CC-LínkIE TSN

Open Field Network

Control & Communication System Profile (CSP+) Creation Guidelines

CC-Link IE TSN (Application)



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<u>1.</u> INTRODUCTION

This document describes guidelines for CSP+ description and utility software based on the Control & Communication System Profile Specification (BAP-C2008ENG-001) for designers. There are multiple parts (such as DEVICE_INFO part, COMM_IF_INFO part, and others) to configure CSP+. The document describes where to display items of each element described in each part and how to use the items when the items are not displayed on the utility software. When creating CSP+, the document provides which part of CSP+ should be described to use the utility software function. In addition, designers can check if the created CSP+ is applied to the utility software windows by checking the CSP+ description and the actual display on utility software at the test.

[Remarks]

The CSP+ described in this document uses an example of the CC-Link IE TSN analog-digital converter module (model name: NZ2GN2B-60AD4) (manufactured by Mitsubishi Electric). A window display of utility software described in this document indicates that of GX Works3 manufactured by Mitsubishi Electric.

Implementation of utility software described in this document is an example. The application of information described in the CSP+ is not limited to the one described in this document.

1.1 Description Details

Chapters correspond to CSP+ sections and sections correspond to CSP+ parts in this document. Each section has the following components (1) to (4).

(1) Specifications of each part

Elements/items and descriptions to be described in each part are listed.

No.	Element	C	Description	Required/ Optional
	VendorName	C	Describes the name of the vendor that manufactured the module.	Required
2	VendorCode	Т	Describes the code of vendor that manufactured the module. The fifth to eighth digits of the membership number of the CC-Link Partner Association are down?	Required
			and module.	
4	FroductID		Describes the product ID of the module. The ID managed by the vendor that manufactured the module is de	Optional
26 27	Price	numbered. The numbers co	CSP+ Specification are orrespond to those in the es in the figures of (2), (3), to be specified in UI_ATTRIBUTE.	Optional
28		and (4).		Optional

Table 1.1-1 List of Elements which Configure the DEVICE_INFO Part

(2) Example of CSP+ descriptions

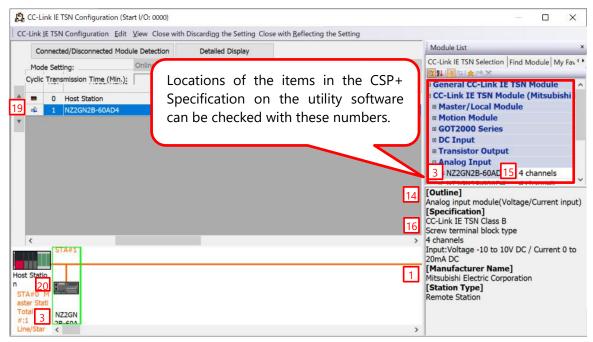
Display examples of each part when CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool are shown.

/	DeviceInformation	on x				
	LABEL	LABEL2	CATEGORY	NAME	DATATYPE	DATA
1	VendorName	Vendor name	COMMON	Vendor name	STRING U(64)	Mitsubishi Electric Corporation
2	VendorCode	Vendor code	COMMON	Vendor code	WORD	0x0000 2
3	DeviceModel	Device model	COMMON	Device model	STRING(48)	NZ2GN2B-60AD4
4	ProductID	ProductID	COMMON	Product ID	STRING(256)	1342177283
_			COMMON	Dawi		00001

Locations of the items in the CSP+ Specification can be checked with these numbers.

(3) Display example on utility software

A display example on GX Works3 when CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is used is shown below.



(4) Elements and items not being used on the utility software window despite being described in the CSP+ description specifications

Elements and items that are not used for displaying the utility software window are listed.

4	ProductID	Used to check whether the ProductID matches the model code acquired from the actual device during automatic detection and scanning. Example: L26CPU-BT 0x40000548 LJ61BT11 0x0000001 RJ71EN71 0x00000029
		• When an error occurs If the number is incorrect, the utility software recognizes a module as a different one.
		Describes the code of the device type list determined by the CC-Link Partner Association. (Example: 0x20 for an inverter)
5	DeviceTypeID	
9	VersionPolicyType	Describes the price with a unit.

Definitions of terminology and figures

A black word balloon describes an explanation of an item.

A blue word balloon describes a point of display and processing of CSP+ and the utility software.

2. FILE SECTION

The FILE section consists of only one FILE_INFO part.

2.1 FILE_INFO Part

The FILE_INFO part describes the file information (such as file updated date) of the CSP+ file.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.1.1 FILE_INFO part Table 2.1-1 lists elements which configure the FILE_INFO part.

No.	Element	lement Description R	
1	CreateDate	Describes the date the CSP+ file was created.	Required
2	CreateTime	Describes the time the CSP+ file was created.	Required
3	ModDate	Describes the date last modified.	Required
4	ModTime	Describes the time last modified.	Required
5	Language	Describes the language in which the CSP+ file is described.	Required
6	FileVersion	Describes the version of the CSP+ information for the target module.	Required
7	CCLinkFamilyProfileVersion	Describes the version of CSP+ description specifications.	Required

Table 2.1-1 List of Elements which Configure the FILE_INFO Part

(2) CSP+ descriptions

Figure 2.1-1 shows a display example of the FILE_INFO part when the CSP+ for the analogdigital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool.

\square	FileInformation ×						
	LABEL	LABEL2	CATEGORY	NAME	DATATYPE	DATA	REMARK
	CreateDate	File creation day	COMMON	File creation day	STRING(10)	2019/09/20	
2	CreateTime	File creation time	COMMON	File creation time	STRING(8)	12:54:08	
	ModDate	Last update date	COMMON	Last update date	STRING(10)	2019/09/20	
4	ModTime	Last update time	COMMON	Last update time	STRING(8)	12:54:08	
	Language	Supported language	COMMON	Supported language	STRING(12)	en	
6	FileVersion	File version CSP PLUS specification version	COMMON	File version	STRING(32)	1.1	
Ĩ	CCLinkFamilyProfileVersion	CSP PLUS specification version	COMMON	CSP+ specification version	STRING(32)	3.0	

Figure 2.1-1 Display Example When CSP+ profile creation support tool is Used (FILE_INFO)

(3) Utility software

Any elements that configure the FILE_INFO part are not displayed on the utility software.

(4) Elements not being used on the utility software window despite being described in the CSP+ description specifications

Table 2.1-2 lists the elements not being used on the utility software window despite being described in the CSP+ description specifications.

No.	Element	Application	Required/ Optional
1	CreateDate	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required
2	CreateTime	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required
3	ModDate	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required
4	ModTime	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required
5	Language	Displays the corresponding language of CSP+ by comparing the language of the utility software and the string described in this element.	Required
6	FileVersion	Utility software uses CSP+ with the latest file version.	Required
7	CCLinkFamilyProfileVersion	Utility software that does not support the description specification version of CSP+ described in this element cannot use the CSP+.	Required

Table 2.1-2 Elements Not Being Used on the Utility Software Window (FILE_INFO)

3. DEVICE SECTION

The DEVICE section consists of only one DEVICE_INFO part.

3.1 DEVICE_INFO Part

The DEVICE_INFO part describes the product identification information and the information related to the product specifications.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.2.1 DEVICE_INFO part

Table 3.1-1 lists elements which configure the DEVICE_INFO part.

Table 3.1-1 List of Elements which Configure the DEVICE_INFO Part

No.	Element		Required/ Optional
1	VendorName	Describes the name of the vendor that manufactured the module.	Required
2	VendorCode	Describes the code of vendor that manufactured the module. The fifth to eighth digits of the membership number of the CC-Link Partner Association are described.	Required
3	DeviceModel	Describes the model of the module.	Required
4	ProductID	Describes the product ID of the module managed by each vendor.	Required
5	DeviceTypeID	Describes the ID of the module type.	*1
6	DeviceTypeDetail	Describes the specific device type.	*1
7	Version	Describes the device version of the module.	Required
8	VersionDisplayFlg	Describes whether to show/hide the device version to/from the user.	Required
9	VersionPolicyType	Describes the policy of the relationship between the actual device version and the device version described in the CSP+ file when the actual device is accessed using the CSP+ file.	Required
10	DisplayVersionValue	Describes the value of the device version to be displayed when the value (Version) of the device version acquired from the actual device differs from the value of the version displayed to the user on the utility software.	Optional
11	VersionComment	Describes a comment related to the device version.	Optional
12	DeviceConfigurationID	Assigns an identifier to each device configuration which can be changed. The device configuration ID must be unique in the user environment.	Optional
13	DeviceConfigurationComment	Describes a comment related to the device configuration ID to identify the CSP+ file using the ID.	Optional
14	ReferenceURL	Describes a URL if the module information is disclosed on the website.	Optional
15	URLInfo	Describes the information indicated by the reference URL.	Optional
16	Outline	Describes the general specifications of the module.	Optional
17	Feature	Describes the features of the module.	Optional
18	SpecList	Describes the module specifications using a set of strings.	Optional
19	PowerSupplyVoltage	Describes the power supply voltage with a unit of V (volts).	Optional
20	ConsumptionCurrent	Describes the current consumption with a unit of mA (milliamperes).	Optional
21	IconFileName	Describes the icon file name with the extension (.ico) when displaying the module as an icon on the utility software.	Optional
22	GraphicsFileName	Describes the graphics file name with extensions (.bmp, .png, .jpg, .gif) when displaying the module on the utility software.	Optional
23	Height	Describes the height of the external dimensions with a unit.	Optional
24	Width	Describes the width of the external dimensions with a unit.	Optional
25	Depth	Describes the depth of the external dimensions with a unit.	Optional

No.	Element	Description	Required/ Optional
26	Weight	Describes the weight with a unit.	Optional
27	Price	Describes the price with a unit.	Optional
28	UI_ATTRIBUTE_Window**	Describes the name of the Window to be specified in UI_ATTRIBUTE. The Window number is described in "**".	Optional
29	DedicatedToolFlg	Describes if a supported dedicated tool exists.	Optional
30	DedicatedToolName	Describes the supported dedicated tool name.	*2
31	InstallRegistryKeyName	Describes the registry key name only when the supported dedicated tool is installed.	*2
32	InstallRegistryValueName	Describes the registry value name only when the supported dedicated tool is installed.	*3
33	ExePathRegistryKeyName	Describes the key name of the registry where the path information of the execution file (.exe) for the supported dedicated tool is stored.	*2
34	ExePathRegistryValueName	Describes the value name of the registry where the path information of the execution file (.exe) for the supported dedicated tool is stored.	*2

*1: Prohibited from omitting both the DeviceTypeID element and the DeviceTypeDetail element. Ensure to describe either of these elements. When both of the elements are described, the DeviceTypeDetail element takes precedence.

*2: Required when the DedicatedToolFlg element is described and its DATA item value is 1. Otherwise, description is prohibited.

*3: Optional when the DedicatedToolFlg element is described and its DATA item value is 1. Otherwise, description is prohibited.

(2) CSP+ descriptions

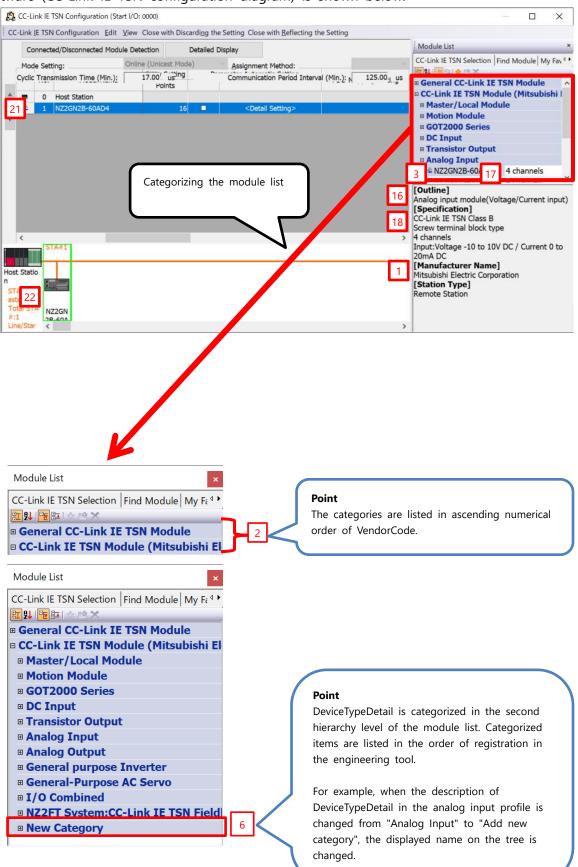
Figure 3.1-1 shows a display example of the DEVICE_INFO part when the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool.

	LABEL	LABEL2	CATEGORY	NAME	DATATYPE	DATA	REMARK
1	VendorName	Vendor name	COMMON	Vendor name	STRING U(64)	Mitsubishi Electric Corporation	1
2	VendorCode	Vendor code	COMMON	Vendor code	WORD	0×0000	2 3 4
3	DeviceModel	Device model	COMMON	Device model	STRING(48)	NZ2GN2B-60AD4	3
1	ProductID	ProductID	COMMON	Product ID	STRING(256)	1342177283	4
5	DeviceTypeID	Device type ID	COMMON	Device type ID	WORD	0×0004	5
ì	DeviceTypeDetail	Device type detail	COMMON	Device type detail	STRING U(256)	Analog Input	6
1	Version	Device version	COMMON	Device version	UINT16	1	7
}	VersionDisplayFlg		COMMON	Device version display flag	BOOL	1	8
9	VersionPolicyType	Device version policy type	COMMON	Device version policy type	UINT16	1	9
0	VersionComment	Comment for device version	COMMON	Comment for device version	STRING U(256)	Profile ver.01E	9 11 16
1	Outline	Outline specification	COMMON	Outline specification	STRING U(256)	Analog input module(Voltage/Current input)	16
12	Feature	Feature	COMMON	Feature	STRING U(256)	4 channels	17
	SpecList	Specification_list	COMMON	Specification list	STRING_U(256)()	CC-Link IE TSN Class B, Screw terminal block type, 4 channels, InputVoltage -10 to 10V DC / Current 0 to 20mA DC	18
14	IconFileName	Icon file name	COMMON	Icon file name	STRING(52)	CCLi0401.ico	21 22
15	GraphicsFileName	Image file name	COMMON	Image file name	STRING(52)	NZ2GN2B-60AD4 64x32bmp	22

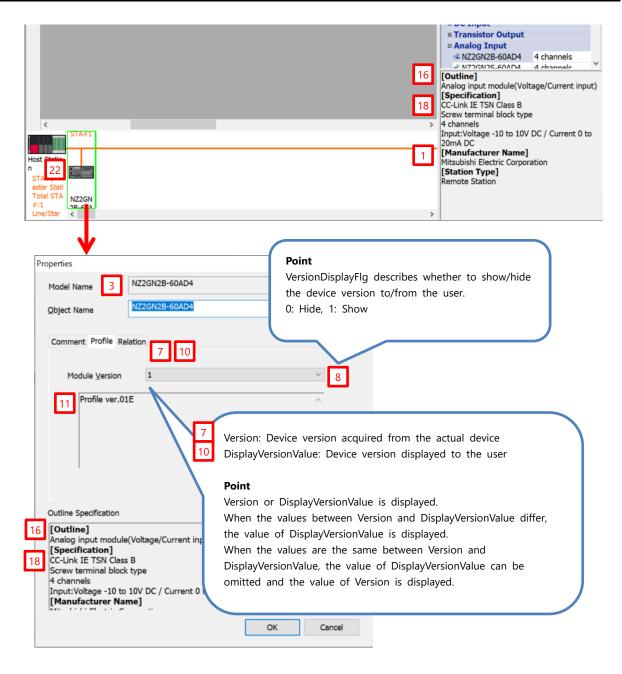
Figure 3.1-1 Display Example When CSP+ profile creation support tool is Used (DEVICE_INFO)

(3) Utility software - (CC-Link IE TSN configuration diagram)

The following shows how the descriptions in the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) are displayed on the utility software. A display example of utility software (CC-Link IE TSN configuration diagram) is shown below.



3. DEVICE SECTION



(4) Elements not being used on the utility software window despite being described in the CSP+ description specifications

Table 3.1-2 lists the elements not being used on the utility software window despite being described in the CSP+ description specifications.

No.	Element	Application	Required/ Optional				
4	ProductID	Used to check whether the ProductID matches the model code acquired from the actual device during automatic detection and scanning. Example: L26CPU-BT 0x40000548 LJ61BT11 0x00000001 RJ71EN71 0x00000029					
5	DeviceTypeID	Describes the code of the device type list determined by the CC-Link Partner Association. (Example: 0x20 for an inverter) For the code assignment, refer to the CC-Link Partner Association website. If the device type is not included in any of the categories, submit an application to the CC-Link Partner Association to add a code. Please contact the CC-Link Partner Association. A string corresponding to the code described in DeviceTypeID is displayed when DeviceTypeDetail is not described.	*1				
9	VersionPolicyType	Describes the policy of the device version between the module and the CSP+ file. The device version to be used is determined based on this value. For the meanings of each value and modules to be used, refer to the following. Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.2.1 DEVICE_INFO part - (2) Device version (Version element) - (f) Device version comparison policy for module and CSP+ file (VersionPolicyType element)	Required				
12	DeviceConfigurationID	For future expansion	Optional				
13	DeviceConfigurationComment	For future expansion	Optional				
19	PowerSupplyVoltage	Not used for the CC-Link IE TSN profile.	Optional				
20	ConsumptionCurrent	Not used for the CC-Link IE TSN profile.	Optional				
23	Height	Reference information. This element is displayed only in CSP+ profile creation support tool.	Optional				
24	Width	Reference information. This element is displayed only in CSP+ profile creation support tool.	Optional				
25	Depth	Reference information. This element is displayed only in CSP+ profile creation support tool.	Optional				
26	Weight	Reference information. This element is displayed only in CSP+ profile creation support tool.	Optional				
27	Price	Reference information. This element is displayed only in CSP+ profile creation support tool.	Optional				
28	UI_ATTRIBUTE_Window**	For future expansion	Optional				
29	DedicatedToolFlg	Uses for utility software to determine if a dedicated tool exists.	Optional				
30	DedicatedToolName	Describes the dedicated tool name.	*2				
31	InstallRegistryKeyName	Describes the registry key name and that value name to InstallRegistryKey	*2				
32	InstallRegistryValueName	Name and InstallRegistryValueName only when the dedicated tool is installed.	*3				
33	ExePathRegistryKeyName	Acquires the execution file path of the dedicated tool from the registry	*2				
34	ExePathRegistryValueName	where this element is described at start-up of the dedicated tool in utility software.	*2				

Table 3.1-2 Elements Not Being Used on Utility Software Window (DEVICE_INFO)

*1: Prohibited from omitting both the DeviceTypeID element and the DeviceTypeDetail element. Ensure to describe either of these elements. When both of the elements are described, the DeviceTypeDetail element takes precedence.

- *2: Required when the DedicatedToolFlg element is described and its DATA item value is 1. Otherwise, description is prohibited.
- *3: Optional when the DedicatedToolFlg element is described and its DATA item value is 1. Otherwise, description is prohibited.

4. COMM IF SECTION

The COMM_IF section defines the information of the communication functions and consists of multiple parts as shown in Figure 4-1.

COMM_IF section	
COMM_IF_INFO part	Describes the identification information and communication specifications of the communication interface.
COMM_IF_INPUT part	Describes the input information of the communication interface.
COMM_IF_OUTPUT part	Describes the output information of the communication interface.
COMM_IF_PARAMETER part	Describes the parameter information of the communication interface.
COMM_IF_COMMAND part	Describes the commands to be executed by the communication interface.
METHOD part	Describes the information related to the commands issued from the communication interface and the parameter settings.
MESSAGE part	Describes the information required for the communication processing to be executed, specifying a data format.
STRUCT part	Describes the structure of the inputs and outputs of multiple elements.
ENUM part	Describes the options for values and return values to be set for the element.
COMMAND_ARGUMENT part	Describes the argument information of COMM_IF_COMMAND.

Figure 4-1 Structure of the COMM_IF Section

4.1 COMM_IF_INFO Part

The COMM_IF_INFO part describes the identification information and communication specifications of the communication interface.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.3.1 COMM_IF_INFO part

Table 4.1-1 lists elements which configure the COMM_IF_INFO part.

	No.	Element	Description	Required/
Common part	1	VendorName	Describes the name of the vendor that manufactured the module.	Optional Required
			Describes the code of vendor that manufactured the module. The fifth to eighth digits of the membership number of the CC-Link Partner Association are described.	Required
	3	CommIFTypeID	Describes the ID that indicates the communication interface type in a string.	Required
	4	Version	Describes the firmware version in a string.	Required
	5	StationMode	Describes the station mode setting value.	Optional
	6	StationModeName	Describes the station mode name.	*1
	7	LocalFunction	Describes if the local function exists.	Optional
	8	AutoSettingHeaderType	Describes the automatic setting header type number.	Optional
	9	AutoSettingType	Describes the automatic setting type. The type is displayed only when a module that supports the slave station parameter automatic setting function is used.	Optional
	10	ModelCode	Describes the model code.	Required
	11	ModelCodeEx	Describes the extension model code.	Optional
	12	DevModel	Describes the model name.	Required
	13	CanProfileNum	Describes the CiA standard number.	Optional
	14	ObjectDictionaryFileName	Describes the object dictionary file name with the extension (.csv).	*2
oart	15	IEEE802_1ASFunction	Describes if the IEEE 802.1AS function exists.	Required
Network-dependent part	16	ReceiveFunction100M	Describes if the 100 Mbps full-rate receive function exists.	Required
benc	17	RelayFunction100M	Describes if the 100 Mbps full-rate relay function exists.	Required
ork-de	18	ReceiveFunction1G	Describes if the 1 Gbps full-rate receive function exists.	Required
letwo	19	RelayFunction1G	Describes if the 1 Gbps full-rate relay function exists.	Required
2	20	MultiCastFunction	Describes if the broadcast/multicast function exists.	Required
	21	CertificationClass	Describes strings indicating the certification class.	Required
	22	S_B_DefaultSize	Describes the default size of the send bit data (RX) in the number of bits.	Required
	23	S_W_DefaultSize	Describes the default size of the send word data (RWr, TPDO, general send access) in the number of words.	Required
	24	R_B_DefaultSize	Describes the default size of the receive bit data (RY) in the number of bits.	Required
	25	R_W_DefaultSize	Describes the default size of the receive word data (RWw, RPDO, general receive access) in the number of words.	Required
	26	L_B_DefaultSize	Describes the default size of the link relay data (LB) in the number of bits.	Optional
	27	L_W_DefaultSize	Describes the default size of the link register data (LW) in the number of words.	Optional
	28	S_B_MaxSize	Describes the maximum size of the send bit data (RX) in the number of bits.	Required

4.COMM_IF SECTION

No.	Element	Description	Required/ Optional
29	S_W_MaxSize	Describes the maximum size of the send word data (RWr, TPDO, general send access) in the number of words.	Required
30	R_B_MaxSize	Describes the maximum size of the receive bit data (RY) in the number of bits.	Required
31	R_W_MaxSize	Describes the maximum size of the receive word data (RWw, RPDO, general receive access) in the number of words.	Required
32	L_B_MaxSize	Describes the maximum size of the link relay data (LB) in the number of bits.	Optional
33	L_W_MaxSize	Describes the maximum size of the link register data (LW) in the number of words.	Optional
34	S_B_MinSize	Describes the minimum size of the send bit data (RX) in the number of bits.	Optional
35	S_W_MinSize	Describes the minimum size of the send word data (RWr, TPDO, general send access) in the number of words.	Optional
36	R_B_MinSize	Describes the minimum size of the receive bit data (RY) in the number of bits.	Optional
37	R_W_MinSize	Describes the minimum size of the receive word data (RWw, RPDO, general receive access) in the number of words.	Optional
38	L_B_MinSize	Describes the minimum size of the link relay data (LB) in the number of bits.	Optional
39	L_W_MinSize	Describes the minimum size of the link register data (LW) in the number of words.	Optional
40	S_B_Address	Describes the start address used for send bit data (RX) communications.	*3
41	S_W_Address	Describes the start address used for send word data (RWr) communications.	*3
42	R_B_Address	Describes the memory address used for receive bit data (RY) communications.	*3
43	R_W_Address	Describes the memory address used for receive word data (RWw) communications.	*3
44	StsW_Address	Describes the memory address for the status notification device (StsW).	Required
45	PDOConfigIndex1	Describes the index of the PDO configuration.	*4
46	PDOConfigPDOType1	Describes the PDO type of the PDO configuration.	*5
47	PDOConfigMemoryAddress1	Describes the memory address of the PDO configuration.	*5
48	PDOConfigPossibleMapping1	Describes the PDO mapping objects that can be set in PDO Assignment of the PDO configuration as an array in priority order.	*5
49	S_General_Address	Describes the memory address for general send access.	*3
50	R_General_Address	Describes the memory address for general receive access.	*3

- *1: Description is prohibited when the StationMode element is not described. Description is required when the StationMode element is described.
- *2: Description is required for a CAN compatible device (device with the CanProfileNum element). When a device is not compatible with CAN, description is prohibited.
- *3: The memory address information of the available communication type is required. Description of the memory address information of the unavailable communication type is prohibited.
- *4: Description is required when the device performs the PDO communications. Describe the required number of indexes. When a device does not perform the PDO communications, description is prohibited.
- *5: Description of a corresponding element is required when PDOConfigIndex is described. Description is prohibited when PDOConfigIndex is not described.

(2) CSP+ descriptions

Figure 4.1-1 shows a display example of the COMM_IF_INFO part when the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool.

Point	
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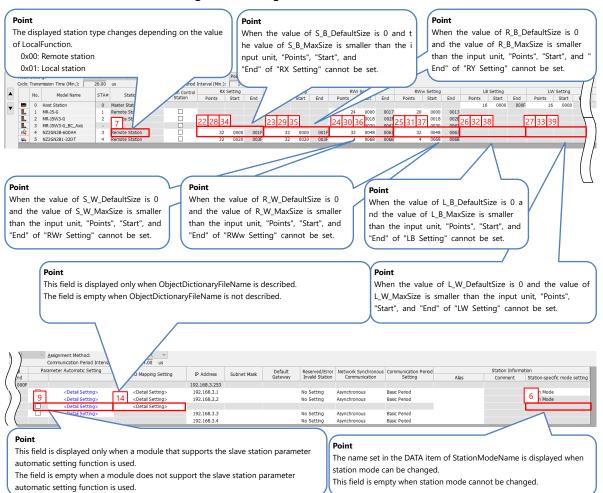
When the specifications of the device in the network settings do not change, create one common BLOCK, and refer to the BLOCK from the multiple COMM_IF sections.

\square	commifinfo 🗙						
	LABEL	LABEL2	CATEGORY	NAME	DATATYPE	DATA	REMARK
1	VendorName	Vendor name	COMMON	Vendor name	STRING U(64)	Mitsubishi Electric Corporation	1
2	VendorCode	Vendor code	COMMON	Vendor code	WORD	0×0000	2
3	CommIFTypeID	Communication interface type ID	COMMON	Communication interface type ID	STRING(32)	CCLinkIETSN	3
4	Version	Version	COMMON	Version	UINT16	1	4
5	AutoSettingHeaderType	Auto setting header type	COMMON CC-Link IE TSN	Auto-setting header type	BYTE	0×00	8
6	AutoSettingType	Auto setting type	COMMON CC-Link IE TSN	Auto-setting type	WORD	0×0001	9
7	ModelCode	Device code	COMMON CC-Link IE TSN	Device code	UINT32	1342177283	10
8	DevModel	Model name Type name	COMMON CC-Link IE TSN	Model name Type name	STRING(48)	NZ2GN2B-60AD4	12
9	CommunicationCycleMinTime ns	The shortest comm cycle ns	COMMON CC-Link IE TSN	The shortest communication cycle ns	UINT32	31250	
10	IEEE802 1ASFunction	IEEE802 1AS function	COMMON CC-Link IE TSN	IEEE802 1AS function	BOOL	1	15
11	ReceiveFunction100M	Reception function 100Mbps	COMMON CC-Link IE TSN	Reception function 100Mbps	BOOL	0	16
12	RelayFunction100M	Relay function 100Mbps	COMMON CC-Link IE TSN	Relay function 100Mbps	BOOL	0	17
13	ReceiveFunction 1G	Reception function 1Gbps	COMMON CC-Link IE TSN	Reception function 1Gbps	BOOL	1	18
14	RelayFunction1G	Relay function 1Gbps	COMMON CC-Link IE TSN	Relay function 1Gbps	BOOL	1	19
15	MultiCastFunction	Broad multicast function	COMMON CC-Link IE TSN	Broad multicast function	BOOL	1	20
16	CertificationClass	Authentication class	COMMON CC-Link IE TSN	Authentication class	STRING U(2)	В	21
17	S B DefaultSize	Send bit data default size	COMMON CC-Link IE TSN	Send bit data default size	UINT32	32	22
18	S W DefaultSize	Send word data default size	COMMON CC-Link IE TSN	Send word data default size	UINT16	16	23
19	R B DefaultSize	Receive bit data default size	COMMON CC-Link IE TSN	Receive bit data default size	UINT32	32	24
20	R W DefaultSize	Receive word data default size	COMMON CC-Link IE TSN	Receive word data default size	UINT16	16	25
21	S B MaxSize	Send bit data maximum size	COMMON CC-Link IE TSN	Send bit data maximum size	UINT32	128	28
22	S W MaxSize	Send word data maximum size	COMMON CC-Link IE TSN	Send word data maximum size	UINT16	64	29
23	R B MaxSize	Receive bit data maximum size	COMMON CC-Link IE TSN	Receive bit data maximum size	UINT32	128	30
24	R W MaxSize	Receive word data maximum size	COMMON CC-Link IE TSN	Receive word data maximum size	UINT16	64	31
25	S B MinSize	Send bit data minimum size	COMMON CC-Link IE TSN	Send bit data minimum size	UINT32	0	34
26	S W MinSize	Send word data minimum size	COMMON CC-Link IE TSN	Send word data minimum size	UINT16	0	35
27	R B MinSize	Receive bit data minimum size	COMMON CC-Link IE TSN	Receive bit data minimum size	UINT32	0	36
28	R W MinSize	Receive word data minimum size	COMMON CC-Link IE TSN	Receive word data minimum size	UINT16	0	37
29	S B Address	Send bit data address	COMMON CC-Link IE TSN	Send bit data address	DWORD	0×00000010	40
30	S W Address	Send word data address	COMMON CC-Link IE TSN	Send word data address	DWORD	0×00000040	41
31	R B Address	Receive bit data address	COMMON CC-Link IE TSN	Receive bit data address	DWORD	0×00000000	42
32	R W Address	Receive word data address	COMMON CC-Link IE TSN	Receive word data address	DWORD	0×00000030	43
33	StsW Address	StateNotification device address	COMMON CC-Link IE TSN	Status notification device address	DWORD	0×00000260	44

Figure 4.1-1 Display Example When CSP+ profile creation support tool is Used (COMM_IF_INFO)

(3) Utility software - (CC-Link IE TSN configuration diagram)

The following shows how the descriptions in the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) are displayed on the utility software. A display example of utility software (CC-Link IE TSN configuration diagram) is shown below.



(4) Elements not being used on the utility software window despite being described in the CSP+ description specifications

Table 4.1-2 lists the elements not being used on the utility software window despite being described in the CSP+ description specifications.

No.	Element	Application	Required/ Optional		
1	VendorName	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required		
2	VendorCode	Information to specify the device. If this value is changed at the time of CSP+ update, the utility software handles the CSP+ as a CSP+ of a different device.	Required		
3	CommIFTypeID	Used to specify in which configuration diagram this device is used based on the description. Description example: CCLink: Used in the CC-Link configuration diagram CCIEField: Used in the CC-Link IE Field configuration diagram CCLinkIETSN: Used in the CC-Link IE TSN configuration diagram	Required		
4	Version	Reference information. For example, assuming that the software version is A, the software is updated as versions B, C, as revised.	Required		
5	StationMode	An ID to uniquely identify station mode.	Optional		
8	AutoSettingHeaderType	For future expansion	Optional		
10	ModelCode Checks whether a model code matches the one acquired from the actual device during automatic detection of the connected device. If the network module (example: inverter and GOT) is separate from the device (main body), the model name is described by separately numbering each network.				
11	ModelCodeEx	For future expansion	Optional		
12	DevModel	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required		
13	CanProfileNum	Reference information. This element is displayed only in CSP+ profile creation support tool.	Optional		
15	IEEE802_1ASFunction	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required		
16	ReceiveFunction100M	Describes the set value to the master module as parameters.	Required		
17	RelayFunction100M	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required		
18	ReceiveFunction1G	Describes the set value to the master module as parameters.	Required		
19	RelayFunction1G	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required		
20	MultiCastFunction	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required		
21	CertificationClass	Reference information. This element is displayed only in CSP+ profile creation support tool.	Required		
40	S_B_Address	Describes the set value to the master module as parameters.	*1		
41	S_W_Address	Describes the set value to the master module as parameters.	*1		
42	R_B_Address	Describes the set value to the master module as parameters.	*1		
43	R_W_Address	Describes the set value to the master module as parameters.	*1		
44	StsW_Address	Describes the set value to the master module as parameters.	Required		
45	PDOConfigIndex1	A data referenced for PDO mapping. The display may be affected by the PDO mapping future expansion.	*2		
46	PDOConfigPDOType1	A data referenced for PDO mapping. The display may be affected by the PDO mapping future expansion.	*3		
47	PDOConfigMemoryAddress1	A data referenced for PDO mapping. The display may be affected by the PDO mapping future expansion.	*3		

Table 4.1-2 Elements Not Being Used on Utility Software Window (COMM_IF_INFO)

4.COMM_IF SECTION

No.	Element	Application	Required/ Optional		
48	PDOConfigPossibleMapping1 A data referenced for PDO mapping. The display may be affected by the PDO mapping future expansion.				
49	S_General_Address	Reference information. This element is displayed only in CSP+ profile creation support tool.	*1		
50	R_General_Address	Reference information. This element is displayed only in CSP+ profile creation support tool.	*1		

*1: The memory address information of the available communication type is required. Description of the memory address information of the unavailable communication type is prohibited.

*2: Description is required when the device performs the PDO communications. Describe the required number of indexes. When a device does not perform the PDO communications, description is prohibited.

*3: Describe a corresponding element when PDOConfigIndex is described. Description is prohibited when PDOConfigIndex is not described.

4.2 COMM_IF_INPUT Part

The COMM_IF_INPUT part describes the information related to the input information of the communication interface. (This part needs to be described when there is information output from the control side of the target module.)

The information includes the remote input RX area and remote register RWr area of the remote station.

Elements configuring the COMM_IF_INPUT part are defined based on the functions of the target module.

The configuration of each element of the COMM_IF_INPUT part, that is, the items to be described in each element, is the same.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.3.2 COMM_IF_INPUT part

Table 4.2-1 lists the items to be described in each element of the COMM_IF_INPUT part.

Table 4.2-1 List of Items to be Described in Each Element of the COMM_IF_INPUT Part

No.	ltem	Description	Required/ Optional
1	LABEL	Describes the label for identifying the element.	Required
2	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3	CATEGORY	CATEGORY Describes the category for grouping the elements.	
4	NAME Describes the element name. This item is used when displaying the name or descriptions on utility software.		Optional
5	DATATYPE ^{*1} Describes the data type of the element.		Optional
6	DEFAULT	Describes the default to be set for the element.	Optional
7	RANGE	Describes the setting range of the element.	Optional
8	MIN_INC	Describes the minimum increment applied to the element value.	Optional
9	ENG_UNIT	Describes the engineering unit applied to the element value.	Optional
10	ACCESS	Describes the access attribute of the element.	Optional
11	ASSIGN	Describes the remote input and remote register that assign the element value.	Optional
12	UI_ATTRIBUTE	Describes the display method when the element is displayed on utility software.	Optional
13	REF	REF Describes a reference to the element of the BLOCK_OUTPUT part.	
14	COMMENT	Describes the meaning of the element and usage precautions.	Optional

*1: When STRUCT is specified, refer to "STRUCT part" in Section 4.3 "COMM_IF_OUTPUT Part".

(2) CSP+ descriptions

The following shows a display example of the COMM_IF_INPUT part when the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool.

1	1	2 3		5	6			10	11	12	12 14	
_	ABEL	LABEL2 CATEGORY		DATATYPE	DEFAULT	RANGE	MIN_INC ENG_UNIT	ACCESS	ASSIGN			TREMARK
	RemoteReady		Remote READY	BOOL	DEFRICET	TUTINGE	marine chajoha	RF	RXB	oriunapour		1 TGENTINK
	nputRangeSwitch		Input range switch enable/disable setting status flag	BOOL				RF	RXC			
	RX10	RX	CH1 A/D conversion completed flag	BOOL				RF	RX10			
	RX11		CH2 A/D conversion completed flag	BOOL				RF	RX11			
	RX12		CH3 A/D conversion completed flag	BOOL				RF	RX12			
8	RX13	RX	CH4 A/D conversion completed flag	BOOL				RF	RX13			
9	RX18	RX	Warning output signal	BOOL				RF	RX18			
10	RX1C	RX	Input signal error detection signal	BOOL				RF	RX1C			
11		RX	Maximum value/minimum value reset completed flag	BOOL				RF	RX1D			
12		R₩r	Latest error code	WORD				RF	RWr0			
13	RWr1	RWr	Latest alarm code	WORD				RF	RWr1			
14	RWr2		CH1 Digital operation value	WORD				RF	R₩r2			
15	RW/3		CH2 Digital operation value	WORD				RF	RWr3			
16	RWF4	RWr	CH3 Digital operation value	WORD				RF	RWr4			
17			CH4 Digital operation value	WORD				RF	RW-5			
18	RWrA	RWr	Input signal error detection flag	STRUCT InputSigErr Flag				RF	RWA			
19	RW/B	RWr	Warning output file	STRUCT WarningOut Flag				RF	R₩B			
MESSAGE part Reference 1												
1 C 2 C 3 C	ABEL H1 InputSigErrorSigna H2 InputSigErrorSigna H3 InputSigErrorSigna H4 InputSigErrorSigna	Setting Input s	NAME NAME ignal error detection function CHI Input signal error detection si ignal error detection function CH2 Input signal error detection si ignal error detection function CH3 Input signal error detection si ignal error detection function CH4 Input signal error detection si ignal error detection function CH4 Input signal error detection signal error signal error detection signal error detection signal error detection signal error detection signal error signal error detection signal error si error si error signal error signal	etting BIT STRING4	RANGE MIN_I	NC ENG_U	0.0 REM DE 0.4 REM DE 0.8 REM DE	VICE BLOC	K PARACH	1 InputSigErrorSig 2 InputSigErrorSig 3 InputSigErrorSig 4 InputSigErrorSig	nalSetting nalSetting nalSetting	NT REMARK
				STRUCT pa	rt							

(3) Utility software

Omitted because there is no item description example for utility software.

4.3 COMM_IF_OUTPUT Part

The COMM_IF_OUTPUT part describes the information related to the output information of the communication interface. (This part needs to be described when there is information input to the control side of the target module.)

The information includes the remote output RY area and remote register RWw area of the remote station.

Elements configuring the COMM_IF_OUTPUT part are defined based on the functions of the target module.

The configuration of each element of the COMM_IF_OUTPUT part, that is, the items to be described within each element, is the same as that of the COMM_IF_INPUT part.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.3.3 COMM_IF_OUTPUT part

Table 4.3-1 lists the items to be described in each element of the COMM_IF_OUTPUT part.

Table 4.3-1 List of Items to be Described in Each Element of the COMM_IF_OUTPUT Part

No.	ltem	Description	Required/ Optional		
1	LABEL	Describes the label for identifying the element.	Required		
2	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional		
3	CATEGORY Describes the category for grouping the elements.				
4	NAME Describes the element name. This item is used when displaying the name or descriptions on utility software.				
5	DATATYPE ¹ Describes the data type of the element.				
6	DEFAULT Describes the default to be set for the element.		Optional		
7	RANGE	Describes the setting range of the element.	Optional		
8	MIN_INC	Describes the minimum increment applied to the element value.	Optional		
9	ENG_UNIT	Describes the engineering unit applied to the element value.	Optional		
10	ACCESS	Describes the access attribute of the element.	Optional		
11	ASSIGN	Describes the remote output and remote register that assign the element value.	Optional		
12	UI_ATTRIBUTE Describes the display method when the element is displayed on utility software.		Optional		
13	REF Describes a reference to the element of the BLOCK_INPUT part.				
14	COMMENT	Describes the meaning of the element and usage precautions.	Optional		

*1 STRUCT part

The STRUCT part (structure) describes the information related to the structure of the inputs and outputs of multiple elements. A structure is used when an area is divided. Each element of the structure needs to be assigned to a consecutive address.

When describing the reference to the STRUCT part, describe it in the DATATYPE of the reference source. When referencing a description of the STRUCT part from an element in the COMM_IF section, describe the STRUCT part in the same COMM_IF section.

No.	ltem	Description	Required/ Optional
1'	LABEL	Describes the label for identifying the element.	Required
2'	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3'	CATEGORY	Describes the category for grouping the elements.	Optional
4'	NAME	Describes the element name. This item is used when displaying the name or descriptions on utility software.	Optional
5'	DATATYPE	Describes the data type of the element.	Optional
6'	DEFAULT	Describes the default to be set for the element.	Optional
7'	RANGE	Describes the setting range of the element.	Optional
8'	MIN_INC	Describes the minimum increment applied to the element value.	Optional
9'	ENG_UNIT	Describes the engineering unit applied to the element value.	Optional
10'	OFFSET	Describes the offset of the element.	Optional
11'	REF	Describes the reference to be referenced by the element. When a structure is defined in the COMM_IF section, this item is used to reference input/output of the BLOCK section from each element of the structure. For references which can be described, refer to the following. Control & Communication System Profile Specification (BAP-C2008ENG-001) - 4.3.1.30 REF conventions	Optional
12'	COMMENT	Describes the meaning of the element and usage precautions.	Optional

Table 4.3-2 List of Items in the STRUCT Part

(2) CSP+ descriptions

The following shows a display example of the COMM_IF_OUTPUT part when the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool.

/	RyRWwInfo 1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	LABEL	LABEL2	CATEGORY	NAME	DATATYPE	DEFAULT	RANGE	MIN_INC	ENG_UNIT	ACCESS	ASSIGN	UI_ATTRIBUTE	REF	COMMENT	REMARK
1	InitialDataProcessComp		System area	Initial data setting request flag	BOOL					RF	RY9				
2	ErrorClearReg		System area	Error clear request flag	BOOL					RF	RYA				
3	RY1D		RY	Maximum value/minimum value reset request	BOOL					RF	RY1D				
4	RWw2		RWw	CH1 Conversion value shift amount	WORD					RF	RWw2				
5	RWw3		RWw	CH2 Conversion value shift amount	WORD					RF	RWw3				
6	RWw4		RWw	CH3 Conversion value shift amount	WORD					RF	RWw4				
7	RWw5		RWw	CH4 Conversion value shift amount	WORD					RF	RWw5				

(3) Utility software

Omitted because there is no item description example for utility software

4.4 COMM_IF_PARAMETER Part

The COMM_IF_PARAMETER part describes the information related to the parameters of the target module.

The information includes such as A/D conversion enablement/disablement and range settings of the analog-digital converter module (NZ2GN2B-60AD4).

Note that information which cannot be set or referenced via the communication interface, such as values set by using a DIP switch, is not described.

Elements configuring the COMM_IF_PARAMETER part are defined based on the communication functions of the target module.

The configuration of each element of the COMM_IF_PARAMETER part, that is, the items to be described in each element, is the same.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.3.4 COMM_IF_PARAMETER part

1) Items to be described in the COMM_IF_PARAMETER part

Table 4.4-1 lists the items to be described in each element of the COMM_IF_PARAMETER part.

Table 4.4-1 List of Items to be Described in Each Element of the COMM_IF_PARAMETER Part

No.	Item	Description	Required/ Optional
1	LABEL	Describes the label for identifying the element.	Required
2	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3	CATEGORY	Describes the category for grouping the elements.	Optional
4	NAME	Describes the element name. This item is used when displaying the name or descriptions on utility software.	Optional
5	DATATYPE	Describes the data type of the element.	Optional
6	DEFAULT	Describes the default to be set for the element.	Optional
7	RANGE	Describes the setting range of the element.	Optional
8	MIN_INC	Describes the minimum increment applied to the element value along with ENG_UNIT.	Optional
9	ENG_UNIT	Describes the engineering unit applied to the element value along with MIN_INC.	Optional
10	ACCESS	Describes the access attribute of the element.	Optional
11	WRITE_ORDER	Describes the order in which the element is to be described to the module.	Optional
12	ASSIGN	Describes the address and code that assign the element value.	Required
13	UI_ATTRIBUTE	Describes the display method when the element is displayed on utility software.	Optional
14	REF	Describes a reference to an element of the BLOCK_PARAMETER part referenced by an element of the COMM_IF_PARAMETER part.	Optional
15	COMMENT	Describes the meaning of the element and usage precautions.	Optional

2) Reference specifications of the COMM IF PARAMETER part

The specifications of parts related to the COMM_IF_PARAMETER part and reference relationship between communication services are described below.

The reference to the elements of the MESSAGE part and elements of the COMM_IF_PARAMETER part which carries out the settings and execution using the elements is described. The reference to the BLOCK_PARAMETER part cannot be described directly from the MESSAGE part. In the example of Figure 4.4-1, "Parameter Write" and "Parameter Read" are described as MESSAGE to read/write parameters 1, 2, ..., of the control function. The reference from each MESSAGE part to the BLOCK_PARAMETER part is described via the COMM_IF_PARAMETER part.

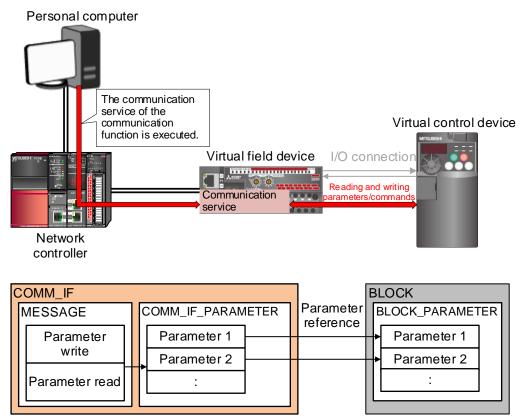
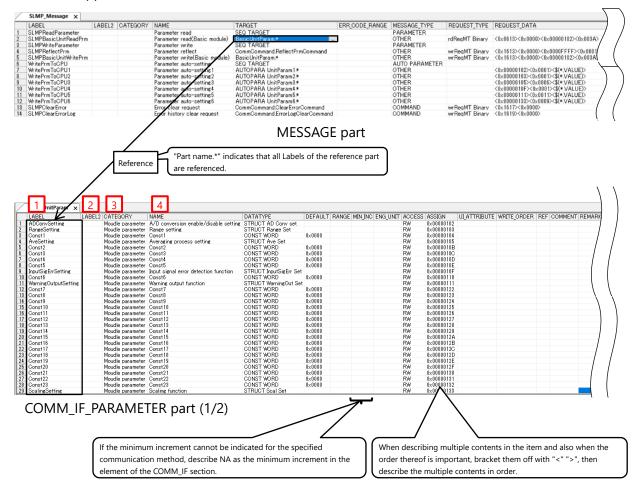


Figure 4.4-1 Example of Reference Specifications of the COMM_IF_PARAMETER Part

(2) CSP+ descriptions

Parameters are referenced in the following order. MESSAGE part (SLMP_Message) \rightarrow COMMIF_PARAMETER part (BasicUnitParam) \rightarrow STRUCT part (AD_Conv_set) \rightarrow BLOCK_PARAMETER part (BLOCK_PARA)

The following shows a display example of the COMM_IF_PARAMETER part when the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool.



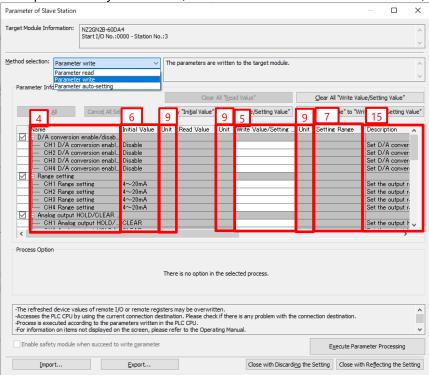
4.COMM_IF SECTION

5 DATATYPE setting STRUCT AD Com STRUCT Ances CONST WORD STRUCT Ave Set CONST WORD CONST WORD CONST WORD CONST WORD Reference	et 0x0000 0x0000 0x0000 0x0000 0x0000	9 10 12 INC ENG_UNIT ACCESS ASSIGN RW 0x00000 RW 0x00000	103 104 105 10B 10C 10D	11 14 15 WRITE_ORDER REF CO	MMENT REMARK
2 CH2 ADConversinSetting A/D of 3 CH3 ADConversinSetting A/D of	conversion enable/disable setting CH1 A/D conversi conversion enable/disable setting CH2 A/D conversi	DATATYPE DEFAULT RAN m mable/disable setting BOOL on enable/disable setting BOOL on enable/disable setting BOOL STRUCT part	KGE MINJINC ENGLUNIT O 0 0 0 0 0 0 0 0 0 0 0 0	REM DEVICE BLOCK PARACHT AD REM DEVICE BLOCK PARACH2 AD REM DEVICE BLOCK PARACH2 AD REM DEVICE BLOCK PARACH3 AD	ConversinSetting
Basic/Unit/Param AD. Contrast 1.4EEL 1.4EEL 1.8EH 1.4EEL 1.8EH 1.4EEL 2.0H2 Allo Conversite Settine 2.0H3 AD Conversite Settine 3.0H3 AD Conversite Settine 3.0H3 AnnesSettine 5.0H1 RanesSettine 3.0H3 RanesSettine 9.0H1 Avera aim ProcessSetting 1.0H4 RanesSettine 9.0H1 Avera aim ProcessSetting 1.0H4 Avera aim ProcessSetting 10.0H2 Avera aim ProcessSetting 1.0H3 Avera aim ProcessSetting 10.0H3 Avera aim ProcessSetting Value 1.0H4 Avera aim ProcessSetting Value 11.0H3 Avera aim ProcessSetting Value 1.0H1 Avera aim ProcessSetting Value 12.0H1 Avera aim ProcessSetting Value 1.0H1 Avera aim ProcessSetting Value 13.0H1 Avera aim ProcessSetting Value 1.0H1 Avera aim ProcessSetting Value 14.0H3 Insuffic ErrorSignaSettine 2.0H1 WaringOutputSettine 20.0H1 ProcessAlarmIowLow 2.0H1 ProcessAlarmIowLow 20.0H1 ProcessAlarmIowLow 2.0H1 ProcessAlarmIowLow 20.0H2 ProcessAlarmIowLow 3.0H3 ProcessAlarmIowLow 20.0H2 ProcessAlarmIowLow 3.0H3 ProcessAlarmIowLow 20.0H3 ProcessAlarmIowLow 3.0H3 ProcessAlarmIow	BLOCK_PARA × ABEL2 CATEGORY ADD Conversion enable/disable setting ADD	CH3 A/D conversion enable/disable setting	OATATYPE DEFAULT BOOL 0 BTTOR 0 BIT STRINAG 0.0 BIT STRINAG	IRANGE MIN INC ENUM EnableOFF DisableON ENUM EnableOFF DisableON ENUM EnableOFF DisableON ENUM RaneSoft ENUM RaneSoft EnableON ENUM RaneSoft EnableON ENUM RaneSoft EnuM RaneSoft ENUM RaneSoft EnuM RaneSoft ENUM RaneSoft EnuM AveProcess Set ENUM AveProcess Set EnuM routSig Err Set ENUM InoutSig Err Set ENUM InoutSig Err Set ENUM InoutSig Err Set ENUM EnableON ENUM EnableOFF DisableON EnuM EnableOFF DisableON E-32788.327671 E-32788.327671 E-32788.327671	ENG_UNIT ACCESS FRW FRW FRW FRW FRW FRW FRW FRW FRW FRW
	t A/D conversion to "enable" or "disable". t the input range. t the input range. t "Sampling processing" or "Averaging process "Sampling processing" or "Averaging process the time average (ma), count average (time), t the time average (ma), count average (time), t a condition of detecting an error. t a condition of detecting an error. t a condition to "enable" or "diable". t warning output to "enable" or "diable". t warning output to "enable" or "diable". t a upper lower timit value of the digital operatit t a lower lower timit value of the digital operatit t a lower lower timit value of the digital operatit t a lower lower timit value of the digital operatit t a lower lower timit value of the digital operatit t a lower lower timit value of the digital operatit t a lower lower timit value of the digital operatit t a lower lower timit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower lower limit value of the digital operatit t a lower	nre". nre". nre". novine average count (times), movine average count (times), movine average count (times), nvalue, n value, n v	(2/2)		REMARK

BLOCK_PARAMETER part (2/2)

(3) Utility software ("Parameter of Slave Station" window)

The following shows how the descriptions in the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) are displayed on the utility software. The following is a display example of utility software ("Parameter of Slave Station" window).



(4) Items not being used on the utility software window despite being described in the CSP+ description specifications

Table 4.4-2 lists the items not being used on the utility software window despite being described in the CSP+ description specifications.

No.	Item Application		Required/ Optional
1	LABEL	Used as an identifier.	Required
2	LABEL2 Describes the label for identifying the element. (This item is used when the utility software supports other languages.)		Optional
3	CATEGORY Reference information. This item is displayed in CSP+ profile creation support tool.		Optional
8	MIN_INC	Uses the numerical value in which the user input value is multiplied by the value described in MIN_INC during internal processing.	Optional
10	ACCESS	Used to identify the access information of the target item: "Readable", "Writable", "Readable and writable", "Auto refreshable", and "Element not accessible". For details on the description of the element, refer to the following. Control & Communication System Profile Specification (BAP-C2008ENG-001) - 4.3.1.1 ACCESS conventions	Optional
11	WRITE_ORDER	Used as sequence information when writing parameters to the actual device. (Values are written in ascending order.)	Optional
12	ASSIGN	Used to analyze the address and code assigned to the element.	Optional
13	UI_ATTRIBUTE	For future expansion	Optional
14	REF	Used to identify the reference relationship.	Optional

Table 4.4-2 Items Not Being Used on the Utility Software Window (COMM_IF_PARAMETER)

ADConvSetting Moudle parameter A/D conversion enable/disable setting STRUCT AD Conv set RangeSetting Moudle parameter Range setting Const CONST WORD 0x0000 AveSetting Moudle parameter Const1 CONST WORD 0x0000 Const2 Moudle parameter Const3 CONST WORD 0x0000 Const3 Moudle parameter Const3 CONST WORD 0x0000 Const4 Moudle parameter Const5 CONST WORD 0x0000 Const5 Moudle parameter Const5 CONST WORD 0x0000 Const5 Moudle parameter Const5 CONST WORD 0x0000 Const6 CONST WORD 0x0000 Const7 WORD 0x0000 Const6 CONST WORD 0x0000 Const6 CONST WORD 0x0000 Const7 WORD 0x0000 Const7 WORD 0x0000 Const6 CONST WORD 0x0000 Const7 WORD 0x0000 Const7 WORD 0x0000 Const7 WORD 0x0000 Const6 CONST WORD 0x0000 Const7 WORD 0x000 Const7	
IABEL IABEL2 CATEGORY NAME DATATYPE DEFAULT BADCon-Setting Moule parameter Rare setting Const 1 Statu/T Const 2 Oront 1 Moule parameter Const 1 Const 2 Const 2 Avecaring process setting Const 2 Const 2 Const 3 Const 3 <td< th=""><th></th></td<>	
ADCONSETTING Moule parameter ADC conversion enable/disable setting STRUCT AD Conversion ReverSetting Moule parameter Const1 STRUCT AP Set 00000 Const1 Moule parameter Const1 Const1 Moule parameter Const1 Moule parameter Const1 Const1 Moule parameter Const1 Moule parameter Const1 Const1 Moule parameter Const1 Moule parameter Const1 Const1 Moule parameter Const1 Const1 Moule parameter Const1 Moule parameter Const1 Const1 <th>RANGE MIN INC ENG UNIT ACCESS ASSI</th>	RANGE MIN INC ENG UNIT ACCESS ASSI
Const 1 Moude parameter Const 1 Const	RW 0×00
AvesSetting Moude parameter Averaging process setting STRUCT Ave Set CONST WORD Orinitä Moude parameter Consti CONST WORD Bu0000 Consti Meude parameter Consti Consti CONST WORD Bu0000 Consti Meude parameter Consti Describer the unit on Consti Consti Bit STRNA Bit STRN	RW 0×00
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Hange_Sett x Describe the unit on LABEL CATEOORY NAME DATATYPE DEFAULT RANSE MIN_NO F CH2 Representing Ranse setting CH2 Representing ETT STRING4 F F CH3 Representing Ranse setting CH3 Representing ETT STRING4 F F CH4 Representing Ranse setting ETT STRING4 F	BW 000
LABEL CATEGORY NAME DATATYPE DEFAULT RANGE MIN_NO Fill CH1 Renge setting Range setting CH1 Renge setting CH1 CH1 Renge setting <	the COMMIF_PARAMETER part side.
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CH3 RangeSetting Range setting CH4 Range setting EIT STRIN44 0.8 CH4 RangeSetting The STRUCT part (Range_Set) referenced from the COMM_IF_PARAMETER part (BasicUnitParam) and the BLOCK_PARAMETER part (BLOCK_PARA) have a reference relationship. Data type: Charge Setting Data typ	REM DEVICE.BLOCK PARA.CH1 RangeSetti
CHI RanesSetting Range setting CH4 Range setting BIT STRING4 00 The STRUCT part (Range_Set) referenced from the COMM_IF_PARAMETER part (BasicUnitParam) and the BLOCK_PARAMETER part (BLOCK_PARA) have a reference relationship. BLOCK_PARA X LABEL2 CATEGORY NAME CHI RanesSetting Ranes setting CH4 Ranes setting BIT STRING4 to CHI RanesSetting Ranes setting CH4 Ranes setting BIT STRING4 to CH4 RanesSetting Ranes setting CH4 Ranes setting BIT STRING4 to CH4 RanesSetting Ranes setting CH4 Ranes setting BIT STRING4 to CH4 RanesSetting Ranes setting CH4 Ranes setting BIT STRING4 to CH4 RanesSetting Ranes setting CH4 Ranes setting BIT STRING4 to CH4 RanesSetting Ranes setting CH4 Ranes setting BIT STRING4 to STRING4 to CH4 RanesSetting Ranes setting CH4 Ranes setting BIT STRING4 to BIT STRING4 to CH4 RanesSetting Ranes setting CH4 Ranes setting BIT STRING4 to STRING4 to Start J(O No.:0000 - Station No.:3 The ENG_UNIT item in the both the STRUCT part (Ra BLOCK_PARAMETER part (BLOCK_PARA) referenced ff COMJ_IF_PARAMETER part (BLOCK_PARA) referenced ff	REM DEVICE.BLOCK PARA.CH2 RangeSetti REM DEVICE.BLOCK PARA.CH3 RangeSetti
(BasicUnitParam) and the BLOCK_PARAMETER part (BLOCK_PARA) have a reference relationship. (Interview) Interview) (Interview)	REM DEVICE.BLOCK PARA.CH4 RangeSetti
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CH4 RargeSetting Rarge setting CH4 Rarge setting BIT STRING4 0 Image: Station Image: Statio	x0 ENUM RangeSet
Image: setting Image: setting Image: setting Set the parameters that support memory Image: setting Set the parameters that support memory <td></td>	
Parameter Information Clear All Bead Beameter Information Clear All Bead Select All Cancel All Selectons Conversion enable/disable Copy Tinglal Value* to "Write view" D/A conversion enable/disable Initial Value Hourit Mame Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/disable Set D/A conversion enable/disable Hour CH4 D/A conversion enable/di	
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Select AJ Cancel AI Selections Copy "Initial Value" to "Write V → The description in the STRUCT part (Range_Set) re COMM_IF_PARAMETER part (BasicUnitParam) is disple Name Initial Value Unit Write V → The description in the STRUCT part (Range_Set) re COMM_IF_PARAMETER part (BasicUnitParam) is disple D/A conversion enable./disable Initial Value Unit Write V → CH1 D/A conversion enable. Disable Set D/A conversion → CH3 D/A conversion enable. Disable Set D/A conversion → CH4 D/A conversion enable. Disable Set D/A conversion → CH4 Barge setting 4~20mA Cs Cs → CH3 Range setting 4~20mA Set the output r. → CH3 Range setting 4~20mA Set the output r. → CH3 Range setting 4~20mA Set the output r. → CH3 Range setting 4~20mA Set the output r. → CH3 Range setting 4~20mA Set the output r. → Anabog output HOLD/CLEAR Set the output r. Set the output r. → CH1 Analog output HOLD/CLEAR Set the output r. → CH1 Analog output HOLD/CLEAR Set the output r.	
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Name Initial Value Unit Read Value □ D/A conversion enable. Disable Set D/A conversion □ CH1 D/A conversion enable. Disable Set D/A conversion □ CH2 D/A conversion enable. Disable Set D/A conversion □ CH4 D/A conversion enable. Disable Set D/A conversion □ CH4 D/A conversion enable. Disable Set D/A conversion □ CH4 D/A conversion enable. Disable Set D/A conversion □ CH4 D/A conversion enable. Disable Set D/A conversion □ CH4 D/A conversion enable. Disable Set D/A conversion □ CH4 Range setting 4~20mA Set the output r. □ CH3 Range setting 4~20mA Set the output r. □ CH4 Range setting 4~20mA Set the output r. □ Analog output H0D/D/CLEAR Set the output r. □ CH1 Analog output H0D/D/CLEAR Set the output r. Analog output H0D/D/CLEAR Set the output r.	ferenced from the
Image: D/A conversion enable/disable Set D/A conversion Image: D/A conversion enable Disable Image: D/A conversion Set the output r. Image: D/A conversion Set	layed.
→ CH1 D/A conversion enabl. Disable Set D/A conversion → CH3 D/A conversion enabl. Disable Set D/A conversion → CH3 D/A conversion enabl. Disable Set D/A conversion → CH4 D/A conversion enabl. Disable Set D/A conversion → CH4 D/A conversion enabl. Disable Set D/A conversion → CH4 Range setting 4~20mA Set the output r. → CH3 Range setting 4~20mA Set the output r. → CH3 Range setting 4~20mA Set the output r. → CH3 Range setting 4~20mA Set the output r. → CH3 Range setting 4~20mA Set the output r. → CH4 Range setting 4~20mA Set the output r. → CH4 Range setting 4~20mA Set the output r. → CH4 Range setting 4~20mA Set the output r. → Analog output HOLD/CLEAR Set the output r. → CH4 Analog output HOLD/CLEAR Set the output r. → Process Option Set the output r.	
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□ CH4 D/A conversion enabl. Disable Set D/A conversion □ Range setting 4~20mA Cs Cs □ CH2 Range setting 4~20mA Set the output r. □ CH2 Range setting 4~20mA Set the output r. □ CH3 Range setting 4~20mA Set the output r. □ CH4 Range setting 4~20mA Set the output r. □ CH4 Range setting 4~20mA Set the output r. □ CH4 Range setting 4~20mA Set the output r. □ CH4 Range setting 4~20mA Set the output r. □ CH4 Range setting 4~20mA Set the output r. □ CH4 Range setting Set the output r.	
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CH4 Range setting 4~20mA Set the output r CH4 Range output HOLD/CLEAR CH1 Analog output HOLD/_ CLEAR Set the output HOLD/_ CLEAR Set the output HOLD/_ CLEAR Process Option	
Image: Process Option Image: Process Option	
CHI Analog output HOLD/_ CLEAR Set the output H	
Process Option	
There is no option in the selected process.	
The value set in write value/setting value is set to slave station automatically by Slave Station Parameter Automatic Setting function. For information on items not displayed on the screen, please refer to the Operating Manual.	

4.5 COMM_IF_COMMAND Part

The COMM_IF_COMMAND part describes the information related to commands issued by the communication interface.

The information includes such as the error clear request of the analog-digital converter module (NZ2GN2B-60AD4).

Elements configuring the COMM_IF_COMMAND part are defined based on the communication functions of the target module.

The configuration of each element of the COMM_IF_COMMAND part, that is, the items to be described in each element, is the same.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.3.5 COMM_IF_COMMAND part

 Items to be described in the COMM_IF_COMMAND part Table 4.5-1 lists the items to be described in each element of the COMM_IF_COMMAND part.

Table 4.5-1 List of Items to be Described in Each Element of the COMM_IF_COMMAND Part

No. Item		Description	Required/ Optional
1	LABEL Describes the label for identifying the element.		Required
2 LABEL2		Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3	CATEGORY	Describes the category for grouping the elements.	Optional
4 NAME		Describes the element name. This item is used when displaying the name or descriptions on utility software.	Optional
5 ARGUMENT		Describes the label corresponding to the COMMAND_ARGUMENT part for indicating the argument to be used by the element.	Optional
6	REF Describes the reference to the BLOCK_COMMAND part from the element. ¹²		Optional
7	COMMENT Describes the meaning of the element and usage precautions.		Optional

*2 COMMAND ARGUMENT

The COMMAND_ARGUMENT part (command argument list) describes the information related to arguments of the COMM_IF_COMMAND part.

Table 4.5-2 List of Items in the COMMAND_ARGUMENT Part Required/ No. Item Description Optional 1' LABEL Describes the label for identifying the element. Required Describes the label for identifying the element. 2' LABEL2 Optional (This item is used when the utility software supports other languages.) CATEGORY Describes the category for grouping the elements. Optional Describes the element name. This item is used when displaying the name or 4' NAME Required descriptions on utility software. DATATYPE Required Describes the data type of the element. DEFAULT 6' Describes the default to be set for the element. Optional RANGE Describes the setting range of the element. Optional Describes the minimum increment applied to the value of the element in the 8' MIN INC Optional command argument list along with ENG_UNIT. Describes the engineering unit applied to the value of the element in the command 9' ENG_UNIT Optional argument list along with MIN_INC. 10 ACCESS Required Describes the access attribute of the element. 11 ASSIGN Optional Describes the address and code to be assigned to the element. Describes the reference to be referenced by the element. Use of this item is Optional 12 REF prohibited under the current specifications. COMMENT Describes the meaning of the element and usage precautions. Optional

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2) Reference specifications of the COMM_IF_COMMAND part

The specifications of parts related to the COMM_IF_COMMAND part and reference relationship between communication services are described below. The reference to the elements of the MESSAGE part and elements of the COMM_IF_COMMAND part which carries out the settings and execution using the elements to is described. The reference to the BLOCK_COMMAND part cannot be described directly from the MESSAGE part.

In the example of Figure 4.5-1, "Command A execution" and "Command B execution" are described as MESSAGE to execute commands A and B.

The reference from each MESSAGE part to the BLOCK_COMMAND part is described via the COMM_IF_COMMAND part.

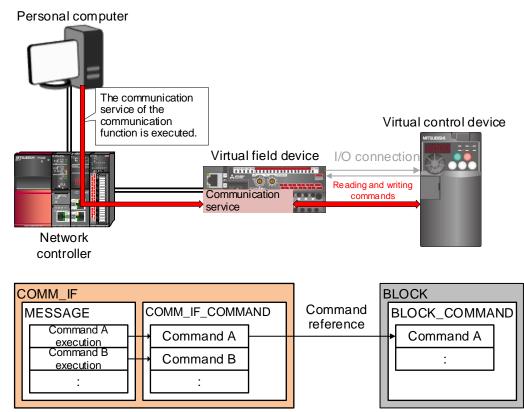


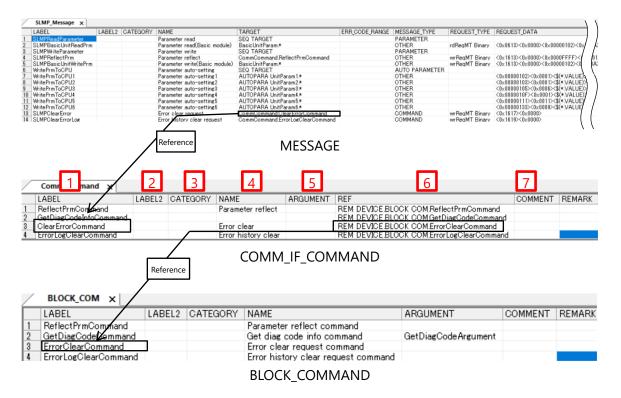
Figure 4.5-1 Example of Reference Specifications of the COMM_IF_COMMAND Part

(2) CSP+ descriptions

Parameters are referenced in the following order. MESSAGE part (SLMP_Message) \rightarrow COMM_IF_COMMAND part (CommCommand) \rightarrow

BLOCK_COMMAND part (BLOCK_COM)

The following shows a display example of the COMM_IF_COMMAND part when the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool. The following shows a reference example of error clear request in "NAME".



(3) Utility software - ("Command Execution of Slave Station" window)

The following shows how the descriptions in the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) are displayed on the utility software. The following is a display example of utility software ("Command Execution of Slave Station" window).

Command Execution of Slave Station	×
Target Module Information: NZ2GN28-60DA4 Start I/O No.:0000 - Station No.:3	^ ~
Method selection: 4 Error clear request ~ The error of the target module is cleared.	^ ~
Command Setting	
There is no command setting in the selected process.	
Execution Result	
-The refreshed device values of remote I/O or remote registers may be overwritten. -Accesses the PLC CPU by using the current connection destination. Please check if there is any problem with the connection d -Process is executed according to the parameters written in the PLC CPU. -For information on items not displayed on the screen, please refer to the Operating Manual.	estination.
	E <u>x</u> ecute
Save in the CSV file	Close

(4) Items not being used on the utility software window despite being described in the CSP+ description specifications

Table 4.5-2 lists the items not being used on the utility software window despite being described in the CSP+ description specifications.

Table 4.5-2 Items Not Being Used on the Utility Software Window (COMM_IF_COMMAND,
COMMAND_ARGUMENT)

No.		ltem	Application	Required/ Optional
1	1'	LABEL	Used as an identifier.	Required
2	2'	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3	3'	CATEGORY	Reference information. This item is displayed in CSP+ profile creation support tool.	Optional
5		ARGUMENT	Used to identify the reference relationship to the COMMAND_ARGUMENT part.	Optional
6	12	REF	Used to identify the reference relationship.	Optional
7		COMMENT	Reference information. This item is displayed in CSP+ profile creation support tool.	Optional
8'		MIN_INC	Uses numerical values in which the user input value is multiplied by the value described in MIN_INC during internal processing.	Optional
10		ACCESS	Used to identify the access information of the target item: "Readable", "Writable", "Readable and writable", "Auto refreshable", and "Element not accessible". For details on the description of the element, refer to the following. Control & Communication System Profile Specification (BAP-C2008ENG-001) - 4.3.1.1 ACCESS conventions	Required
11		ASSIGN	Used to analyze the address and code assigned to the element.	Optional

4.6 MESSAGE Part

The MESSAGE part describes the information related to commands issued by the communication interface and the parameter setting procedure in the same manner as the METHOD part.

The MESSAGE part describes commands that use transient commands and data format for the parameter setting.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.3.7 MESSAGE part

1) Items to be described in the MESSAGE part

Table 4.6-1 lists the items to be described in each element of the MESSAGE part.

Table 4.6-1 List of Items to be Described in Each Element of the MESSAGE Part

No.	ltem	Description	Required/ Optional
1	LABEL	Describes the label for identifying the element. Add "SLMP" as a prefix for SLMP-based MESSAGE. Example: SLMPGetParam, SLMPInvReset	Required
2	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3	CATEGORY	Describes the category for grouping the elements.	Optional
4	NAME	Describes the element name. This item is used when displaying the name or descriptions on utility software.	Required
5	TARGET	Describes the element processed by the corresponding MESSAGE part.	Required
6	MESSAGE_TYPE	Describes the MESSAGE type.	Required
7	REQUEST_TYPE	Describes the type of data format for request processing.	*1
8	REQUEST_DATA	Describes the values for request processing.	Optional
9	REQUEST_DATA_TYPE	Describes the data type of REQUEST_DATA.	Optional
10	RESPONSE_TYPE	Describes the data format type for response processing.	Optional
11	RESPONSE_DATA	Describes the values for response processing.	Optional
12	RESPONSE_DATA_TYPE	Describes the data type of REQUEST_DATA.	Optional
13	ERR_TYPE	Describes the type of data format to be used by the response processing when an error occurs.	Optional
14	ERR_CODE_RANGE	Indicates the error code range.	Optional
15	RELATED_ MESSAGE	Describes the reference to the elements of the MESSAGE part that indicates the pre-processing of the MESSAGE part.	Optional
16	COMMENT	Describes the meaning of the element and usage precautions.	Optional

*1: Required when the item is described in SLMP MESSAGE.

In the case of MESSAGE other than SLMP, MESSAGE should be described according to each MESSAGE specifications. For details, refer to the following.

Control & Communication System Profile Specification (BAP-C2008ENG-001)

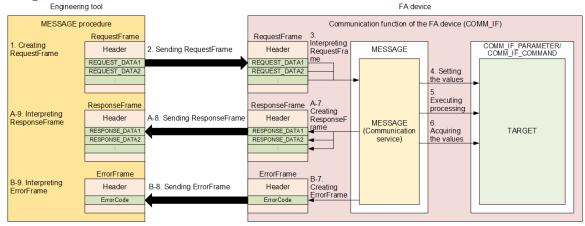
- 5.5.10.1 Parts and elements related to error related information

- 5.5.10.2 Convention related to MESSAGE for slave station parameter automatic setting

2) MESSAGE operation

When performing the communication service that specifies the data format, define and use the data format for the service request to FA devices (RequestFrame), data format for the service response from FA devices at normal end (ResponseFrame), and data format for the error response from FA devices when an error occurs (ErrorFrame).

The following figure shows the communication service procedures and data area information using above-mentioned items.



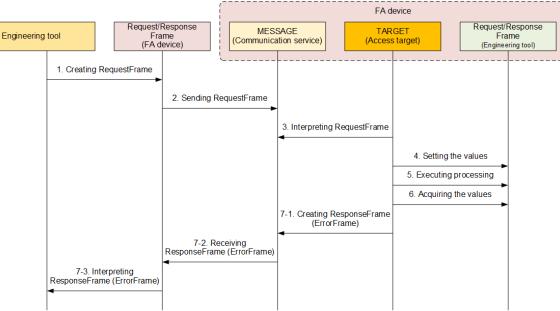
- 3) MESSAGE call and operation sequence
 - 1. Create a RequestFrame in the data format determined by REQUEST_TYPE, and set REQUEST __DATA in the format.
 - 2. Send the RequestFrame to the communication function in the FA device.
 - 3. Upon receiving the RequestFrame, the communication function in the FA device parses the RequestFrame and reads the instruction code and setting values.
 - 4. Specify the setting values to TARGET in accordance with the communication service and instruction code.
 - 5. Execute processing of TARGET in accordance with the communication service and instruction code.
 - 6. Acquire the acquisition values of TARGET in accordance with the communication service and instruction code.

[When processing completed successfully]

- 7-1. Set the acquisition values to the ResponseFrame in accordance with the communication service, instruction code, and data format corresponding to RESPONSE_TYPE.
- 7-2. Receive the ResponseFrame from the communication function in the FA device.
- 7-3. Interpret the ResponseFrame in the data format determined by RESPONSE_TYPE, and read RESPONSE_DATA.

[When processing completed with an error]

- 7-1. Set the acquisition values in the ErrorFrame in accordance with the communication service, command code, and data format corresponding to ERR_TYPE.
- 7-2. Receive the ErrorFrame from the communication function in the FA device.
- 7-3. Interpret the ErrorFrame in the data format determined by RESPONSE_TYPE, and read ErrorCode.



(2) CSP+ descriptions

Parameters are referenced in the following order.

MESSAGE part (SLMP_Message) \rightarrow COMM_IF_PARAMETER part (BasicParam) \rightarrow BLOCK_PARAMETER part (BLOCK_PARA)

The following shows a display example of the MESSAGE part when the CSP+ for the analog -digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool.

LMPEscadParameter LMPBasicUniReadPrm LMPBaticutReadPrm LMPBasicUnitWitePrm MitePrmToCPU ArtePrmToCPU2 ArtePrmToCPU3 ArtePrmToCPU3 ArtePrmToCPU5 ArtePrmToCPU5 LMPClearError LMPClearErrorLog	8	Parameter read Parameter read(Basic module) Parameter write Parameter write(Basic module Parameter auto-setting 1 Parameter auto-setting 1 Parameter auto-setting 3 Parameter auto-setting 4 Parameter auto-setting 6 Parameter auto-setting 6 Error clear request Error history clear request	SEQ TARGET CommCommand.ReflectPrmCom	and	OTH PAR OTH OTH AUT OTH OTH OTH OTH OTH	AMETER ER ER ER ER ER ER ER ER ER ER	rdRegMT Binary wrRegMT Binary wrRegMT Binary	
LMPWriteParameter LMPBasicUmtWitePrm kritePrmToCPU kritePrmToCPU1 kritePrmToCPU3 kritePrmToCPU3 kritePrmToCPU4 kritePrmToCPU5 kritePrmToCPU6 LMPClearError	8	Parameter write Parameter write(Basic module Parameter write(Basic module Parameter auto-setting 1 Parameter auto-setting 3 Parameter auto-setting 3 Parameter auto-setting 5 Parameter auto-setting 5 Error clear request Error history clear request	SEO TARGET CommCommand ReflectPrmComi) Basic UnitParam * SEO TARGET AUTOPARA UnitParam * AUTOPARA UnitParam * AUTOPARA UnitParam * AUTOPARA UnitParam * AUTOPARA UnitParam * AUTOPARA UnitParam * AUTOPARA UnitParam *	and	PAR OTH OTH AUT OTH OTH OTH OTH OTH	AMETER ER ER ER ER ER ER ER ER ER ER	wrRegMT Binary wrRegMT Binary	
LMPReflectPrm LMPBasicUnitWitePrm witePrmToCPU witePrmToCPU2 witePrmToCPU3 witePrmToCPU3 witePrmToCPU4 witePrmToCPU5 witePrmToCPU6 LMPCleatError	8	Parameter reflect Parameter write(Basic module Parameter auto-setting Parameter auto-setting2 Parameter auto-setting2 Parameter auto-setting4 Parameter auto-setting6 Error clear request Error history clear request	CommCommand ReflectPrmComi) BasicUnitParam.* SEO TARGET AUTOPARA UnitParam1* AUTOPARA UnitParam2* AUTOPARA UnitParam3* AUTOPARA UnitParam5* AUTOPARA UnitParam5* CommCommandClearErorComm	and	OTH OTH AUT OTH OTH OTH OTH OTH OTH	ER ER ER ER ER ER ER ER ER ER	wrRegMT Binary	
LMPBasicUnitWritePrm writePrmToCPU1 writePrmToCPU2 writePrmToCPU2 writePrmToCPU3 writePrmToCPU4 writePrmToCPU5 writePrmToCPU6 LMPClearError	8	Parameter write(Basic module Parameter auto-setting 1 Parameter auto-setting 1 Parameter auto-setting 3 Parameter auto-setting 3 Parameter auto-setting 5 Parameter auto-setting 6 Error clear request Error history clear request	 Basic UnitParam* SEQ TARGET AUTOPARA UnitParam1* AUTOPARA UnitParam2* AUTOPARA UnitParam3* AUTOPARA UnitParam3* AUTOPARA UnitParam5* AUTOPARA UnitParam5* CommCommandClearEroroComm 	and	OTH AUTO OTH OTH OTH OTH OTH OTH	ER D PARAMETER ER ER ER ER ER	wrRegMT Binary	
writePrmToCPU writePrmToCPU1 writePrmToCPU2 writePrmToCPU3 writePrmToCPU4 writePrmToCPU5 writePrmToCPU6 LMPClearError	8	Parameter auto-setting Parameter auto-setting 1 Parameter auto-setting 2 Parameter auto-setting 4 Parameter auto-setting 4 Parameter auto-setting 6 Error clear request Error history clear request	SEO TARGET AUTOPARA UnitParam1* AUTOPARA UnitParam2* AUTOPARA UnitParam3* AUTOPARA UnitParam4* AUTOPARA UnitParam6* AUTOPARA UnitParam6* CommCommandClearErorComm		AUT OTH OTH OTH OTH OTH OTH	D PARAMETER ER ER ER ER ER ER		
hritePrmToCPU1 hritePrmToCPU2 hritePrmToCPU3 hritePrmToCPU4 hritePrmToCPU5 hritePrmToCPU6 LMPClearError	8	Parameter auto-setting 1 Parameter auto-setting 2 Parameter auto-setting 3 Parameter auto-setting 4 Parameter auto-setting 5 Parameter auto-setting 6 Error clear request Error history clear request	AUTOPARA UnitParam1* AUTOPARA UnitParam2* AUTOPARA UnitParam3* AUTOPARA UnitParam4* AUTOPARA UnitParam5* AUTOPARA UnitParam5* CommCommandClearErrorComm		OTH OTH OTH OTH OTH OTH OTH	ER ER ER ER ER ER		A A
hritePrmToCPU2 hritePrmToCPU3 hritePrmToCPU4 hritePrmToCPU5 hritePrmToCPU6 LMPClearError	8	Parameter auto-setting? Parameter auto-setting? Parameter auto-setting? Parameter auto-setting? Parameter auto-setting? Error clear request Error history clear request	AUTOPARA UnitParam2* AUTOPARA UnitParam3* AUTOPARA UnitParam4* AUTOPARA UnitParam5* AUTOPARA UnitParam5* AUTOPARA UnitParam6.* CommCommandClearErrorComm		OTH OTH OTH OTH OTH OTH	ER ER ER ER		
hritePrmToCPU3 hritePrmToCPU4 hritePrmToCPU5 hritePrmToCPU6 LMPClearError	8	Parameter auto-setting3 Parameter auto-setting4 Parameter auto-setting5 Parameter auto-setting5 Error clear request Error history clear request	AUTOPARA UnitParam3.* AUTOPARA UnitParam4.* AUTOPARA UnitParam5.* AUTOPARA UnitParam6.* CommCommandClearErrorComm		ОТН ОТН ОТН ОТН	R R R		2
hritePrmToCPU4 hritePrmToCPU5 hritePrmToCPU6 LMPClearError	8	Parameter auto-setting4 Parameter auto-setting5 Parameter auto-setting6 Error clear request Error historv clear request	AUTOPARA UnitParam4* AUTOPARA UnitParam5* AUTOPARA UnitParam6* CommCommand.ClearErrorComm		OTH OTH OTH	R R R		1
/ritePrmToCPU5 /ritePrmToCPU6 LMPClearError	8	Parameter auto-setting5 Parameter auto-setting6 Error clear request Error history clear request	AUTOPARA UnitParam5* AUTOPARA UnitParam6* CommCommand.ClearErrorComm		OTH OTH	ER ER		
/ritePrmToCPU6 LMPClearError	8	Parameter auto-setting6 Error clear request Error history clear request	AUTOPARA UnitParam6.* CommCommand.ClearErrorComm		OTH	ER		-/-
LMPClearError	8	Error clear request Error history clear request	CommCommand.ClearErrorComm					
	8	Error history clear request			COM			1
LMPClearErrorLog	8		CommCommand.ErrorLogClearCo			MAND	wrRegMT Binary	
	8	_		mmand	COM	MAND	wrReaMT Binary	~
SLMP_Message x REQUEST_DATA		9 REQUEST_DATATY	/PE	10 RESPONSE_TYPE	11 RESPONSE_DA	12 TA RESPONSE	E_DATATYPE ER	THE REAL PROPERTY IN THE REAL PROPERTY INTERNAL PROPERTY
<0x0613><0x0000><0>	<00000102><0x003A>	<word><word><i< td=""><td>DWORD><word></word></td><td>rdResMT Binary</td><td><\$(*.VALUE)></td><td><\$(*.DATA</td><td>TYPE)></td><td>' /</td></i<></word></word>	DWORD> <word></word>	rdResMT Binary	<\$(*.VALUE)>	<\$(*.DATA	TYPE)>	' /
	0000FFFF×0x0001×0		DWORD> <word></word>	wrResMT Binary				
	<00000102><0×003A><\$(DWORD> <word><\$(*.DATATYPE)></word>	wrResMT Binary				<i>' '</i>
<0x00000102><0x0001		<dword><word></word></dword>						
<pre><0x00000103><0x0001 <0x0000105><0x00001</pre>		<dword><word> <dword><word></word></dword></word></dword>						1
<0x0000010F><0x0000		<pre><dword><word></word></dword></pre>					/	′.
<0x00000111×0x001		<pre> <</pre>					/	
<0x00000133><0x000		<dword><word></word></dword>					/	- [-
<0x1617><0x0000>	W NUCLEY	<word><word></word></word>	νφ. 200000 C	wrResMT Binary				
<0x1619><0x0000>		<word><word></word></word>		wrResMT Binary				
13 15]				16			
RR_TYPE RELATED_ME					COMMENT			REM
<seq slmpb<="" td=""><td>asicUnitReadPrm></td><td></td><td></td><td></td><td>The parameters</td><td>are read from the t</td><td>arget module.</td><td></td></seq>	asicUnitReadPrm>				The parameters	are read from the t	arget module.	
<seq slmpb<="" td=""><td>asicUnitWritePrm><seq slm<="" td=""><td>1PReflectPrm></td><td></td><td></td><td>The parameters</td><td>are written to the t</td><td>arget module.</td><td></td></seq></td></seq>	asicUnitWritePrm> <seq slm<="" td=""><td>1PReflectPrm></td><td></td><td></td><td>The parameters</td><td>are written to the t</td><td>arget module.</td><td></td></seq>	1PReflectPrm>			The parameters	are written to the t	arget module.	
<seq td="" writepri<=""><td>mToCPU1><seq td="" writeprmto<=""><td>oCPU2><seq writeprmtocpu3=""><seq< td=""><td>WritePrmToCPU4><seq writeprmtocpu5=""></seq></td><td><seq writeprmtocpu6=""></seq></td><td>Set the paramete</td><td>ers that support par</td><td>rameter auto-setting.</td><td></td></seq<></seq></td></seq></td></seq>	mToCPU1> <seq td="" writeprmto<=""><td>oCPU2><seq writeprmtocpu3=""><seq< td=""><td>WritePrmToCPU4><seq writeprmtocpu5=""></seq></td><td><seq writeprmtocpu6=""></seq></td><td>Set the paramete</td><td>ers that support par</td><td>rameter auto-setting.</td><td></td></seq<></seq></td></seq>	oCPU2> <seq writeprmtocpu3=""><seq< td=""><td>WritePrmToCPU4><seq writeprmtocpu5=""></seq></td><td><seq writeprmtocpu6=""></seq></td><td>Set the paramete</td><td>ers that support par</td><td>rameter auto-setting.</td><td></td></seq<></seq>	WritePrmToCPU4> <seq writeprmtocpu5=""></seq>	<seq writeprmtocpu6=""></seq>	Set the paramete	ers that support par	rameter auto-setting.	
-					The error of the	tanzet module is cli	eared	

(3) Utility software - ("Parameter of Slave Station" window/"Command Execution of Slave Station" window)

The following shows how the descriptions in the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) are displayed on the utility software. The following is a display example of utility software ("Parameter of Slave Station" window/"Command Execution of Slave Station" window).

4	Start I/O No.:0	000 - Station N	- Г	16						
hod selection: Parameter Parameter Parameter Parameter Info Parameter	read write	~	The	parameters are	e read f	rom the target module.				
				Clear	All "Re	ad Value"		Clear All "Write Va	lue/Setting Value"	
Select <u>A</u> ll	Cancel All Se	ections	Сор	y "Ini <u>t</u> ial Value"	to "Wri	te Value/Setting Value"	Сору	"Rea <u>d</u> Value" to "W	/rite Value/Setting V	alue
Name ☑ □ D/A conversion Image: CH1 D/A con Image: CH2 D/A con Image: CH3 Range sin Image: CH3	version enabl version enabl version enabl etting etting etting etting OLD/CLEAR	Disable Disable Disable 4~20mA 4~20mA 4~20mA 4~20mA	Unit	Read Value	Unit	Write Value/Setting	Unit	Setting Range	Description Set D/A conver Set D/A conver Set D/A conver Set D/A conver Set the output n Set the output n Set the output n Set the output n	
The refreshed device val Accesses the PLC CPU by Process is executed acco For information on items r	using the current rding to the para	nt connection d ameters written	gisters r estinati in the l	ion. Please cheo PLC CPU.	tten. :k if the	re is any problem with the	e conne	ction destination.		

mmand Execution of Slave S	ation	
arget Module Information:	NZ2GN2B-60DA4 Start I/O No.:0000 - Station No.:3	
ethod selection:	Error clear request Error clear request Error history clear request The error of the target module is cleared.	
Command Setting		
	There is no command setting in the selected process.	
Execution Result		
	There is no execution result in the selected process.	
-Accesses the PLC CPU by -Process is executed acco	ues of remote I/O or remote registers may be overwritten. v using the current connection destination. Please check if there is any problem with the connection des riding to the parameters written in the PLC CPU. not displayed on the screen, please refer to the Operating Manual.	tination.
		E <u>x</u> ecute
Save in the CSV	filo	Close

(4) Items not being used on the utility software window despite being described in the CSP+ description specifications

Table 4.6-2 lists the items not being used on the utility software window despite being described in the CSP+ description specifications.

No.	ltem	Application	Required/ Optional
1	LABEL	Used as an identifier.	Required
2	LABEL2	Used as the second identifier to support multiple languages.	Optional
3	CATEGORY	Reference information. This element is displayed in CSP+ profile creation support tool.	Optional
5	TARGET	Used as information for identifying the reference information. When SEQ_TARGET is described, refer to Point below.	Required
6	MESSAGE_TYPE	Used to determine whether the data is to be displayed in the parameter settings of utility software, displayed at command execution, or not displayed. For details on the description of the element, refer to the following. Control & Communication System Profile Specification (BAP-C2008ENG-001) - 4.3.1.21 MESSAGE_TYPE conventions	Required
7	REQUEST_TYPE	Used to identify the data format type of the request frame.	*1
8	REQUEST_DATA	Used as the data value of the request frame.	Optional
9	REQUEST_DATATYPE	Used to identify the data type for all data in REQUEST_DATA.	Optional
10	RESPONSE_TYPE	Used to identify the frame type of the response frame.	Optional
11	RESPONSE_DATA	Used to identify the read data included in the response frame.	Optional
12	RESPONSE_DATA_TYPE	Used to identify the data type of the read data included in the response frame.	Optional
13	ERR_TYPE	Used to identify the data format included in the response frame when an error occurs.	Optional
14	ERR_CODE_RANGE	Used to compare an error code with an error code described in profile when an error occurs. When ENUM is used in ERR_CODE_RANGE, an error string corresponding the error code is displayed.	Optional
15	RELATED_MESSAGE	For details, refer to Point below.	Optional

Table 4.6-2 Elements Not Being Used on the Utility Software Window (MESSAGE)

*1: Required when the item is described in SLMP MESSAGE.

In the case of MESSAGE other than SLMP, MESSAGE should be described according to each MESSAGE specifications. For details, refer to the following.

Control & Communication System Profile Specification (BAP-C2008ENG-001)

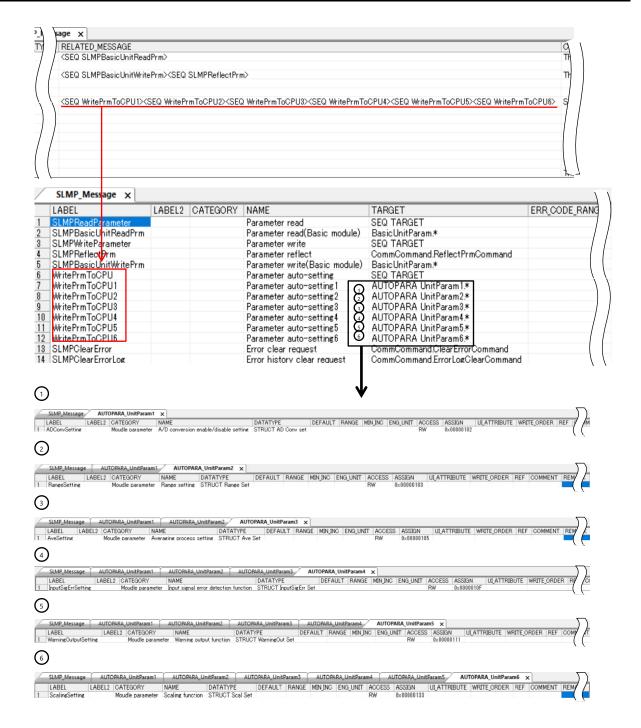
- 5.5.10.1 Parts and elements related to error related information
- 5.5.10.2 Convention related to MESSAGE for slave station parameter automatic setting

Point

When summarizing parameters in increments of processing to be executed (example: parameter read, parameter write), describe SEQ_TARGET in this item.

Describe the part names, in which the listed parameters are defined, by bracketing off with "<", ">" in RELATED MESSAGE.

	SLMP_Message x					\setminus
	LABEL	LABEL2	CATEGORY	NAME	TARGET	Ē
1	SLMPReadParameter			Parameter read	SEQ TARGET	7
2	SLMPBasicUnitReadPrm			Parameter read(Basic module)	BasicUnitParam.*	/
3	SLMPWriteParameter			Parameter write	SEQ TARGET	
4	SLMPReflectPrm			Parameter reflect	CommCommand.ReflectPrmCommand	
5	SLMPBasicUnitWritePrm			Parameter write(Basic module)	BasicUnitParam.*	
6	WritePrmToCPU			Parameter auto-setting	SEQ TARGET	Ń
7	WritePrmToCPU1			Parameter auto-setting 1	AUTOPARA UnitParam1.*	'\
8	WritePrmToCPU2			Parameter auto-setting2	AUTOPARA UnitParam2.*	
9	WritePrmToCPU3			Parameter auto-setting3	AUTOPARA UnitParam3.*	1
10	WritePrmToCPU4			Parameter auto-setting4	AUTOPARA UnitParam4.*	/
11	WritePrmToCPU5			Parameter auto-setting5	AUTOPARA UnitParam5.*	
12	WritePrmToCPU6			Parameter auto-setting6	AUTOPARA UnitParam6.*	
13	SLMPClearError			Error clear request	CommCommand.ClearErrorCommand	
14	SLMPClearErrorLog			Error history clear request	CommCommand.ErrorLogClearCommand	



4.COMM_IF SECTION

Parameter of Slave	e Station							- 0	X
Farget Module Info		4 000 - Station No.:	3						
Method selection:	Parameter auto-setting	~	Set the parameter	rs that su	pport parameter auto-se	ttina.			
	Parameter read					÷	(1)) (4) (5) (6))
	Parameter write					<u> </u>	000		^
Parameter Inf	Parameter auto-setting								
		\sim	Clea	ar All " <u>R</u> ea	ad Value"		<u>C</u> lear All "Write Va	lue/Setting Value"	
nt			P	e" to "Wri	te Value/Setting Value"	Сору	"Rea <u>d</u> Value" to "W	/rite Value/Setting \	Value
tiple paramete	ers can be processed	in one executi	on.	Unit	Write Value/Setting	Unit	Setting Range	Description	^
i harring i bad	I D/A conversion enabl							Set D/A conver	
	2 D/A conversion enabl							Set D/A conver	
	2 D/A conversion enabl 3 D/A conversion enabl							Set D/A conver	
	4 D/A conversion enabl			_		_		Set D/A conver	
		Disable		_				Set D/A convei	r
Range		1 00 0		_				<u></u>	81
	1 Range setting	4~20mA		_				Set the output	
	2 Range setting	4~20mA		_				Set the output	
	3 Range setting	4~20mA		_				Set the output i	
	4 Range setting	4~20mA						Set the output	ri -
	g output HOLD/CLEAR								
CH	1 Analog output HOLD/	CLEAR						Set the output	Εv
<	••••••••••	0.5.5						>	٢.
Process Option		1	'here is no option i	n the sel	ected process.				
The value set in - For informatio	n write value/setting value i n on items not displayed or	is set to slave stat 1 the screen, pleas	ion automatically b e refer to the Ope	y Slave S trating Ma	itation Parameter Automanual.	atic Set	ting function.		
Enable safet	y module when succeed to	write <u>p</u> arameter					Execute Par	ameter Processing	
chable solice									

	Name		Unit	Read Value	Unit	Write Value/Setting	Unit	Setting Range	Description
– •	D/A conversion enable/disab								
	CH1 D/A conversion enabl								Set D/A conversion to "enable" or "disable".
	GH2 D/A conversion enabl								Set D/A conversion to "enable" or "disable".
	CH3 D/A conversion enabl								Set D/A conversion to "enable" or "disable".
	E GH4 D/A conversion enabl	Disable							Set D/A conversion to "enable" or "disable".
	Range setting								
	CH1 Range setting	4~20mA							Set the output range.
(1)	CH2 Range setting	4~20mA							Set the output range.
9	CH3 Range setting	4~20mA							Set the output range.
	CH4 Range setting	4~20mA							Set the output range.
	Analog output HOLD/CLEAR								
	CH1 Analog output HOLD/	CLEAR							Set the autput HOLD/CLEAR.
(3) -	CH2 Analog output HOLD/	CLEAR							Set the output HOLD/CLEAR.
9 -	CH3 Analog output HOLD/	CLEAR							Set the autput HOLD/CLEAR.
	CH4 Analog output HOLD/	CLEAR							Set the output HOLD/CLEAR.
	Analog output HOLD/GLEAR	-							
	GH1 Analog output HOLD/								Set the output HOLD/CLEAR.
(4)	CH2 Analog output HOLD/								Set the output HOLD/CLEAR.
	GH3 Analog output HOLD/								Set the output HOLD/CLEAR.
	CH4 Analog output HOLD/	OLEAR							Set the output HOLD/CLEAR.
-	Warning output function								
	CH1 Warning output setting								Set warning output to "enable" or "diable".
	CH1 Warning output upper								Set an upper limit value of the digital input value for warning output.Set value as the upper limit value > the lower limit value.
	CH1 Warning output lower							-32768 to 32767	Set a lower limit value of the digital input value for warning output Set value as the upper limit value > the lower limit value.
	GH2 Warning output setting								Set warning output to "enable" or "diable".
	GH2 Warning output upper							-32768 to 32767	Set an upper limit value of the digital input value for warning output Set value as the upper limit value > the lower limit value.
(5)	GH2 Warning output lower							-32768 to 32767	Set a lower limit value of the digital input value for warning output.Set value as the upper limit value > the lower limit value.
	CH3 Warning output setting	Disable							Set warning output to "enable" or "diable".
	CH3 Warning output upper	. 0						-32768 to 32767	Set an upper limit value of the digital input value for warning output Set value as the upper limit value > the lower limit value.
	CH3 Warning output lower							-32768 to 32767	Set a lower limit value of the digital input value for warning output Set value as the upper limit value > the lower limit value.
	CH4 Warning output setting								Set warning output to "enable" or "diable".
	CH4 Warning output upper								Set an upper limit value of the digital input value for warning output.Set value as the upper limit value > the lower limit value.
	GH4 Warning output lower	. 0						-32768 to 32767	Set a lower limit value of the digital input value for warning output.Set value as the upper limit value > the lower limit value.
- <u>-</u>	Scaling function								
	CH1 Scaling enable/disabl								Set scaling to "enable" or "disable".
	CH1 Scaling upper limit va								Set an upper limit value for the scaling conversion Set value as the upper limit value > the lower limit value.
	GH1 Scaling lower limit val.							-32000 to 32000	Set a lower limit value for the scaling conversion Set value as the upper limit value > the lower limit value.
	CH2 Scaling enable/disabl								Set scaling to "enable" or "disable".
\frown	GH2 Scaling upper limit va								Set an upper limit value for the scaling conversion Set value as the upper limit value > the lower limit value.
(6) 🚽 🗌	CH2 Scaling lower limit val.							-32000 to 32000	Set a lower limit value for the scaling conversion.Set value as the upper limit value > the lower limit value.
\sim	CH3 Scaling enable/disabl								Set scaling to "enable" or "disable".
	CH3 Scaling upper limit va								Set an upper limit value for the scaling conversionSet value as the upper limit value > the lower limit value.
	CH3 Scaling lower limit val							-32000 to 32000	Set a lower limit value for the scaling conversion Set value as the upper limit value > the lower limit value.
	CH4 Scaling enable/disabl								Set scaling to "enable" or "disable".
	GH4 Scaling upper limit va								Set an upper limit value for the scaling conversion Set value as the upper limit value > the lower limit value.
	CH4 Scaling lower limit val	. 0						-32000 to 32000	Set a lower limit value for the scaling conversion.Set value as the upper limit value > the lower limit value.

5. BLOCK SECTION

The BLOCK section consists of multiple parts as shown in Figure 5-1.

BLOCK section	
BLOCK_INFO part	Describes the identification information of the function block.
BLOCK_INPUT part	Describes the input information of the function block.
BLOCK_OUTPUT part	Describes the output information of the function block.
BLOCK_PARAMETER part	Describes the parameter information of the function block.
BLOCK_COMMAND part	Describes the command to be executed in the function block.
STRUCT part	Describes the structure of the inputs and outputs of multiple elements.
ENUM part	Describes the options for values and return values to be set for the element.
COMMAND_ARGUMENT part	Describes the argument information of BLOCK_COMMAND.

Figure 5-1 Structure of the BLOCK Section

5.1 BLOCK_INFO Part

The BLOCK_INFO part describes the information related to the identification of the function block.

Basically, the elements described in the BLOCK_INFO part are not displayed on utility software. The configuration of each element of the BLOCK_INFO part, that is, the items to be described in each element, is the same.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.4.1 BLOCK_INFO part

Table 5.1-1 lists elements which configure the BLOCK_INFO part.

No.	Element	Description	Required/ Optional
1	VendorName	Describes the name of the vendor that manufactured the module.	Required
2	VendorCode	Describes the code of vendor that manufactured the module. The fifth to eighth digits of the membership number of the CC-Link Partner Association are described.	Required
3	Version	Firmware version. Describe the firmware version in a string.	Required

Table 5.1-1 List of Elements which Configure the BLOCK_INFO Part

Table 5.1-2 lists the items to be described in each element of the BLOCK_INFO part.

No.	ltem	Description	Required/ Optional							
1	LABEL	Describes the label for identifying the element.	Required							
2	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional							
3	CATEGORY	Describes the category for grouping the elements.	Optional							
4	NAME	Describes the element name. This item is used when displaying the element name or descriptions on utility software.	Optional							
5	DATATYPE	Describes the data type of the information described in DATA.	Optional							
6	DATA	Describes the element information.	Required							

Table 5.1-2 List of Items to be Described in Each Element of the BLOCK_INFO Part

(2) CSP+ descriptions

Figure 5.1-1 shows a display example of the BLOCK_INFO part when the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool.

Profile Creation Support Tool - C:¥Users¥HC349	65¥Desktor	p¥0x00	00_NZ2GN2B-60D	A4_1_en.cspp				_		×
File (F) Edit (E) View (V) Tool (T) Help (H)									
🗅 💕 🛃 🗞 🛝 🞯										
ree View	→ 4 ×		NZ2GN2B_60DA	4_Block x						
⇒ DEVICE ⇒ 4% DeviceSection () [DEVICE] ⇒ 4% CommitData () [COMM_IF] ⇒ 8LOCK ⇒ 4% REM_DEVICE () [BLOCK] → 4% REM_DEVICE () [BLOCK] → 5 BLOCK ⇒ 8LOCK ⇒		1 2 3	VendorName VendorCode	LABEL2 Vendor name Vendor code Version	CATEGORY COMMON COMMON COMMON	NAME Vendor name Vendor code Version	DATATYPE STRING U(64) WORD UINT8	DATA Mitsubishi Electric Corporation 0x0000 1	REMA	RK

Figure 5.1-1 Display Example When CSP+ profile creation support tool is Used (BLOCK_INFO)

(3) Utility software

This section is omitted because the description in the BLOCK_INFO part is not displayed on utility software.

5.2 BLOCK_INPUT Part

The BLOCK_INPUT part describes the information related to the input of the function block. The information includes the remote output RY area and remote register RWw area of the remote station.

Elements configuring the BLOCK_INPUT part are defined based on the functions of the target module.

The configuration of each element of the BLOCK_INPUT part, that is, the items to be described in each element, is the same.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.4.2 BLOCK_INPUT part

Table 5.2-1 lists the items to be described in each element of the BLOCK_INPUT part.

No.	ltem	Description	Required/ Optional
1	LABEL	Describes the label for identifying the element.	Required
2	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3	CATEGORY	Describes the category for grouping the elements.	Optional
4	NAME	Describes the element name. This item is used when displaying the name or descriptions on utility software.	Required
5	DATATYPE	Describes the data type of the element.	Required
6	DEFAULT	Describes the default to be set for the element.	Optional
7	RANGE	Describes the setting range of the element.	Optional
8	MIN_INC	Describes the minimum increment applied to the value of the item along with ENG_UNIT. When ENG_UNIT is described, this item is required.	Optional
9	ENG_UNIT	Describes the engineering unit applied to the value of the item along with MIN_INC.	Optional
10	ACCESS	Describes the access attribute of the element.	Optional
11	UI_ATTRIBUTE	Describes the display method when the element is displayed on utility software.	Optional
12	COMMENT	Describes the meaning of the element and usage precautions.	Optional

Table 5.2-1 List of Items to be Described in Each Element of the BLOCK_INPUT Part

(2) CSP+ descriptions

Parameters are referenced in the following order. COMM_IF_OUTPUT part (CommIfOutput) \rightarrow

BLOCK_INPUT part (BlockInput)

Omitted because there is no item description example for CSP+ and utility software.

5.3 BLOCK_OUTPUT Part

The BLOCK_OUTPUT part describes the information related to the output of the function block. The information includes the remote input RX area and remote register RWr area of the remote station.

Elements configuring the BLOCK_OUTPUT part are defined based on the functions of the target module.

The configuration of each element of the BLOCK_OUTPUT part, that is, the items to be described in each element, is the same.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.4.3 BLOCK_OUTPUT part

Table 5.3-1 lists items which configure the BLOCK_OUTPUT part.

No.	ltem	Description	Required/ Optional					
1	LABEL	Describes the label for identifying the element.	Required					
2	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional					
3	CATEGORY	Describes the category for grouping the elements.	Optional					
4	NAME	Describes the element name. This item is used when displaying the name or descriptions on utility software.	Required					
5	DATATYPE	Describes the data type of the element.	Required					
6	DEFAULT	Describes the default to be set for the element.	Optional					
7	RANGE	Describes the setting range of the element.	Optional					
8	MIN_INC	Describes the minimum increment applied to the value of the item along with ENG_UNIT. When ENG_UNIT is described, this item is required.	Optional					
9	ENG_UNIT	Describes the engineering unit applied to the value of the item along with MIN_INC.	Optional					
10	ACCESS	Describes the access attribute of the element.	Optional					
12	UI_ATTRIBUTE	Describes the display method when the element is displayed on utility software.	Optional					
13	COMMENT							

Table 5.3-1 List of Items which Configure the BLOCK_OUTPUT Part

(2) CSP+ descriptions

Parameters are referenced in the following order. COMM_IF_INPUT part (CommIfInput) → BLOCK_OUTPUT part (BlockOutput)

Omitted because there is no item description example for CSP+ and utility software.

5.4 BLOCK_PARAMETER Part

The BLOCK_PARAMETER part describes the information related to the parameters used by the control functions of the target module.

Elements configuring the BLOCK_PARAMETER part are defined based on the communication functions of the target module.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.4.4 BLOCK_PARAMETER part

1) Items to be described in the BLOCK_PARAMETER part

Table 5.4-1 lists the items to be described in each element of the BLOCK_PARAMETER part.

Table 5.4-1 List of Items to be Described in Each Element of the BLOCK_PARAMETER Part

No.	Item	Description	Required/ Optional				
1	LABEL	Describes the label for identifying the element.	Required				
2	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional				
3	CATEGORY	Describes the category for grouping the elements.	Optional				
4	NAME	Describes the element name. This item is used when displaying the name or descriptions on utility software.	Required				
5	DATATYPE	Describes the data type of the element.	Required				
6	DEFAULT	Describes the default to be set for the element.	Optional				
7	RANGE	Describes the setting range of the element. Options can be described by using the ENUM part. 13	Optional				
8	MIN_INC	Describes the minimum increment applied to the value of the item along with ENG_UNIT. When ENG_UNIT is described, this item is required.	Optional				
9	ENG_UNIT	Describes the engineering unit applied to the value of the item along with MIN_INC.	Optional				
10	ACCESS	Describes the access attribute of the element.	Required				
11	WRITE_ORDER						
12	UI_ATTRIBUTE	Describes the display method when the element is displayed on utility software.	Optional				
13	COMMENT	Describes the meaning of the element and usage precautions.	Optional				

*3 ENUM part

The ENUM part (option list) describes the information related to options of values and return values to be set to the element. To set options for elements using a list box or to display the meaning of each value of elements when they are read on utility software, refer to the ENUM part.

When referencing a description of the ENUM part from an element in the COMM_IF section, describe the ENUM part in the same COMM_IF section.

Elements configuring the ENUM part are defined based on the option of values to be used in the target module.

The configuration of each element of the ENUM part, that is, the items to be described in each element, is the same.

No.	Element	Description	Required/ Optional
1'	LABEL	Describes the label for identifying the element.	Required
2'	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3'	CATEGORY	Describes the category for grouping the elements.	Optional
4'	NAME	Describes the element name. This item is used when displaying the name or descriptions on utility software.	Required
5'	CODE	Describes the value for identifying the element. This item is cross-checked with the value indicated by the element of the reference source in order to select matching elements.	Required
6'	RELATED_ELE	Describes the element information by referencing the command argument list.	Optional
7'	COMMENT1	Describes the meaning of the element and usage precautions.	Optional
8'	COMMENT2	Describes the meaning of the element and usage precautions.	Optional

Table 5.4-2 List of Items to Be Defined in the ENUM Part

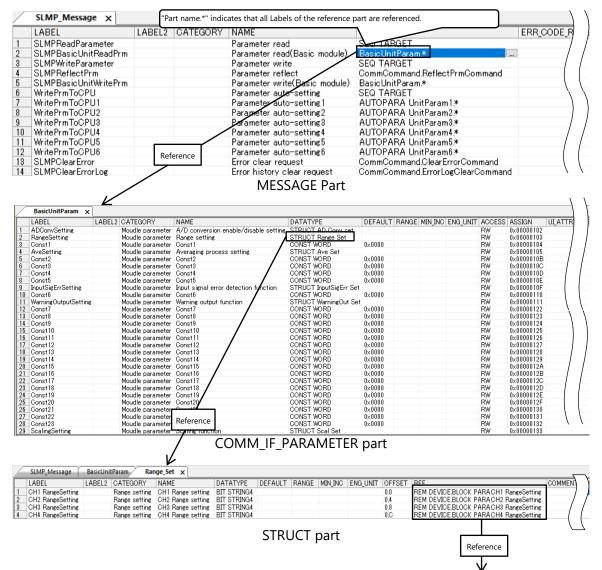
2) Reference specifications of the BLOCK_PARAMETER part

For specifications of the parts related to the BLOCK_PARAMETER part and reference relationship between communication services, refer to Section 4.4(1) 2).

(2) CSP+ descriptions

Parameters are referenced in the following order. MESSAGE part (SLMP_Message) \rightarrow COMM_IF_PARAMETER part (BasicUnitParam) \rightarrow STRUCT part (Range_Set) \rightarrow BLOCK PARAMETER part (BLOCK PARA)

The following shows a display example of the BLOCK_PARAMETER part when the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation support tool.



*9

BLOCK_F	PARA X	2 3	4	5	6		Ľ
ABEL	LA	ABEL2 CATEGORY	NAME	DATATYPE	DEFAULT	RANGE	MIN_INC
	onversinSetting	A/D conversion enable/disable setting A/D conversion enable/disable setting	CH2 A/D conversion enable/disable setting	BOOL	0	ENUM EnableOFF DisableON ENUM EnableOFF DisableON	
	onversinSetting	A/D conversion enable/disable setting A/D conversion enable/disable setting	CH3 A/D conversion enable/disable setting	BOOL	0	ENUM EnableOFF DisableON	
H1 Rang	onversinSetting eSetting	Range setting	CH1 Range setting		0 0×0	ENUM EnableOFF DisableON ENUM RangeSet	
H2 Range	eSetting	Range setting	CH2 Range setting	BIT STRING4 BIT STRING4	0×0	ENUM RangeSet ENUM RangeSet	
H3 Rang H4 Rang	eSetting	Range setting Range setting	CH3 Range setting CH4 Range setting	BIT STRING4	0×0 0×0	ENUM RangeSet	1
H1 Avera	agingProcessSetting	Averaging process setting	CH1 Averaging process setting	BIT STRING4	0×0	ENUM AveProcess Set	
H2 Avera H3 Avera	agingProcessSetting agingProcessSetting	Averaging process setting Averaging process setting	CH2 Averaging process setting CH3 Averaging process setting	BIT STRING4 BIT STRING4	0×0 0×0	ENUM AveProcess Set ENUM AveProcess Set	
H4 Avera	agingProcessSetting	Averaging process setting	CH4 Averaging process setting	BIT STRING4	0×0	ENUM AveProcess Set	
H2 Avera	agingProcessSettingValue agingProcessSettingValue	Averaging process setting Averaging process setting	CH1 Time average/Count average/Moving average CH2 Time average/Count average/Moving average	UINT16 UINT16	0	[0,65000] [0,65000]	
	agingProcessSettingValue agingProcessSettingValue	Averaging process setting	CH3 Time average/Count average/Moving average	UINT16 UINT16	0	[0,65000] [0,65000]	
H1 Input	SigErrorSignalSetting	Averaging process setting Input signal error detection function	CH4 Time average/Count average/Moving average CH1 Input signal error detection setting	BIT STRING4	0×0	ENUM InputSigErr Set	1
	SigErrorSignalSetting SigErrorSignalSetting	Input signal error detection function Input signal error detection function	CH2 Input signal error detection setting CH3 Input signal error detection setting	BIT STRING4 BIT STRING4	0×0 0×0	ENUM InputSigErr Set ENUM InputSigErr Set	
H4 Input	SigErrorSignalSetting	Input signal error detection function	CH4 Input signal error detection setting	BIT STRING4	0×0	ENUM InputSigErr Set	
H1 Warni	ingOutputSetting ingOutputSetting	Warning output function Warning output function	CH1 Warning output setting CH2 Warning output setting	BOOL	1	ENUM EnableOFF DisableON ENUM EnableOFF DisableON	
	ingOutputSetting	Warning output function	CH3 Warning output setting	BOOL	1	ENUM EnableOFF DisableON	
H4 Warni	ingOutputSetting	Warning output function	CH4 Warning output setting	BOOL INT16	1	ENUM EnableOFF DisableON	
H1 Proce	essAlarmLowLow essAlarmLowUp	Warning output function Warning output function	CH1 Process alarm lower lower limit value CH1 Process alarm lower upper limit value	INT16	0	[-12768,32767] [-12768,32767]	
	essAlarmUpLow	Warning output function	CH1 Process alarm upper lower limit value	INT16 INT16	0	[-12768,32767]	
H2 Proce	essAlarmUpUp essAlarmLowLow	Warning output function Warning output function	CH1 Process alarm upper upper limit value CH2 Process alarm lower lower limit value	INT16	0	[-12768,32767] [-12768,32767]	
H2 Proce	essAlarmLowUp essAlarmUpLow	Warning output function Warning output function	CH2 Process alarm lower upper limit value CH2 Process alarm upper lower limit value	INT16 INT16	0	[-12768.32767] [-12768.32767]	
H2 Proce	essAlarmUpUp	Warning output function	CH2 Process alarm upper upper limit value	INT16	0	[-82768,32767]	
H3 Proce	essAlarmLowLow essAlarmLowUp	Warning output function Warning output function	CH3 Process alarm lower lower limit value CH3 Process alarm lower upper limit value	INT16 INT16	0	[-82768,82767] [-82768,82767]	
H3 Proce	essAlarmUpLow	Warning output function	CH3 Process alarm upper lower limit value	INT16	Ó	[-82768,32767]	
	essAlarmUpUp essAlarmLowLow	Warning output function Warning output function	CH3 Process alarm upper upper limit value CH4 Process alarm lower lower limit value	INT16 INT16	0	[-82768,82767] [-82768,82767]	
H4 Proce	essAlarmLowUp	Warning output function	CH4 Process alarm lower upper limit value	INT16	0	[-82768.32767]	,
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	A_UNIT ACCESS ULAT RW RW RW RW RW RW RW RW RW RW	11 13 TRIBUTE WRITE_ORDER COMMENT Set A/D o Set A/D o Set A/D o Set A/D o Set A/D o Set A/D o Set the ini Set the ini Set "Same Set "Same Set the tim Set the tim Set the tim Set a cono Set a cono Set a cono Set a lowe Set a lowe	T onversion to "enable" or "disable". out range. out range. out range. ining processing" or "Averaging processing" on "Averaging processing" on "Averaging processing" or "Averaging processing" ining processing" or "Averaging processing" ining processing" or "Averaging processing" on average (ms), count average (times), mo ne average (ms), count average (times), mo ne average (ms), count average (times), mo ition for detecting an error. itin ty alue of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the digital operation y r upper limit value of the dig	ving average ving average ving average ving average ving average ving average value. value. value. value. value. value. value. value. value. value. value. value. value.	count (tim count (tim	nes). nes).	
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	A_UNIT ACCESS ULAT RW RW RW RW RW RW RW RW RW RW	11 13 TRIBUTE WRITE_ORDER COMMENT Set A/D o Set A/D o Set A/D o Set A/D o Set the in Set the in Set "Same Set "Same Set the tin Set the tin Set a cond Set a cond Set a lowe Set a lowe Set	F onversion to "enable" or "disable". onversion to "enable" or "disable". onversion to "enable" or "disable". onversion to "enable" or "disable". out range. out range. or "Averaging processing" or "Averaging or "Average (times), mo ne average (ms), count average (times), mo ne average (the), count average (the), the set (the), the average (the), the set (the), the), the average (the), the set (the), the), the average (the), the), the set (the), the), the average (the), the),	value. va	count (tim count (tim	nes). nes).	

	BL 1' ARA	2' an	geS 3'	4'	5'	6'	V 7'	8'	
L	ABEL	LABEL2	CATEGORY	NAME	CODE	RELATED_ELE	COMMENT1	COMMENT2	REMARK
1 E	Range 4 20mA			4~20mA	0×0				
2 F	Range 0 20mA			0~20mA	0×1				
3 F	Range 15V			1~5V	0×2				
	Range 0 5V			0~5V	0×3				
5 F	Range 10 10V			-10~10V	0×4				
6 F	Range 0 10V			0~10V	0×5				
	E	NUM	part						

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(3) Utility software ("Parameter of Slave Station" window)

The following shows how the descriptions in the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) are displayed on the utility software. The following is a display example of utility software ("Parameter of Slave Station" window).

Parameter of Slav	e Station										-		×
Target Module Info	112201120 0007	44 1000 - Station No	o.:3										^ ~
Method selection:	Parameter read Parameter read Parameter write Parameter auto-setting	~	The	parameters are	e read f	rom the targ	get module.						^ ~
			1	Clear	All " <u>R</u> e	ad Value"		Q	lear All "W	rite Value	e/Setting	g Value"	
Select /	All Cancel All Se	6	9	y "I 5 alue"	' to "Wri	te Valu 7	ing Value"	Copy "R	ead 9	to "Wri	13 ^{e/}	/Setting V	alue"
CH	1 Rance setting 2 Rance setting 3 Rance setting 4 Rance setting output HOLD/CLEAR 1 Analog output HOLD/	Disable Disable Disable 4~20mA 4~20mA 4~20mA 4~20mA	Unit	e is no option in	the sel		ss.	Unit S	Setting Ra		Set D/ Set D/ Set the Set the Set the Set the	A conver A conver A conver A conver a output r output r output r output r	
-Accesses the F -Process is exe	device values of remote I/ PLC CPU by using the curre cuted according to the para n on items not displayed or	nt connection de ameters written	estinat in the	ion. Please cheo PLC CPU.	k if the		oblem with the	e connecti	ion destina	ition.			^ ~
	y module when succeed to				_				Execu	ite Param	ieter Pro	ocessing	
Impo	rt	Export				Close	with Discardi	ing the Se	tting Cl	ose with	Reflecti	ng the Se	tting

(4) Elements not being used on the utility software window despite being described in the CSP+ description specifications

Table 5.4-3 lists the elements not being used on the utility software window despite being described in the CSP+ description specifications.

Table 5.4-3 Elements Not Being	Used on the Utility	Software Window	(BLOCK_PARAMETER,
	ENUM)		

No.	Element	Application	Required/ Optional
1 1'	LABEL	Used as an identifier.	Required
2 2'	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3 3'	CATEGORY	Reference information. This element is displayed only in CSP+ profile creation support tool.	Optional
8	MIN_INC	Uses the numerical value in which the user input value is multiplied by the value described in MIN_INC during internal processing.	Optional
10	ACCESS	Used to identify the access information of the target item: "Readable", "Writable", "Readable and writable", "Auto refreshable", and "Element not accessible". * For details on the description of the element, refer to the following. Control & Communication System Profile Specification (BAP-C2008ENG-001) - 4.3.1.1 ACCESS conventions	Required
11	WRITE_ORDER	Used as sequence information when writing parameters to the actual device. (Values are written in ascending order.)	Optional
12	UI_ATTRIBUTE	For future expansion	Optional
5'	CODE	Used to identify the selected value.	Required

5.5 **BLOCK_COMMAND** Part

The BLOCK_COMMAND part describes the information related to the commands executed by the control functions of the target module.

Elements configuring the BLOCK_COMMAND part are defined based on the functions of the target module.

(1) Control & Communication System Profile Specification (BAP-C2008ENG-001) - 5.4.5 **BLOCK_COMMAND** part

1) Items to be described in the BLOCK_COMMAND part

Table 5.5-1 lists the items to be described in each element of the BLOCK_COMMAND part.

Table 5.5-1 List of Items to be Described in Each Element of the BLOCK_COMMAND Part

No.	ltem	Description	Required/ Optional
1	LABEL	Describes the label for identifying the element.	Required
2	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3	CATEGORY	Describes the category for grouping the elements.	Optional
4	NAME	Describes the element name. This item is used when displaying the name or descriptions on utility software.	Required
5	ARGUMENT	Describes LABEL of the COMMAND_ARGUMENT part for indicating the argument to be used by the element.	Required
6	COMMENT	Describes the meaning of the element and usage precautions.	Optional

*4 COMMAND_ARGUMENT part

The COMMAND_ARGUMENT part (command argument list) describes the information related to command arguments.

	Table 5.5-2 List of Elements to be Defined in the COMMAND_ARGUMENT Part						
No.	Element	Description	Required/ Optional				
1'	LABEL	Describes the label for identifying the element.	Required				
2'	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional				
3'	CATEGORY	Describes the category for grouping the elements.	Optional				
4'	NAME	Describes the element name. This item is used when displaying the name or descriptions on utility software.	Required				
5'	DATATYPE	Describes the data type of the element.	Required				
6'	DEFAULT	Describes the default to be set for the element.	Optional				
7'	RANGE	Describes the setting range of the element.	Optional				
8'	MIN_INC	Describes the minimum increment applied to the value of the element in the command argument list along with ENG_UNIT.	Optional				
9'	ENG_UNIT	Describes the engineering unit applied to the value of the element in the command argument list along with MIN_INC.	Optional				
10'	ACCESS	Describes the access attribute of the element.	Required				
11'	ASSIGN	Describes the address and code to be assigned to the element.	Optional				
12'	REF	Describes the reference to be referenced by the element. Use of this item is prohibited under the current specifications.	Optional				
13'	COMMENT	Describes the meaning of the element and usage precautions.	Optional				

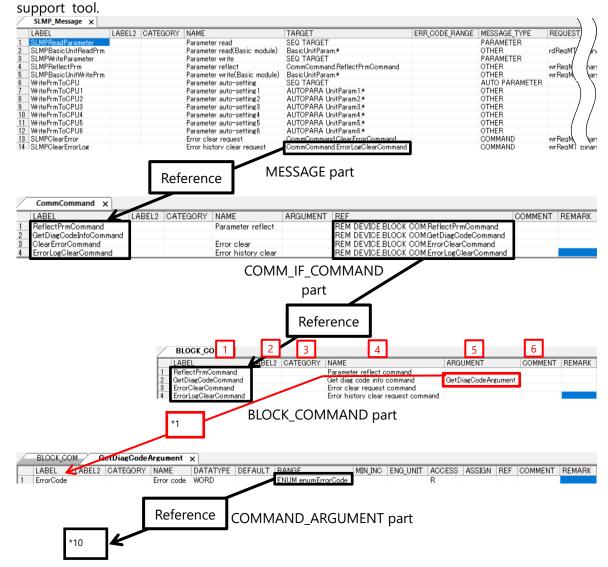
 Reference specifications of the BLOCK_COMMAND part For specifications of the parts related to the BLOCK_COMMAND part and reference relationship between communication services, refer to Section 4.5(1) 2).

(2) CSP+ descriptions

Parameters are referenced in the following order.

MESSAGE part (SLMP_Message) → COMM_IF_PARAMETER part (CommCommand) → BLOCK_COMMAND part (BLOCK_COM) COMMAND_ARGUMENT part (GetDiagCodeArgument) ENUM part (enumErrorCode) COMMAND_ARGUMENT part (Error_1043)

The following shows a display example of the BLOCK_COMMAND part when the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) is opened in CSP+ profile creation



BEL LABEL2	CATEGORY	NAME		CODE	RELATED ELE	COMMENT1
1020		Remote buffer memory access error		0×1020	Error 1020	A buffer memory area other than the remote but
1030		IP address/station number setting switch changed error		0×1030	Error 1030	An IP address/station number setting switch ha
1041		Function setting switch 1 changed error		0×1041	CITOL 1 41	The function setting switch 1 has been changed
1042		Function setting switch 2 changed error		0×1042	Error 1 42	The function setting switch 2 has been changed
1043		Function setting switch 3 changed error		0×1043	Error 1 43	The function setting switch 3 has been change
1044		Function setting switch 4 changed error		0×1044	Error 1 44	The function setting switch 4 has been change
1045		Function setting switch 5 changed error		0×1045	Error 145	The function setting switch 5 has been change
1046		Function setting switch 6 changed error		0×1046	Error 146	The function setting switch 6 has been chang
1047		Function setting switch 7 changed error		0×1047	Error 047	The function setting switch 7 has been chang
1048		Function setting switch 8 changed error		0×1048	Error 048	The function setting switch 8 has been chan
1049		Function setting switch 9 changed error		0×1049	Error 049	The function setting switch 9 has been char
104A		Function setting switch 10 changed error			Error 04A	The function setting switch 10 has been chi
1050		Error of error history storage limitation		0×1050		The storage count of error history has reac
1051		Error of IP address storage limitation		0×1051		The storage count of IP address has reach
1052		Error of module parameter storage limitation		0×1052		The storage count of module parameter has
1060		Non-volatile memory access error (error history)		0×1060		Error can not be stored because an error w
1061		Non-volatile memory access error (IP address)		0×1061		IP address can not be stored because an e
1062		Non-volatile memory access error (module parameter)		0×1062		Module parameter can not be stored becaus
1080		Module power supply voltage drop error		0×1080		Module power supply voltage dropped.
1090		Remote reset not possible error		0×1090	1	The function setting switch 1 is set differen
2010		Non-volatile memory data error (parameter)		0×2010		The parameter data stored in the non-volatile
2011		Non-volatile memory data error (IP address)		0×2011		IP address and subnet mask stored in the non
2400		Outside IP address/station number setting switch range er	ror (IP address)	0×2400		IP address/station number setting switch is se
3101		CH1 Range setting out of the range		0×3101	Error 3100	The value set in CH1 Range setting (address: 0
3102		CH2 Range setting out of the range		0×3102	Erro 3100	The value set in CH2 Range setting (address: 0
3103		CH3 Range setting out of the range		0×3103	Erro 3100	The value set in CH3 Range setting (address: 0
3104		CH4 Range setting out of the range		0×3104	Erro 3100	The value set in CH4 Range setting (address: 0
3201		CH1 Time average setting out of the range		0×3201	Erro 3200	 The averaging time value set in CH1 Time a
3202		CH2 Time average setting out of the range		0×3202	Erro 3200	 The averaging time value set in CH2 Time a
3203		CH3 Time average setting out of the range		0×3203	Errc 3200	- The averaging time value set in CH3 Time a
3204		CH4 Time average setting out of the range		0×3204	Errc 3200	- The averaging time value set in CH4 Time
3211		CH1 Count average setting out of the range		0×3211	Erro 3210	The averaging count value set in CH1 Time a
3212 3213		CH2 Count average setting out of the range		0x3212 0x3213	Erro 3210 Erro 3210	The averaging count value set in CH2 Time a
3214		CH3 Count average setting out of the range CH4 Count average setting out of the range				The averaging count value set in CH3 Time
3221		CH1 Moving count setting out of the range		0×3214 0×3221	Error 3210 Error 3220	The averaging count value set in CH4 Time The moving average count value set in CH1
3222		CH2 Moving count setting out of the range		0x3221 0x3222	Err 3220	The moving average count value set in CH The moving average count value set in CH
3223		CH2 Moving count setting out of the range		0x3222		The moving average count value set in CH.
			ENUM part	ŀ	Referer	nce
1' Erro 2' ABEL LABEL2	Error	1030 3' 4'	5' 6' DATATYPE DEFAULT	7' 8' RANGE MIN IN		10' 11' 12' 13' ACCESS ASSIGN REF COMMENT F

COMMAND_ARGUMENT part

(3) Utility software ("Error History" window)

The following shows how the descriptions in the CSP+ for the analog-digital converter module (NZ2GN2B-60AD4) are displayed on the utility software. The following is a display example of utility software ("Error History" window).

Err	Error History Start I/O: 0 Station No.:1 NZ2GN2S-60AD4									
-	Selected Station Information									
	Netw	vork No.	1	Station No.	1 IP Addre	ess 192.168.3	.1	Delete Error History		
	Error History List			(ErrorCode)	Error codes stored in error history logs are searched from CODE items in the ENUM part (ErrorCode) and the description of the NAME items where the element is matched is displayed.					
	No.	Error Detai	s						-	
	1			tch 1 changed er						
	2	IP address	setting sv	g switch changed error						
	Error codes stored in error history logs are searched from CODE items in the ENUM part (ErrorCode) and the description of the COMMENT1 items where the element is matched is displayed.									
	Nam	· Code		Read Value 0x1041	\searrow			Explanation		
		Details		The function se	tting switch 1 h	nas beerng	1			
		tion Method	5	Return function	-					
		irrence Date		5/30/2019 5:21	-					
4'	Func	tion setting	switch	1 5' 7'			Q	13'		
-										
								Close		

(4) Items not being used on the utility software window despite being described in the CSP+ description specifications

Table 5.5-3 lists the items not being used on the utility software window despite being described in the CSP+ description specifications.

Table 5.5-3 Items Not Being Used on the Utility Software Window (BLOCK_COMMAND,
COMMAND_ARGUMENT)

No.	ltem	Application	Required/ Optional
1 1	LABEL	Used as an identifier.	Required
22	LABEL2	Describes the label for identifying the element. (This item is used when the utility software supports other languages.)	Optional
3 3	CATEGOR	Reference information. This item is displayed only in CSP+ profile creation support tool.	Optional
6	COMMEN	Reference information. This item is displayed only in CSP+ profile creation support tool.	Optional
8'	MIN_INC	Uses the numerical value in which the user input value is multiplied by the value described in MIN_INC during internal processing.	Optional
10'	ACCESS	Used to identify the access information of the target item: "Readable", "Writable", "Readable and writable", "Auto refreshable", and "Element not accessible". For details on the description of the element, refer to the following. Control & Communication System Profile Specification (BAP-C2008ENG-001) - 4.3.1.1 ACCESS conventions	Required
11'	ASSIGN	Used to analyze the address and code assigned to the element.	Optional
12'	REF	Used to identify the reference relationship.	Optional

