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bulldozer

AMD FX -8150 Eight-Core testing with a ASUS SABERTOOTH 990FX and NVIDIA GeForce 8800 GT 512MB on Gentoo Base release 2.1 via the Phoronix Test Suite.

Automated Executive Summary

messina had the most wins, coming in first place for 96% of the tests.

Based on the geometric mean of all complete results, the fastest (messina) was 1.414x the speed of the slowest (bulldozer).

The results with the greatest spread from best to worst included:

TSCP (AI Chess Performance) at 2.152x
Apache Benchmark (Static Web Page Serving) at 2.138x
NAS Parallel Benchmarks (Test / Class: IS.C) at 2.126x
Himeno Benchmark (Poisson Pressure Solver) at 2.102x
LAME MP3 Encoding (WAV To MP3) at 1.861x
Tachyon (Total Time) at 1.771x
Timed MAFFT Alignment (Multiple Sequence Alignment) at 1.757x
Crafty (Elapsed Time) at 1.711x
FLAC Audio Encoding (WAV To FLAC) at 1.698x

OpenSSL (RSA 4096-bit Performance) at 1.688x.

Test Systems:

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Processor: AMD FX -8150 Eight-Core @ 3.61GHz (8 Cores), Motherboard: ASUS SABERTOOTH 990FX, Memory: 4096MB, Disk: 300GB Western Digital WDC WD3000GLFS-0 + 500GB MAXTOR STM350032, Graphics: NVIDIA GeForce 8800 GT 512MB (660/950MHz), Network: Realtek RTL8111/8168B

OS: Gentoo Base release 2.1, Kernel: 3.0.6-gentoo (x86_64), Desktop: KDE 4.7.2, Display Server: X Server 1.10.4, Display Driver: NVIDIA 285.05.09, OpenGL: 3.3.0 NVIDIA 285.05.09, Compiler: GCC 4.5.3, File-System: ext4, Screen Resolution: 1680x1050

messina

Processor: Intel Core i7-2600K @ 3.40GHz (8 Cores), Motherboard: ASUS P8P67, Chipset: Intel 2nd Generation Core Family, Memory: 8192MB, Disk: 2 x 37GB Western Digital WDC WD360GD-00FN + 500GB Seagate ST3500630AS, Graphics: NVIDIA GeForce GTS 450 1024MB (811/1804MHz), Audio: Realtek ALC892, Network: Realtek RTL8111/8168B

OS: SUSE LINUX 11.4, Kernel: 2.6.37.6-0.5-desktop (x86_64), Desktop: KDE 4.6.00, Display Server: X Server 1.9.3, Display Driver: NVIDIA 270.26, OpenGL: 4.1.0 NVIDIA 270.26, Compiler: GCC 4.5, File-System: ext3, Screen Resolution: 3286x1200

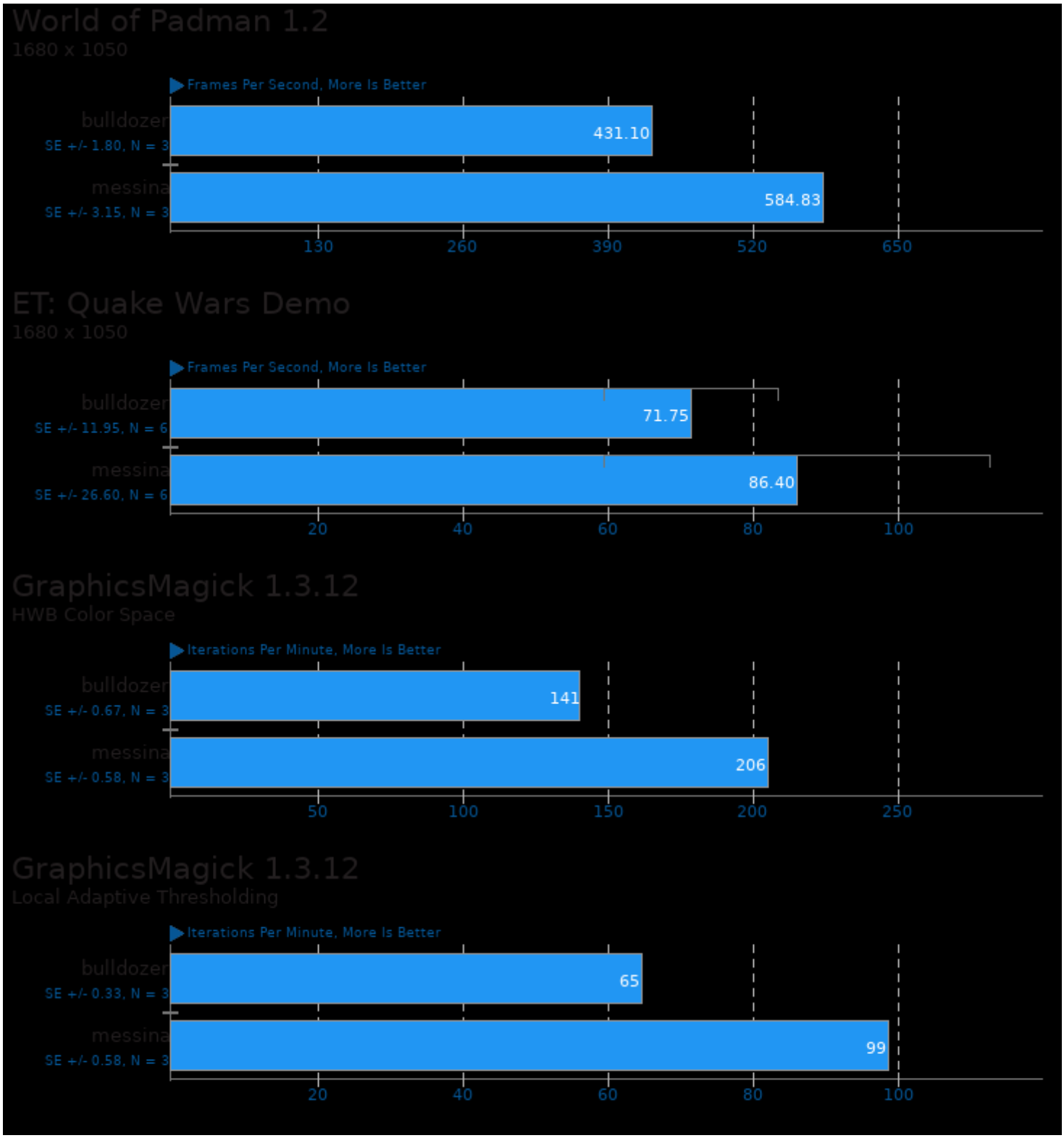
System Notes: Intel SpeedStep was enabled.

	bulldozer	messina
World of Padman - 1680 x 1050 (FPS)	**431.10**	**584.83**
Normalized	73.71%	100%
Standard Deviation	0.7%	0.9%
ET: Quake Wars Demo - 1680 x 1050 (FPS)	**71.75**	**86.40**
Normalized	83.04%	100%
Standard Deviation	40.8%	75.4%
GraphicsMagick - HWB Color Space (Iterations/min)	**141**	**206**
Normalized	68.45%	100%
Standard Deviation	0.8%	0.5%
GraphicsMagick - L.A.T (Iterations/min)	**65**	**99**
Normalized	65.66%	100%
Standard Deviation	0.9%	1%
GraphicsMagick - Resizing (Iterations/min)	**120**	**182**

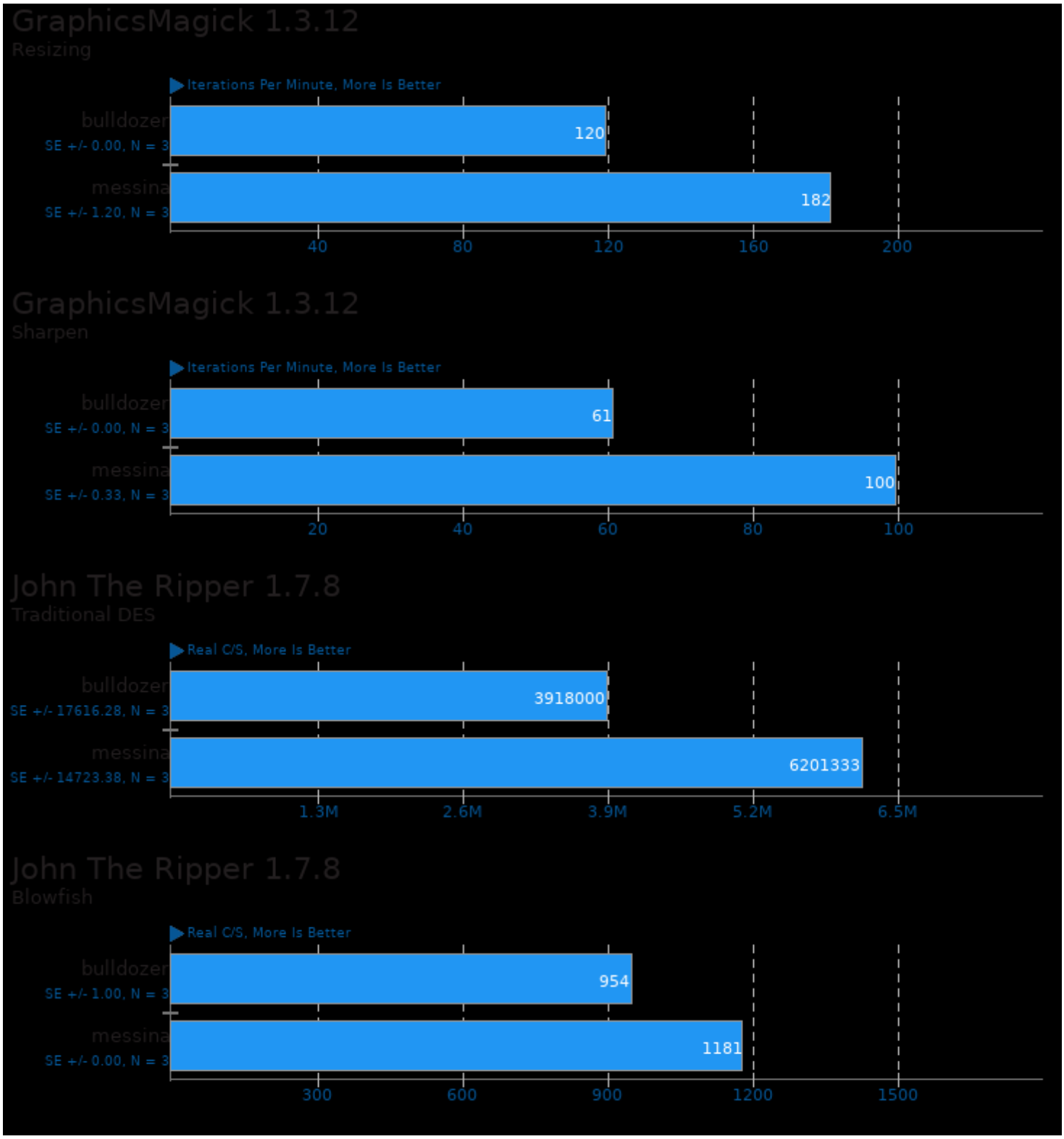
Normalized	65.93%	100%
Standard Deviation	0%	1.1%
GraphicsMagick - Sharpen (Iterations/min)	**61**	**100**
Normalized	61%	100%
Standard Deviation	0%	0.6%
John The Ripper - Traditional DES (Real C/S)	**3918000**	**6201333**
Normalized	63.18%	100%
Standard Deviation	0.8%	0.4%
John The Ripper - Blowfish (Real C/S)	**954**	**1181**
Normalized	80.78%	100%
Standard Deviation	0.2%	0%
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)	**116.06**	**164.11**
Normalized	70.72%	100%
Standard Deviation	0.9%	12.7%
Parallel BZIP2 Compression - 2.F.C (sec)	**8.72**	**6.85**
Normalized	78.56%	100%
Standard Deviation	1.3%	5.1%
7-Zip Compression - C.S.T (MIPS)	**18209**	**23956**
Normalized	76.01%	100%
Standard Deviation	0.3%	1.6%
LAME MP3 Encoding - WAV To MP3 (sec)	**26.74**	**14.37**
Normalized	53.74%	100%
Standard Deviation	0.6%	0.5%
FLAC Audio Encoding - WAV To FLAC (sec)	**8.25**	**4.86**
Normalized	58.91%	100%
Standard Deviation	0.2%	1.7%
FFmpeg - AVI To NTSC VCD (sec)	**9.98**	**6.47**
Normalized	64.83%	100%
Standard Deviation	1.2%	3.4%
OpenSSL - R.4.b.P (Signs/sec)	**68.68**	**115.93**
Normalized	59.24%	100%
Standard Deviation	0.9%	0.1%
Gcrypt Library - C.E.C (us)	**2807**	**1777**
Normalized	63.31%	100%
Standard Deviation	1%	0.3%
Himeno Benchmark - P.P.S (MFLOPS)	**237.28**	**498.71**
Normalized	47.58%	100%
Standard Deviation	0.2%	0.7%
PostgreSQL pgbench - T.B.T.P.S (TPS)	**370.12**	**103.29**
Normalized	100%	27.91%
Standard Deviation	0.1%	16.9%
Apache Benchmark - S.W.P.S (Reqs/sec)	**17850**	**38154**
Normalized	46.78%	100%
Standard Deviation	0.5%	1.8%
C-Ray - Total Time (sec)	**51.07**	**43.34**
Normalized	84.86%	100%
Standard Deviation	0.1%	0%
Smallpt - G.I.R.1.S (sec)	**104**	**73**
Normalized	70.19%	100%
Standard Deviation	0.6%	1.4%
Tachyon - Total Time (sec)	**21.11**	**11.92**
Normalized	56.47%	100%
Standard Deviation	0.6%	0.9%
Crafty - Elapsed Time (sec)	**426.11**	**249.10**
Normalized	58.46%	100%

Standard Deviation	0.8%	0.4%
TSCP - A.C.P (Nodes/s)	**322772**	**694726**
Normalized	46.46%	100%
Standard Deviation	0.1%	0.2%
Timed MAFFT Alignment - M.S.A (sec)	**26.37**	**15.01**
Normalized	56.92%	100%
Standard Deviation	0.2%	1.1%
NAS Parallel Benchmarks - EP.B (Mop/s)	151.52	
Standard Deviation	2%	
NAS Parallel Benchmarks - IS.C (Mop/s)	**111.59**	**237.19**
Normalized	47.05%	100%
Standard Deviation	0%	1%
NAS Parallel Benchmarks - LU.A (Mop/s)	11771	
Standard Deviation	0.7%	
NAS Parallel Benchmarks - MG.B (Mop/s)	5672	
Standard Deviation	0.5%	
NAS Parallel Benchmarks - UA.A (Mop/s)	39.95	
Standard Deviation	1.2%	
Stream - Copy (MB/s)	**12128**	**12197**
Normalized	99.44%	100%
Standard Deviation	0.5%	17.3%
Stream - Scale (MB/s)	**11667**	**11787**
Normalized	98.98%	100%
Standard Deviation	0.9%	18.9%
Stream - Add (MB/s)	**11774**	**12732**
Normalized	92.47%	100%
Standard Deviation	0.1%	19.1%
Stream - Triad (MB/s)	**12190**	**12994**
Normalized	93.81%	100%
Standard Deviation	0.2%	19.2%

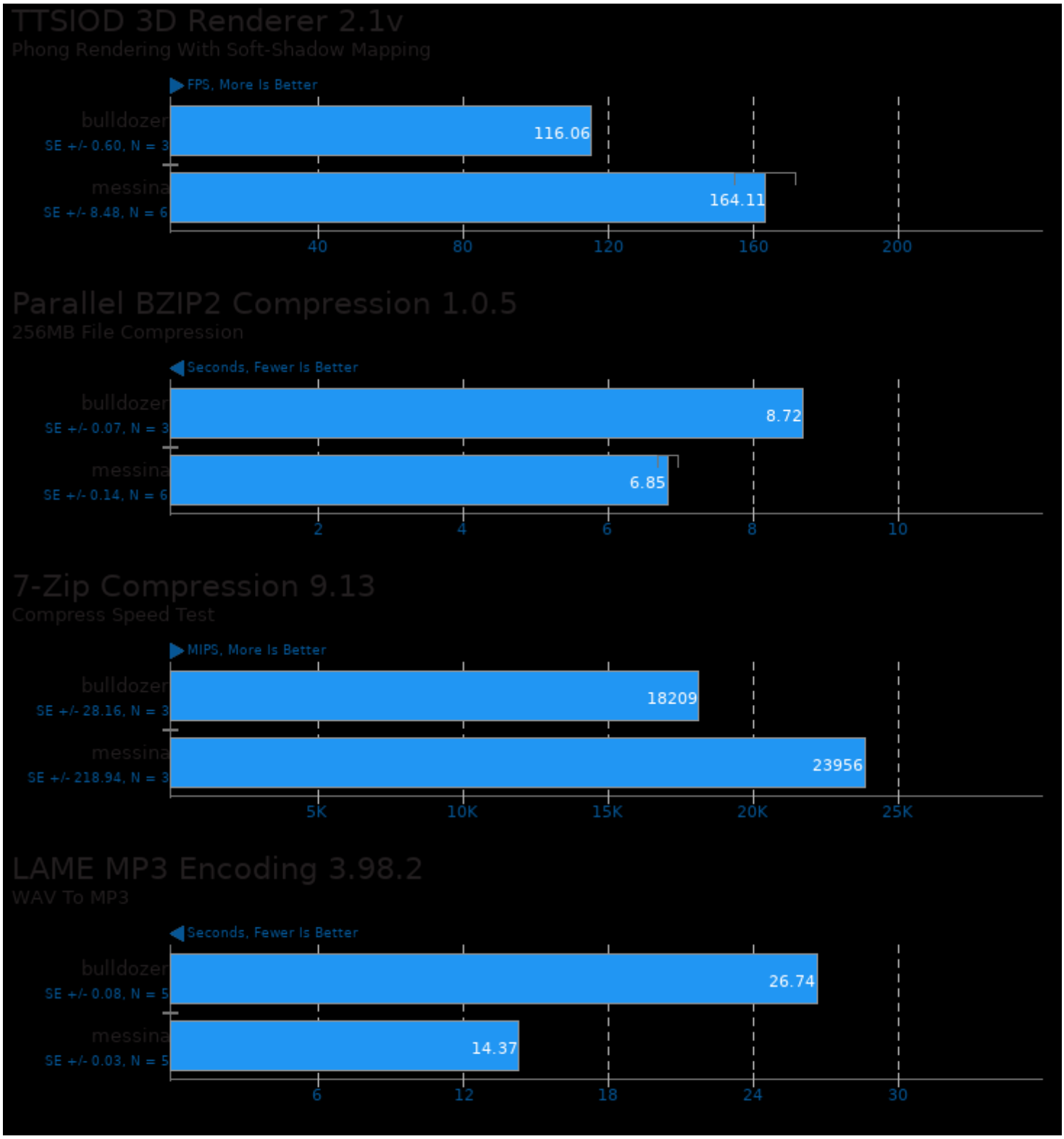
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World of Padman 1.2
1680 x 1050
Frames Per Second, More Is Better
bulldozer
SE +/- 1.80, N = 3
431.10
messina
SE +/- 3.15, N = 3
584.83
130
260
390
520
650
ET: Quake Wars Demo
1680 x 1050
Frames Per Second, More Is Better
bulldozer
SE +/- 11.95, N = 6
71.75
messina
SE +/- 26.60, N = 6
86.40
20
40
60
80
100
GraphicsMagick 1.3.12
HWB Color Space
Iterations Per Minute, More Is Better
bulldozer
SE +/- 0.67, N = 3
141
messina
SE +/- 0.58, N = 3
206
50
100
150
200
250
GraphicsMagick 1.3.12
Local Adaptive Thresholding
Iterations Per Minute, More Is Better
bulldozer
SE +/- 0.33, N = 3
65
messina
SE +/- 0.58, N = 3
99
20
40
60
80
100

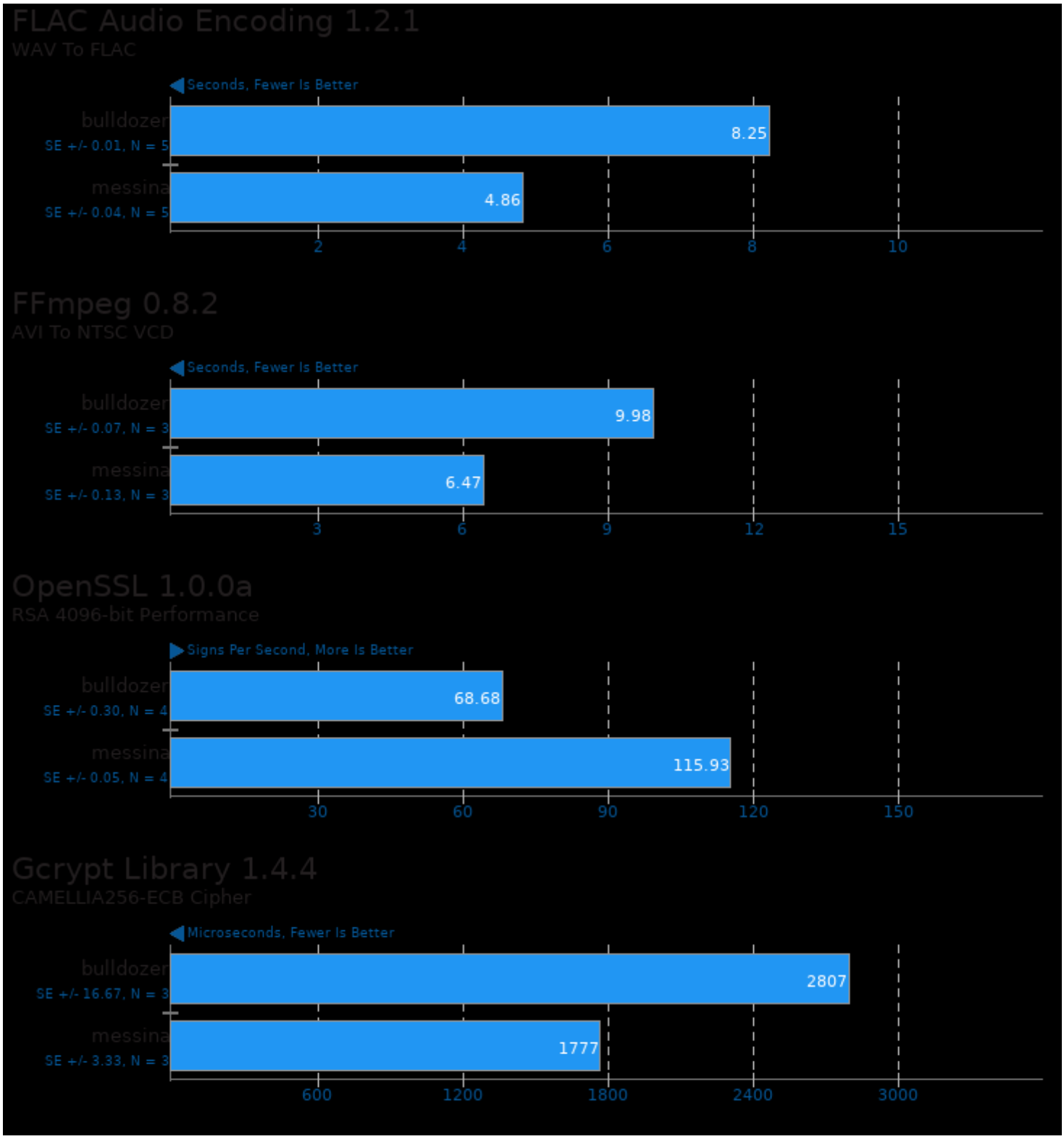
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GraphicsMagick 1.3.12
Resizing
Iterations Per Minute, More Is Better
bulldozer
SE +/- 0.00, N = 3
120
messina
SE +/- 1.20, N = 3
182
40
80
120
160
200
GraphicsMagick 1.3.12
Sharpen
Iterations Per Minute, More Is Better
bulldozer
SE +/- 0.00, N = 3
61
messina
SE +/- 0.33, N = 3
100
20
40
60
80
100
John The Ripper 1.7.8
Traditional DES
Real C/S, More Is Better
bulldozer
SE +/- 17616.28, N = 3
3918000
messina
SE +/- 14723.38, N = 3
6201333
1.3M
2.6M
3.9M
5.2M
6.5M
John The Ripper 1.7.8
Blowfish
Real C/S, More Is Better
bulldozer
SE +/- 1.00, N = 3
954
messina
SE +/- 0.00, N = 3
1181
300
600
900
1200
1500

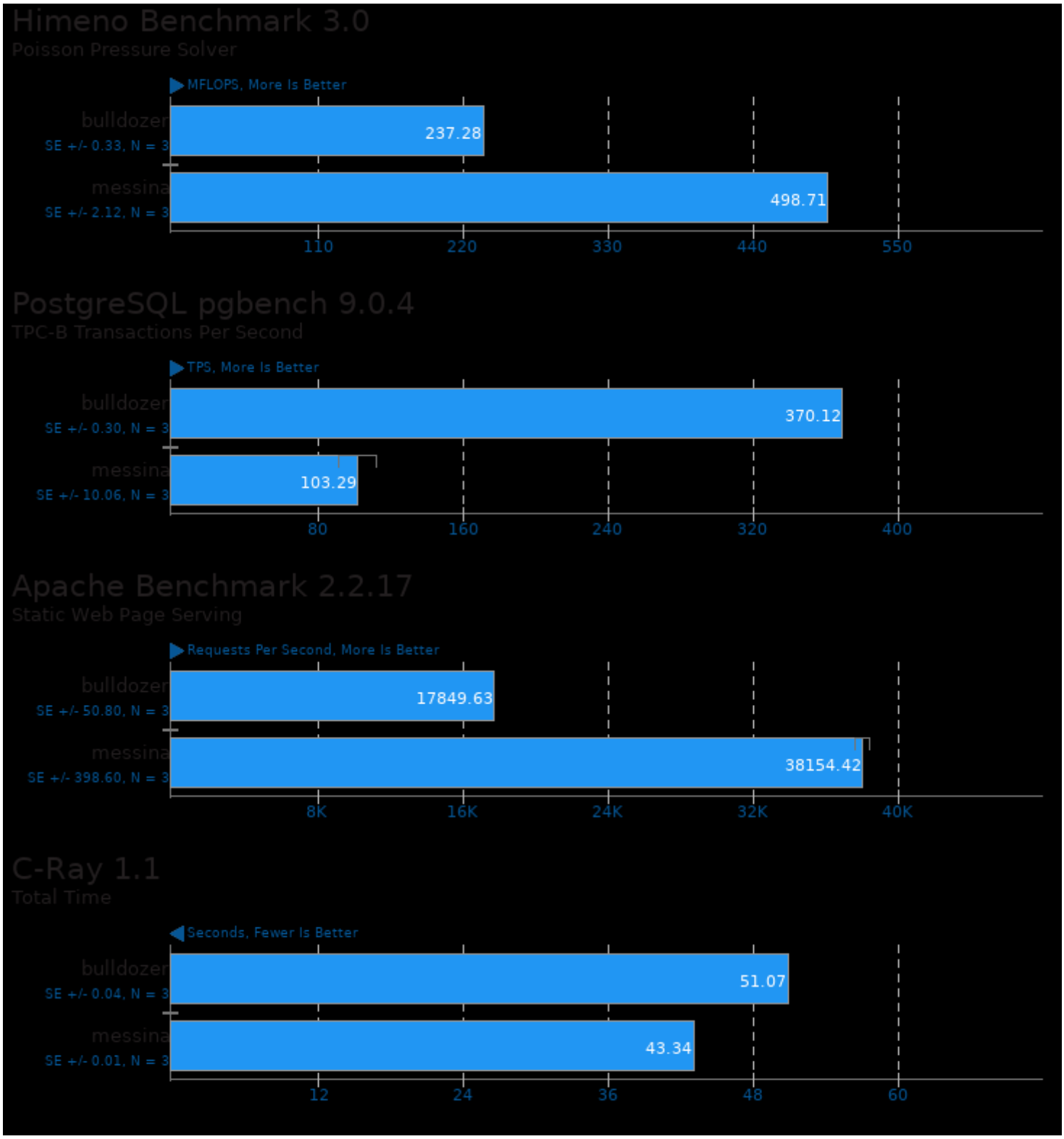
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TTSIOD 3D Renderer 2.1v
Phong Rendering With Soft-Shadow Mapping
FPS, More Is Better
bulldozer
SE +/- 0.60, N = 3
116.06
messina
SE +/- 8.48, N = 6
164.11
40
80
120
160
200
Parallel BZIP2 Compression 1.0.5
256MB File Compression
Seconds, Fewer Is Better
bulldozer
SE +/- 0.07, N = 3
8.72
messina
SE +/- 0.14, N = 6
6.85
2
4
6
8
10
7-Zip Compression 9.13
Compress Speed Test
MIPS, More Is Better
bulldozer
SE +/- 28.16, N = 3
18209
messina
SE +/- 218.94, N = 3
23956
5K
10K
15K
20K
25K
LAME MP3 Encoding 3.98.2
WAV To MP3
Seconds, Fewer Is Better
bulldozer
SE +/- 0.08, N = 5
26.74
messina
SE +/- 0.03, N = 5
14.37
6
12
18
24
30

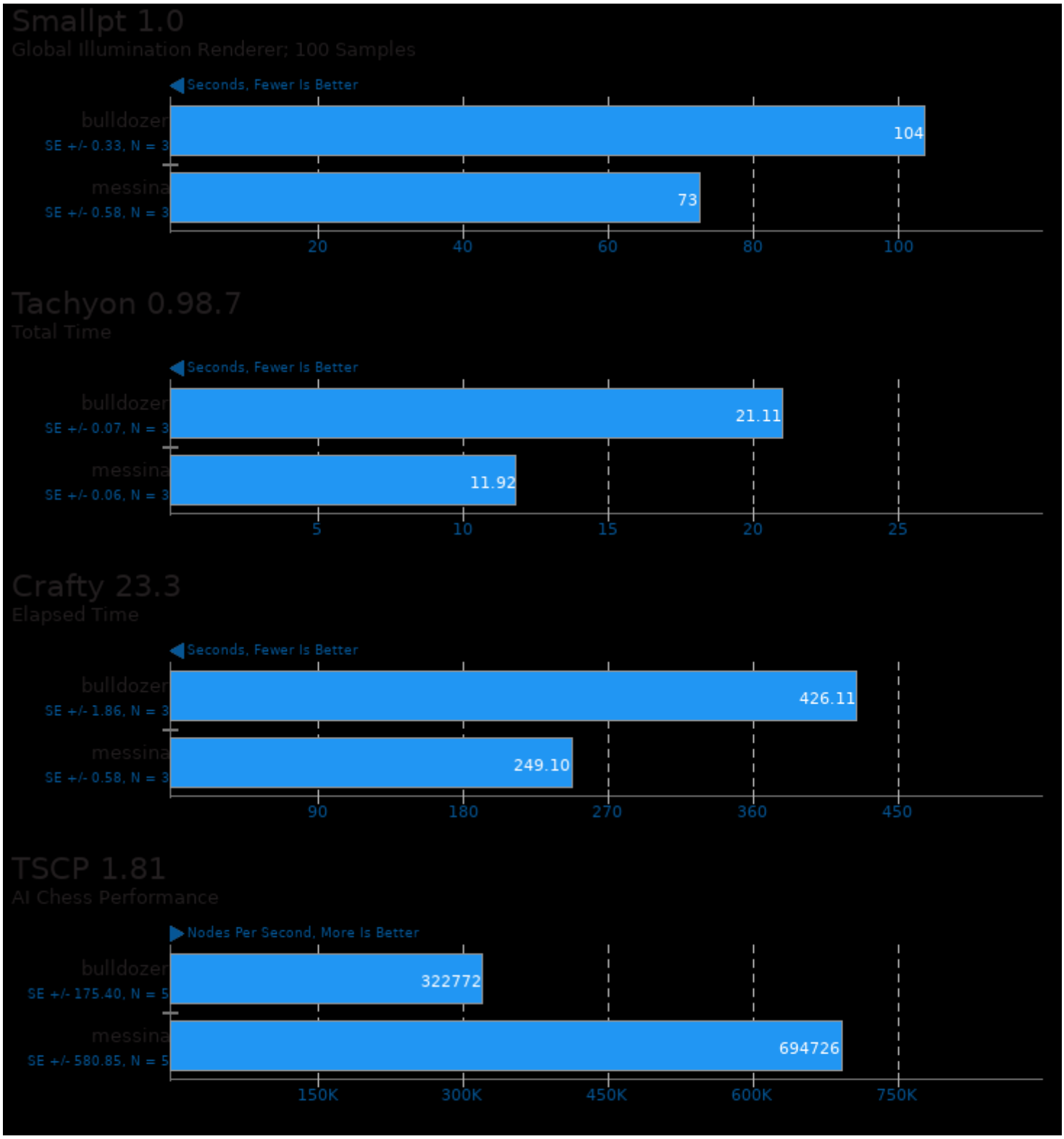
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FLAC Audio Encoding 1.2.1
WAV To FLAC
Seconds, Fewer Is Better
bulldozer
SE +/- 0.01, N = 5
8.25
messina
SE +/- 0.04, N = 5
4.86
2
4
6
8
10
FFmpeg 0.8.2
AVI To NTSC VCD
Seconds, Fewer Is Better
bulldozer
SE +/- 0.07, N = 3
9.98
messina
SE +/- 0.13, N = 3
6.47
3
6
9
12
15
OpenSSL 1.0.0a
RSA 4096-bit Performance
Signs Per Second, More Is Better
bulldozer
SE +/- 0.30, N = 4
68.68
messina
SE +/- 0.05, N = 4
115.93
30
60
90
120
150
Gcrypt Library 1.4.4
CAMELLIA256-ECB Cipher
Microseconds, Fewer Is Better
bulldozer
SE +/- 16.67, N = 3
2807
messina
SE +/- 3.33, N = 3
1777
600
1200
1800
2400
3000

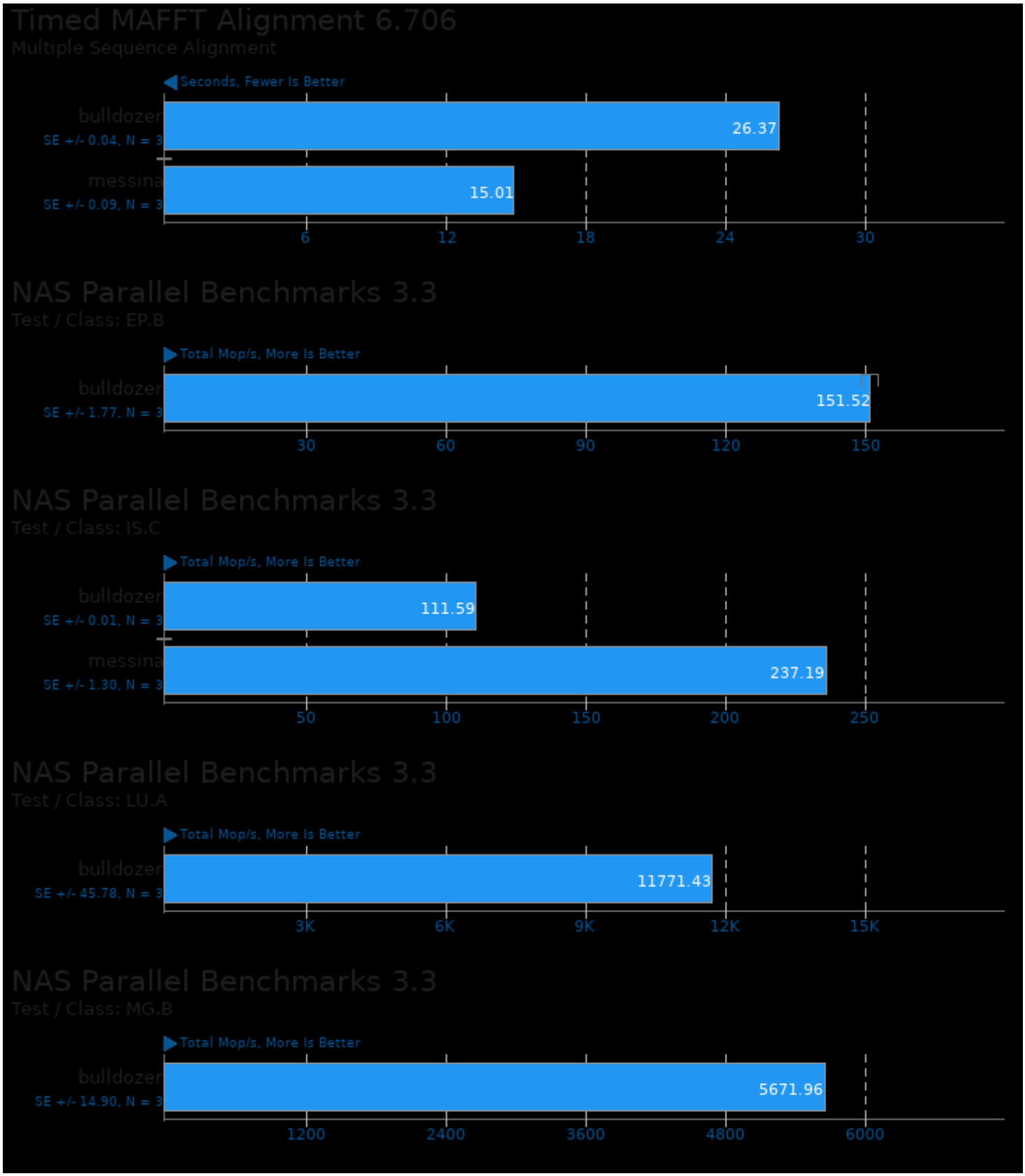
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Himeno Benchmark 3.0
Poisson Pressure Solver
MFLOPS, More Is Better
bulldozer
SE +/- 0.33, N = 3
237.28
messina
SE +/- 2.12, N = 3
498.71
110
220
330
440
550
PostgreSQL pgbench 9.0.4
TPC-B Transactions Per Second
TPS, More Is Better
bulldozer
SE +/- 0.30, N = 3
370.12
messina
SE +/- 10.06, N = 3
103.29
80
160
240
320
400
Apache Benchmark 2.2.17
Static Web Page Serving
Requests Per Second, More Is Better
bulldozer
SE +/- 50.80, N = 3
17849.63
messina
SE +/- 398.60, N = 3
38154.42
8K
16K
24K
32K
40K
C-Ray 1.1
Total Time
Seconds, Fewer Is Better
bulldozer
SE +/- 0.04, N = 3
51.07
messina
SE +/- 0.01, N = 3
43.34
12
24
36
48
60

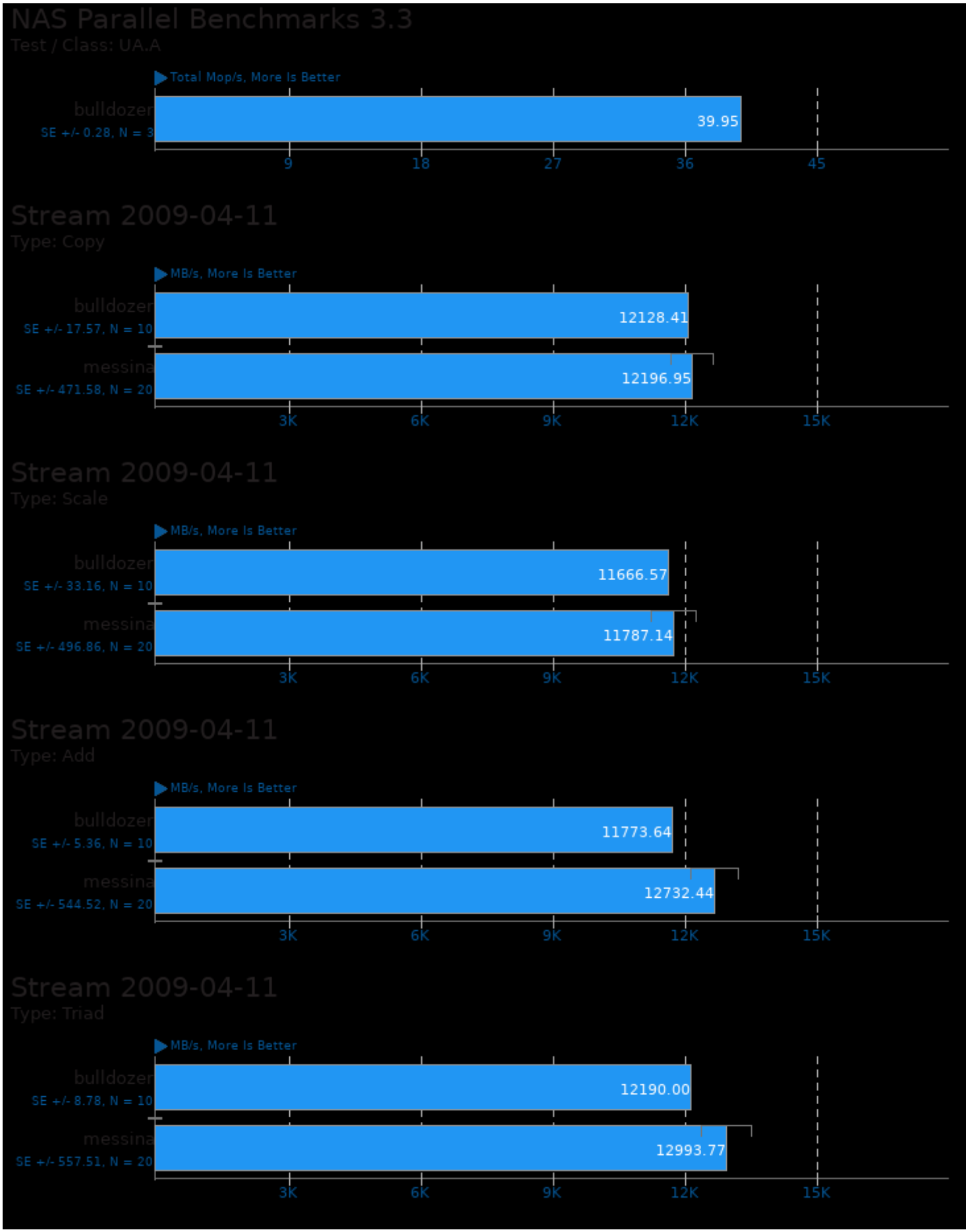
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Smallpt 1.0
Global Illumination Renderer; 100 Samples
Seconds, Fewer Is Better
bulldozer
SE +/- 0.33, N = 3
104
messina
SE +/- 0.58, N = 3
73
20
40
60
80
100
Tachyon 0.98.7
Total Time
Seconds, Fewer Is Better
bulldozer
SE +/- 0.07, N = 3
21.11
messina
SE +/- 0.06, N = 3
11.92
5
10
15
20
25
Crafty 23.3
Elapsed Time
Seconds, Fewer Is Better
bulldozer
SE +/- 1.86, N = 3
426.11
messina
SE +/- 0.58, N = 3
249.10
90
180
270
360
450
TSCP 1.81
AI Chess Performance
Nodes Per Second, More Is Better
bulldozer
SE +/- 175.40, N = 5
322772
messina
SE +/- 580.85, N = 5
694726
150K
300K
450K
600K
750K

bulldozer

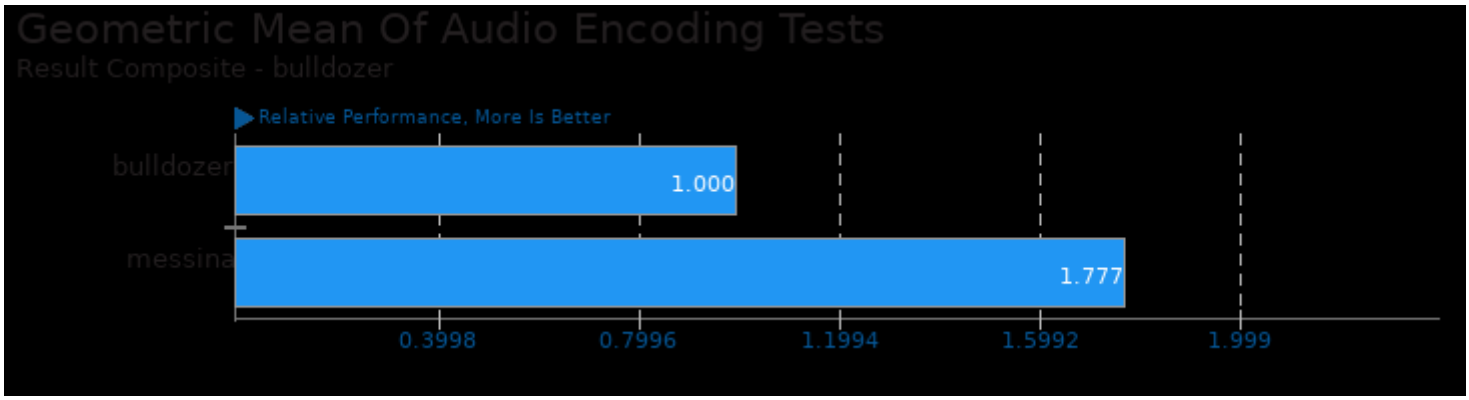

Timed MAFFT Alignment 6.706
Multiple Sequence Alignment
Seconds, Fewer Is Better
bulldozer
SE +/- 0.04, N = 3
26.37
messina
SE +/- 0.09, N = 3
15.01
6
12
18
24
30
NAS Parallel Benchmarks 3.3
Test / Class: EP.B
Total Mop/s, More Is Better
bulldozer
SE +/- 1.77, N = 3
151.52
30
60
90
120
150
NAS Parallel Benchmarks 3.3
Test / Class: IS.C
Total Mop/s, More Is Better
bulldozer
SE +/- 0.01, N = 3
111.59
messina
SE +/- 1.30, N = 3
237.19
50
100
150
200
250
NAS Parallel Benchmarks 3.3
Test / Class: LU.A
Total Mop/s, More Is Better
bulldozer
SE +/- 45.78, N = 3
11771.43
3K
6K
9K
12K
15K
NAS Parallel Benchmarks 3.3
Test / Class: MG.B
Total Mop/s, More Is Better
bulldozer
SE +/- 14.90, N = 3
5671.96
1200
2400
3600
4800
6000

bulldozer

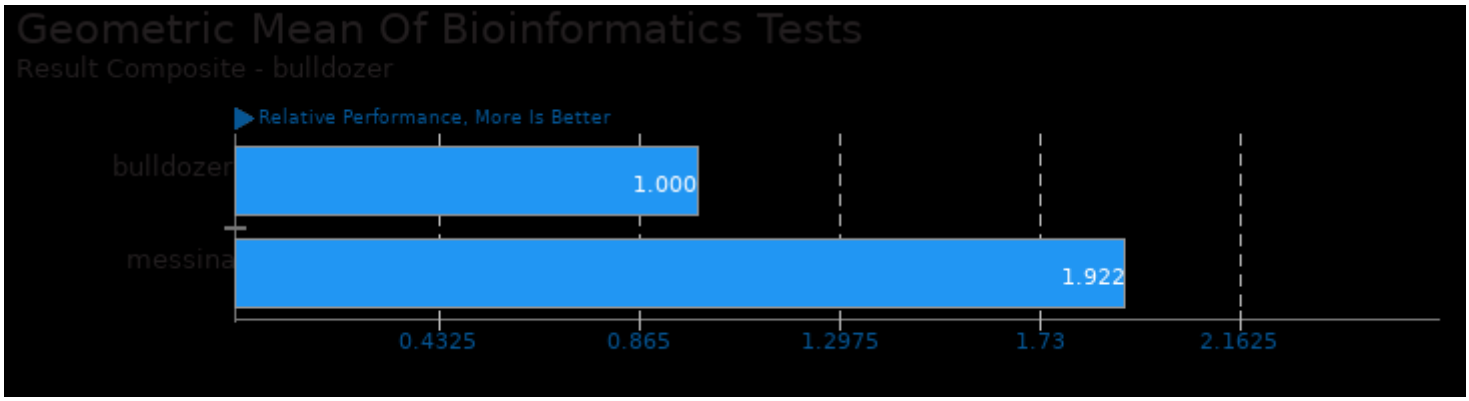

NAS Parallel Benchmarks 3.3
Test / Class: UA.A
Total Mop/s, More Is Better
bulldozer
SE +/- 0.28, N = 3
39.95
9
18
27
36
45
Stream 2009-04-11
Type: Copy
MB/s, More Is Better
bulldozer
SE +/- 17.57, N = 10
12128.41
messina
SE +/- 471.58, N = 20
12196.95
3K
6K
9K
12K
15K
Stream 2009-04-11
Type: Scale
MB/s, More Is Better
bulldozer
SE +/- 33.16, N = 10
11666.57
messina
SE +/- 496.86, N = 20
11787.14
3K
6K
9K
12K
15K
Stream 2009-04-11
Type: Add
MB/s, More Is Better
bulldozer
SE +/- 5.36, N = 10
11773.64
messina
SE +/- 544.52, N = 20
12732.44
3K
6K
9K
12K
15K
Stream 2009-04-11
Type: Triad
MB/s, More Is Better
bulldozer
SE +/- 8.78, N = 10
12190.00
messina
SE +/- 557.51, N = 20
12993.77
3K
6K
9K
12K
15K

bulldozer

These geometric means are based upon test groupings / test suites for this result file.



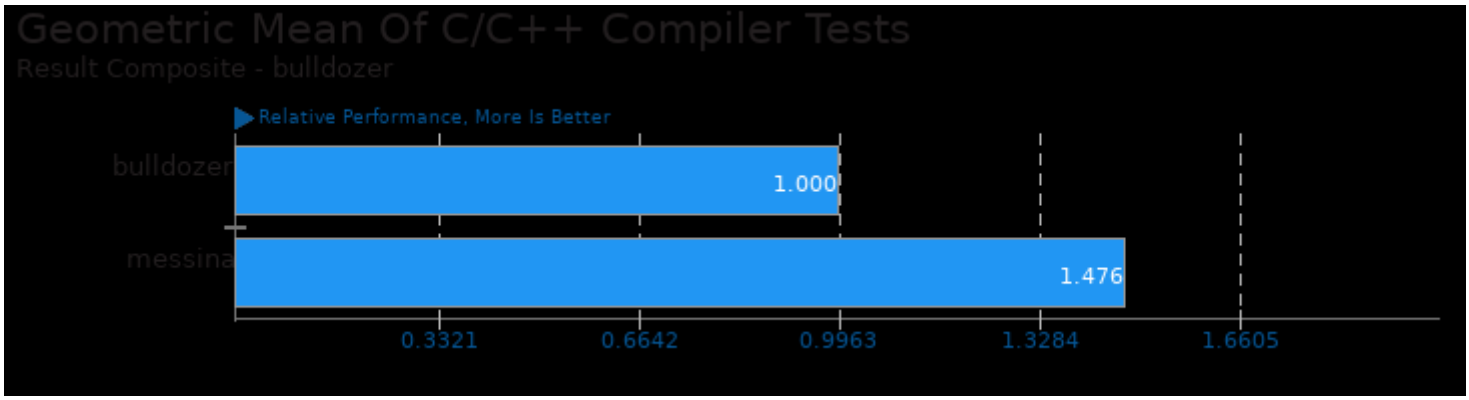
Geometric mean based upon tests: pts/encode-mp3 and pts/encode-flac



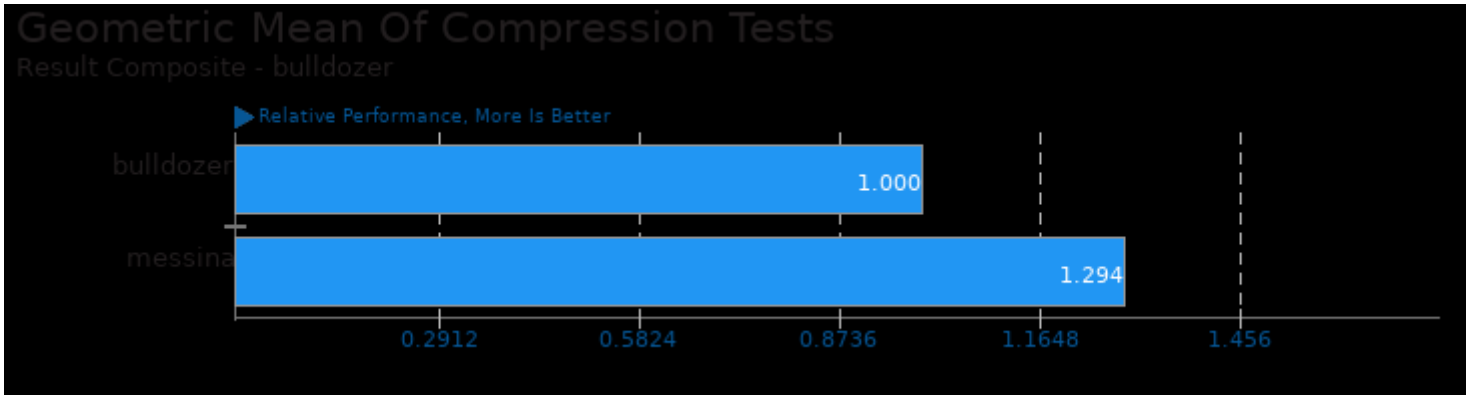
Geometric mean based upon tests: pts/himeno and pts/mafft



Geometric mean based upon tests: pts/crafty and pts/tscp



Geometric mean based upon tests: pts/mafft, pts/tscp, pts/graphics-magick, pts/himeno, pts/c-ray, pts/compress-7zip, pts/encode-mp3, pts/encode-flac, pts/pgbench, pts/apache, pts/john-the-ripper, pts/openssl and pts/tachyon

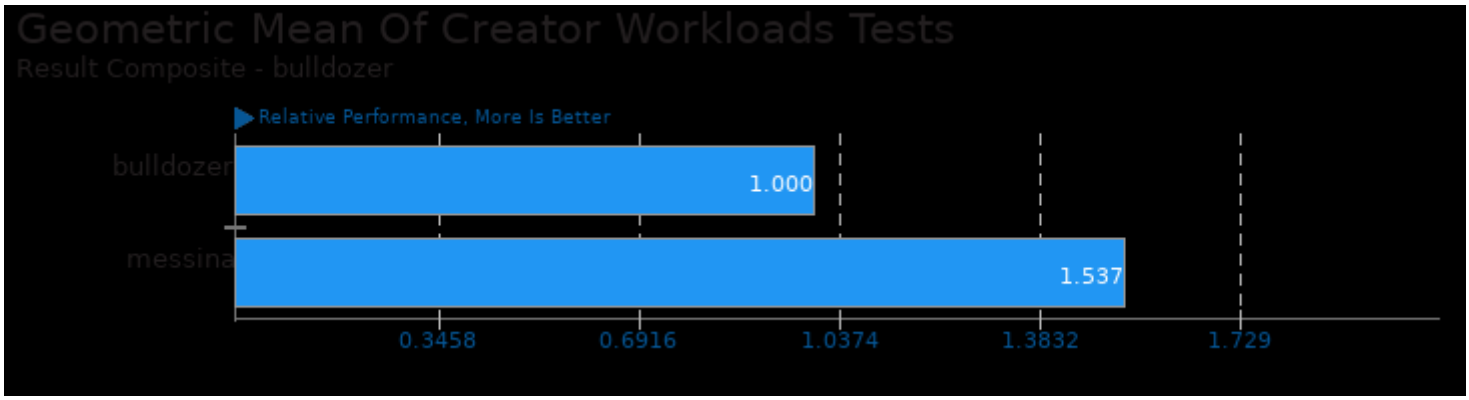


Geometric mean based upon tests: pts/compress-7zip and pts/compress-pbzip2

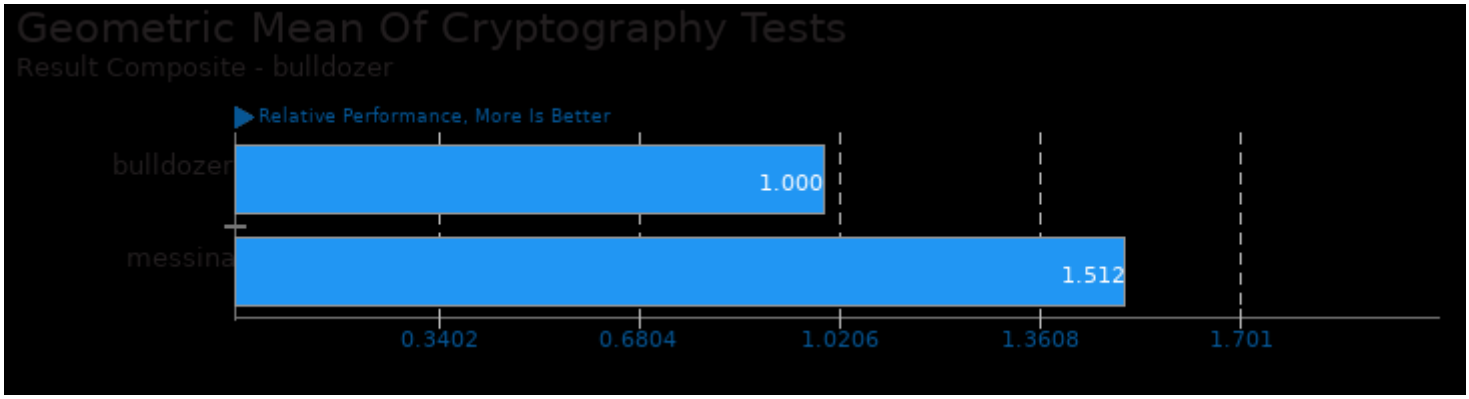


Geometric mean based upon tests: pts/apache, pts/c-ray, pts/compress-7zip, pts/compress-pbzip2, pts/crafty, pts/encode-flac, pts/encode-mp3, pts/graphics-magick, pts/himeno, pts/john-the-ripper, pts/openssl, pts/mafft, pts/npb, pts/pgbench, pts/stream, pts/tachyon and pts/ttsiod-renderer

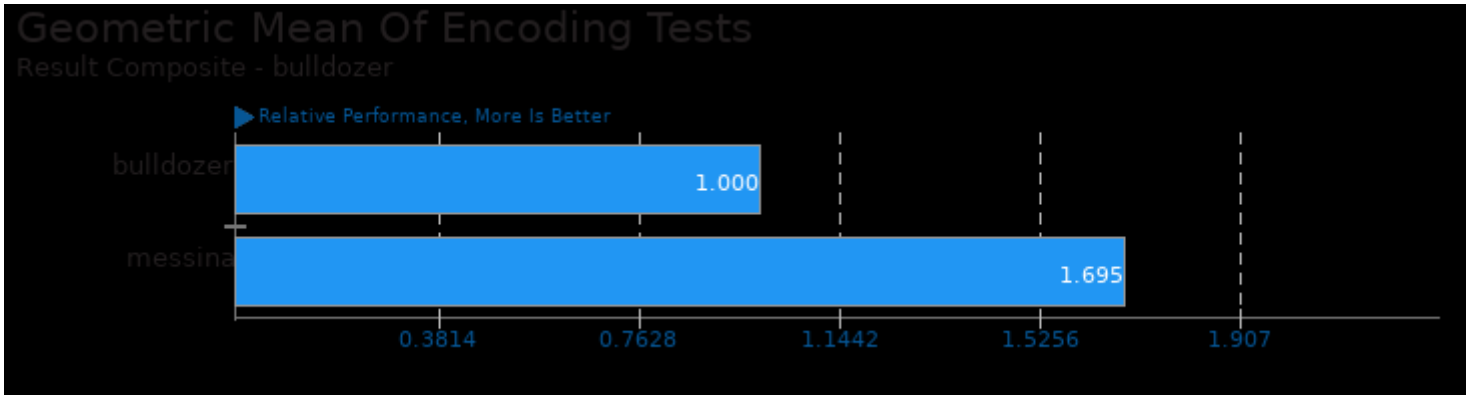
bulldozer



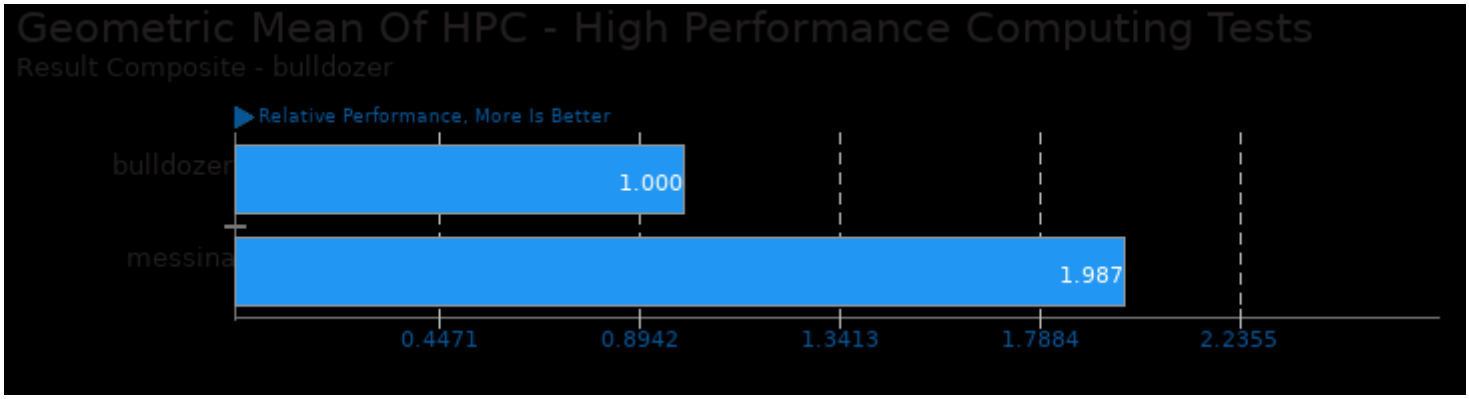
Geometric mean based upon tests: pts/c-ray, pts/tachyon, pts/smallpt, pts/ttsiod-renderer, pts/ffmpeg, pts/encode-mp3, pts/encode-flac and pts/graphics-magick



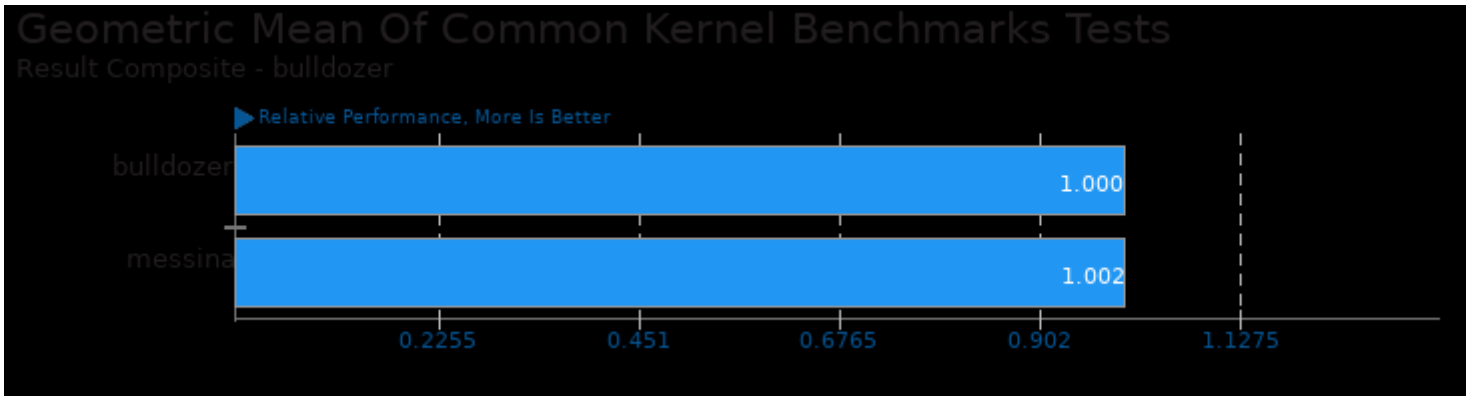
Geometric mean based upon tests: pts/openssl, pts/gcrypt and pts/john-the-ripper



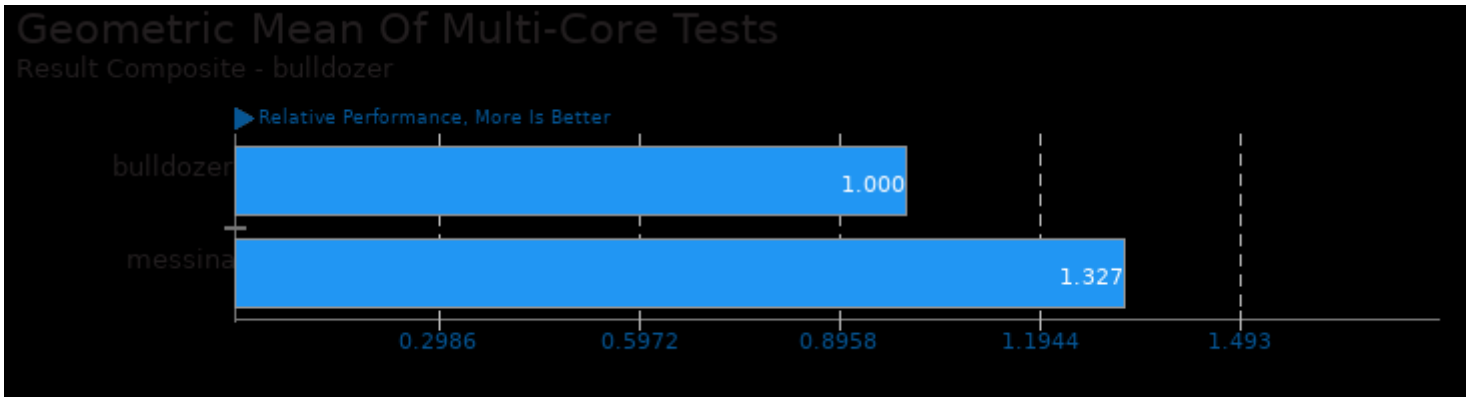
Geometric mean based upon tests: pts/encode-mp3, pts/encode-flac and pts/ffmpeg



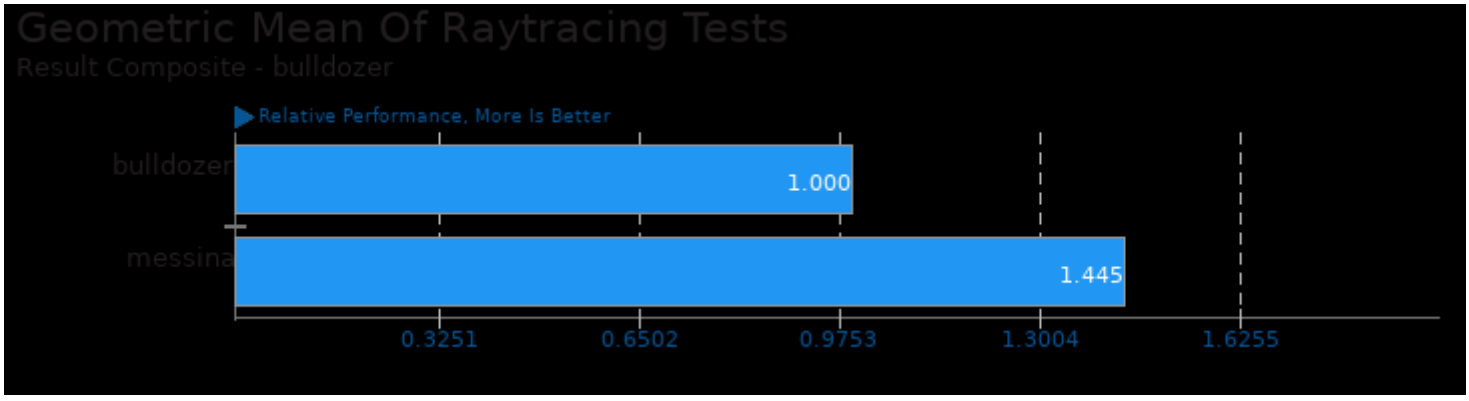
Geometric mean based upon tests: pts/npb, pts/himeno and pts/mafft



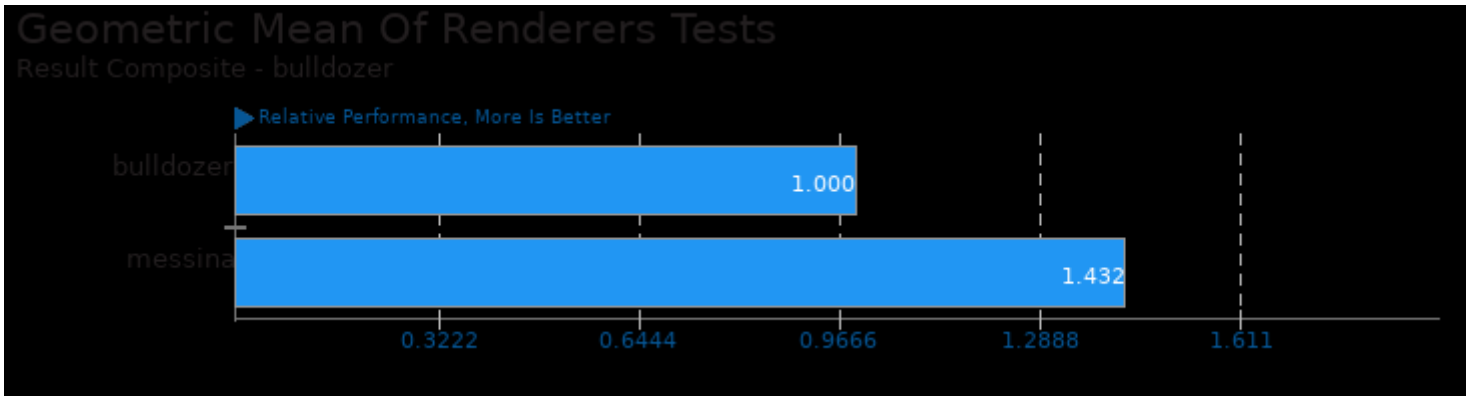
Geometric mean based upon tests: pts/apache, pts/pgbench and pts/openssl



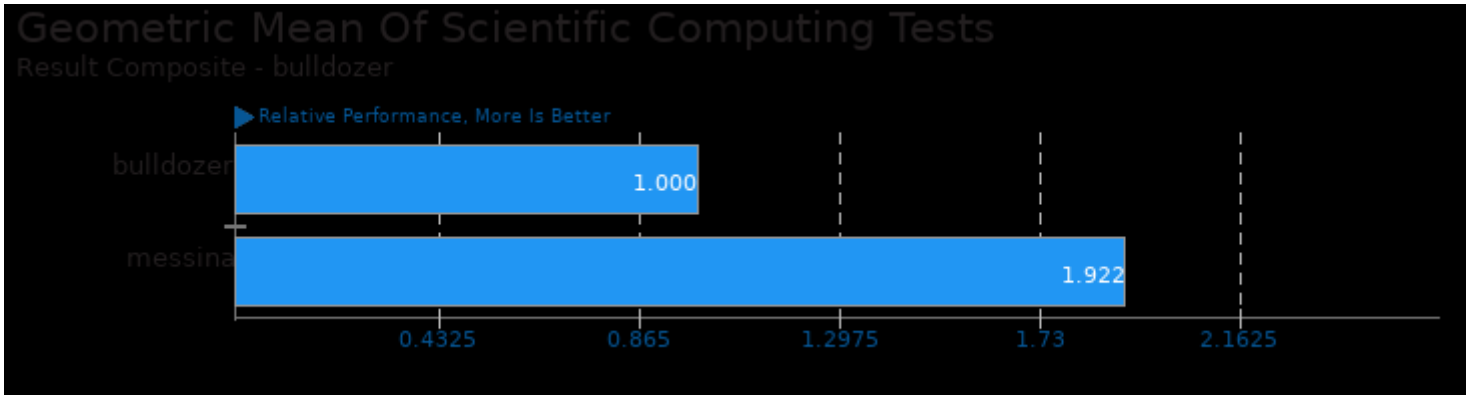
Geometric mean based upon tests: pts/c-ray, pts/tachyon, pts/ffmpeg, pts/npb, pts/john-the-ripper, pts/smallpt, pts/graphics-magick, pts/compress-7zip, pts/compress-pbzip2, pts/ttsiod-renderer and pts/pgbench



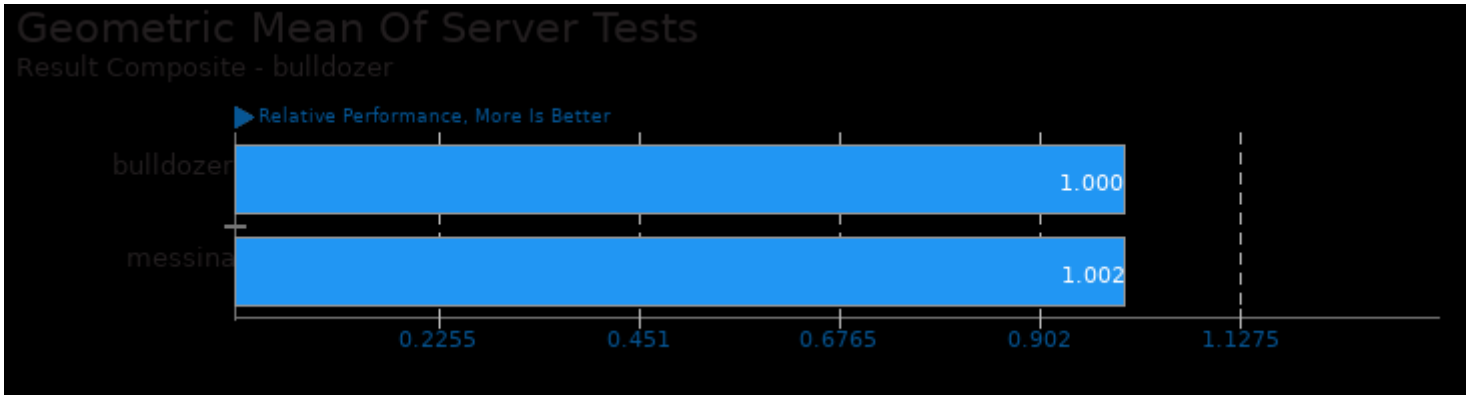
Geometric mean based upon tests: pts/c-ray and pts/tachyon



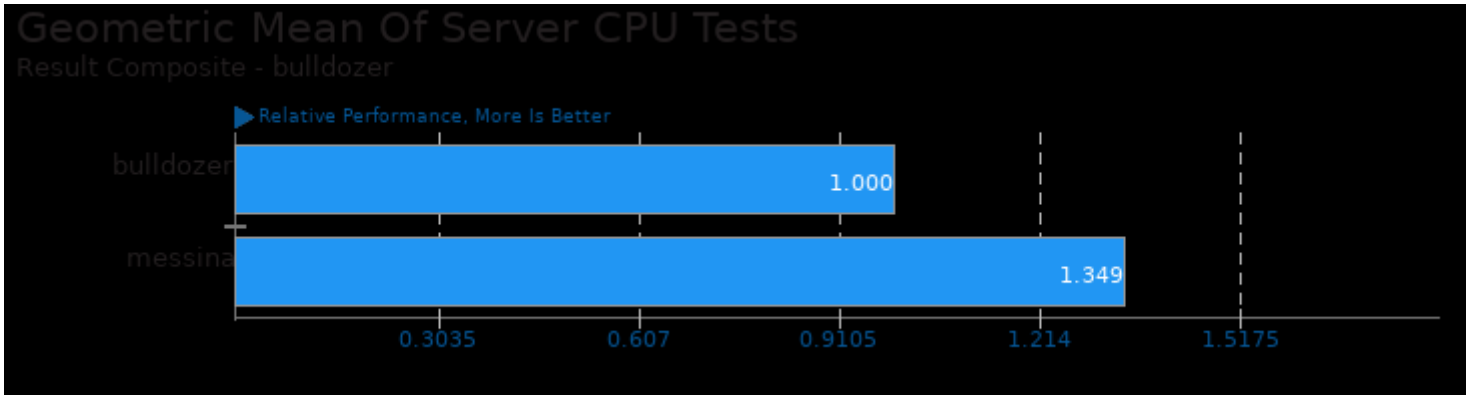
Geometric mean based upon tests: pts/c-ray, pts/tachyon, pts/smallpt and pts/ttsiod-renderer



Geometric mean based upon tests: pts/himeno and pts/mafft

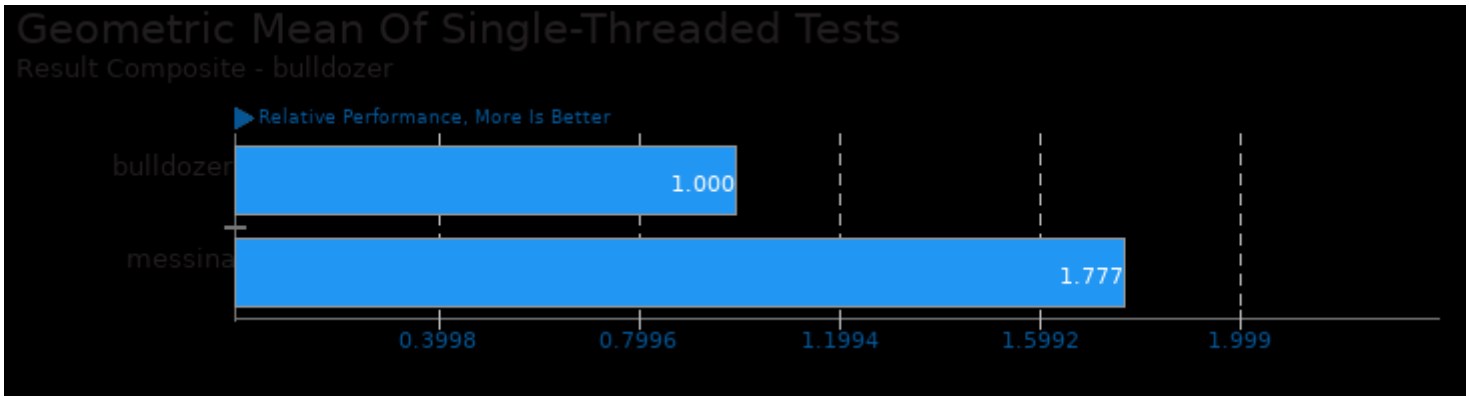


Geometric mean based upon tests: pts/apache, pts/pgbench and pts/openssl



Geometric mean based upon tests: pts/npb, pts/john-the-ripper, pts/himeno, pts/compress-7zip, pts/c-ray, pts/openssl

and pts/stream



Geometric mean based upon tests: pts/encode-flac and pts/encode-mp3

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 18:59.