

Table Of Contents

Table Of Contents ..... 1

Simple Measurement Of The I/O Read ..... 2

Simple Benchmark Of The Disks ..... 2

Other Software Bonnie++ Performance Test of Filesystem I/O [5] : Bonnie tests the speed of file I/O 3

[Home](#) > [Faq](#) > [File system](#)

## FreeBSD: Benchmark The Disks Seek And Transfer Performance

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How do I perform a simple and rather naive benchmark of the disks seek and transfer performance under FreeBSD operating system? How do I perform a simple measurement of the I/O read command overhead for my RAID-1 array under FreeBSD operating systems?

You need to use the diskinfo command, which displays out information about a disk device, and optionally runs a naive performance test on the device. The -t option is used for a simple performance test.

### Contents

1. [Simple Measurement Of The I/O Read](#) <sup>[2]</sup>
2. [Simple Benchmark Of The Disks](#) <sup>[3]</sup>
3. [Other Software](#) <sup>[4]</sup>

## Simple Measurement Of The I/O Read

The -c option triggers a simple measurement of the I/O read command overhead, enter:

```
# diskinfo -c /dev/aacd0
```

### Sample Outputs:

```
/dev/aacd0
512          # sectorsize
299573968896 # mediasize in bytes (279G)
585105408    # mediasize in sectors
36421        # Cylinders according to firmware.
255          # Heads according to firmware.
63           # Sectors according to firmware.

I/O command overhead:
time to read 10MB block      0.062739 sec =    0.003 msec/sector
time to read 20480 sectors  1.169154 sec =    0.057 msec/sector
calculated command overhead =    0.054 msec/sector
```

## Simple Benchmark Of The Disks

The -t option triggers a simple and rather naive benchmark of the disks seek and transfer performance, enter:

```
# diskinfo -t /dev/aacd0
```

### Sample Outputs:

```
/dev/aacd0
512          # sectorsize
299573968896 # mediasize in bytes (279G)
585105408    # mediasize in sectors
36421        # Cylinders according to firmware.
255          # Heads according to firmware.
63           # Sectors according to firmware.

Seek times:
Full stroke:  250 iter in  0.724105 sec =    2.896 msec
Half stroke:  250 iter in  0.716784 sec =    2.867 msec
Quarter stroke: 500 iter in  2.109663 sec =    4.219 msec
Short forward: 400 iter in  1.621695 sec =    4.054 msec
```

```
Short backward: 400 iter in 1.624951 sec = 4.062 msec
Seq outer: 2048 iter in 0.119046 sec = 0.058 msec
Seq inner: 2048 iter in 0.217687 sec = 0.106 msec
Transfer rates:
outside: 102400 kbytes in 0.649656 sec = 157622 kbytes/sec
middle: 102400 kbytes in 0.523038 sec = 195779 kbytes/sec
inside: 102400 kbytes in 0.745649 sec = 137330 kbytes/sec
```

## Other Software

**[Bonnie++ Performance Test of Filesystem I/O](#) [5] : Bonnie tests the speed of file I/O using standard C library calls. It does reads and writes of blocks, testing for the limit of sustained data rate (usually limited by the drive or controller) and updates on a file (better simulating normal operating conditions and quite dependent on drive and OS optimisations).**

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URLs in this post:

[1] Image: <http://www.cyberciti.biz/faq/category/freebsd/>

[2] Simple Measurement Of The I/O Read: [#ioread](#)

[3] Simple Benchmark Of The Disks: [#disks](#)

[4] Other Software: [#other](#)

[5] Bonnie++ Performance Test of Filesystem I/O: <http://www.cyberciti.biz/tips/linux-hard-drive-speed-benchmark-software-howto.html>