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Version History

Date	Version	What is new	Author
2013-10-31	1.00	New version	Yong.lu
2014-06-30	1.01	Chapter 2.2,Modify the parameter description of AT+FSREAD	Yong.lu
		Chapter 2.7,Add AT+FSMEM	
		Chapter 2.8,Add AT+FSRENAME	
		Chapter 2.9,Add AT+FSDRIVE	
		Chapter 2.10,Add AT+FSMKDIR	
		Chapter 2.11,Add AT+FSRMDIR	

Scope

This document presents the AT commands of FS operation and application examples. This document can apply to SIM800 series modules, including SIM800L, SIM800H, SIM800 and SIM800-WB64.

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1. FS Introduction

This chapter introduces the FS application features.

1.1 Features

Local storage space is mapped to the drive which can get by AT+FSDRIVE=0, the system will create User directory in local drive after first boot, and storage space of SD card is mapped to the drive which can get by AT+FSDRIVE=1.

As PCM interface and SD card interface is multiplexing function, shown as below table. At the first time to use SD card, customer must execute “AT+SD2PCM=0” and “AT&W”, then reboot the module by AT command or PWRKEY pin.

PCM and SD card multiplexing function:

Pin name	Pin number	Mode 0(default)	Mode 1	Mode 2	Mode 3
PCMCLK	29	PCMCLK	DISP_RSTB	MC3CM0	GPIO18
PCMOUT	30	PCMOUT	DISP_DI	MC3DA3	GPIO19
PCMSYNC	65	PCMSYNC	DISP_CEB	MC3CK	GPIO20
PCMIN	66	PCMIN	DISP_DA	MC3DA2	GPIO21
GPIO2	27	GPIO2	DISP_A0DA	MC3DA0	-
GPIO3	28	GPIO3	DISP_CLK	MC3DA1	-

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2. AT Commands

SIM800 series FS AT command overview.

Command	Description
AT+FSCREATE	Create file
AT+FSREAD	Read file
AT+FSWRITE	Write file
AT+FSDEL	Delete file
AT+FSLS	List directories/files
AT+FSFLSIZE	Get file size
AT+FSMEM	Get the size of available memory
AT+FSRENAME	Rename file
AT+FSDRIVE	Get drive
AT+FSMKDIR	Make new directory
AT+FSRMDIR	Delete directory

2.1 AT+FSCREATE Create File

AT+FSCREATE Create File	
Test Command **AT+FSCREATE=?**	Response **OK** or **ERROR**
Write Command **AT+FSCREATE=<filename>**	Response **OK** or **ERROR**
	Parameters **<filename>** String without double quotes, the length of the file name should be less than or equal to 64 characters
Reference	Note

2.2 AT+ FSREAD Read File

AT+FSREAD Read File

Test Command **AT+FSREAD=?**	Response **OK** or **ERROR**
Write Command **AT+FSREAD=<filename>,<mode>,<filesize>,<position>**	Response **<data>** **OK** or **ERROR**
	Parameters **<filename>** String without double quotes, the file should have already existed. The length of the file name should be less than or equal to 64 characters **<mode>** **0** Read data at the beginning of the file **1** Read data at the <position> of the file **<filesize>** The size of the file that you want to read, the size should be less than or equal to 10240.If the **<filesize>** is more than the file real size, the **<filesize>** will be set to the file real size **<position>** The starting position that will be read in the file. The **<position>** should be less than the file size **<data>** The data which is read will be putted out by UART port
Reference	Note When **<mode>** is **0, <position>** is invalid.

2.3 AT+FSWRITE Write File

AT+FSWRITE	**Write File**
Test Command **AT+FSWRITE=?**	Response **OK** or **ERROR**
Write Command **AT+FSWRITE=<filename>,<mode>,<filesize>,<inputtime>**	Response > **OK** or **ERROR** or **TimeOut**

	Parameters **<filename>** String without double quotes, the file should have already existed. The length of the file name should be less than or equal to 64 characters. **<mode>** **0** Write data at the beginning of the file **1** Write data at the end of the file **<filesize>** The size of the file that you want to write, the size should be less than or equal to 10240. **<inputtime>** User should write file in the <inputtime> period, otherwise the operation of writing to the file fails. Unit is second.
Reference	Note

2.4 AT+FSDEL Delete File

AT+FSDEL Delete File	
Test Command **AT+FSDEL=?**	Response **OK** or **ERROR**
Write Command **AT+FSDEL=<filename>**	Response **OK** or **ERROR**
	Parameters **<filename>** String without double quotes, the file should have already existed. The length of the file name should be less than or equal to 64 characters
Reference	Note

2.5 AT+FSLS List Directories/Files

AT+FSLS List Directories/Files	
Test Command **AT+FSLS=?**	Response **OK** or **ERROR**
Write Command **AT+FSLS=<filepath>**	Response **<list of subdirectories/files>** **OK**

	or **ERROR**
	Parameters **<filepath>** String without double quotes, directory for selection. The length of the directory name should be less than or equal to 64 characters. The string format such as C:\,the directory must have "\"
Reference	Note If the last character of the result string is "\", this means that it is a directory, otherwise, it is a file.

2.6 AT+FSFLSIZE Get File Size

AT+FSFLSIZE	**Get File Size**
Test Command **AT+FSFLSIZE =?**	Response **OK** or **ERROR**
Write Command **AT+FSFLSIZE= <filename>**	Response **+FSFLSIZE: <n>** **OK** or **ERROR**
	Parameters **<filename>** String without double quotes, the file should have already existed. The length of the file name should be less than or equal to 64 characters **<n>** The file size
Reference	Note

2.7 AT+FSMEM Get the Size of Available Memory

AT+ FSMEM	**Get the Size of Available Memory**
Test Command **AT+FSMEM =?**	Response **OK** or **ERROR**
Execution Command **AT+FSMEM**	Response If SD card exist: **+FSMEM: <local_drive>:<local_size>bytes, <sd_drive>:<sd_size>bytes**

	OK or If SD card doesn't exist: **+FSMEM: <local_drive>:<local_size>bytes** **OK** or **ERROR**
	Parameters **<local_drive>** Local drive **<sd_drive>** SD card drive **<local_size>** The free space of local storage **<sd_size>** The free space of SD card
Reference	Note **<local_drive>** is got by **AT+FSDRIVE=0** or **<sd_drive>** is got by **AT+FSDRIVE=1.**

2.8 AT+FSRENAME Rename File

AT+FSRENAME	**Rename File**
Test Command **AT+FSRENAME =?**	Response **OK** or **ERROR**
Write Command **AT+FSRENAME=<old_name>,<new_name>**	Response **OK** or **ERROR**
	Parameters **<old_name>** Old name of specified file, string without double quotes, the file should have already existed. The length of the file name should be less than or equal to 64 characters **<new_name>** New name of specified file**,** string without double quotes. The length of the file name should be less than or equal to 64 characters
Reference	Note The file name must be full path name.

2.9 AT+FSDRIVE Get Drive

AT+FSDRIVE	**Get Drive**
Test Command **AT+FSDRIVE**	Response **+FSDRIVE: (0-1)**

=?	**OK** or **ERROR**
Write Command **AT+FSDRIVE=<n>**	Response **+FSDRIVE: <drive>** **OK** or **ERROR**
	Parameters **<n>** **0** Local drive **1** SD card drive **<drive>** A-G
Reference	Note

2.10 AT+FSMKDIR Make New Directory

AT+FSMKDIR	**Make New Directory**
Test Command **AT+FSMKDIR=?**	Response **OK** or **ERROR**
Write Command **AT+FSMKDIR=<dir_name>**	Response **OK** or **ERROR**
	Parameters **<dir_name>** String without double quotes. The length of the dir name should be less than or equal to 64 characters.
Reference	Note

2.11 AT+FSRMDIR Delete Directory

AT+FSRMDIR	**Delete Directory**
Test Command **AT+FSRMDIR=?**	Response **OK** or **ERROR**
Write Command	Response

AT+FSRMDIR=<dir_name>	**OK** or **ERROR**
	Parameters **<dir_name>** String without double quotes, the dir should have already existed. The length of the dir name should be less than or equal to 64 characters
Reference	Note

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3 Examples

In the "Grammar" columns of following tables, input of AT commands are in black , module return values are in blue.

Grammar	Description
AT+SD2PCM=0 OK AT&W OK AT+CFUN=1,1 OK	SD mode is valid In this example, reboot the module by AT command, customer can reboot the module by PWRKEY pin instead of AT command
AT+FSDRIVE=1 +FSDRIVE: E OK	Get SD card drive
AT+FSLS=E:\ Images\ Audio\ OK AT+FSCREATE=E:\test.txt OK AT+FSLS=E:\ Images\ Audio\ test.txt OK	 Create test.txt
AT+FSFLSIZE=E:\test.txt +FSFLSIZE: 20 OK	
AT+FSREAD=E:\test.txt,0,100,1 asdfghjkloiytedfttg OK	
AT+FSWRITE=E:\test.txt,0,2,10 > OK	Write “cc” at the beginning of the file

AT+FSREAD=E:\test.txt,0,100,0 ccdfghjkloiytedftttg OK	The first two characters is “cc”
AT+FSREAD=E:\test.txt,1,100,2 dfghjkloiytedftttg OK	The offset of reading position is 2
AT+FSMEM +FSMEM: C:1024bytes,E:49152bytes OK	
AT+FSLS=E:\ test1.txt OK AT+FSMKDIR=E:\media OK AT+FSRENAME=E:\test1.txt,E:\test2.txt OK AT+FSLS=E:\ test2.txt media\ OK AT+FSRMDIR=E:\media OK AT+FSLS=E:\ test2.txt OK	Make media directory Rename test1.txt Delete media directory

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Appendix

A Related Documents

SN	Document name	Remark
[1]	SIM800 Series_AT Command Manual	

B Terms and Abbreviations

Abbreviation	Description

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