GNU/Linux Administration - Support #657

CPU Scaling on Arch

09/09/2015 02:54 PM - Daniel Curtis

Status:	Closed	**Start date:**	09/09/2015
Priority:	Normal	**Due date:**	
Assignee:	Daniel Curtis	**% Done:**	100%
Category:	Workstation	**Estimated time:**	0.20 hour
Target version:	Arch Linux	**Spent time:**	0.50 hour

Description

Being able to scale up or down the CPU speed for my laptop is great for when I need to conserve battery life or get better performance out of my laptop when I need it. This is a short guide on using cpupower to control CPU scaling on Arch Linux.

Prepare the system

- Make sure the system is up to date:

```
sudo pacman -Syu
```

Install cpupower

- Install cpupower:

```
sudo pacman -S cpupower
```

- Start and enable the cpupower service at boot:

```
sudo systemctl enable cpupower.service
sudo systemctl start cpupower.service
```

- Show the current CPU information:

```
cpupower frequency-info
```

  - *Example output*:

```
analyzing CPU 0:
  driver: powernow-k8
  CPUs which run at the same hardware frequency: 0 1
  CPUs which need to have their frequency coordinated by software: 0 1
  maximum transition latency: 107 us.
  hardware limits: 800 MHz - 2.00 GHz
  available frequency steps: 2.00 GHz, 1.80 GHz, 1.60 GHz, 800 MHz
  available cpufreq governors: userspace, ondemand, performance
  current policy: frequency should be within 800 MHz and 2.00 GHz.
                  The governor "userspace" may decide which speed to use
                  within this range.
  current CPU frequency is 800 MHz.
  boost state support:
    Supported: no
    Active: no
```

- Change the CPU governor:

```
sudo cpupower frequency-set -g performance
```

- Speed up the CPU:

```
sudo cpupower frequency-set -f 2.00 GHz
```

Resources

- https://wiki.archlinux.org/index.php/CPU_frequency_scaling

History

#1 - 09/09/2015 09:04 PM - Daniel Curtis

- Description updated

- Status changed from New to Resolved

#2 - 09/11/2015 05:25 PM - Daniel Curtis

- Status changed from Resolved to Closed

- % Done changed from 0 to 100