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compilation-2993-4077

Docker testing on Ubuntu 20.04.3 LTS via the Phoronix Test Suite.

Automated Executive Summary

compilation-2993-4077 had the most wins, coming in first place for 68% of the tests.

Based on the geometric mean of all complete results, the fastest (compilation-2993-4077) was 1.046x the speed of the slowest (compilation-sock-bios-4007). compilation-2666-4077 was 0.989x the speed of compilation-2993-4077, compilation-2733-4077 was 0.998x the speed of compilation-2666-4077, compliation-2400-4077 was 0.998x the speed of compilation-2733-4077, compilation-sock-bios-4007 was 0.969x the speed of compliation-2400-4077.

Test Systems:

compilation-2993-4077

compliation-2400-4077

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (4402 BIOS), Memory: 64GB, Disk: Samsung SSD 960 EVO 500GB + 2 x 3001GB TOSHIBA HDWD130 + 275GB Crucial CT275MX3, Graphics: amdgpudrmfb (1288/2000MHz), Monitor: 38GN950

OS: Ubuntu 20.04.3 LTS, Kernel: 5.13.12-gentoo (x86_64), Display Driver: amdgpudrmfb, Compiler: GCC 9.3.0, File-System: overlayfs, Screen Resolution: 3840x1600, System Layer: Docker

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0x8001138
Python Notes: Python 3.8.10
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + 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 AMD retpoline IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

compilation-sock-bios-4007

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (4007 BIOS), Memory: 64GB, Disk: Samsung SSD 960 EVO 500GB + 2 x 3001GB TOSHIBA HDWD130 + 275GB Crucial CT275MX3, Graphics: amdgpudrmfb (1288/2000MHz), Monitor: 38GN950

OS: Ubuntu 20.04.3 LTS, Kernel: 5.13.12-gentoo (x86_64), Display Driver: amdgpudrmfb, Compiler: GCC 9.3.0, File-System: overlayfs, Screen Resolution: 3840x1600, System Layer: Docker

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0x8001138
Python Notes: Python 3.8.10
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + 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 AMD retpoline IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

compilation-2666-4077

compilation-2733-4077

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (4402 BIOS), Memory: 64GB, Disk: Samsung SSD 960 EVO 500GB + 2 x 3001GB TOSHIBA HDWD130 + 275GB Crucial CT275MX3, Graphics: amdgpudrmfb (1288/2000MHz), Monitor: 38GN950

OS: Ubuntu 20.04.3 LTS, Kernel: 5.13.12-gentoo (x86_64), Display Driver: amdgpudrmfb, Compiler: GCC 9.3.0, File-System: overlayfs, Screen Resolution: 3840x1600, System Layer: Docker

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --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=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0x8001138
Python Notes: Python 3.8.10
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + 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 AMD retpoline IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

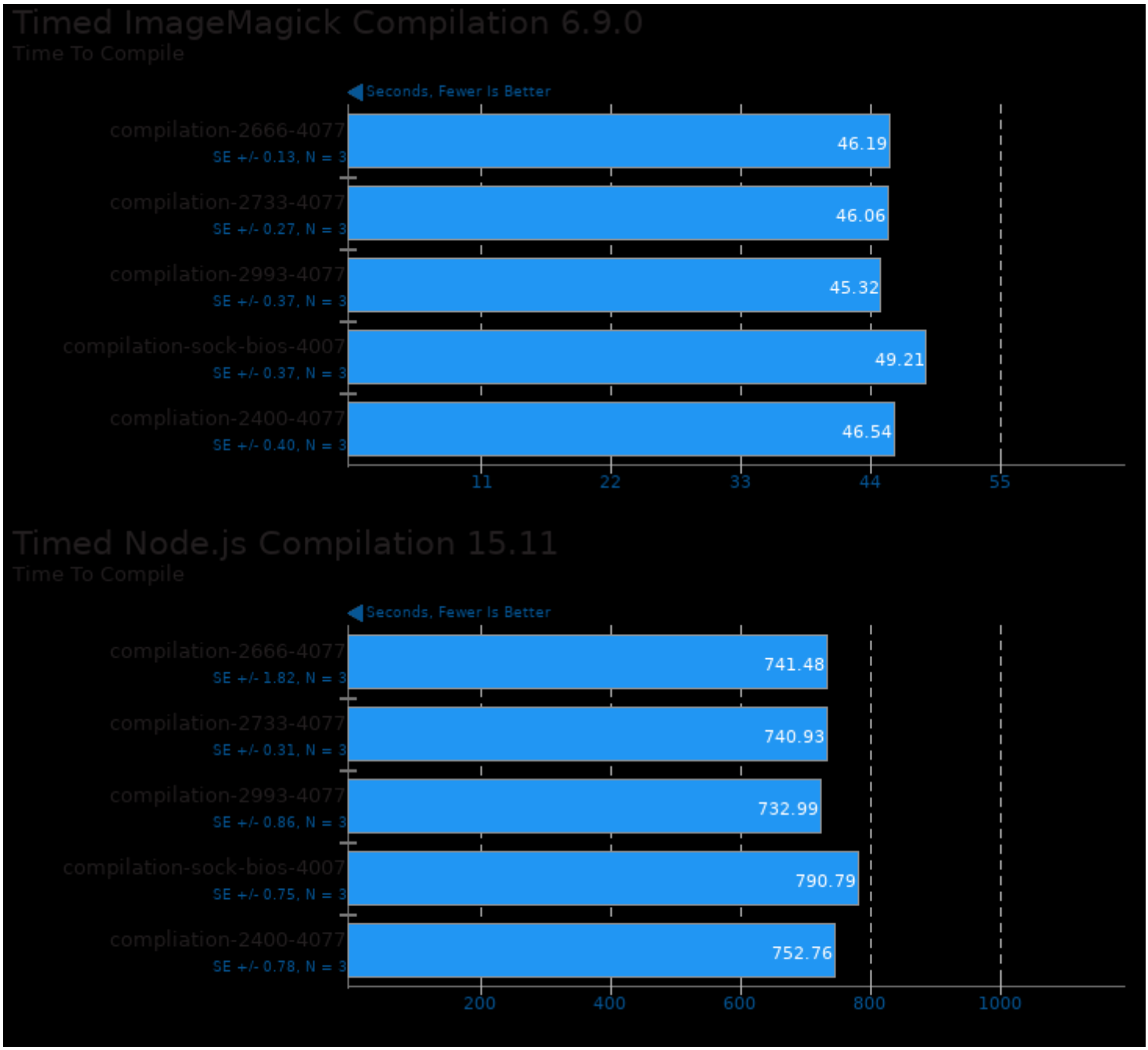
compilation-2993-4077

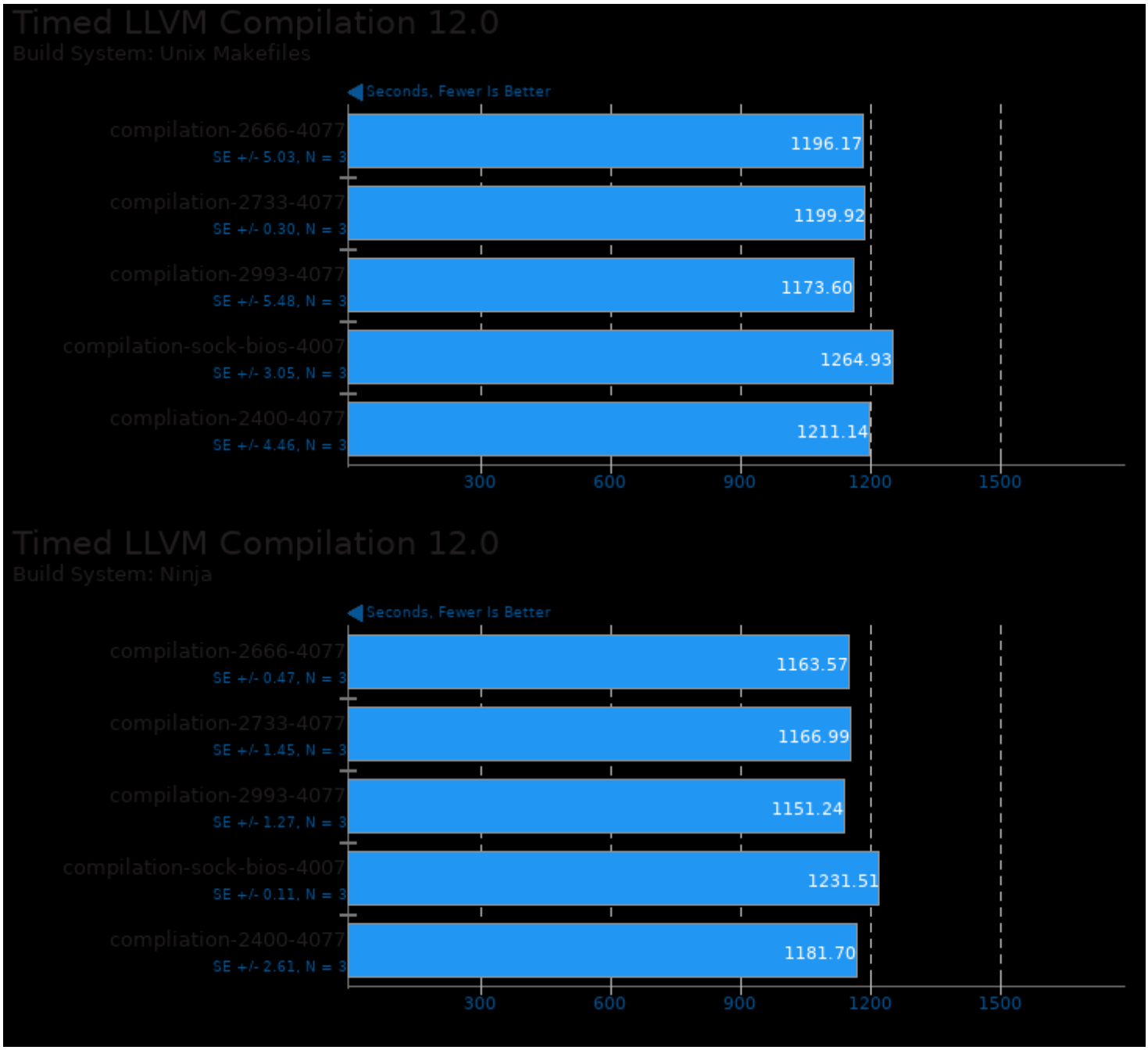
	compilation-2993-4077	compliation-2400-4077	compilation-sock-bios-4007	compilation-2666-4077	compilation-2733-4077
Timed ImageMagick Compilation - Time To Compile (sec)	45.315	46.543	49.209	46.185	46.057
Normalized	100%	97.36%	92.09%	98.12%	98.39%
Standard Deviation	1.4%	1.5%	1.3%	0.5%	1%
Timed Node.js Compilation - Time To Compile (sec)	732.989	752.755	790.790	741.475	740.927
Normalized	100%	97.37%	92.69%	98.86%	98.93%
Standard Deviation	0.2%	0.2%	0.2%	0.4%	0.1%
Timed LLVM Compilation - Unix Makefiles (sec)	1174	1211	1265	1196	1200
Normalized	100%	96.9%	92.78%	98.11%	97.81%
Standard Deviation	0.8%	0.6%	0.4%	0.7%	0%
Timed LLVM Compilation - Ninja (sec)	1151	1182	1232	1164	1167
Normalized	100%	97.42%	93.48%	98.94%	98.65%
Standard Deviation	0.2%	0.4%	0%	0.1%	0.2%
Timed Wasmer Compilation - Time To Compile (sec)	116.364	117.893	124.250	122.553	120.594
Normalized	100%	98.7%	93.65%	94.95%	96.49%
Standard Deviation	1%	0.8%	0.1%	1.4%	2.1%
Timed PHP Compilation - Time To Compile (sec)	86.960	88.025	92.226	86.818	87.438
Normalized	99.84%	98.63%	94.14%	100%	99.29%
Standard Deviation	0.1%	0.2%	0.3%	0.3%	0.1%
Timed Eigen Compilation - Time To Compile (sec)	109.847	106.961	112.800	106.906	108.689
Normalized	97.32%	99.95%	94.77%	100%	98.36%
Standard Deviation	0.3%	0.1%	0.5%	0.4%	0.2%
Timed MPlayer Compilation - Time To Compile (sec)	56.984	59.407	59.801	58.120	58.941
Normalized	100%	95.92%	95.29%	98.05%	96.68%
Standard Deviation	0.2%	4.9%	0.2%	4%	5.1%
Timed Godot Game Engine Compilation - Time To Compile (sec)	207.955	210.752	216.860	211.322	209.899
Normalized	100%	98.67%	95.89%	98.41%	99.07%
Standard Deviation	0.3%	0.6%	0.1%	0.2%	0.3%
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	96.804	96.729	100.316	96.351	96.569
Normalized	99.53%	99.61%	96.05%	100%	99.77%
Standard Deviation	1.2%	0.4%	0.2%	0.3%	0.3%
Build2 - Time To Compile (sec)	188.021	190.785	193.942	189.120	190.041
Normalized	100%	98.55%	96.95%	99.42%	98.94%
Standard Deviation	0.8%	1%	1.4%	1.3%	1%
Timed Apache Compilation - Time To Compile (sec)	30.542	30.828	31.434	30.612	30.603
Normalized	100%	99.07%	97.16%	99.77%	99.8%
Standard Deviation	1.6%	2.5%	0.7%	2.6%	1.8%

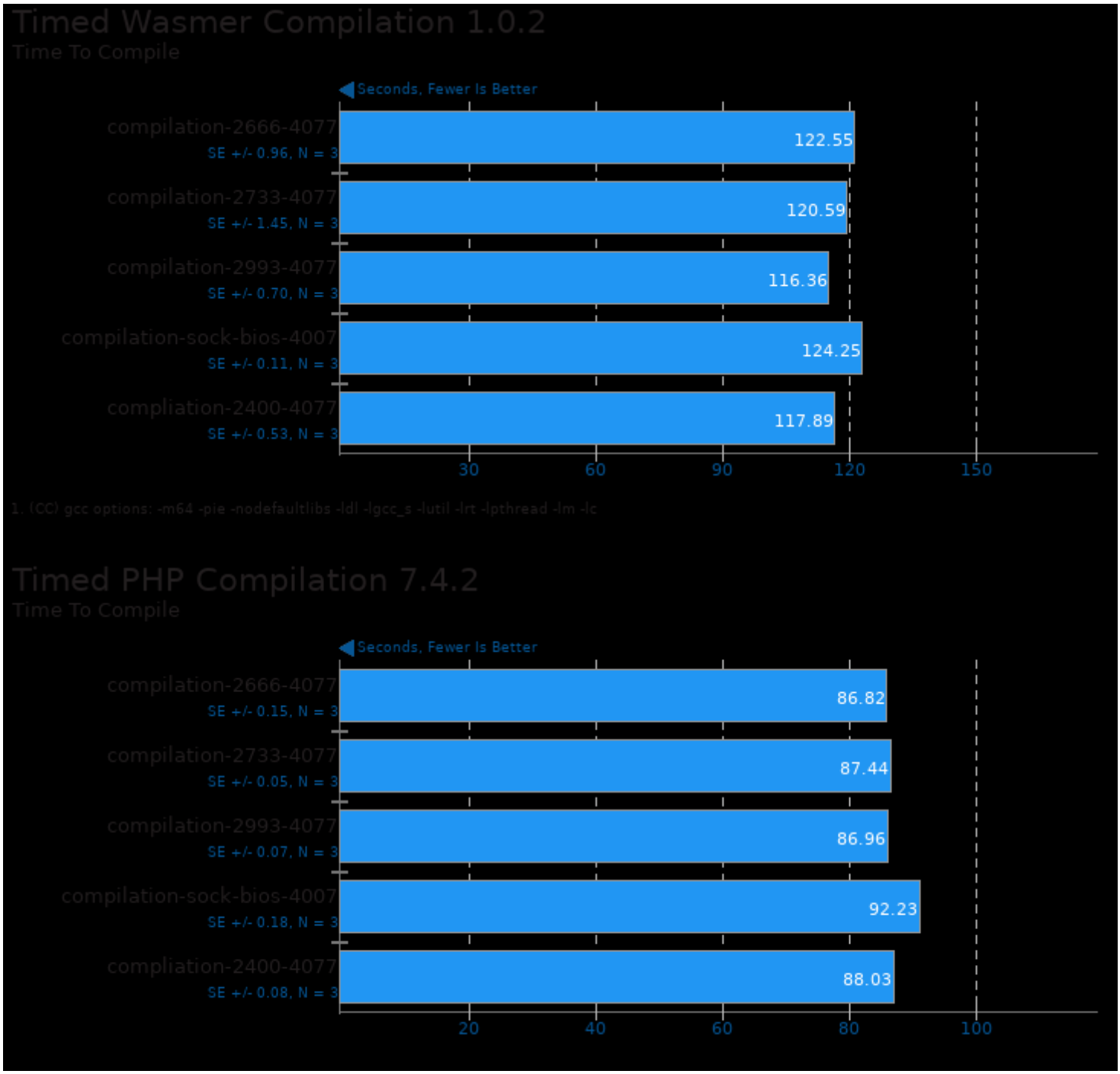
compilation-2993-4077

Timed Linux Kernel Compilation - Time To Compile (sec)	139.761	138.479	**141.980**	140.313	**138.094**
Normalized	98.81%	99.72%	97.26%	98.42%	100%
Standard Deviation	2.3%	0.4%	0.9%	1.3%	0.6%
Timed GCC Compilation - Time To Compile (sec)	**1523**	1537	**1563**	1524	1532
Normalized	100%	99.04%	97.41%	99.93%	99.4%
Standard Deviation	0.4%	1.1%	0.1%	1.1%	2.4%
Timed Erlang/OTP Compilation - Time To Compile (sec)	158.137	159.862	157.873	**157.778**	**161.191**
Normalized	99.77%	98.7%	99.94%	100%	97.88%
Standard Deviation	0.4%	1.3%	0.1%	1.7%	2.4%
Timed FFmpeg Compilation - Time To Compile (sec)	**89.340**	92.767	**93.661**	92.811	91.578
Normalized	100%	96.31%	95.39%	96.26%	97.56%
Standard Deviation	0.9%	2.8%	0.6%	6.8%	0.5%

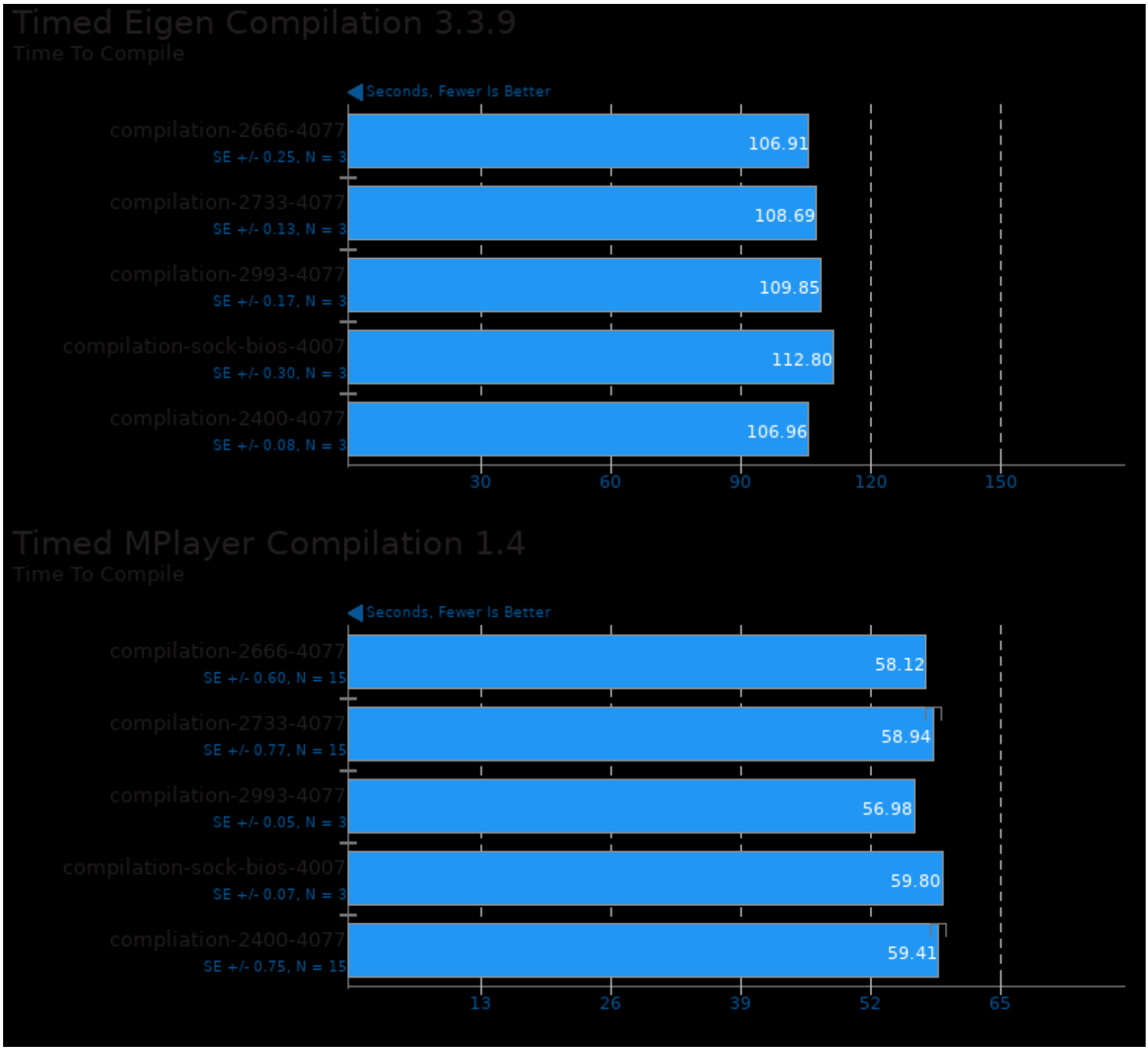
compilation-2993-4077

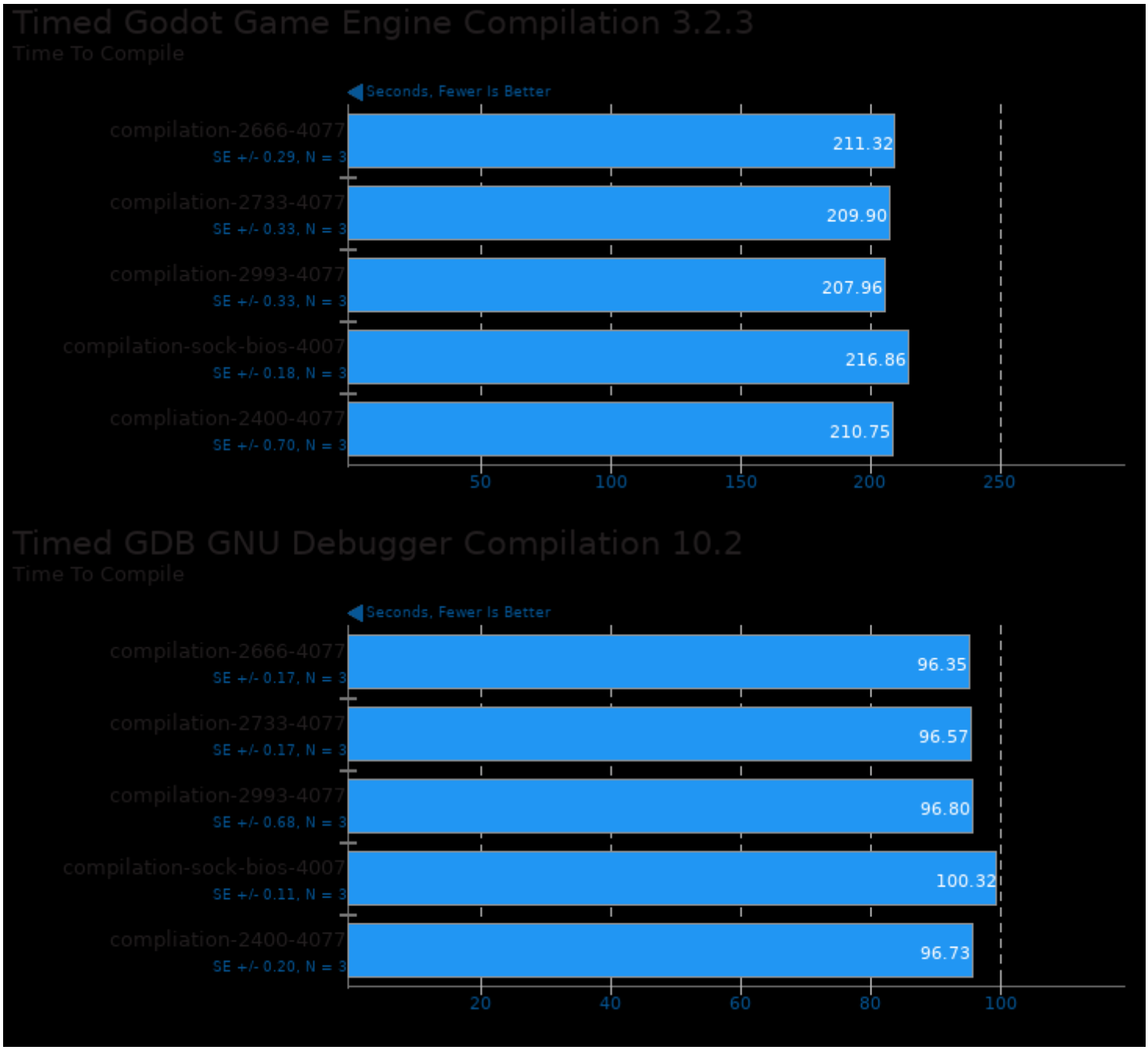



Timed LLVM Compilation 12.0
Build System: Unix Makefiles
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 5.03, N = 3
1196.17
compilation-2733-4077
SE +/- 0.30, N = 3
1199.92
compilation-2993-4077
SE +/- 5.48, N = 3
1173.60
compilation-sock-bios-4007
SE +/- 3.05, N = 3
1264.93
compliation-2400-4077
SE +/- 4.46, N = 3
1211.14
300
600
900
1200
1500
Timed LLVM Compilation 12.0
Build System: Ninja
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 0.47, N = 3
1163.57
compilation-2733-4077
SE +/- 1.45, N = 3
1166.99
compilation-2993-4077
SE +/- 1.27, N = 3
1151.24
compilation-sock-bios-4007
SE +/- 0.11, N = 3
1231.51
compliation-2400-4077
SE +/- 2.61, N = 3
1181.70
300
600
900
1200
1500

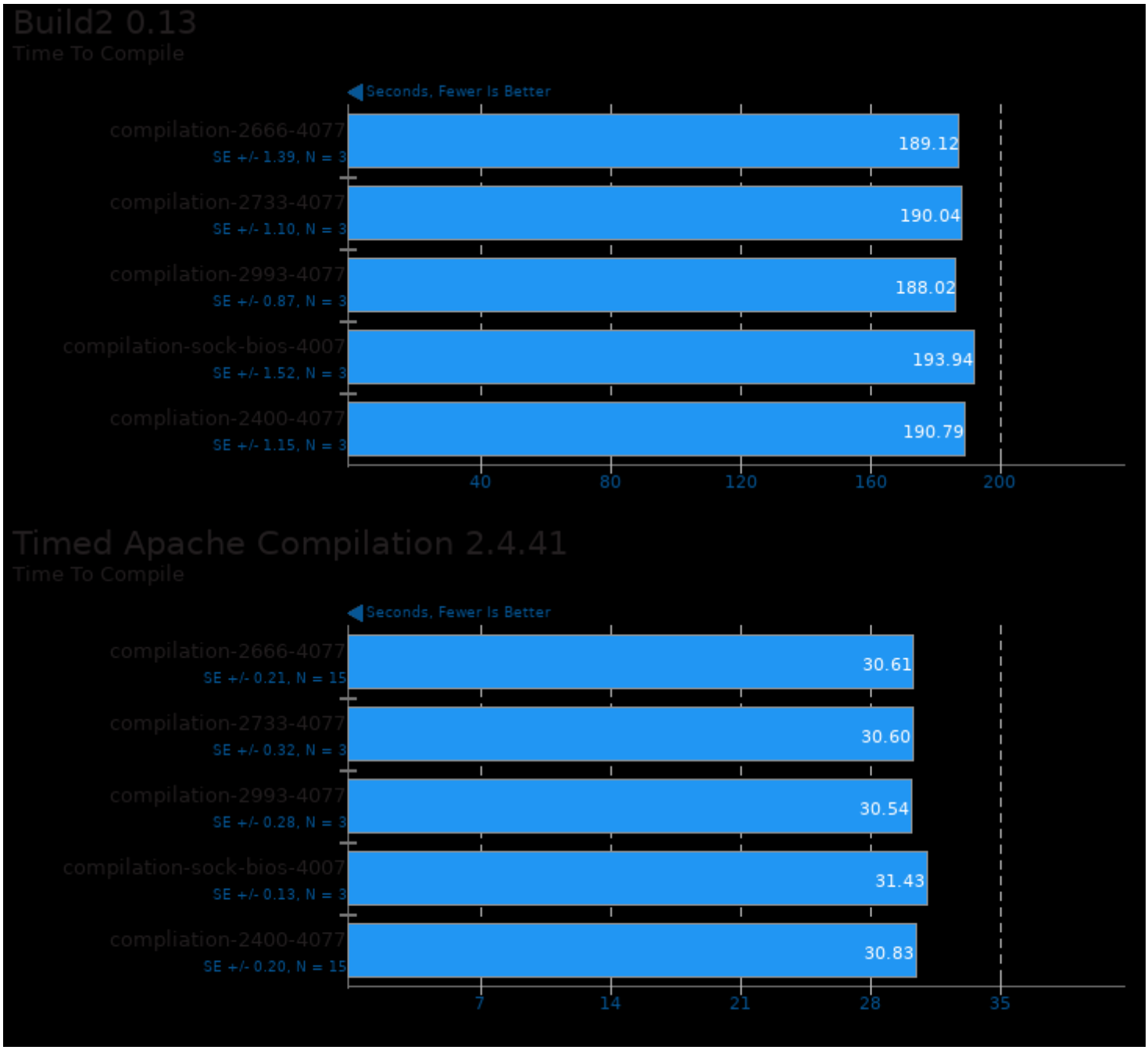

Timed Wasmer Compilation 1.0.2
Time To Compile
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 0.96, N = 3
122.55
compilation-2733-4077
SE +/- 1.45, N = 3
120.59
compilation-2993-4077
SE +/- 0.70, N = 3
116.36
compilation-sock-bios-4007
SE +/- 0.11, N = 3
124.25
compliation-2400-4077
SE +/- 0.53, N = 3
117.89
30
60
90
120
150
1. (CC) gcc options: -m64 -pie -nodefaultlibs -ldl -lgcc_s -lutil -lrt -lpthread -lm -lc

Timed PHP Compilation 7.4.2
Time To Compile
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 0.15, N = 3
86.82
compilation-2733-4077
SE +/- 0.05, N = 3
87.44
compilation-2993-4077
SE +/- 0.07, N = 3
86.96
compilation-sock-bios-4007
SE +/- 0.18, N = 3
92.23
compliation-2400-4077
SE +/- 0.08, N = 3
88.03
20
40
60
80
100

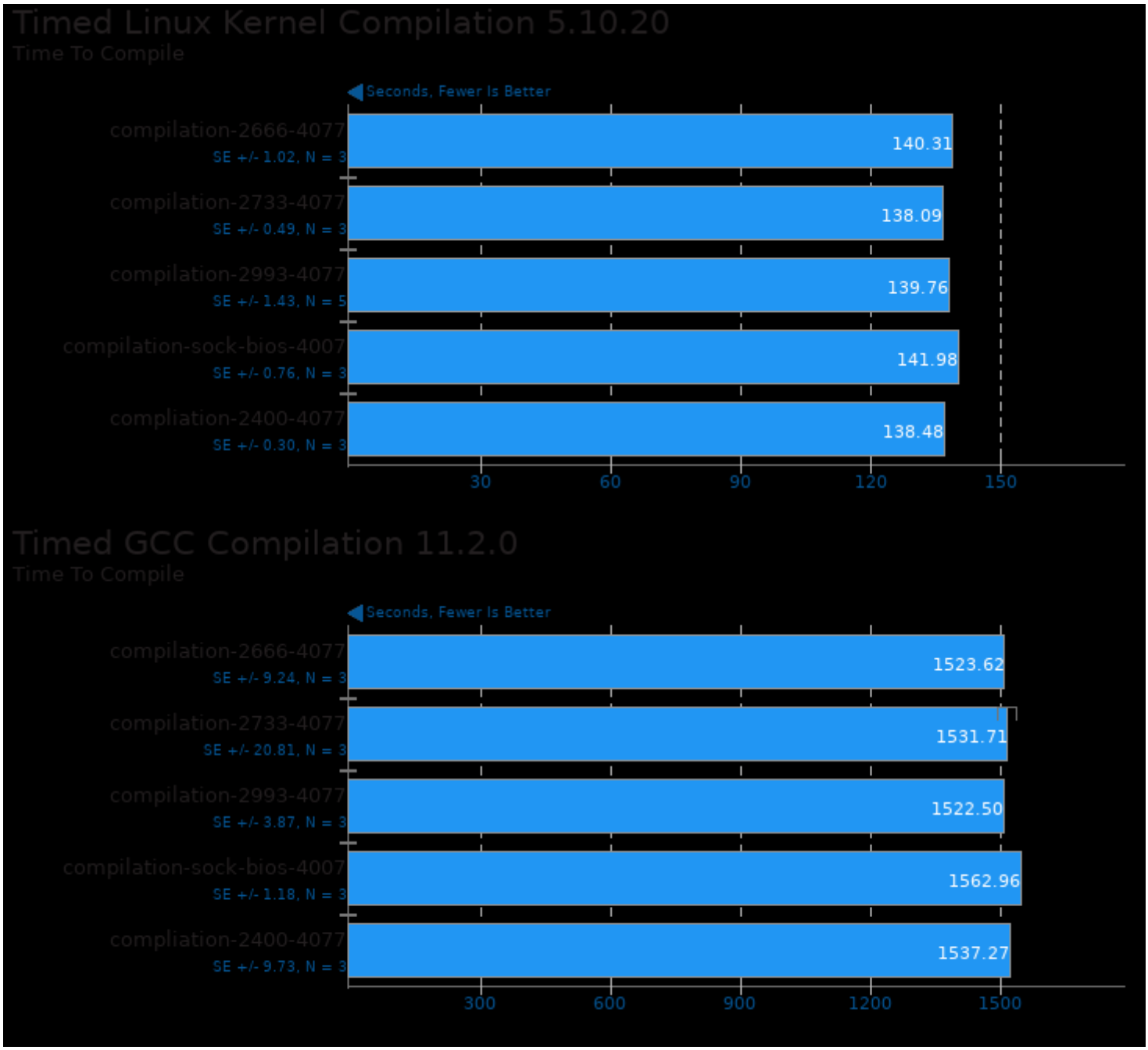

Timed Eigen Compilation 3.3.9
Time To Compile
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 0.25, N = 3
106.91
compilation-2733-4077
SE +/- 0.13, N = 3
108.69
compilation-2993-4077
SE +/- 0.17, N = 3
109.85
compilation-sock-bios-4007
SE +/- 0.30, N = 3
112.80
compliation-2400-4077
SE +/- 0.08, N = 3
106.96
30
60
90
120
150
Timed MPlayer Compilation 1.4
Time To Compile
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 0.60, N = 15
58.12
compilation-2733-4077
SE +/- 0.77, N = 15
58.94
compilation-2993-4077
SE +/- 0.05, N = 3
56.98
compilation-sock-bios-4007
SE +/- 0.07, N = 3
59.80
compliation-2400-4077
SE +/- 0.75, N = 15
59.41
13
26
39
52
65

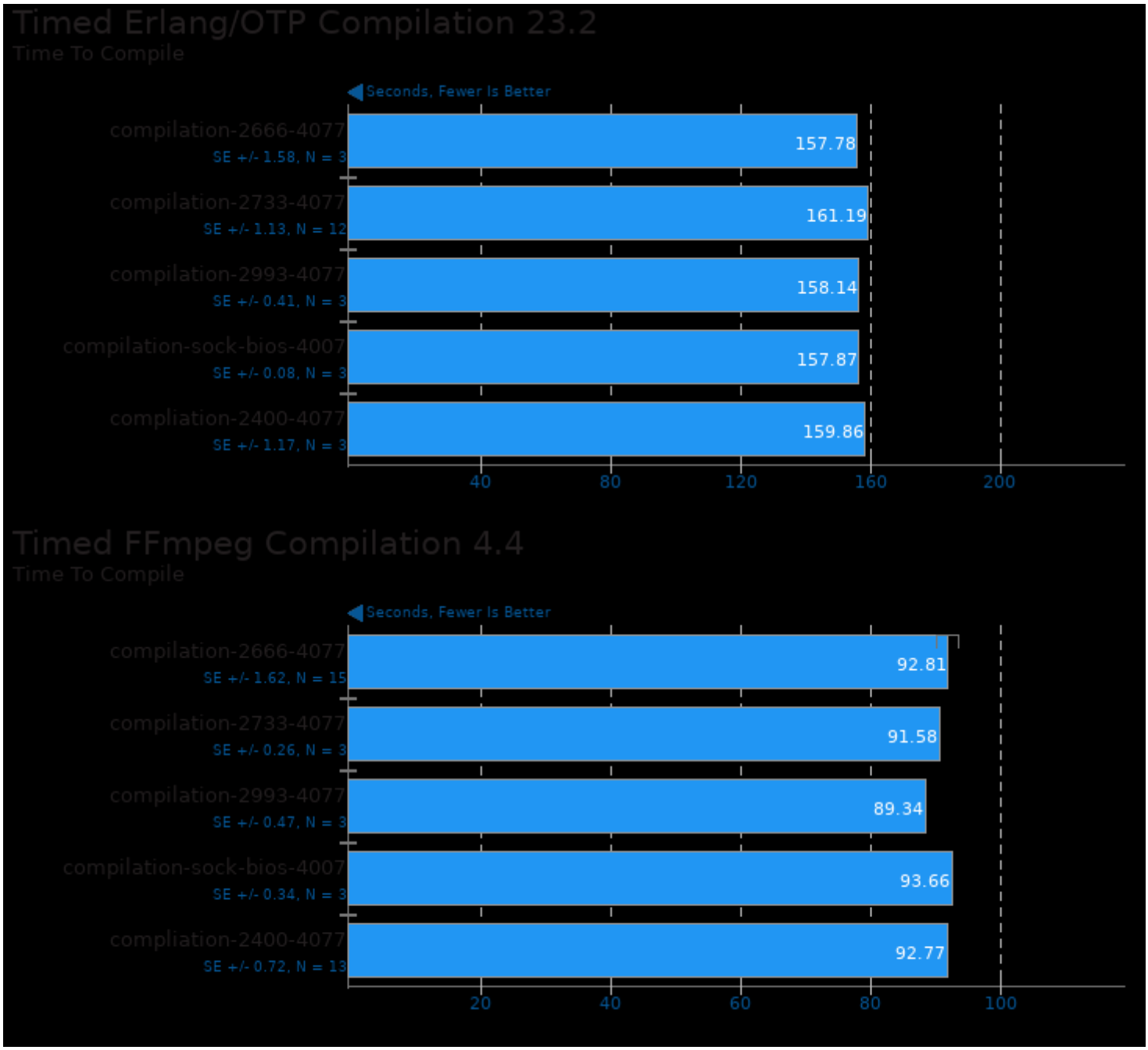

Timed Godot Game Engine Compilation 3.2.3
Time To Compile
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 0.29, N = 3
211.32
compilation-2733-4077
SE +/- 0.33, N = 3
209.90
compilation-2993-4077
SE +/- 0.33, N = 3
207.96
compilation-sock-bios-4007
SE +/- 0.18, N = 3
216.86
compliation-2400-4077
SE +/- 0.70, N = 3
210.75
50
100
150
200
250
Timed GDB GNU Debugger Compilation 10.2
Time To Compile
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 0.17, N = 3
96.35
compilation-2733-4077
SE +/- 0.17, N = 3
96.57
compilation-2993-4077
SE +/- 0.68, N = 3
96.80
compilation-sock-bios-4007
SE +/- 0.11, N = 3
100.32
compliation-2400-4077
SE +/- 0.20, N = 3
96.73
20
40
60
80
100

compilation-2993-4077



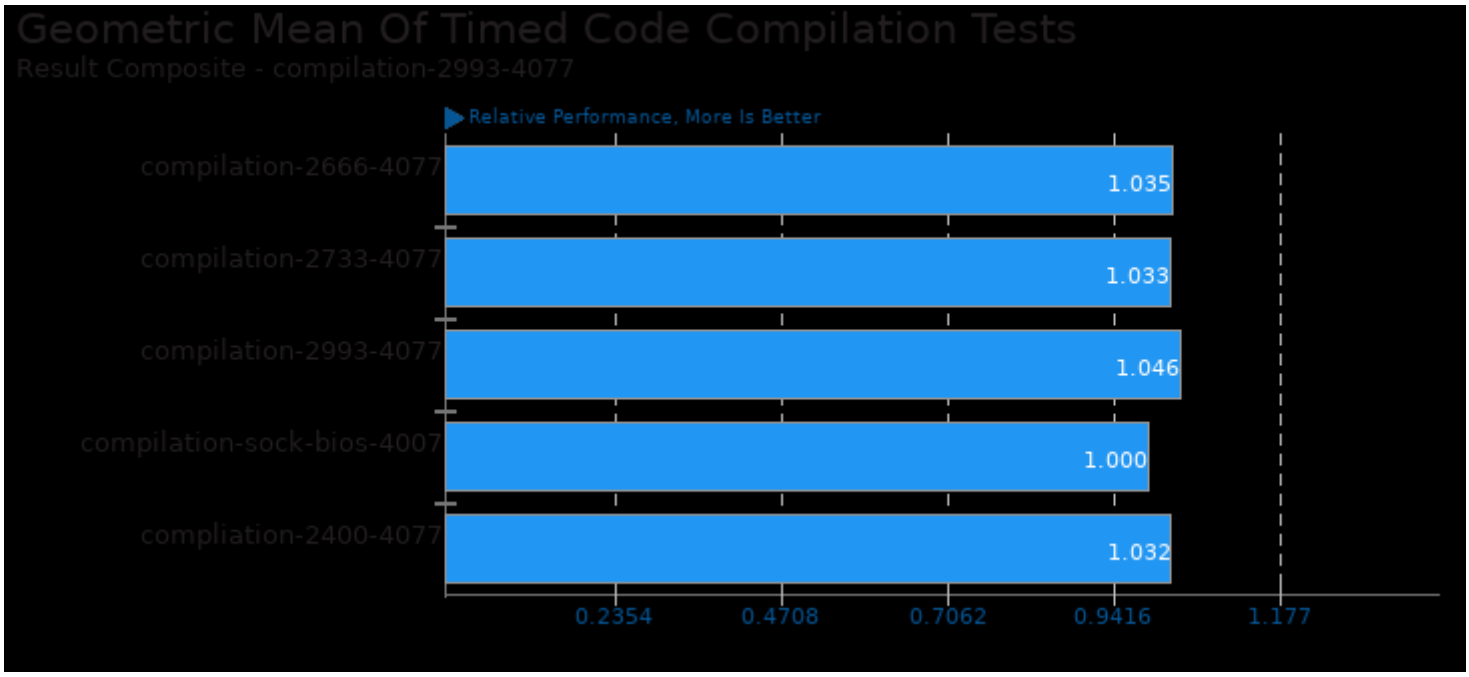
compilation-2993-4077



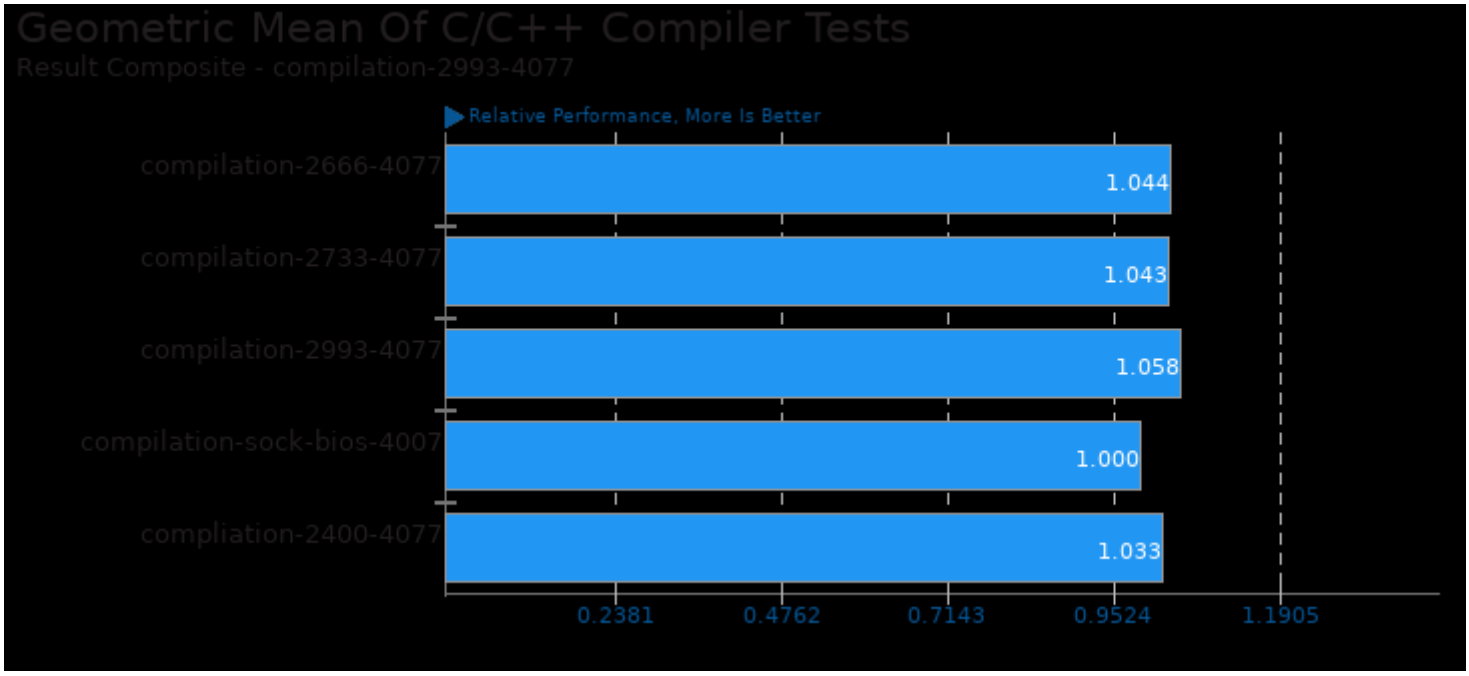

Timed Erlang/OTP Compilation 23.2
Time To Compile
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 1.58, N = 3
157.78
compilation-2733-4077
SE +/- 1.13, N = 12
161.19
compilation-2993-4077
SE +/- 0.41, N = 3
158.14
compilation-sock-bios-4007
SE +/- 0.08, N = 3
157.87
compliation-2400-4077
SE +/- 1.17, N = 3
159.86
40
80
120
160
200
Timed FFmpeg Compilation 4.4
Time To Compile
Seconds, Fewer Is Better
compilation-2666-4077
SE +/- 1.62, N = 15
92.81
compilation-2733-4077
SE +/- 0.26, N = 3
91.58
compilation-2993-4077
SE +/- 0.47, N = 3
89.34
compilation-sock-bios-4007
SE +/- 0.34, N = 3
93.66
compliation-2400-4077
SE +/- 0.72, N = 13
92.77
20
40
60
80
100

compilation-2993-4077

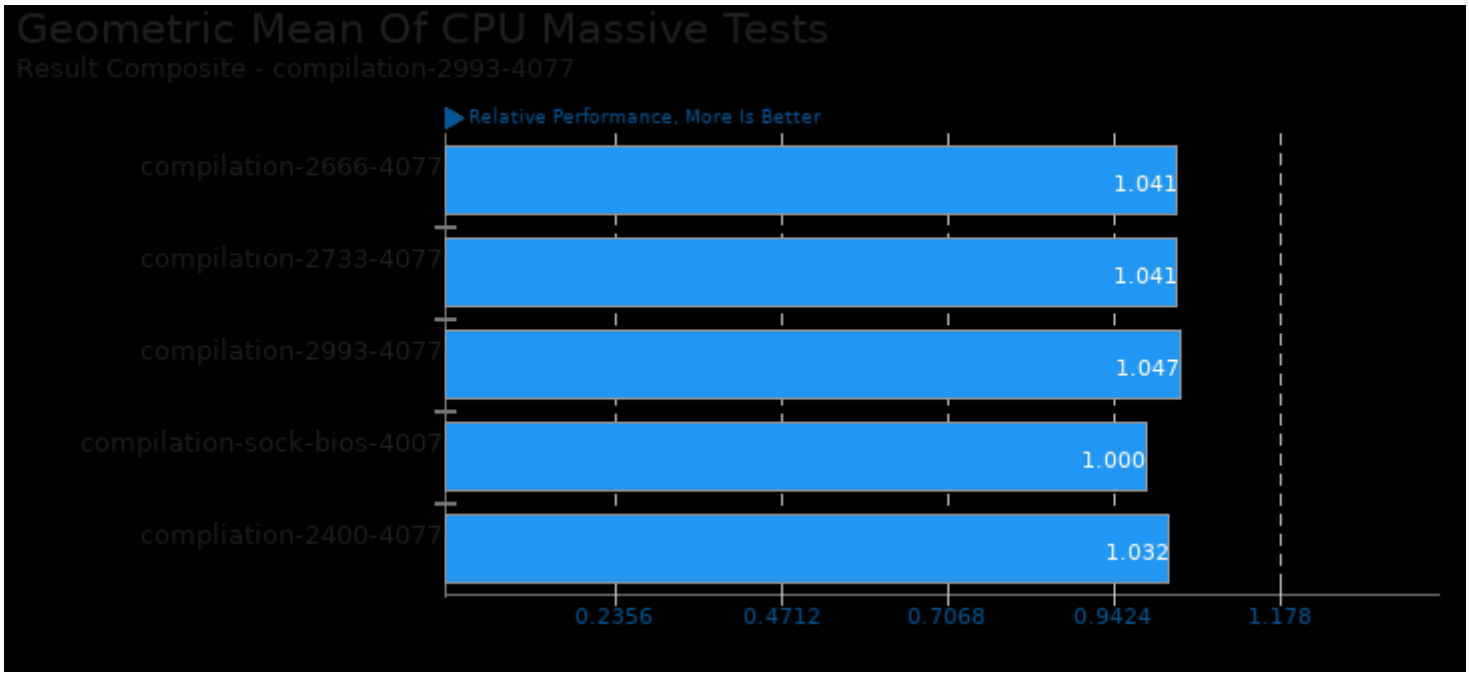
These geometric means are based upon test groupings / test suites for this result file.



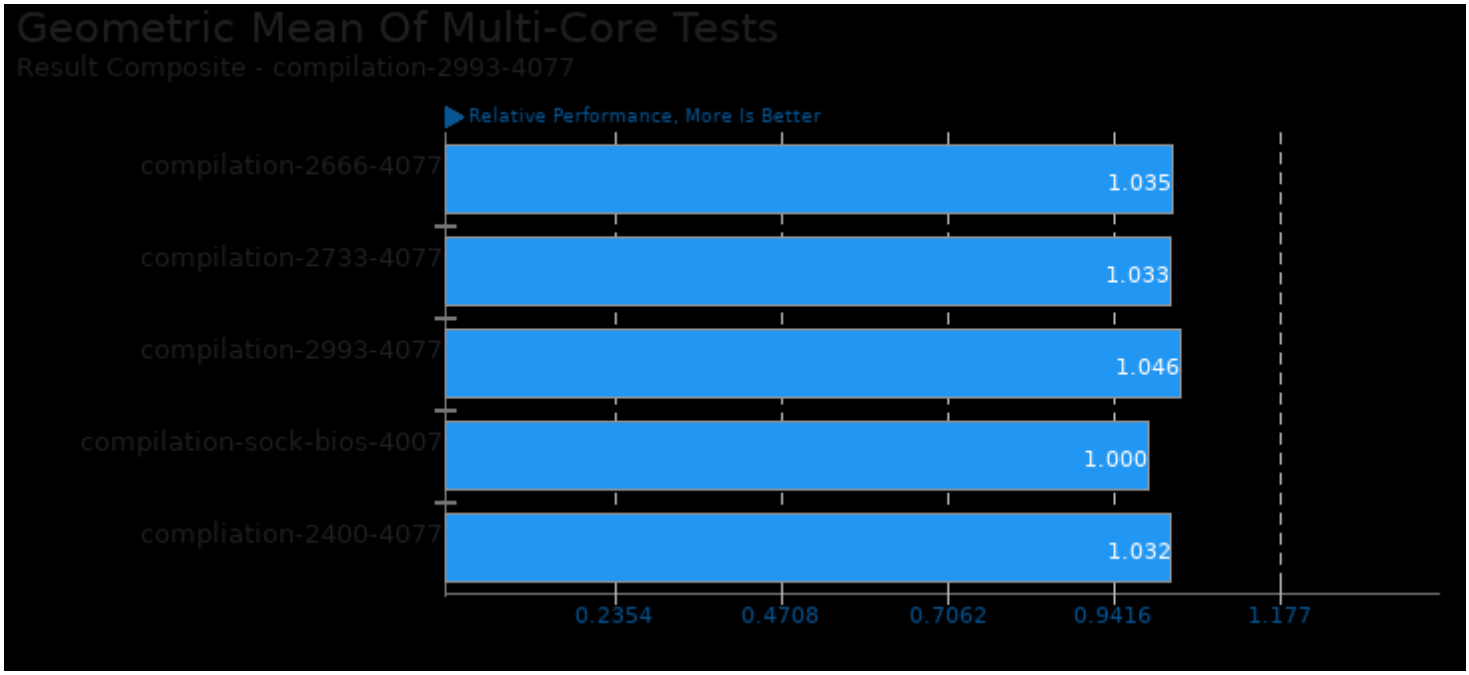
Geometric mean based upon tests: pts/build-apache, pts/build-php, pts/build-eigen, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer, pts/build2, pts/build-godot, pts/build-erlang, pts/build-wasmer and pts/build-nodejs



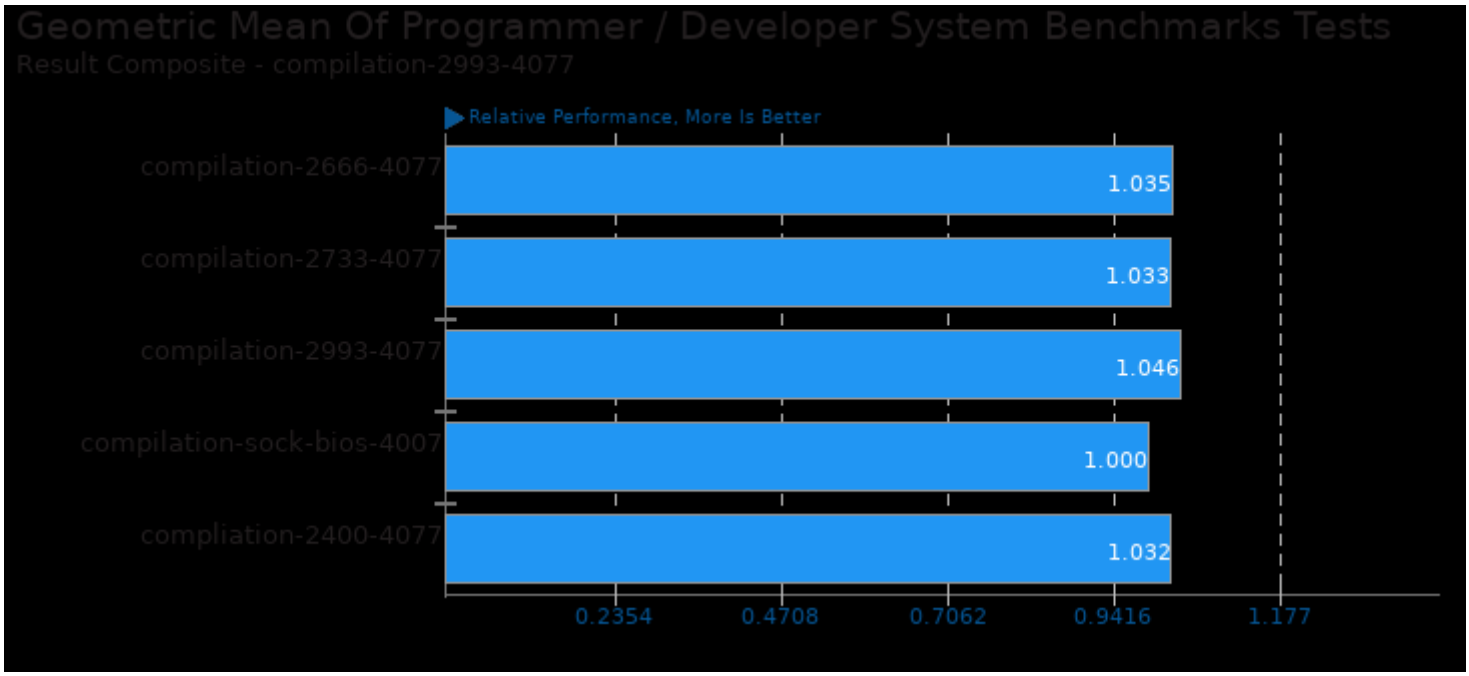
Geometric mean based upon tests: pts/build-php, pts/build-imagemagick, pts/build-llvm, pts/build-gdb, pts/build-ffmpeg, pts/build-apache and pts/build-mplayer



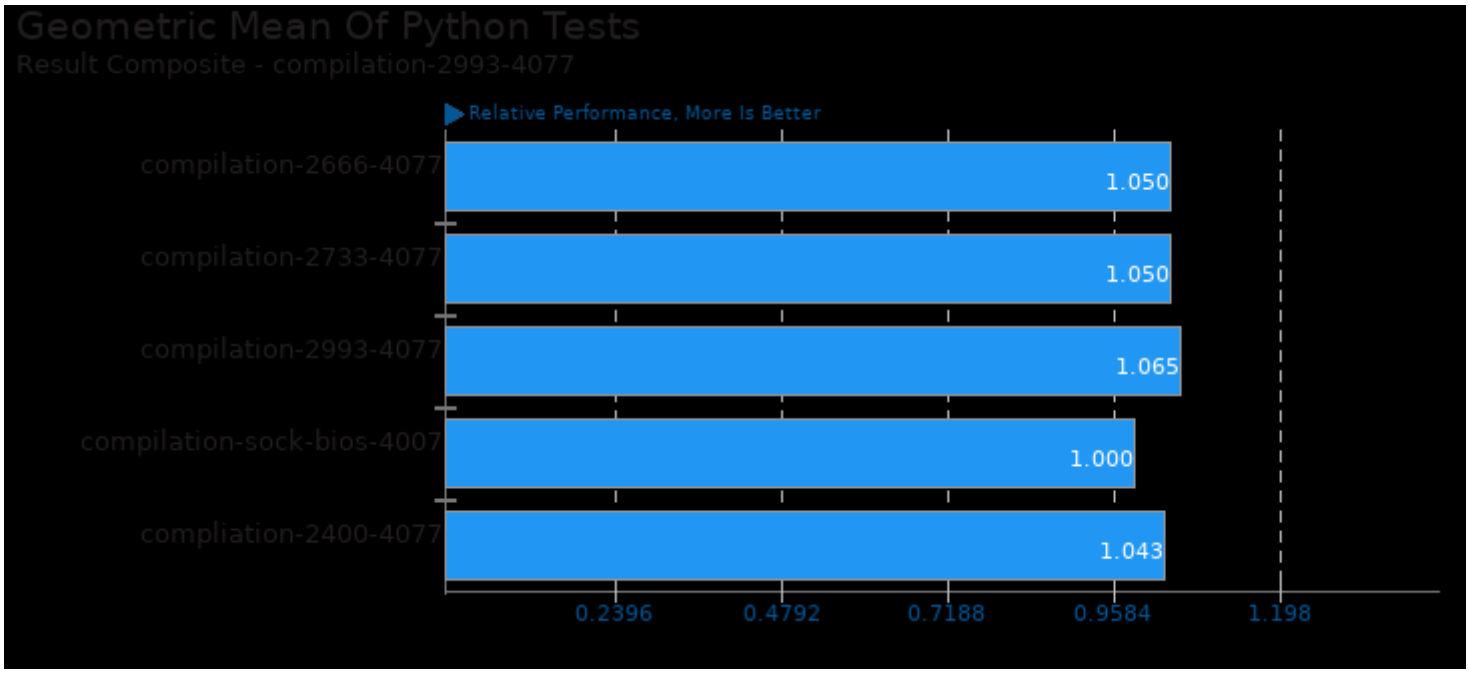
Geometric mean based upon tests: pts/build-apache, pts/build-gcc, pts/build-llvm, pts/build-linux-kernel and pts/build-php



Geometric mean based upon tests: pts/build-apache, pts/build-php, pts/build-eigen, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer, pts/build2, pts/build-godot, pts/build-erlang, pts/build-wasmer and pts/build-nodejs

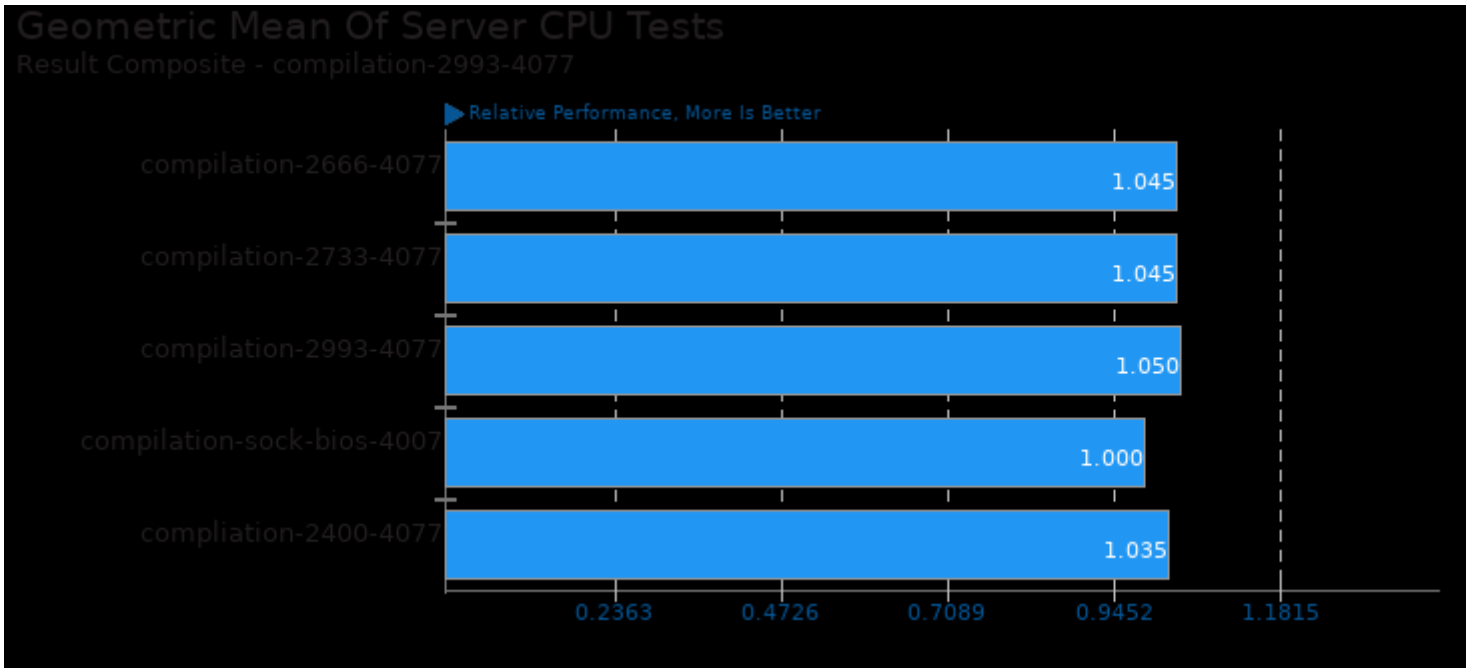


Geometric mean based upon tests: pts/build-apache, pts/build-php, pts/build-eigen, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer, pts/build2, pts/build-godot, pts/build-erlang, pts/build-wasmer and pts/build-nodejs



Geometric mean based upon tests: pts/build-nodejs, pts/build-llvm and pts/build-godot

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Geometric mean based upon tests: pts/build-gcc, pts/build-linux-kernel, pts/build-php and pts/build-llvm

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