

Get real-time temperature of Raspberry Pi

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

environment

System: Raspberry Pi OS

Raspbian is the old name of Raspberry Pi's official Debian-based operating system, and Raspberry Pi OS is its new name after its 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 to the actual temperature.

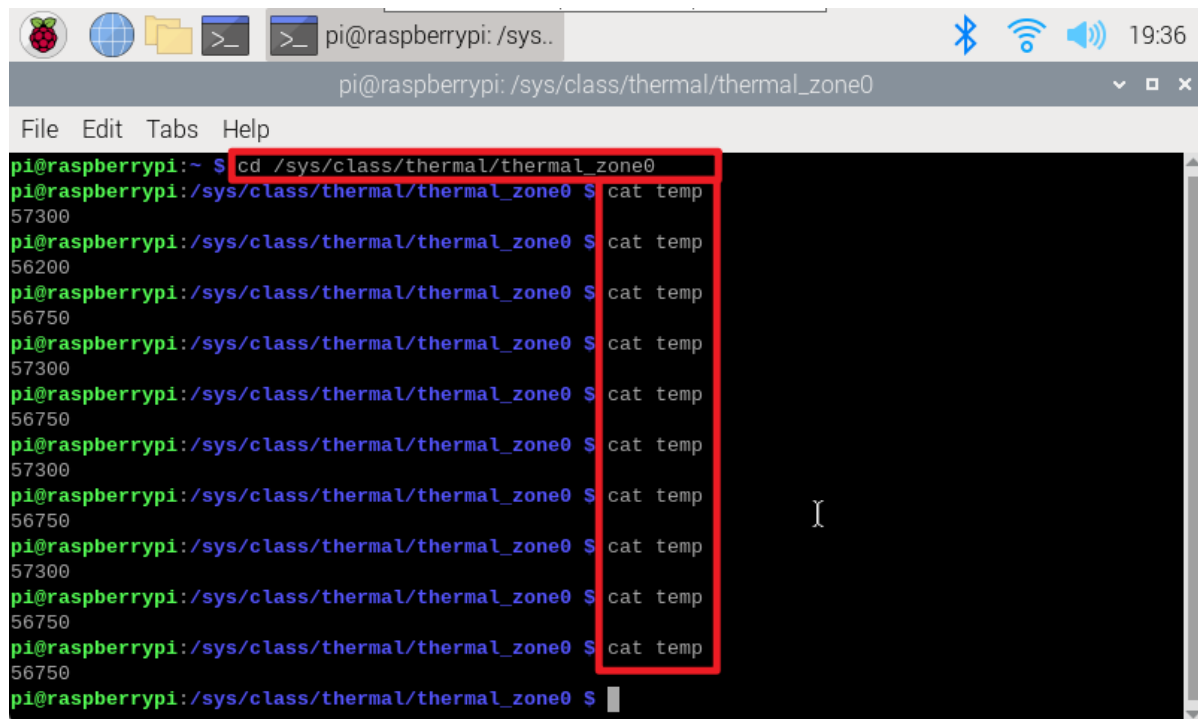
Get temperature parameters

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

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

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

actual effect



The screenshot shows a terminal window titled "pi@raspberrypi: /sys..". The window has a menu bar with "File", "Edit", "Tabs", and "Help". The terminal content is as follows:

```
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 $
```

A red rectangle highlights the first two lines of the terminal output, showing the change in the value of "temp" after the directory change.