Using Macro Command to Save Data

1. Saving Data to File with Default Filename

Purpose: Save the specified data to a file with default filename.

Command: *p1* = FILE_IO(*p2*, *p3*)

Parameter:

p1: The location to receive the result of the operation. The result value is 0 if the operation succeeds; otherwise the operation fails.

p2: The desired operation code.

p3: The ID of the data to be saved.

	Settings of Parameters		
Operation	***P2*** **(Operation Code)**	***P3*** **(Data ID or Sub-operation Code)**	**Filename Format**
Save Logged Data (.TXT)	1	ID of the data logger (0~15)	DL<ID>_<Date>_<Time>.txt
Save Logged Data (.CSV)	14	ID of the data logger (0~15)	DL<ID>_<Date>_<Time>.csv
Save Logged Alarms (.TXT)	2	0	AL_<Date>_<Time>.txt
Save Logged Alarms (.CSV)	15	0	AL_<Date>_<Time>.csv
Save Alarm Counts (.TXT)	3	0	AC_<Date>_<Time>.txt
Save Alarm Counts (.CSV)	16	0	AC_<Date>_<Time>.csv
Save Recipe Data (.TXT)	4	ID of the recipe block (0~15)	RB<ID>.txt
Save Recipe Data (.CSV)	17	ID of the recipe block (0~15)	RB<ID>.csv
Save Recipe Data (.PRD)	5	ID of the recipe block (0~15)	RB<ID>.prd
Print Screen to File (in 256 colors) for HMI units	6	Number of the screen	S<ID>_<Date>_<Time>.bmp
Print Screen to File (in true color) for PC runtime	6	Number of the screen	S<ID>_<Date>_<Time>.bmp
Print Screen to File (in 64K colors) for HMI units	7	Number of the screen	S<ID>_<Date>_<Time>.bmp
Print Screen to File (in true color) for PC runtime	7	Number of the screen	S<ID>_<Date>_<Time>.jpg

Save Logged Operations (.TXT)	9	0	OL_<Date>_<Time>.txt
Save Logged Operations (.CSV)	18	0	OL_<Date>_<Time>.csv
Save Logged Data (in LDF format)	10	ID of the data logger (0~15)	DL<ID>_<Date>_<Time>.ldf
Take Picture (in BMP format) for PC runtime	12	ID of the USB camera (0~3)	CAM<ID>_<Date>_<Time>.bmp
Take Picture (in JPG format) for PC runtime	13	ID of the USB camera (0~3)	CAM<ID>_<Date>_<Time>.jpg
Print Screen to File (in JPEG format) for HMI units	22	Number of the screen	S<ID>_<Date>_<Time>.jpg
Take Picture (in JPG format) for HMI units	23	0	IMG<ID>_<Date>_<Time>.jpg
Print the Current Display to File (.BMP)	24	0	S_<Date>_<Time>.bmp
Save Logged Data (.PDF)	25	ID of the data logger (0~15)	DL<ID>_<Date>_<Time>.pdf
n/a	26		
n/a	27		
Save Logged Alarms (.PDF)	28	0	AL_<Date>_<Time>.pdf
Save Logged Operations (.PDF)	29	0	OL_<Date>_<Time>.pdf

Note:

1) The operations will create a new file or overwrite the existing file and show the progress bar of the file I/O. To hide the progress bar of the file I/O, use the normal operation code plus 100. For example, to save the logged data to a CSV file without showing the progress bar, use the code 114 (100+14) instead of 14.
2) Notations of the filename format

Notation	Description
<ID>	ID of a data logger, a recipe block, a USB camera, or a screen number
<Date>	The date when the operation is performed; format is YYMMDD
<Time>	The time when the operation is performed; format is hhmmss

2. Saving Data to File with Specified Filename

Purpose: Save the specified data to a file with a specified filename.
Command: *p1* = FILE_IO_N(*p2*, *p3*, *p4*)
Parameter:

p1: The location to receive the result of the operation. The result value is 0 if the operation succeeds; otherwise the operation fails.
p2: The desired operation code.
p3: The ID of the data to be saved.
p4: The internal memory location to store the specified filename (or full pathname).

	Settings of Parameters		
Operation	***P2*** **(Operation Code)**	***P3*** **(Data ID)**	***P4*** **(Filename or Full Pathname)**
Save Logged Data (in CSV/TXT format)	31	ID of the data logger (0~15)	The starting Address of the internal memory $U that stores the specified filename or full pathname. The name must be a valid Windows pathname with ASCII character only. The character string must be null terminated and each character occupies one byte. The maximum length of the string is 127. All the folders stated in the full pathname must already exist or the file operation will fail.
Save Logged Alarms	32	0	Same as above
Save Alarm Counts	33	0	Same as above
Save Recipe Data (in CSV/TXT format)	34	ID of the recipe block (0~15)	Same as above
Save Recipe Data (in PRD format)	35	ID of the recipe block (0~15)	Same as above
Print Screen to File (in 256 colors) for HMI units	36	Number of the screen	Same as above
Print Screen to File (in true color) for PC runtime	36	Number of the screen	Same as above

Print Screen to File (in 64K colors) for HMI units	37	Number of the screen	Same as above
Print Screen to File (in true color) for PC runtime	37	Number of the screen	Same as above
Save Logged Operations	39	0	Same as above
Save Logged Data (in LDF format)	40	ID of the data logger (0~15)	Same as above
Take Picture (in BMP format) for PC runtime	42	ID of the USB camera (0~3)	Same as above
Take Picture (in JPG format) for PC runtime	43	ID of the USB camera (0~3)	Same as above
Print Screen to File (in JPEG format) for HMI units	52	Number of the screen	Same as above
Take Picture (in JPG format) for HMI units	53	0	Same as above
Print the Current Display to File (.BMP)	54	0	Same as above
Save Logged Data (.PDF)	55	ID of the data logger (0~15)	Same as above
Save Logged Alarms (.PDF)	58	0	Same as above
Save Logged Operations (.PDF)	59	0	Same as above

Note:

1) The operations will create a new file or overwrite the existing file and show the progress bar of the file I/O. To hide the progress bar of the file I/O, use the normal operation code plus 100. For example, to save the logged data without showing the progress bar, use the code 131 (100+31) instead of 31.

3. Appending Data to File

Purpose: Append the specified data to a file.
Command: *p1* = FILE_IO_N(*p2*, *p3*, *p4*)
Parameter:

p1: The location to receive the result of the operation. The result value is 0 if the operation succeeds; otherwise the operation fails.
p2: The desired operation code.
p3: The ID of the data to be appended.
p4: The internal memory location to store the specified filename (or full pathname).

	Settings of Parameters		
Operation	***P2*** **(Operation Code)**	***P3*** **(Data ID)**	***P4*** **(Filename or Full Pathname)**
Append Logged Data (in CSV/TXT format)	231	ID of the data logger (0~15)	The starting Address of the internal memory $U that stores the specified filename or full pathname. The name must be a valid Windows pathname with ASCII character only. The character string must be null terminated and each character occupies one byte. The maximum length of the string is 127. All the folders stated in the full pathname must already exist or the file operation will fail.
Append Logged Alarms	232	0	Same as above
Append Logged Operations	239	0	Same as above

Note:

1) The operations will append data to the specified file and show the progress bar of the file I/O. If the file does not exist, it will be created. To hide the progress bar of the file I/O, use the normal operation code plus 100. For example, to append the logged data without showing the progress bar, use the code 331 (100+231) instead of 231.