

Linux系统进程间隔定时器Itimer(下) (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_Linux_E7_B3_BB_E7_BB_c103_144985.htm

7 . 7 . 3 . 2 setitimer()系统调用的实现 函数sys_setitimer()不仅设置调用进程的指定间隔定时器，而且还返回该间隔定时器的原有信息。它有三个参数：(1) which，含义与sys_getitimer()中的参数相同。(2) 输入参数value，指向用户空间中的一个itimerval结构，含有待设置的新值。(3) 输出参数ovalue，指向用户空间中的一个itimerval结构，用于接收间隔定时器的原有信息。该函数的源码如下

```
( kernel/itimer.c ) : /* SMP: Again, only we play with our itimers,
and signals are SMP safe * now so that is not an issue at all anymore.
*/ asmlinkage long sys_setitimer(int which, struct itimerval *value,
struct itimerval *ovalue) { struct itimerval set_buffer, get_buffer. int
error. if (value) { if(copy_from_user(&set_buffer, 0,
sizeof(set_buffer))). error = do_setitimer(which, &get_buffer : 0).
if (error || !ovalue) return error. if (copy_to_user(ovalue,
&value->it_interval). j = tvtojiffies(&&. (k =
do_getitimer(which, ovalue)) real_timer). current->it_real_value =
j. current->it_real_incr = i. if (!j) break. if (j > (unsigned long)
LONG_MAX) j = LONG_MAX. i = j jiffies.
current->real_timer.expires = i. add_timer( &t->real_timer). break.
case ITIMER_VIRTUAL: if (j) j . current->it_virt_value = j.
current->it_virt_incr = i. break. case ITIMER_PROF: if (j) j .
current->it_prof_value = j. current->it_prof_incr = i. break. default:
return -EINVAL. } return 0. }
```

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