

CARD 201	Read CSV File Size _CARD201_ReadCSVNum	
Basic function	Reads the size (number of data elements) of a comma-separated variable data file (.CSV extension) with a new line every 10 fields.	
Symbol		
File name	Lib\FBL\omronlib\PLC\Card_CARD201_ReadCSVNum10.cxf	
Applicable models	CPU Unit CX-Programmer	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 Version 5.0 or higher
Conditions for usage	Shared Resources <ul style="list-style-type: none"> Memory Card Memory Card Status <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	When the Start Trigger turns ON, the function reads the size of the specified data file (.CSV extension) in the root directory or a specified directory of the Memory Card. If the size of the file exceeds 65,535 data elements, the output value will be 65,535. The data file must be a CSV file with a new line every 10 fields.	
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. 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	<p>When the Normal End Flag goes ON, the data size has been read.</p>	
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	<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 FB_BUSY output variable to the EN input variable to ensure that the FB is processed to completion (see <i>Symbol</i>). 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. Refer to the Related Manuals for other Memory Card precautions. 	

<p>Application example</p>	<p>When bit A goes ON, the function reads the size of file ABCDE.CSV in the Memory Card's root directory and copies the contents of the file to the DM Area beginning at D1000.</p> <p>1) _CARD201_ReadCSVNum</p> <table border="1"> <tr> <td>Start Trigger Bit A</td> <td>(BOOL)</td> <td>EN</td> <td>(BOOL)</td> <td>ENO</td> <td>FB Busy Flag Bit B</td> </tr> <tr> <td>FB Busy Flag Bit B</td> <td>(LWORD)</td> <td>DirName</td> <td>(BOOL)</td> <td>FB_BUSY</td> <td>FB Normal End Bit C</td> </tr> <tr> <td>Directory name #00</td> <td>(LWORD)</td> <td>FileName</td> <td>(BOOL)</td> <td>FB_OK</td> <td>FB Error End Bit D</td> </tr> <tr> <td>File name #4142434445000000</td> <td>(WORD)</td> <td>AreaID</td> <td>(BOOL)</td> <td>FB_NG</td> <td>Data size D0</td> </tr> <tr> <td>Equivalent to "ABCDE" in ASCII.</td> <td>(UINT)</td> <td>AreaNo</td> <td>(UINT)</td> <td>Num</td> <td></td> </tr> </table> <p>2) _CARD211_ReadCSV</p> <table border="1"> <tr> <td>Start Trigger Bit C</td> <td>(BOOL)</td> <td>EN</td> <td>(BOOL)</td> <td>ENO</td> <td>FB Busy Flag Bit E</td> </tr> <tr> <td>FB Busy Flag Bit E</td> <td>(LWORD)</td> <td>DirName</td> <td>(BOOL)</td> <td>FB_BUSY</td> <td>FB Normal End Bit F</td> </tr> <tr> <td>Directory name #00</td> <td>(LWORD)</td> <td>FileName</td> <td>(BOOL)</td> <td>FB_OK</td> <td>FB Error End Bit G</td> </tr> <tr> <td>File name #4142434445000000</td> <td>(WORD)</td> <td>AreaID</td> <td>(BOOL)</td> <td>FB_NG</td> <td></td> </tr> <tr> <td>Area ID for read data storage P_DM</td> <td>(INT)</td> <td>AreaNo</td> <td>(UINT)</td> <td>Num</td> <td></td> </tr> <tr> <td>Area No. for read data storage &1000</td> <td>(UINT)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Read data size D0</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>Processing after file is read</p>	Start Trigger Bit A	(BOOL)	EN	(BOOL)	ENO	FB Busy Flag Bit B	FB Busy Flag Bit B	(LWORD)	DirName	(BOOL)	FB_BUSY	FB Normal End Bit C	Directory name #00	(LWORD)	FileName	(BOOL)	FB_OK	FB Error End Bit D	File name #4142434445000000	(WORD)	AreaID	(BOOL)	FB_NG	Data size D0	Equivalent to "ABCDE" in ASCII.	(UINT)	AreaNo	(UINT)	Num		Start Trigger Bit C	(BOOL)	EN	(BOOL)	ENO	FB Busy Flag Bit E	FB Busy Flag Bit E	(LWORD)	DirName	(BOOL)	FB_BUSY	FB Normal End Bit F	Directory name #00	(LWORD)	FileName	(BOOL)	FB_OK	FB Error End Bit G	File name #4142434445000000	(WORD)	AreaID	(BOOL)	FB_NG		Area ID for read data storage P_DM	(INT)	AreaNo	(UINT)	Num		Area No. for read data storage &1000	(UINT)					Read data size D0					
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<p>Related manuals</p>	<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"> 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. <p>Reference for File Data Format</p> <p>For details on file formats, refer to 5-1-3 Files in the <i>CS/CJ Series Programmable Controllers Programming Manual (W394-E1)</i>.</p>																																																																								
<p>Related FBs</p>	<p>Use the following functions when setting the present date or time as the directory name or file name.</p> <p>FB Get Date in ASCII (<code>_CPU020_MakeAsciiDate</code>) FB Get Time in ASCII (<code>_CPU021_MakeAsciiTime</code>)</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.								
Directory name	DirName	LWORD		At right.	Specifying the root directory: Set the directory to #00. Specifying a subdirectory: Specify the directory name (always 8 characters) in ASCII with the character codes at the beginning. If fewer than 8 characters are required, pad the extra characters with zeroes (#00). For example, to set the name "ABCD," input #4142434400000000. When indirectly specifying ASCII data in data area words, input the data as shown at the right. <table border="1" style="float: right; margin-left: 20px;"> <tr><td>n+3</td><td>#4142</td></tr> <tr><td>n+2</td><td>#4344</td></tr> <tr><td>n+1</td><td>#0000</td></tr> <tr><td>n</td><td>#0000</td></tr> </table>	n+3	#4142	n+2	#4344	n+1	#0000	n	#0000
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n+2	#4344												
n+1	#0000												
n	#0000												
File name	FileName	LWORD		At right.	Specify the file name (always 8 characters) in ASCII with the character codes at the beginning. If fewer than 8 characters are required, pad the extra characters with zeroes (#00). For example, to set the name "123.CSV," input #3132330000000000. When indirectly specifying ASCII data in data area words, input the data as shown at the right. <table border="1" style="float: right; margin-left: 20px;"> <tr><td>n+3</td><td>#3132</td></tr> <tr><td>n+2</td><td>#3300</td></tr> <tr><td>n+1</td><td>#0000</td></tr> <tr><td>n</td><td>#0000</td></tr> </table>	n+3	#3132	n+2	#3300	n+1	#0000	n	#0000
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n+1	#0000												
n	#0000												

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.
Data size	Num	UINT		Indicates the number of data elements in the specified file. If the number exceeds 65,535, the output value will be 65,535.

Reference

ASCII Table

Text	ASCII	Text	ASCII	Text	ASCII	Text	ASCII	Text	ASCII	Text	ASCII
0	#30	8	#38			H	#48	P	#50	X	#58
1	#31	9	#39	A	#41	I	#49	Q	#51	Y	#59
2	#32			B	#42	J	#4A	R	#52	Z	#5A
3	#33			C	#43	K	#4B	S	#53		
4	#34			D	#44	L	#4C	T	#54	¥	#5C
5	#35			E	#45	M	#4D	U	#55		
6	#36			F	#46	N	#4E	V	#56		
7	#37			G	#47	O	#4F	W	#57		

Examples:
 Character 0: ASCII #30
 Character A: ASCII #41
 Character X: ASCII #58

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.