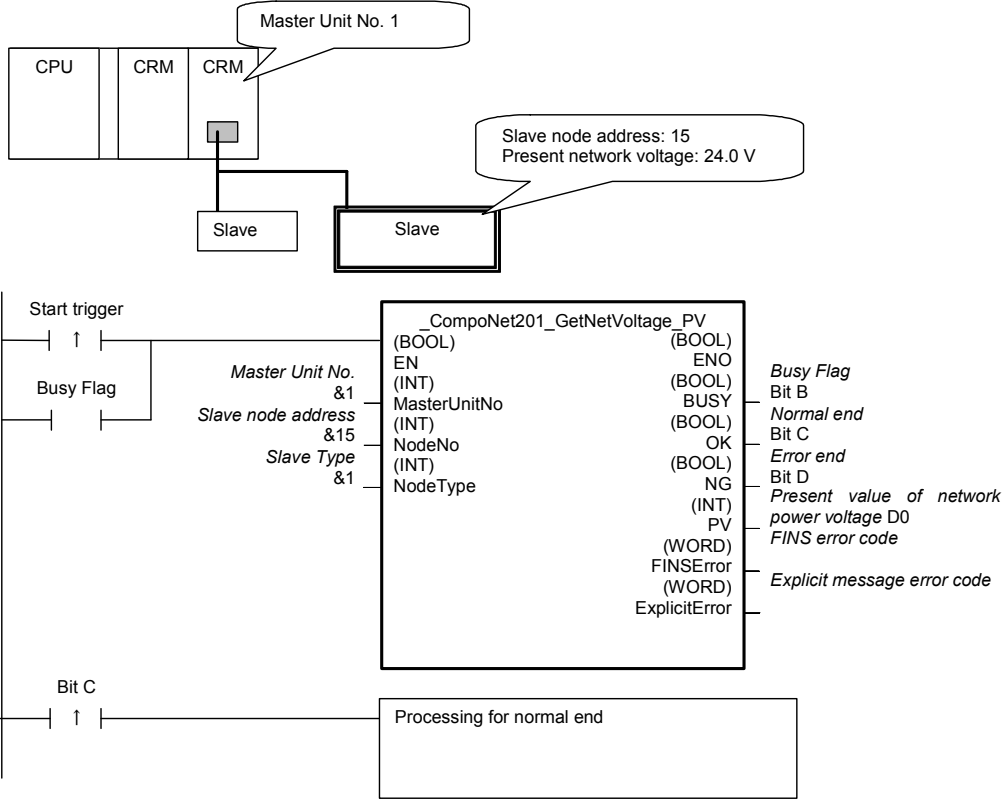


CompoNet -201	Read Network Voltage Present Value: _CompoNet201_GetNetVoltage_PV
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Basic function	Reads the present values of the network power supply from slaves connected to CompoNet.	
Symbol		
File name	Lib\FBL\omronlib\RemoteIO\CompoNet_CompoNet201_GetNetVoltage_PV10.cxf	
Applicable models	Applicable Master Units	CS1W-CRM21 and CJ1W-CRM21
	Applicable Slave Units	CRT1-ID16, CRT1-OD16, CRT1-AD04, CRT1-DA02, CRT1B-ID02S, CRT1B-OD02S, CRT1B-ID02SP, CRT1B-OD02SP, CRT1B-ID04SP, CRT1B-MD04SLP and CRS1-RPT01
	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
Conditions for usage	<p>CPU Unit Setting</p> <p>PLC Setup: Shared Settings for Communications Instructions in FBs</p> <ul style="list-style-type: none"> • CompoNet Response Timeout Time (default: 2 s) 10 s recommended • Number of retries (default: 0) <p>Shared Resources</p> <ul style="list-style-type: none"> • Communications ports (internal logical ports) <p>Other</p> <ul style="list-style-type: none"> • Communications must be within one network and cannot cross to another network. 	
Function description	<p>The present voltage of the network power supply is read from CompoNet slave specified by the Master Unit No., the Slave Node Address and Slave Type.</p> <p>Refer to the FINS error code and explicit message error code if an error occurs.</p> <p>Both error codes will be output as #0000 for a normal end.</p>	
FB precautions	<ul style="list-style-type: none"> • The FB is processed over multiple cycles. The BUSY output variable can be used to check wheter the FB is being processed. • OK or NG will be turned ON for one cycle only after processing is completed. User these flags to detect the end of FB processing. <p>Timechart</p>	
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. 	
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 Symbol). • Do not turn the BUSY output variable ON or OFF outside the FB. 	

<p>Application example</p>	<p>When bit A turns ON, the present value of the network power voltage to the slave with the specified node address, 15, will be read. The result, &240, is stored in D0.</p>  <p>The diagram illustrates the hardware and software configuration for reading network power voltage. The Master Unit No. 1 contains a CPU and two CRM modules. It is connected to two Slave units. One slave unit is specifically identified with a node address of 15 and a present network voltage of 24.0 V. The software implementation uses the function <code>_CompoNet201_GetNetVoltage_PV</code>. This function is triggered by a 'Start trigger' (Bit A) and its execution is monitored by a 'Busy Flag'. The function parameters include 'Master Unit No.' (&1), 'Slave node address' (&15), and 'Slave Type' (&1). The function returns several status flags: 'EN' (BOOL), 'ENO' (BOOL), 'BUSY' (BOOL), 'Normal end' (BOOL), 'Error end' (BOOL), 'Bit B' (INT), 'Bit C' (INT), 'Bit D' (INT), 'Present value of network power voltage D0' (WORD), 'FINS error code' (WORD), and 'Explicit message error code' (WORD). The function also returns 'FINS error' (WORD) and 'ExplicitError' (WORD). A 'Processing for normal end' block is shown at the bottom of the ladder logic diagram.</p>
<p>Related manuals</p>	<p>Explicit Message Error Codes <i>CompoNet Slave Units and Repeater Unit Operation Manual (W457)</i> <i>Appendix A CompoNet Explicit Messages, Basic Format of Explicit Messages, List of Error Codes</i></p> <p>FINS Error Codes <i>Communications Commands Reference Manual (W342)</i> <i>5-1-3 Error Codes</i></p>

Variable Tables**Input Variables**

Name	Variable name	Data type	Default	Range	Description
EN	EN	BOOL			1 (ON): FB started. 0 (OFF): FB not started.
Master Unit No.	MasterUnitNo	INT	&0	&0 to &99 � to ?	Specify the unit number of the CompoNet Master Unit.
Slave node address	NodeNo	INT	&0	&0 to &127	Specify the node address of the slave.
Slave Type	NodeType	INT	&1	&1 to &7	Slave Type 1: Word Slave IN 2: Word Slave OUT 3: Word Slave MIX 4: Bit Slave IN 5: Bit Slave OUT 6: Bit Slave MIX 7: Repeater

Output Variables

Name	Variable name	Data type	Range	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 cycles when processing ends normally.
Error end	NG	BOOL		Turns ON for one cycles when processing ends in an error.
Present value of network power voltage	PV	INT	&0 to &264	The present value of the network power voltage is output (unit: 0.1 V). For example, &240 would be output for 24.0 V.
FINS error code (May be omitted)	FINSError	WORD		The FINS error code is output. A code of #0000 is output for a normal end. Refer to the <i>Related Manuals</i> for details on the error codes.
Explicit message error code (May be omitted)	ExplicitError	WORD		Outputs the explicit message error code. A code of #0000 is output for a normal end. Refer to the <i>Related Manuals</i> for details on the error codes.

Version History

Version	Date	Contents
1.00	2006.9.	Original production

Note

This manual is a reference that explains the function block functions.

It does not explain the operational limitations of Units, components, or combinations of Units and components. Always read and understand the Operation Manuals for the system's Units and other components before using them.