



Intel Haswell HD 4600 Linux 3.11

Intel Core i7-4770K Haswell benchmarks of the Linux 3.8, 3.9, 3.10, and Linux 3.11 kernels on Ubuntu 13.10 x86_64. benchmarking by Michael Larabel for a future article on phoronix.

Automated Executive Summary

Linux 3.10 had the most wins, coming in first place for 58% of the tests.

Based on the geometric mean of all complete results, the fastest (Linux 3.10) was 1.193x the speed of the slowest (Linux 3.8). Linux 3.11 Git was 0.997x the speed of Linux 3.10, Linux 3.9 was 0.843x the speed of Linux 3.11 Git, Linux 3.8 was 0.997x the speed of Linux 3.9.

Test Systems:

Linux 3.11 Git

Processor: Intel Core i7-4770K @ 3.50GHz (8 Cores), Motherboard: Intel DH87RL, Chipset: Intel 4th Gen Core DRAM, Memory: 15360MB, Disk: 240GB OCZ VERTEX3, Graphics: Intel Haswell Desktop, Audio: Realtek ALC892, Network:

Intel Connection I217-V

OS: Ubuntu 13.10, Kernel: 3.11.0-999-generic (x86_64), Desktop: Unity 7.0.2, Display Server: X Server 1.14.2, Display Driver: intel 2.21.12, OpenGL: 3.1 Mesa 9.2.0-devel (git-7fd30a8), Compiler: GCC 4.8 + LLVM 3.3, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-werror --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=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Graphics Notes: SNA

Linux 3.10

Processor: Intel Core i7-4770K @ 3.50GHz (8 Cores), Motherboard: Intel DH87RL, Chipset: Intel 4th Gen Core DRAM, Memory: 15360MB, Disk: 240GB OCZ VERTEX3, Graphics: Intel Haswell Desktop, Audio: Intel Haswell HDMI, Network: Intel Connection I217-V

OS: Ubuntu 13.10, Kernel: 3.10.0-031000-generic (x86_64), Desktop: Unity 7.0.2, Display Server: X Server 1.14.2, Display Driver: intel 2.21.12, OpenGL: 3.1 Mesa 9.2.0-devel (git-7fd30a8), Compiler: GCC 4.8 + LLVM 3.3, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-werror --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=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Graphics Notes: SNA

Linux 3.9

Processor: Intel Core i7-4770K @ 3.50GHz (8 Cores), Motherboard: Intel DH87RL, Chipset: Intel 4th Gen Core DRAM, Memory: 15360MB, Disk: 240GB OCZ VERTEX3, Graphics: Intel Haswell Desktop, Audio: Intel Haswell HDMI, Network: Intel Connection I217-V

OS: Ubuntu 13.10, Kernel: 3.9.0-030900-generic (x86_64), Desktop: Unity 7.0.2, Display Server: X Server 1.14.2, Display Driver: intel 2.21.12, OpenGL: 3.1 Mesa 9.2.0-devel (git-7fd30a8), Compiler: GCC 4.8 + LLVM 3.3, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-werror --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=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Graphics Notes: SNA

Linux 3.8

Processor: Intel Core i7-4770K @ 3.50GHz (8 Cores), Motherboard: Intel DH87RL, Chipset: Intel 4th Gen Core DRAM, Memory: 15360MB, Disk: 240GB OCZ VERTEX3, Graphics: Intel Haswell Desktop, Audio: Intel Haswell HDMI, Network: Intel Connection I217-V

OS: Ubuntu 13.10, Kernel: 3.8.0-030800-generic (x86_64), Desktop: Unity 7.0.2, Display Server: X Server 1.14.2, Display Driver: intel 2.21.12, OpenGL: 3.1 Mesa 9.2.0-devel (git-7fd30a8), Compiler: GCC 4.8 + LLVM 3.3, File-System:

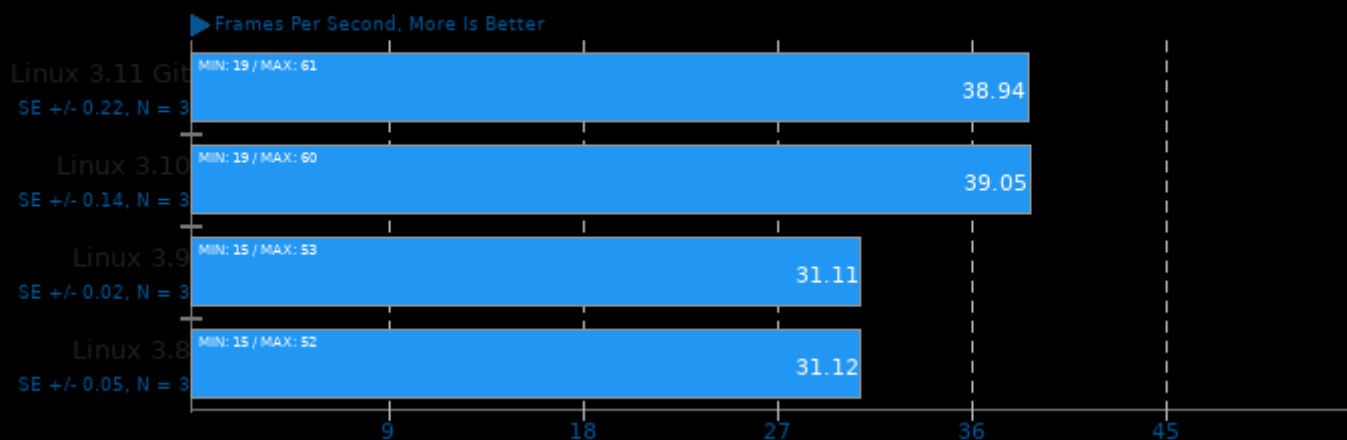
ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-werror --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-libstdc++-debug --enable-libstdc++-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=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre --with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32 --with-tune=generic -v
Graphics Notes: SNA

	Linux 3.11 Git	Linux 3.10	Linux 3.9	Linux 3.8
Nexuiz - 1920 x 1080 - Yes - Off (FPS)	38.94	39.05	31.11	31.12
Normalized	99.72%	100%	79.67%	79.69%
Standard Deviation	1%	0.6%	0.1%	0.3%
OpenArena - 1920 x 1080 (FPS)	38.67	38.83	32.27	31.83
Normalized	99.59%	100%	83.11%	81.97%
Standard Deviation	0.4%	0.4%	1.6%	0.2%
Reaction Quake 3 - 1920 x 1080 (FPS)	117.20	115.83	72.77	72.87
Normalized	100%	98.83%	62.09%	62.18%
Standard Deviation	0.9%	0.7%	1.8%	1.8%
Unvanquished - 1920 x 1080 (FPS)	29.83	29.80	25.97	25.83
Normalized	100%	99.9%	87.06%	86.59%
Standard Deviation	0.4%	0%	0.2%	0.4%
Urban Terror - 1920 x 1080 (FPS)	107.53	108.97	83.27	82.80
Normalized	98.68%	100%	76.42%	75.98%
Standard Deviation	1.3%	0.8%	1.2%	1.4%
Warsow - 1920 x 1080 (FPS)	59.10	58.93	47.27	46.63
Normalized	100%	99.71%	79.98%	78.9%
Standard Deviation	0.9%	1.1%	0.6%	0.7%
Xonotic - 1920 x 1080 - High (FPS)	73.73	73.78	61.39	61.25
Normalized	99.93%	100%	83.21%	83.02%
Standard Deviation	0.5%	0.6%	0.1%	0.2%
Xonotic - 1920 x 1080 - Ultra (FPS)	44.56	44.57	40.27	40.32
Normalized	99.98%	100%	90.35%	90.46%
Standard Deviation	0.2%	0.5%	0.2%	0.1%
GpuTest - Plot3D - 1680 x 1050	4034	3997	3910	3911
Normalized	100%	99.08%	96.93%	96.95%
Standard Deviation	0.1%	1.4%	0.1%	0%
GpuTest - Triangle - 1680 x 1050 (Points)	46228	47691	36539	36739
Normalized	96.93%	100%	76.62%	77.04%
Standard Deviation	11.3%	1.8%	1%	0%
GpuTest - Pixmark Piano - 1680 x 1050 (Points)	89	90	89	89
Normalized	98.89%	100%	98.89%	98.89%
Standard Deviation	0%	0.6%	0%	0%
GpuTest - Pixmark Volplosion - 1680 x 1050 (Points)	279	279	279	279
Standard Deviation	0%	0%	0%	0%

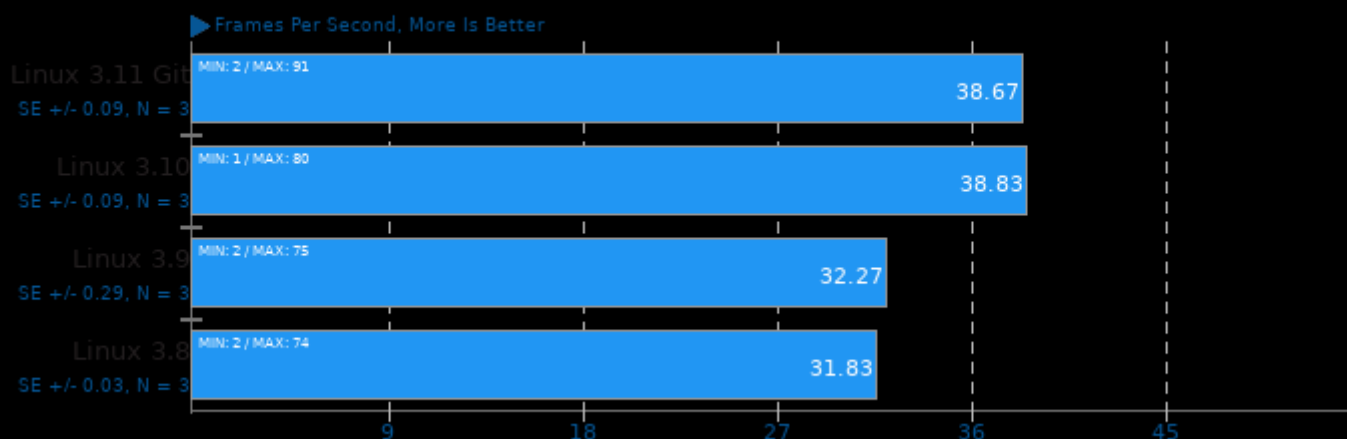
Nexuiz 2.5.2

Resolution: 1920 x 1080 - HDR: Yes - Sound: Off



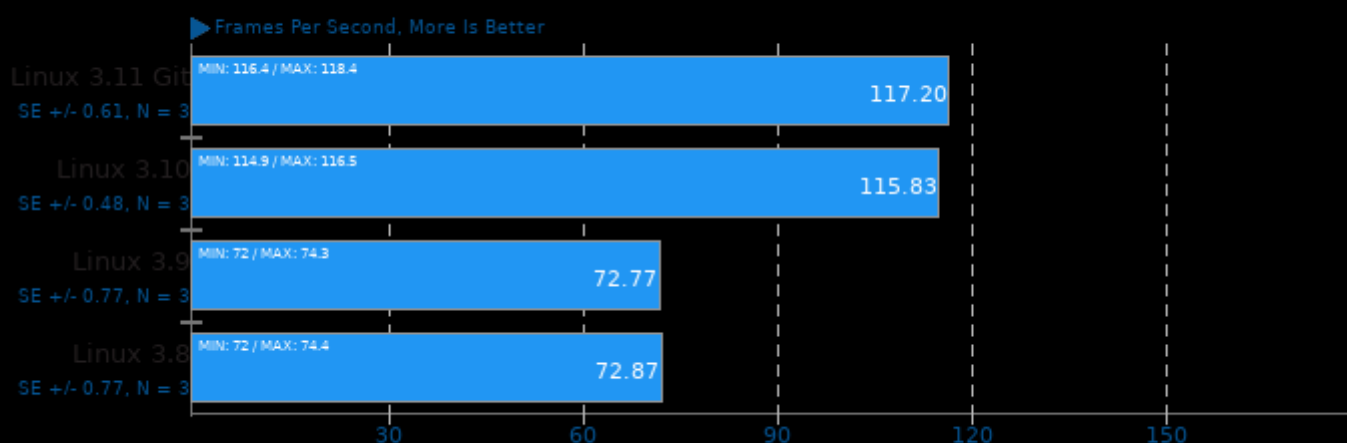
OpenArena 0.8.8

Resolution: 1920 x 1080



Reaction Quake 3 1.0 Beta

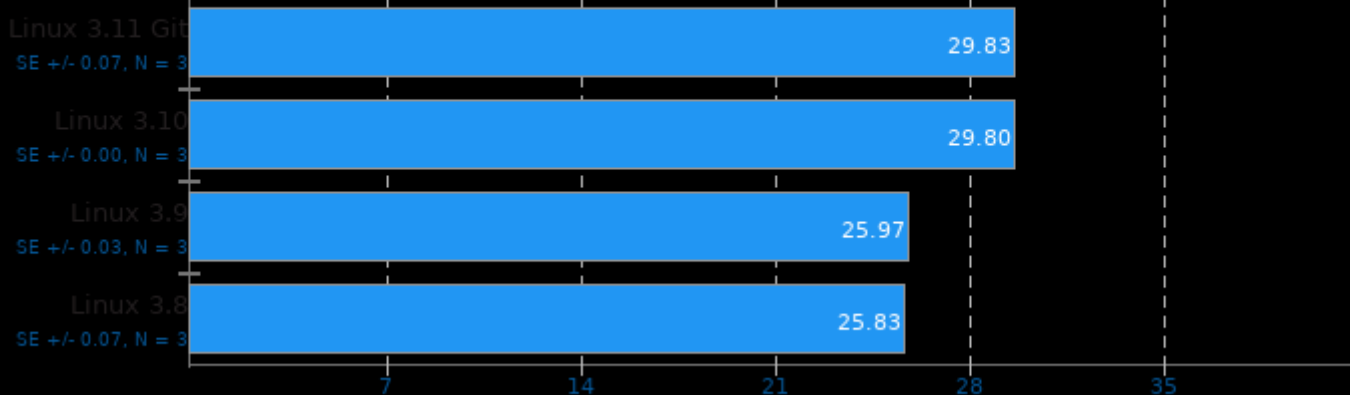
Resolution: 1920 x 1080



Unvanquished Alpha 17

Resolution: 1920 x 1080

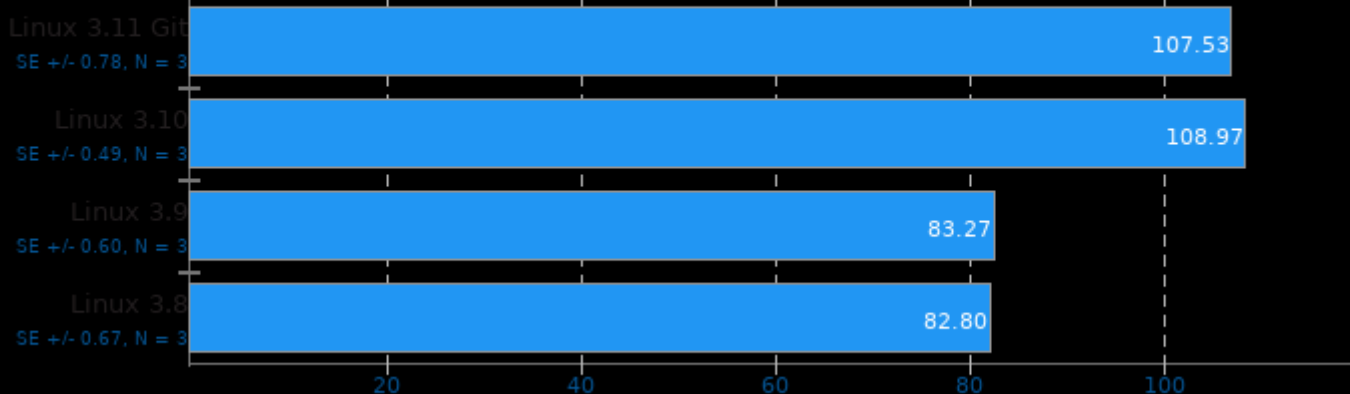
► Frames Per Second, More Is Better



Urban Terror 4.2.013

Resolution: 1920 x 1080

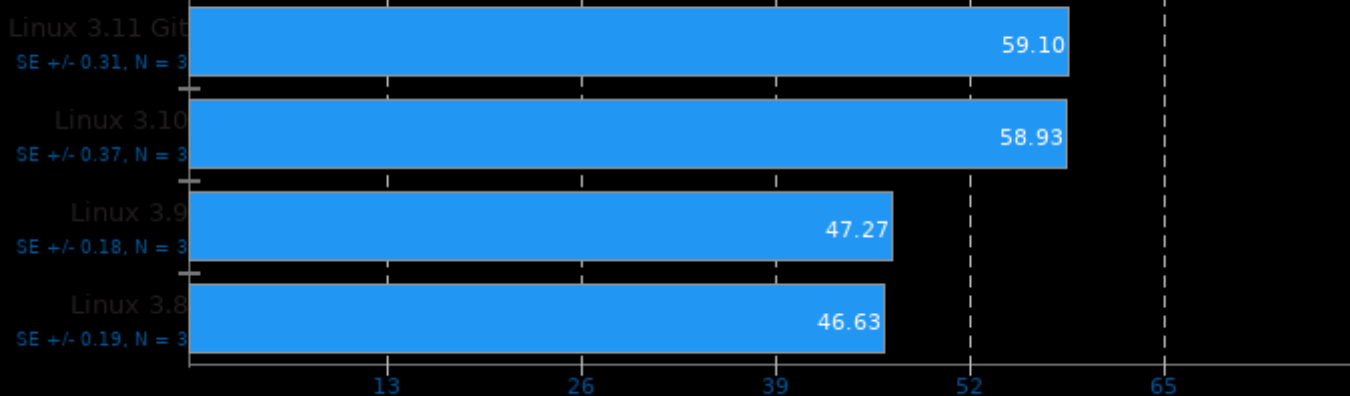
► Frames Per Second, More Is Better



Warsow 1.0

Resolution: 1920 x 1080

► Frames Per Second, More Is Better



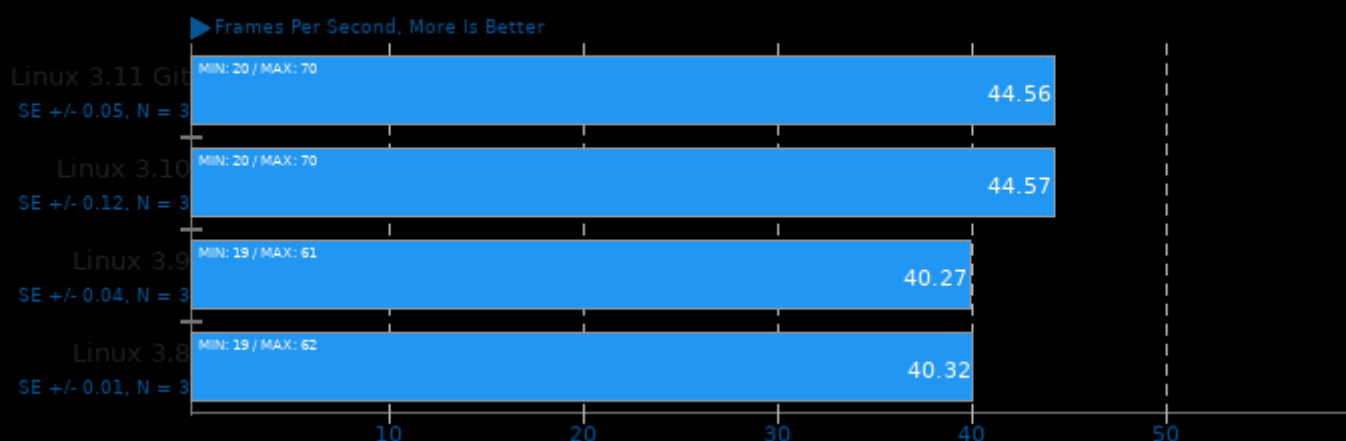
Xonotic 0.7

Resolution: 1920 x 1080 - Effects Quality: High



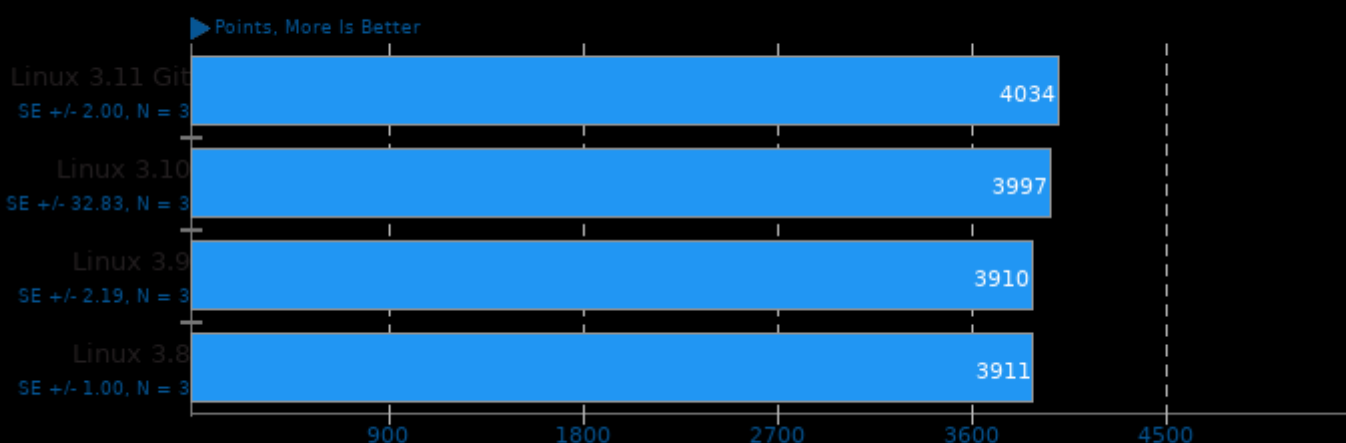
Xonotic 0.7

Resolution: 1920 x 1080 - Effects Quality: Ultra



GpuTest 0.5.0

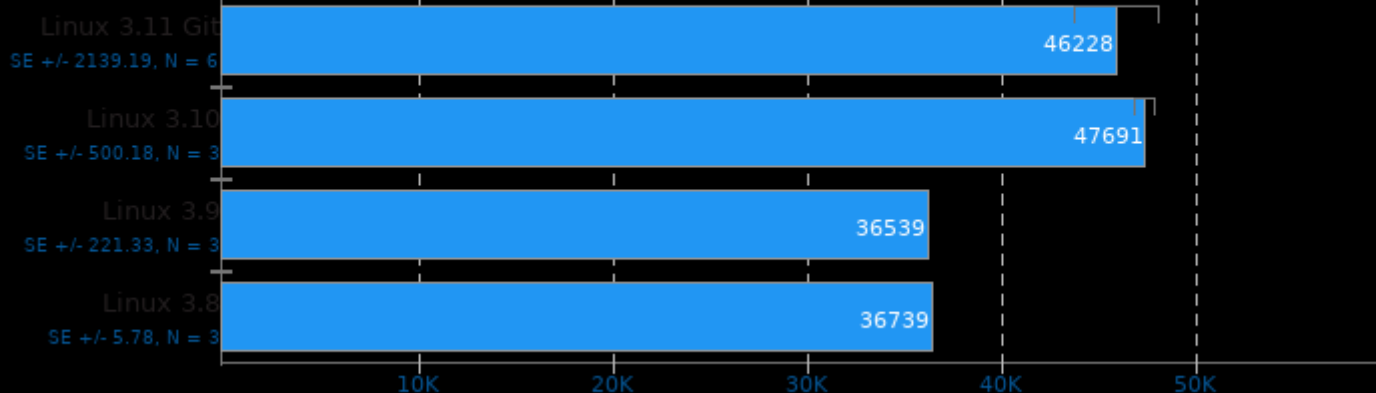
Test: Plot3D - Resolution: 1680 x 1050



GpuTest 0.5.0

Test: Triangle - Resolution: 1680 x 1050

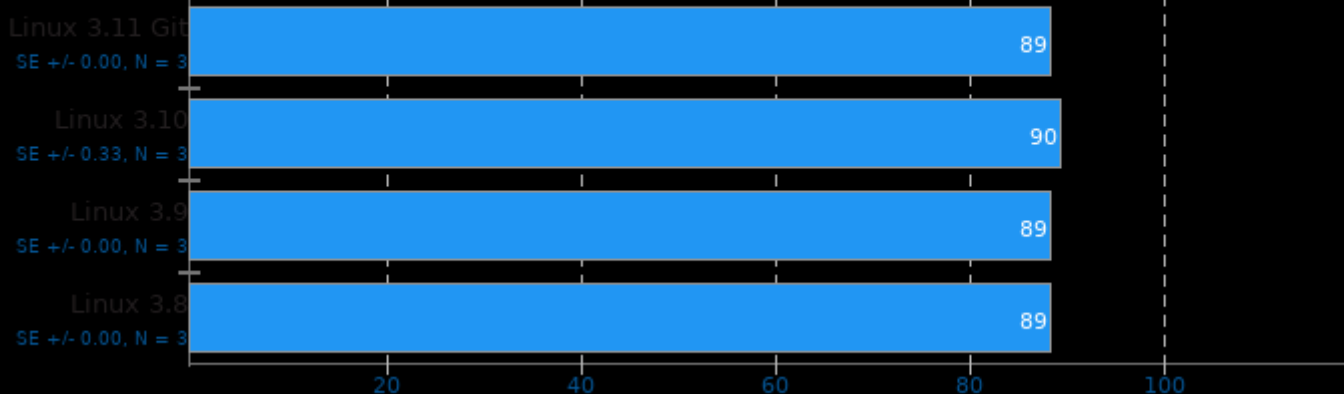
► Points, More Is Better



GpuTest 0.5.0

Test: Pixmark Piano - Resolution: 1680 x 1050

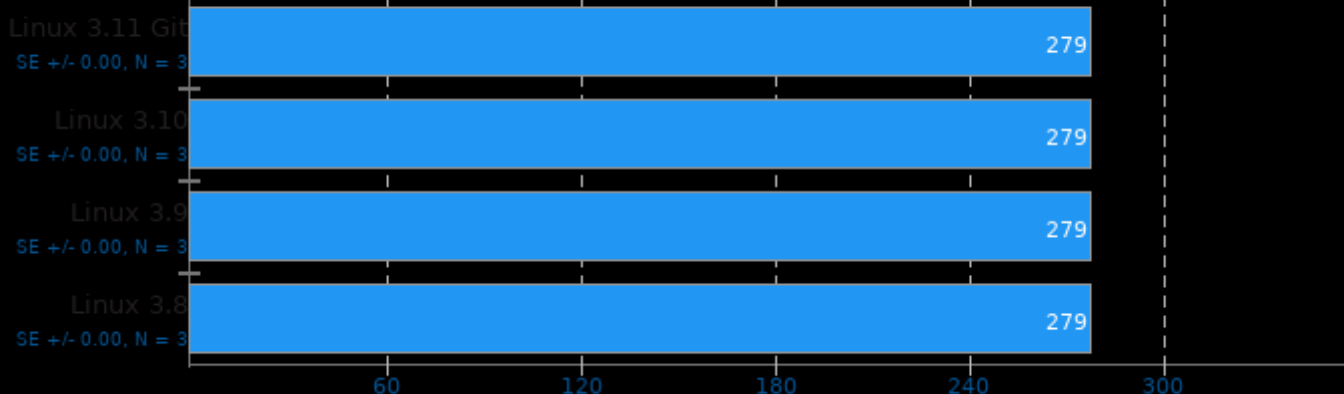
► Points, More Is Better



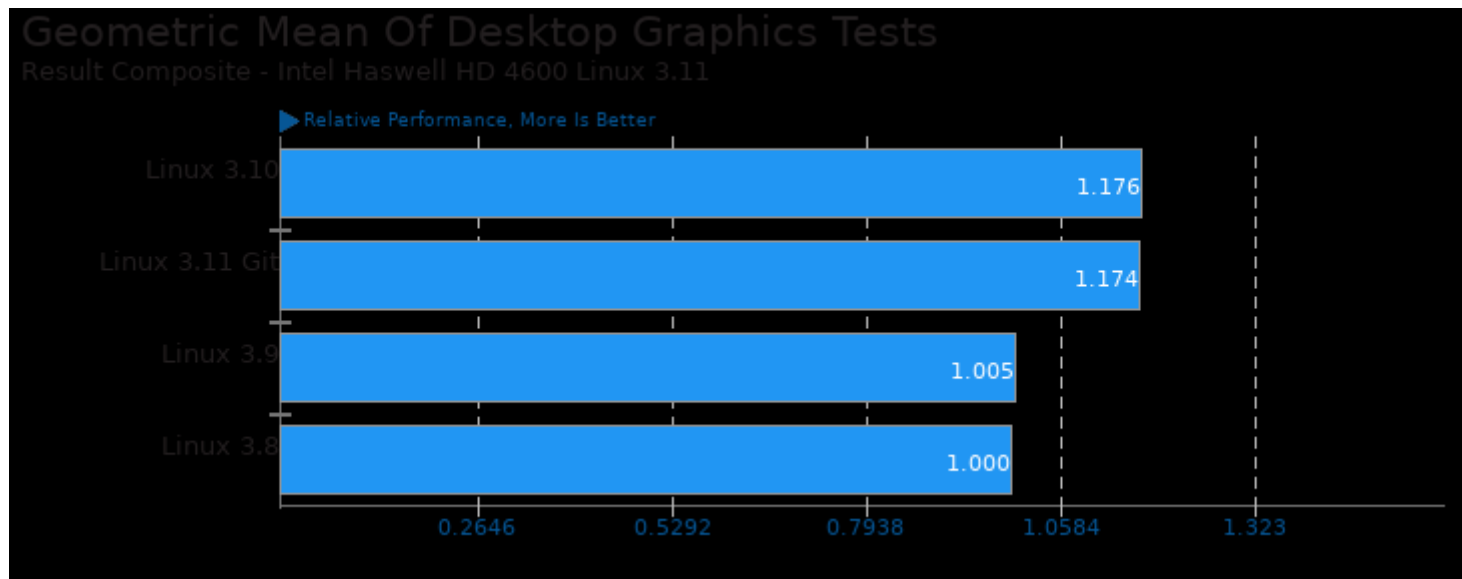
GpuTest 0.5.0

Test: Pixmark Volplosion - Resolution: 1680 x 1050

► Points, More Is Better



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



Geometric mean based upon tests: pts/xonotic and pts/openarena

This file was automatically generated via the Phoronix Test Suite benchmarking software on Tuesday, 16 July 2024 10:22.