408410007鄭雅云

1. 一個跑完再跑一次, 一次時間差不多10.994s, 因為用內建time指令, 所以誤差不大總共花43.974s

```
ariel9071@ubuntu:~/system-programming/ch04$ time ./flock & time ./floc
k & time ./flock & time ./flock
[1] 4413
[2] 4414
[3] 4415
real 0m10.994s
       0m0.001s
user
sys
       0m0.123s
ariel9071@ubuntu:~/system-programming/ch04$
real 0m10.993s
user
      0m0.001s
       0m0.125s
sys
real 0m10.995s
      0m0.001s
user
sys
       0m0.134s
real 0m10.992s
user
       0m0.011s
sys
       0m0.112s
```

lockf: 總共43.96s

```
ariel9071@ubuntu:~/system-programming/ch04$ time ./lockf & time ./lock
f & time ./lockf & time ./lockf
[1] 4344
[2] 4345
[3] 4346
real
      0m10.995s
user
      0m0.001s
      0m0.146s
sys
                             time ./lockf
[2]- Done
real
      0m21.985s
       0m0.003s
user
sys
       0m0.338s
ariel9071@ubuntu:~/system-programming/ch04$
      0m32.972s
real
user
       0m0.012s
sys
       0m0.172s
real
       0m43.960s
user
       0m0.001s
     0m0.201s
SVS
```

2.lockf: 出現紅字. 檔案讀取時已被修改!!

```
ariel9071@ubuntu: ~/system-programming/ch04
                                                                                 Q
                                                                                                         real^@^@0m33.117s@^@^@^@^@om0.001s^@^@^@^@^@^@^@^@^@^@^@^@^@^@
^@^@^@^@^@^@^@^@@^user@^@0m0.015s^@^@^@o@sys@^@^@0m0.279s^@^@^@^@^@^@
^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@sys@^@^@OmO.255s^@^@^@^@^@^@^@^@^@^@^@
<u>Მ</u>^Მ^Მ^Მ^Მ^Მ^Მ^Მ^Მ^Მ^Მ^Მ^Მ
Მ^<u>Ე</u>ᲠᲐᲛ^Მ^Მ^Მ^Მ^Მ^Მ^Მ^Მ^Მ
๏^๏^๏^๏^๑^๏^๏^๏^๏^๏^๏

$$\text{0.5} \text{0.5} \text
֍^<u>֍</u>^֍^֍^֍^֍^֍^֍^֍^֍^֍
֍^<u>֍</u>^֍^֍^֍^֍^֍^֍^֍^֍^֍^֍
<u>Მ</u>^Მ<u>^</u>Მ^9^9^9^9
000
"lockf.db"
WARNING: The file has been changed since reading it!!!
Do you really want to write to it (y/n)?
```

```
ariel9071@ubuntu:~/system-programming/ch04$ time ./lockf & time ./lock
f & time ./lockf & time ./lockf
[1] 2254
[2] 2255
[3] 2256
real
        0m11.075s
user
        0m0.000s
        0m0.231s
SVS
vim lockf.db[1]
                  Done
                                           time ./lockf
real
        0m22.110s
user
        0m0.017s
SVS
        0m0.491s
ariel9071@ubuntu:~/system-programming/ch04$ vim lockf.db
                               time ./lockf
[2]-
      Done
                               time ./lockf
[3]+
      Done
```

flock:可以儲存. 沒有出現紅字警告

```
ariel9071@ubuntu:~/system-programming/ch04$ time ./flock & time ./floc
k & time ./flock & time ./flock
[1] 2337
[2] 2338
[3] 2339
vim flock.db
real
        0m10.980s
        0m0.001s
user
        0m0.204s
sys
                               time ./flock
[1]
      Done
real
        0m10.982s
user
        0m0.002s
        0m0.400s
sys
real
        0m10.979s
user
        0m0.001s
sys
        0m0.202s
ariel9071@ubuntu:~/system-programming/ch04$ vim flock.db
real
        0m11.001s
user
        0m0.016s
sys
        0m0.183s
[2]-
                               time ./flock
      Done
[3]+ Done
                               time ./flock
```

3.兩個實際檔案大小:3.8M, 邏輯上大小:4M(4K*1000)

564157415841594160416141624163416441654166416741684169417041714172417 341744175417641774178417941804181418241834184418541864187418841894190 419141924193419441954196419741984199420042014202420342044205420642074 208420942104211421242134214421542164217421842194220422142224223422442 254226422742284229423042314232423342344235423642374238423942404241424 242434244424542464247424842494250425142524253425442554256425742584259 426042614262426342644265426642674268426942704271427242734274427542764 277427842794280428142824283428442854286428742884289429042914292429342 944295429642974298429943004301430243034304430543064307430843094310431 143124313431443154316431743184319432043214322432343244325432643274328 432943304331433243334334433543364337433843394340434143424343434443454 346434743484349435043514352435343544355435643574358435943604361436243 634364436543664367436843694370437143724373437443754376437743784379438 043814382438343844385438643874388438943904391439243934394439543964397 439843994400440144024403440444054406440744084409441044114412441344144 41544164417441844194420442144224423442442544264427442844294430443144 32443344344354436443744384439444044414442444344444445446644474448444 944504451445244534454445544564457445844594460446144624463446444654466 446744684469447044714472447344744475447644774478447944804481448244834 484448544864487448844894490449144924493449444954496449744ariel9071@ub untu:~/system-programming/ch04\$ ls flock.db -alhs 3.8M -rw-rw-r-- 1 ariel9071 ariel9071 3.9M Mar 29 05:52 flock.db

ariel9071@ubuntu:~/system-programming/ch04\$ ls lockf.db -alhs
3.8M -rw-rw-r-- 1 ariel9071 ariel9071 3.9M Mar 29 05:59 lockf.db