

GasSensorOS CMDControlPanel Instruction

GasSensorOS终端指令说明

概述 - Overview

该终端指令系统是为了方便用户使用GasSensorOS操作系统而设计的。

The terminal instruction system is designed for the convenience of users using the GasSensor Operating System.

pwd

显示当前工作目录的路径。

Print work directory.

参数 - Parameters

NULL

示例 - Example

```
1 > pwd
2 /Users/username/documents
```

ls

列出当前工作目录中的所有文件和目录。

Lists all files and directory in the current work directory.

参数 - Parameters

NULL

示例 - Example

```
1 > pwd
2 /
3 > ls
4 /file1.txt
5 /file2.txt
6 /directory1
7 /directory2
```

cd [dirName]

将工作目录切换到指定的目录。

Change work directory.

参数 - Parameters

`dirName`

目标目录名.

Target directory name.

示例 - Example

```
1 | > cd /directory1
```

cat [fileName]

打开当前工作目录中指定的文件.

Open the file in the work directory.

参数 - Parameters

`fileName`

工作目录下的目标文件名.

Target filename in the work directory.

示例 - Example

```
1 | > cat file1.txt
2 | This is the content of file1.
```

touch [fileName]

在当前工作目录中创建一个空文件.

Create an empty file in the work directory.

参数 - Parameters

`fileName`

工作目录下的目标文件名.

Target filename in the work directory.

示例 - Example

```
1 | > touch file3.txt
```

mkdir [dirName]

在当前工作目录中创建一个新目录.

Create a directory under the work directory.

参数 - Parameters

`diename`

工作目录下的目标目录名.

Diename in the work directory.

示例 - Example

```
1 | > mkdir new_directory
```

echo [string]

在命令行界面中输出指定的字符串.

Prints the specified string in CMD.

参数 - Parameters

string

要打印的字符串.

The string to print.

示例 - Example

```
1 | > echo HelloWorld!  
2 | HelloWorld!
```

echo [string] > [fileName]

将字符串覆盖到工作目录的指定文件中.

Overwrites the string into the file in the work directory

参数 - Parameters

string

提供一个字符串.

Provide a string.

fileName

工作目录下的目标文件名.

fileName in the work directory.

示例 - Example

```
1 | > touch file1.txt  
2 | > echo SEELE > file1.txt  
3 | > echo God's_in_his_heaven.All's_right_with_the_world. > file1.txt  
4 | > cat file1.txt  
5 | God's_in_his_heaven.All's_right_with_the_world.
```

echo [string] >> [fileName]

将字符串追加到工作目录的指定文件中.

Appends a string to the file in the work directory.

参数 - Parameters

`string`

提供一个字符串.

Provide a string.

`fileName`

工作目录下的目标文件名.

fileName in the work directory.

示例 - Example

```
1 > touch file1.txt
2 > echo NERV > file1.txt
3 > echo \nGod's_in_his_heaven.All's_right_with_the_world. >> file1.txt
4 > cat file1.txt
5 NERV
6 God's_in_his_heaven.All's_right_with_the_world.
```

rm [fileName]

删除当前工作目录中指定的文件。

Remove files in the work directory.

参数 - Parameters

`fileName`

工作目录下的目标目录名.

fileName in the work directory.

示例 - Example

```
1 > ls
2 file1.txt
3 file2.txt
4 > rm file1.txt
5 > ls
6 file2.txt
```

rm -r [dirName]

删除当前工作目录中指定的目录及其下所有文件和子目录.

Remove a directory in a work directory and all files and subdirectories under it

参数 - Parameters

`dirName`

工作目录下的目录名.

dirName in the work directory.

示例 - Example

```
1 | > ls
2 | directory1
3 | directory2
4 | > rm -r directory1
5 | > ls
6 | directory2
```

cp [sourceFilePath] [targetFilePath]

将指定文件复制到另一个目标路径中。

Copies the specified file to another destination path.

参数 - Parameters

`sourceFilePath`

源文件路径。

source file path.

`targetFilePath`

目标文件路径。

target file path.

示例 - Example

```
1 | > cd /
2 | > ls
3 | file1.txt
4 | folder
5 | > cp /file1.txt /folder/file1_copy.txt
6 | > cd /folder
7 | > ls
8 | file1_copy.txt
```

cp -r [sourceDirPath] [targetDirPath]

将指定目录及其这个目录下的所有内容复制到另一个目标目录中。

Copies the specified directory and everything in that directory to another target directory.

参数 - Parameters

`sourceDirPath`

源目录路径。

source directory path.

`targetDirPath`

目标目录路径。

target directory path.

示例 - Example

```
1 > cd /
2 > ls
3 directory1
4 directory2
5 > cp -r /directory1 /directory2/directory1_copy
6 > cd /directory2
7 > ls
8 directory1_copy
```

`mv [sourceFilePath] [targetFilePath]`

将指定文件移动到另一个目标路径中。

Move file.

参数 - Parameters

`sourceFilePath`

源文件路径。

Source file path.

`targetFilePath`

目标文件目录。

Target file path.

示例 - Example

```
1 > cd /
2 > ls
3 file1.txt
4 folder
5 > mv /file1.txt /folder/file1_move.txt
6 > ls
7 folder
8 > cd /folder
9 > ls
10 file1_move.txt
```

`mv -r [sourceDirPath] [targetDirPath]`

将指定目录及其下所有文件和子目录移动到另一个目标路径中。

Move directory.

参数 - Parameters

`sourceDirPath`

源目标路径。

Source directory path.

`targetDirPath`

目标目录路径。

Target directory path.

示例 - Example

```
1 > cd /
2 > ls
3 directory1
4 directory2
5 > mv -r /directory1 /directory2/directory1_move
6 > ls
7 directory2
8 > cd /directory2
9 > ls
10 directory1_move
```

find [dirPath] [fileName]

在指定目录下递归的查找符合指定文件名或通配符的文件.

Find files in the directory.

参数 - Parameters

`dirPath`

目标目录路径.

Target directory path.

`fileName`

目标文件名或通配符.

Target filename or wildcard.

说明 - Explain	通配符 - Wildcard
找出所有文件. Find all files.	<code>*.*</code>
找出所有后缀为 <code>txt</code> 的文件. Find all files with the suffix <code>txt</code> .	<code>*.txt</code>
找出名称为 <code>name.txt</code> 的特定文件. Find the specific file with the name <code>name.txt</code> .	<code>name.txt</code>

示例 - Example

```
1 > cd /
2 > ls
3 file1.txt
4 file2.png
5 directory
6 > find / file1.txt
7 /file1.txt
8 > find / *.txt
9 /file1.txt
10 /directory/file3.txt
11 > find / *.*
12 /file1.txt
13 /file2.png
14 /directory/file3.txt
```

osinfo

显示操作系统版本信息。
Display operating system version information.

参数 - Parameters

null

示例 - Example

```
1 | > osinfo
2 | GasSensorGen3 OS
3 | Build: GS.20230130.Mark0
4 | Update: github.com/RMSHE-MSH
5 | Hardware: GS.Gen3.20230110.Mark1
6 | Powered by RMSHE
7 | E-mail: asdfghjk1851@outlook.com
```

reboot

MCU再启动
MCU reset.

参数 - Parameters

null

示例 - Example

```
1 | > reboot
```

pios

打印GPIO状态。
Print GPIO status.

参数 - Parameters

null

示例 - Example


```
1 > pios
2 RST=1
3 TXD=1
4 RXD=0
5 SCL=0
6 SDA=0
7 CHRG=0
8 LOWPOWER=1
9 SENOUT=1
10 Decoder_C=1
11 Decoder_B=0
12 Decoder_A=0
13 Decoded_with=BlueLED_Enable
```

pss

打印系统状态.

Print System status.

参数 - Parameters

null

示例 - Example

```
1 > pss
2 Charging_State = false
3 WIFI_State = true
4 Developer_Mode = false
5 allowResponse = true
6 allowDownloadMode = true
7 freezeMode = false
8 diskMode = false
9 CMDCP_State = true
```

led [color] [state]

控制RGB_LED的开关.

Control RGB LED on and off.

参数 - Parameters

color

指定LED颜色, 红: `r` 或 绿: `g` 或 蓝: `b`.

Specify LED color, red: `r` or green: `g` or blue: `b`.

state

设置LED的状态, 点亮LED: `1` 或 `true` 或 `enable`, 熄灭LED: `0` 或 `false` 或 `disable`.

Set LED state, light LED: `1` or `true` or `enable`, extinguish LED: `0` or `false` or `disable`.

示例 - Example

```
1 | > led r 1
2 | > led g true
3 | > led b enable
4 | > led r 0
5 | > led g false
6 | > led b disable
```

buzz [state]

控制蜂鸣器的开关状态.

Controls the status of the buzzer.

参数 - Parameters

state

设置蜂鸣器的状态, 打开: 1 or true or enable, 关闭: 0 or false or disable.

Set buzzer state, on: 1 or true or enable, off: 0 or false or disable.

示例 - Example

```
1 | > buzz 1    // Buzzer was turned on.
2 | > buzz 0    // Buzzer was turned off.
```

alertdis

禁用警报(停止所有警报).

Alert disable(Stop all alarms.)

参数 - Parameters

null

示例 - Example

```
1 | > alertdis  // All alarms shut down.
```

freeze [state]

控制设备进入浅度休眠模式.

Controls the device to enter freeze sleep mode.

参数 - Parameters

state

设置浅度休眠状态, 进入浅度休眠: 1 or true or enable, 离开浅度休眠: 0 or false or disable.

Set buzzer state, Enter: 1 or true or enable, Leave: 0 or false or disable.

示例 - Example

```
1 > freeze 1 // Enter freeze mode.
2 > freeze 0 // Leave freeze mode.
```

disk [time_us]

控制设备进入深度睡眠模式。

Control the device into deep sleep mode.

参数 - Parameters

`time_us`

设备深度睡眠时长, 取值范围为 1 到 4294967295 微秒, 取 0 时设备不会自行唤醒。

The deep sleep duration of the device ranges from 1 to 4294967295 microseconds. The device will not wake up by itself when the value is 0.

注解 - Remarks

1. 进入深度睡眠前, 系统会自动进行断点状态备份, 当MCU唤醒时系统会恢复上一次深度睡眠前的系统状态。
Before entering deep sleep, the system will automatically perform breakpoint state backup, and when MCU wakes up, the system will restore the system state before the last deep sleep.
2. 当 `time_us` 为 0 时, 系统将永久处于深度睡眠状态, 只能通过手动的物理复位唤醒。
When `time_us` is 0, the system is permanently in deep sleep and can only be awakened by manual physical reset.

示例 - Example

```
1 > disk 3000000 // Enter deep sleep mode and wake up automatically after 30 seconds.
```

history

显示之前执行过的所有命令, 显示内容包括执行命令时的: IP地址, 时间, 命令。

Show command history. Including the IP address, time, and command when the command is executed.

参数 - Parameters

`null`

示例 - Example

```
1 > history
2 192.168.1.1-20230521131000-osinfo
3 192.168.1.1-20230521131100-disk 3000000
4 192.168.1.1-20230521131200-mv /file1.txt /folder/file1_move.txt
5 192.168.1.1-20230521131300-history
```

history -s

显示深度睡眠前执行过的所有命令, 显示内容包括执行命令时的: IP地址, 时间, 命令.

All commands executed before deep sleep are displayed, including the IP address, time, and command when the command is executed.

参数 - Parameters

null

示例 - Example

```
1 | > history -s
2 | 192.168.1.1-20230521131000-osinfo
3 | 192.168.1.1-20230521131100-disk 3000000
4 | 192.168.1.1-20230521131200-mv /file1.txt /folder/file1_move.txt
5 | 192.168.1.1-20230521131300-history
```

history -c

清除命令历史记录.

Remove command history.

参数 - Parameters

null

示例 - Example

```
1 | > history -c
```

who

查看已登录当前主机的用户终端的IP地址.

View the IP address of the user terminal logged into the current host.

参数 - Parameters

null

示例 - Example

```
1 | > who
2 | 192.168.1.1
3 | 192.168.1.2
4 | 192.168.1.3
```

last

查看系统登录日志(IP地址, 登入时间, 登出时间).

View system login logs(IP address, login time, logout time).

参数 - Parameters

null

示例 - Example

```
1 | > last
2 | 192.168.1.1-20230521131000-login
3 | 192.168.1.1-20230521161000-logout
```

last -c

清除系统登录日志.
Remove system login logs.

参数 - Parameters

null

示例 - Example

```
1 | > last -c
```

date

显示系统本地时间.
Displays the system local time.

参数 - Parameters

null

示例 - Example

```
1 | > date
2 | 20230521131000
```

date -n

同步网络时间.
Synchronize network time.

参数 - Parameters

null

示例 - Example

```
1 > date
2 19700101000000
3 > date -n
4 > date
5 20230521175800
```

date -s [timeStr]

设置系统时间.

Set system time

参数 - Parameters

`timeStr`

提供时间格式为：年月日时分秒(例如：20230521175800)

The time format is YYMMDDHHMMSS(Example: 20230521175800).

示例 - Example

```
1 > date
2 19700101000000
3 > date -s 20230203121601
4 > date
5 20230203121601
```

clear

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清空控制台并释放内存.

Clear console and free memory.

清空控制台输出并释放内存.

Clear console output and free memory.

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参数 - Parameters

`null`

示例 - Example

```
1 > clear
```

df

显示闪存(Flash)信息.

Display Flash information.

参数 - Parameters

null

示例 - Example

```
1 | > df
2 | Flash info (Byte)
3 | Total:1024000
4 | Used:106496
5 | [==          ]10%
6 | MaxPathLength:32
7 | MaxOpenFiles:5
8 | BlockSize:8192
9 | PageSize:256
```

free

显示剩余的RAM.
Display remaining RAM.

参数 - Parameters

null

示例 - Example

```
1 | > free
2 | FreeRAM:34536 Byte
```

wifi [SSID] [PASSWORD]

配置WIFI连接, 设置 WIFI SSID 和 PASSWORD .
Configure WIFI connection, set WIFI SSID and PASSWORD .

参数 - Parameters

SSID

设置WIFI服务集标识(WiFi名称).
Set WIFI Service Set Identifier(WIFI Name).

PASSWORD

设置WIFI密码.
Set WIFI Password

示例 - Example

```
1 | > wifi RMSHE 114514
```

poweroff

进行无限期的深度休眠(只能通过手动的物理复位唤醒).

Perform infinite deep sleep(Can only be awakened by manual physical reset).

参数 - Parameters

null

示例 - Example

```
1 | > poweroff
```

logout

登出并锁定CMDCP

Log out and lock CMDCP.

参数 - Parameters

null

示例 - Example

```
1 | > logout
```

logout -k [clientIP]

登出指定IP地址的终端.

Logout of the terminals with the specified IP address.

参数 - Parameters

clientIP

指定用户IP地址.

Specify the client IP address.

示例 - Example

```
1 | > logout -k 192.168.1.100
```

logout -k other

登出除自己外的其他所有终端.

Log out all terminals except yourself.

参数 - Parameters

null

示例 - Example

```
1 | > logout -k other
```

logout -k all

登出所有终端(包括你自己).
logout of all terminals(Including yourself).

参数 - Parameters

null

示例 - Example

```
1 | > logout -k all
```