

sysfs.txt

Supporting multiple CPU idle levels in kernel

cpuidle sysfs

System global cpuidle related information and tunables are under
/sys/devices/system/cpu/cpuidle

The current interfaces in this directory has self-explanatory names:

- * current_driver
- * current_governor_ro

With cpuidle_sysfs_switch boot option (meant for developer testing)
following objects are visible instead.

- * current_driver
- * available_governors
- * current_governor

In this case users can switch the governor at run time by writing
to current_governor.

Per logical CPU specific cpuidle information are under
/sys/devices/system/cpu/cpuX/cpuidle
for each online cpu X

```
# ls -lR /sys/devices/system/cpu/cpu0/cpuidle/  
/sys/devices/system/cpu/cpu0/cpuidle/:  
total 0  
drwxr-xr-x 2 root root 0 Feb  8 10:42 state0  
drwxr-xr-x 2 root root 0 Feb  8 10:42 state1  
drwxr-xr-x 2 root root 0 Feb  8 10:42 state2  
drwxr-xr-x 2 root root 0 Feb  8 10:42 state3
```

```
/sys/devices/system/cpu/cpu0/cpuidle/state0:  
total 0  
-r--r--r-- 1 root root 4096 Feb  8 10:42 desc  
-r--r--r-- 1 root root 4096 Feb  8 10:42 latency  
-r--r--r-- 1 root root 4096 Feb  8 10:42 name  
-r--r--r-- 1 root root 4096 Feb  8 10:42 power  
-r--r--r-- 1 root root 4096 Feb  8 10:42 time  
-r--r--r-- 1 root root 4096 Feb  8 10:42 usage
```

```
/sys/devices/system/cpu/cpu0/cpuidle/state1:  
total 0  
-r--r--r-- 1 root root 4096 Feb  8 10:42 desc  
-r--r--r-- 1 root root 4096 Feb  8 10:42 latency  
-r--r--r-- 1 root root 4096 Feb  8 10:42 name  
-r--r--r-- 1 root root 4096 Feb  8 10:42 power  
-r--r--r-- 1 root root 4096 Feb  8 10:42 time  
-r--r--r-- 1 root root 4096 Feb  8 10:42 usage
```

```
/sys/devices/system/cpu/cpu0/cpuidle/state2:  
total 0  
-r--r--r-- 1 root root 4096 Feb  8 10:42 desc
```

```

                                sysfs.txt
-r--r--r-- 1 root root 4096 Feb  8 10:42 latency
-r--r--r-- 1 root root 4096 Feb  8 10:42 name
-r--r--r-- 1 root root 4096 Feb  8 10:42 power
-r--r--r-- 1 root root 4096 Feb  8 10:42 time
-r--r--r-- 1 root root 4096 Feb  8 10:42 usage

```

```

/sys/devices/system/cpu/cpu0/cpuidle/state3:
total 0

```

```

-r--r--r-- 1 root root 4096 Feb  8 10:42 desc
-r--r--r-- 1 root root 4096 Feb  8 10:42 latency
-r--r--r-- 1 root root 4096 Feb  8 10:42 name
-r--r--r-- 1 root root 4096 Feb  8 10:42 power
-r--r--r-- 1 root root 4096 Feb  8 10:42 time
-r--r--r-- 1 root root 4096 Feb  8 10:42 usage

```

```

* desc : Small description about the idle state (string)
* latency : Latency to exit out of this idle state (in microseconds)
* name : Name of the idle state (string)
* power : Power consumed while in this idle state (in milliwatts)
* time : Total time spent in this idle state (in microseconds)
* usage : Number of times this state was entered (count)

```