

Get real-time temperature of RPi

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Enter the command through the terminal to view the current CPU temperature of the Raspberry Pi.

Environment

System: Raspberry Pi OS

Raspbian is the old name of the official operating system of Raspberry Pi based on the Debian system, and Raspberry Pi OS is its new name after the name change in 2020.

Ideas

The CPU temperature information of the Raspberry Pi is located in the file `/sys/class/thermal/thermal_zone0/temp`, which is a read-only file; we can read the value and convert it into the actual temperature.

Get temperature parameters

Open the terminal and run the following two commands to get temperature parameters:

```
cd /sys/class/thermal/thermal_zone0
cat temp
```

$$T_{actualtemperature} = \frac{temperatureparameter}{1000}$$

Actual effect

```
pi@raspberrypi: /sys..
pi@raspberrypi: /sys/class/thermal/thermal_zone0
File Edit Tabs Help
pi@raspberrypi:~ $ cd /sys/class/thermal/thermal_zone0
pi@raspberrypi:/sys/class/thermal/thermal_zone0 $ cat temp
57300
pi@raspberrypi:/sys/class/thermal/thermal_zone0 $ cat temp
56200
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56750
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56750
pi@raspberrypi:/sys/class/thermal/thermal_zone0 $ cat temp
56750
pi@raspberrypi:/sys/class/thermal/thermal_zone0 $
```