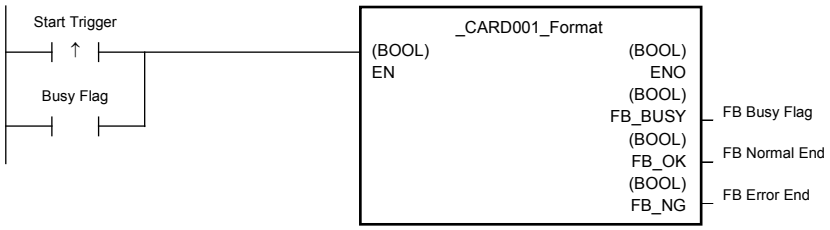
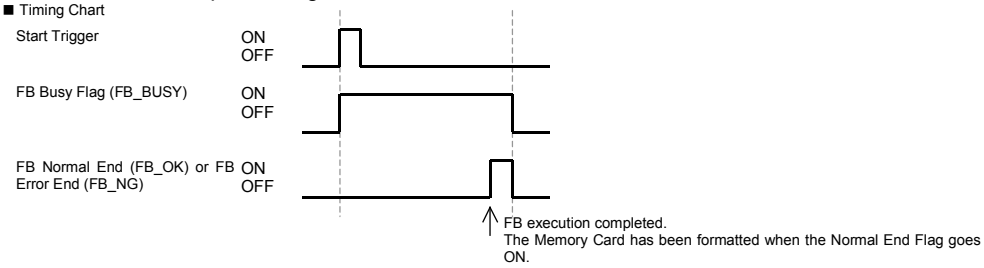
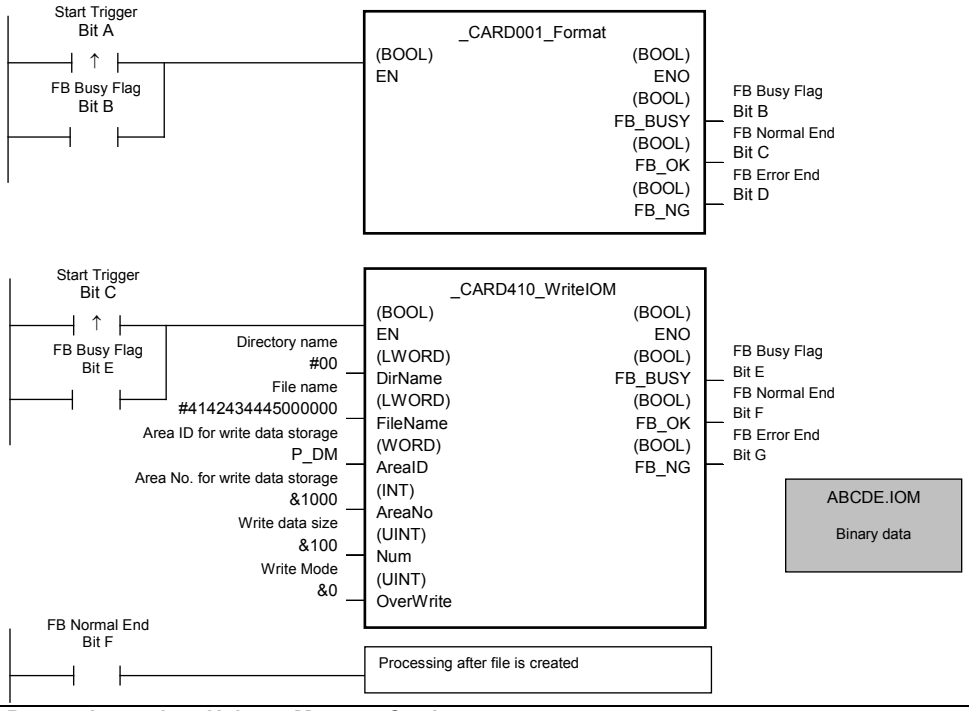
CARD 001	Format Memory Card: _CARD001_Format

Basic function	Formats a Memory Card.	
Symbol		
File name	Lib\FBL\omronlib\PLC\Card_CARD001_Format10.cxf	
Applicable models	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
	CX-Programmer	Version 5.0 or higher
Conditions for usage	CPU Unit Settings PLC Setup: Shared Settings for Communications Instructions in FBs • Communications Instruction Response Timeout Time (default: 2 s) • Number of retries (default: 3) Shared Resources • Memory Card • Communications ports (internal logical ports) Memory Card Status • The Memory Card must be recognized by the CPU Unit. The Memory Card Recognized Flag (A343.15) will be ON when CPU Unit has recognized the Memory Card.	
Function description	When the *Start Trigger* turns ON, formatting the Memory Card is begun. The Memory Card is already formatted when it is shipped, so it is not necessary to format a newly purchased Card.	
FB precautions	• If the Memory Card is being accessed when the FB is started, it will be formatted after the completion of the access. • The FB is processed over multiple cycles. The FB_BUSY output variable can be used to check whether the FB is being processed. • *FB_OK* or *FB_NG* will be turned ON for one cycle only after processing is completed. Use these flags to detect the end of FB processing. ■ Timing Chart 	
EN input condition	Connect EN to an OR between an upwardly differentiated condition for the start trigger and the FB_BUSY output from the FB.	
Restrictions **Input variables**	• Always use an upwardly differentiated condition for EN. Otherwise the Memory Card will be formatted again after formatting has been completed. • If the input variables are out of range, the ENO Flag will turn OFF and the FB will not be processed.	
Output variables	• This FB requires multiple cycles to process. Always connect an OR including the FB_BUSY output variable to the EN input variable to ensure that the FB is processed to completion (see *Symbol*). • Do not turn the FB_BUSY output variable ON or OFF outside the FB.	
Other	• If the Memory Card is missing or cannot be detected, the FB_NG Flag will be turned ON and formatting will not be performed. • Never turn OFF the Power Supply when the CPU Unit's BUSY indicator (Accessing Memory Card indicator) is lit. Refer to the Related Manuals for other Memory Card precautions.	

Application example

When bit A goes ON, the Memory Card is formatted and 100 words of data beginning at D1000 are saved to the Memory Card.



Related manuals

Precautions when Using a Memory Card

There are several precautions that must be observed when using Memory Cards.
This manual provides just an overview of the precautions.
For details, refer to *5-1 File Memory* in the *CS/CJ Series Programmable Controllers Programming Manual* (W394-E1).

1) Format
   The Memory Card is already formatted when it is shipped, so it is not necessary to format a newly purchased Card.
2) Number of Files allowed in Root Directory
   There is a limit to the number of files that can be stored in the root directory of the Memory Card. The maximum number of files depends on the Memory Card model and format, but it ranges between 128 and 512 files.
3) Maximum Number of Overwrites
   A limit of 100,000 write operations has been set for warranty purposes. For example, if the Memory Card is written to every 10 minutes, over 100,000 write operations will be performed within 2 years.
4) Turning the Power OFF
   Never turn OFF the Power Supply when the CPU Unit's BUSY indicator (Accessing Memory Card indicator) is lit.

FINS Error code

CS/CJ Series Communications Commands Reference Manual (W342-E1)
- 5-1 Command Lists
- 5-1-3 End Codes

Variable Tables

Input Variables

Name	Variable name	Data type	Default	Range	Description
EN	EN	BOOL			1 (ON): FB started 0 (OFF): FB not started.

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.
FB Busy Flag	FB_BUSY	BOOL		Automatically turns OFF when processing is completed.
FB Normal end	FB_OK	BOOL		Turns ON for one cycle when processing ends normally.
FB Error end	FB_NG	BOOL		Turns ON for one cycle when processing ends in an error.

Internal Variables

Internal variables are not output from the FB.

If the FB_NG Flag turns ON, the following internal variables can be monitored to obtain information on the error.

Name	Variable name	Data type	Range	Description
FINS error code	FINS_ErrorCode	WORD		The FINS error code is output. A code of #0000 is output for a normal end. Refer to the *Related Manuals* for details on the error codes.

Typical FINS Error Codes

Code	Contents	Meaning
#0000	Normal end	---
#2301 #2302	No file memory	There is no Memory Card.
#3001	No access right	The right to access the Memory Card is presently held by another device, so the operation cannot be performed.

Version History

Version	Date	Contents
1.00	2005.2.	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.