MITSUBISHI ELECTRIC

Programmable Controller

CC-Link IE Field Network Remote IO-Link Module Function Block Reference (For MELSEC iQ-R)

CONTENTS

1 FUNCTION BLOCK (FB) LIST

This chapter lists the FBs for the CC-Link IE Field Network Remote IO-Link module.

Name*1	Description
M+NZ2GF2S-60IOLD8_RemoteBufMemRd	Reads the value from the specified remote buffer memory.
M+NZ2GF2S-60IOLD8_RemoteBufMemWt	Writes the value to the specified remote buffer memory.
M+NZ2GF2S-60IOLD8_OutputOnCntRd	Reads the number of output ON times integration value of the IO-Link module.
M+NZ2GF2S-60IOLD8_OutputOnCntClr	Clears the number of output ON times integration value of the IO-Link module.
M+NZ2GF2S-60IOLD8_UnitParamRd	Reads the IO-Link module parameters.
M+NZ2GF2S-60IOLD8_UnitParamWt	Writes the IO-Link module parameters.
M+NZ2GF2S-60IOLD8_DeviceParamRd	Reads the specified parameter from the IO-Link device.
M+NZ2GF2S-60IOLD8_DeviceParamWt	Writes the specified parameter to the IO-Link device.
M+NZ2GF2S-60IOLD8_DeviceChg	Turns on the device change flag to disable the detection of disconnection error. This FB also disables input/output in IO-Link mode and turns off input/output in SIO mode. Use the FB when the device is replaced during power-on.
M+NZ2GF2S-60IOLD8_EventRd	Reads the oldest event information from unchecked events.
M+NZ2GF2S-60IOLD8_EventClr	Clears the event history.

*1 FB names are suffixed with the version information such as "_00A". In this reference, the suffixes are omitted.

Precautions

- These FBs are for GX Works3.
- These FBs do not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation.
- Do not use these FBs in an interrupt program.
- An interlock program for the transient transmission is required since these FBs use the transient transmission. Create the interlock program separately.
- These FBs use the index register areas (Z7 to Z9). When an interrupt program is used, do not use those areas in the interrupt program.
- These FBs require the configuration of the ladder for every input labels.
- Change "Memory/Device Setting" of "CPU Parameter" so that the memory capacity required to use these FBs is secured. Failure to do so may result in an error in GX Works3.

MEMO

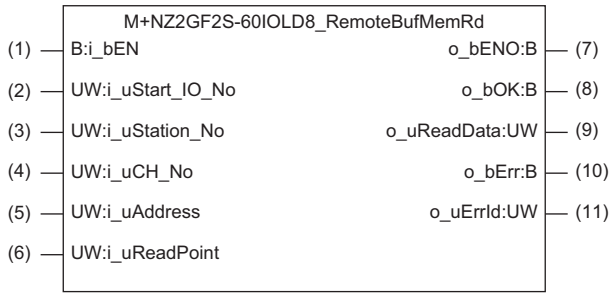
2 CC-Link IE Field Network REMOTE IO-Link MODULE FB

2.1 M+NZ2GF2S-60IOLD8_RemoteBufMemRd

Name

M+NZ2GF2S-60IOLD8_RemoteBufMemRd

Overview

Item	Description
Functional overview	This FB reads the value from the specified remote buffer memory.
Symbol	

Labels

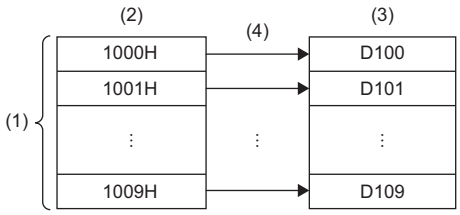
■Input arguments

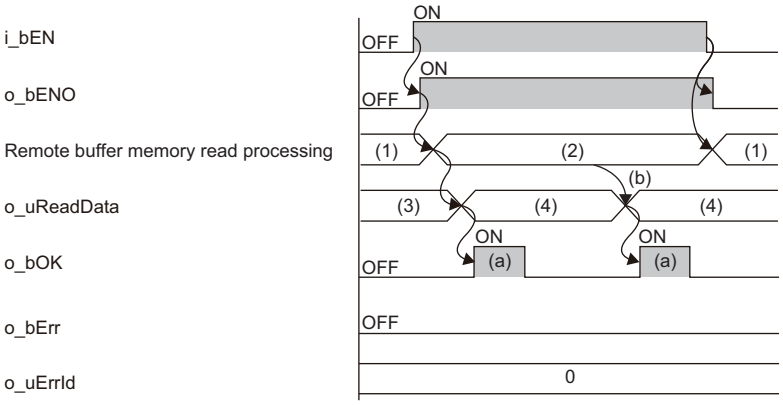
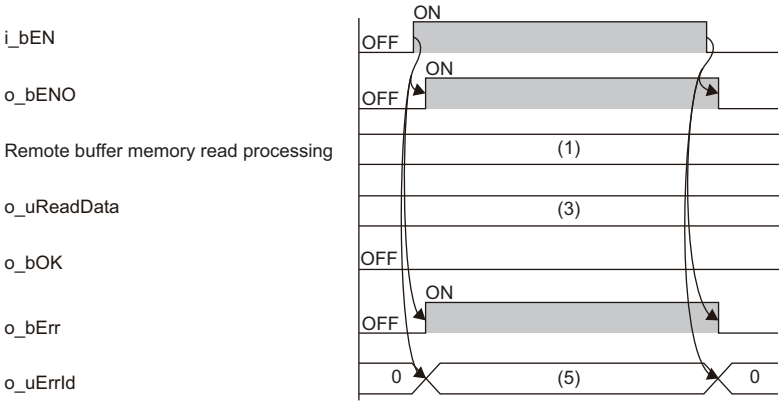
No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.
(5)	i_uAddress	Remote buffer memory address	Word [unsigned]	0000H to 4DFFH	Specifies the start address of the remote buffer memory to be read.
(6)	i_uReadPoint	Number of read points	Word [unsigned]	1 to 240	Specifies the number of points to be read.

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(7)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(8)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(9)	o_uReadData	Read data	Word [unsigned]	Specifies the start device to which the read value of the remote buffer memory is stored.	0
(10)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(11)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	CPU module	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	221 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	When i_bEN (execution command) is turned on, the remote buffer memory value for the number of points specified by i_uReadPoint (number of read points) is read from the remote buffer memory address specified by i_uAddress (remote buffer memory address). The read remote buffer memory value for the number of points specified by i_uReadPoint (number of read points) is stored in the device starting from the one specified by o_uReadData (read data). (For example, when the remote buffer memory address of the input label is 1000H, the number of read points is 10, and the read data of the output label is D100, the specified remote buffer memory value is stored in D100 to D109.)  (1) Number of read points (10 words) (2) Remote buffer memory (3) Read data (4) Read	
FB compilation method	Macro type	
FB operation	On-demand execution type	
FB_EN input condition	None	

Item	Description
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Not updated (4) Updating (5) Error code (a) Only for one scan is turned on. (b) Read data is updated upon each completion of read processing.
Precautions	• When i_bEN (execution command) is turned off during the read processing of the remote buffer memory, the value for the previous read processing remains stored. • If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMFR instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully). • For the start device where the read remote buffer memory value is stored, successive areas for the number of read points are required.

Error code

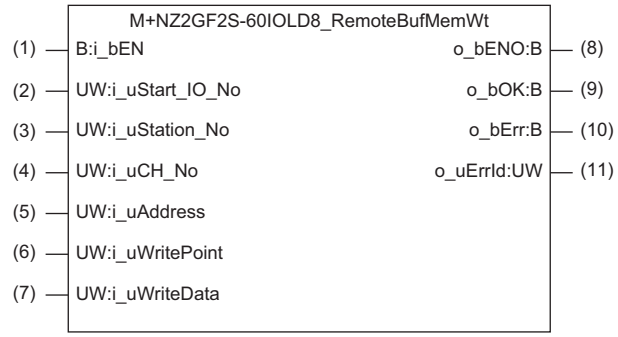
Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

2.2 M+NZ2GF2S-60IOLD8_RemoteBufMemWt

Name

M+NZ2GF2S-60IOLD8_RemoteBufMemWt

Overview

Item	Description
Functional overview	This FB writes the value to the specified remote buffer memory.
Symbol	

Labels

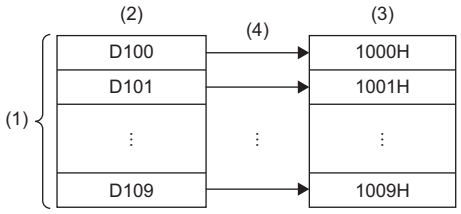
■Input arguments

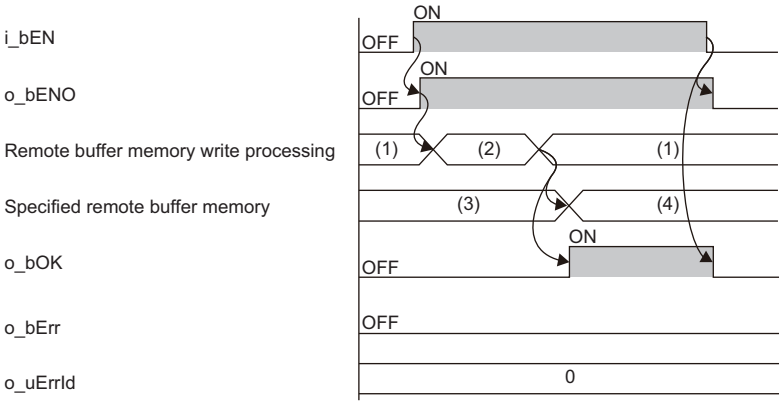
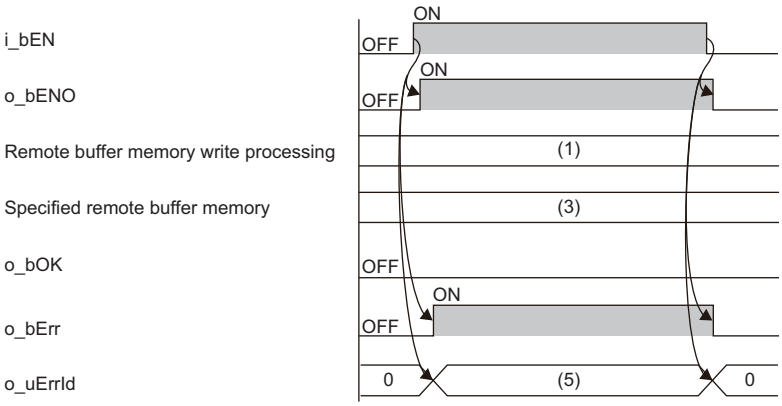
No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.
(5)	i_uAddress	Remote buffer memory address	Word [unsigned]	0000H to 4DFFH	Specifies the start address of the remote buffer memory to be written.
(6)	i_uWritePoint	Number of write points	Word [unsigned]	1 to 240	Specifies the number of points to be written.
(7)	i_uWriteData	Write data	Word [unsigned]	—	Specifies the start device of data to be written.

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(8)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(9)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(10)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(11)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	CPU module	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	320 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	When i_bEN (execution command) is turned on, word data starting from the device specified by i_uWriteData (write data) is written to the remote buffer memory for the number of points specified by i_uWritePoint (number of write points). (For example, when the remote buffer memory address of the input label is 1000H, the number of write points is 10, and the write data is D100, the value in D100 to D109 is written to the specified remote buffer memory.)  (1) Number of write points (10 words) (2) Write data (3) Remote buffer memory (4) Write	
FB compilation method	Macro type	
FB operation	Pulse execution type (multiple scan execution type)	
FB_EN input condition	None	

Item	Description
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Not updated (4) Updating (5) Error code
Precautions	• If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMTO instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully).

Error code

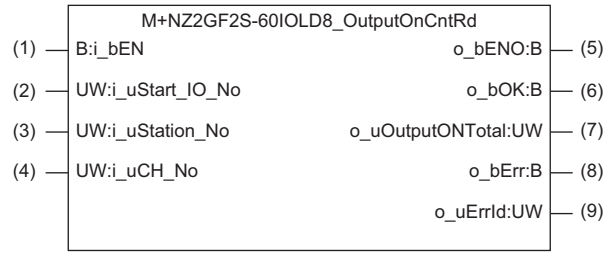
Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

2.3 M+NZ2GF2S-60IOLD8_OutputOnCntRd

Name

M+NZ2GF2S-60IOLD8_OutputOnCntRd

Overview

Item	Description
Functional overview	This FB reads the number of output ON times integration value of the IO-Link module.
Symbol	

Labels

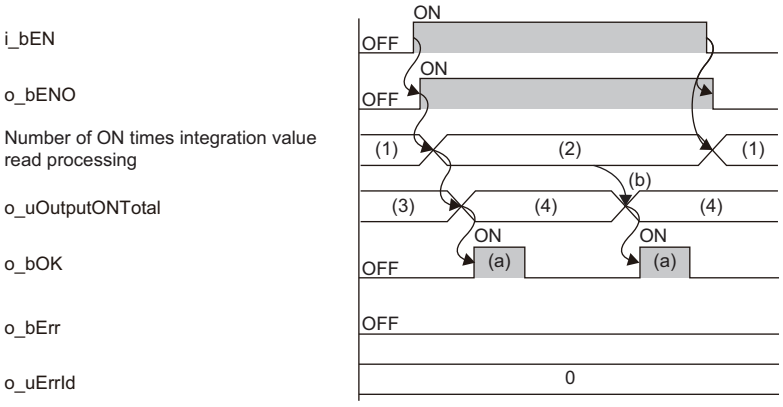
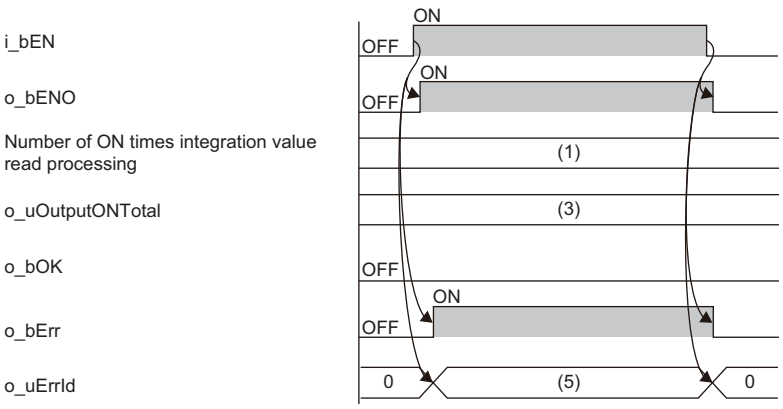
■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(5)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(6)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(7)	o_uOutputONTotal	The number of output ON times integration value	Word [unsigned]	Specifies the start device to which the number of output ON times integration value is stored.	0
(8)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(9)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	Target CPU	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	325 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	When i_bEN (execution command) is turned on, the number of output ON times integration value of the IO-Link module is read. For the read number of output ON times integration value, 16-word data is stored in the device starting from the one specified by o_uOutputONTotal (the number of output ON times integration value).	
FB compilation method	Macro type	
FB operation	On-demand execution type	
FB_EN input condition	None	
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Not updated (4) Updating (5) Error code (a) Only for one scan is turned on. (b) Read data is updated upon each completion of read processing.	

Item	Description
Precautions	• When i_bEN (execution command) is turned off during the read processing of the number of output ON times integration value, the value for the previous read processing remains stored. • If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMFR instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully).

Error code

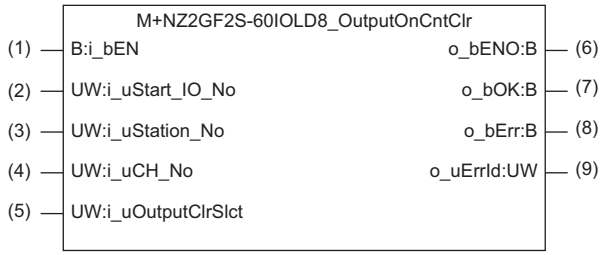
Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

2.4 M+NZ2GF2S-60IOLD8_OutputOnCntClr

Name

M+NZ2GF2S-60IOLD8_OutputOnCntClr

Overview

Item	Description
Functional overview	This FB clears the number of output ON times integration value of the IO-Link module.
Symbol	

Labels

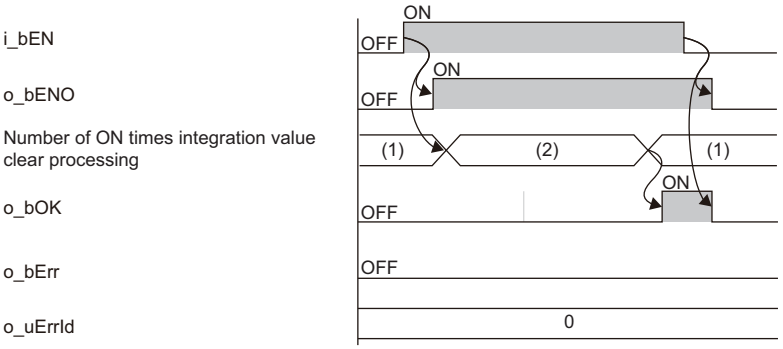
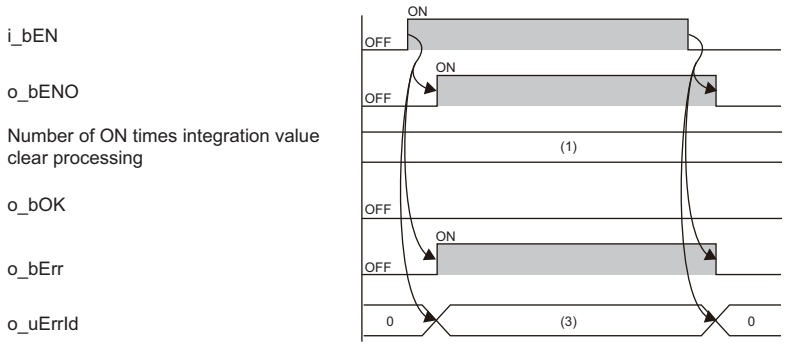
■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.
(5)	i_uOutputClrSlct	The number of output ON times integration value clear selection	Word [unsigned]	IO-Link module • b00: CH1 • b01: CH2 • b02: CH3 • b03: CH4 • b04: CH5 • b05: CH6 • b06: CH7 • b07: CH8	Sets the range of which the number of output ON times integration value is cleared. (For example, set 0025H to clear CH1, CH3, and CH6.)

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(6)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(7)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(8)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(9)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	Target CPU	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	569 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	• When i_bEN (execution command) is turned on, the total number of output on times selected by i_uOutputClrSlct (total number of output on times clear selection) is cleared. • This FB operates only for one shot when i_bEN (execution command) is turned on.	
FB compilation method	Macro type	
FB operation	Pulse execution type (multiple scan execution type)	
FB_EN input condition	None	
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Error code	
Precautions	• If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMFR/REMTO instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully).	

Error code

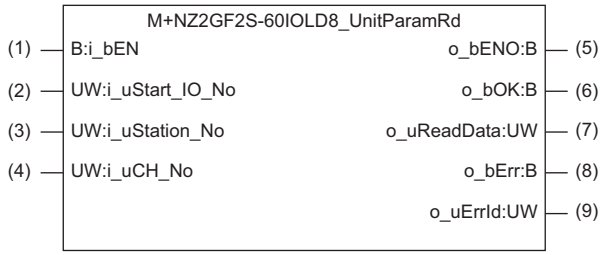
Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
0200H	The FB fails to be executed because the request flag or the command flag has already been turned on.	Turn off the relevant request flag or the command flag. Then, execute the FB again.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

2.5 M+NZ2GF2S-60IOLD8_UnitParamRd

Name

M+NZ2GF2S-60IOLD8_UnitParamRd

Overview

Item	Description
Functional overview	This FB reads the IO-Link module parameters.
Symbol	

Labels

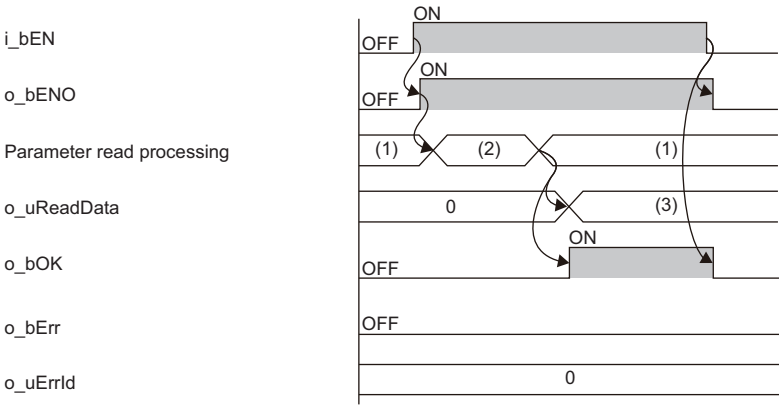
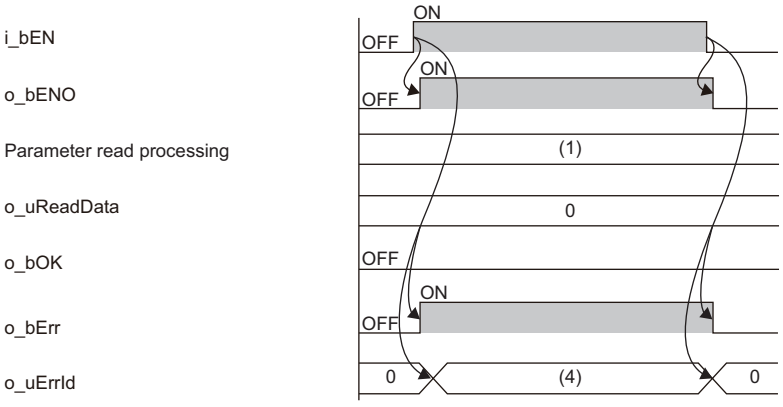
■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(5)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(6)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(7)	o_uReadData	Read data	Word [unsigned]	Specifies the start device to which the read parameter value is stored. For parameter data configuration, refer to the following. CC-Link IE Field Network Remote IO-Link Module User's Manual	0
(8)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(9)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	Target CPU	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	684 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	• When i_bEN (execution command) is turned on, parameters of the IO-Link module are read and stored in o_uReadData (read data). • This FB is completed in several scans after i_bEN (execution command) is turned on.	
FB compilation method	Macro type	
FB operation	Pulse execution type (multiple scan execution type)	
FB_EN input condition	None	
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Parameter (4) Error code	

Item	Description
Precautions	• If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMFR instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully). • For the start device where the read parameter value is stored, successive areas with the parameter size are required. For parameter data configuration, refer to the following. 📖 CC-Link IE Field Network Remote IO-Link Module User's Manual • This FB reads values from the parameter area of the remote buffer memory. Therefore, the read values may differ from actual operation parameters.

Error code

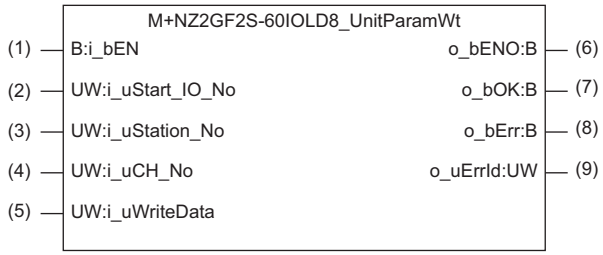
Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. 📖 MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

2.6 M+NZ2GF2S-60IOLD8_UnitParamWt

Name

M+NZ2GF2S-60IOLD8_UnitParamWt

Overview

Item	Description
Functional overview	This FB writes the IO-Link module parameters.
Symbol	

Labels

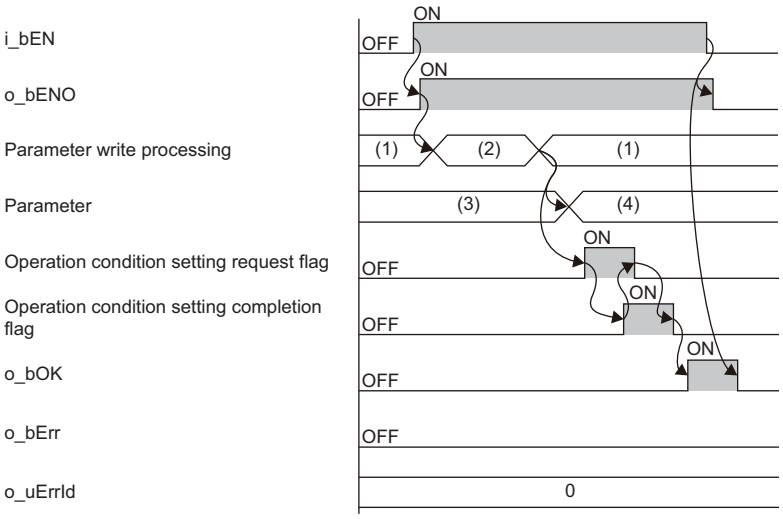
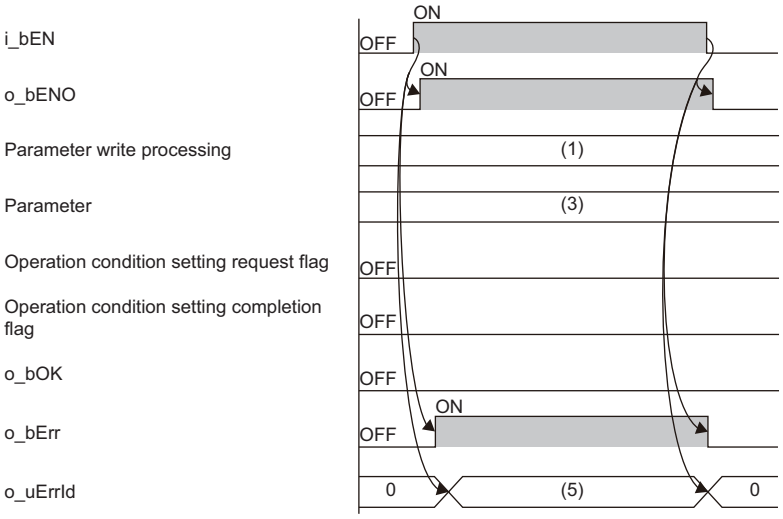
■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.
(5)	i_uWriteData	Write data	Word [unsigned]	—	Specifies the start device of the parameter data to be written. For parameter data configuration, refer to the following. 📖 CC-Link IE Field Network Remote IO-Link Module User's Manual

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(6)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(7)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(8)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(9)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	Target CPU	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	1128 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	• Writes the parameters of the IO-Link module when i_bEN (execution command) is turned on. • This FB is completed in several scans after i_bEN (execution command) is turned on.	
FB compilation method	Macro type	
FB operation	Pulse execution type (multiple scan execution type)	
FB_EN input condition	None	
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Not updated (4) Updating (5) Error code	

Item	Description
Precautions	• If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMFR/REMTO instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully). • Do not power off the module or perform remote reset during execution of this FB.

Error code

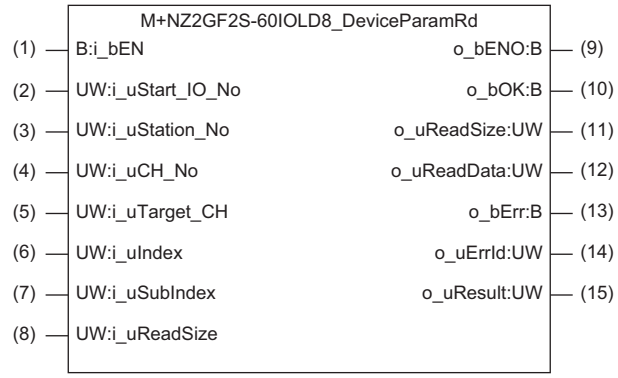
Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
0200H	The FB fails to be executed because the request flag or the command flag has already been turned on.	Turn off the relevant request flag or the command flag. Then, execute the FB again.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

2.7 M+NZ2GF2S-60IOLD8_DeviceParamRd

Name

M+NZ2GF2S-60IOLD8_DeviceParamRd

Overview

Item	Description
Functional overview	This FB reads the specified parameter from the IO-Link device.
Symbol	

Labels

■Input arguments

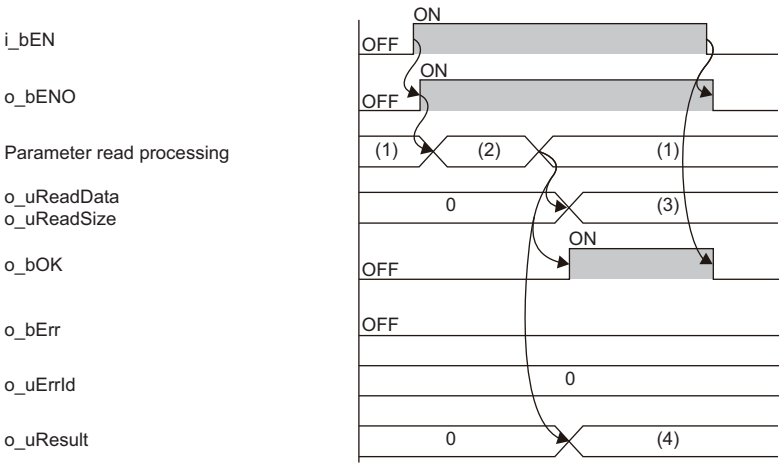
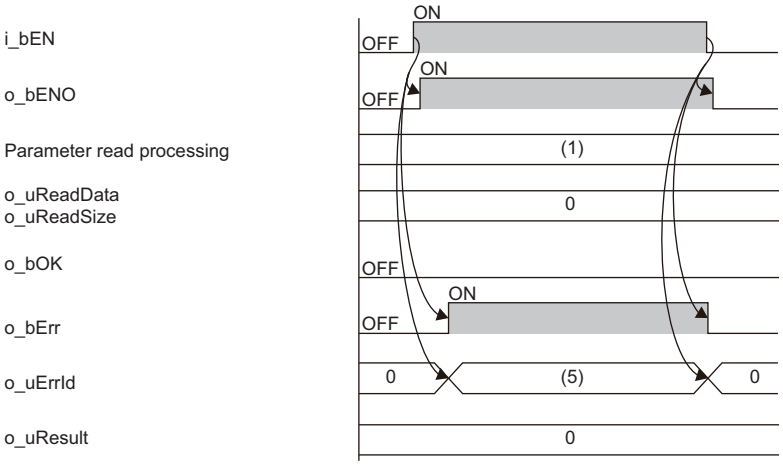
No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.
(5)	i_uTarget_CH	Channel of the IO-Link module	Word [unsigned]	1 to 8	Specifies the channel of the IO-Link module to which the target IO-Link device is connected.
(6)	i_uIndex	Index	Word [unsigned]	0 to 2, 4 to 65535	Specifies the index of the parameter to be read.
(7)	i_uSubIndex	Sub index	Word [unsigned]	0 to 255	Specifies the sub index of the parameter to be read.
(8)	i_uReadSize	Read data size	Word [unsigned]	0 to 256	Specifies data size of the parameter to be read.

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(9)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(10)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(11)	o_uReadSize	Read data size	Word [unsigned]	Size of the read parameter data is stored in units of byte.	0
(12)	o_uReadData	Read data	Word [unsigned]	Specifies the start device to which the read parameter value is stored.	0
(13)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(14)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0
(15)	o_uResult	Execution result	Word [unsigned]	The execution result of communications with IO-Link device is stored.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	Target CPU	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	849 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	When i_bEN (execution command) is turned on, the parameter specified by i_uIndex (index) or i_uSubIndex (sub index) is read from the IO-Link device connected to the channel of the IO-Link module specified by i_uTarget_CH (channel of the IO-Link module), and data of the size specified by i_uReadSize (read data size) is stored in o_uReadData (read data). When i_uSubIndex (sub index) is set to 0, all the parameters of i_uIndex (index) is read. When i_uSubIndex (sub index) is set to other than 0, parameter is read according to the sub index. In addition, the actual size of the read data is stored in o_uReadSize (read data size). The execution result is stored in o_uResult (execution result). (☞ Page 26 Execution result)	
FB compilation method	Macro type	
FB operation	Pulse execution type (multiple scan execution type)	
FB_EN input condition	None	

Item	Description
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Data (4) Updating (5) Error code
Precautions	• If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMFR/REMTO instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully). • For the start device where the read parameter value is stored, successive areas with the parameter size are required. (Up to 232 bytes) • When the read data size is set to odd number of bytes, 0 is stored for the upper one byte of the read data. • Do not execute this FB until the FB for reading/writing IO-Link device parameters is completed successfully or completed with an error.

Error code

Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
0102H	The channel of the IO-Link module is out of the setting range. The channel of the IO-Link module is out of the range between 1 and 8.	Check the setting, and execute the FB again.
0201H	The FB is being executed for the target IO-Link module.	Execute the FB again after the completion of the FB for reading/writing IO-Link device parameters that is being executed.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

Execution result

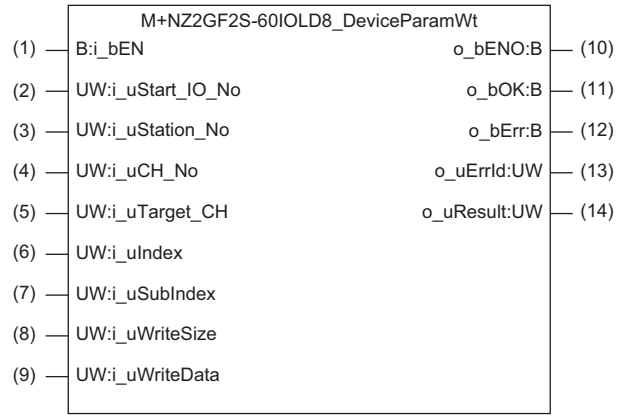
Execution result	Description	Action
0000H	The FB has been completed successfully.	No actions are required.
0001H	No data is available for reading.	Check the following settings, and execute the FB again. • Index • Sub index
1000H, 1100H, 5600H	Communications have failed.	Check the connection with the IO-Link device.
5700H, 8023H, 8035H	IO-Link device does not support the function.	Refer to the manual of the IO-Link device used.
8011H	Index is out of the setting range.	Check the setting, and execute the FB again.
8012H	Sub index is out of the setting range.	Check the setting, and execute the FB again.
8020H to 8022H, 8036H, 8082H	Service becomes temporarily unavailable.	Execute the FB again after a while.
8040H to 8041H	Parameter setting is invalid.	Refer to the manual of the IO-Link device used.
8100H to 81FFH	Error unique to the IO-Link device used has occurred.	Refer to the manual of the IO-Link device used.

2.8 M+NZ2GF2S-60IOLD8_DeviceParamWt

Name

M+NZ2GF2S-60IOLD8_DeviceParamWt

Overview

Item	Description
Functional overview	This FB writes the specified parameter to the IO-Link device.
Symbol	

Labels

■Input arguments

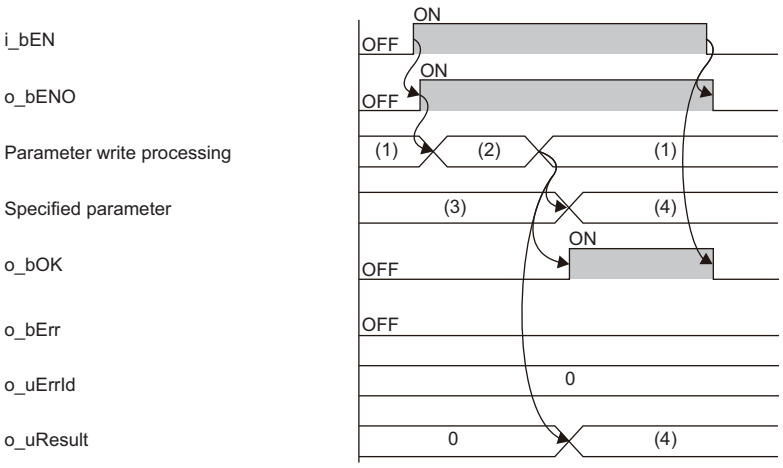
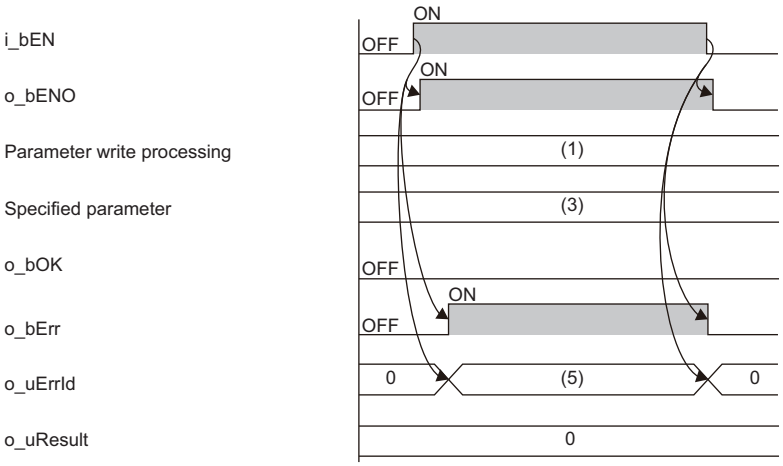
No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.
(5)	i_uTarget_CH	Channel of the IO-Link module	Word [unsigned]	1 to 8	Specifies the channel of the IO-Link module to which the target IO-Link device is connected.
(6)	i_uIndex	Index	Word [unsigned]	2, 4 to 65535	Specifies the index of the parameter to be written.
(7)	i_uSubIndex	Sub index	Word [unsigned]	0 to 255	Specifies the sub index of the parameter to be written.
(8)	i_uWriteSize	Write data size	Word [unsigned]	1 to 232	Specifies the size of data to be written in units of byte.
(9)	i_uWriteData	Write data	Word [unsigned]	—	Specifies the start device of data to be written.

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(10)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(11)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(12)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(13)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0
(14)	o_uResult	Execution result	Word [unsigned]	The execution result of communications with IO-Link device is stored.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	Target CPU	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	808 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	When i_bEN (execution command) is turned on, data specified by i_uWriteSize (write data size) and i_uWriteData (write data) is written to the parameter specified by i_uIndex (index) and i_uSubIndex (sub index) of the IO-Link device connected to the channel of the IO-Link module specified by i_uTarget_CH (channel of the IO-Link module). When i_uSubIndex (sub index) is set to 0, data is written to all the parameters of i_uIndex (index). When i_uSubIndex (sub index) is set to other than 0, data is written only to the parameter set by the sub index. The execution result is stored in o_uResult (execution result). (☞ Page 30 Execution result)	
FB compilation method	Macro type	
FB operation	Pulse execution type (multiple scan execution type)	
FB_EN input condition	None	

Item	Description
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Not updated (4) Updating (5) Error code
Precautions	• If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMFR/REMTO instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully). • Do not power off the module or perform remote reset during execution of this FB. • Do not execute this FB until the FB for reading/writing IO-Link device parameters is completed successfully or completed with an error.

Error code

Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
0102H	The channel of the IO-Link module is out of the setting range. The channel of the IO-Link module is out of the range between 1 and 8.	Check the setting, and execute the FB again.
0201H	The FB is being executed for the target IO-Link module.	Execute the FB again after the completion of the FB for reading/writing IO-Link device parameters that is being executed.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

Execution result

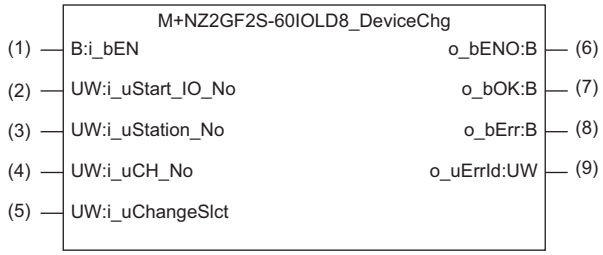
Execution result	Description	Action
0000H	The FB has been completed successfully.	No actions are required.
1000H, 1100H, 5600H	Communications have failed.	Check the connection with the IO-Link device.
5700H, 8023H, 8035H	IO-Link device does not support the function.	Refer to the manual of the IO-Link device used.
8011H	Index is out of the setting range.	Check the setting, and execute the FB again.
8012H	Sub index is out of the setting range.	Check the setting, and execute the FB again.
8020H to 8022H, 8036H, 8082H	Service becomes temporarily unavailable.	Execute the FB again after a while.
8030H	Write data is out of the setting range.	Refer to the manual of the IO-Link device used.
8031H	Write data exceeds the upper limit value.	Refer to the manual of the IO-Link device used.
8032H	Write data falls below the lower limit value.	Refer to the manual of the IO-Link device used.
8033H to 8034H	Write data size is out of the setting range.	Refer to the manual of the IO-Link device used.
8040H to 8041H	Parameter setting is invalid.	Refer to the manual of the IO-Link device used.
8100H to 81FFH	Error unique to the IO-Link device used has occurred.	Refer to the manual of the IO-Link device used.

2.9 M+NZ2GF2S-60IOLD8_DeviceChg

Name

M+NZ2GF2S-60IOLD8_DeviceChg

Overview

Item	Description
Functional overview	This FB turns on the device change flag and disables the detection of disconnection error. The FB also disables input/output in IO-Link mode and turns off input/output in SIO mode. Use the FB when the device is replaced during power-on.
Symbol	

Labels

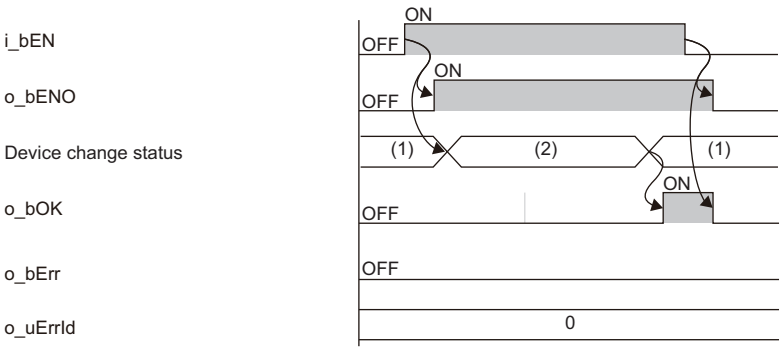
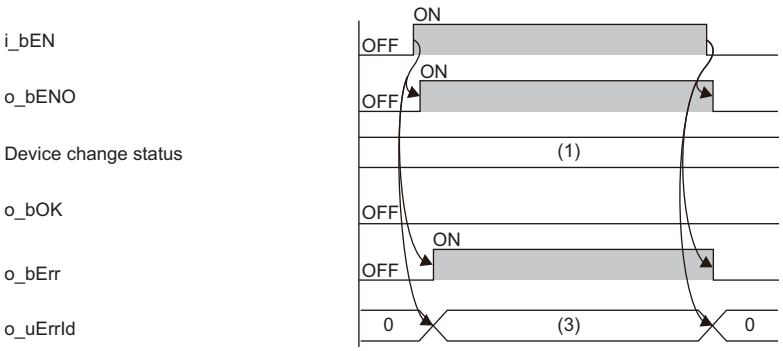
■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.
(5)	i_uChangeSlct	Device change selection	Word [unsigned]	IO-Link module • b00: CH1 • b01: CH2 • b02: CH3 • b03: CH4 • b04: CH5 • b05: CH6 • b06: CH7 • b07: CH8	Specifies the channel of the IO-Link module to which the target device is connected. (For example, set 0025H to set CH1, CH3 and CH6 as the target of the device replacement.)

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(6)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(7)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(8)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(9)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	Target CPU	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	281 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	When i_bEN (execution command) is turned on, the device change flags for all the channels of the IO-Link module are collectively set according to the settings specified by i_uChangeSlct (device change selection). For device change flag, refer to CC-Link IE Field Network Remote IO-Link Module User's Manual. Before replacing the device, when o_bOK (completed successfully) is turned on and IO-Link mode is used, check that the CHLED of the channel of the IO-Link module selected by the device change selection is flashing.	
FB compilation method	Macro type	
FB operation	Pulse execution type (multiple scan execution type)	
FB_EN input condition	None	
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Error code	
Precautions	• After the device is replaced, set the target bit of i_uChangeSlct (device change selection) to off, and execute this FB again. • If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMFR/REMTO instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully).	

Error code

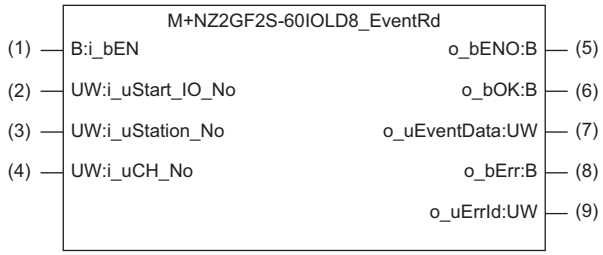
Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

2.10 M+NZ2GF2S-60IOLD8_EventRd

Name

M+NZ2GF2S-60IOLD8_EventRd

Overview

Item	Description
Functional overview	This FB reads the oldest event information from unchecked events.
Symbol	

Labels

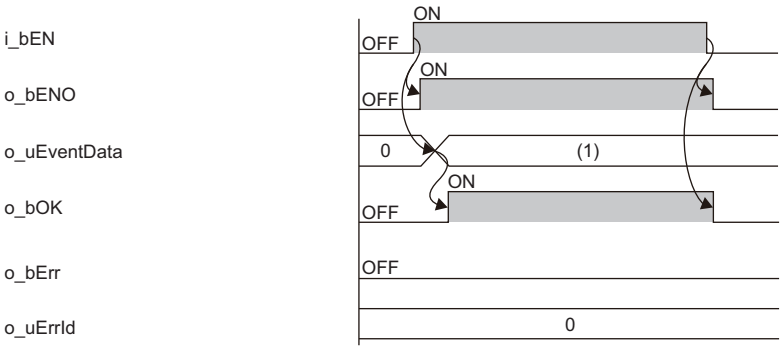
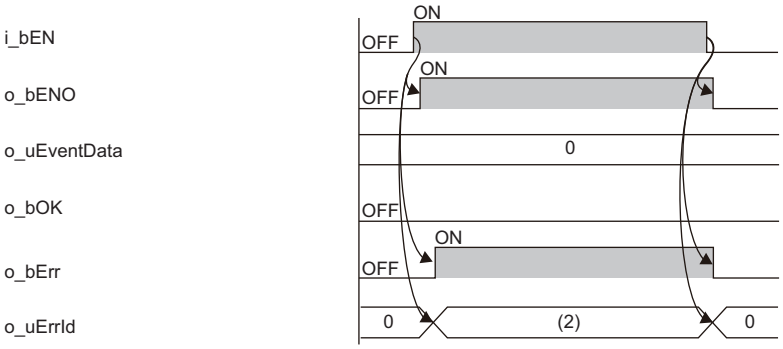
■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(5)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(6)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(7)	o_uEventData	Event information	Word [unsigned]	Specifies the start device to which the read event information is stored.	0
(8)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(9)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	Target CPU	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	603 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	When i_bEN (execution command) is turned on, the information of the oldest unchecked event is read from the target module and written to o_uEventData (event information).	
FB compilation method	Macro type	
FB operation	Pulse execution type (multiple scan execution type)	
FB_EN input condition	None	
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Event information (2) Error code	
Precautions	• If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully). • For the start device where the read event information value is stored, successive areas having the size of the event data for each station (5 words) are required. For details on the event data for each station, refer to the following. 📖 CC-Link IE Field Network Remote IO-Link Module User's Manual • This FB uses the REMFR/REMTO instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station.	

Error code

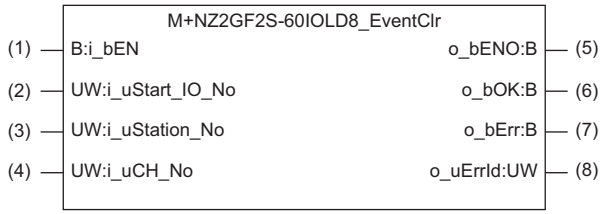
Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
0200H	The FB fails to be executed because the request flag or the command flag has already been turned on.	Turn off the relevant request flag or the command flag. Then, execute the FB again.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

2.11 M+NZ2GF2S-60IOLD8_EventClr

Name

M+NZ2GF2S-60IOLD8_EventClr

Overview

Item	Description
Functional overview	Clears the event history.
Symbol	

Labels

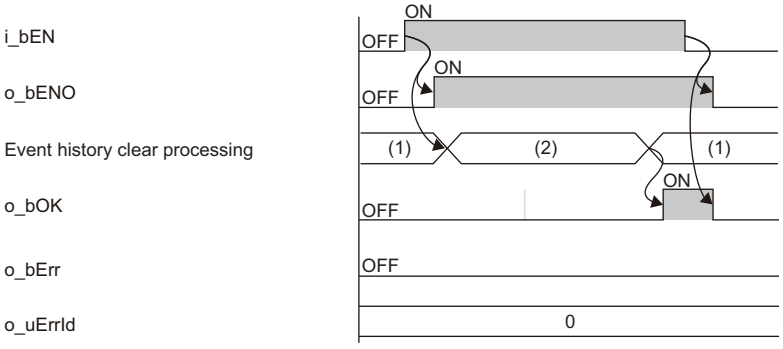
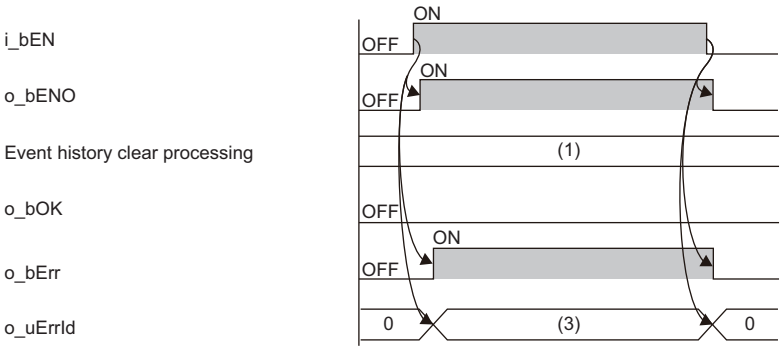
■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uStart_IO_No	XY address of module mounted	Word [unsigned]	Depends on the number of I/O points of the CPU module.	Specifies the start I/O number to which the CC-Link IE Field Network master/local module is mounted.
(3)	i_uStation_No	Station number	Word [unsigned]	1 to 120	Specifies the target station number of the IO-Link module.
(4)	i_uCH_No	Channel used by own station	Word [unsigned]	1 to 32	Specifies the channel for accessing other stations from the own station.

■Output arguments

No.	Variable name	Name	Data type	Description	Default value
(5)	o_bENO	Execution status	Bit	The execution status of the FB is output. On: In execution Off: Not in execution	Off
(6)	o_bOK	Normal completion	Bit	The on state indicates that the FB processing has been completed successfully.	Off
(7)	o_bErr	Error completion	Bit	The on state indicates that the FB processing has been completed with an error.	Off
(8)	o_uErrId	Error code	Word [unsigned]	Error code is stored when the processing has been completed with an error.	0

FB details

Item	Description	
Available device	Target module	NZ2GF2S-60IOLD8
	Network module	• RJ71EN71 • RJ71GF11-T2 • RnENCPU (network part)
	Target CPU	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	487 steps The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.	
Functional description	• When i_bEN (execution command) is turned on, the event history is cleared. • This FB operates only for one shot when i_bEN (execution command) is turned on.	
FB compilation method	Macro type	
FB operation	Pulse execution type (multiple scan execution type)	
FB_EN input condition	None	
Timing chart of I/O signals	• When the processing is completed successfully  • When the processing is completed with an error  (1) Not processed (2) Processing (3) Error code	
Precautions	• If an error occurs, o_bErr (completed with an error) is turned on, and the FB processing is suspended. In addition, the error code is stored in o_uErrId (error code). • This FB uses the REMFR/REMTO instruction. When this FB is operated simultaneously with multiple FBs including this FB or when the REMFR/REMTO instruction is used in a program, ensure that the same channels are not used by own station. • Do not power off the module or perform remote reset during execution of this FB. • This FB requires several scans for the processing from turning on i_bEN (execution command) to turning on o_bOK (completed successfully).	

Error code

Error code	Description	Action
0100H	The station number is out of the range between 1 and 120.	Check the setting, and execute the FB again.
0101H	The channel used by own station is out of the setting range. The channel used by own station is out of the range between 1 and 32.	Check the setting, and execute the FB again.
0200H	The FB fails to be executed because the request flag or the command flag has already been turned on.	Turn off the relevant request flag or the command flag. Then, execute the FB again.
D000H to DAF9H	A failure has occurred in CC-Link IE Field Network.	For error codes, refer to the following manual. MELSEC iQ-R CC-Link IE Field Network User's Manual (Application)

APPENDIX

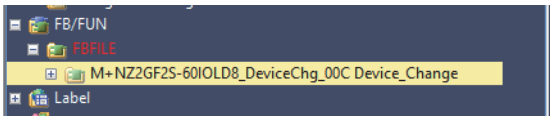
Appendix 1 When Setting the RJ71EN71 or RnENCPU to Ethernet + CC-Link IE Field Network

2000000 is added to the original buffer memory addresses of "CC-Link IE Field" when "Port 1 Network Type" to "Ethernet" and "Port 2 Network Type" to "CC-Link IE Field" are set for the RJ71EN71 or RnENCPU.
Therefore, when the network module is set to "E+CCIEF" and FBs in this manual are used, new FBs need to be created by adding 2000000 to the buffer memory addresses currently referred to.

Operating procedure

1. Select the FB to use from the [Library] tab in the Element Selection window.
The selected FB will be added to FB/FUN.

Element Selection window ⇨ [Library] tab ⇨ FB to use ⇨ Right click ⇨ [Add to Project] ⇨ [Create FB File]



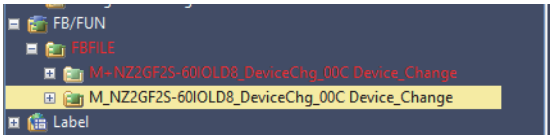
2. Copy the FB to be added.

[Navigation window] ⇨ [FB/FUN] ⇨ [FBFILE] ⇨ FB to use ⇨ Right click ⇨ [Copy Data]

3. Paste the copied FB.
The copied FB will be added to FB/FUN.

- Original FB name: M+□□□
- Copied FB name: M_□□□

[Navigation window] ⇨ [FB/FUN] ⇨ [FBFILE] ⇨ Right click ⇨ [Paste Data]

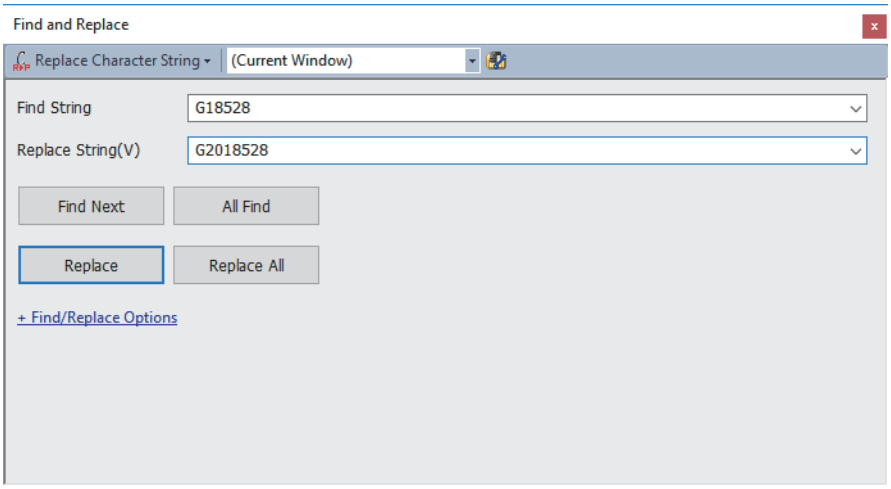


4. Open the program of the copied FB.

[Navigation window] ⇨ [FB/FUN] ⇨ [FBFILE] ⇨ copied FB ⇨ [ProgramBody]

5. Open the "Replace Character String" window, then enter the strings shown below to "Find String" and "Replace String".

[Find/Replace] ⇨ [Replace Character String]



Find String	Replace String
G18528	G2018528
G18591	G2018591

Point

Select "(Current Window)" for "Replace Character String". By specifying this setting, only the strings in the opened FB program can be replaced.

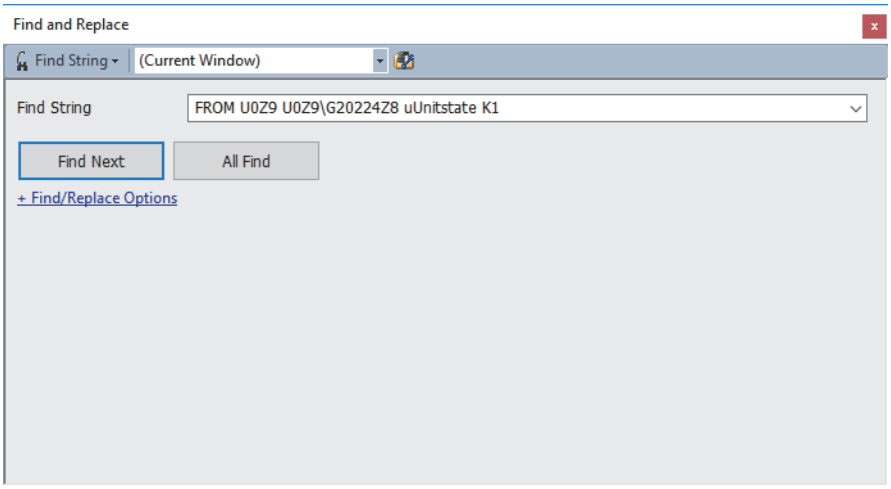
A

6. Click the [Replace All] button.

7. A message appears, then click [OK].

8. Open the "Replace Character String" window, search for the strings shown below.

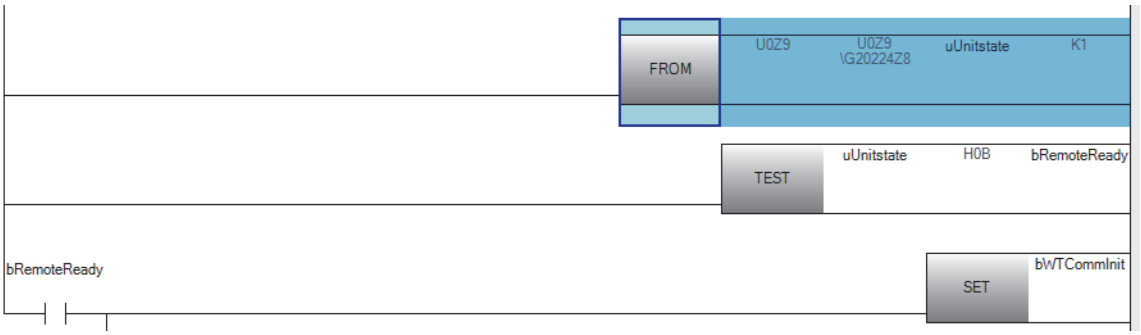
[Find/Replace] ⇨ [Find String]



Point

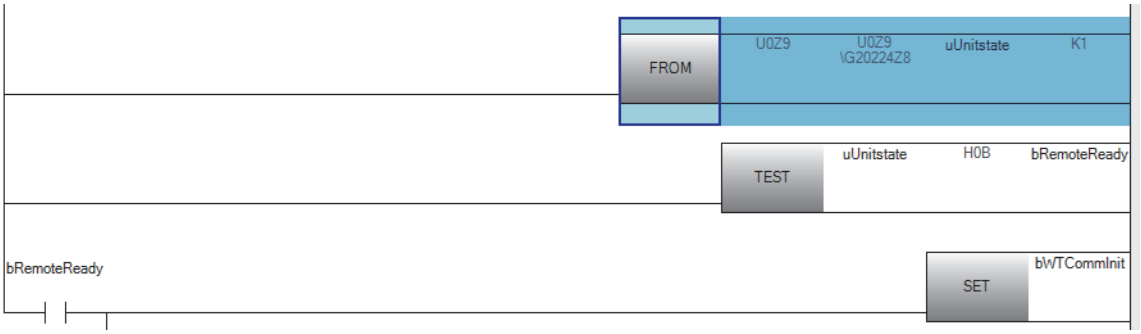
Select "(Current Window)" for "Find String". By specifying this setting, only the strings in the opened FB program can be replaced.

9. Click the [Find Next] button to make a jump to the target program.

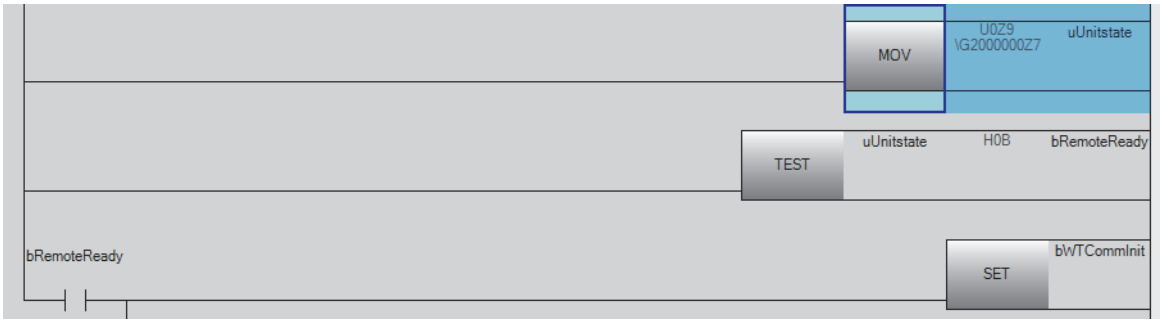


10. Change the target string as below.

- Before change



- After change

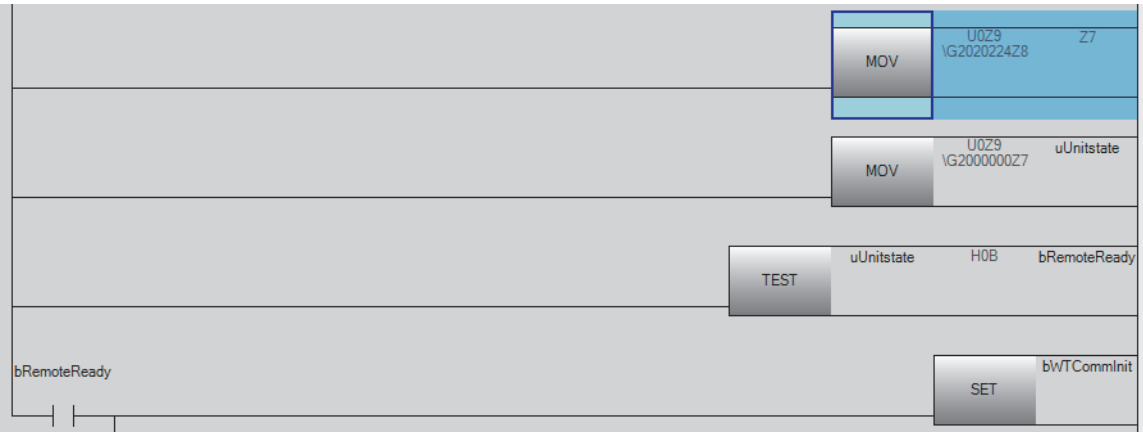


A

11. Insert a row just above the changed program.

[Edit] ⇨ [Insert Row]

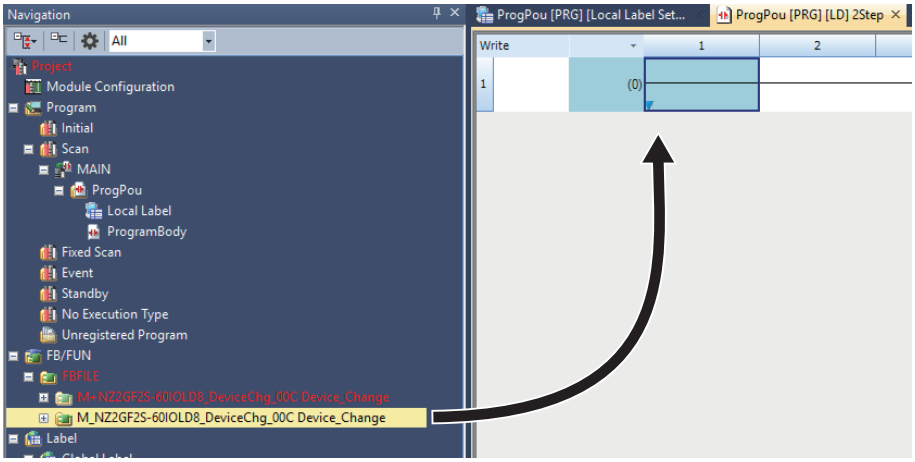
12. Enter the string in the inserted row as below.



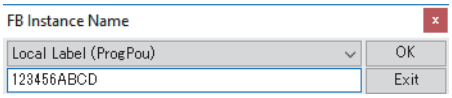
13. Close the program.

14. Paste the changed FB by dragging and dropping it.

[Navigation window] ⇨ [Program] ⇨ [Scan] ⇨ [MAIN] ⇨ [ProgPou] ⇨ [ProgramBody]



15. Enter any name in the "FB Instance Name".



16. Execute [Rebuild All].

[Convert] ⇨ [Rebuild All]

17. Use the input/output label with the device assigned according to the FBs.

INSTRUCTION INDEX

M

MEMO

REVISIONS

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

Revision date	*Manual number	Description
October, 2018	BCN-P5999-1048-A	First edition
April, 2020	BCN-P5999-1048-B	■Added or modified parts Chapter 1, Appendix 1

Japanese manual number: BCN-P5999-1047-B

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BCN-P5999-1048-B(2004)

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