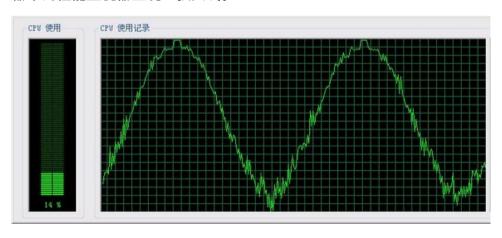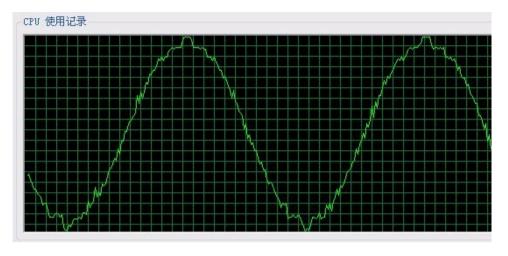# 写程序让CPU占用率保持正弦函数 ↗

导入自 renren

据说是一道微软的面试题。如题，写程序，让Windows的任务管理器中的性能监视器呈现正弦曲线。

CPU 使用记录

潜心钻研良久，得代码：（java）

```
 1  public class sincpu {
 2      private static final int cycle=1024,tick = 2
56;
 3      public static void main (String[] args) thro
ws InterruptedException {
 4          for(int i = 0;;i++){
 5              work(calcNextSleep(i % cycle));
 6              sleep(tick – calcNextSleep(i % cycle
));
 7          }
 8      }
 9
10      private static long calcNextSleep(long i){
11          return (int)(Math.sin((double)i * 2 * M
ath.PI / cycle) * tick + tick) / 2;
12      }
13
14      private static void sleep (long sleepTime)
throws InterruptedException
15      {
16          if(sleepTime < 2)
17              Thread.yield();
18          else
19              Thread.sleep(sleepTime);
20      }
21
22      private static void work (long period) {
23          long start = System.currentTimeMillis()
;
24          for(;;){
25              Math.sin(1);
26              if(System.currentTimeMillis() – sta
rt >= period)
27                  break;
28          }
29      }
30  }
```

多核CPU上测试时要注意关掉一个CPU：