

深入浅出Linux设备驱动之并发控制（2）PDF转换可能丢失图片或格式，建议阅读原文

[https://www.100test.com/kao\\_ti2020/144/2021\\_2022\\_\\_E6\\_B7\\_B1\\_E5\\_85\\_A5\\_E6\\_B5\\_85\\_E5\\_c103\\_144578.htm](https://www.100test.com/kao_ti2020/144/2021_2022__E6_B7_B1_E5_85_A5_E6_B5_85_E5_c103_144578.htm) 该宏释放自旋锁lock，它与spin\_trylock或spin\_lock配对使用；除此之外，还有一组自旋锁使用于中断情况下的API。下面进入对并发控制的实战。首先，在globalvar的驱动程序中，我们可以通过信号量来控制对int global\_var的并发访问，下面给出源代码：

```
#include #include #include #include #include
MODULE_LICENSE("GPL").#define MAJOR_NUM 254static
ssize_t globalvar_read(struct file *, char *, size_t, loff_t*).static ssize_t
globalvar_write(struct file *, const char *, size_t, loff_t*).struct
file_operations globalvar_fops = { read: globalvar_read, write:
globalvar_write,}.static int global_var = 0.static struct semaphore
sem.static int __init globalvar_init(void){ int ret. ret =
register_chrdev(MAJOR_NUM, "globalvar", amp.sem). } return
ret.}static void __exit globalvar_exit(void){ int ret. ret =
unregister_chrdev(MAJOR_NUM, "globalvar"). if (ret) {
printk("globalvar unregister failure"). } else { printk("globalvar
unregister success"). }}static ssize_t globalvar_read(struct file *filp,
char *buf, size_t len, loff_t *off){ //获得信号量 if
(down_interruptible(amp.global_var, sizeof(int))) { up(amp.sem).
return sizeof(int).}ssize_t globalvar_write(struct file *filp, const char
*buf, size_t len, loff_t *off){ //获得信号量 if
(down_interruptible(amp.global_var, buf, sizeof(int))) {
up(amp.sem). return
```

```
sizeof(int).}module_init(globalvar_init).module_exit(globalvar_exit
```

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