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Debian kFreeBSD Jessie vs. Debian Linux

Benchhmarks for a future article on Phoronix.

Automated Executive Summary

Debian Linux Jessie had the most wins, coming in first place for 28% of the tests.

Based on the geometric mean of all complete results, the fastest (Debian Linux 7.5) was 1.191x the speed of the slowest (Debian kFreeBSD Jessie). Debian Linux Jessie was 0.921x the speed of Debian Linux 7.5, Debian kFreeBSD 7.5 was 0.93x the speed of Debian Linux Jessie, Debian kFreeBSD Jessie was 0.98x the speed of Debian kFreeBSD 7.5.

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

Timed MAFFT Alignment (Multiple Sequence Alignment) at 3.076x
ebizzy (Phoronix Test Suite v5.2.0m4) at 2.227x
John The Ripper (Test: Blowfish) at 1.769x
SciMark (Computational Test: Monte Carlo) at 1.305x
C-Ray (Total Time) at 1.242x
SciMark (Computational Test: Fast Fourier Transform) at 1.117x
Minion (Benchmark: Solitaire) at 1.107x
SciMark (Computational Test: Sparse Matrix Multiply) at 1.083x

Ogg Encoding (WAV To Ogg) at 1.079x
Minion (Benchmark: Graceful) at 1.076x.

Test Systems:

Debian kFreeBSD 7.5

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: INTEL DX79SI, Memory: 8192MB, Disk: 56GB, Graphics: LLVMpipe, Audio: Intel Patsburg HD Audio, Monitor: DELL S2409W, Network: Intel PRO/1000 Connection 7.2.3

OS: Debian GNU/kFreeBSD 7.5, Kernel: 9.0-2-amd64 (x86_64), Desktop: Xfce 4.8, Display Server: X Server 1.12.4, Display Driver: vesa 2.3.1, OpenGL: 2.1 Mesa 8.0.5 Gallium 0.4, Compiler: GCC 4.7.2, File-System: ufs, Screen Resolution: 1920x1080

Environment Notes: LIBGLADE_MODULE_PATH=:

Debian kFreeBSD Jessie

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: INTEL DX79SI, Memory: 8192MB, Disk: 56GB, Graphics: LLVMpipe, Audio: ATI RV770 HDA, Monitor: DELL S2409W, Network: Intel PRO/1000 Connection 7.3.8

OS: Debian GNU/kFreeBSD Jessie/sid, Kernel: 10.0-1-amd64 (x86_64), Display Server: X Server 1.15.1, Display Driver: vesa 2.3.3, OpenGL: 2.1 Mesa 10.1.2 Gallium 0.4, Compiler: GCC 4.8.2, File-System: ufs, Screen Resolution: 1280x1024

Debian Linux 7.5

Processor: Intel Core i7-3960X @ 3.30GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 2 x 4096 MB DDR3-1600MHz, Disk: 64GB OCZ VERTEX, Graphics: LLVMpipe, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: Debian 7.5, Kernel: 3.2.0-4-amd64 (x86_64), Desktop: GNOME 3.4.2.1, Display Server: X Server 1.12.4, Display Driver: radeon 6.14.99, OpenGL: 2.1 Mesa 8.0.5 Gallium 0.4, Compiler: GCC 4.7.2, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-languages=c,c++,go,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-arch-32=i586 --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

Debian Linux Jessie

Processor: Intel Core i7-3960X @ 1.22GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 2 x 4096 MB DDR3-1600MHz, Disk: 64GB OCZ VERTEX, Graphics: LLVMpipe, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

Debian kFreeBSD Jessie vs. Debian Linux

OS: Debian testing, Kernel: 3.14-1-amd64 (x86_64), Display Server: X Server 1.15.1, Display Driver: radeon 7.3.0, OpenGL: 2.1 Mesa 10.1.4 Gallium 0.4, Compiler: GCC 4.8.3, File-System: ext4, Screen Resolution: 1280x1024

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-libmudflap --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i586 --with-arch-directory=amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Processor Notes: Scaling Governor: intel_pstate powersave

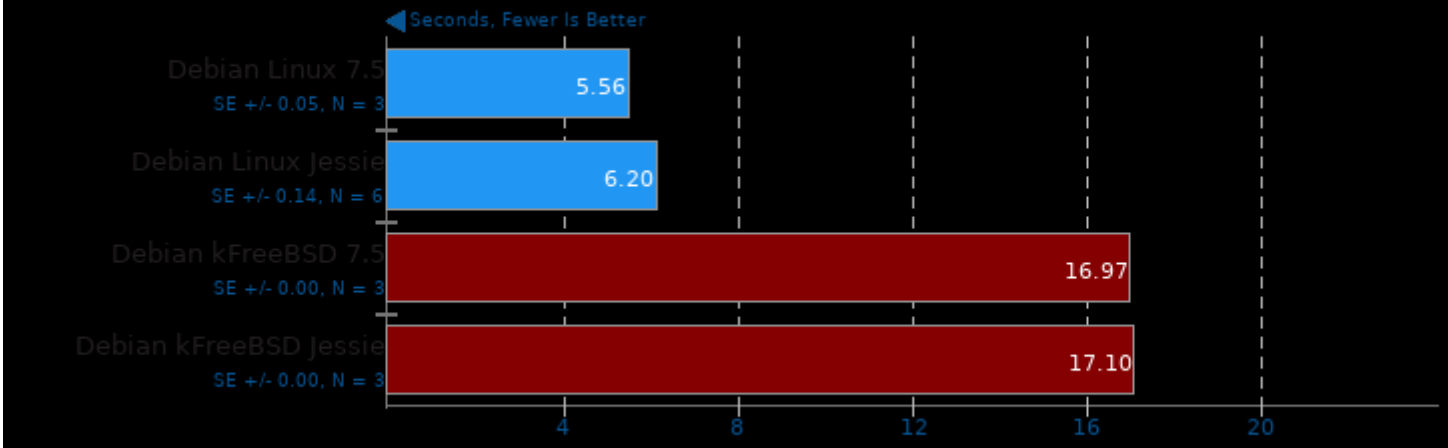
	Debian kFreeBSD 7.5	Debian kFreeBSD Jessie	Debian Linux 7.5	Debian Linux Jessie
Timed MAFFT Alignment - M.S.A (sec)	16.97	**17.10**	**5.56**	6.20
Normalized	32.76%	32.51%	100%	89.68%
Standard Deviation	0%	0%	1.4%	5.5%
ebizzy - P.T.S.v.2.0 (Records/s)	**172675**	117948		**77551**
Normalized	100%	68.31%		44.91%
Standard Deviation	0.9%	0%		0.6%
John The Ripper - Blowfish (Real C/S)	**4901**	7920	**8669**	8586
Normalized	56.53%	91.36%	100%	99.04%
Standard Deviation	0.2%	0.6%	0.9%	0.1%
SciMark - Monte Carlo (Mflops)	445.22	569.96	**444.62**	**580.30**
Normalized	76.72%	98.22%	76.62%	100%
Standard Deviation	0%	0%	0.2%	0%
C-Ray - Total Time (sec)	**22.15**	**17.83**		18.05
Normalized	80.5%	100%		98.78%
Standard Deviation	0.4%	0.3%		0.6%
SciMark - F.F.T (Mflops)	315.38	**314.76**	345.72	**351.60**
Normalized	89.7%	89.52%	98.33%	100%
Standard Deviation	1.8%	0.6%	0.5%	0.9%
Minion - Solitaire (sec)	72.93	**71.17**	**78.77**	74.99
Normalized	97.59%	100%	90.35%	94.91%
Standard Deviation	0.7%	0.7%	1.2%	0.4%
SciMark - S.M.M (Mflops)	**2298**	2279	**2122**	2196
Normalized	100%	99.15%	92.35%	95.56%
Standard Deviation	0.5%	0.5%	0.6%	0.3%
Ogg Encoding - WAV To Ogg (sec)	**7.78**	7.76	**7.21**	7.48
Normalized	92.67%	92.91%	100%	96.39%
Standard Deviation	0%	0.2%	0.1%	0.1%
Minion - Graceful (sec)	**54.28**	55.37	57.38	**58.42**
Normalized	100%	98.03%	94.6%	92.91%
Standard Deviation	0.5%	0.7%	1.1%	0.1%
N-Queens - Elapsed Time (sec)	**25.40**	**23.86**		24.09
Normalized	93.94%	100%		99.05%
Standard Deviation	0.3%	0.1%		0%
SciMark - Composite (Mflops)	1399	**1421**	**1348**	1392
Normalized	98.45%	100%	94.87%	97.94%
Standard Deviation	0.3%	0.2%	0.2%	0.1%
SciMark - D.L.M.F (Mflops)	**2681**	2678	**2561**	2563
Normalized	100%	99.87%	95.53%	95.61%
Standard Deviation	0.2%	0.2%	0.2%	0.1%
Himeno Benchmark - P.P.S (MFLOPS)	1718	**1703**		**1755**
Normalized	97.89%	97%		100%

Debian kFreeBSD Jessie vs. Debian Linux

Standard Deviation	0.1%	0.9%		0.4%
Dolfyn - C.F.D (sec)	**22.18**	22.50	22.36	**22.86**
Normalized	100%	98.58%	99.19%	97.03%
Standard Deviation	0.1%	0.2%	0.1%	1%
Minion - Quasigroup (sec)	124.37	122.04	**124.42**	**121.34**
Normalized	97.56%	99.43%	97.52%	100%
Standard Deviation	0.5%	0.5%	0.5%	0.3%
SciMark - J.S.O.R (Mflops)	**1265**	1265	1268	**1269**
Normalized	99.72%	99.74%	99.97%	100%
Standard Deviation	0%	0%	0.2%	0%
Timed Apache Compilation - Time To Compile (sec)	26.41	**26.11**	26.65	**30.65**
Normalized	98.86%	100%	97.97%	85.19%
Standard Deviation	1.6%	7.1%	0.4%	1.7%
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)	191.23	**65.17**	**199.97**	102.94
Normalized	95.63%	32.59%	100%	51.48%
Standard Deviation	9%	3.1%	12.3%	0.8%
John The Ripper - MD5 (Real C/S)	**72089**	110558	118593	**118797**
Normalized	60.68%	93.06%	99.83%	100%
Standard Deviation	1%	11%	0.2%	0.1%
John The Ripper - Traditional DES (Real C/S)	18943000	**12115500**	**32322000**	14238000
Normalized	58.61%	37.48%	100%	44.05%
Standard Deviation	2.7%	12.3%	0.4%	0%

Timed MAFFT Alignment 6.864

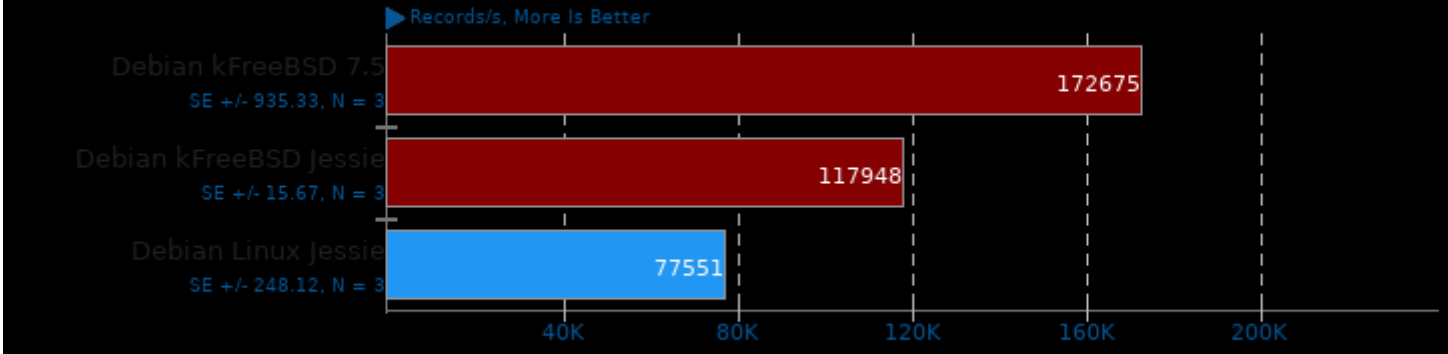
Multiple Sequence Alignment



1. (CC) gcc options: -O3 -lm -lpthread

ebizzy 0.3

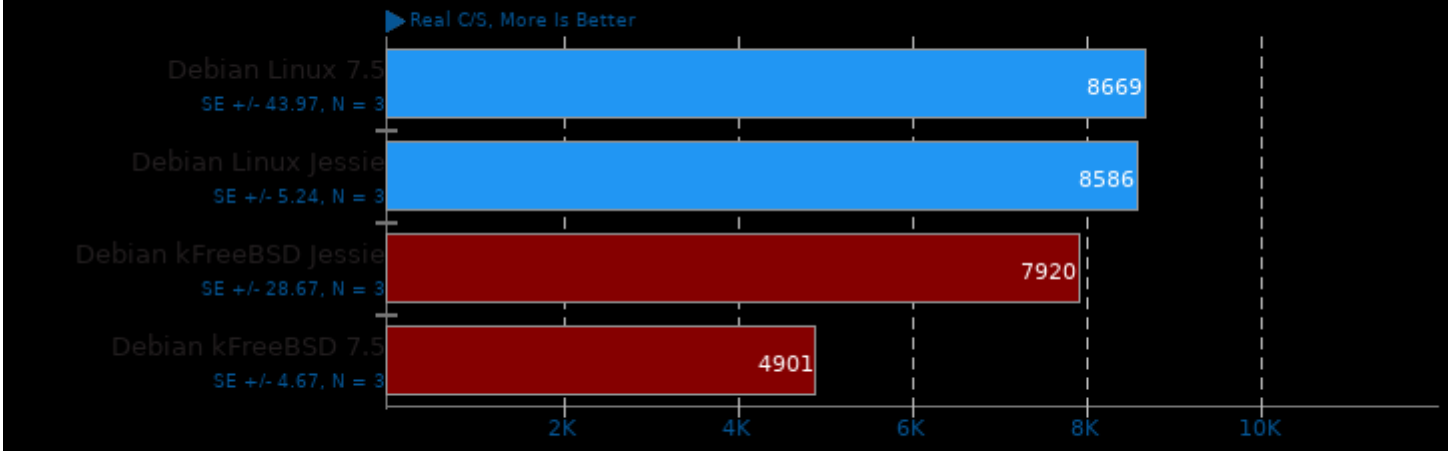
Phoronix Test Suite v5.2.0m4



1. (CC) gcc options: -pthread -lpthread -O3

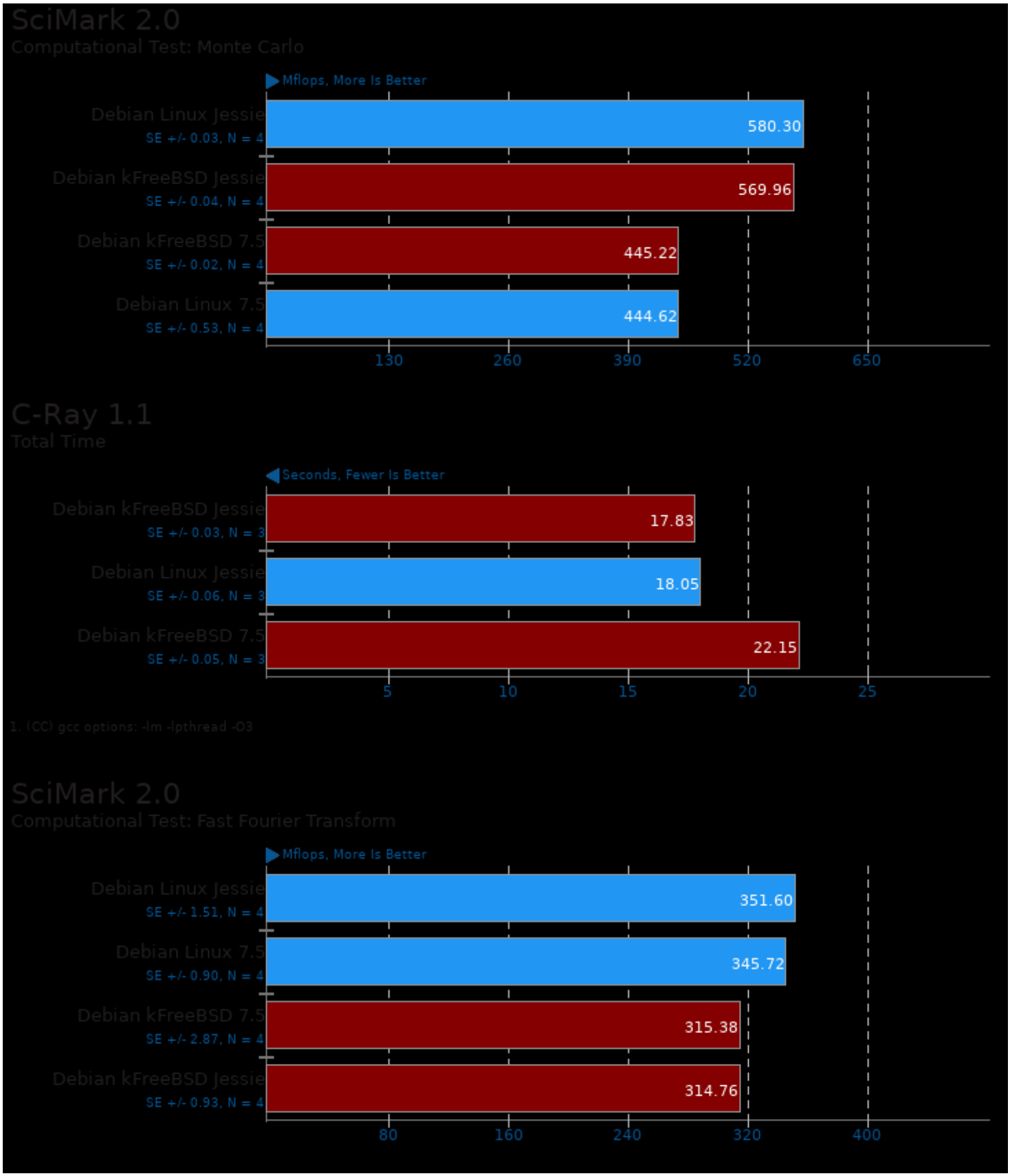
John The Ripper 1.8.0

Test: Blowfish



1. (CC) gcc options: -fopenmp -lcrypt

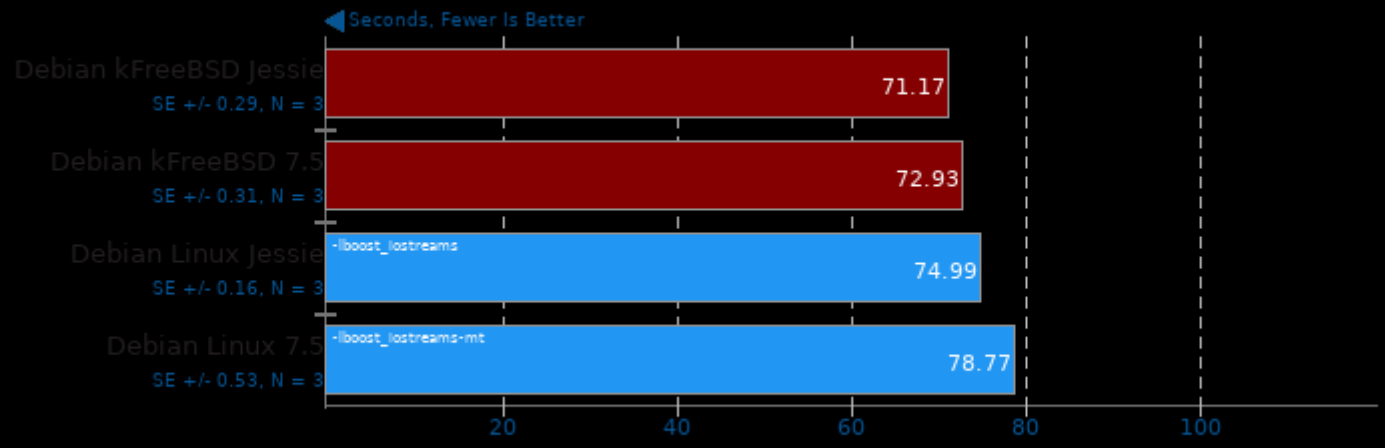
Debian kFreeBSD Jessie vs. Debian Linux



Debian kFreeBSD Jessie vs. Debian Linux

Minion 0.15

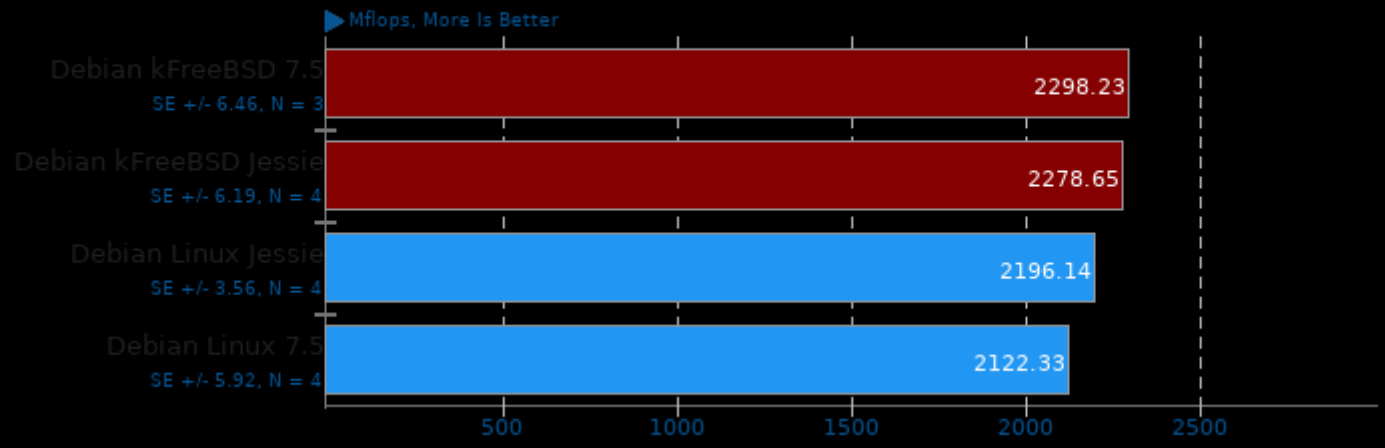
Benchmark: Solitaire



1. (CXX) g++ options: -O3 -fomit-frame-pointer -rdynamic -lz -lbz2

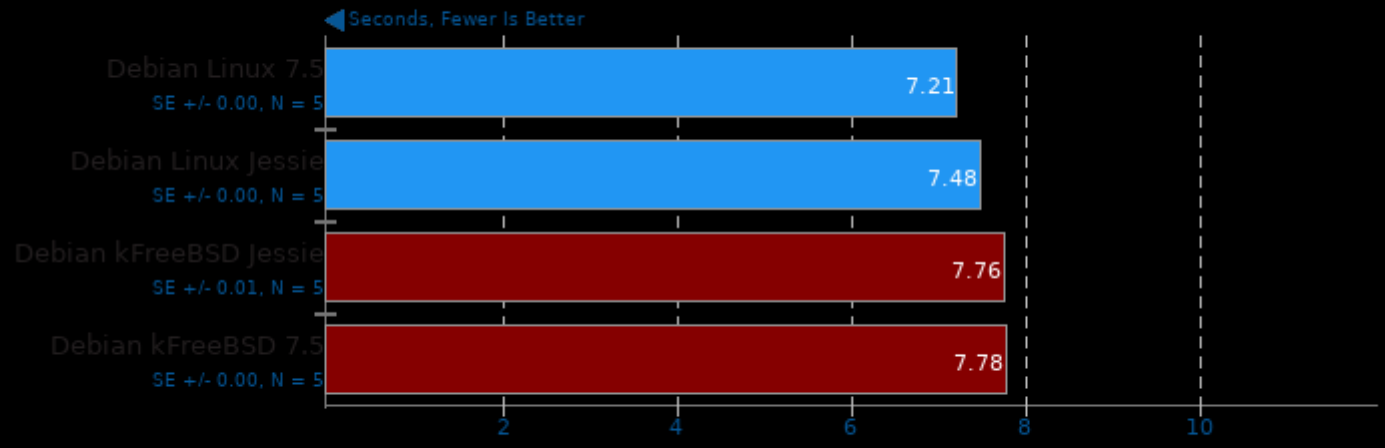
SciMark 2.0

Computational Test: Sparse Matrix Multiply



Ogg Encoding 1.3.0

WAV To Ogg

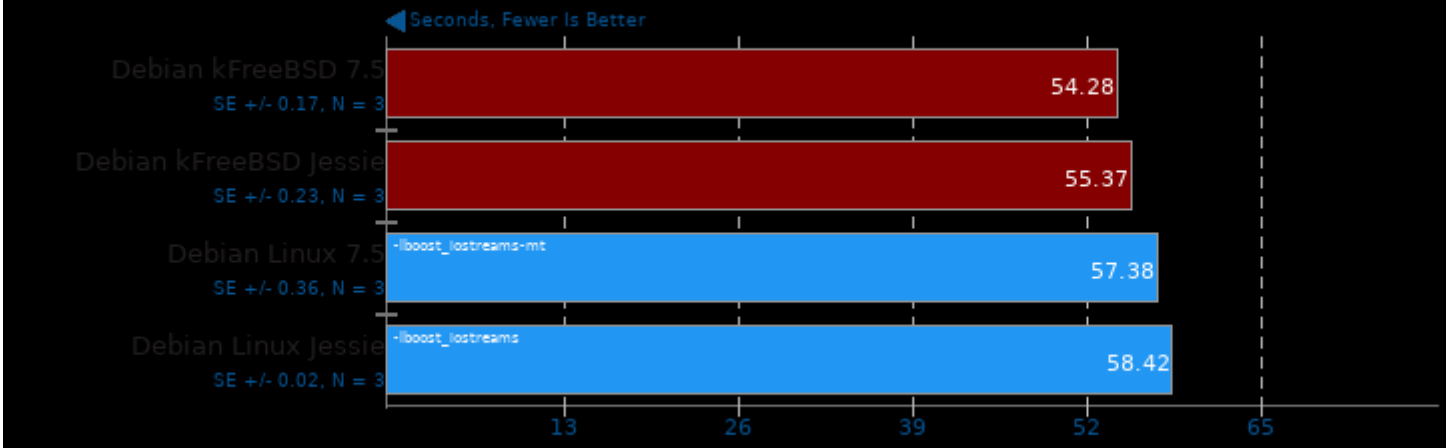


1. (CC) gcc options: -O2 -ffast-math -fsigned-char -lm -logg

Debian kFreeBSD Jessie vs. Debian Linux

Minion 0.15

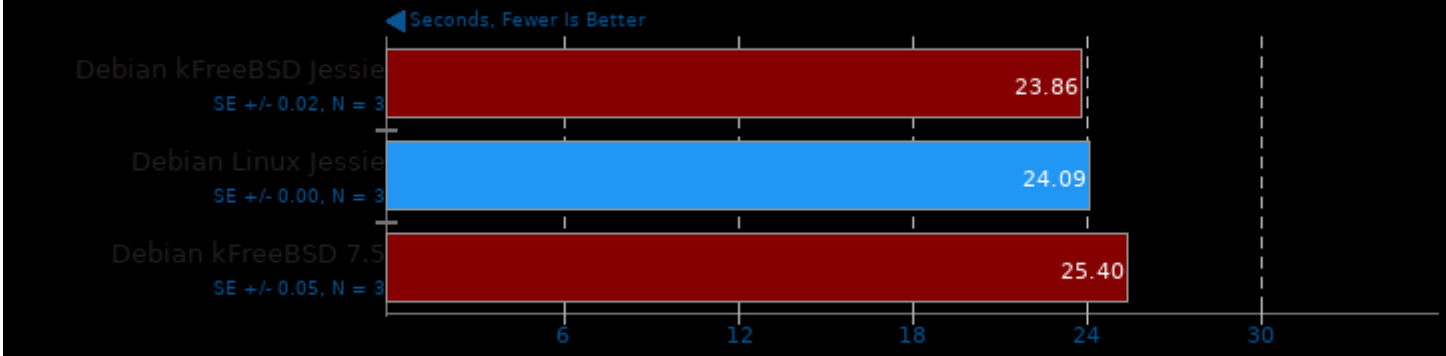
Benchmark: Graceful



1. (CXX) g++ options: -O3 -fomit-frame-pointer -rdynamic -lz -lbz2

N-Queens 1.0

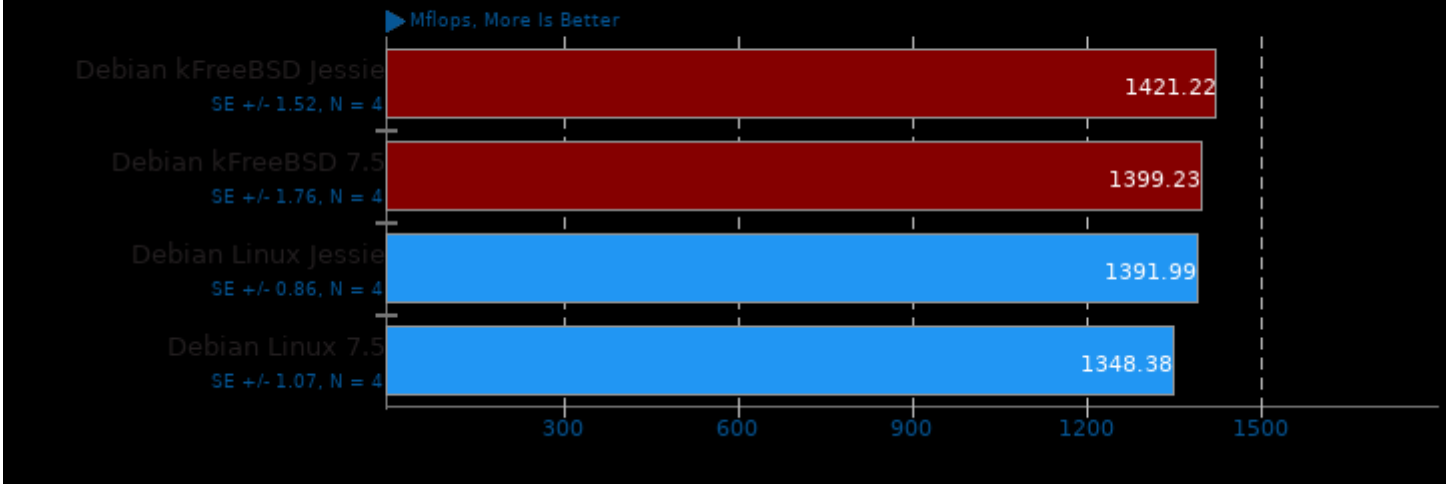
Elapsed Time



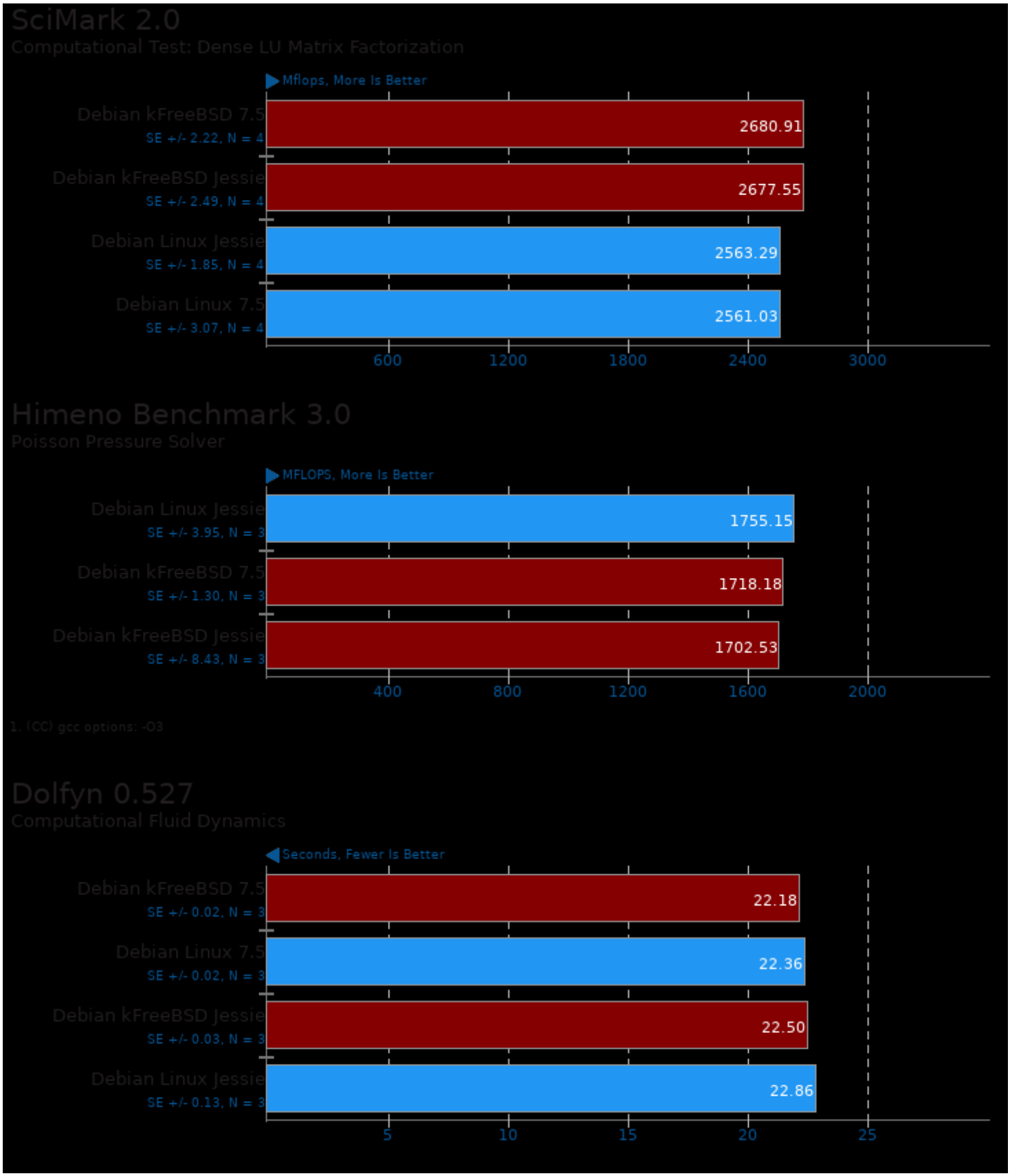
1. (CC) gcc options: -static -fopenmp -O3

SciMark 2.0

Computational Test: Composite



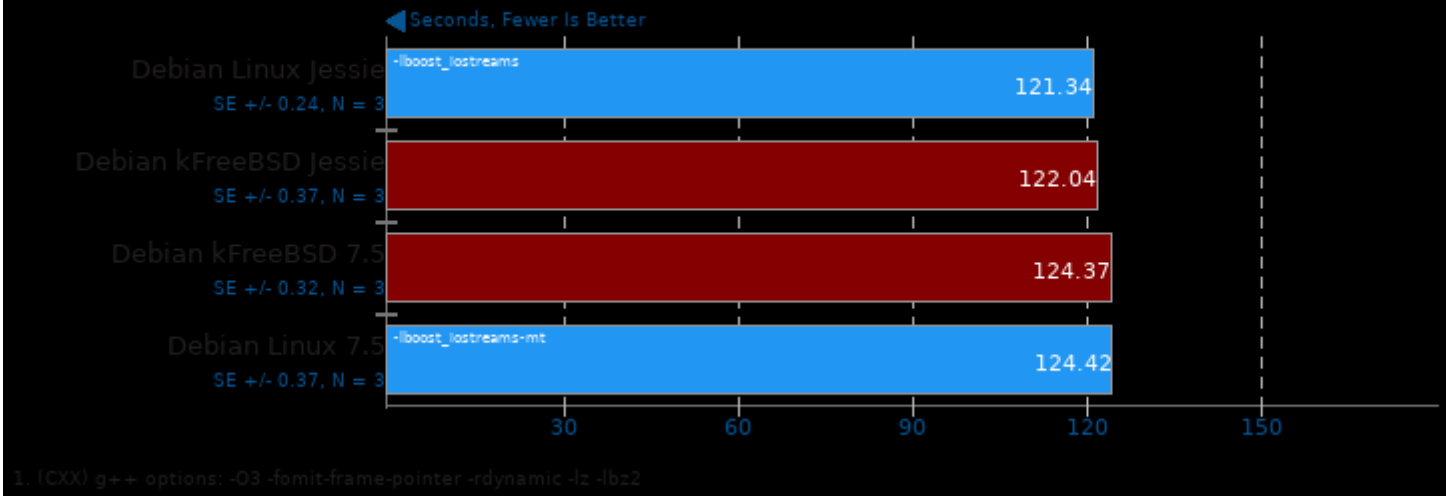
Debian kFreeBSD Jessie vs. Debian Linux



Debian kFreeBSD Jessie vs. Debian Linux

Minion 0.15

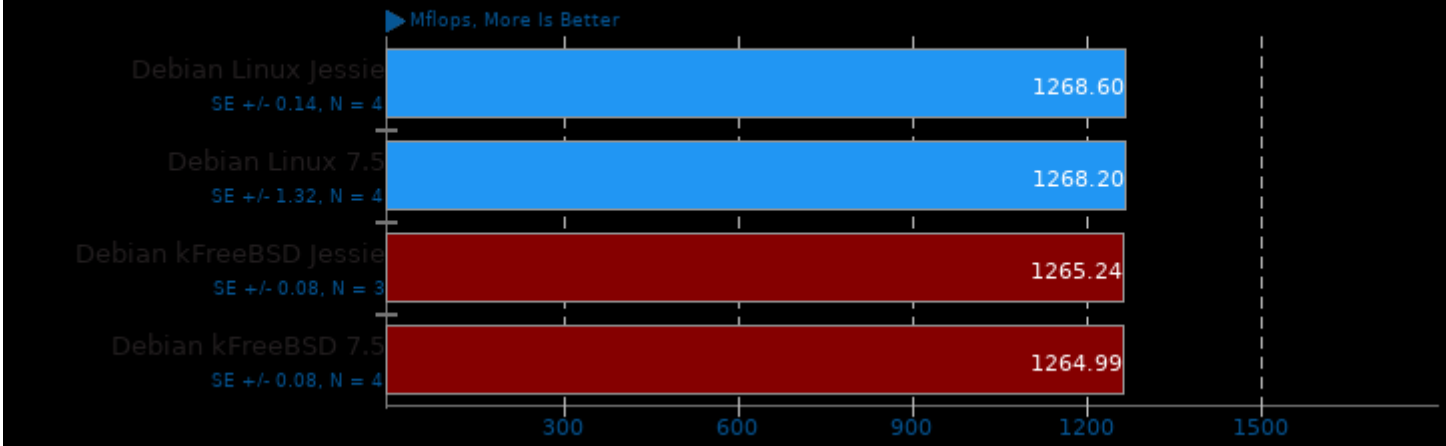
Benchmark: Quasigroup



1. (CXX) g++ options: -O3 -fomit-frame-pointer -rdynamic -lz -lbz2

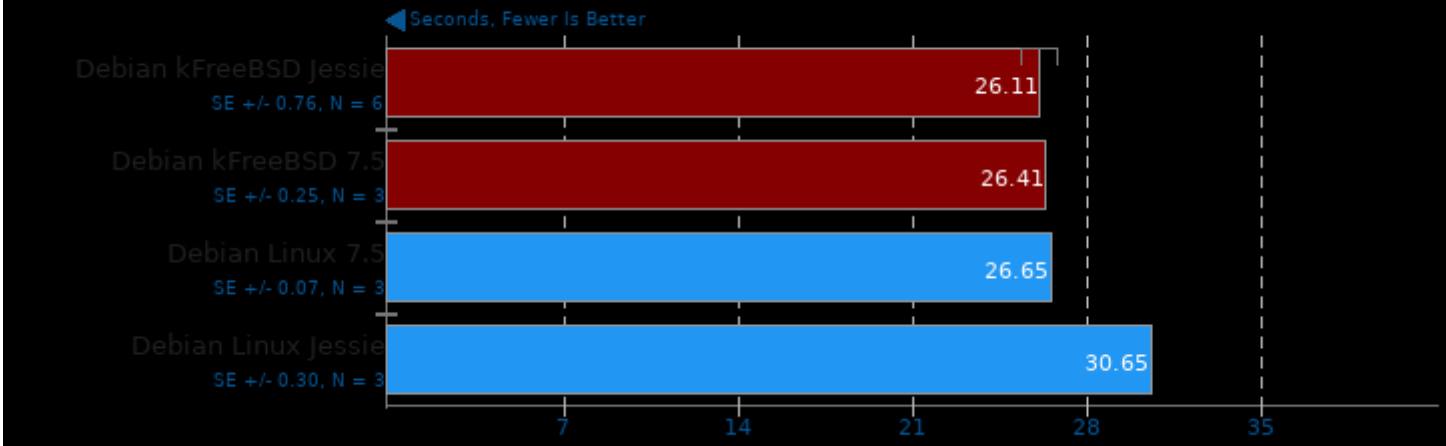
SciMark 2.0

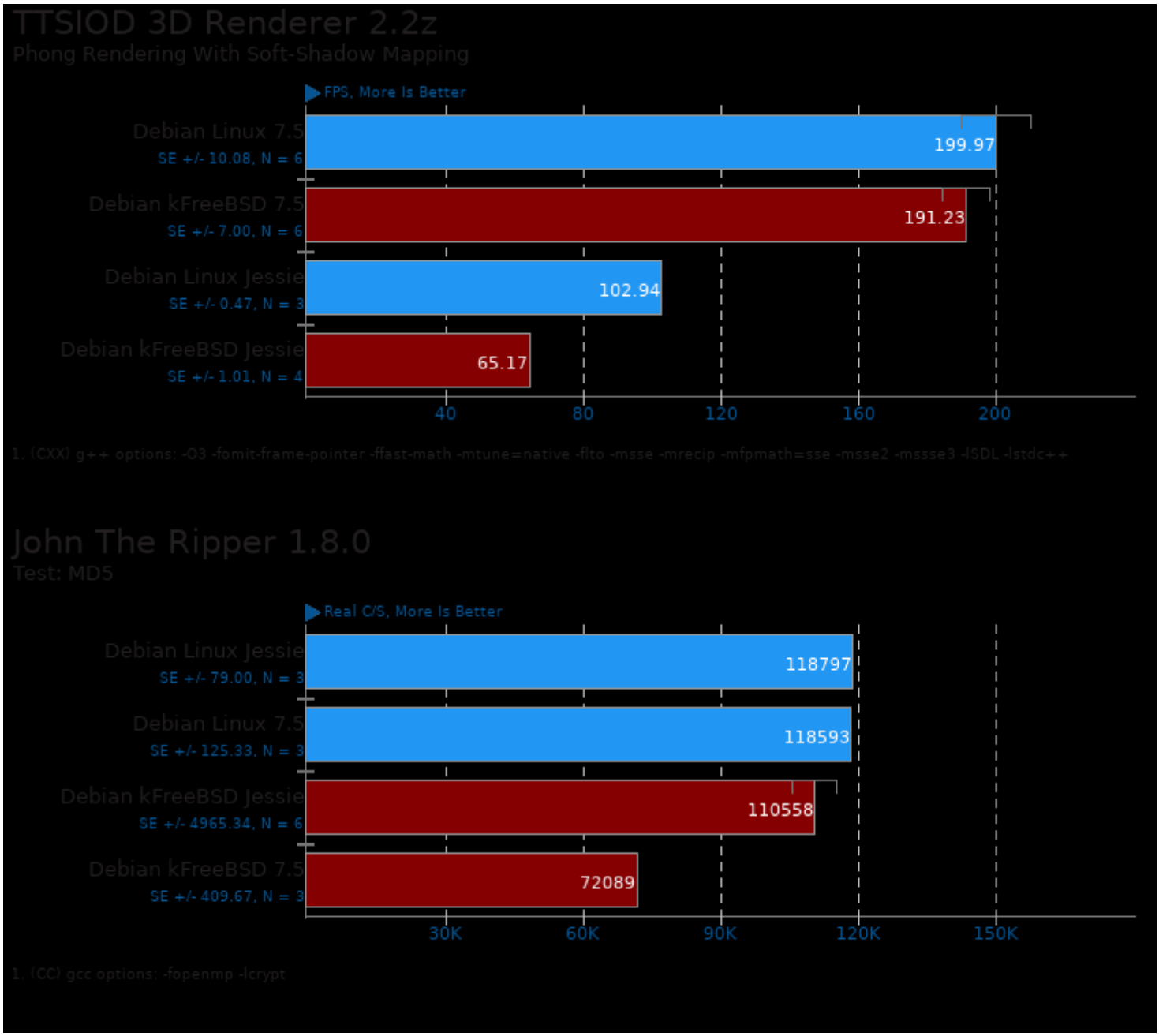
Computational Test: Jacobi Successive Over-Relaxation



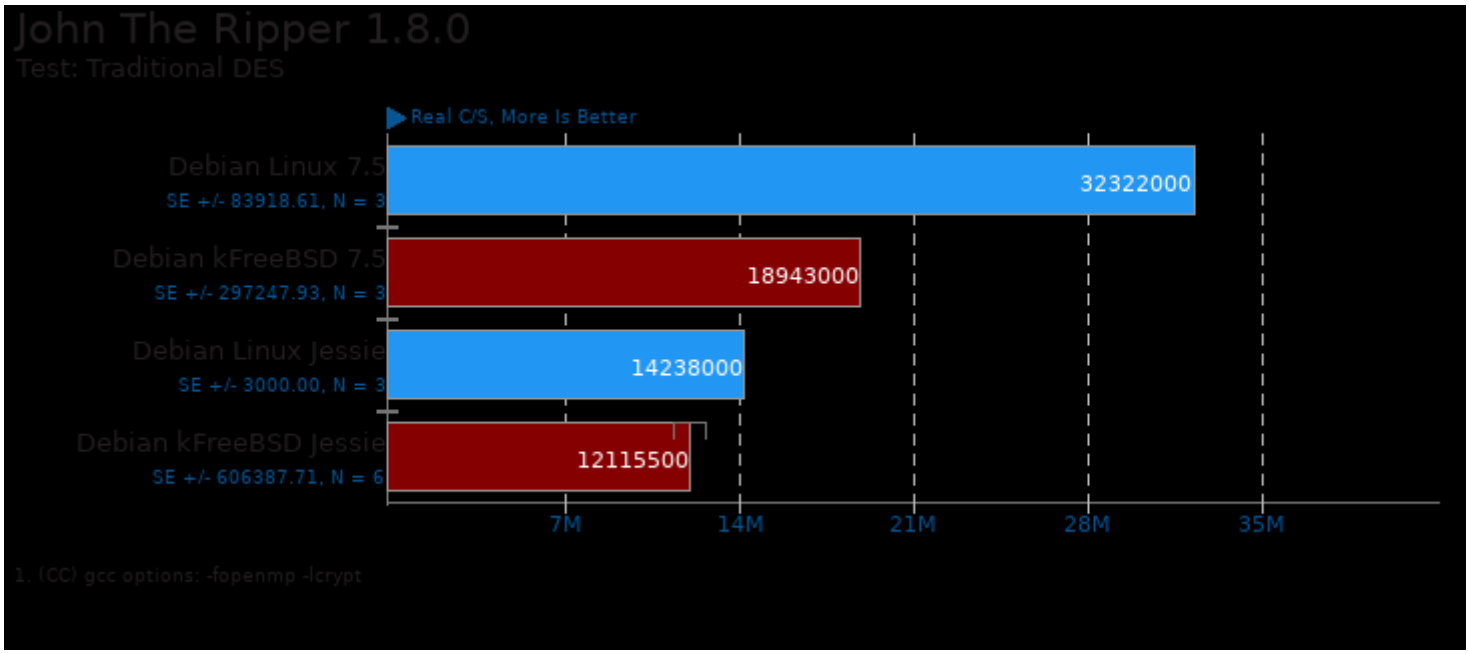
Timed Apache Compilation 2.4.7

Time To Compile



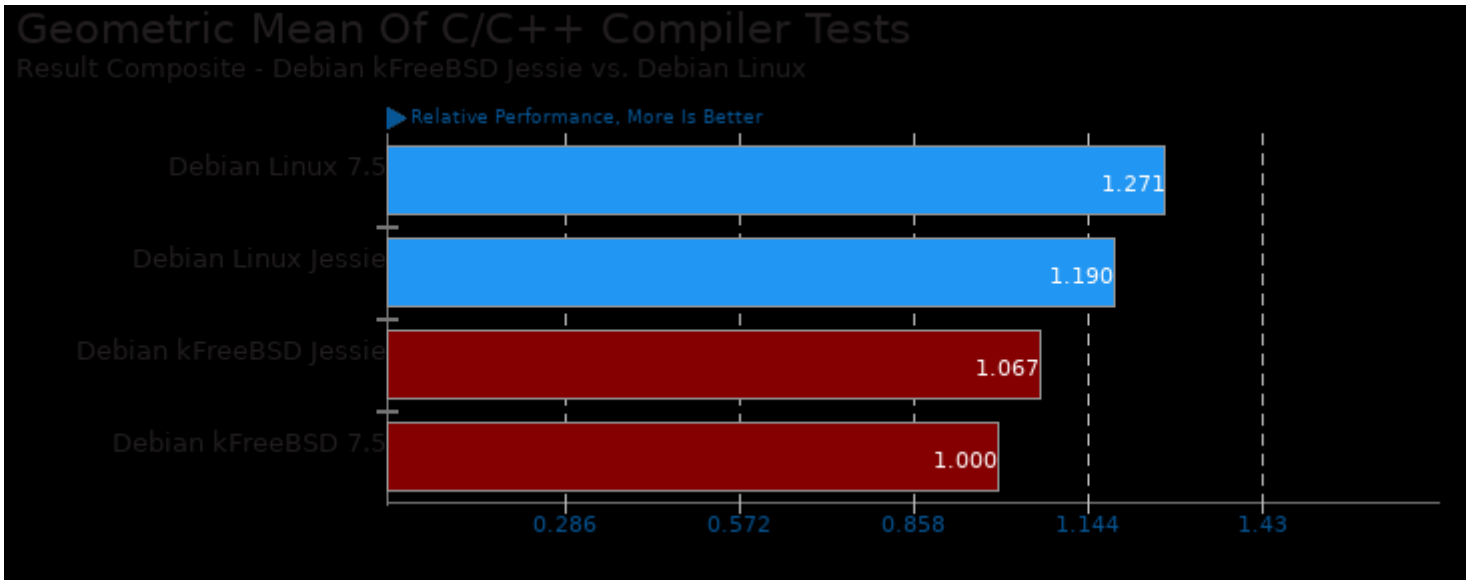

TTSIOD 3D Renderer 2.2z
Phong Rendering With Soft-Shadow Mapping
FPS, More Is Better
Debian Linux 7.5
SE +/- 10.08, N = 6
199.97
Debian kFreeBSD 7.5
SE +/- 7.00, N = 6
191.23
Debian Linux Jessie
SE +/- 0.47, N = 3
102.94
Debian kFreeBSD Jessie
SE +/- 1.01, N = 4
65.17
40
80
120
160
200
1. (CXX) g++ options: -O3 -fomit-frame-pointer -ffast-math -mtune=native -flto -msse -mrecip -mfpmath=sse -msse2 -mssse3 -lSDL -lstdc++
John The Ripper 1.8.0
Test: MD5
Real C/S, More Is Better
Debian Linux Jessie
SE +/- 79.00, N = 3
118797
Debian Linux 7.5
SE +/- 125.33, N = 3
118593
Debian kFreeBSD Jessie
SE +/- 4965.34, N = 6
110558
Debian kFreeBSD 7.5
SE +/- 409.67, N = 3
72089
30K
60K
90K
120K
150K
1. (CC) gcc options: -fopenmp -lcrypt

Debian kFreeBSD Jessie vs. Debian Linux

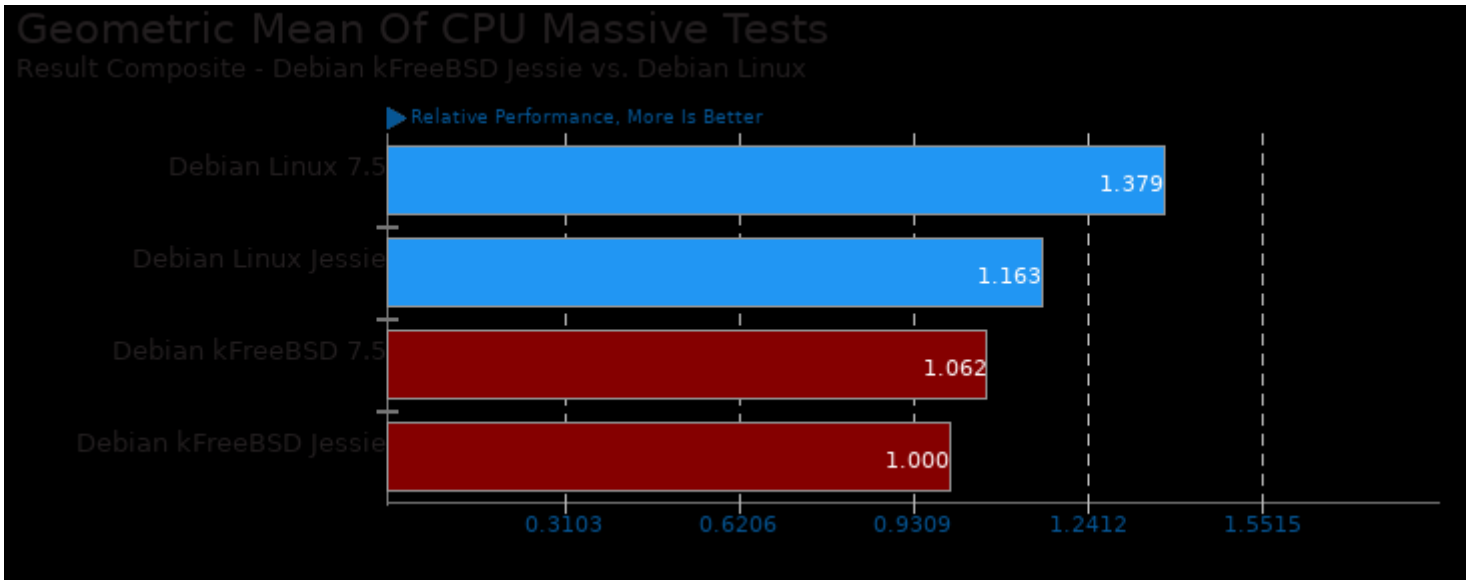


Debian kFreeBSD Jessie vs. Debian Linux

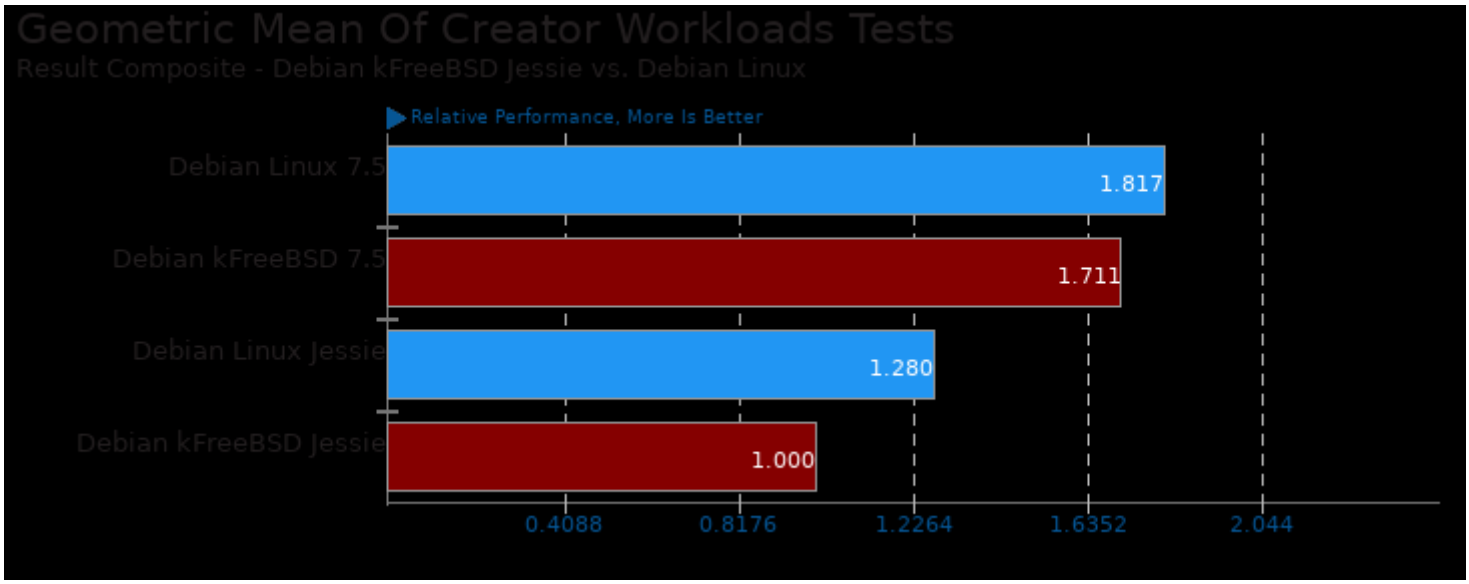
These geometric means are based upon test groupings / test suites for this result file.



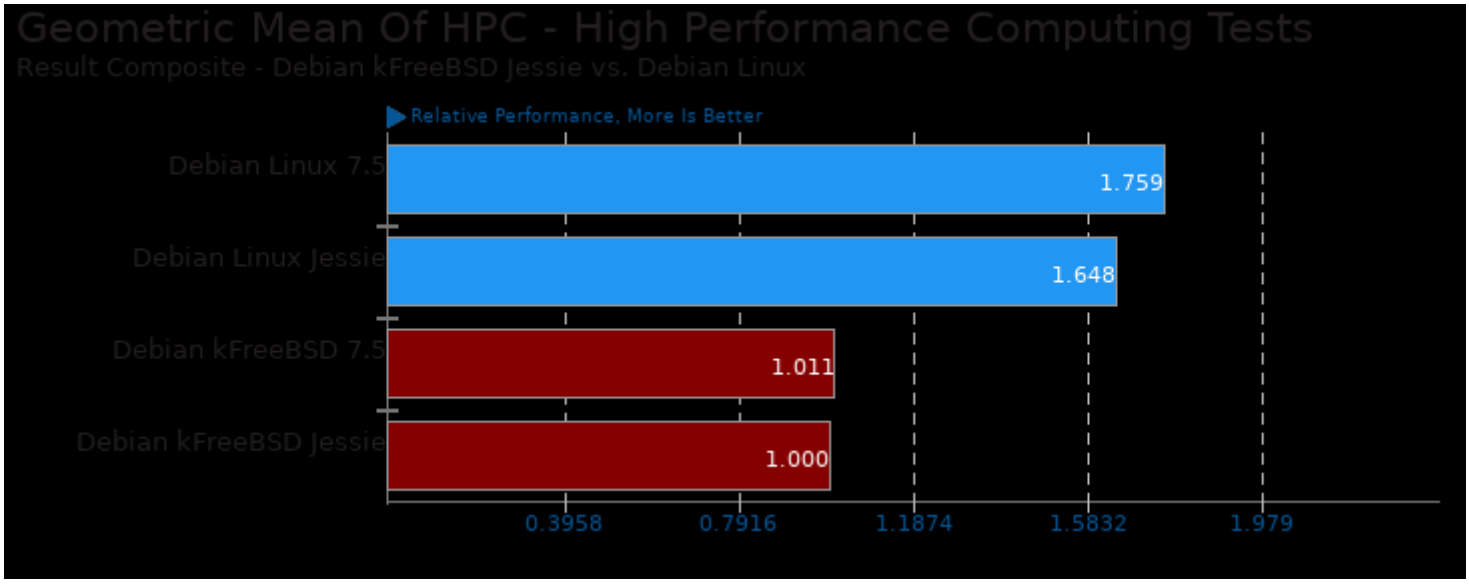
Geometric mean based upon tests: pts/mafft, pts/scimark2, pts/himeno, pts/c-ray, pts/john-the-ripper and pts/build-apache



Geometric mean based upon tests: pts/build-apache, pts/c-ray, pts/dolfyn, pts/ebizzy, pts/himeno, pts/john-the-ripper, pts/mafft, pts/minion and pts/ttsiod-renderer

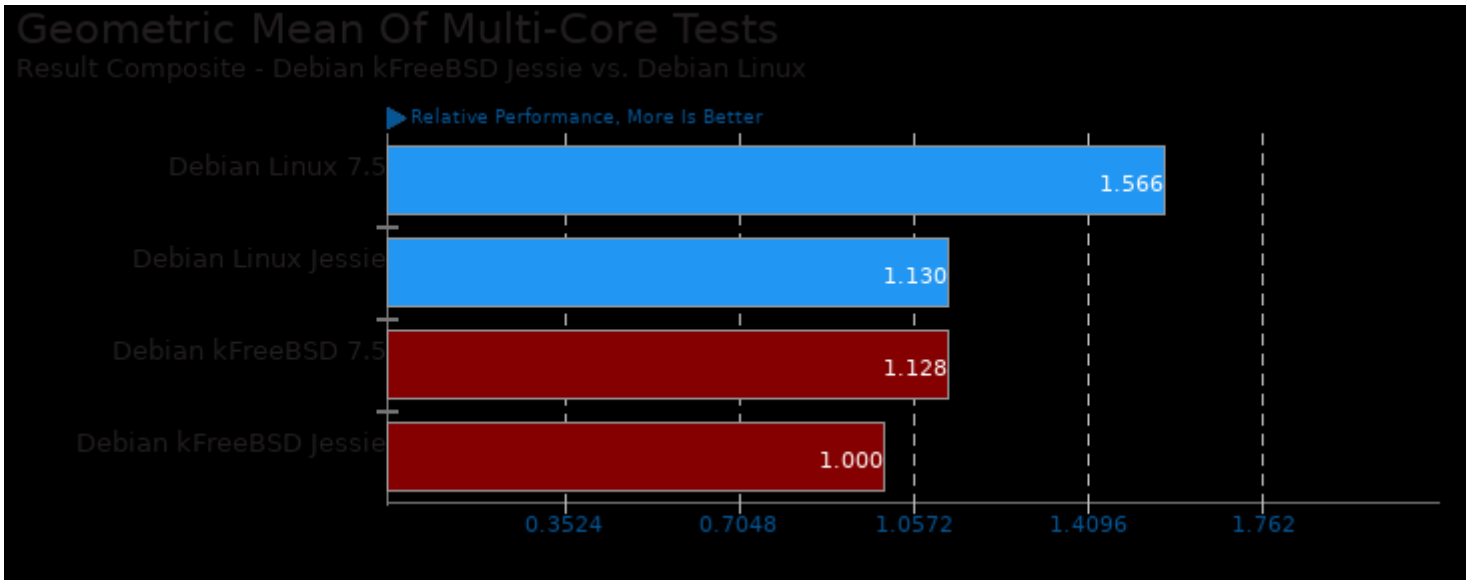


Geometric mean based upon tests: pts/c-ray, pts/ttsiod-renderer and pts/encode-ogg

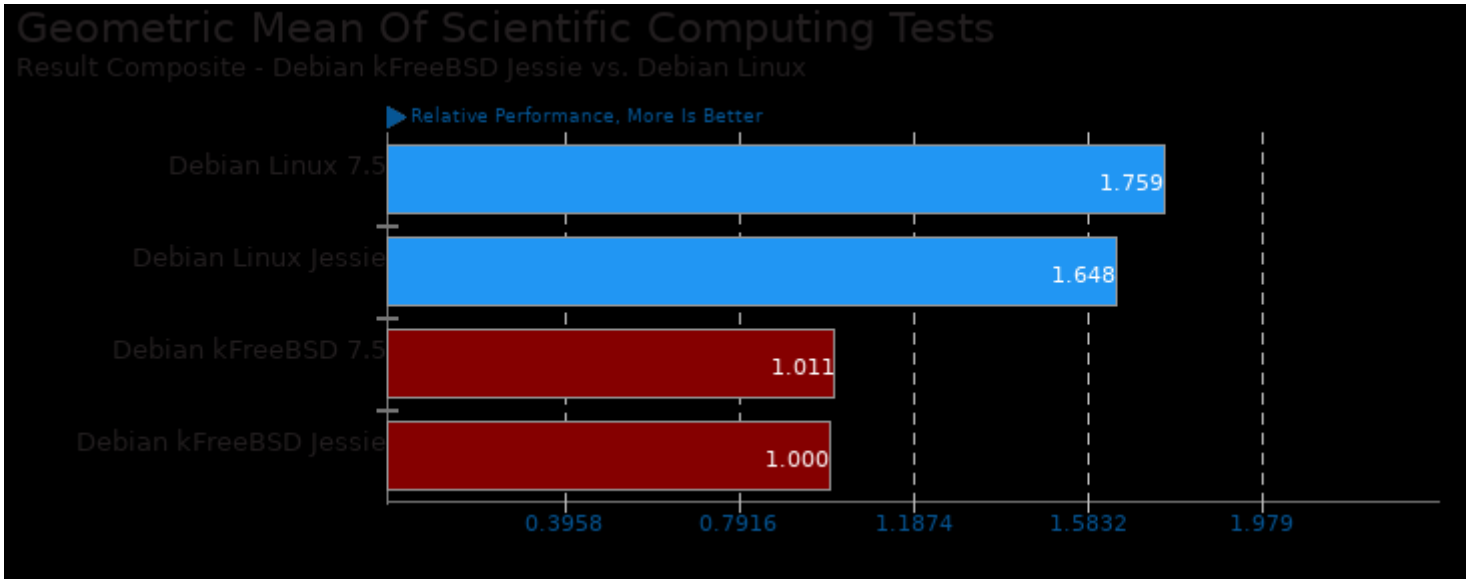


Geometric mean based upon tests: pts/dolfyn, pts/himeno and pts/mafft

Debian kFreeBSD Jessie vs. Debian Linux

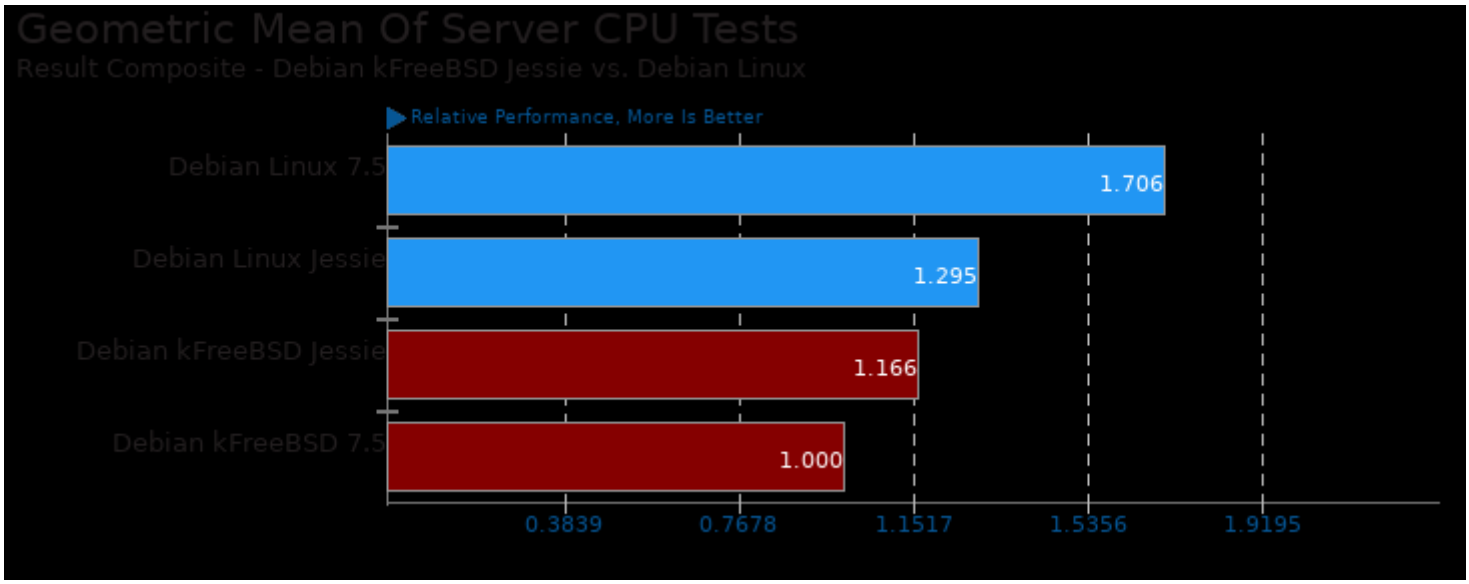


Geometric mean based upon tests: pts/c-ray, pts/n-queens, pts/john-the-ripper, pts/ebizzy, pts/build-apache and pts/ttsiod-renderer



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

Debian kFreeBSD Jessie vs. Debian Linux



Geometric mean based upon tests: pts/john-the-ripper, pts/himeno and pts/c-ray



Geometric mean based upon tests: pts/scimark2, pts/encode-ogg and pts/minion

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 07:29.