

## DragonFlyBSD - Bug #2288

### Random IO performance loss introduced since January 1st

01/24/2012 05:02 AM - lentferj

<b>Status:</b>	Feedback	<b>Start date:</b>	01/24/2012
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>			
<b>Description</b>			
<p>Running pgbench I found that performance had dropped by 13%. To figure out the reason I did some sysbench io tests (see below). All tests were run using the same test files, same hardware etc etc 3 times in a row. As the results were consistent I am only pasting the result of the last run of each set.</p> <p>The cause for the performance loss must have been introduced some time between Jan 1st and Jan 23rd.</p> <p>2.12: atom# sysbench --test=fileio --file-num=8 --file-total-size=6G --file-test-mode=rndrd --max-requests=0 --max-time=300 run sysbench 0.4.12: multi-threaded system evaluation benchmark</p> <p>Running the test with following options: Number of threads: 1</p> <p>Extra file open flags: 0 8 files, 768Mb each 6Gb total file size Block size 16Kb Number of random requests for random IO: 0 Read/Write ratio for combined random IO test: 1.50 Periodic FSYNC enabled, calling fsync() each 100 requests. Calling fsync() at the end of test, Enabled. Using synchronous I/O mode Doing random read test Threads started! Time limit exceeded, exiting... Done.</p> <p>Operations performed: 50389 Read, 0 Write, 0 Other = 50389 Total Read 787.33Mb Written 0b Total transferred 787.33Mb (2.6244Mb/sec) 167.96 Requests/sec executed</p> <p>Test execution summary: total time: 300.0027s total number of events: 50389 total time taken by event execution: 299.7273 per-request statistics: min: 0.02ms avg: 5.95ms max: 77.80ms approx. 95 percentile: 12.05ms</p> <p>Threads fairness: events (avg/stddev): 50389.0000/0.00 execution time (avg/stddev): 299.7273/0.00</p> <p>2.13 g47f97 (new year's eve): atom# sysbench --test=fileio --file-num=8 --file-total-size=6G --file-test-mode=rndrd --max-requests=0 --max-time=300 run sysbench 0.4.12: multi-threaded system evaluation benchmark</p> <p>Running the test with following options: Number of threads: 1</p>			

Extra file open flags: 0  
8 files, 768Mb each  
6Gb total file size  
Block size 16Kb  
Number of random requests for random IO: 0  
Read/Write ratio for combined random IO test: 1.50  
Periodic FSYNC enabled, calling fsync() each 100 requests.  
Calling fsync() at the end of test, Enabled.  
Using synchronous I/O mode  
Doing random read test  
Threads started!  
Time limit exceeded, exiting...  
Done.

Operations performed: 50037 Read, 0 Write, 0 Other = 50037 Total  
Read 781.83Mb Written 0b Total transferred 781.83Mb (2.6061Mb/sec)  
166.79 Requests/sec executed

Test execution summary:  
total time: 300.0040s  
total number of events: 50037  
total time taken by event execution: 299.7070  
per-request statistics:  
min: 0.02ms  
avg: 5.99ms  
max: 104.73ms  
approx. 95 percentile: 12.06ms

Threads fairness:  
events (avg/stddev): 50037.0000/0.00  
execution time (avg/stddev): 299.7070/0.00

2.13 (from Jan 23rd incl. the sili/ahci fix):  
atom# sysbench --test=fileio --file-num=8 --file-total-size=6G --file-test-mode=rndrd --max-requests=0 --max-time=300 run  
sysbench 0.4.12: multi-threaded system evaluation benchmark

Running the test with following options:  
Number of threads: 1

Extra file open flags: 0  
8 files, 768Mb each  
6Gb total file size  
Block size 16Kb  
Number of random requests for random IO: 0  
Read/Write ratio for combined random IO test: 1.50  
Periodic FSYNC enabled, calling fsync() each 100 requests.  
Calling fsync() at the end of test, Enabled.  
Using synchronous I/O mode  
Doing random read test  
Threads started!  
Time limit exceeded, exiting...  
Done.

Operations performed: 39898 Read, 0 Write, 0 Other = 39898 Total  
Read 623.41Mb Written 0b Total transferred 623.41Mb (2.078Mb/sec)  
132.99 Requests/sec executed

Test execution summary:  
total time: 300.0038s  
total number of events: 39898  
total time taken by event execution: 299.7377  
per-request statistics:  
min: 0.02ms  
avg: 7.51ms  
max: 61.00ms  
approx. 95 percentile: 12.27ms

Threads fairness:  
events (avg/stddev): 39898.0000/0.00  
execution time (avg/stddev): 299.7377/0.00

## History

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### #1 - 02/10/2012 12:34 AM - lentferj

- *Status changed from New to Feedback*
- *Priority changed from High to Low*

I tried to reproduce it and although I am still sure my initial testing was done correct I can't. I will put this on a hold for now, because of lack of time. I will try to return to it later

### #2 - 01/23/2013 04:21 PM - tuxillo

- *Priority changed from Low to Normal*

Jan,

Do you think we can have this checked again? Didn't you run this tests automatically?

Cheers,  
Antonio Huete