psensor

Christian Külker

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1 Introduction

The psensor package is a graphical user interface for sensors that monitor the system from the desktop. It is not intended for automatic monitoring without configuration. And while it is possible to configure a log file, the primary purpose is to monitor a given system live. For example, to understand under what conditions it crashes: to see temperature or power curves.

2 Installation

On Debian 12 Bookworm, the package manager can be used to install the psensor package.

```
aptitude install psonsor
```

3 Configuration

Since this is a GUI, the best way to configure it is to start the tool and click on `Psensor->Preferences` and/or `Psensor->Sensor Preferences`. Basically `Sensor Preferences` is a subdialog of the `Preferences` dialog. Even without much effort, this tool can be useful by enabling only one sensor, set a temperature in degrees Celsius and enable the desktop alarm.

An advanced option is to configure a script to be executed in case of an alarm.

4 LM-Sensors

While psensor basically uses lm-sensors to read system sensors, there are some minor differences. First, not all lm-sensors are present, second, sensors from other sources like `NVIDIA GPUs` and hard disk monitoring are also included. So in that sense it can actually be more useful.

4.1 Comparison

System	LM Sensors	psensor
fam15h_power-pci-00c4	power1: 46.59 W	
k10temp-pci-00c3	temp1: +30.4°C	+30°C
it8721-isa-0290	in0: 2.80 V	
	in1: 2.80 V	
	in2: 828.00 mV	
	+3.3V: 3.29 V	
	in4: 792.00 mV	
	in5: 2.53 V	
	in6: 204.00 mV	

System	LM Sensors	psensor
	3VSB: 72.00 mV	
	Vbat: 3.29 V	
	fan1: 1839 RPM	1839 RPM
	fan2: 844 RPM	844 RPM
	fan3: 0 RPM	0 RPM
	temp1: +46.0°C	+46°C
	temp2: +30.0°C	+30°C
	temp3: -128.0°C	-128°C
	intrusion0: OK	
GeForce GTX 7500 Ti		
temp		39°C
graphics		4%
video		0%
memory		5%
PCIe		0%
fan rpm		905RPM
fan level		32%
CPU usage		21%
free memory		74%
SAMSUNG SSD		33°C

5 Critique

- The graph is updated every 2 seconds, which is sufficient, but the x-axis and y-axis are not well labeled, as only the minimum and maximum values are displayed.
- The power readings, such as `power1` from lm-sensors, are missing. Usually power readings are not critical. But sometimes they are. And to understand why a system shuts down, it is sometimes important to monitor the power.
- The manufacturer-provided thresholds available in lm-sensors are not propagated to psensor. And while it is easily possible to open lm-sensors to configure psensor, it is a missed opportunity. However, sometimes these values provided by firmware

engineers are incorrect, so the fact that psensor does not automatically set these values is correct.

See example output from lm-sensors:

```
am15h_power-pci-00c4
Adapter: PCI adapter
power1:     49.02 W  (crit =  95.06 W)

k10temp-pci-00c3
Adapter: PCI adapter
temp1:      +28.4°C  (high = +70.0°C)
                     (crit = +90.0°C, hyst = +87.0°C)

it8721-isa-0290
Adapter: ISA adapter
in0:         2.80 V  (min =  +1.76 V, max =  +0.36 V)  ALARM
in1:         2.80 V  (min =  +0.38 V, max =  +1.80 V)  ALARM
in2:       828.00 mV (min =  +0.82 V, max =  +1.74 V)
+3.3V:       3.29 V  (min =  +1.99 V, max =  +0.10 V)  ALARM
in4:       792.00 mV (min =  +0.01 V, max =  +0.02 V)  ALARM
in5:         2.53 V  (min =  +2.23 V, max =  +0.82 V)  ALARM
in6:       204.00 mV (min =  +0.13 V, max =  +0.82 V)
3VSB:       72.00 mV (min =  +1.66 V, max =  +2.35 V)  ALARM
Vbat:        3.29 V
fan1:      1814 RPM  (min =  142 RPM)
fan2:       834 RPM  (min =   12 RPM)
fan3:         0 RPM  (min =   37 RPM)  ALARM
temp1:      +45.0°C  (low  = +64.0°C, high = +83.0°C)  sensor = thermistor
temp2:      +30.0°C  (low  = +120.0°C, high = +12.0°C) ALARM sensor =
 ↪  thermistor
temp3:     -128.0°C  (low  = -38.0°C, high = -119.0°C) sensor = disabled
intrusion0: OK
```

6 Links

- Home page: http://wpitchoune.net/psensor/
- Source: https://gitlab.com/jeanfi/psensor/tree/master
- FAQ: http://wpitchoune.net/psensor/faq.html

7 History

Version	Date	Notes
0.1.1	2024-02-11	Add links
0.1.0	2024-02-10	Initial release

8 Disclaimer of Warranty

9 Limitation of Liability