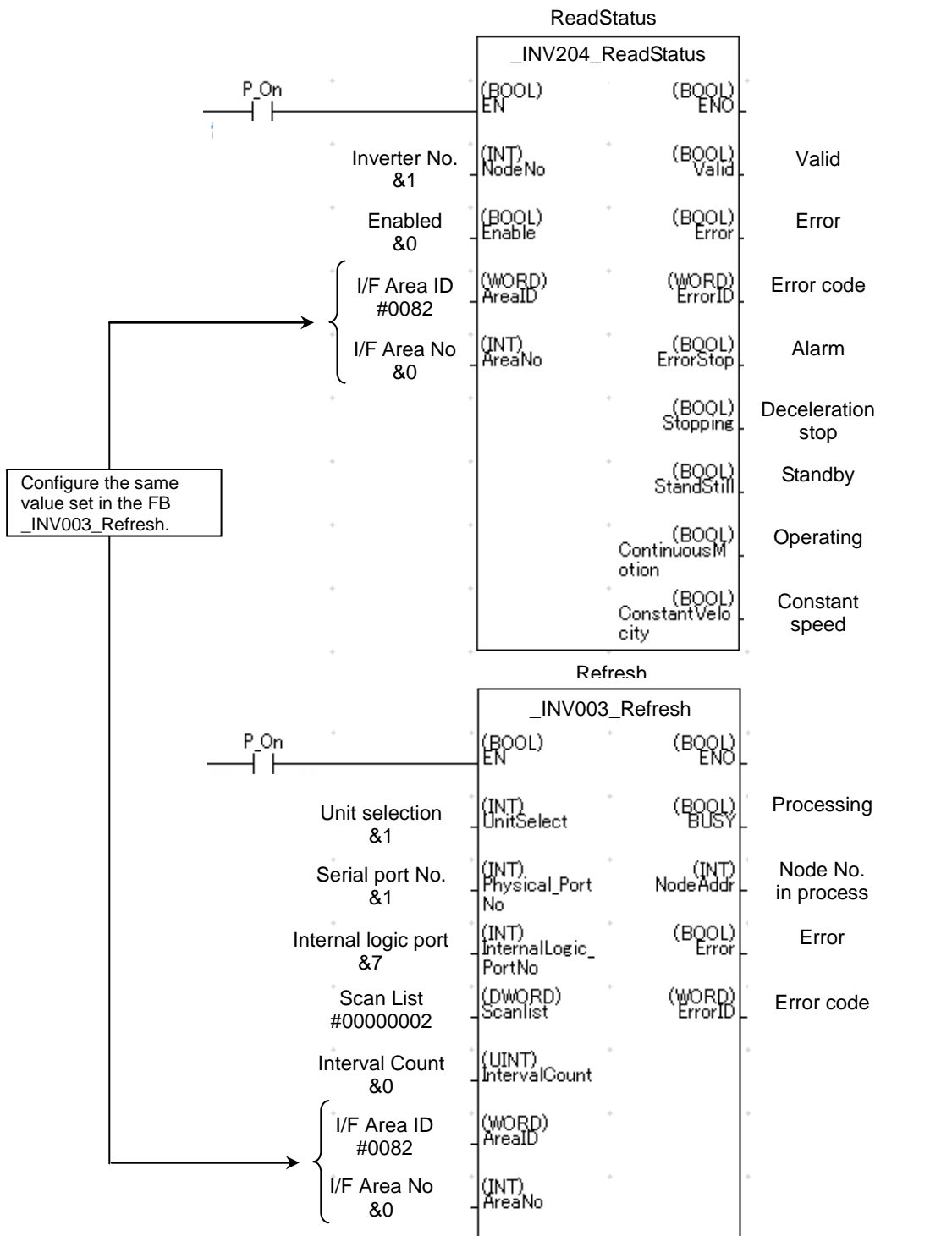
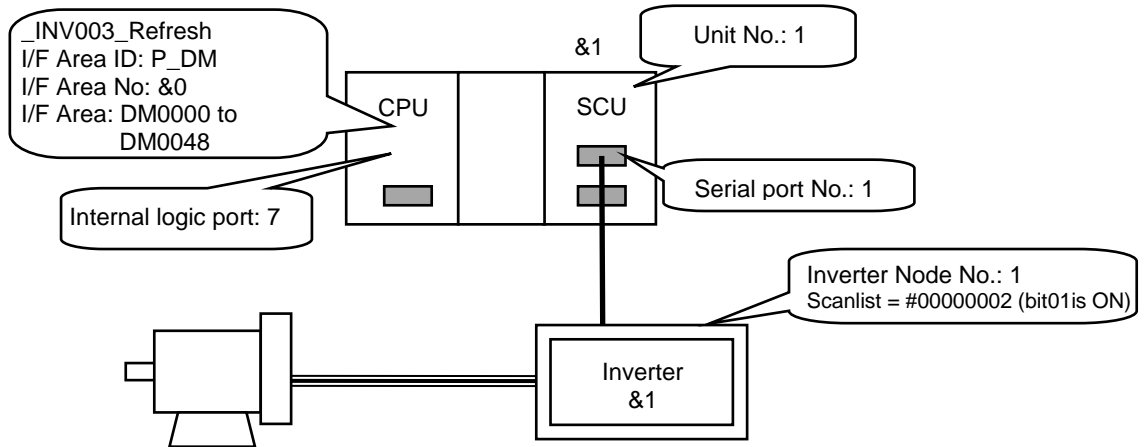


| | |
|--------------------|--|
| INV 204 | Status Read: _INV204_ReadStatus |
|--------------------|--|

| | | | | | | | | | | | | | |
|-----------------------------|--|-----------|---------------------------------|----------|---|----------------------------|--|--------------------------|--------------------------|---------------|-----------------------|----------------|---------------------------------------|
| Basic function | Reads the Inverter status. | | | | | | | | | | | | |
| Symbol | | | | | | | | | | | | | |
| File name | Lib\FBL\omronlib\Inverter\INVRT(MX2_RX)\Serial_INV204_ReadStatus.cxf | | | | | | | | | | | | |
| Applicable models | <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Inverters</td> <td>3G3MX2-****-V1 3G3RX-****-V1</td> </tr> <tr> <td>CPU Unit</td> <td>CJ2H-CPU** Unit version 1.4 or later CJ2M-CPU** Unit version 2.0 or later CP1H Unit version 1.2 or later CP1L (except 10 points CPU) Unit version 1.0 or later</td> </tr> <tr> <td>Serial Communications Unit</td> <td>CJ1W-SCU41-V1 Unit version 1.3 or later CJ1W-SCU42 Unit version 2.0 or later CJ1W-SCU31-V1 Unit version 1.3 or later CJ1W-SCU32 Unit version 2.0 or later</td> </tr> <tr> <td>RS-422A/485 Option Board</td> <td>CP1W-CIF11 CP1W-CIF12</td> </tr> <tr> <td>CX-Programmer</td> <td>Version 9.0 or higher</td> </tr> <tr> <td>Combination FB</td> <td>_INV003_Refresh Version 1.0 or higher</td> </tr> </table> | Inverters | 3G3MX2-****-V1 3G3RX-****-V1 | CPU Unit | CJ2H-CPU** Unit version 1.4 or later CJ2M-CPU** Unit version 2.0 or later CP1H Unit version 1.2 or later CP1L (except 10 points CPU) Unit version 1.0 or later | Serial Communications Unit | CJ1W-SCU41-V1 Unit version 1.3 or later CJ1W-SCU42 Unit version 2.0 or later CJ1W-SCU31-V1 Unit version 1.3 or later CJ1W-SCU32 Unit version 2.0 or later | RS-422A/485 Option Board | CP1W-CIF11 CP1W-CIF12 | CX-Programmer | Version 9.0 or higher | Combination FB | _INV003_Refresh Version 1.0 or higher |
| Inverters | 3G3MX2-****-V1 3G3RX-****-V1 | | | | | | | | | | | | |
| CPU Unit | CJ2H-CPU** Unit version 1.4 or later CJ2M-CPU** Unit version 2.0 or later CP1H Unit version 1.2 or later CP1L (except 10 points CPU) Unit version 1.0 or later | | | | | | | | | | | | |
| Serial Communications Unit | CJ1W-SCU41-V1 Unit version 1.3 or later CJ1W-SCU42 Unit version 2.0 or later CJ1W-SCU31-V1 Unit version 1.3 or later CJ1W-SCU32 Unit version 2.0 or later | | | | | | | | | | | | |
| RS-422A/485 Option Board | CP1W-CIF11 CP1W-CIF12 | | | | | | | | | | | | |
| CX-Programmer | Version 9.0 or higher | | | | | | | | | | | | |
| Combination FB | _INV003_Refresh Version 1.0 or higher | | | | | | | | | | | | |
| Language | Ladder programming language | | | | | | | | | | | | |
| Conditions for usage | <ul style="list-style-type: none"> ■ Precondition for Usage This FB communicates with the inverter via a serial port which is controlled by the FB _INV003_Refresh. Start up the FB _INV003_Refresh to use this FB. Configure the same value set in the FB _INV003_Refresh for I/F Area ID (AreaID) and I/F Area No (AreaNo) in this FB. ■ Shared Resources I/F Area used for the FB _INV003_Refresh ■ Settings For the settings of communications port and inverter, refer to the FB _INV003_Refresh. | | | | | | | | | | | | |
| Function description | <p>Reads the status of the inverter specified in Inverter No. (NodeNo).</p> <p>Reads the status continuously and reflects it in the output variable value while Enabled (Enable) is ON.</p> <ul style="list-style-type: none"> ■ Output Variables Behavior Valid (Valid) is turned ON when the valid value is reflected in the output variable. Error (Error) is turned ON when an error has occurred on this FB, and not turned ON due to errors in other FB or Instances. Error (Error) is turned OFF when the input variable, Enabled (Enable) is turned OFF. | | | | | | | | | | | | |
| FB definition | <p>Several cycles execution type</p> <p>This FB takes several cycles to finish processing after starting up.</p> <p>It is impossible to use the same Instance in several areas at the same time because the status is held internally.</p> | | | | | | | | | | | | |
| FB precautions | <ul style="list-style-type: none"> • Connect the EN input to the Always ON flag (P_ON). • If the EN is connected to a contact, this FB output is held by turning OFF the contact. | | | | | | | | | | | | |
| EN input condition | <ul style="list-style-type: none"> • Do not change relays in I/F Area during this FB operation because this FB uses them. • Use this FB in combination with FB _INV003_Refresh. For how to use, refer to usage examples. | | | | | | | | | | | | |

Application example



Related manuals

For the programming with variables, refer to CHAPTER 4 Reference in PART 1: CX-Programmer, CX-Programmer Operation Manual (Cat. No. W446).

■ Variable Table

Input Variables

| Name | Variable name | Data type | Default | Range | Description |
|--------------|---------------|-----------|---------|---------------------------|--|
| EN | EN | BOOL | 0 (OFF) | ON/OFF | 1 (ON): Starts FB 0 (OFF): Does not start FB |
| Inverter No. | NodeNo | INT | &1 | &1 to &31 | Specifies the node No. of the inverter. |
| Enabled | Enable | BOOL | 0 (OFF) | ON/OFF | 1(ON): Reads the status 0(OFF): Does not read the status |
| I/F Area ID | AreaID | WORD | #0082 | Refer to the right column | The work area is shared by configuring the same Area specified for the FB _INV003_Refresh that controls the applicable serial port. |
| I/F Area No | AreaNo | INT | &0 | Refer to the right column | |

Output Variables

| Name | Variable name | Data type | Range | Description |
|-------------------|-------------------|-----------|------------------|---|
| ENO | ENO | BOOL | ON/OFF | 1 (ON): FB operating normally 0 (OFF): FB not operating normally |
| Valid | Valid | BOOL | ON/OFF | When this variable is 1 (ON), the valid value is reflected. |
| Error | Error | BOOL | ON/OFF | When this variable is 1 (ON), an error has occurred in the FB. For details on the error, refer to Error code (ErrorID). |
| Error code | ErrorID | WORD | 0x0000 to 0xFFFF | Returns the code for the error which occurred in the FB. For details on the error, refer to "Error/Abort Condition List". An error code is output during error. The error code is held when the input variable, EN is OFF and cleared when the input variable, EN is turned ON. |
| Alarm | ErrorStop | BOOL | ON/OFF | When this variable is 1 (ON), an alarm has occurred. |
| Deceleration stop | Stopping | BOOL | ON/OFF | When this variable is 1 (ON), the status is during deceleration stop (Run command is OFF and During RUN is ON). |
| Standby | StandStill | BOOL | ON/OFF | When this variable is 1 (ON), the status is during waiting for a Run command (During RUN is OFF and Alarm is OFF). |
| Operating | Continuous Motion | BOOL | ON/OFF | When this variable is 1 (ON), the status is during startup (Run command is ON and During RUN is ON). |
| Constant speed | ConstantVelocity | BOOL | ON/OFF | When this variable is 1 (ON), the status is during the constant speed running (Constant speed arrival is ON). |

■ Error/Abort Condition List

| Name | Error code | Probable error cause | Corrective measure |
|------------------------------------|----------------|---|---|
| Normal completion | #0000 | - | - |
| Response error | #0001 to #7FFF | A response error of the communications command occurred. | Identify an error cause from the FINS Commands End Codes List in Communications Command Reference Manual (W342). |
| Modbus exception response | #8001 to #9FFF | An exception response was returned via Modbus communication. | Identify an error cause from the Exception Response in Multi-function Compact Inverter MX2 Series Type V1 User's Manual (I585) and High-function General-purpose Inverter 3G3RX Series Type V1 User's Manual (I578). The exception response and code are respectively output to upper double digits (xx) and lower double digits (yy) of an error code "#xxyy". |
| Out of the input variable | #A000 | The input variable in this FB is out of range. | Set an input variable value within the specified range. |
| Communications stop | #A010 | The specified node does not communicate. | Set the node in the scan list of FB _INV003_Refresh. |
| Communications error | #A011 | A communications error occurred in the specified node. | Remove the error cause and then execute the command again. |
| External operation (Response area) | #A210 | "Response area" in I/F Area was operated from outside the FB. | Do not operate I/F Area outside the FB. Moreover, do not use I/F Area with OUT instructions. |

■ Revision History

| Version | Date | Contents |
|---------|----------|---------------------|
| 1.00 | 2013.4.1 | Original production |

■ Note

This document explains the function of the function block.

It does not provide information of restrictions on the use of Units and Components or combination of them. For actual applications, make sure to read the operation manuals of the applicable products.