

第 0006 讲 10 模拟 cfs 调度器案例分析 05

一、cfs 调度器原理

CFS (Completely Fair Scheduler) 是 Linux 内核中的一种调度器，它的目标是让每个进程在单位时间内占用 CPU 的时间片数量相等，从而实现公平地分配 CPU 时间。它通过红黑树 (RB-Tree) 来维护所有进程的运行队列，并根据每个进程的优先级 (即权重值)，动态调整每个进程所占用的 CPU 时间。

CFS 调度器是一种高效、公平和可扩展的进程调度算法，在多用户操作系统和虚拟化领域有着广泛应用。

权重值越大的任务，其虚拟时钟增长得越慢，而权重值越小的任务，则会相对更快的增长。

二、模拟 cfs 调度器实战案例分析

```
vico@ubuntu: ~/Desktop/cfs
```

	File	Edit	View	Search	Terminal	Help
Process 1	runs	for	-0.17	seconds.		
Process 2	runs	for	-0.00	seconds.		
Process 3	runs	for	-0.00	seconds.		
Process 4	runs	for	-0.00	seconds.		
Process 5	runs	for	-0.00	seconds.		
Process 6	runs	for	-0.17	seconds.		
Process 7	runs	for	-0.00	seconds.		
Process 8	runs	for	1.37	seconds.		
Process 9	runs	for	-0.01	seconds.		
Process 0	runs	for	-0.02	seconds.		
Process 1	runs	for	-0.17	seconds.		
Process 2	runs	for	-0.00	seconds.		
Process 3	runs	for	-0.00	seconds.		
Process 4	runs	for	-0.00	seconds.		
Process 5	runs	for	-0.00	seconds.		