

driver.txt

Supporting multiple CPU idle levels in kernel

cpuidle drivers

cpuidle driver hooks into the cpuidle infrastructure and handles the architecture/platform dependent part of CPU idle states. Driver provides the platform idle state detection capability and also has mechanisms in place to support actual entry-exit into CPU idle states.

cpuidle driver initializes the cpuidle_device structure for each CPU device and registers with cpuidle using cpuidle_register_device.

It can also support the dynamic changes (like battery <-> AC), by using cpuidle_pause_and_lock, cpuidle_disable_device and cpuidle_enable_device, cpuidle_resume_and_unlock.

Interfaces:

```
extern int cpuidle_register_driver(struct cpuidle_driver *drv);
extern void cpuidle_unregister_driver(struct cpuidle_driver *drv);
extern int cpuidle_register_device(struct cpuidle_device *dev);
extern void cpuidle_unregister_device(struct cpuidle_device *dev);
```

```
extern void cpuidle_pause_and_lock(void);
extern void cpuidle_resume_and_unlock(void);
extern int cpuidle_enable_device(struct cpuidle_device *dev);
extern void cpuidle_disable_device(struct cpuidle_device *dev);
```