sd卡读写速度测试

以下示例的速度看kps列,单位为kb/s。

磁盘读

```
echo 3 > /proc/sys/vm/drop_caches
dd if=/dev/mmcblk0p1 of=/dev/null bs=1M count=1000 &
iostat 1 -d
```

```
dd if=/dev/mmcblk0p1 of=/dev/null bs=1M count=1000 &
 iostat 1 -d
mtdblock0
                  mtdblock1
                                     mtdblock2
                                                          mmcblk0
                                                                           mmcblk0p1
          svc t
                     kps tps svc t
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                                                                     12.7 22528
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1000+0 records in
1000+0 records out
```

```
echo 3 > /proc/sys/vm/drop_caches
dd if=/dev/urandom of=/dev/mmcblk0p1 bs=1M count=500 &
iostat 1 -d
```

```
# dd if=/dev/urandom of=/dev/mmcblk0p1 bs=1M count=500 &
# iostat 1 -d
mtdblock0
                 mtdblock1
                                  mtdblock2
                                                       mmcblk0
                                                                       mmcblk0p1
  kps tps svc_t
                    kps tps svc_t
                                      kps tps svc t
                                                       kps tps svc_t
                                                                         kps tps svc t
             6.0
                     0 0
                             6.0
                                       0 0
                                               8.0 2047
                                                             · 5
                                                                  9.1
    Θ
        Θ
                                                                        2047
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                                                 0.0 4224 33
                                                                   8.8 4224
    Θ
        Θ
             0.0
                               0.0
                                       Θ
                                                                              33
                                                                                     8.8
             0.0
                                                 0.0 17920 140
                                                                   6.4 17920 140
                                                                                    6.4
    Θ
        Θ
                      Θ
                               0.0
                                       0 0
                                     0 0 0.0 21632 169
0 0 0.0 21291 166
0 0 0.0 10496 82
0 0 0.0 21632 169
0 0 0.0 21504 168
0 0 0.0 11264 88
0 0 0.0 20864 163
0 0 0.0 21504 168
0 0 0.0 21504 168
0 0 0.0 12928 101
0 0 0.0 19328 151
0 0 0.0 21632 169
0 0 0.0 14336 112
0 0 0.0 21418 167
             0.0
                                                0.0 21632 169
                                                                   5.9 21632 169
    Θ
        Θ
                     0 0
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                                                                   6.0 21291 166
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                                                                   5.9 11264 88
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        Θ
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    Θ
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                               0.0
                                                                  5.9 21504 168
        Θ
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                                                                   5.8 12928 101
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        Θ
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                     Θ Θ
                               0.0
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    Θ
        Θ
             0.0
                     0 0
                               0.0
                                                                   5.8 19328 151
                                                                                     5.8
    Θ
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             0.0
                     0 0
                               0.0
                                                                   5.9 21632 169
                                                                                     5.9
    Θ
        Θ
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                     0 0
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                                                                  5.8 14336 112
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    Θ
                     0 0
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                                                                  5.9 17664 138
        Θ
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    Θ
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mtdblock0
                               mtdblock2
                                                        mmcblk0
              mtdblock1
                                                                       mmcblk0p1
  kps tps svc t
                    kps tps svc t
                                      kps tps svc t
                                                        kps tps svc t
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                                                0.0 14464 113 5.8 14464 113
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    Θ
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500+0 records in
500+0 records out
```

fat32文件读

```
mkdir /mnt/y
mount /dev/mmcblk0p1 /mnt/y
dd if=/dev/urandom of=/mnt/y/tmpfile bs=1M count=500
echo 3 > /proc/sys/vm/drop_caches
dd if=/mnt/y/tmpfile of=/dev/null &
iostat 1 -d
```

```
dd it=/mnt/y/tmpfile ot=/dev/null &
# iostat l -d
mtdblock0
                                                    mmcblk0
                mtdblock1
                                 mtdblock2
                                                                  mmcblk0p1
                  kps tps svc_t
0 0 6.0
                                   kps tps svc t kps tps svc t
  kps tps svc t
                                                                    kps tps svc t
            6.0
                                             8.0 2005
    Θ
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                                                            10.2 2005
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                                             0.0 22658 182
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                    Θ
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                                                              5.5 22659 183
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    Θ
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1024000+0 records in
1024000+0 records out
```

fat32文件写

```
echo 3 > /proc/sys/vm/drop_caches
dd if=/dev/urandom of=/mnt/y/tmpfile bs=1M count=500 &
iostat 1 -d
```

```
dd if=/dev/urandom of=/mnt/y/tmpfile bs=1M count=500 &
# iostat 1 -d
mtdblock0
                 mtdblock1
                                    mtdblock2
                                                        mmcblk0
                                                                        mmcblk0p1
                                      kps tps svc_t
                                                        kps tps svc_t
  kps tps svc_t
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mtdblock0
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                                    mtdblock2
                                                                        mmcblk0p1
                    kps tps svc_t
                                      kps tps svc_t
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  kps tps svc_t
                                                        kps tps svc_t
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    Θ
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                                                                   12.0
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                                                 0.0 13320
                                                              19
                                                                   10.0 13320
    Θ
        Θ
             0.0
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    Θ
        0
             0.0
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                                                      9126
                                                              12
                                                                   14.2
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    Θ
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                                        Θ
                                             Θ
                                                 0.0 18432
                                                              19
                                                                  10.0 18432
                                                                                19
                                                                                     10.0
500+0 records in
500+0 records out
```

先将sd卡分为4个分区,并将2,3,4分区分别格式化为ext2、ext3、ext4,然后按以下步骤操作文件读写ext2文件读

```
mkdir /mnt/ext2mpt
mount /dev/mmcblkOp2 /mnt/ext2mpt
dd if=/dev/urandom of=/mnt/ext2mpt/tmpfile bs=1M count=1024
echo 3 > /proc/sys/vm/drop_caches
dd if=/mnt/ext2mpt/tmpfile of=/dev/null &
iostat 1 -d
```

```
dd it=/mnt/ext2mpt/tmpfile ot=/dev/null &
# iostat 1 -d
  mmcblk0
                mmcblk0p2
                                mmcblk0p3
                                                 mmcblk0p4
                  kps tps svc t
                                  kps tps svc_t
  kps tps svc t
                                                   kps tps svc t
  253
      Θ
          8.1
                253 0
                            8.2
                                       Θ
                                             2.1
                                                    Θ
                                                         Θ
                                                             3.8
            5.8 22144 173
22144 173
                            5.8
                                     Θ
                                         Θ
                                             0.0
                                                     Θ
                                                         Θ
                                                             0.0
            5.8 21798 170
21798 170
                            5.8
                                   Θ
                                         Θ
                                             0.0
                                                     Θ
                                                         Θ
                                                             0.0
                                   9
9
9
22016 172
           5.8 22016 172
                            5.8
                                         Θ
                                             0.0
                                                    Θ
                                                         0 0.0
           5.8 22016 172
                            5.8
22016 172
                                         0 0.0
                                                    Θ
                                                         0 0.0
22144 173
           5.8 22144 173
                            5.8
                                        0.0
                                                    Θ
                                                         0 0.0
21632 170
           5.8 21632 170
                            5.8
                                        0.0
                                                    Θ
                                                         0 0.0
                                   Θ
21632 169
           5.9 21632 169
                            5.9
                                        0.0
                                                    Θ
                                                         0 0.0
22016 172
           5.9 22016 172
                                   Θ
                            5.9
                                        0.0
                                                    Θ
                                                         0.0
                                   Θ
           5.8 22016 172
22016 172
                            5.8
                                        0.0
                                                    Θ
                                                         Θ
                                                             0.0
           5.8 22016 172
                                   Θ
22016 172
                            5.8
                                         0.0
                                                    Θ
                                                         Θ
                                                             0.0
           5.8 22016 173
                                   Θ
22016 173
                            5.8
                                         Θ
                                           0.0
                                                    Θ
                                                         Θ
                                                             0.0
           5.9 21760 170
                                   Θ
                                                    Θ
21760 170
                            5.9
                                         Θ
                                           0.0
                                                         Θ
                                                             0.0
           5.8 21888 171
                                   Θ
                                           0.0
                                                    Θ
21888 171
                            5.8
                                         Θ
                                                         Θ
                                                             0.0
           5.9 21545 168
                                   Θ
                                                    Θ
21545 168
                            5.9
                                        Θ
                                           0.0
                                                         Θ
                                                             0.0
                                  0 0 0.0
0 0 0.0
0 0 0.0
0 0 0.0
           5.8 21888 171
                                                    Θ
21888 171
                            5.8
                                                         Θ
                                                             0.0
                                                         Θ
22528 176
           5.7 22528 176
                            5.7
                                                             0.0
                                                   0 0 0.0
0 0 0.0
                            5.6
           5.6 22400 176
22400 176
           5.7 22528 176
22528 176
                            5.7
           5.7 22528 176
                                   0
                                                    Θ
22528 176
                                        0 0.0
                                                         0.0
                            5.7
                                  0
                                                  Θ
            5.7 22400 175
22400 175
                            5.7
                                       Θ
                                             0.0
                                                         Θ
                                                             0.0
  mmcblk0
                mmcblk0p2
                            mmcblk0p3
                                             mmcblk0p4
                                   kps tps svc_t
0 0 0.0
  kps tps svc_t kps tps svc_t
2400 175    5.7 22400 175    5.7
                                                   kps tps svc t
22400 175
                                                           0.0
                                                   Θ
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22528 177
            5.6 22528 177
                            5.6
                                     Θ
                                         Θ
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                                                         Θ
                                                             0.0
22400 175
            5.7 22400 175
                            5.7
                                         0
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                                                     0
                                                         Θ
                                                             0.0
22528 176
            5.7 22528 176
                            5.7
                                         0
                                             0.0
                                                     0
                                                         Θ
                                                             0.0
                                                   0 0
            5.7 22404 176
22404 176
                            5.7
                                         0
                                           0.0
                                                         Θ
                                                             0.0
            5.7 22178 173
22178 173
                                           0.0
                            5.7
                                         0
                                                         Θ
                                                             0.0
            5.7 22528 176
22528 176
                                           0.0
                            5.7
                                                             0.0
                                         Θ
                                                         Θ
                                   Θ
                                                    Θ
            5.7 22400 176
                                           0.0
22400 176
                            5.7
                                         Θ
                                                         Θ
                                                             0.0
           5.7 22400 176
5.7 22528 176
5.7 22400 175
5.7 22528 176
5.7 22400 175
5.6 22528 177
                                   Θ
                                           0.0
22528 176
                            5.7
                                         Θ
                                                         Θ
                                                             0.0
                                   ō
22400 175
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                            5.7
                                         Θ
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22528 176
                            5.7
                                         Θ
                                            0.0
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22400 175
                            5.7
                                         Θ
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                                                     Θ
                                                         Θ
                                                             0.0
22528 177
                            5.6
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                                                     Θ
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                                                             0.0
22656 177
            5.6 22656 177
                            5.6
                                         Θ
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                                                     Θ
                                                         Θ
                                                             0.0
22656 177
            5.6 22656 177
                            5.6
                                         Θ
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                                                     Θ
                                                         Θ
                                                             0.0
           5.6 22656 1/7
5.7 22528 176
5.7 22528 176
5.7 22528 176
5.7 22432 176
5.6 22784 178
22528 176
                            5.7
                                         Θ
                                             0.0
                                                     Θ
                                                         Θ
                                                             0.0
22528 176
                            5.7
                                         Θ
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                                                     Θ
                                                         Θ
                                                             0.0
22528 176
                            5.7
                                         0
                                             0.0
                                                     Θ
                                                         Θ
                                                             0.0
                                                    0
22432 176
22784 178
                            5.7
                                         Θ
                                             0.0
                                                         0
                                                             0.0
                                             0.0
                            5.6
                                         Θ
                                                         Θ
                                                             0.0
2097152+0 records in
2097152+0 records out
```

ext2文件写

```
echo 3 > /proc/sys/vm/drop_caches
dd if=/dev/urandom of=/mnt/ext2mpt/tmpfile bs=1M count=512 &
iostat 1 -d
```

```
iostat 1 -d
                 mmcblk0p2
                                  mmcblk0p3
                                                    mmcblk0p4
  mmcblk0
                                                      kps tps svc_t
  kps tps svc_t
                   kps tps svc_t
                                     kps tps svc_t
  425
       2
            6.2
                   424
                         2
                             6.2
                                       0
                                           Θ
                                               2.1
                                                        Θ
                                                            Θ
                                                                 3.8
           14.0 15323
                        20
       20
15323
                             14.0
                                       0
                                           0
                                               0.0
                                                        Θ
                                                            Θ
                                                                 Θ.Θ
19456
       19
           10.0 19456
                         19
                             10.0
                                       0
                                           0
                                               0.0
                                                        Θ
                                                            Θ
                                                                 Θ.Θ
           10.0 18250
18250
       18
                         18
                             10.0
                                       0
                                           0
                                               0.0
                                                        Θ
                                                            Θ
                                                                 Θ.Θ
16388
       18
           11.1 16388
                         18
                             11.1
                                       0
                                           0
                                               0.0
                                                        Θ
                                                            Θ
                                                                 Θ.Θ
18432
       18
           12.2 18432
                         18
                             12.2
                                      0
                                           Θ
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                                                        Θ
                                                            Θ
                                                                 Θ.Θ
18432
       18
           12.2 18432
                         18
                             12.2
                                      Θ
                                           Θ
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                                                        Θ
                                                            Θ
                                                                 0.0
16388
       17
           11.8 16388
                         17
                             11.8
                                      Θ
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                                                        Θ
                                                            Θ
                                                                 0.0
18432
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       29
            7.6 17572
                         29
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                                                                 0.0
17572
                             11.2
16384
       16
           11.2 16384
                        16
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                                                        Θ
                                                            Θ
                                                                 0.0
19460
       20
           14.0 19460
                         20
                             14.0
                                      0
                                           Θ
                                               0.0
                                                        Θ
                                                            Θ
                                                                 0.0
           10.5 18436
                                                                 0.0
18436
       19
                             10.5
                                           Θ
                                               0.0
                                                            Θ
                         19
                                      Θ
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16384
           10.0 16384
       16
                         16
                             10.0
                                      0
                                           0
                                               0.0
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       18
           10.0 18432
                             10.0
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                                                            Θ
18432
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18432
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16420
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           11.2 16420
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18432
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                                                            Θ
                                                                 0.0
       19
18436
           10.0 18436
                        19
                            10.0
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                                                                 0.0
15360
      16 10.0 15360
                        16 10.0
                                      Θ
                                           Θ
                                               0.0
                                                        0
                                                            Θ
                                                                 0.0
512+0 records in
512+0 records out
```

ext3文件读

```
mkdir /mnt/ext3mpt
mount /dev/mmcblkOp3 /mnt/ext3mpt
dd if=/dev/urandom of=/mnt/ext3mpt/tmpfile bs=1M count=1024
echo 3 > /proc/sys/vm/drop_caches
dd if=/mnt/ext3mpt/tmpfile of=/dev/null &
iostat 1 -d
```

```
dd if=/mnt/ext3mpt/tmpfile of=/dev/null &
 iostat 1 -d
  mmcblk0
                mmcblk0p2
                                                  mmcblk0p4
                                 mmcblk0p3
                  kps tps svc_t
                                                    kps tps svc_t
  kps tps svc_t
                                   kps tps svc_t
                                              8.2
       2
            7.4
                                   185
                                        0
  838
                   654
                       2
                           7.3
                                                      Θ
                                                          Θ
                                                               3.8
21652 174
                             0.0 21652 174
            5.7
                                              5.7
                   Θ
                         Θ
                                                      Θ
                                                          Θ
                                                               0.0
21315 172
                             0.0 21315 172
                                              5.7
            5.7
                    Θ
                         Θ
                                                      Θ
                                                          Θ
                                                               0.0
                             0.0 21908 177
21908 177
            5.6
                   Θ
                         Θ
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
                       22164 178
                             0.0 22164 178
            5.6
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
22168 179
            5.6
                             0.0 22168 179
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
                   000000000000
22292 179
            5.6
                             0.0 22292 179
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
22168 179
            5.6
                             0.0 22168 179
                                              5.6
                                                      0
                                                          Θ
                                                               0.0
22164 179
            5.6
                             0.0 22164 179
                                              5.6
                                                      0
                                                          Θ
                                                               0.0
22292 179
22168 179
            5.6
                             0.0 22292 179
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
            5.6
                             0.0 22168 179
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
22292 179
21932 182
22164 178
                             0.0 22292 179
0.0 21932 182
            5.6
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
            5.5
                                              5.5
                                                      Θ
                                                          Θ
                                                               0.0
            5.6
                             0.0 22164 178
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
22164 179
            5.6
                             0.0 22164 179
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
22040 178
            5.6
                             0.0 22040 178
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
21945 176
            5.6
                             0.0 21945 176
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
22168 179
            5.6
                             0.0 22168 179
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
22164 178
            5.6
                    Θ
                             0.0 22164 178
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                                                               0.0
22164 178
                             0.0 22164 178
                                              5.7
            5.7
                    Θ
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                                                          Θ
                                                               0.0
22040 179
                    Θ
                             0.0 22040 179
                                              5.5
                                                      0
            5.5
                        Θ
                                                          Θ
                                                               0.0
  mmcblk0
              mmcblk0p2
                                 mmcblk0p3
                                              mmcblk0p4
                                                    kps tps svc_t
  kps tps svc_t
                   kps tps svc_t
                                 kps tps svc_t
            5.6
                       0
                             0.0 22292 179
                                              5.6
                                                    Θ
22292 179
                                                         Θ
                                                              0.0
22168 179
                                              5.6
            5.6
                    Θ
                         Θ
                             0.0 22168 179
                                                      Θ
                                                          0
                                                               0.0
                    Θ
22160 177
                             0.0 22160 177
            5.6
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
                       0
                             0.0 22164 178
22164 178
            5.6
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
                       9
9
9
22296 181
            5.5
                             0.0 22296 181
                                              5.5
                                                      Θ
                                                          Θ
                                                               0.0
22420 180
            5.6
                             0.0 22420 180
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
22424 181
            5.5
                             0.0 22424 181
                                              5.5
                                                      Θ
                                                          Θ
                                                               0.0
22420 180
            5.6
                             0.0 22420 180
                                              5.6
                                                      Θ
                                                          Θ
                                                               0.0
22075 178
            5.6
                             0.0 22075 178
                                              5.6
                                                          Θ
                                                               Θ.Θ
22420 180
            5.6
                             0.0 22420 180
                                              5.6
                                                          Θ
                                                               Θ.Θ
21908 177
            5.7
                             0.0 21908 177
                                              5.7
                                                               Θ.Θ
                                                   0 0 0
22168 179
            5.6
                             0.0 22168 179
                                              5.6
                                                               0.0
22036 177
            5.6
                             0.0 22036 177
                                              5.6
                                                               0.0
22168 179
            5.6
                             0.0 22168 179
                                              5.6
                                                               0.0
22164 178
            5.6
                             0.0 22292 178
                                              5.6
                                                               0.0
22160 178
            5.6
                             0.0 22032 178
                                              5.6
                                                               0.0
22144 173
            5.8
                             0.0 22144 173
                                              5.8
                                                               0.0
22016 172
                             0.0 22016 172
            5.8
                                              5.8
                                                               0.0
22016 172
            5.8
                             0.0 22016 172
                                              5.8
                                                               0.0
                  Ö
            5.8
22144 173
                             0.0 22144 173
                                              5.8
                                                     0 0
                                                               0.0
                       Θ
21798 170
                             0.0 21798 170
            5.8
                   Θ
                                              5.8
                                                      Θ
                                                          Θ
                                                               0.0
2097152+0 records in
2097152+0 records out
```

ext3文件写

```
echo 3 > /proc/sys/vm/drop_caches
dd if=/dev/urandom of=/mnt/ext3mpt/tmpfile bs=1M count=512 &
iostat 1 -d
```

```
# dd if=/dev/urandom of=/mnt/ext3mpt/tmpfile bs=1M count=512 &
# iostat 1 -d
  mmcblk0
                            mmcblk0p3
              mmcblk0p2
                                            mmcblk0p4
                                              kps tps svc t
  kps tps svc_t
                kps tps svc_t kps tps svc_t
  964
         6.8
                640 2 7.3
                               324
                                   2 6.1
                                               Θ
                                                   Θ
                                                       3.8
                                   19
19456
      19
          11.1
                 Θ
                     Θ
                         0.0 19456
                                       11.1
                                                Θ
                                                   Θ
                                                       0.0
          15.3
                                   17
16388
      17
                  Θ
                     Θ
                         0.0 16388
                                       15.3
                                               Θ
                                                   Θ
                                                       0.0
                                   17
17236
      17
          10.0
                  Θ
                         0.0 17236
                                       10.0
                                               Θ
                                                   Θ
                                                       0.0
                                   19
19456
      19
          10.0
                  Θ
                         0.0 19456
                                       10.0
                                               Θ
                                                   Θ
                                                       0.0
                                   18
                                               Θ
18432
      18
          12.2
                         0.0 18432
                                       12.2
                                                   Θ
                                                       0.0
                                               Θ
                                   17
16388
      17
          10.0
                         0.0 16388
                                       10.0
                                                   Θ
                                                       0.0
                0 0
                                   18
18432
      18
          10.0
                         0.0 18432
                                       10.0
                                                   Θ
                                                       0.0
                                   20
18616
      20
         10.5
                         0.0 18616
                                       10.5
                                                   Θ
                                                       0.0
                                   15
                                               Θ
15360
      15
          11.3
                         0.0 15360
                                       11.3
                                                   Θ
                                                       0.0
                                   18
18428
      18
         13.9
                         0.0 18428
                                       13.9
                                                   Θ
                                                       0.0
                0 0
0 0
                                   18
                                                  Θ
18432
      18
         10.0
                         0.0 18432
                                       10.0
                                                       0.0
                                   16
16384
      16
         10.0
                         0.0 16384
                                       10.0
                                                  Θ
                                                       0.0
                                   20
                                               Θ Θ
18257
      20
         11.0
                         0.0 18257
                                       11.5
                                                       0.0
      18
         13.9
                         0.0 18432
                                   18
                                       13.3
                                                       0.0
18432
                                   16
                                       10.0
16384
      16
         10.0
                         0.0 16384
                                                       0.0
                                       10.0
18432
      18
         10.0
                         0.0 18432
                                   18
                                                       0.0
      18
         10.6
                         0.0 18432
                                   18
                                       10.6
                                               0 0
                                                       0.0
18432
                         0.0 16384
                                   16
      16 10.6
                  0 0
                                       10.6
                                               Θ
                                                  Θ
16384
                                                       0.0
                                   18 10.6
     18 10.6
                                                Θ
                                                   Θ
18432
                  0 0
                         0.0 18432
                                                       0.0
     20 10.5
                         0.0 19492 20 10.5
                                               Θ
                                                   Θ
19492
                 0
                    Θ
                                                       0.0
          mmcblk0p2
                             mmcblk0p3
                                            mmcblk0p4
  mmcblk0
 kps tps svc_t
                             kps tps svc_t
                kps tps svc t
                                              kps tps svc t
                 0 0 0.0 14756
                                   26
                                       7.7
                                               Θ
                                                       0.0
         7.7
                                                   Θ
14756
      26
      21
                 0 0
                         0.0 18444
                                               Θ
                                                   Θ
                                                       0.0
18444
          11.4
                                   21
                                       11.4
         10.0
                                                       0.0
                         0.0 18432
                                       10.0
                                               Θ
                                                   Θ
18432
      18
                 0 0
                                   18
         10.0
                                       10.0
                                               Θ
                                                   Θ
16222
      16
                0 0
                         0.0 16222
                                   16
                                                       0.0
      18 10.0
                                   18
                                       10.0
                                               0
                                                 Θ
18432
                0 0
                         0.0 18432
                                                       0.0
                                   18 10.0
                                               0
                                                 Θ
18432
      18
         10.0
                 0 0 0.0 18432
                                                       0.0
                                               Θ
                                                 Θ
15324
      15
         10.0
                 0 0 0.0 15324
                                  15 10.0
                                                       0.0
                                               0 0
19456
     19 10.0
                  0 0 0.0 19456 19 10.0
                                                       0.0
512+0 records in
512+0 records out
```

ext4文件读

```
mkdir /mnt/ext4mpt
mount /dev/mmcblk0p4 /mnt/ext4mpt
dd if=/dev/urandom of=/mnt/ext4mpt/tmpfile bs=1M count=1024
echo 3 > /proc/sys/vm/drop_caches
dd if=/mnt/ext4mpt/tmpfile of=/dev/null &
iostat 1 -d
```

```
dd if=/mnt/ext4mpt/tmpfile of=/dev/null &
 iostat 1 -d
  mmcblk0
               mmcblk0p2
                               mmcblk0p3
                                              mmcblk0p4
                 kps tps svc_t
                                 kps tps svc_t
 kps tps svc_t
                                                 kps tps svc t
                                      2 7.2
 1355
           7.3
                  594
                      2 7.3
                                 592
      4
                                                 168
                                                      Θ
                                                           8.3
           5.8
                                           0.0 21798 170
21798 170
                  Θ
                       Θ
                           0.0
                                       Θ
                                                            5.8
           5.7
                                           0.0 22528 176
                           0.0
22528 176
                   0
                       Θ
                                       Θ
                               0.0 22400 175
           5.7
                           0.0
22400 175
                   Θ
                       Θ
                                           0.0 22528 176
22528 176
           5.7
                   Θ
                       Θ
                           0.0
                                           0.0 22528 176
22528 176
           5.7
                   Θ
                       Θ
                           0.0
                                           0.0 22400 176
22400 176
           5.7
                   Θ
                       Θ
                           0.0
                                           0.0 22528 176
                  Θ
22528 176
           5.7
                       Θ
                           0.0
                  Θ
                                           0.0 22400 175
22400 175
           5.7
                  Θ
                           0.0
                                                            5.7
                                           0.0 22528 176
22528 176
           5.7
                           0.0
                                                            5.7
                                           0.0 22528 176
22528 176
           5.7
                           0.0
                                                            5.7
                                           0.0 22400 175
22400 175
           5.7
                           0.0
                                                            5.7
                                           0.0 21888 171
21888 171
           5.8
                           0.0
                                                            5.8
                                           0.0 21888 171
0.0 21418 167
21888 171
           5.8
                           0.0
                                                            5.8
                         0.0
0.0
0.0
0.0
21418 167
           5.9
                                                            5.9
                                           0.0 21632 169
21632 169
           5.9
                                                            5.9
                                          0.0 22016 172
0.0 22784 179
0.0 22656 177
22016 172
           5.8
                                                            5.8
22784 179
           5.6
                                                            5.6
22656 177
           5.6
                                                            5.6
                                           0.0 22400 175
0.0 21652 172
22400 175
           5.8
                       Θ
                          0.0
                                                            5.8
21652 172
           5.8
                   Θ
                       Θ
                           0.0
                                                            5.8
 mmcblk0
           mmcblk0p2
                           mmcblk0p3
                                               mmcblk0p4
 kps tps svc_t
                 kps tps svc_t
                                 kps tps svc_t
                                               kps tps svc_t
                                 0
                      Θ
                                      Θ
22016 172
           5.8
                           0.0
                                           0.0 22016 172
                                                           5.8
22144 173
           5.8
                       0
                           0.0
                                   0
                                       Θ
                                           0.0 22144 173
                   Θ
                                                            5.8
                           0.0
           5.8
                                           0.0 22016 172
22016 172
                       Θ
                                       0
                                                            5.8
                           0.0
22272 174
           5.7
                                       Θ
                                           0.0 22272 174
                                                            5.7
                          0.0
22656 177
           5.6
                                       Θ
                                          0.0 22656 177
                                                            5.6
                          0.0
22432 175
           5.6
                                       Θ
                                          0.0 22432 175
                                                            5.6
22784 178
                          0.0
           5.6
                                       Θ
                                          0.0 22784 178
                                                            5.6
                         0.0
                                       0
22272 174
           5.8
                                          0.0 22272 174
                                                            5.8
                                       0
                                                           5.7
22016 173
           5.7
                  0 0 0.0
                                          0.0 22016 173
22144 173
                  0 0 0.0
                                       0
           5.8
                                          0.0 22144 173
                                                            5.8
                  0 0 0.0
                                       0
22016 172
           5.8
                                          0.0 22016 172
                                                           5.8
                  0 0 0.0
                                       0
22144 173
           5.8
                                          0.0 22144 173
                                                            5.8
                  0 0 0.0
                                       0
22016 172
           5.8
                                          0.0 22016 172
                                                           5.8
                                       0
22016 172
           5.8
                  0 0 0.0
                                          0.0 22016 172
                                                           5.8
22144 173
           5.8
                  0 0 0.0
                                       0
                                          0.0 22144 173
                                                            5.8
21760 170
           5.9
                  0 0 0.0
                                       Θ
                                          0.0 21760 170
                                                           5.9
21888 171
           5.8
                  0 0 0.0
                                  0 0 0.0 21888 171
                                                            5.8
21760 170
                  0 0 0.0
           5.9
                                  0 0 0.0 21760 170
                                                           5.9
19786 155
                  Θ
           5.9
                       Θ
                           0.0
                                  0 0 0.0 19786 155
                                                            5.9
2097152+0 records in
2097152+0 records out
```

ext4文件写

```
echo 3 > /proc/sys/vm/drop_caches
dd if=/dev/urandom of=/mnt/ext4mpt/tmpfile bs=1M count=512 &
iostat 1 -d
```

```
# dd it=/dev/urandom ot=/mnt/ext4mpt/tmptile bs=1M count=512 &
# iostat l -d
 mmcblk0
               mmcblk0p2
                              mmcblk0p3
                                              mmcblk0p4
               kps tps svc_t kps tps svc_t
 kps tps svc t
                                               kps tps svc t
         7.0
1456
      · 5
                 585
                     · 2
                         7.3
                                582
                                     2
                                          7.2
                                               289
                                                       6.4
                                          0.0 19456
19456
      19
          11.6
                 Θ
                      Θ
                          0.0
                                 Θ
                                     Θ
                                                    19
                                                        11.6
18432
      18
          11.7
                  Θ
                      Θ
                          0.0
                                  Θ
                                      0
                                          0.0 18432
                                                    18
                                                       11.7
16384
      16
          10.0
                 Θ
                      Θ
                          0.0
                                 Θ
                                     Θ
                                          0.0 16384
                                                    16
                                                       10.0
                 Θ
10198
      12
          10.8
                      Θ
                         0.0
                                 0
                                     Θ
                                         0.0 10198
                                                    12
                                                       10.8
                 Θ
                                                       13.2
19456
      19
          13.2
                      Θ
                         0.0
                                Θ
                                     Θ
                                         0.0 19456
                                                    19
                 Θ
          10.0
                      0.0
                                     0 0.0 18432
                                                       10.0
18432
      18
                                Θ
                                                    18
                 Θ
                      0.0
                                                    16 10.6
16384
      16
          10.6
                                Θ
                                     0 0.0 16384
                      0.0
                                Θ
                                     0 0.0 18432
                                                       10.0
18432
      18
          10.0
                                                    18
                                                       11.2
                                Θ
      17
          11.2
                      0.0
                                     Θ
                                         0.0 13372
                                                    17
13372
                                         0.0 16384
                                                       14.4
          14.4
                      0.0
                                                    16
16384
      16
                                                       10.0
          10.0
                      0.0
                                         0.0 18432
18432
      18
                                     Θ
                                                    18
                                                       10.6
                      0.0
                                         0.0 18432
18432
      18
          10.6
                                     Θ
                                                    18
                                         0.0 16384 16
                      0.0
                                                        10.0
16384
      16
          10.0
                                     Θ
                      0 0.0
                                         0.0 16412
16412
      19
          8.9
                                 Θ
                                                    19
                                                        8.9
9125
          13.3
                      0.0
                                 Θ
                                     Θ
                                         0.0 9125
                                                    9
                                                        13.3
      9
                      0.0
                                         0.0 18432
                                                       11.1
18432
      18
                                 Θ
                                     Θ
                                                    18
          11.1
                      0 0.0
          11.9
                                 Θ
                                         0.0 16384
                                                       11.9
16384
      16
                                     Θ
                                                    16
                      0.0
                                         0.0 17432
          9.0
17432
      20
                                     Θ
                                                    20
                                                        9.0
                         0.0
                                         0.0 13312
                                                    13
          12.3
                                                        12.3
13312
      13
                      Θ
                                 Θ
                                      Θ
                               Θ
                 Θ
                                                   15
     15
                                          0.0 15360
                          0.0
15360
          15.3
                                     Θ
                                                        15.3
                ncblk0p2 mmcblk0p3
kps tps svc_t kps tps
 mmcblk0
          mmcblk0p2
                                            mmcblk0p4
                                kps tps svc_t kps tps svc_t
0 0 0.0 19456 19 10.0
 kps tps svc_t
     19
19456
         10.0
                     Θ
                        0.0
                          0.0
                                          0.0 18432
18432
      18
          10.6
                   Θ
                      Θ
                                  0
                                      0
                                                    18
                                                        10.6
                                          0.0 16384
                          0.0
15360
      15
          10.0
                  0
                      Θ
                                  0
                                      0
                                                    16
                                                        10.0
                          0.0
                                          0.0 18432
19456
      19
          10.0
                  0
                      Θ
                                  Θ
                                      Θ
                                                    18
                                                        10.0
                          0.0
                                         0.0 6168
0.0 13312
6168
      8
          10.0
                  Θ
                      0
                                  Θ
                                      Θ
                                                     8
                                                        10.0
13312
      13
          12.3
                  Θ
                      Θ
                          0.0
                                  Θ
                                      Θ
                                                    13
                                                        12.3
                      0
                                     Θ
                          0.0
                                         0.0 16222
16222
      16
          11.2
                  Θ
                                  Θ
                                                    16
                                                        11.2
512+0 records in
512+0 records out
```

总结

磁盘读速率大约22-24 mb/s,比较稳定;磁盘写速率11mb/s到22mb/s不等,波动相对较大不过速度基本在22mb/s左右;fat32和ext2、ext3、ext4文件读速率都在21-23 mb/s,比较稳定,相对磁盘读慢一点点;ext2、ext3、ext4文件写速率在15-20mb/s之间,相对磁盘写稳定一些,但是平均速率较慢一些,可能是数据量测试不够导致,fat32文件写速率在0-19mb/s之间,有很明显的几个瓶颈点,这是windows默认支持的文件系统,可能是linux对这个文件系统的支持不足或者linux有其他突发任务导致的,可继续观测。