

HW6

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1. 使用strace在處理器上追蹤sensors這個指令，列出sensors從哪邊讀取溫度。
 2. 寫一隻程式能不斷讀取溫度，直到指定溫度，並印出每個Core的溫度。
-

1

```
openat(AT_FDCWD, "/sys/class/hwmon/hwmon1/temp1_label", O_RDONLY) = 3
fstat(3, {st_mode=S_IFREG|0444, st_size=4096, ...}) = 0
read(3, "Package id 0\n", 4096)      = 13
read(3, "", 4096)              = 0
close(3)                      = 0
openat(AT_FDCWD, "/sys/class/hwmon/hwmon1/temp1_input", O_RDONLY) = 3
fstat(3, {st_mode=S_IFREG|0444, st_size=4096, ...}) = 0
read(3, "71000\n", 4096)       = 6
close(3)                      = 0
openat(AT_FDCWD, "/sys/class/hwmon/hwmon1/temp1_crit_alarm", O_RDONLY) = 3
fstat(3, {st_mode=S_IFREG|0444, st_size=4096, ...}) = 0
read(3, "0\n", 4096)          = 2
close(3)                      = 0
openat(AT_FDCWD, "/sys/class/hwmon/hwmon1/temp1_max", O_RDONLY) = 3
fstat(3, {st_mode=S_IFREG|0444, st_size=4096, ...}) = 0
read(3, "82000\n", 4096)      = 6
close(3)                      = 0
openat(AT_FDCWD, "/sys/class/hwmon/hwmon1/temp1_crit", O_RDONLY) = 3
fstat(3, {st_mode=S_IFREG|0444, st_size=4096, ...}) = 0
read(3, "100000\n", 4096)     = 7
close(3)                      = 0
write(1, "Package id 0:  +71.0\302\260C  (high = "..., 61Package id 0:  +71.0
°C  (high = +82.0°C, crit = +100.0°C)
) = 61
```

: 以第一顆核心為例，從上圖可得知是從/sys/class/hwmon/hwmon1這個資料夾底下讀取CPU資訊，而其中的temp1_input裡存放的是這顆CPU的溫度。

2

```
penguin_yeh@Umaru-203:~/OSDI/HW6$ ./waitTemp 61
target = 61
#=01 sec 🔥 🔥 🔥 🔥 62.14 °C
#=02 sec 🔥 🔥 🔥 🔥 62.14 °C
#=03 sec 🔥 🔥 🔥 🔥 62.14 °C
#=04 sec 🔥 🔥 🔥 🔥 62.00 °C
#=05 sec 🔥 🔥 🔥 🔥 62.28 °C
#=06 sec 🔥 🔥 🔥 🔥 62.28 °C
#=07 sec 🔥 🔥 🔥 🔥 62.14 °C
#=08 sec 🔥 🔥 🔥 🔥 62.14 °C
#=09 sec 🔥 🔥 🔥 🔥 62.14 °C
#=10 sec 🔥 🔥 🔥 🔥 62.14 °C
temp0 : 72.00°C,
temp1 : 59.00°C,
temp2 : 72.00°C,
temp3 : 55.00°C,
temp4 : 58.00°C,
temp5 : 56.00°C,
temp6 : 55.00°C,
```

:我是連到實驗室的電腦去測溫度的，發現CPU的平均溫度都處於62上下，因此我指定溫度為61，這樣程式才會停下來，否則會一直在迴圈裡出不來。程式最後會將各類CPU 的溫度列出。