

第 0006 讲 7 获取进程 NICE 值案例分析 1

一、获取某个进程的 nice 值，其中 nice 值为进程的优先级，与静态优先级的有关（ $\text{nice} = \text{static_prio} - 120$ ）。

具体 Linux 内核源码 `task_nice()` 函数原型：

```
include > linux > C sched.h > task_nice(const task_struct *)
1000 /
1608 /**
1609  * task_nice - return the nice value of a given task.
1610  * @p: the task in question.
1611  *
1612  * Return: The nice value [ -20 ... 0 ... 19 ].
1613  */
1614 static inline int task_nice(const struct task_struct *p)
1615 {
1616     return PRIO_TO_NICE((p)->static_prio);
1617 }
1618
```

调用该函数返回 int 型值，nice 值越小优先级越大。

二、实战案例分析

```
[ 8.110251] cryptd: max_cpu_qlen set to 1000
[ 8.241665] AVX2 version of gcm_enc/dec engaged.
[ 8.241666] AES CTR mode by8 optimization enabled
[ 31.336251] rfkill: input handler disabled
[ 3748.363729] TaskniceDemo: loading out-of-tree module taints kernel.
[ 3748.363757] TaskniceDemo: module verification failed: signature and/or requi
red key missing - tainting kernel
[ 3748.364329] Prompt:Tasknice_InitFunc function.
[ 3748.364597] Prompt:static_prio of the child thread : 120
[ 3748.364598] Prompt:New process nice : 0
[ 3748.364599] Prompt:Current PID : 3180
[ 3748.364599] Prompt:Current nice : 0
[ 3748.364706] Prompt:kernel thread function.
[ 3748.364707] Prompt:Current static_prio : 120
[ 3748.364707] Prompt:Current Process PID : 3181
[ 3748.364707] Prompt:Current Process nice : 0
root@ubuntu:/home/vico/Desktop/tasknicedemo# rmmod TaskniceDemo.ko
root@ubuntu:/home/vico/Desktop/tasknicedemo# dmesg -c
[ 3859.768321] Prompt:Normal exit of kernel module.
root@ubuntu:/home/vico/Desktop/tasknicedemo#
```