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fio33

2 x Intel Xeon Gold 6140 testing with a AIC VIRGO (VIG2_0.03.1 BIOS) and ASPEED on Ubuntu 18.04 via the Phoronix Test Suite.

Test Systems:

fio33

Processor: 2 x Intel Xeon Gold 6140 @ 3.70GHz (36 Cores / 72 Threads), Motherboard: AIC VIRGO (VIG2_0.03.1 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 8 x 32 GB DDR4-2666MT/s Samsung M393A4K40CB2-CTD, Disk: 2 x 1000GB Samsung SSD 860, Graphics: ASPEED, Network: 2 x Intel X722 for 10GbE SFP+ + 2 x Intel X710 for 10GbE SFP+ + 4 x Intel 82571EB/82571GB

OS: Ubuntu 18.04, Kernel: 4.15.0-76-generic (x86_64), Compiler: GCC 7.5.0 + TCC 0.9.27, File-System: ext4, Screen Resolution: 1024x768

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix

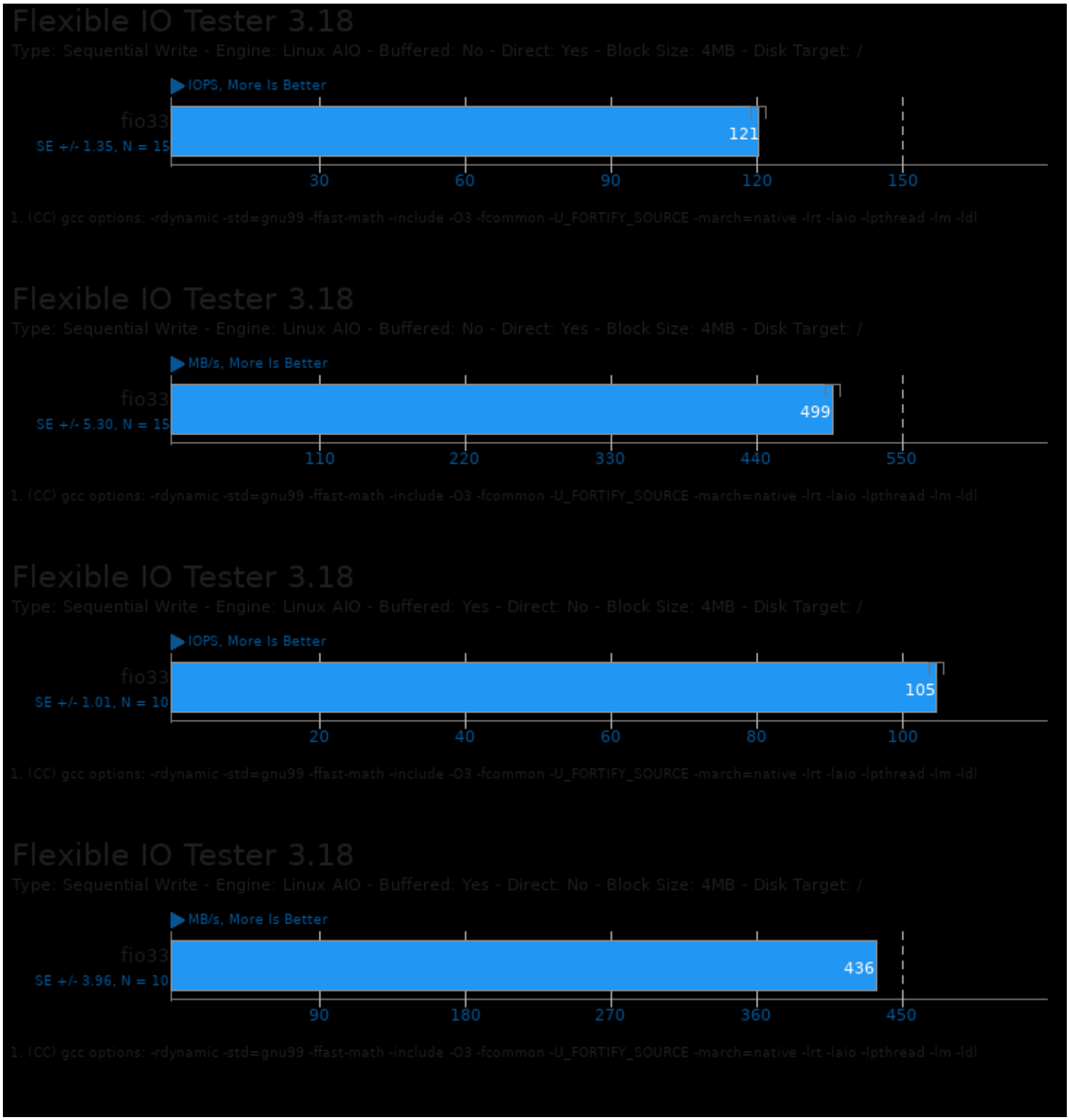
--host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Disk Notes: CFQ / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0x2000064
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + tsx_async_abort: Mitigation of Clear buffers; SMT vulnerable

	fio33
Flexible IO Tester - Seq Write - Linux AIO - No - Yes - 4MB - / (IOPS)	121
Standard Deviation	4.3%
Flexible IO Tester - Seq Write - Linux AIO - No - Yes - 4MB - / (MB/s)	499
Standard Deviation	4.1%
Flexible IO Tester - Seq Write - Linux AIO - Yes - No - 4MB - / (IOPS)	105
Standard Deviation	3%
Flexible IO Tester - Seq Write - Linux AIO - Yes - No - 4MB - / (MB/s)	436
Standard Deviation	2.9%
Flexible IO Tester - Rand Write - Linux AIO - Yes - No - 4MB - /	111
Standard Deviation	2.4%
Flexible IO Tester - Rand Write - Linux AIO - Yes - No - 4MB - /	459
Standard Deviation	2.1%
Flexible IO Tester - Rand Read - Linux AIO - No - No - 4MB - / (IOPS)	134
Flexible IO Tester - Rand Read - Linux AIO - No - No - 4MB - / (MB/s)	549
Flexible IO Tester - Rand Write - Linux AIO - No - Yes - 4MB - /	123
Standard Deviation	2.6%
Flexible IO Tester - Rand Write - Linux AIO - No - Yes - 4MB - /	507
Standard Deviation	2.5%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 4MB - / (IOPS)	122
Standard Deviation	2.5%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 4MB - / (MB/s)	500
Standard Deviation	2.2%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 4MB - / (IOPS)	124
Standard Deviation	2.5%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 4MB - / (MB/s)	508
Standard Deviation	2.4%
Flexible IO Tester - Seq Write - Linux AIO - Yes - Yes - 4MB - /	105
Standard Deviation	2.8%
Flexible IO Tester - Seq Write - Linux AIO - Yes - Yes - 4MB - /	434
Standard Deviation	2.7%
Flexible IO Tester - Seq Read - Linux AIO - No - No - 4MB - / (IOPS)	134
Flexible IO Tester - Seq Read - Linux AIO - No - No - 4MB - / (MB/s)	549
Flexible IO Tester - Rand Write - Linux AIO - Yes - Yes - 4MB - /	103
Flexible IO Tester - Rand Write - Linux AIO - Yes - Yes - 4MB - /	426
Flexible IO Tester - Seq Read - Linux AIO - No - Yes - 4MB - / (IOPS)	134
Flexible IO Tester - Seq Read - Linux AIO - No - Yes - 4MB - / (MB/s)	549
Flexible IO Tester - Rand Read - Linux AIO - No - Yes - 4MB - /	134
Flexible IO Tester - Rand Read - Linux AIO - No - Yes - 4MB - /	549
Flexible IO Tester - Seq Read - Linux AIO - Yes - No - 4MB - / (IOPS)	90
Standard Deviation	1.9%

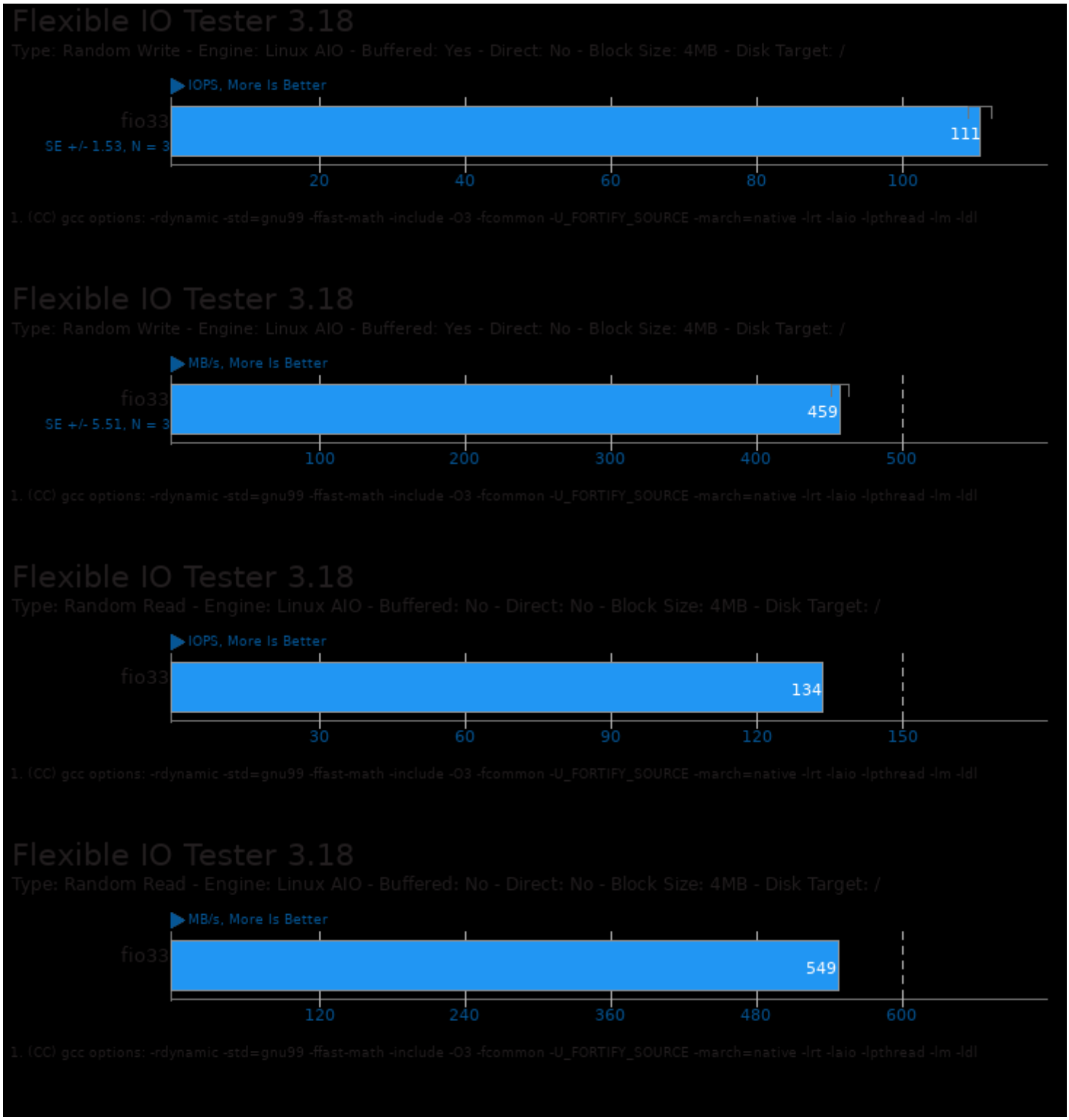
fio33

Flexible IO Tester - Seq Read - Linux AIO - Yes - No - 4MB - / (MB/s)	374
Standard Deviation	1.9%
Flexible IO Tester - Seq Read - Linux AIO - Yes - Yes - 4MB - /	89
Flexible IO Tester - Seq Read - Linux AIO - Yes - Yes - 4MB - /	371
Flexible IO Tester - Rand Read - Linux AIO - Yes - Yes - 4MB - /	75
Standard Deviation	1.5%
Flexible IO Tester - Rand Read - Linux AIO - Yes - Yes - 4MB - /	316
Standard Deviation	1.6%
Flexible IO Tester - Rand Read - Linux AIO - Yes - No - 4MB - /	77
Flexible IO Tester - Rand Read - Linux AIO - Yes - No - 4MB - /	323
Standard Deviation	0.5%

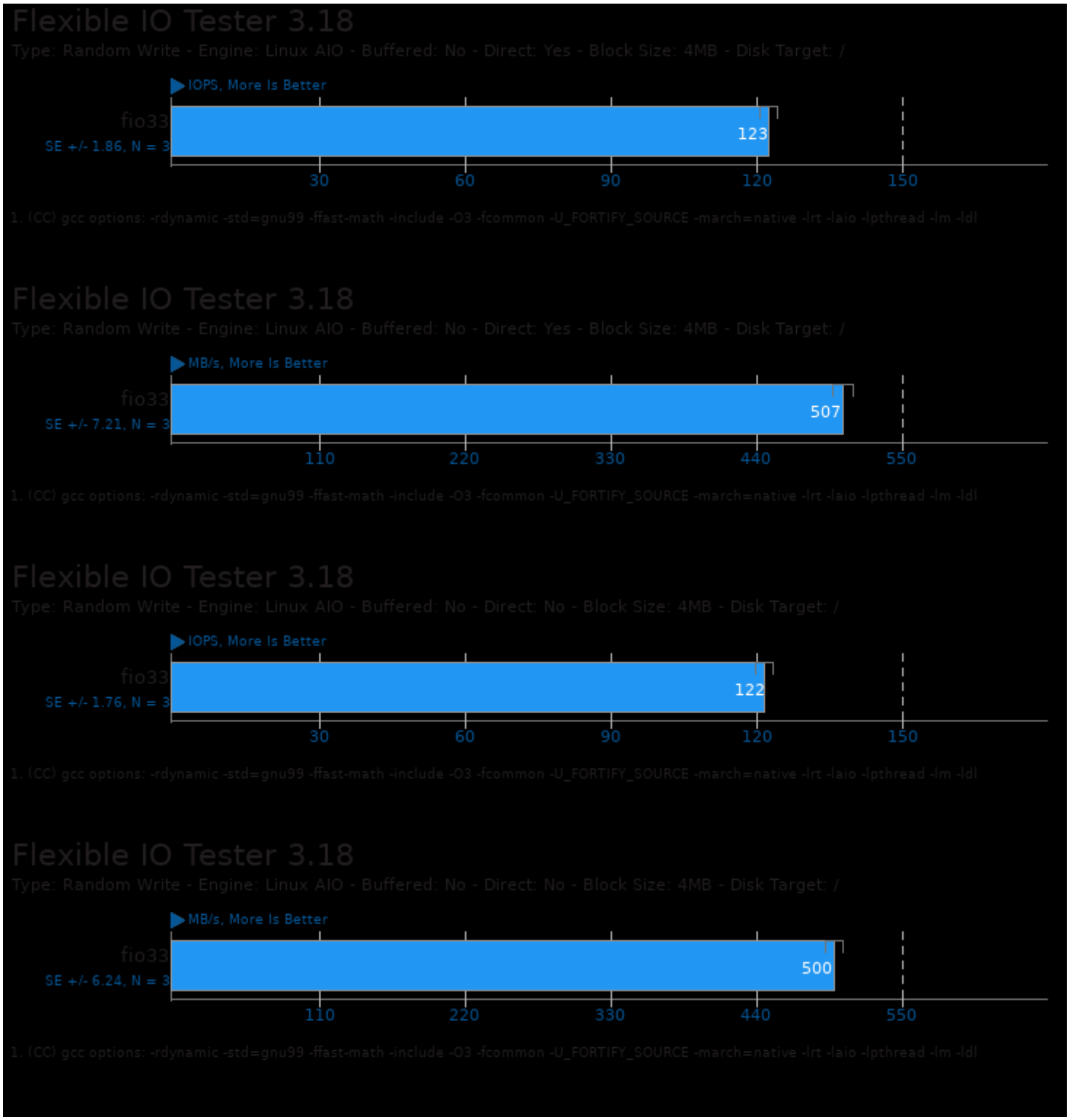
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Flexible IO Tester 3.18
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
SE +/- 1.35, N = 15
121
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
SE +/- 5.30, N = 15
499
110
220
330
440
550
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Write - Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
SE +/- 1.01, N = 10
105
20
40
60
80
100
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Write - Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
SE +/- 3.96, N = 10
436
90
180
270
360
450
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl

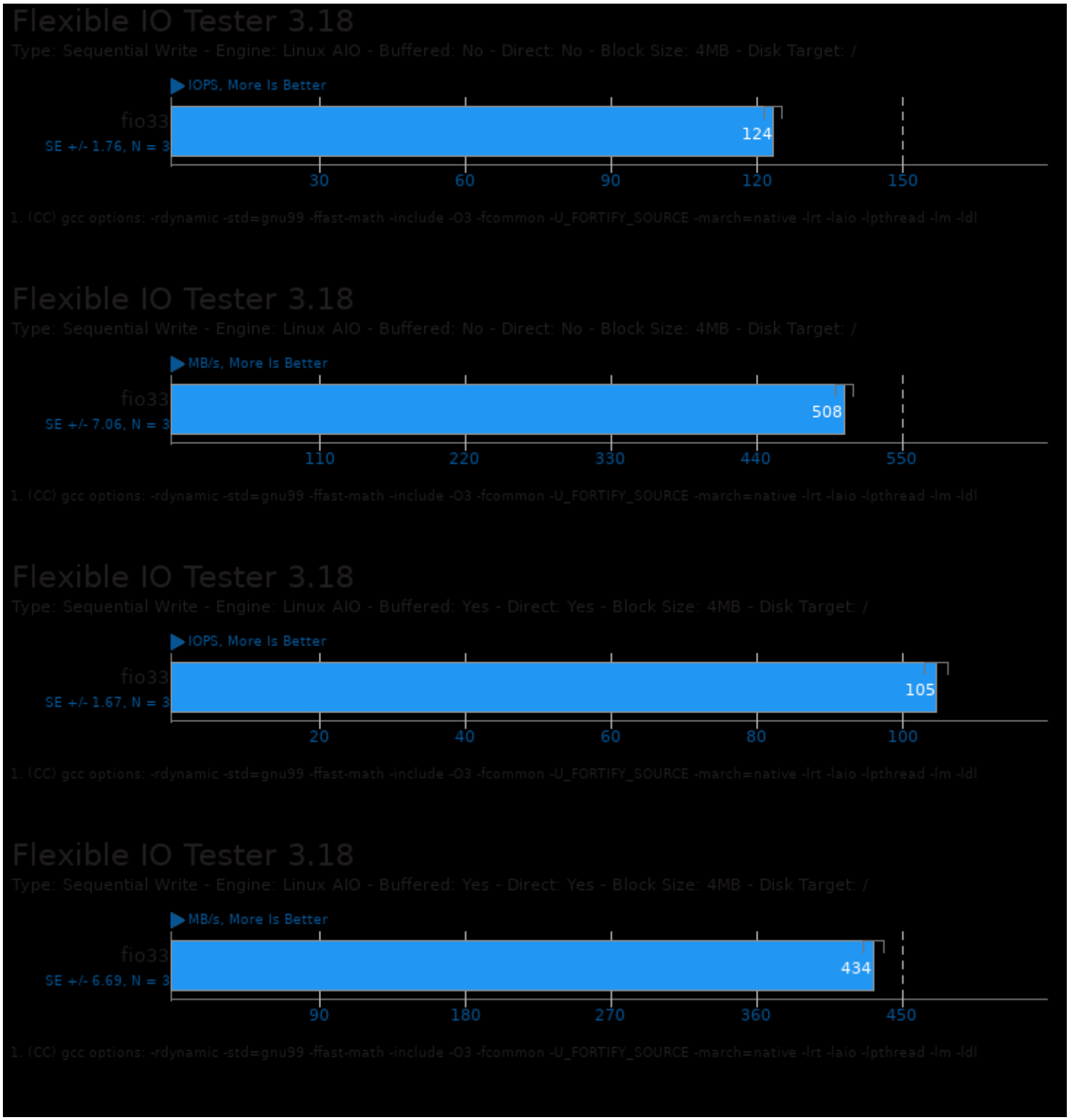
fio33


Flexible IO Tester 3.18
Type: Random Write - Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
SE +/- 1.53, N = 3
111
20
40
60
80
100
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Write - Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
SE +/- 5.51, N = 3
459
100
200
300
400
500
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
134
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
549
120
240
360
480
600
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl

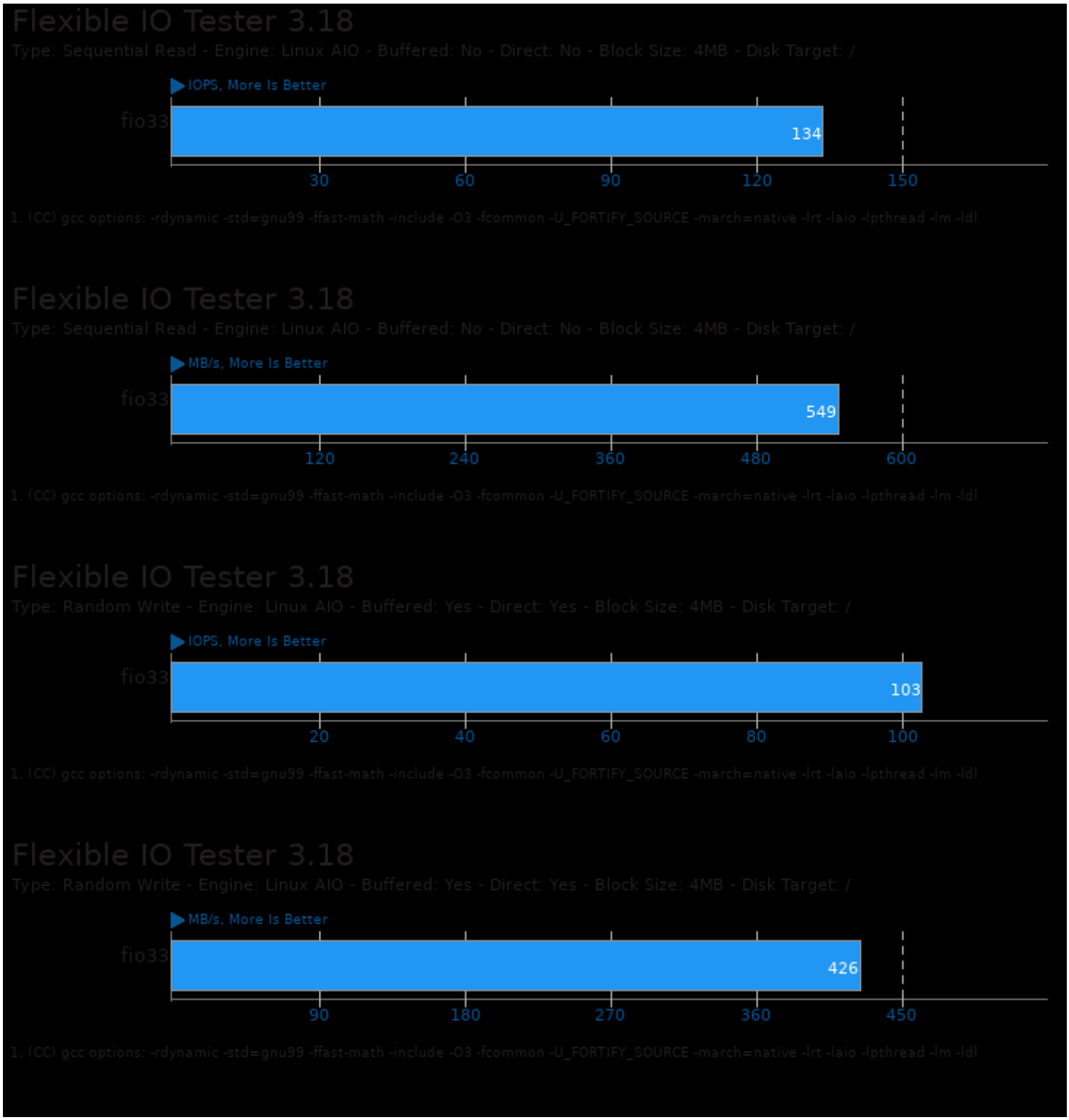
fio33


Flexible IO Tester 3.18
Type: Random Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
SE +/- 1.86, N = 3
123
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
SE +/- 7.21, N = 3
507
110
220
330
440
550
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
SE +/- 1.76, N = 3
122
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
SE +/- 6.24, N = 3
500
110
220
330
440
550
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl

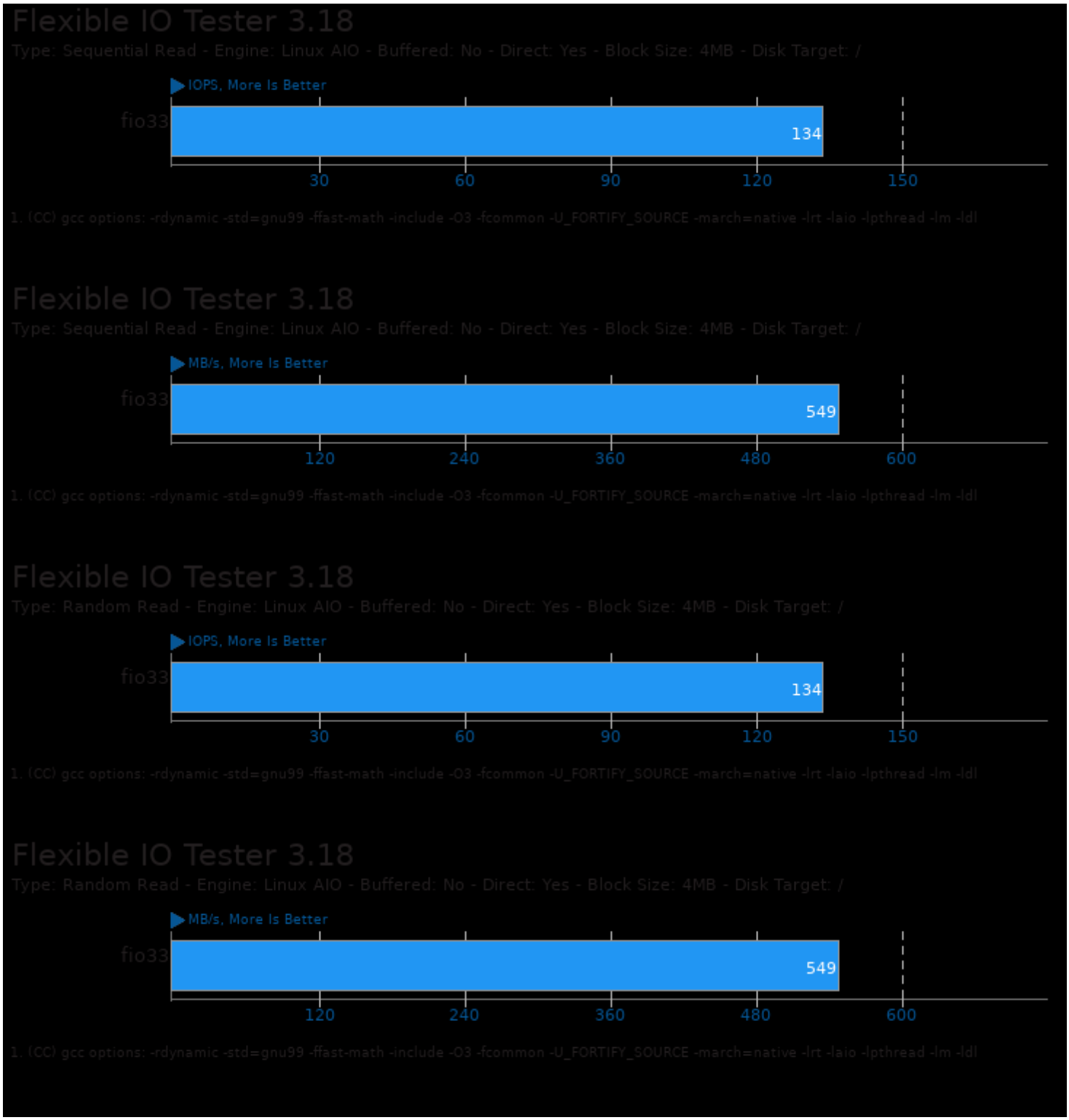
fio33


Flexible IO Tester 3.18
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
SE +/- 1.76, N = 3
124
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
SE +/- 7.06, N = 3
508
110
220
330
440
550
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Write - Engine: Linux AIO - Buffered: Yes - Direct: Yes - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
SE +/- 1.67, N = 3
105
20
40
60
80
100
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Write - Engine: Linux AIO - Buffered: Yes - Direct: Yes - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
SE +/- 6.69, N = 3
434
90
180
270
360
450
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl

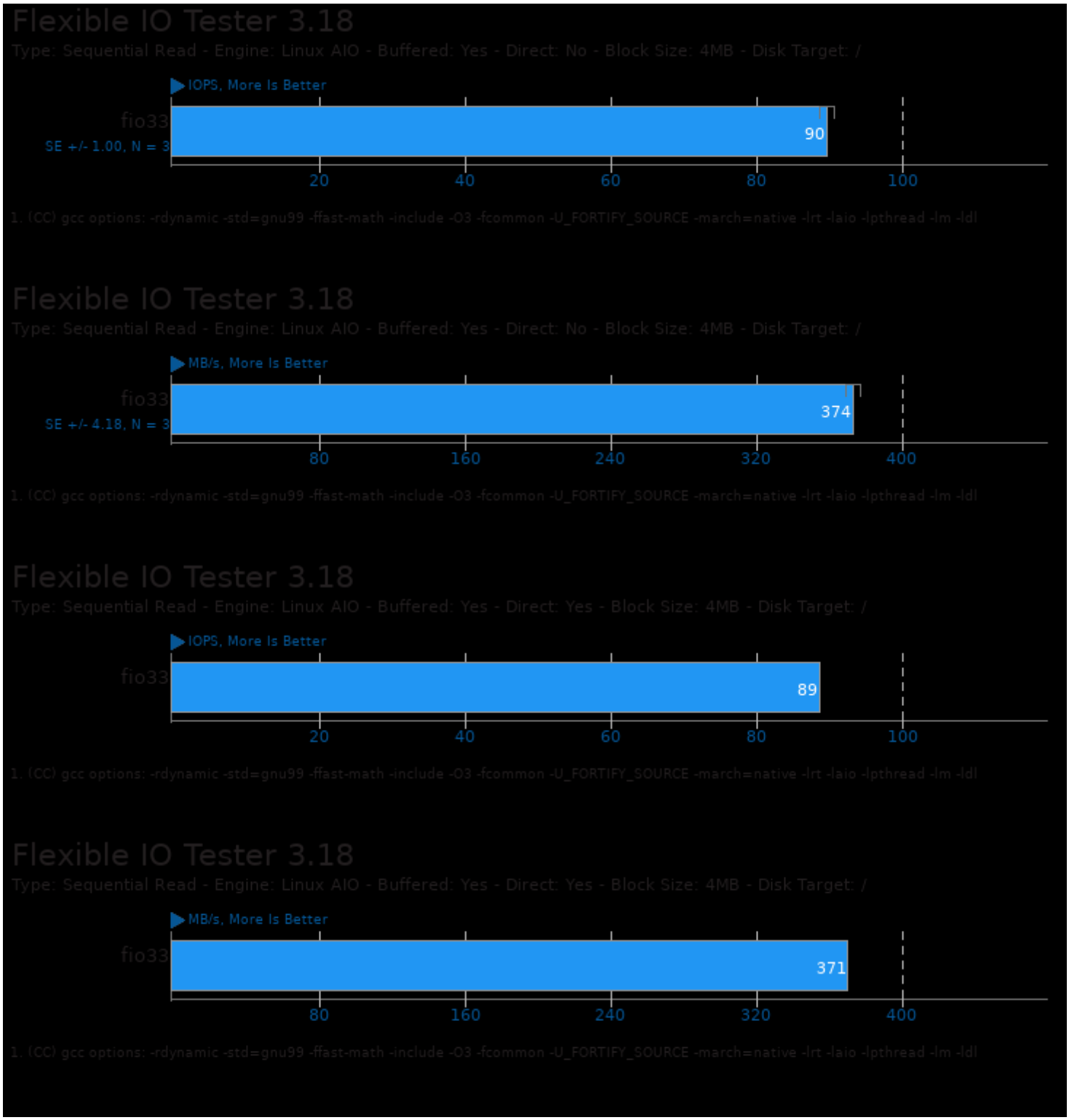
fio33

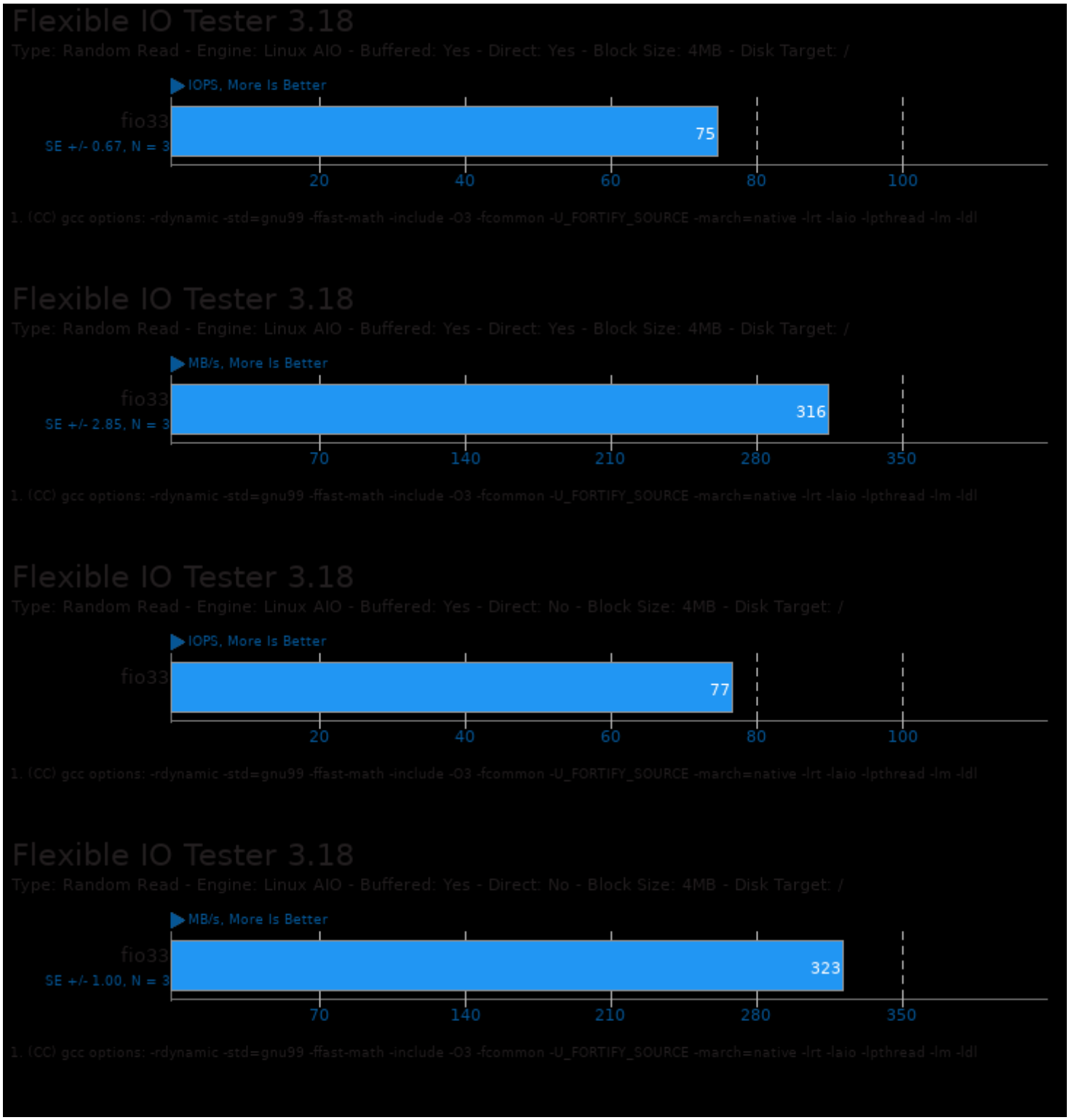

Flexible IO Tester 3.18
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
134
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
549
120
240
360
480
600
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Write - Engine: Linux AIO - Buffered: Yes - Direct: Yes - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
103
20
40
60
80
100
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Write - Engine: Linux AIO - Buffered: Yes - Direct: Yes - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
426
90
180
270
360
450
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl

fio33


Flexible IO Tester 3.18
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
134
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
549
120
240
360
480
600
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
134
30
60
90
120
150
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Random Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
549
120
240
360
480
600
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl

fio33


Flexible IO Tester 3.18
Type: Sequential Read - Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
SE +/- 1.00, N = 3
90
20
40
60
80
100
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Read - Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
SE +/- 4.18, N = 3
374
80
160
240
320
400
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Read - Engine: Linux AIO - Buffered: Yes - Direct: Yes - Block Size: 4MB - Disk Target: /
IOPS, More Is Better
fio33
89
20
40
60
80
100
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl
Flexible IO Tester 3.18
Type: Sequential Read - Engine: Linux AIO - Buffered: Yes - Direct: Yes - Block Size: 4MB - Disk Target: /
MB/s, More Is Better
fio33
371
80
160
240
320
400
1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lpthread -lm -ldl



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 17:54.