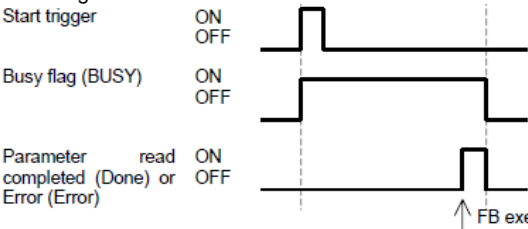


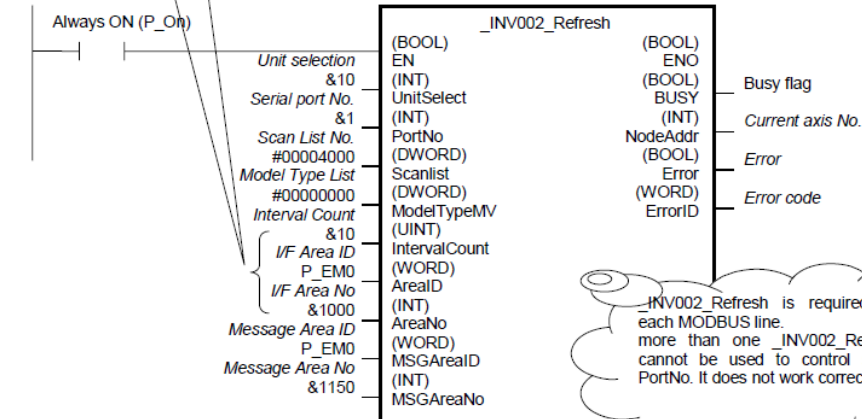
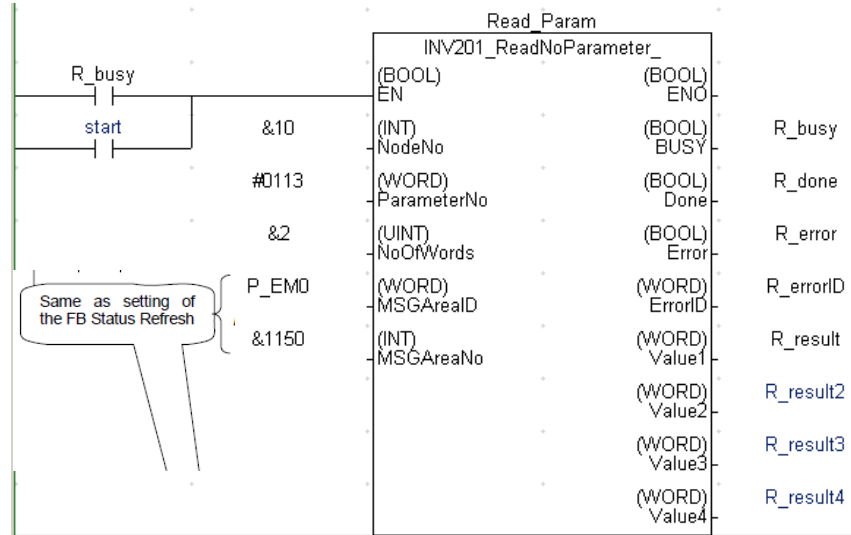
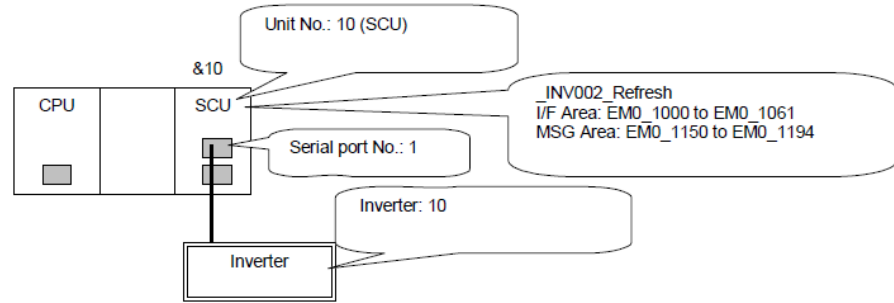
Parameter Read: _INV201_ReadNoParameter

Basic function	Reads the Modbus hold register value of the specified parameter.		
Symbol			
File name	INV201_ReadNoParameter_.cxf		
Applicable models	Combination FB	_INV002_Refresh or INV002_Refresh_X15_ or INV_Refresh_V15_	
	Applicable Target	All inverters with Modbus RTU: 3G3MV, 3G3RV, CIMR-V7AZ, CIMR-F7Z, CIMR-E7Z, CIMR-L7Z, CIMR-G7, MX2, RX, JX, MX	
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 CP1L (except 10 points CPU)		
CX-Programmer	Version 5.0 or higher		
Condition for usage	<p>The inverter is to be connected to a Serial port controlled by the Refresh FB “Status Refresh (_INV002_Refresh or INV002_Refresh_X15_ or INV_Refresh_V15_)”.</p> <p>(See the reference for the Refresh FB for applicable products and serial port.)</p> <p>Additionally, Requests for sending commands and reading status are sent to the Refresh FB. That means this FB only makes reservation for sending messages and does not control the serial port.</p> <div style="text-align: center;"> </div> <ul style="list-style-type: none"> ■ Shared Resources <ul style="list-style-type: none"> • MSG area used for the FB _INV002_Refresh ■ Inverter Settings <ul style="list-style-type: none"> • The inverter communication parameters and Serial Communication Unit parameter . • The Serial communication unit parameters can be changed by CX-Programmer or using FB library _INV600_SetComm. 		
Function description	Reads the Modbus hold register (parameter) of the inverter specified with the MSG Area (MSGAreaID, MSGAreaNo) and Inverter No. (NodeNo) Refer to the inverters manuals for the details of the register No. and setting values of the parameters.		

FB precautions	<ul style="list-style-type: none"> The FB is processed over multiple cycles. The BUSY output variable can be used to check whether the FB is being processed. Done or Error will be turned ON for one cycle only after processing is completed. Use these flags to detect the end of FB processing.  <p>Start trigger ON OFF</p> <p>Busy flag (BUSY) ON OFF</p> <p>Parameter read ON completed (Done) or OFF Error (Error)</p> <p style="text-align: center;">↑ FB execution completed here</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 version of input to EN. When any input variable is out of range, ENO will be turned OFF and the FB will not be executed. The Inverter node number is 1 to 31 node 0 and 32 are not available.
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.

Example

Reads the parameter 100 of the Inverter 10 connected to the Serial Communications Unit (SCU) with the Unit No. 10.



_INV002_Refresh is required for each MODBUS line. more than one _INV002_Refresh cannot be used to control same PortNo. It does not work correctly

Input Variables

Variable name	Name	Data type	Default	Range	Description
EN	Enable	Bool			1 (ON): FB started 0 (OFF): FB not started.
NodeNo	Inverter number	Integer	0	&1 to &31	The axis No. of the inverter used inside the Status Refresh FB _INV002_Refresh should be specified here.
ParameterNo	Parameter number	Word	0		Register No. of the inverter
NoOfWords	Number of words	Integer	0	&1 to 4.	Number of words to read in the inverter (the order will be the same as in the Modbus message)
MSGAreaID	Area identification code for message data	Word	#82 (DM)	#82, #B0-B2, #50-#5C	Memory area code for message data in the PLC: P_CIO, P_WR, P_HR, P_DM, P_EM,
MSGAreaNo	Beginning address value for message data area	Integer	0		The Area specified for the Refresh FB _INV002_Refresh that controls the concerned serial port.

Output variables

Variable name	name	Data type	Description
ENO	Enable output	Bool	1 (ON): FB processed normally. 0 (OFF): FB not processed or ended in an error.
BUSY	Busy flag	Bool	0 (OFF): Communication completed (turns OFF for 1 cycle) 1 (ON): Communicating
Done	Normal end	Bool	0 (OFF): Other status 1 (ON): Communications completed with no error
Error	Error end	Bool	0 (OFF): Other status 1 (ON): An error occurred.
ErrorID	Error code	Word	#0000: No error or no communication or wrong input parameters #0001 to #FFFF: Error code from serial gateway (SCU) Refer to the Manual W342 chapter 5-1-3 for details.
Value1	Read value1	Word	Read 1. value will be output.
Value2	Read value2	Word	Read 2. value will be output. (depending of the inverter, this might be the low word of a double word)
Value3	Read value3	Word	Read 3. value will be output.
Value4	Read value4	Word	Read 4. value will be output.