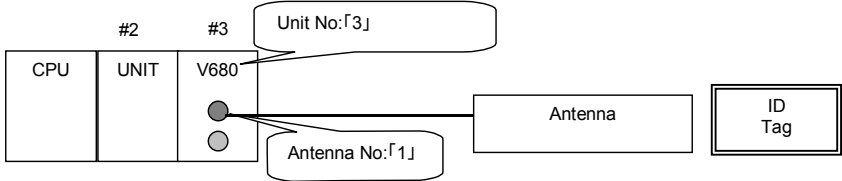
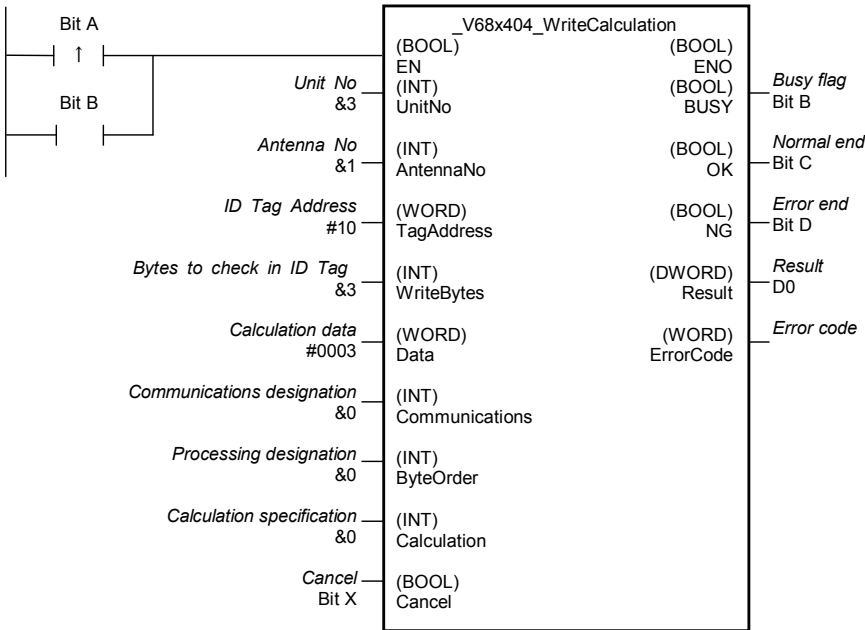


V68x404	Write Calculation _V68x404_WriteCalculation
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Basic function	Performs a calculation between ID Tag data and specified data and writes the result to the ID Tag.						
Symbol							
File name	Lib\FBL\omronlib\FID\V680\ _V68x404_WriteCalculation10.cxf						
Applicable models	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">ID Sensor Units</td> <td>CS1W-V680C11/V680C12 and CJ1W-V680C11/V680C12</td> </tr> <tr> <td>CPU Unit</td> <td> CS1*-CPU**H Unit version 3.0 or higher CJ1*-CPU**H Unit version 3.0 or higher CJ1M-CPU** Unit version 3.0 or higher CP1H </td> </tr> <tr> <td>CX-Programmer</td> <td>Version 5.0 or higher</td> </tr> </table>	ID Sensor Units	CS1W-V680C11/V680C12 and CJ1W-V680C11/V680C12	CPU Unit	CS1*-CPU**H Unit version 3.0 or higher CJ1*-CPU**H Unit version 3.0 or higher CJ1M-CPU** Unit version 3.0 or higher CP1H	CX-Programmer	Version 5.0 or higher
ID Sensor Units	CS1W-V680C11/V680C12 and CJ1W-V680C11/V680C12						
CPU Unit	CS1*-CPU**H Unit version 3.0 or higher CJ1*-CPU**H Unit version 3.0 or higher CJ1M-CPU** Unit version 3.0 or higher CP1H						
CX-Programmer	Version 5.0 or higher						
Language used	Ladder Language						
Function description	The specified data is read, the specified calculation is performed the data, and the result is written to the ID Tag specified by the <i>Unit No.</i> and <i>Antenna No.</i> Up to 4 bytes (2 words) can be specified for one command execution.						
Kind of FB definition	more-cycle execution type After it starts, this FB is processed across two or more cycles. Because the state is maintained internally, the same instance cannot be used in two or more places at the same time.						
FB precautions	<ul style="list-style-type: none"> • Error Code will be 76 if an overflow occurs for addition or an underflow occurs for subtraction. • Verification will not be performed unless it is specified when writing. • 「EEP-ROM」 Type of ID tag, the area write on the page so as not to duplicate specified. Write area of the page is duplicated when the process was not done, 「address error」 output. • The FB is processed over multiple cycles. The BUSY output variable can be used to check whether the FB is being processed. • OK or NG will be turned ON for one cycle only after processing is completed. Use these flags to detect the end of FB processing. <p>Timechart</p> <ul style="list-style-type: none"> • This FB cannot be executed if the ID Sensor Unit is busy. The NG Flag will turn ON if an attempt is made. • When FB is executed if result monitor output of the system construction is set to the setting of the noise level, the noise level is output to the error code. 						
EN input condition	Connect EN to an OR between an upwardly differentiated condition for the start trigger and the BUSY output from the FB.						

Restrictions Input variables	<ul style="list-style-type: none"> • Always use an upwardly differentiated condition for EN. • If the input variables are out of range, the ENO flag will turn OFF and the FB will not be processed. • Always specify a antenna number of &1 for One-antenna ID Sensor Units (CS1W-V680C11 and CJ1W-V680C11). • Check the memory capacity of the ID Tag when specifying the ID Tag address and ID Tag number of bytes to process. An address error will be output if the specified ID Tag address and ID Tag number of bytes to process are not suitable for the memory capacity of the ID Tag being communicated with. • Bytes to write in ID Tag is &0 if executed, the units depend on the state of no clear error code. And a normal end.
Output variables	<ul style="list-style-type: none"> • This FB requires multiple cycles to process. Always connect an OR including the BUSY output variable to the EN input variable to ensure that the FB is processed to completion (see <i>Symbol</i>). • Do not turn the BUSY output variable ON or OFF outside the FB.
Application example	<p>When bit A turns ON in the following example, 3 bytes of data are read starting from address 10(Hex), #0003 is added to the data, and the result is written to D0 and to the ID Tag connected to Antenna 1 of the ID Sensor Unit with unit number 3.</p>  
Related manuals	<p>ID Sensor Unit Operation Manual (SCHI-711) 4 I/O Data Allocations, Error Codes 6 Communications Commands, Calculation Write</p>

■ Variable Tables
Input Variables

Name	Variable name	Data type	Default	Range	Description
EN	EN	BOOL			ON is executed when FB has been turned on. 1 (ON): FB started. 0 (OFF): FB not started.
Unit No.	UnitNo	INT	&0	&0~&95	Specify the unit number.
Antenna No.	AntennaNo	INT	&1	&1~&2	Specify the antenna number of the object. &1: Antenna 1 &2: Antenna 2 (Two-antenna Controllers only)
ID Tag address	TagAddress	WORD	#0		Specify the ID Tag address.
Bytes to process in ID Tag	WriteBytes	INT	&0	&0~&4	Specify the number of processing bytes of ID tag. Consider the ID Tag capacity when setting. Nothing will be performed and a normal end will be output for &0.
Calculation data	Data	WORD	#0		Specify the calculation data content.

Communications designation	Communications	INT	&0	&0~&6	The communication method with the ID tag is specified. &0: Trigger &1: Auto &2: Repeat auto &3: FIFO trigger &4: FIFO repeat &5: Multi-access trigger &6: Multi-access repeat																																				
Processing designation	ByteOrder	INT	&0	&0~&1	Specific data to specify the order. &0: Upper to lower &1: Lower to upper 0: Upper to lower <table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding-right: 5px;">Address</td> <td style="padding-right: 5px;">CPU Unit</td> <td style="padding-right: 5px;">ID Tag</td> </tr> <tr> <td></td> <td style="text-align: center;">memory</td> <td style="text-align: center;">memory</td> </tr> <tr> <td>n</td> <td style="border: 1px solid black; padding: 2px;">01 02</td> <td style="border: 1px solid black; padding: 2px;">01</td> </tr> <tr> <td>n+1</td> <td style="border: 1px solid black; padding: 2px;">03 04</td> <td style="border: 1px solid black; padding: 2px;">02</td> </tr> <tr> <td>n+2</td> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px;">03</td> </tr> <tr> <td>n+3</td> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px;">04</td> </tr> </table> 1: Lower to upper <table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding-right: 5px;">Address</td> <td style="padding-right: 5px;">CPU Unit</td> <td style="padding-right: 5px;">ID Tag</td> </tr> <tr> <td></td> <td style="text-align: center;">memory</td> <td style="text-align: center;">memory</td> </tr> <tr> <td>n</td> <td style="border: 1px solid black; padding: 2px;">02 01</td> <td style="border: 1px solid black; padding: 2px;">01</td> </tr> <tr> <td>n+1</td> <td style="border: 1px solid black; padding: 2px;">04 03</td> <td style="border: 1px solid black; padding: 2px;">02</td> </tr> <tr> <td>n+2</td> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px;">03</td> </tr> <tr> <td>n+3</td> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: 1px solid black; padding: 2px;">04</td> </tr> </table>	Address	CPU Unit	ID Tag		memory	memory	n	01 02	01	n+1	03 04	02	n+2		03	n+3		04	Address	CPU Unit	ID Tag		memory	memory	n	02 01	01	n+1	04 03	02	n+2		03	n+3		04
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Calculation specification	Calculation	INT	&0	&0~&1	Specify the calculation method. &0: Addition &1: Subtraction																																				
Cancel	Cancel	BOOL	0(OFF)		0→1: Cancels processing.																																				

Output Variables

Name	Variable name	Data type	Default	Description																																																
ENO (May be omitted.)	ENO	BOOL		1 (ON): FB processed normally. 0 (OFF): FB not processed or ended in an error.																																																
Busy Flag	BUSY	BOOL		Automatically turns OFF when processing is completed.																																																
Normal end	OK	BOOL		Turns ON for one cycle when processing ends normally.																																																
Error end	NG	BOOL		Turns ON for one cycle when processing ends in an error.																																																
Result	Result	DWORD		If the number of bytes to process is between 1 and 3, the data in the lower address is valid. <table style="margin-left: 20px;"> <tr> <td style="padding-right: 5px;">31</td><td style="padding-right: 5px;">24</td><td style="padding-right: 5px;">23</td><td style="padding-right: 5px;">16</td><td style="padding-right: 5px;">15</td><td style="padding-right: 5px;">08</td><td style="padding-right: 5px;">07</td><td style="padding-right: 5px;">00</td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 15px;"></td> <td style="border: 1px solid black; width: 20px; height: 15px;"></td> <td style="border: 1px solid black; width: 20px; height: 15px;"></td> <td style="border: 1px solid black; width: 20px; height: 15px;"></td> <td style="border: 1px solid black; width: 20px; height: 15px;"></td> <td style="border: 1px solid black; width: 20px; height: 15px;"></td> <td style="border: 1px solid black; width: 20px; height: 15px;"></td> <td style="border: 1px solid black; width: 20px; height: 15px;"></td> </tr> <tr> <td colspan="7" style="text-align: right; padding-right: 20px;">┌──────────┐</td> <td></td> </tr> <tr> <td colspan="7" style="text-align: right; padding-right: 20px;">└──────────┘</td> <td style="text-align: center;">1 byte specified</td> </tr> <tr> <td colspan="7" style="text-align: right; padding-right: 20px;">┌──────────┐</td> <td></td> </tr> <tr> <td colspan="7" style="text-align: right; padding-right: 20px;">└──────────┘</td> <td style="text-align: center;">3 bytes specified</td> </tr> </table>	31	24	23	16	15	08	07	00									┌──────────┐								└──────────┘							1 byte specified	┌──────────┐								└──────────┘							3 bytes specified
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Error code	ErrorCode	WORD		Outputs the results from the ID Sensor Unit. Refer to the <i>Related Manuals</i> for details. #0014: Data storage area Specification error * #0014: Command error * #0070: ID Tag communications error #0071: Verification error #0072: ID Tag missing error #0076: Status Flag #0077: Error correction #0079: ID system error 1 #007A: ID Tag address error #007C: Antenna error flag #007D: Write protection error #007E: ID system error 2 #007F: ID system error 3 #FFFE: ID Tag is communicating. #FFFF: Input parameter error *: #0014 has two item factor. Please confirm, and divide the corresponding flag about details.「Related manuals SCHI-711 7 Abnormal processing」																																																

■Version History

Version	Date	Contents
1.00	2008.04.	Original production