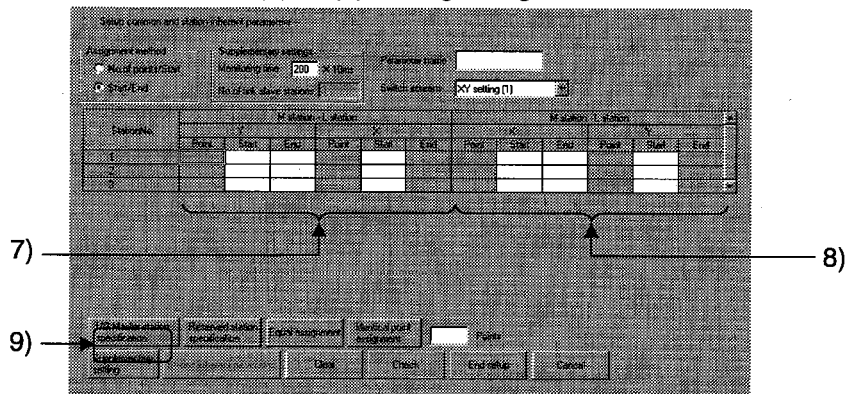
[Dialog box]



[MELSECNET/10 network range setting dialog box]



XY(1)/XY(2) Setting dialog box



[Description]

- 1) Assignment method
Sets the device range to be transmitted by specifying Number of Points/Start or Start/End.
- 2) Supplementary settings
Sets the time to determine whether the communication between the control station and the normal station is normal.
The monitoring time can be set between 1 ms and 200 ms.
- 3) Parameter name
Sets the parameter name so that the system parameter to be set can be easily identified.
Set the parameter name within eight characters.
- 4) Switch screens
The window will be switched between BW Setting and XY Setting.
- 5) Each station's B send range
Sets the range of B's each station can transmit in units of 16 points.
- 6) Each station's W send range
Sets the range of W's each station can transmit in units of one point.
- 7) Each station's X and Y send ranges (M → L)
Sets the ranges of X's and Y's to be transmitted from the I/O master station to other stations in units of 16 points.
- 8) Each station's X and Y send ranges (M ← L)
Sets the ranges of X's and Y's to be transmitted from each station to the I/O master station in units of 16 points.
- 9) I/O master station specification
Sets the station number to serve as the master station for X/Y communication.

10) Reserved station specification

Sets the number of the station, which will or may be connected to the network in the future, as a reserved station and its transmission range, or set an actually connected station as a reserved station.

<Example>

Station No.	M station						L station					
	Port	Start	End	Port	Start	End	Port	Start	End	Port	Start	End
1												
2												
3												

Move the cursor to this position, and click the **Reserved station specification** button

• Display after reservation

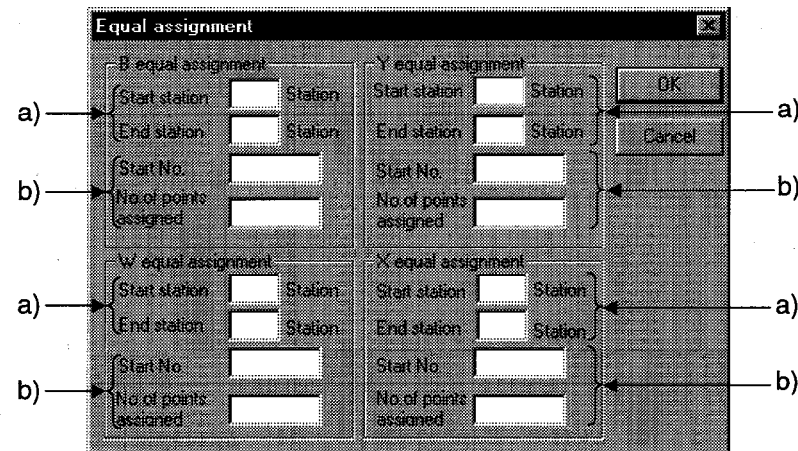
Station No.	M station						L station					
	Port	Start	End	Port	Start	End	Port	Start	End	Port	Start	End
1												
2	Reserved station											
3												

"Reserved station" is displayed here.

11) Equal assignment

When the number of stations is large, the link devices of all stations will be assigned equally.

[Dialog box]



a) Number of equal assignment stations setting

The number of equal assignment stations can be set within the number of stations from the head equal assignment station number to the final equal assignment station number (total number of link stations - (head station number - 1)).

If the set number of stations is smaller than the above number, the devices of the set stations will be assigned equally in sequence from the head station number.

b) Head device, number of points assigned

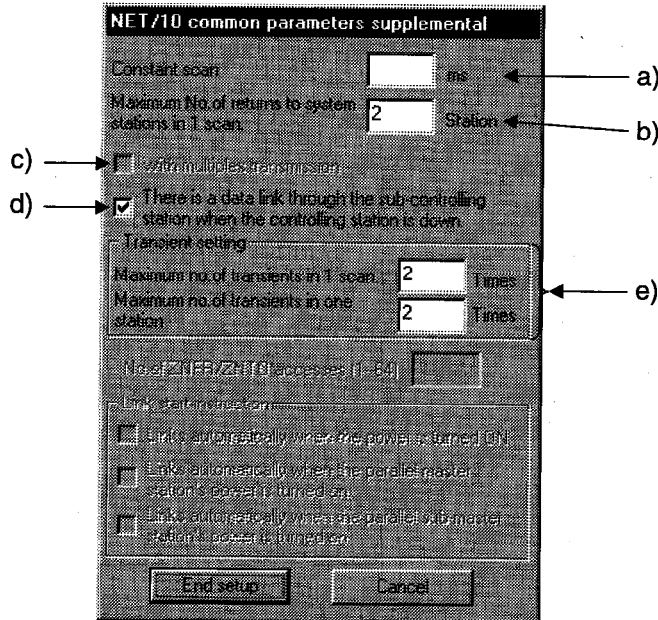
Set points assigned in the units shown below:

- B, X, Y In units of 16 points
- W In units of one point

12) Identical point assignment

Simplified assignment to the same point will take place according to the total number of stations set.

13) Supplementary setting



a) Constant scan

The constant scan time can be set as desired between 1 ms and 500 ms.

b) Maximum No. of returns to system stations in 1 scan

Sets the number of faulty stations which can be returned to the system during a link scan.

c) With multiplex transmission

Sets whether to execute the multiplex transmission function.

d) There is a data link through the sub-controlling station when the controlling station is down

Sets whether to transfer the data link administration station move function by the sub administration station when the administration station is down.

e) Transient setting

- Maximum no of transients in 1 scan

Sets the number of transient transmission times (the total number of times over the entire network) that can be executed during a link scan. Set the number of times between one and 16.

- Maximum no of transients in one station

Sets the number of transient transmission times a station can execute during a link scan.

Set the number of times between one and 16.

14) Station inherent parameters

See Section 14.11.3.

14.11.2 Setting a network range between the remote I/Os

14.11.2 (1) Setting a network range in the remote master station

A	QnA	FX
x	•	x

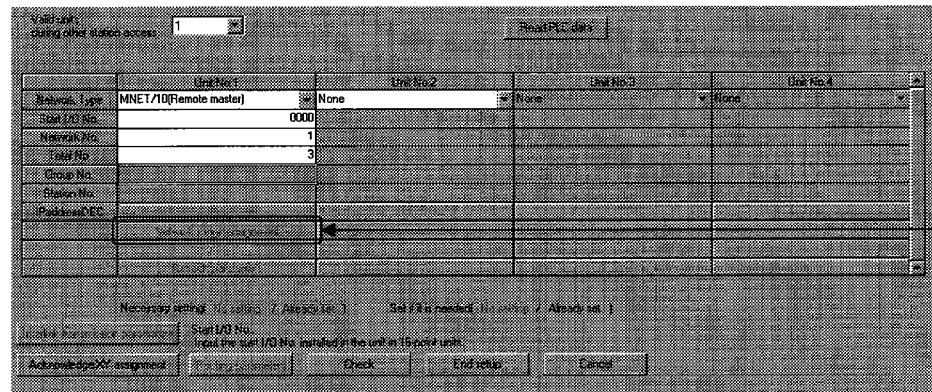
[Purpose]

Sets the B, W, X, and Y ranges each station can transmit, the monitoring time, and so on.

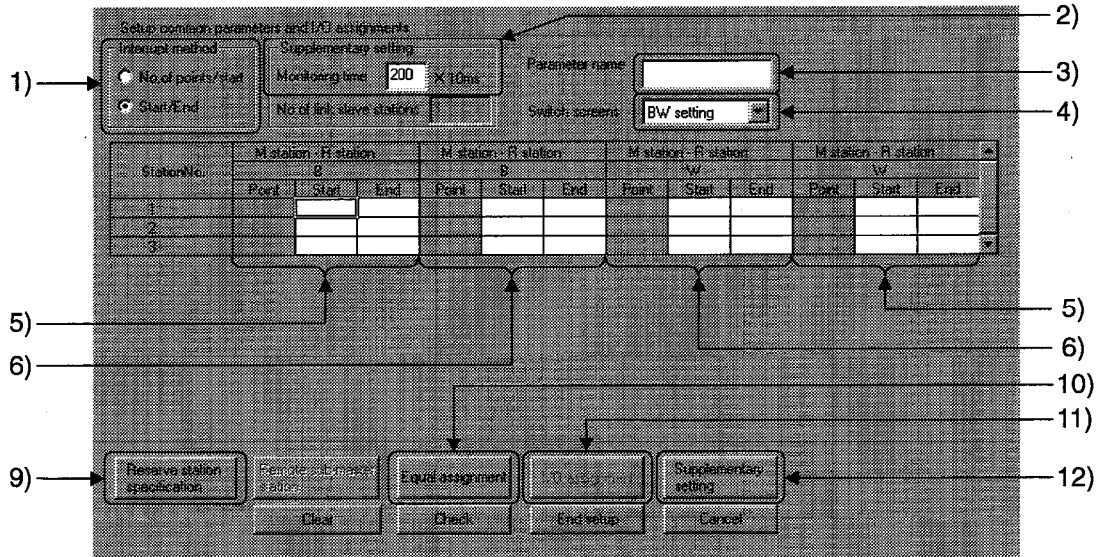
[Operating procedure]

Display the network setting dialog box (set the network type, the head I/O number, the network number, and the total number of (slave) stations on this dialog box), and click the **Network range assignment** button.

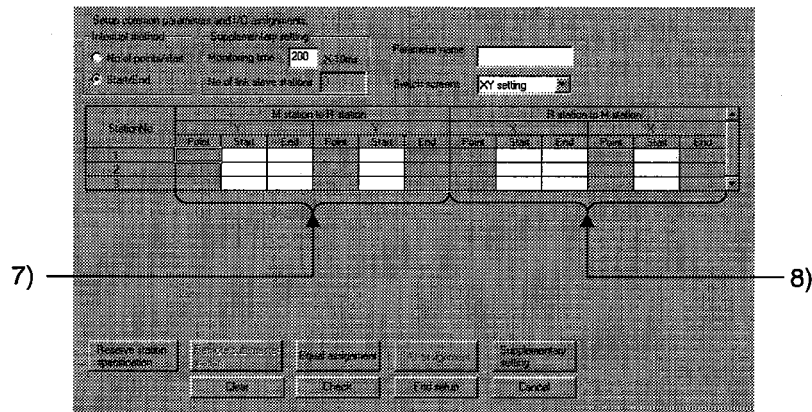
[Dialog box]



[MELSECNET/10 remote master network range setting dialog box]



XY setting dialog box

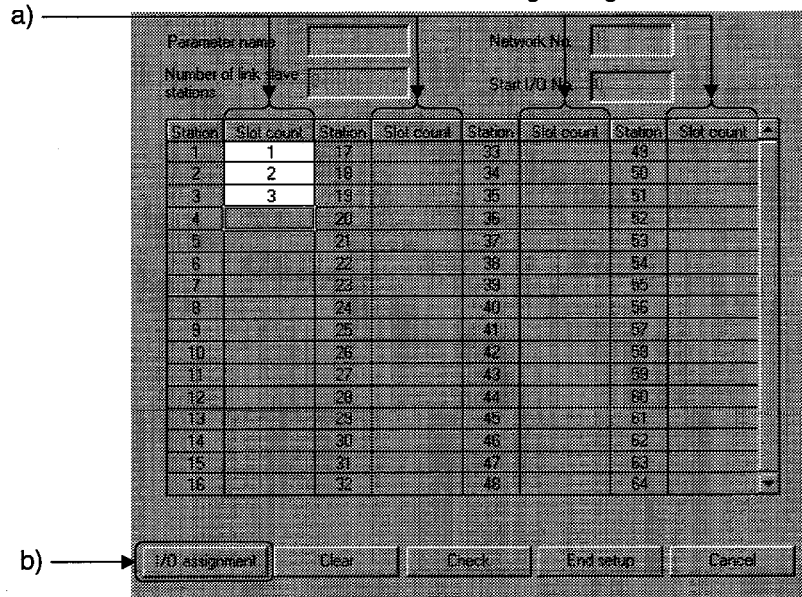
**[Description]**

- 1) Interrupt method
Sets the device range to be transmitted by specifying Number of Points/Start or Start/End.
- 2) Supplementary setting
Sets the time to determine whether the communication between the control station and the normal station is normal.
The monitoring time can be set between 1 ms and 200 ms.
- 3) Parameter name
Sets the parameter name so that the system parameter to be set can be easily identified.
Set the parameter name within eight characters.
- 4) Switch screens
The window will be switched between BW Setting and XY Setting.
- 5) Master station → Remote station (B, W)
Sets the ranges of B's and W's to be transmitted from the master station to the remote station.
- 6) Master station ← Remote station (Y)
Sets the range of Y's to be transmitted from the remote station to the master station.
- 7) Master station → Remote station (Y)
Sets the range of the outputs (Y) of the master station to be assigned to the outputs (Y) of the remote station.
- 8) Master station ← Remote station
Sets the range of the inputs (X) of the remote station to be assigned to the inputs (X) of the master station.
- 9) Reserved station specification
See 10) in Subsection 14.11.1.
- 10) Equal assignment
See 11) in Subsection 14.11.1.

11) I/O assignment

Sets the number of occupied slots of each station and execute remote I/O assignment during the construction of a remote I/O network.

Number of slots setting dialog box



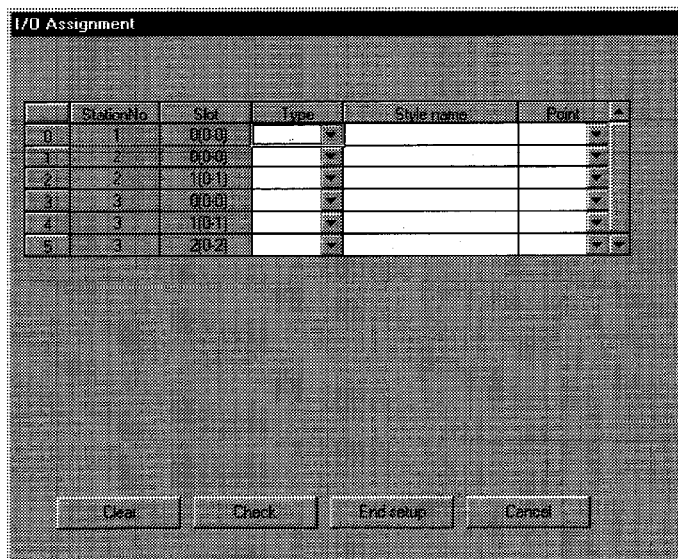
a) Slot count

Sets the number of slots to be occupied.

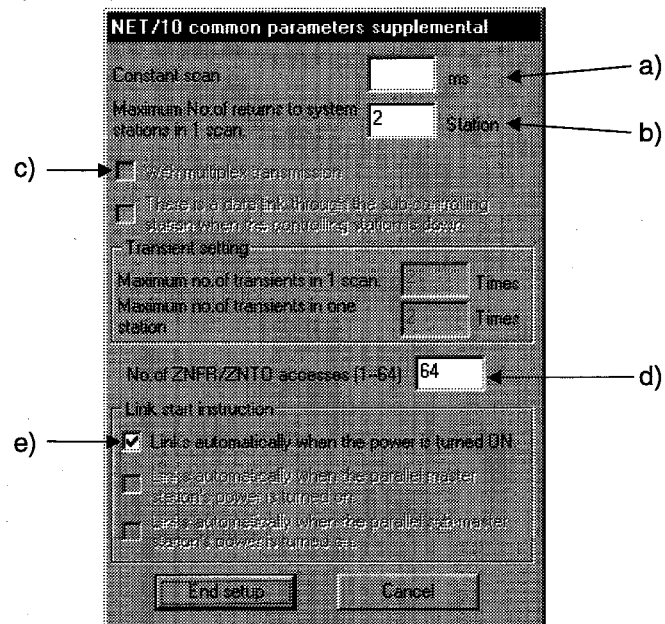
b) I/O assignment

Sets the unit type and model (within 16 characters) and the number of points.

By executing the remote I/O assignment, the number of I/O points occupied by vacant slots can be reduced, or the number of I/O points of vacant slots can be reserved for future extension.



12) Supplementary setting



- a) **Constant scan**
The constant scan time can be set as desired between 1 ms and 500 ms.
- b) **Maximum No. of returns to system stations in 1 scan**
Sets the number of faulty stations which can be returned to the system during a link scan.
- c) **With multiplex transmission**
Sets whether to execute the multiplex transmission function.
- d) **No. of ZNFR/ZNTD accesses (1-64)**
Sets the number of units at which the remote I/O station can execute instructions within a scan.
- e) **Link start instruction**
By checking the check box, linking will automatically start as soon as the power supply is turned ON.

14.11.2 (2) Setting a network range in the multiplex/parallel remote master station

A	QnA	FX
×	•	×

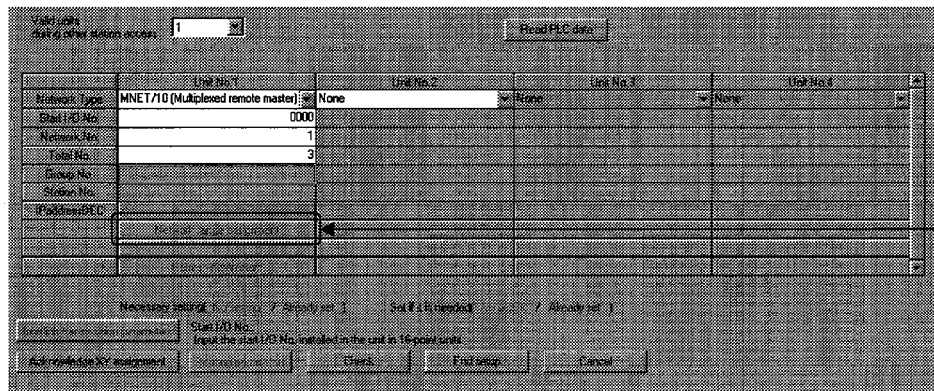
[Purpose]

Sets the B, W, X, and Y ranges each station can transmit, the monitoring time, and so on.

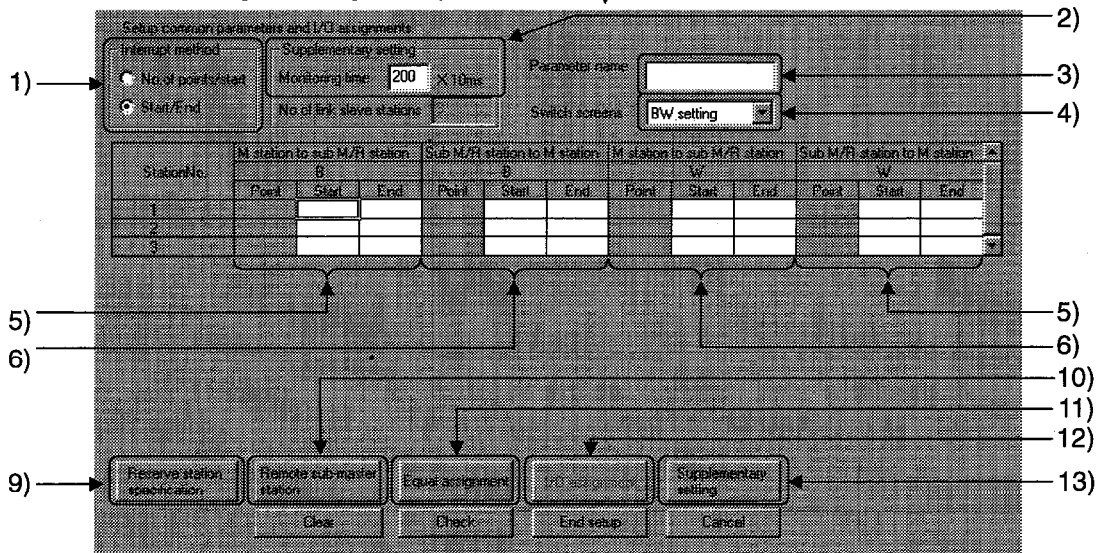
[Operating procedure]

Display the network parameter setting dialog box (set the network type, the head I/O number, the network number, and the total number of (slave) stations on this dialog box), and click the **Network range assignment** button.

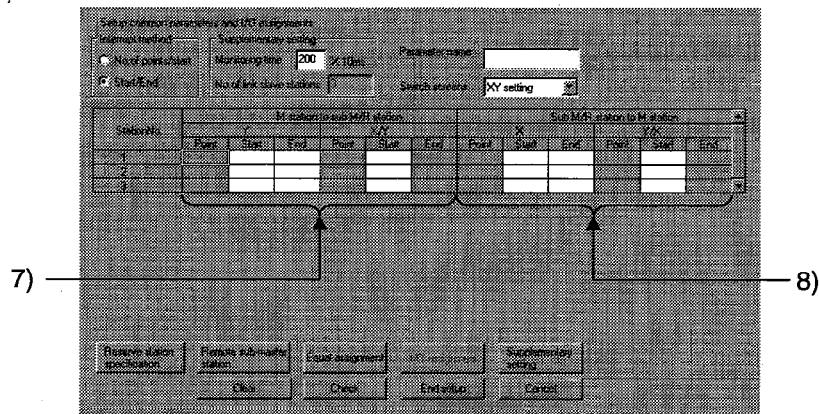
[Dialog box]



[MELSECNET/10 multi-remote master network range setting dialog box]



XY setting dialog box

**[Description]**

- 1) Interrupt method
Sets the device range to be transmitted by specifying Number of Points/Start or Start/End.
- 2) Supplementary setting
Sets the time to determine whether the communication between the administration station and the normal station is normal.
The monitoring time can be set between 1 ms and 200 ms.
- 3) Parameter name
Sets the parameter name so that the system parameter to be set can be easily identified.
Set the parameter name within eight characters.
- 4) Switch screens
The window will be switched between BW Setting and XY Setting.
- 5) Master station → Sub master station/Remote station (B, W)
Sets the ranges of B's and W's to be linked from the master station to the sub master station/remote station.
- 6) Master station ← Sub master station/Remote station (B, W)
Sets the range of B's and W's to be linked from the sub master station/remote station to the master station.
- 7) Master station → Sub master station/Remote station (X, Y)
Sets the range of the outputs (Y) of the master station to be assigned to the inputs (X) of the sub master station or to the outputs (Y) of the remote station.
- 8) Master station ← Sub master station/Remote station (X, Y)
Sets the range of the inputs (X) of the master station to be assigned to the outputs (Y) of the sub master station or to the inputs (X) of the remote station.
- 9) Reserved station specification
See 10) in Section 14.11.1.

10) Remote sub master station

<Example> When the first station serves as the remote sub master station

Station No.	M station to sub M/M station						Sub M/M station to M station					
	Y			N/Y			Y			N/Y		
	Port	Start	End	Port	Start	End	Port	Start	End	Port	Start	End
1												
2												
3												

Move the cursor to this position, and click the **Remote sub master station** button.

• Window after change

Station No.	M station to sub M/M station						Sub M/M station to M station					
	Y			N/Y			Y			N/Y		
	Port	Start	End	Port	Start	End	Port	Start	End	Port	Start	End
1												
2												
3												

"Sub" is displayed here.

- 11) Equal assignment
See 11) in Section 14.11.1.
- 12) I/O assignment
See 11) in Section 14.11.2 (1).
- 13) Supplementary setting
See 12) in Section 14.11.2 (1).

14.11.2 (3) Setting a multi-remote substation unit

A	QnA	FX
×	•	×

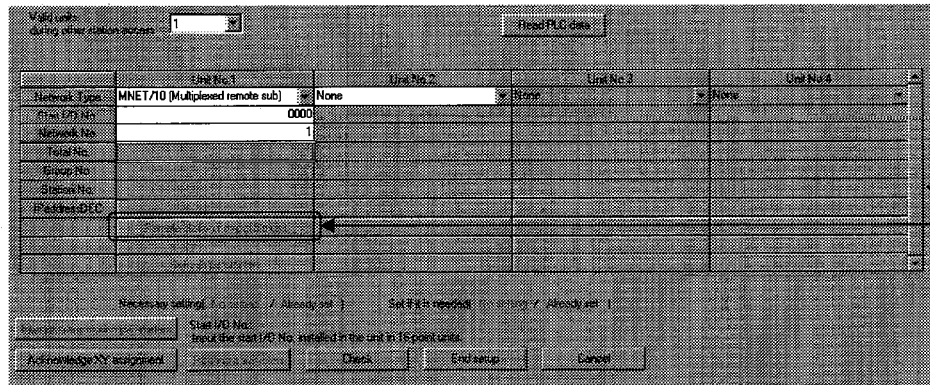
[Purpose]

Sets whether to specify a remote master station.

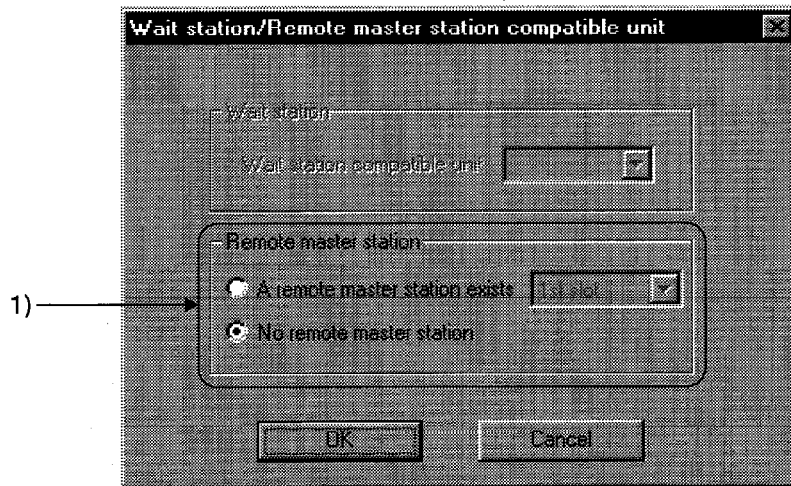
[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, and the network number on this dialog box), and click the [Remote station compatible unit] button.

[Dialog box]



[MELSECNET/10 multi-remote sub remote station unit setting dialog box]



[Description of item]

- 1) Remote master station

When "A remote master station exists" is selected, specify the number of the unit to be set as the remote master station.

14.11.2 (4) Setting a parallel remote substation unit

A	QnA	FX
×	•	×

[Purpose]

Sets the start I/O number, the network number, and so on.

[Operating procedure]

Display the network setting dialog box, and set the network type, the start I/O number, and the network number.

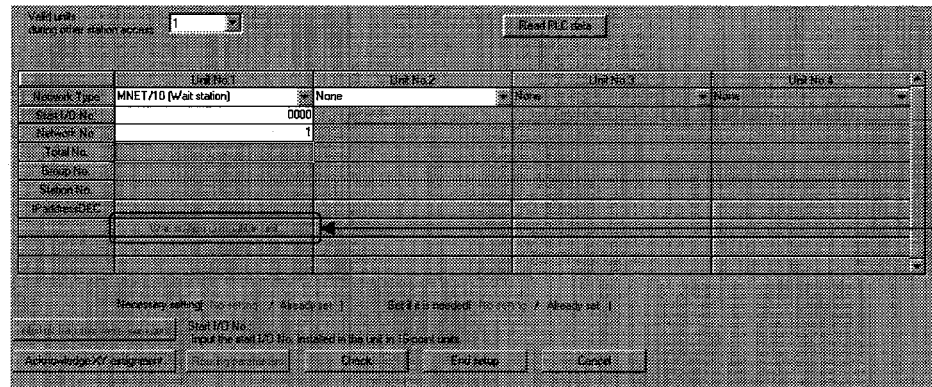
14.11.2 (5) Setting a standby station unit

A	QnA	FX
x	•	x

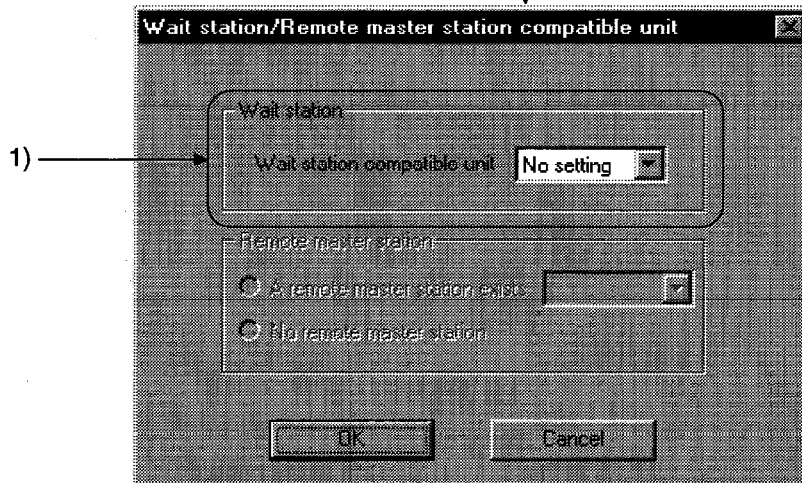
[Purpose]
Sets a standby station.

[Operating procedure]
Display the network setting dialog box (set the network type, the head I/O number, and the network number on this dialog box), and click the **Wait station compatible unit** button.

[Dialog box]



[MELSECNET/10 multi-remote sub remote station unit setting dialog box]



[Description of item]

- 1) Wait station
Sets the number of the unit to be set as the wait station.

14.11.3 Setting station-specific parameters

A	QnA	FX
×	•	×

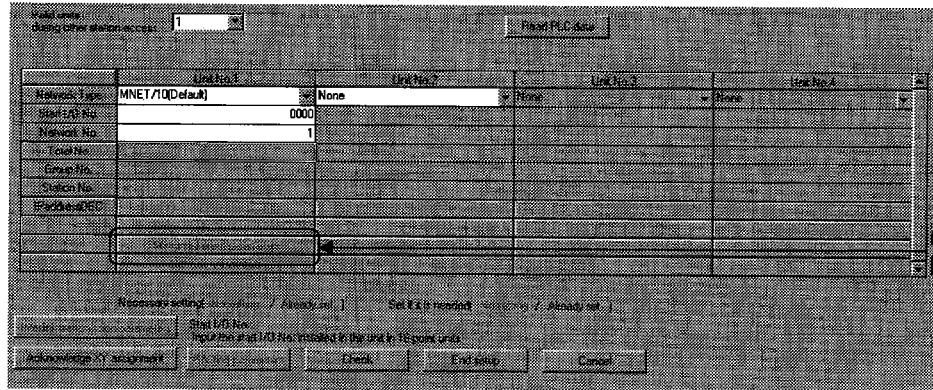
[Purpose]

Makes settings to change the storage locations in the network unit for the link devices (LB, LW) assigned to each station according to the common parameters. Setting station-specific parameters facilitates the modification of programs even if link devices are extended.

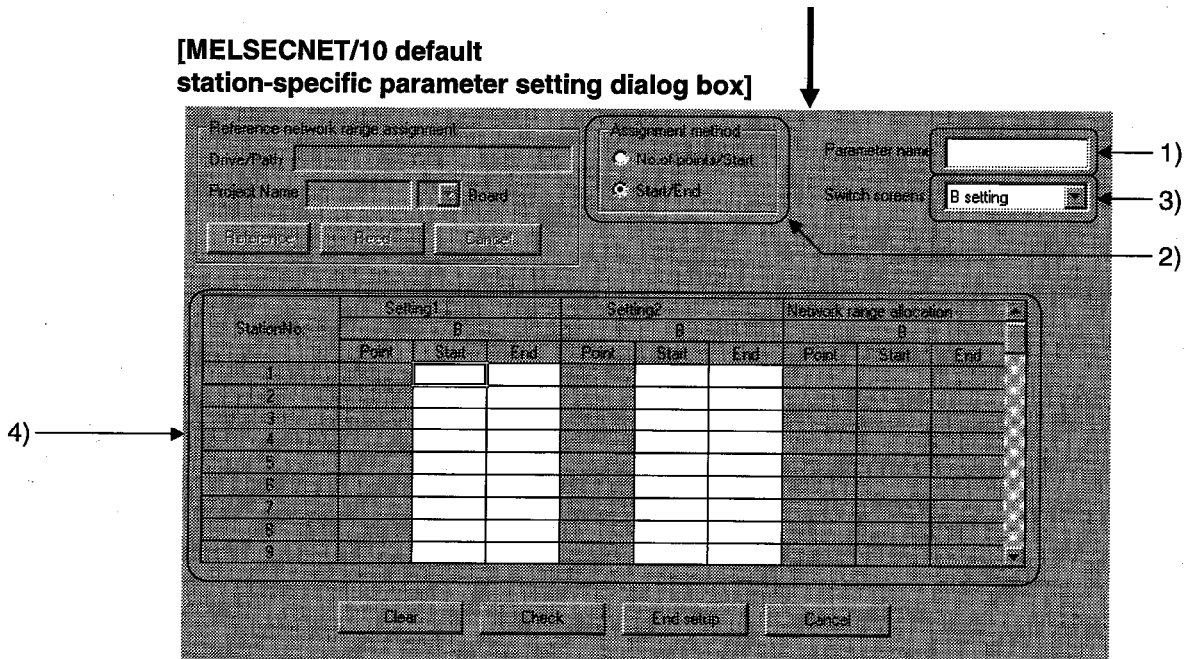
[Operating procedure]

Display the network setting dialog box (set the network type, the start I/O number, and the network number on this dialog box), and click the **Station specific parameters** button.

[Dialog box]



[MELSECNET/10 default station-specific parameter setting dialog box]



[Description]

- 1) Parameter name
Sets the parameter name so that the system parameter to be set can be easily identified.
Set the parameter name within eight characters.
- 2) Assignment method
Sets the device range to be transmitted by specifying Number of Points/Head or Head/Final.
- 3) Switch screens
The window will be switched between B Setting and W Setting.
- 4) Setting 1, Setting 2
Set Number of Points, Head, and Final in units of 16 points.

14.11.4 Setting routing parameters

A	QnA	FX
×	•	×

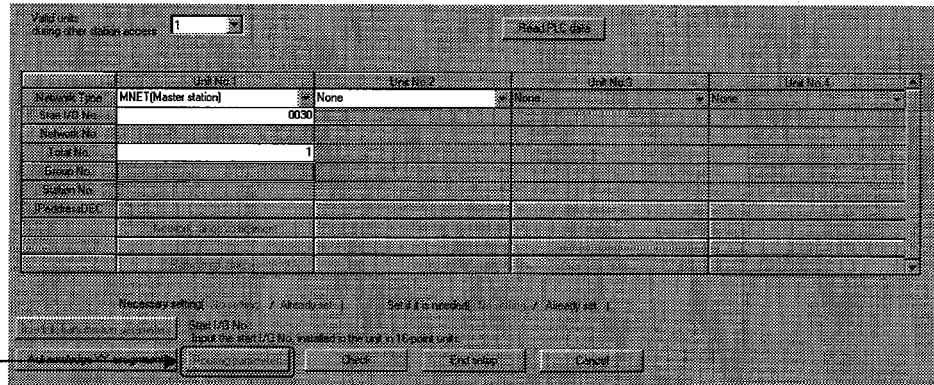
[Purpose]

Sets the transmission route from the source station to the destination station for transient transmission between stations in different networks.

[Operating procedure]

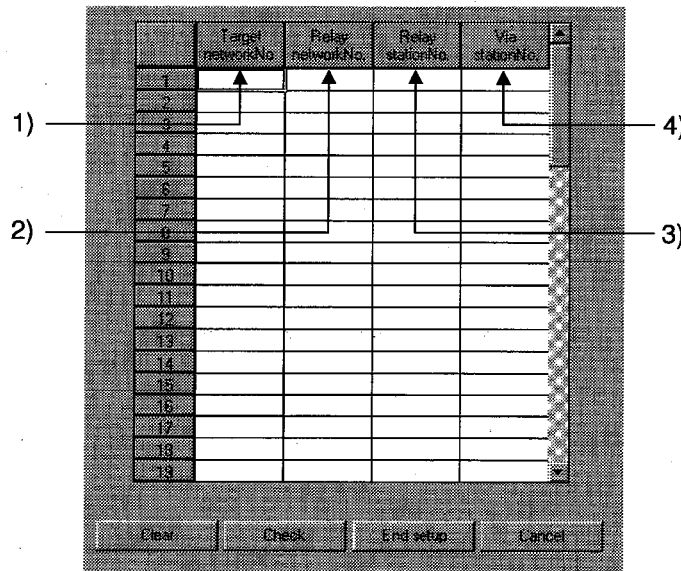
Display the network setting dialog box (set the network type, the start I/O number, and the total number of (slave) stations), and click the **Routing parameters** button.

[Dialog box]



Click here.

[Routing parameters setting dialog box]



[Description]

- 1) Target network No. setting
Sets the network number in which the destination station exists.
- 2) Relay network No. setting
Sets the network number which the data to be transmitted to the destination station will first pass through.
- 3) Relay station No. setting
Sets the network relay station which the data to be transmitted to the destination station will first pass through.
- 4) Via station No. setting
Sets the unit for the through station when two or more network units of the same network number are loaded with the source station.
The first network unit will serve as the through network unit when no unit is set.