

CARD 421	Write Program File to be Transferred at Startup after Online Editing: _CARD421_OnEditWriteObj
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Basic function	After online editing, automatically creates the Autoexec.obj program file (automatically transferred at startup) in the Memory Card.								
Symbol	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>Always ON (P_On)</p> </div> <div style="flex: 2; border: 1px solid black; padding: 5px; margin: 0 10px;"> <p style="text-align: center;">_CARD421_OnEditWriteObj</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 2px;">(BOOL) EN</td> <td style="width: 50%; padding: 2px;">(BOOL) ENO</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">(BOOL) Exe</td> <td style="padding: 2px;">(BOOL) FB_BUSY</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">(UINT) DelayTime</td> <td style="padding: 2px;">(BOOL) FB_OK</td> </tr> <tr> <td style="border-right: 1px solid black;"></td> <td style="padding: 2px;">(BOOL) FB_NG</td> </tr> </table> </div> <div style="flex: 1; padding-left: 10px;"> <p>FB Busy Flag</p> <p>FB Normal End</p> <p>FB Error End</p> </div> </div>	(BOOL) EN	(BOOL) ENO	(BOOL) Exe	(BOOL) FB_BUSY	(UINT) DelayTime	(BOOL) FB_OK		(BOOL) FB_NG
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File name	Lib\FBL\omronlib\PLC\Card_CARD421_OnEditWriteObj10.cxf								
Applicable models	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; border-right: 1px solid black; padding: 2px;">CPU Unit</td> <td style="padding: 2px;">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</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">CX-Programmer</td> <td style="padding: 2px;">Version 6.0 or higher Note: This FB can be nested one level in another FB.</td> </tr> </table>	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 6.0 or higher Note: This FB can be nested one level in another FB.				
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Conditions for usage	<p>CPU Unit Settings</p> <p>PLC Setup: Shared Settings for Communications Instructions in FBs</p> <ul style="list-style-type: none"> • Communications Instruction Response Timeout Time (default: 2 s) • Number of retries (default: 3) <p>Shared Resources</p> <ul style="list-style-type: none"> • Memory Card • Communications ports (internal logical ports) <p>Memory Card Status</p> <ul style="list-style-type: none"> • 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	<p>If online editing is performed while the Start Flag is ON, this function automatically saves the Autoexec.obj program file (transferred automatically at startup) after the specified delay time has elapsed.</p> <p>If online editing continues, the Autoexec.obj file is created after the end of the last online editing event. (See following Timing Chart.)</p> <p>This FB can be started after online editing to create the file that is automatically transferred at startup when the system is set to automatically transfer the file from the Memory Card when the power is turned ON. After the file is created, its contents are verified.</p> <p>The FB will be executed even if the Start Flag goes OFF after online editing.</p>								
FB precautions	<ul style="list-style-type: none"> • If the Memory Card is already being accessed when the FB is started, the operation will be performed 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. • <i>FB_OK</i> or <i>FB_NG</i> will be turned ON for one cycle only after processing is completed. Use these flags to detect the end of FB processing. <p>■ Timing Chart</p> <div style="text-align: center;"> </div> <ul style="list-style-type: none"> • It is not possible to start two of these function blocks at the same time. If this function block is used in more than one place, be sure that the instances are not started simultaneously. • Online editing cannot be performed while the file is being created. • In order to use the <i>Automatic Transfer at Startup</i> function, the parameter file (Autoexec.std) is required as well as the program file (Autoexec.obj). 								
EN input condition	Connect the EN input to the Always ON Flag (P_On).								
Restrictions Input variables	<ul style="list-style-type: none"> • Always connect the EN input to the Always ON Flag (P_On). • 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"> Do not turn the FB_BUSY output variable ON or OFF outside the FB.
Other	<ul style="list-style-type: none"> If the Memory Card is missing or cannot be detected, the FB_NG Flag will be turned ON. Never turn OFF the Power Supply when the CPU Unit's BUSY indicator (Accessing Memory Card indicator) is lit. <p>Refer to the Related Manuals for other Memory Card precautions.</p>
Application example	<p>The Autoexec.obj program file (automatically transferred at startup) is created 10 seconds after the last online editing operation when several online editing operations have been performed.</p> <p>The diagram illustrates the configuration and execution of the <code>_CARD421_OnEditWriteObj</code> function block. The function block has the following inputs and outputs:</p> <ul style="list-style-type: none"> Inputs: <ul style="list-style-type: none"> <code>(BOOL) EN</code>: Start Flag Bit A <code>(BOOL) Exe</code>: Start Flag Bit A <code>(UINT) DelayTime</code>: Delay setting (100-ms units) & 100 Outputs: <ul style="list-style-type: none"> <code>(BOOL) ENO</code>: FB Busy Flag <code>(BOOL) FB_BUSY</code>: Bit B <code>(BOOL) FB_OK</code>: FB Normal End <code>(BOOL) FB_NG</code>: Bit C <code>(BOOL) FB_NG</code>: FB Error End <code>(BOOL) FB_NG</code>: Bit D <p>The function block is connected to a CPU Unit User program, which in turn calls the <code>AUTOEXEC.OBJ</code> program.</p>
Related manuals	<p>Precautions when Using a Memory Card</p> <p>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 <i>CS/CJ Series Programmable Controllers Programming Manual (W394-E1)</i>.</p> <ol style="list-style-type: none"> Format The Memory Card is already formatted when it is shipped, so it is not necessary to format a newly purchased Card. 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. 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. Turning the Power OFF Never turn OFF the Power Supply when the CPU Unit's BUSY indicator (Accessing Memory Card indicator) is lit. <p>FINS Error code CS/CJ Series Communications Commands Reference Manual (W342-E1) 5-1 Command Lists 5-1-3 End Codes</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.
Start Flag	Exe	BOOL			The Autoexec.obj file will be created if online editing is performed while this Flag is ON.
Delay setting	DelayTime	UINT			Specify the ON pulse time (unit: 100 ms). For example, &30 means 3 seconds.

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 <i>Related Manuals</i> 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.