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Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep

AMD Ryzen Threadripper 1950X tests versus Core i9 7900X with Antergos, Clear Linux, Ubuntu.

Automated Executive Summary

Core i9 7900X: Clear Linux had the most wins, coming in first place for 51% of the tests.

Based on the geometric mean of all complete results, the fastest (Core i9 7900X: Clear Linux) was 1.599x the speed of the slowest (Threadripper: Ubuntu 17.10). Threadripper: Clear Linux was 1.341x the speed of Threadripper: Ubuntu 17.10, Core i9 7900X: Ubuntu 17.10 was 0.927x the speed of Threadripper: Clear Linux, Core i9 7900X: Clear Linux was 1.286x the speed of Core i9 7900X: Ubuntu 17.10, Core i9 7960X: Ubuntu 17.10 was 0.807x the speed of Core i9 7900X: Clear Linux, Core i9 7960X: Clear Linux was 1.141x the speed of Core i9 7960X: Ubuntu 17.10.

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

PostgreSQL pgbench (Scaling: Buffer Test - Test: Single Thread - Mode: Read Write) at 7.277x
Rodinia (Test: OpenMP CFD Solver) at 6.207x
Rodinia (Test: OpenMP Streamcluster) at 3.677x
PostgreSQL pgbench (Scaling: Buffer Test - Test: Normal Load - Mode: Read Write) at 3.344x
Timed HMMer Search (Pfam Database Search) at 2.87x
FFmpeg (H.264 HD To NTSC DV) at 2.724x
Rodinia (Test: OpenMP LavaMD) at 2.544x

Himeno Benchmark (Poisson Pressure Solver) at 2.311x
Parboil (Test: OpenMP MRI Gridding) at 1.986x
Xsbench at 1.868x.

Test Systems:

Threadripper: Ubuntu 17.10

Processor: AMD Ryzen Threadripper 1950X 16-Core @ 3.40GHz (32 Cores), Motherboard: Gigabyte X399 AORUS Gaming 7, Chipset: AMD Device 1450, Memory: 32768MB, Disk: 120GB Force MP500, Graphics: XFX AMD Radeon R9 290/390 4096MB, Audio: Realtek ALC1220, Monitor: Acer B286HK, Network: Qualcomm Atheros Device e0b1 + Intel Wireless 8265 / 8275

OS: Ubuntu 17.10, Kernel: 4.12.0-12-generic (x86_64), Desktop: GNOME Shell 3.25.91, Display Driver: modesetting 1.19.3, OpenGL: 4.5 Mesa 17.2.0-rc4 (LLVM 4.0.1), Compiler: GCC 7.2.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: GJS_DEBUG_TOPICS=JS ERROR;JS LOG GJS_DEBUG_OUTPUT=stderr
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++ --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
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

Threadripper: Clear Linux

Processor: AMD Ryzen Threadripper 1950X 16-Core @ 3.40GHz (32 Cores), Motherboard: Gigabyte X399 AORUS Gaming 7, Chipset: AMD Device 1450, Memory: 4 x 8192 MB DDR4-3200MT/s, Disk: 120GB Force MP500, Graphics: XFX AMD Radeon R9 290/390, Audio: Realtek ALC1220, Network: Qualcomm Atheros Device e0b1 + Intel Wireless 8265 / 8275

OS: Clear Linux OS 17650, Kernel: 4.13.0-387.native (x86_64), Vulkan: 1.0.39, Compiler: GCC 7.2.0 + Clang 4.0.1 + LLVM 4.0.1, File-System: ext4, Screen Resolution: 1024x768

Compiler Notes: --build=x86_64-generic-linux --disable-libunwind-exceptions --disable-multiarch --disable-vtable-verify --enable-__cxa_atexit --enable-bootstrap --enable-clocale=gnu --enable-gnu-indirect-function --enable-languages=c,c++,fortran,go --enable-ld=default --enable-libmpx --enable-libstdcxx-pch --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --exec-prefix=/usr --includedir=/usr/include --target=x86_64-generic-linux --with-arch=westmere --with-glibc-version=2.19 --with-gnu-ld --with-isl --with-ppl=yes --with-tune=haswell
Processor Notes: Scaling Governor: acpi-cpufreq performance

Core i9 7900X: Ubuntu 17.10

Processor: Intel Core i7-7900X @ 4.50GHz (20 Cores), Motherboard: MSI X299 SLI PLUS (MS-7A93) v1.0, Chipset: Intel Device 2020, Memory: 16384MB, Disk: 240GB Force MP500, Graphics: NVE4 2048MB, Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 17.10, Kernel: 4.12.0-12-generic (x86_64), Desktop: GNOME Shell 3.25.91, Display Driver: modesetting 1.19.3, OpenGL: 4.3 Mesa 17.2.0-rc4, Compiler: GCC 7.2.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: GJS_DEBUG_TOPICS=JS ERROR;JS LOG GJS_DEBUG_OUTPUT=stderr

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++ --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
Processor Notes: Scaling Governor: intel_pstate powersave

Core i9 7900X: Clear Linux

Processor: Intel Core i7-7900X @ 4.50GHz (20 Cores), Motherboard: MSI X299 SLI PLUS (MS-7A93) v1.0, Chipset: Intel Device 2020, Memory: 4 x 4096 MB DDR4-2800MT/s, Disk: 240GB Force MP500, Graphics: NVIDIA GeForce GTX 760, Audio: Realtek ALC1220, Network: Intel Connection

OS: Clear Linux OS 17650, Kernel: 4.13.0-387.native (x86_64), Vulkan: 1.0.39, Compiler: GCC 7.2.0 + Clang 4.0.1 + LLVM 4.0.1, File-System: ext4, Screen Resolution: 1024x768

Compiler Notes: --build=x86_64-generic-linux --disable-libunwind-exceptions --disable-multiarch --disable-vtable-verify --enable-__cxa_atexit --enable-bootstrap --enable-clocale=gnu --enable-gnu-indirect-function --enable-languages=c,c++,fortran,go --enable-ld=default --enable-libmpx --enable-libstdcxx-pch --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --exec-prefix=/usr --includedir=/usr/include --target=x86_64-generic-linux --with-arch=westmere --with-glibc-version=2.19 --with-gnu-ld --with-isl --with-ppl=yes --with-tune=haswell
Processor Notes: Scaling Governor: intel_pstate performance

Core i9 7960X: Ubuntu 17.10

Processor: Intel Core i9-7960X @ 4.40GHz (32 Cores), Motherboard: MSI X299 SLI PLUS (MS-7A93) v1.0, Chipset: Intel Device 2020, Memory: 16384MB, Disk: Samsung SSD 950 PRO 256GB, Graphics: NVIDIA GeForce GTX 1080 8192MB, Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 17.10, Kernel: 4.13.0-11-generic (x86_64), Desktop: GNOME Shell 3.26.0, Display Server: Wayland, OpenGL: 4.3 Mesa 17.2.0, Compiler: GCC 7.2.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: GJS_DEBUG_TOPICS=JS ERROR;JS LOG GJS_DEBUG_OUTPUT=stderr
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++ --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
Processor Notes: Scaling Governor: intel_pstate powersave

Core i9 7960X: Clear Linux

Processor: Intel Core i9-7960X @ 4.40GHz (32 Cores), Motherboard: MSI X299 SLI PLUS (MS-7A93) v1.0, Chipset: Intel Device 2020, Memory: 4 x 4096 MB DDR4-3000MT/s, Disk: 16GB Voyager 3.0 + Samsung SSD 950 PRO 256GB, Graphics: NVIDIA GeForce GTX 1080, Audio: Realtek ALC1220, Network: Intel Connection

OS: Clear Linux OS 17920, Kernel: 4.13.3-393.native (x86_64), Vulkan: 1.0.39, Compiler: GCC 7.2.1 20170910 + Clang 5.0.0 + LLVM 5.0.0, File-System: ext4, Screen Resolution: 1024x768

Compiler Notes: --build=x86_64-generic-linux --disable-libmpx --disable-libunwind-exceptions --disable-multiarch --disable-vtable-verify --enable-__cxa_atexit --enable-bootstrap --enable-clocale=gnu --enable-gnu-indirect-function --enable-languages=c,c++,fortran,go --enable-ld=default --enable-libstdcxx-pch --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --exec-prefix=/usr --includedir=/usr/include --target=x86_64-generic-linux --with-arch=westmere --with-glibc-version=2.19 --with-gnu-ld --with-isl --with-ppl=yes --with-tune=haswell
Processor Notes: Scaling Governor: intel_pstate performance

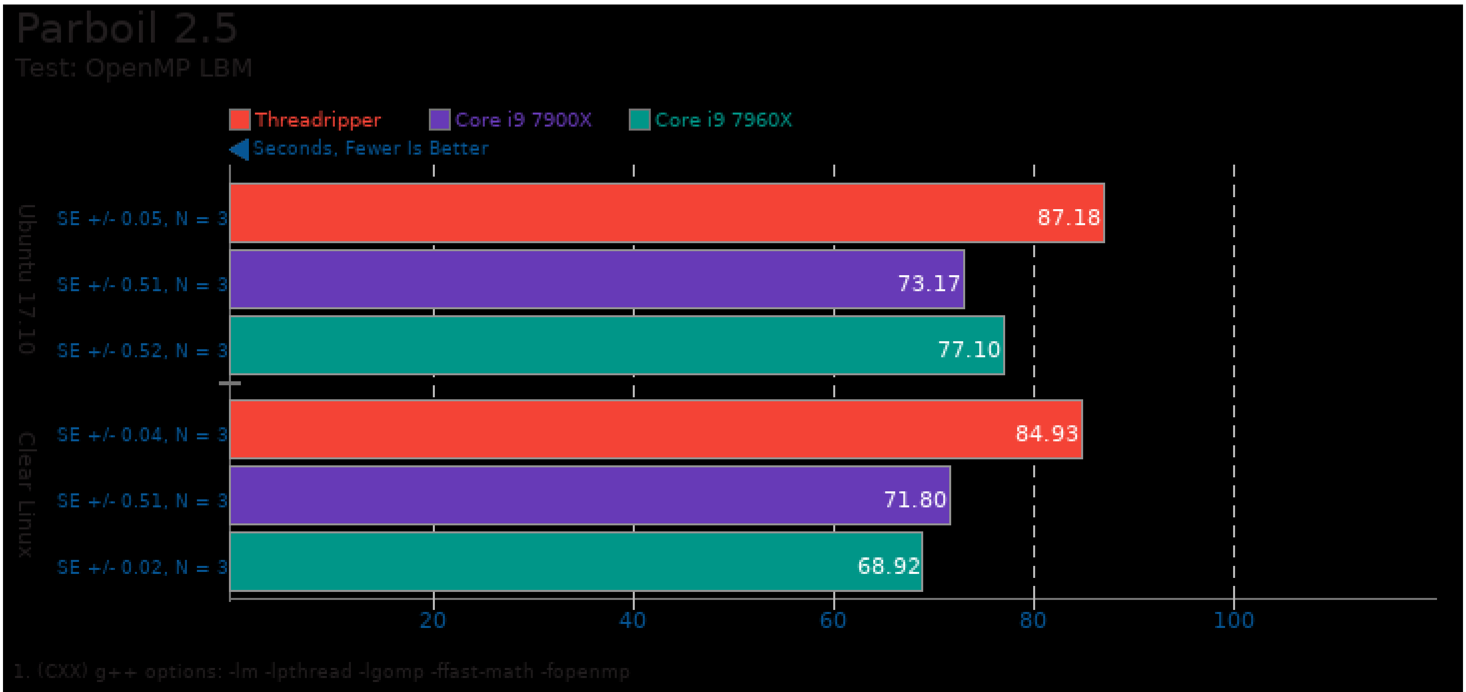
Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep

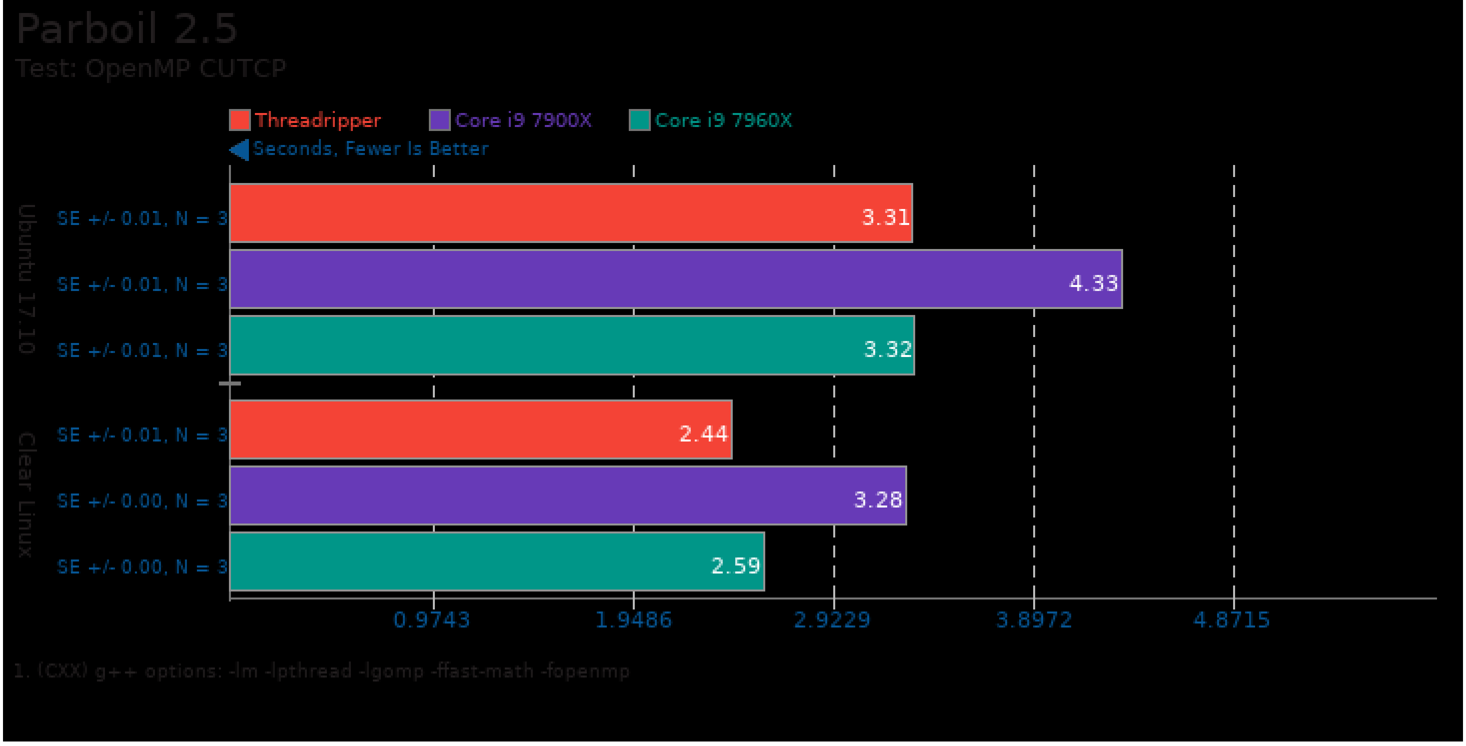
	Threadripper: Ubuntu 17.10	Threadripper: Clear Linux	Core i9 7900X: Ubuntu 17.10	Core i9 7900X: Clear Linux	Core i9 7960X: Ubuntu 17.10	Core i9 7960X: Clear Linux
Parboil - OpenMP LBM (sec)	87.18	84.93	73.17	71.80	77.10	68.92
Normalized	79.05%	81.15%	94.19%	95.99%	89.39%	100%
Standard Deviation	0.1%	0.1%	1.2%	1.2%	1.2%	0%
Parboil - OpenMP CUTCP (sec)	3.31	2.44	4.33	3.28	3.32	2.59
Normalized	73.72%	100%	56.35%	74.39%	73.49%	94.21%
Standard Deviation	0.4%	0.4%	0.3%	0.2%	0.7%	0.3%
Parboil - OpenMP Stencil	13.43	12.15	11.72	10.67	8.98	8.68
Normalized	64.63%	71.44%	74.06%	81.35%	96.66%	100%
Standard Deviation	0.1%	0.6%	6.7%	6.7%	7.9%	8%
Parboil - O.M.G (sec)	158.24	156.45	79.94	79.67	124.85	125.35
Normalized	50.35%	50.92%	99.66%	100%	63.81%	63.56%
Standard Deviation	0.3%	0.1%	1.2%	1.4%	1.5%	2.6%
Rodinia - OpenMP LavaMD (sec)	43.87	23.62	60.08	33.26	49.09	25.07
Normalized	53.84%	100%	39.31%	71.02%	48.12%	94.22%
Standard Deviation	0.2%	0.3%	1.3%	0.7%	2.4%	3%
Rodinia - OpenMP CFD Solver (sec)	80.50	12.99	17.90	17.58	13.40	12.97
Normalized	16.11%	99.85%	72.46%	73.78%	96.79%	100%
Standard Deviation	0.5%	0.5%	4.4%	4.4%	5.3%	5.5%
Rodinia - O.S (sec)	51.37	17.34	13.97	14.08	14.86	14.53
Normalized	27.19%	80.57%	100%	99.22%	94.01%	96.15%
Standard Deviation	0.5%	0.2%	8.6%	6%	2.2%	5%
FFTW - Float + SSE - 2D FFT Size 1024 (Mflops)	26347	23766	25341	26982	26055	
Normalized	97.65%	88.08%	93.92%	100%	96.56%	
Standard Deviation	0.3%	0.1%	0.4%	2.4%	1.3%	
FFTW - Float + SSE - 2D FFT Size 4096 (Mflops)	16200	16573	18592	17486	19464	
Normalized	83.23%	85.15%	95.52%	89.84%	100%	
Standard Deviation	1.5%	0.9%	2.6%	0.8%	1.5%	
Timed HMMer Search - P.D.S (sec)	7.91		14.52		5.06	
Normalized	63.97%		34.85%		100%	
Standard Deviation	1.5%		5%		0.3%	
CacheBench - R.M.W (MB/s)	29374	53552	33776	51791	31284	52131
Normalized	54.85%	100%	63.07%	96.71%	58.42%	97.35%
Standard Deviation	0%	0%	1.1%	0%	0.7%	2.8%
GraphicsMagick - Resizing (Iterations/min)	228	216	250	271	245	259
Normalized	84.13%	79.7%	92.25%	100%	90.41%	95.57%
Standard Deviation	0.5%					
Himeno Benchmark - P.P.S (MFLOPS)	1304	1315	2942	3013	2869	3001
Normalized	43.27%	43.64%	97.66%	100%	95.24%	99.6%
Standard Deviation	0.2%	0.5%	2%	1.6%	1.4%	0.6%
Timed LLVM Compilation - Time To Compile (sec)	253.39	354.58	261.30			
Normalized	100%	71.46%	96.97%			

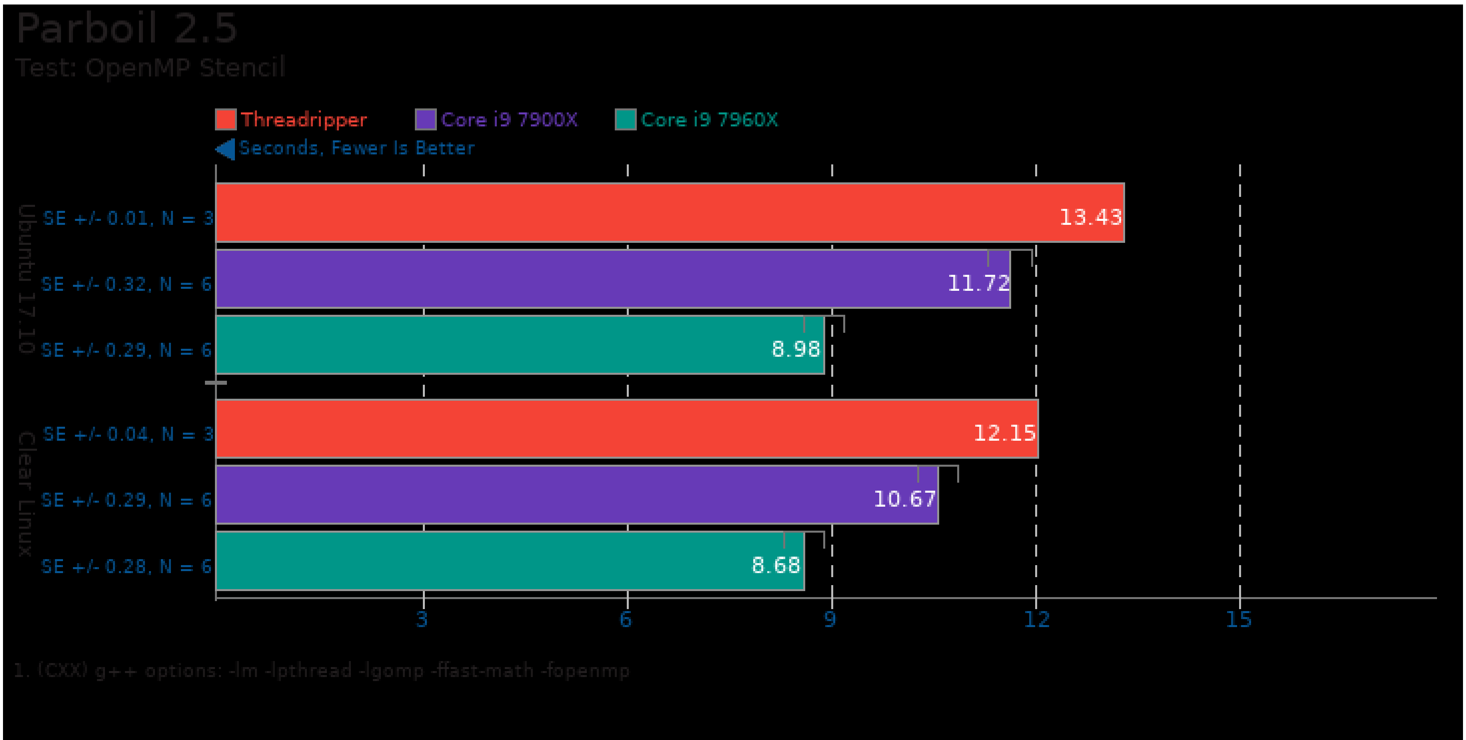
Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep

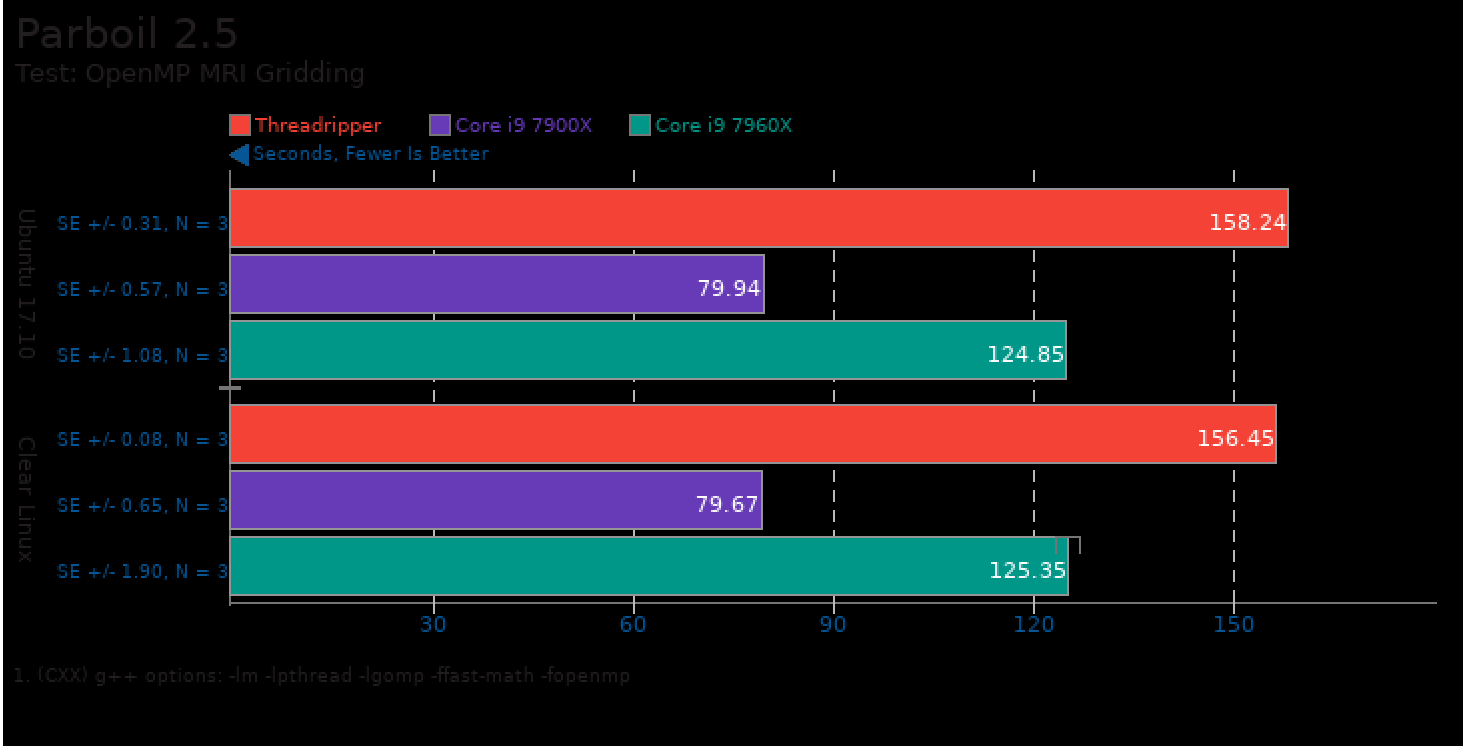
Standard Deviation	0%	4%	0.5%			
C-Ray - Total Time (sec)	5.17	**4.09**	**7.38**	6.29	5.76	4.95
Normalized	79.11%	100%	55.42%	65.02%	71.01%	82.63%
Standard Deviation	0.3%	0.4%	0.1%	0.1%	9.4%	11%
Stockfish - Total Time (ms)	**3638**	3450	2844	**2613**	3210	2783
Normalized	71.83%	75.74%	91.88%	100%	81.4%	93.89%
Standard Deviation	1%	0.1%	1.2%	0.1%	18.2%	1.7%
FLAC Audio Encoding - WAV To FLAC (sec)	**5.47**	5.22	4.92	**4.36**	5.05	4.66
Normalized	79.71%	83.52%	88.62%	100%	86.34%	93.56%
Standard Deviation	1%	0.3%	11.6%	0.4%	10.3%	12%
LAME MP3 Encoding - WAV To MP3 (sec)	8.93	8.85	8.32	**8.11**	**8.98**	8.39
Normalized	90.82%	91.64%	97.48%	100%	90.31%	96.66%
Standard Deviation	0.9%	0.1%	7%	7.3%	8.5%	7.7%
FFmpeg - H.2.H.T.N.D (sec)	7.81	6.19	**13.89**	**5.10**	7.23	5.22
Normalized	65.3%	82.39%	36.72%	100%	70.54%	97.7%
Standard Deviation	2.2%	1.8%	5.5%	10.5%	2.6%	0.4%
OpenSSL - R.4.b.P	2183	2184	**2112**	2113	2826	**2832**
Normalized	77.08%	77.13%	74.58%	74.63%	99.81%	100%
Standard Deviation	0.2%	0.2%	0%	0%	0.1%	0%
PostgreSQL pgbench - Buffer Test - Normal Load - Read Write (TPS)	9947	12566	14118	**22233**	**6649**	7045
Normalized	44.74%	56.52%	63.5%	100%	29.91%	31.69%
Standard Deviation	43.9%	13.7%	4.5%	4.2%	2.9%	0.4%
PostgreSQL pgbench - Buffer Test - Single Thread - Read Write (TPS)	1105	2546	724.21	**3593**	**493.74**	581.06
Normalized	30.74%	70.85%	20.16%	100%	13.74%	16.17%
Standard Deviation	0.1%	3.3%	9.7%	1%	0.3%	0.5%
Redis - GET (Reqs/sec)	**2191834**	2767869	2650329	**3681125**	3142794	3581232
Normalized	59.54%	75.19%	72%	100%	85.38%	97.29%
Standard Deviation	3.4%	1.4%	0.9%	0.8%	2.6%	2.3%
Redis - SET (Reqs/sec)	**1549736**	1932086	1955802	**2654983**	2295929	2567035
Normalized	58.37%	72.77%	73.67%	100%	86.48%	96.69%
Standard Deviation	1.2%	1.6%	1%	0.8%	2%	2.1%
Blender - BMW27 - CPU-Only (sec)	**527.43**	522.30	412.97	**409.58**	436.51	430.26
Normalized	77.66%	78.42%	99.18%	100%	93.83%	95.19%
Xsbench (Lookups/s)	**2728244**	2851137	3394205	3694296	4725943	**5096887**
Normalized	53.53%	55.94%	66.59%	72.48%	92.72%	100%
Standard Deviation	0.2%	0%	0.3%	0.1%	0%	0%
Apache Benchmark - S.W.P.S (Reqs/sec)	**27533**	29662	44342	**48034**	47064	46228
Normalized	57.32%	61.75%	92.31%	100%	97.98%	96.24%
Standard Deviation	2.1%	1.1%	4.3%	4%	3.5%	3.3%

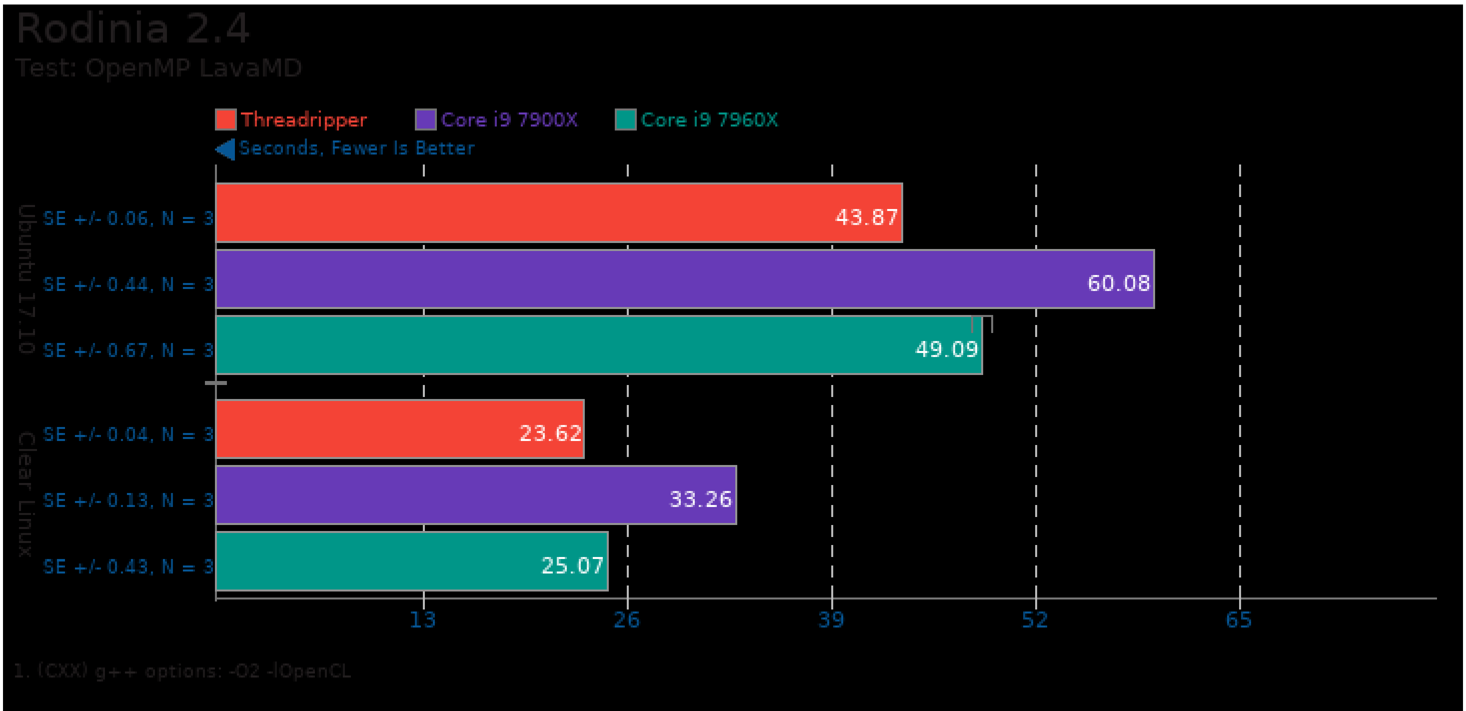
Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep

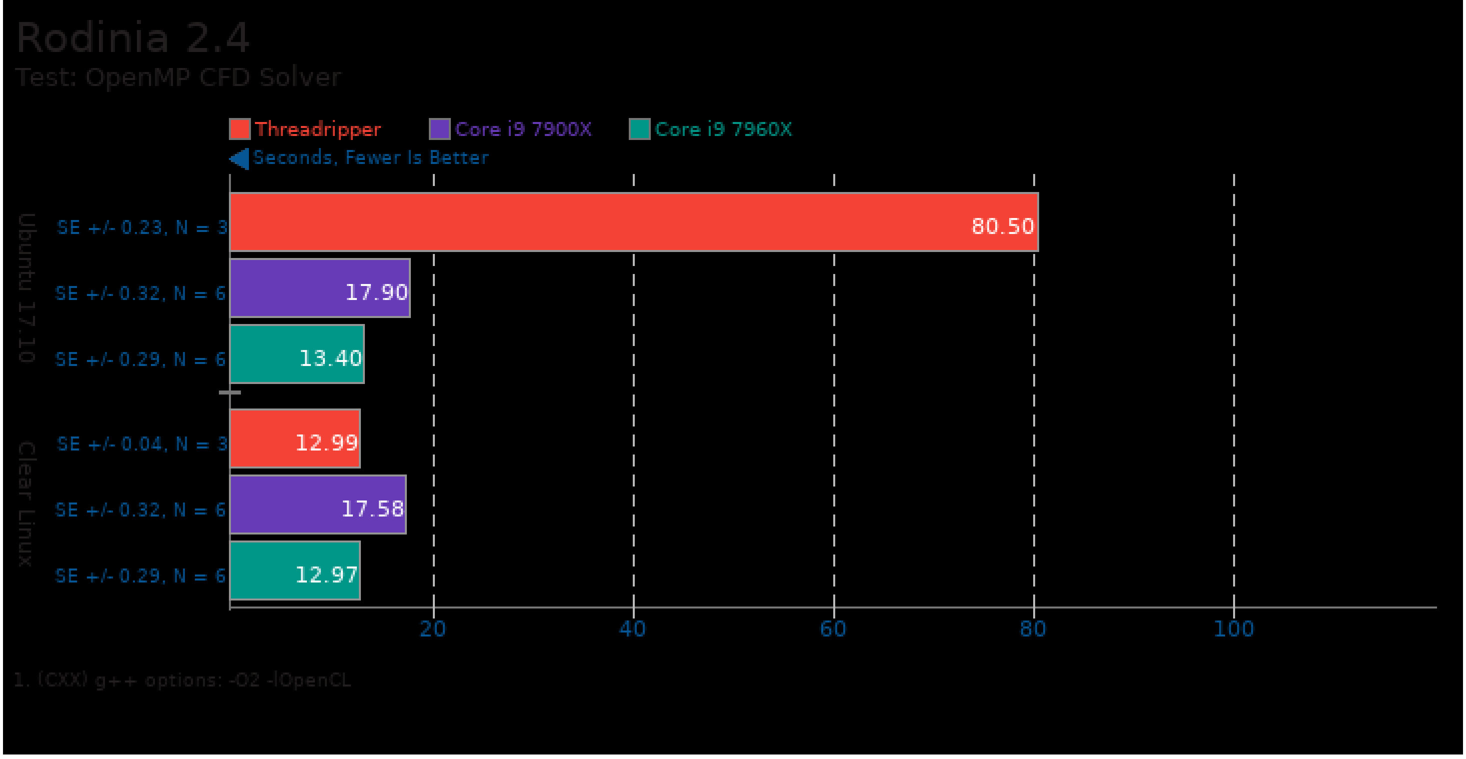


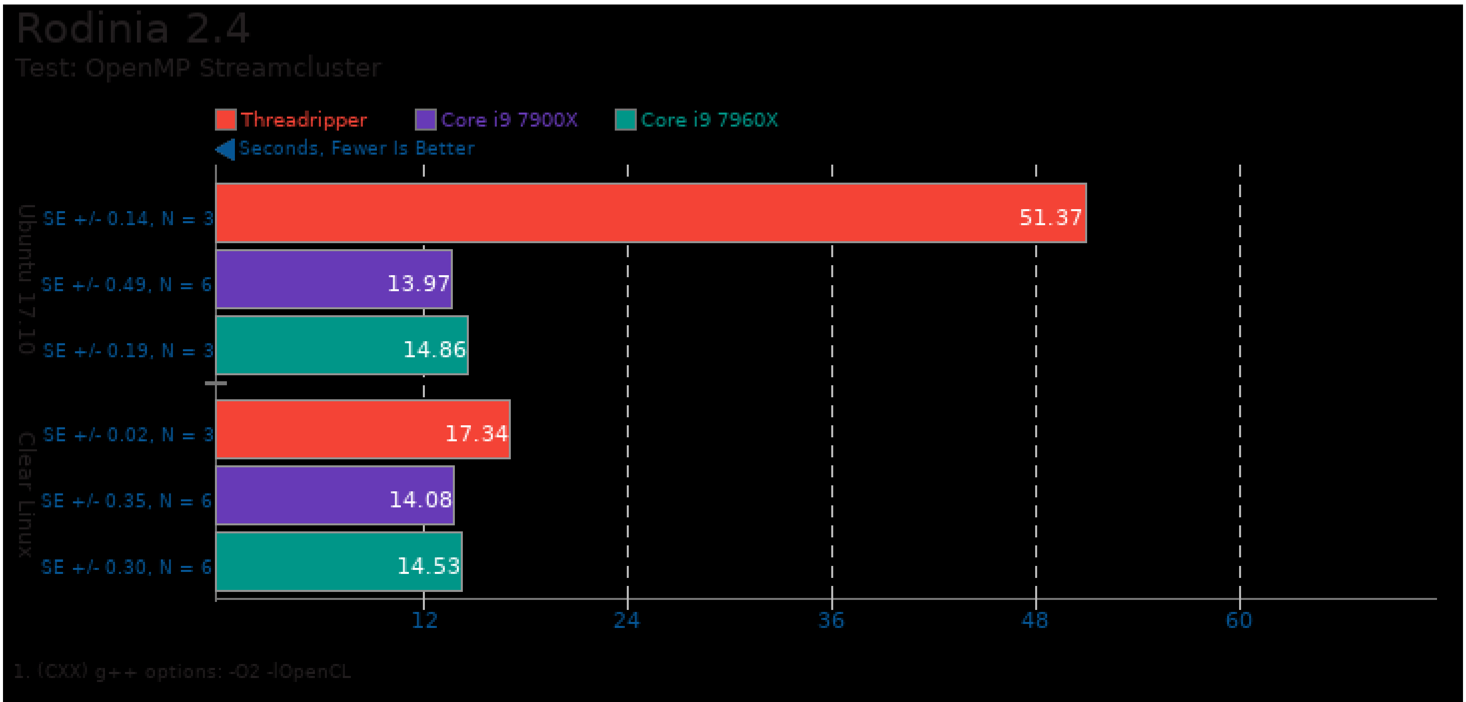


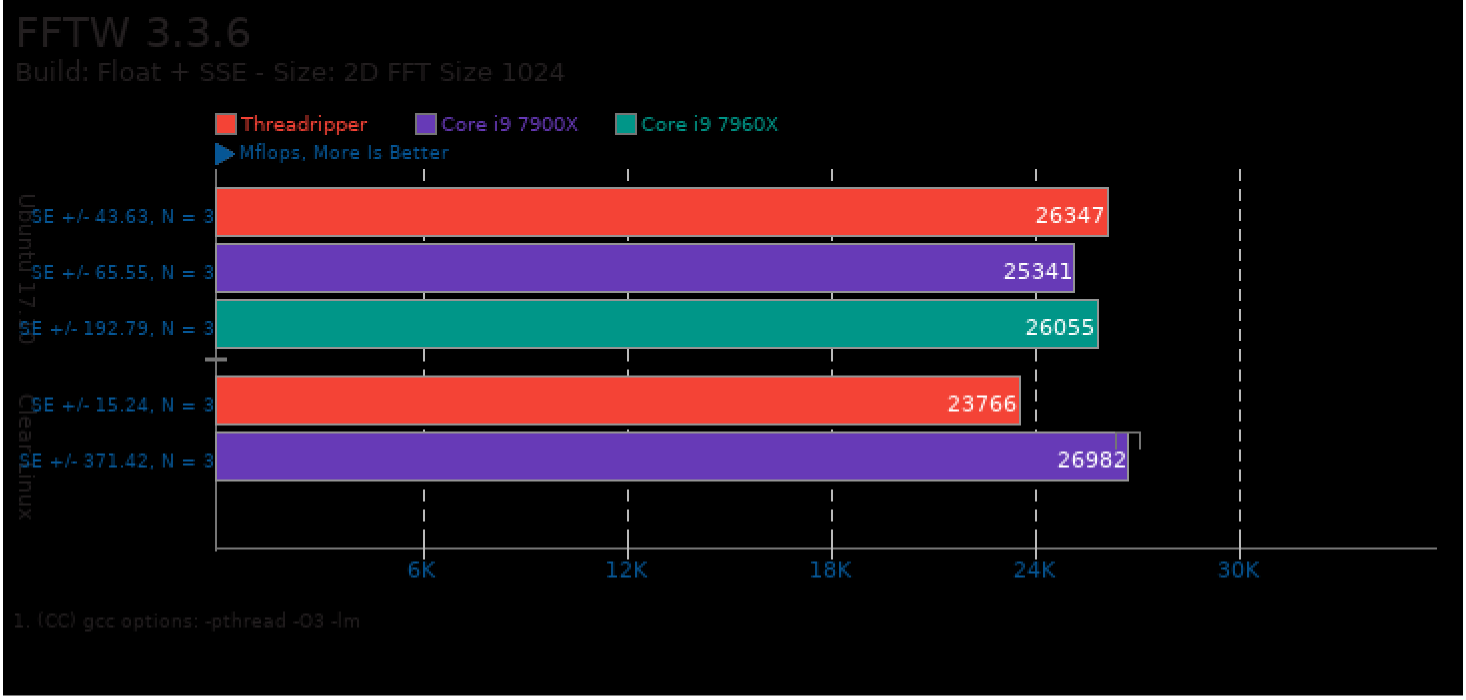

Parboil 2.5
Test: OpenMP Stencil
Threadripper
Core i9 7900X
Core i9 7960X
Seconds, Fewer Is Better
Ubuntu 17.10
Clear Linux
SE +/- 0.01, N = 3
SE +/- 0.32, N = 6
SE +/- 0.29, N = 6
SE +/- 0.04, N = 3
SE +/- 0.29, N = 6
SE +/- 0.28, N = 6
13.43
11.72
8.98
12.15
10.67
8.68
3
6
9
12
15
1. (CXX) g++ options: -lm -lpthread -lgomp -ffast-math -fopenmp

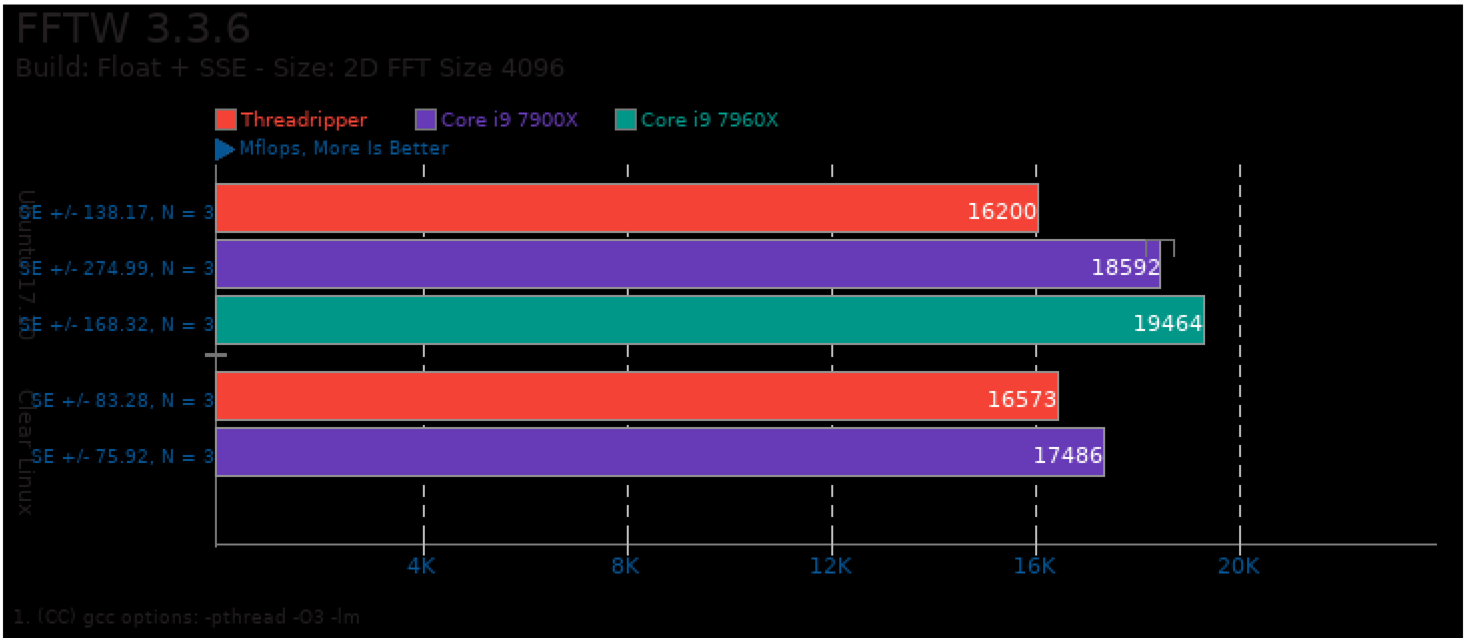

Parboil 2.5
Test: OpenMP MRI Gridding
Threadripper
Core i9 7900X
Core i9 7960X
Seconds, Fewer Is Better
Ubuntu 17.10
Clear Linux
SE +/- 0.31, N = 3
SE +/- 0.57, N = 3
SE +/- 1.08, N = 3
SE +/- 0.08, N = 3
SE +/- 0.65, N = 3
SE +/- 1.90, N = 3
158.24
79.94
124.85
156.45
79.67
125.35
30
60
90
120
150
1. (CXX) g++ options: -lm -lpthread -lgomp -ffast-math -fopenmp

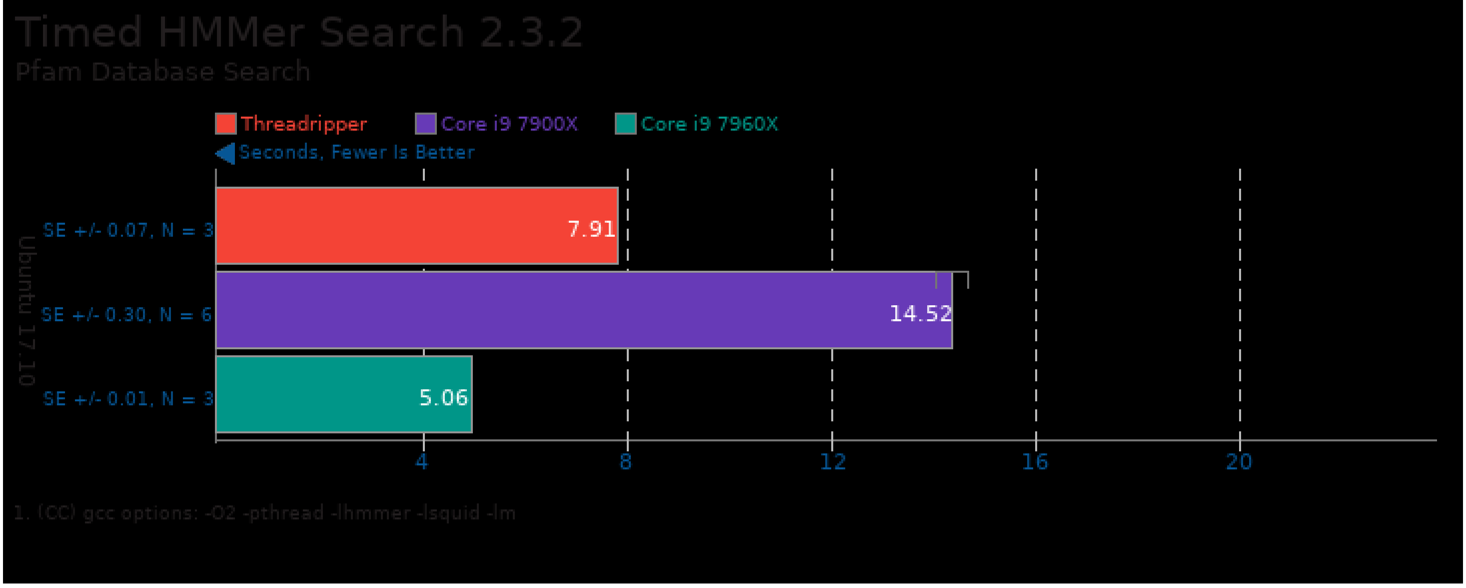

Rodinia 2.4
Test: OpenMP LavaMD
Threadripper
Core i9 7900X
Core i9 7960X
Seconds, Fewer Is Better
Ubuntu 17.10
Clear Linux
SE +/- 0.06, N = 3
43.87
SE +/- 0.44, N = 3
60.08
SE +/- 0.67, N = 3
49.09
SE +/- 0.04, N = 3
23.62
SE +/- 0.13, N = 3
33.26
SE +/- 0.43, N = 3
25.07
13
26
39
52
65
1. (CXX) g++ options: -O2 -lOpenCL

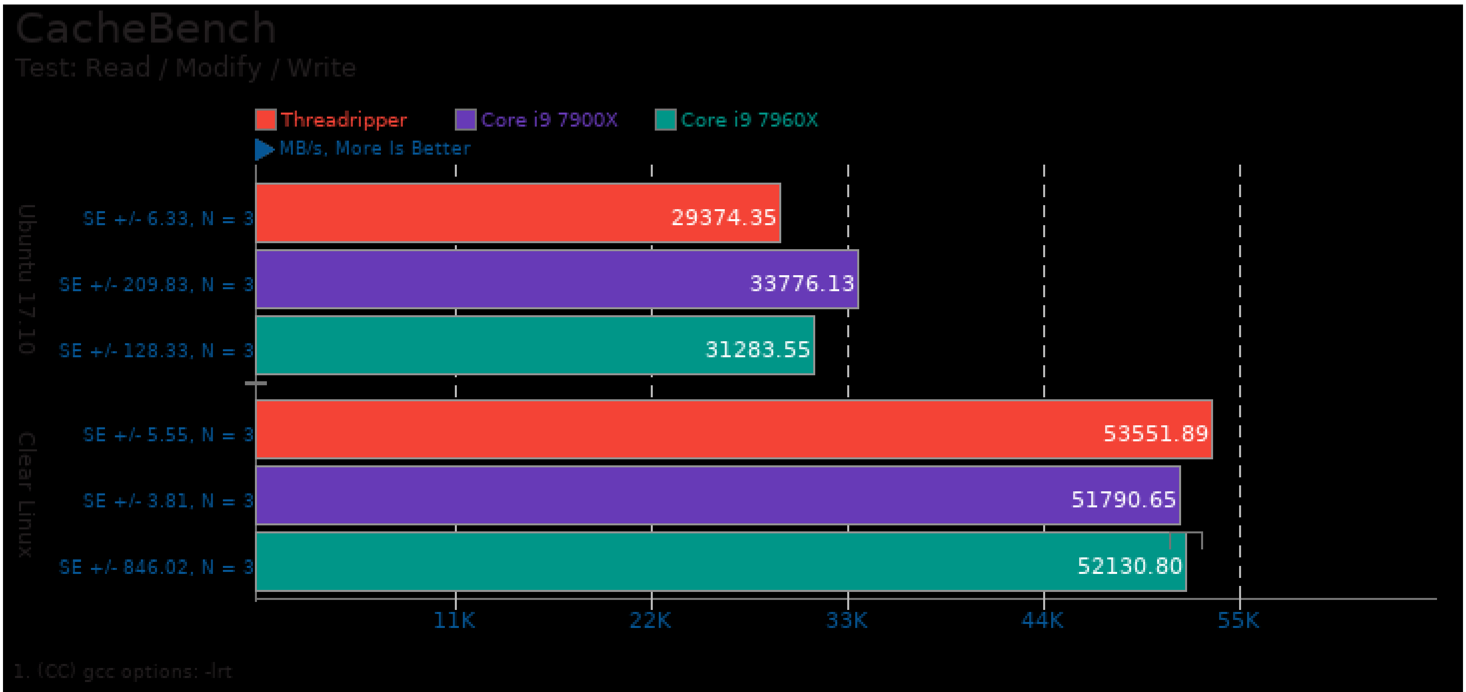

Rodinia 2.4
Test: OpenMP CFD Solver
Threadripper
Core i9 7900X
Core i9 7960X
Seconds, Fewer Is Better
Ubuntu 17.10
Clear Linux
SE +/- 0.23, N = 3
80.50
SE +/- 0.32, N = 6
17.90
SE +/- 0.29, N = 6
13.40
SE +/- 0.04, N = 3
12.99
SE +/- 0.32, N = 6
17.58
SE +/- 0.29, N = 6
12.97
20
40
60
80
100
1. (CXX) g++ options: -O2 -lOpenCL

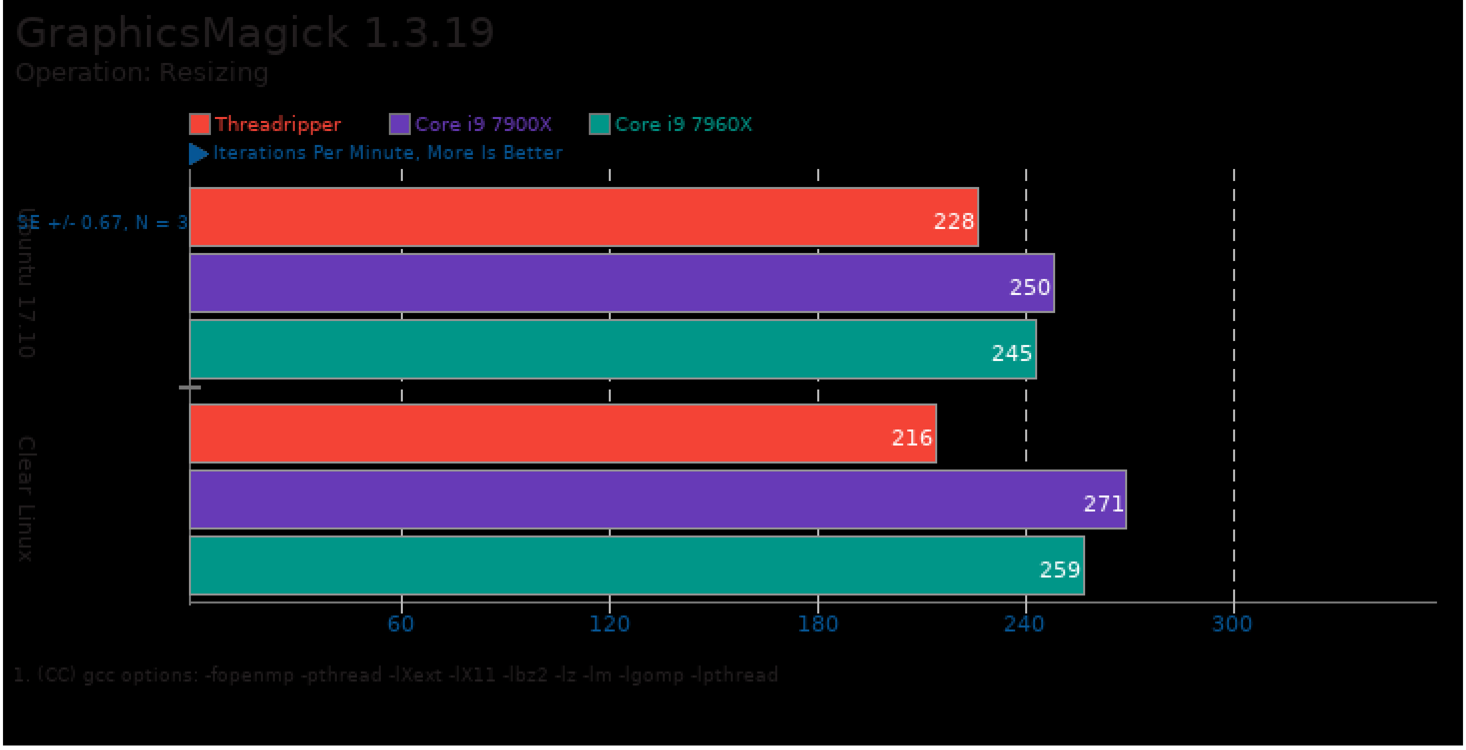

Rodinia 2.4
Test: OpenMP Streamcluster
Threadripper
Core i9 7900X
Core i9 7960X
Seconds, Fewer Is Better
Ubuntu 17.10
SE +/- 0.14, N = 3
51.37
SE +/- 0.49, N = 6
13.97
SE +/- 0.19, N = 3
14.86
Clear Linux
SE +/- 0.02, N = 3
17.34
SE +/- 0.35, N = 6
14.08
SE +/- 0.30, N = 6
14.53
12
24
36
48
60
1. (CXX) g++ options: -O2 -lOpenCL


FFTW 3.3.6
Build: Float + SSE - Size: 2D FFT Size 1024
Threadripper
Core i9 7900X
Core i9 7960X
Mflops, More Is Better
Ubuntu 17.10
SE +/- 43.63, N = 3
26347
SE +/- 65.55, N = 3
25341
SE +/- 192.79, N = 3
26055
Clear Linux
SE +/- 15.24, N = 3
23766
SE +/- 371.42, N = 3
26982
6K
12K
18K
24K
30K
1. (CC) gcc options: -pthread -O3 -lm

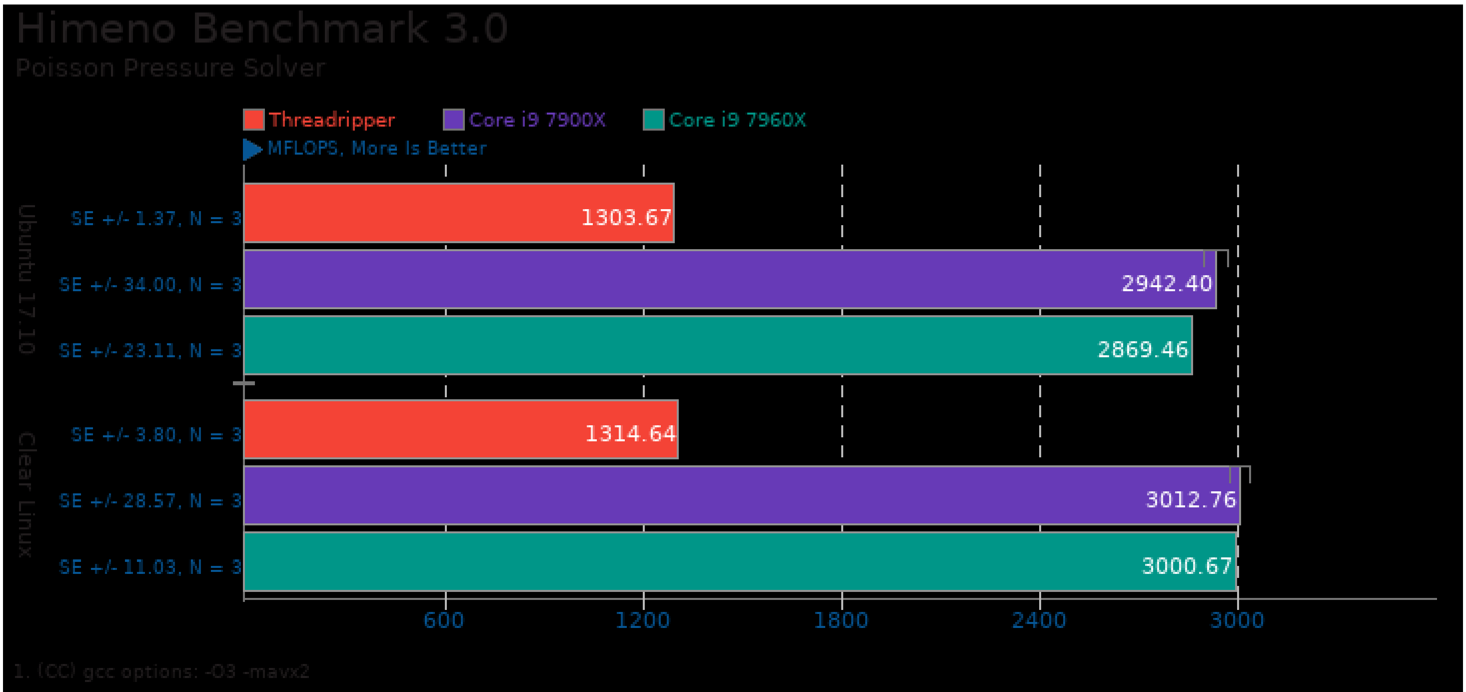

FFTW 3.3.6
Build: Float + SSE - Size: 2D FFT Size 4096
Threadripper
Core i9 7900X
Core i9 7960X
Mflops, More Is Better
Ubuntu 17.10
Clear Linux
SE +/- 138.17, N = 3
SE +/- 274.99, N = 3
SE +/- 168.32, N = 3
SE +/- 83.28, N = 3
SE +/- 75.92, N = 3
16200
18592
19464
16573
17486
4K
8K
12K
16K
20K
1. (CC) gcc options: -pthread -O3 -lm

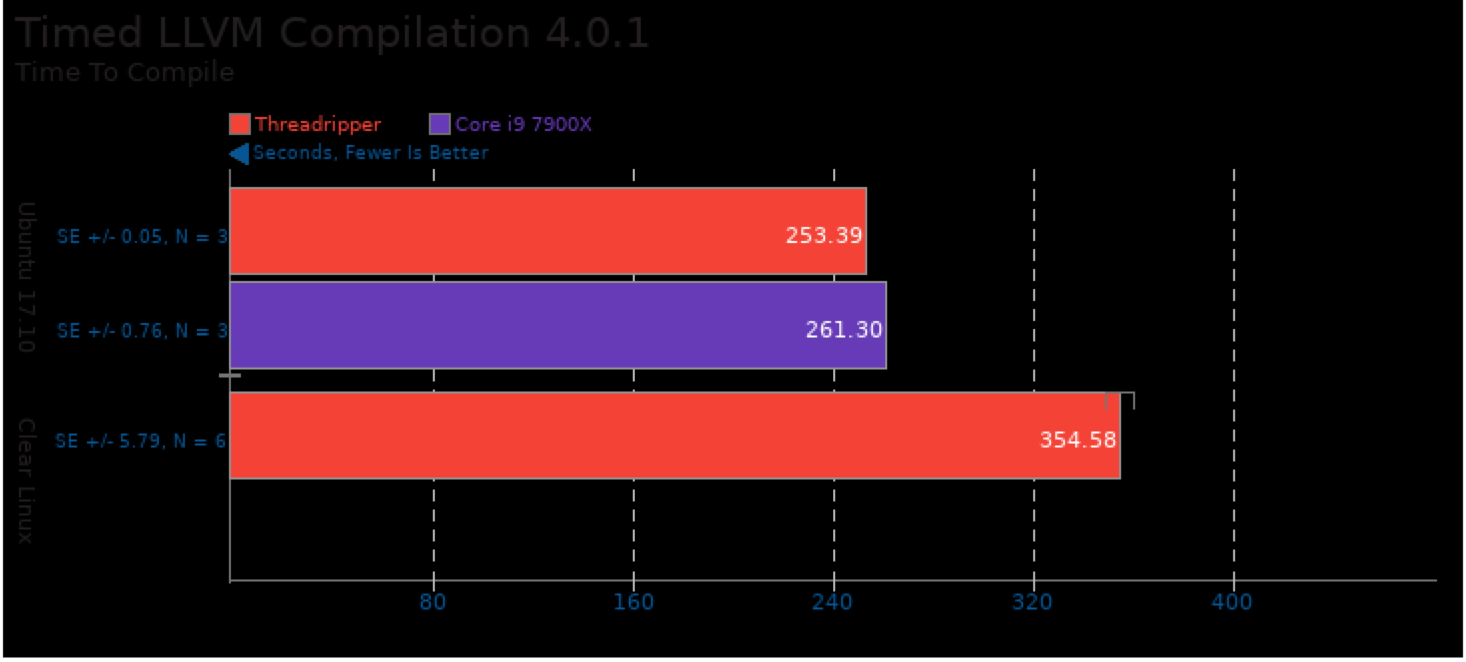

Timed HMMer Search 2.3.2
Pfam Database Search
Threadripper
Core i9 7900X
Core i9 7960X
Seconds, Fewer Is Better
Ubuntu 17.10
SE +/- 0.07, N = 3
SE +/- 0.30, N = 6
SE +/- 0.01, N = 3
7.91
14.52
5.06
4
8
12
16
20
1. (CC) gcc options: -O2 -pthread -lhmmer -lsquid -lm

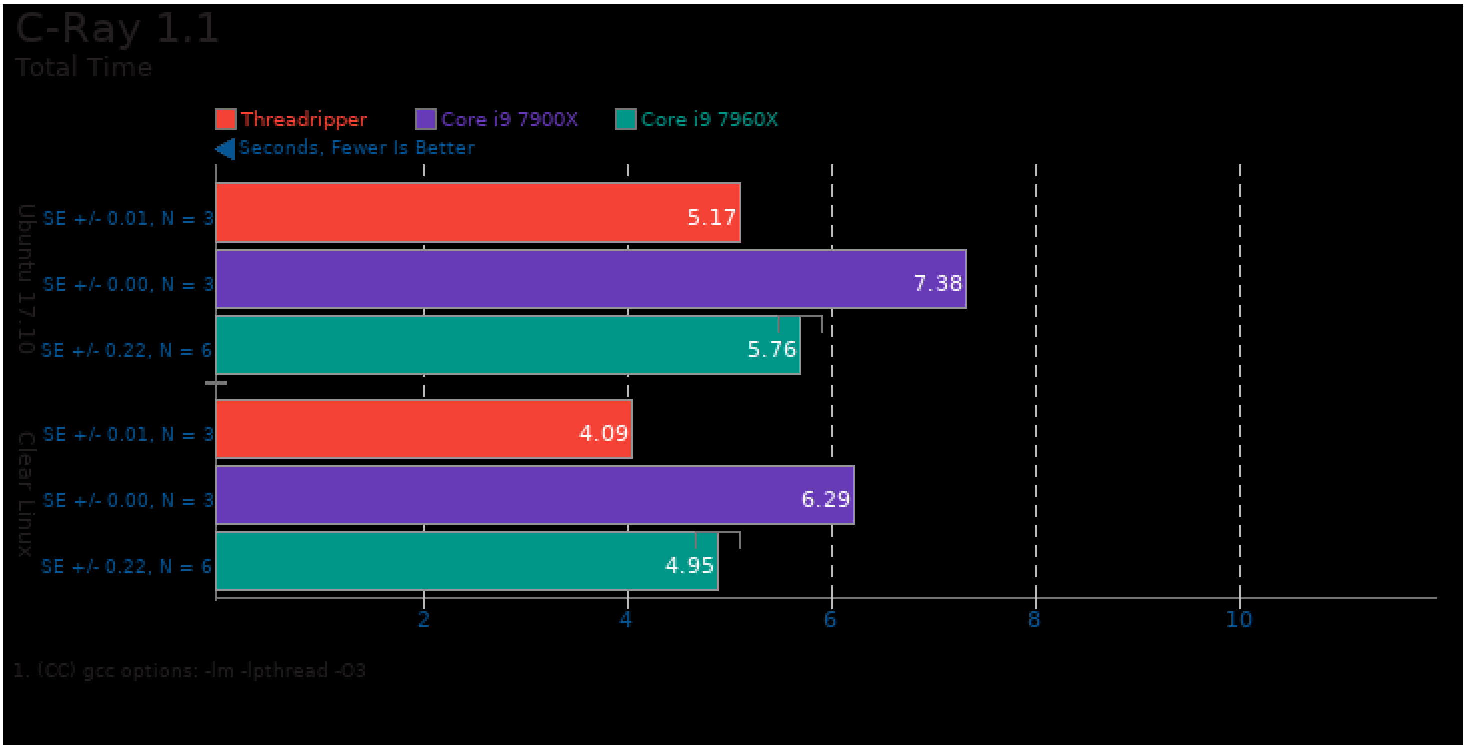

CacheBench
Test: Read / Modify / Write
Threadripper
Core i9 7900X
Core i9 7960X
MB/s, More Is Better
Ubuntu 17.10
Clear Linux
SE +/- 6.33, N = 3
SE +/- 209.83, N = 3
SE +/- 128.33, N = 3
SE +/- 5.55, N = 3
SE +/- 3.81, N = 3
SE +/- 846.02, N = 3
29374.35
33776.13
31283.55
53551.89
51790.65
52130.80
11K
22K
33K
44K
55K
1. (CC) gcc options: -lrt

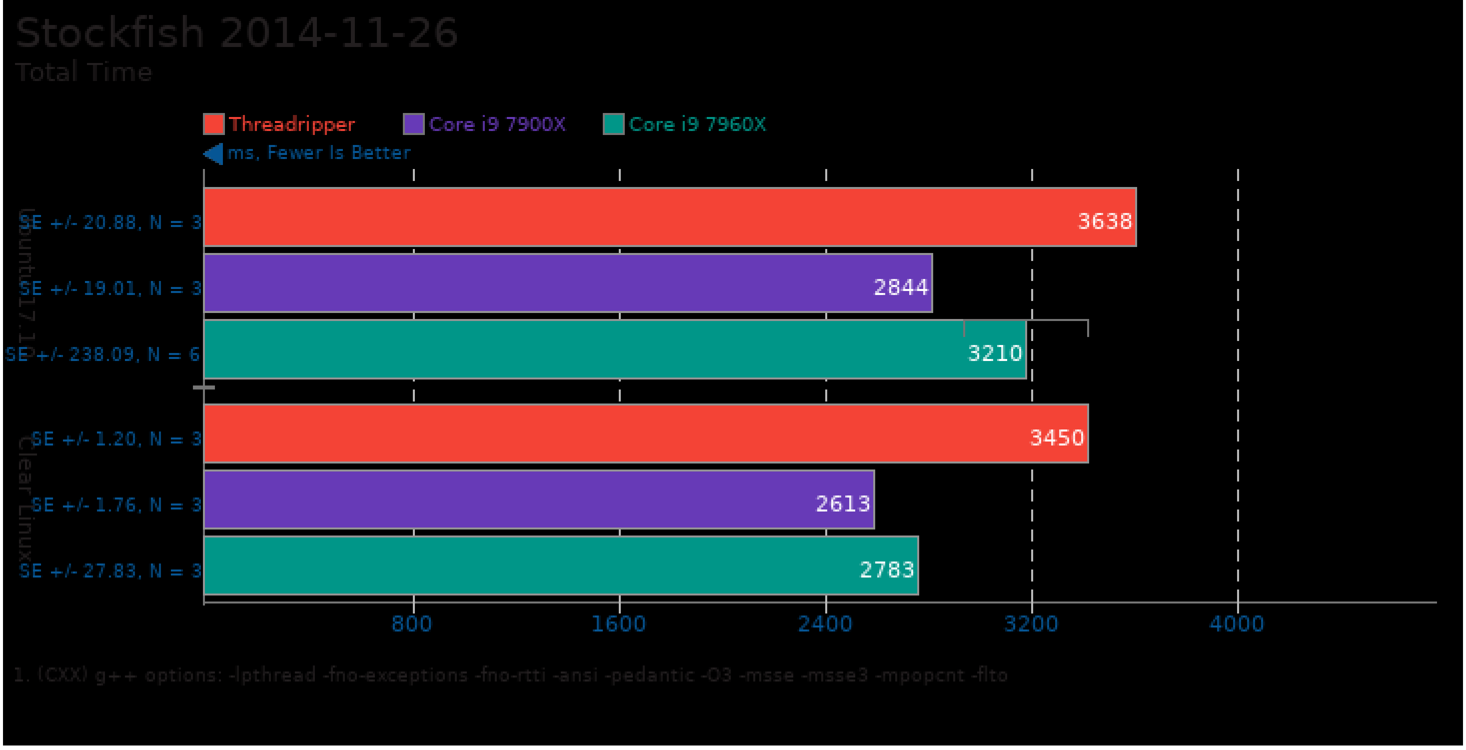

GraphicsMagick 1.3.19
Operation: Resizing
Threadripper
Core i9 7900X
Core i9 7960X
Iterations Per Minute, More Is Better
Ubuntu 17.10
Clear Linux
SE +/- 0.67, N = 3
228
250
245
216
271
259
60
120
180
240
300
1. (CC) gcc options: -fopenmp -pthread -lXext -lX11 -lbz2 -lz -lm -lgomp -lpthread

Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep

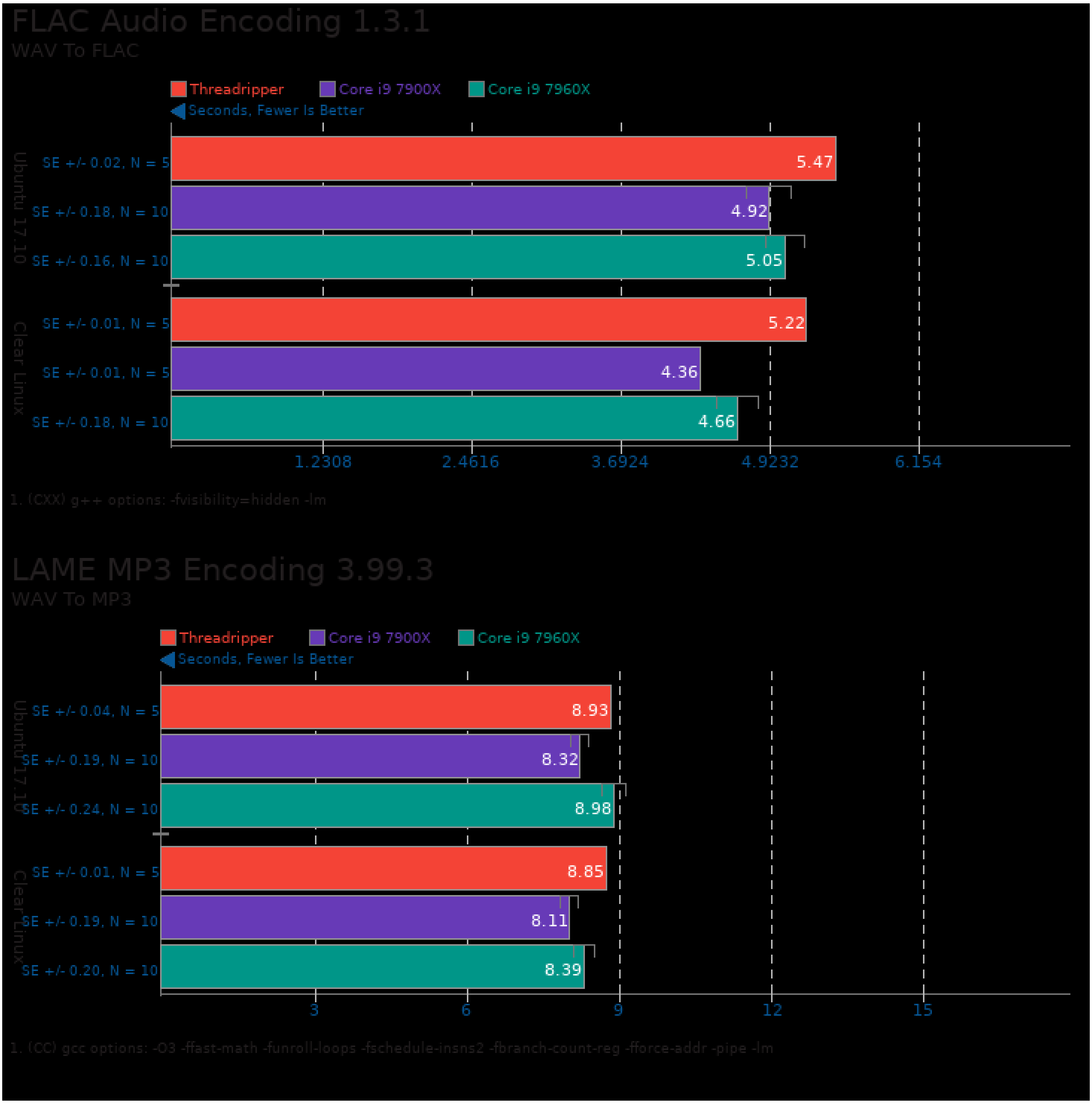


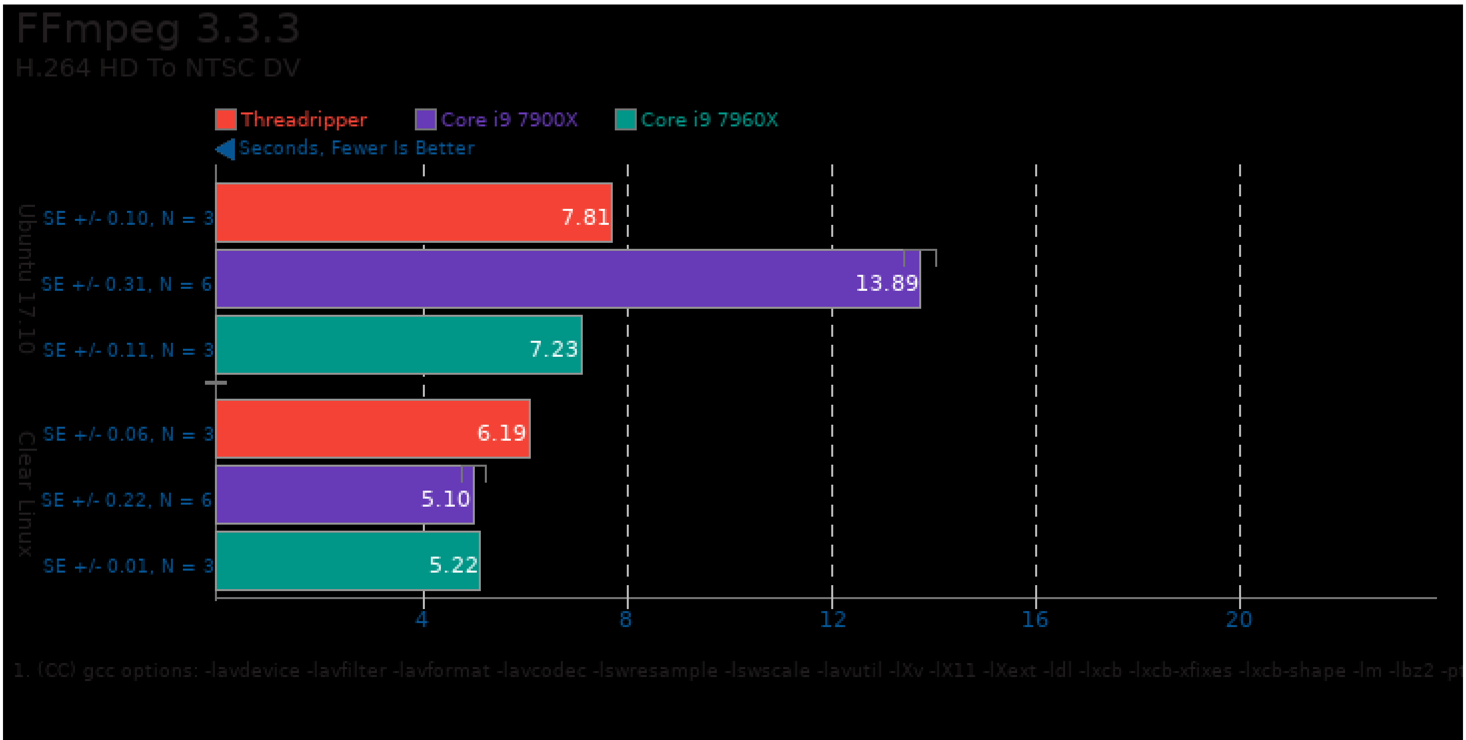


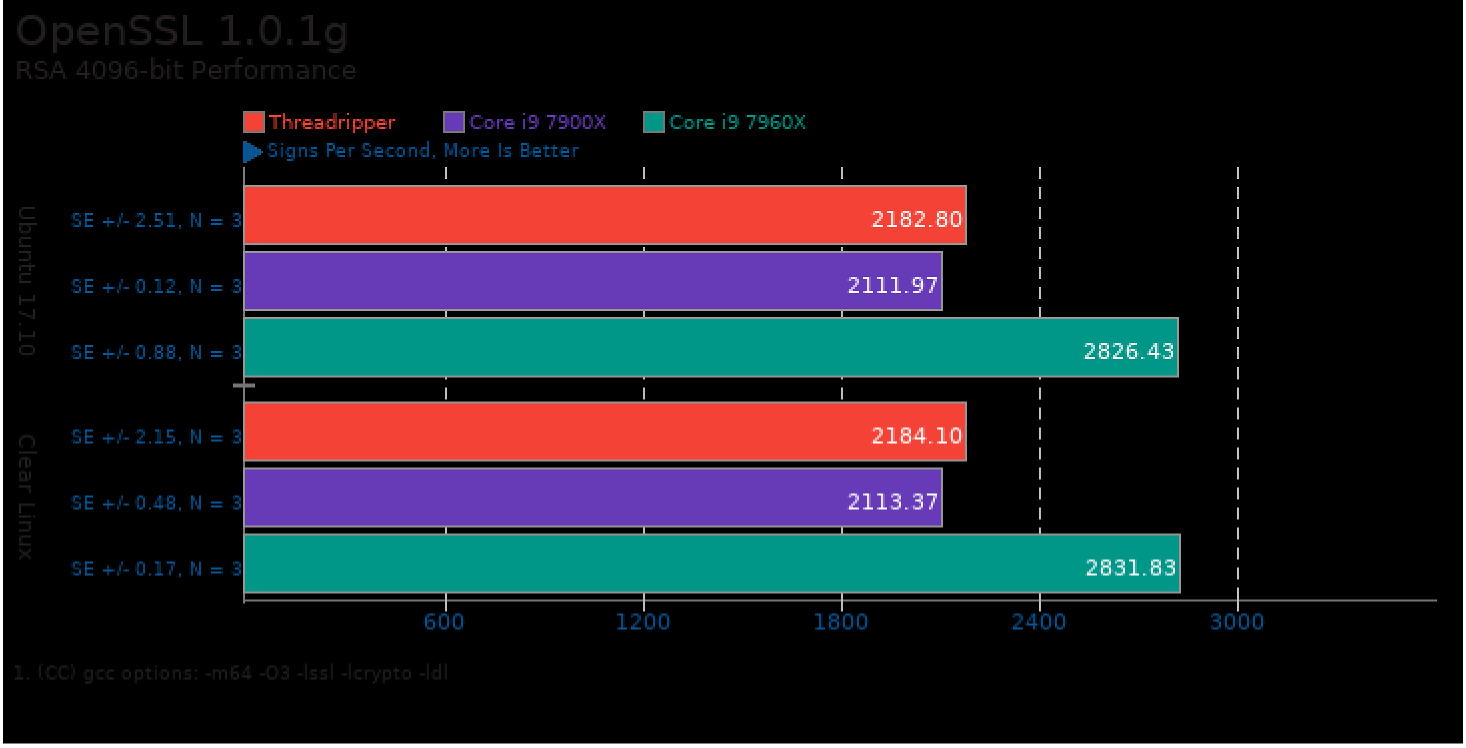

C-Ray 1.1
Total Time
Threadripper
Core i9 7900X
Core i9 7960X
Seconds, Fewer Is Better
Ubuntu 17.10
SE +/- 0.01, N = 3
5.17
SE +/- 0.00, N = 3
7.38
SE +/- 0.22, N = 6
5.76
Clear Linux
SE +/- 0.01, N = 3
4.09
SE +/- 0.00, N = 3
6.29
SE +/- 0.22, N = 6
4.95
2
4
6
8
10
1. (CC) gcc options: -lm -lpthread -O3


Stockfish 2014-11-26
Total Time
Threadripper
Core i9 7900X
Core i9 7960X
ms, Fewer Is Better
Ubuntu 17.10
SE +/- 20.88, N = 3
3638
SE +/- 19.01, N = 3
2844
SE +/- 238.09, N = 6
3210
Clear Linux
SE +/- 1.20, N = 3
3450
SE +/- 1.76, N = 3
2613
SE +/- 27.83, N = 3
2783
800
1600
2400
3200
4000
1. (CXX) g++ options: -lpthread -fno-exceptions -fno-rtti -ansi -pedantic -O3 -msse -msse3 -mpopcnt -flto

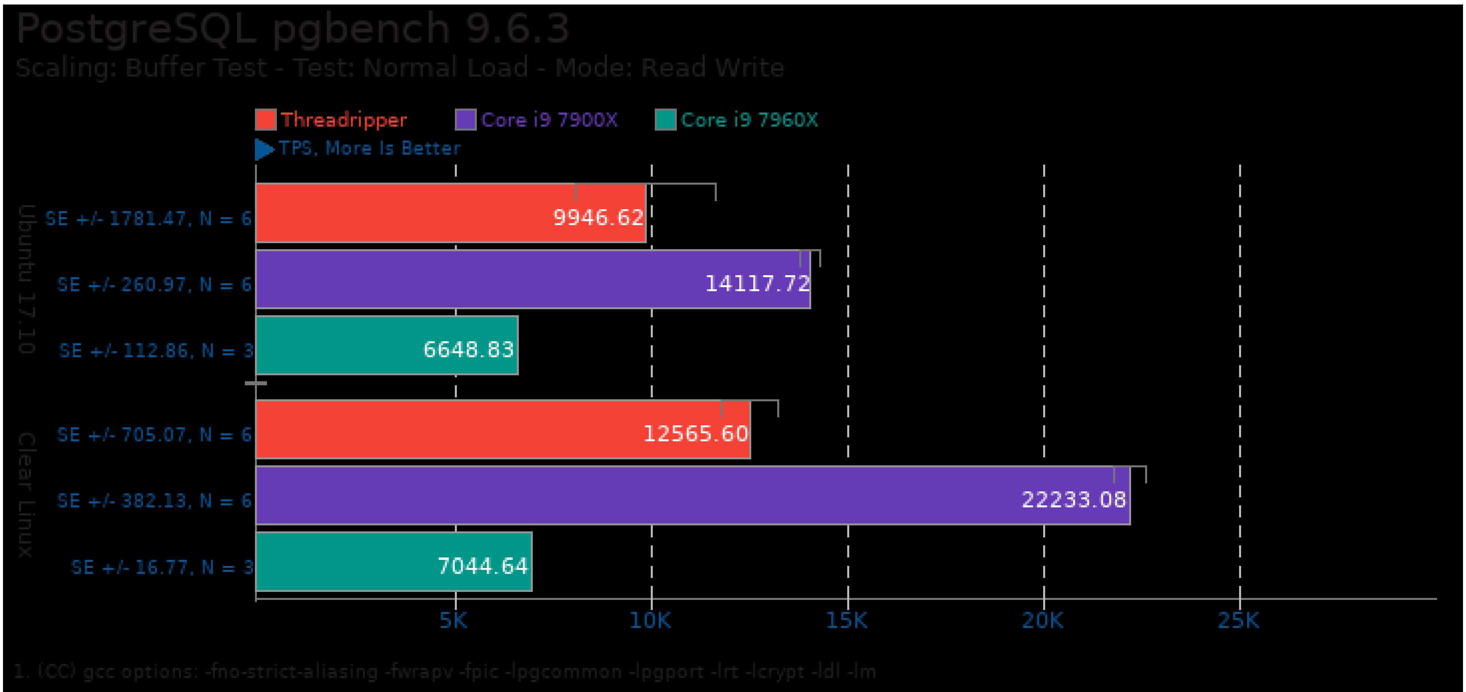
Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep

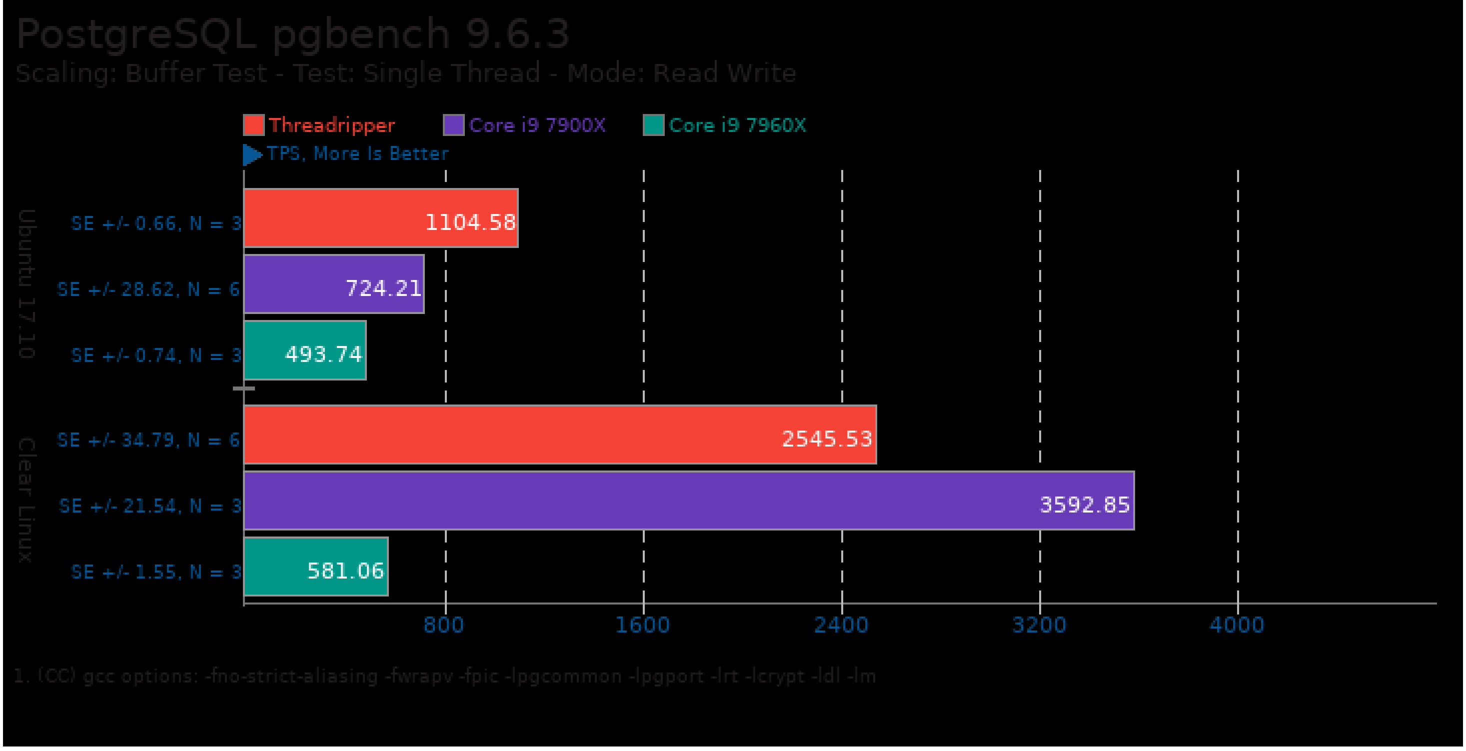


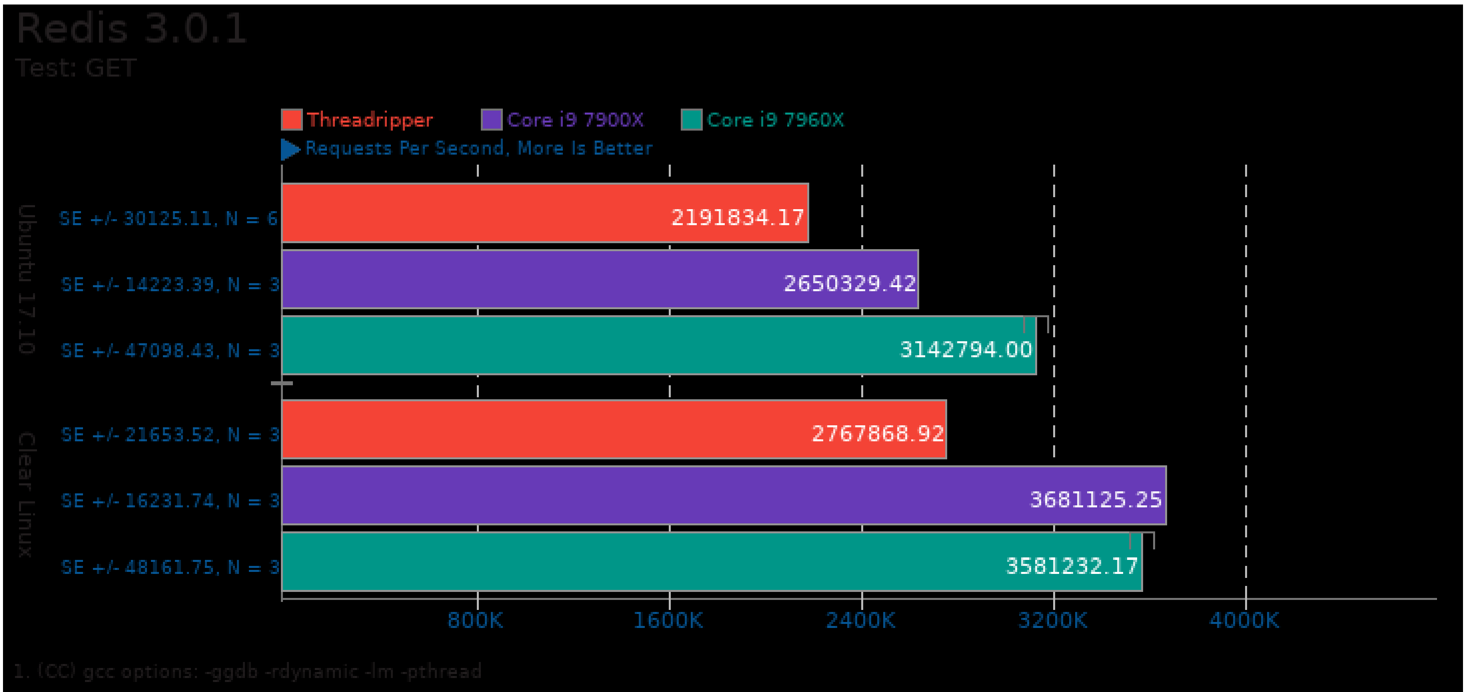

FFmpeg 3.3.3
H.264 HD To NTSC DV
Threadripper
Core i9 7900X
Core i9 7960X
Seconds, Fewer Is Better
Ubuntu 17.10
SE +/- 0.10, N = 3
7.81
SE +/- 0.31, N = 6
13.89
SE +/- 0.11, N = 3
7.23
Clear Linux
SE +/- 0.06, N = 3
6.19
SE +/- 0.22, N = 6
5.10
SE +/- 0.01, N = 3
5.22
4
8
12
16
20
1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lXv -lX11 -lXext -ldl -lxcb -lxcb-xfixes -lxcb-shape -lm -lbz2

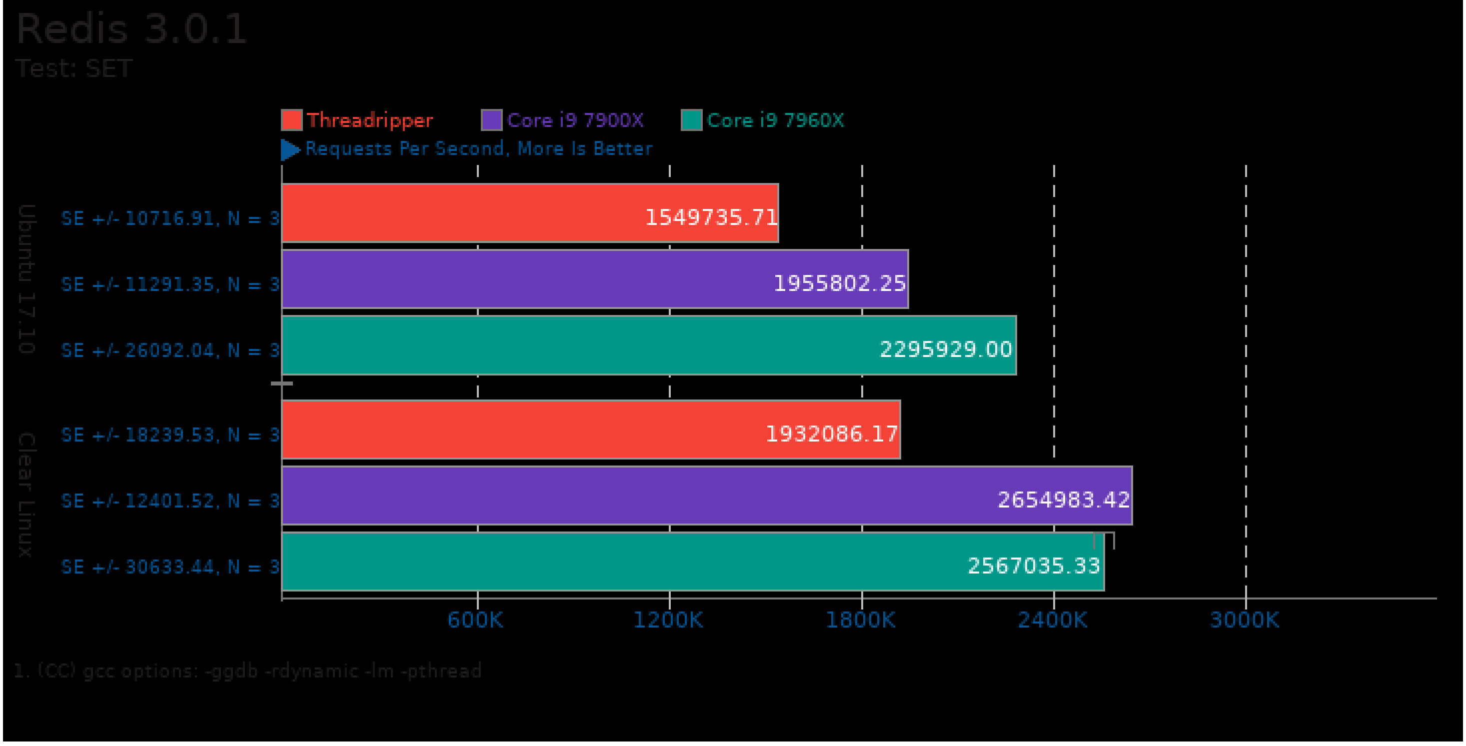

OpenSSL 1.0.1g
RSA 4096-bit Performance
Threadripper
Core i9 7900X
Core i9 7960X
Signs Per Second, More Is Better
Ubuntu 17.10
SE +/- 2.51, N = 3
2182.80
SE +/- 0.12, N = 3
2111.97
SE +/- 0.88, N = 3
2826.43
Clear Linux
SE +/- 2.15, N = 3
2184.10
SE +/- 0.48, N = 3
2113.37
SE +/- 0.17, N = 3
2831.83
600
1200
1800
2400
3000
1. (CC) gcc options: -m64 -O3 -lssl -lcrypto -ldl

Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep

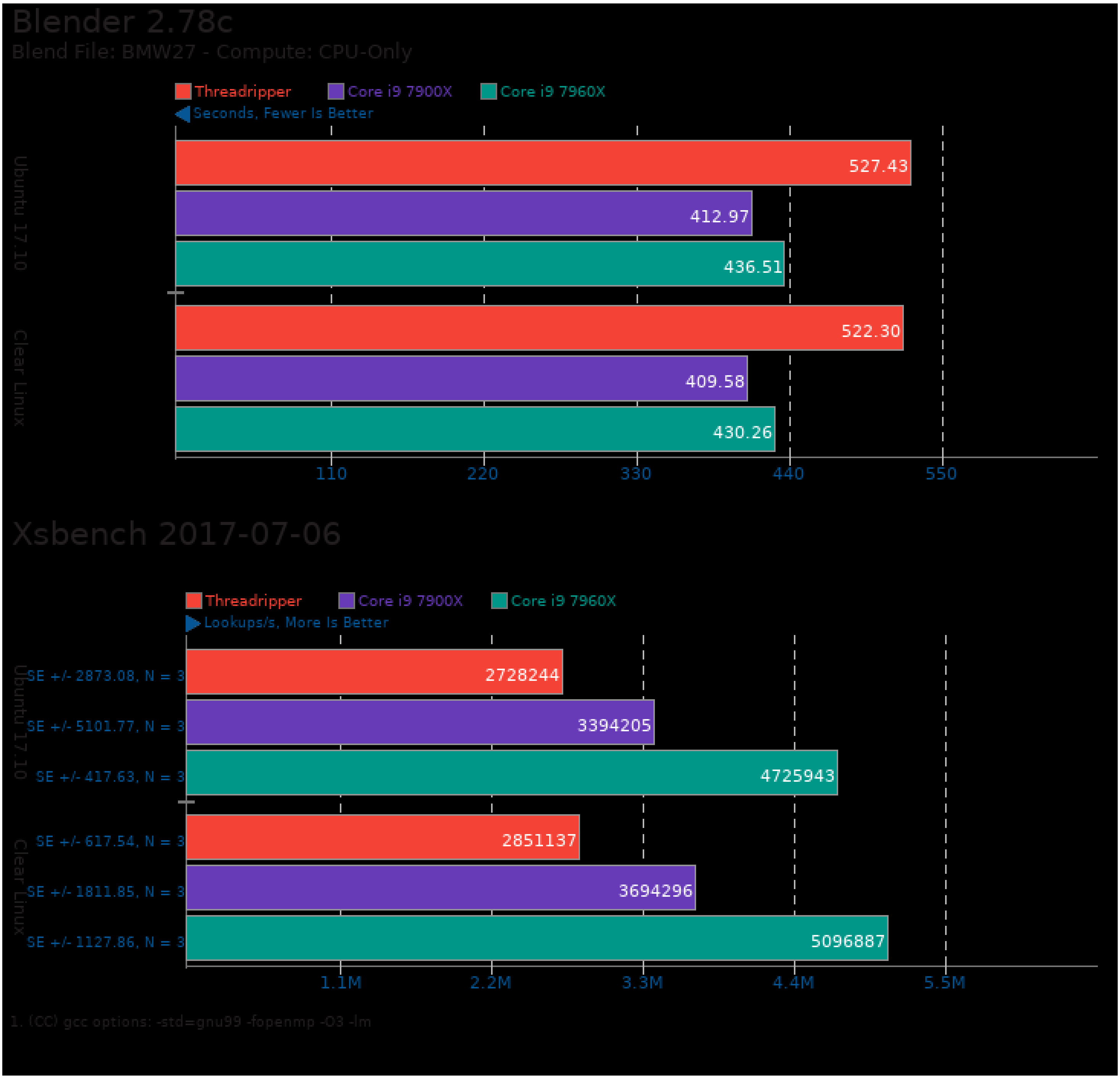




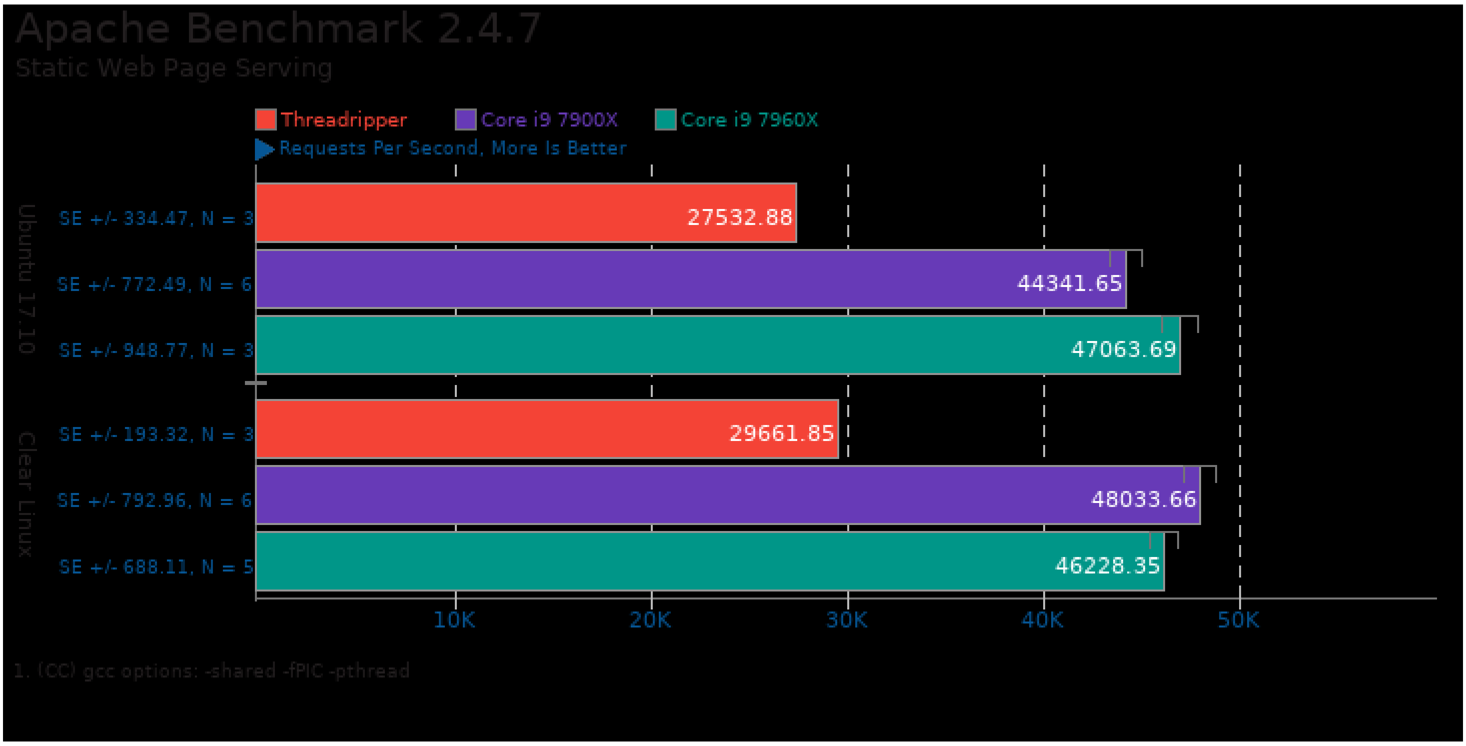

Redis 3.0.1
Test: GET
Threadripper
Core i9 7900X
Core i9 7960X
Requests Per Second, More Is Better
Ubuntu 17.10
Clear Linux
SE +/- 30125.11, N = 6
2191834.17
SE +/- 14223.39, N = 3
2650329.42
SE +/- 47098.43, N = 3
3142794.00
SE +/- 21653.52, N = 3
2767868.92
SE +/- 16231.74, N = 3
3681125.25
SE +/- 48161.75, N = 3
3581232.17
800K
1600K
2400K
3200K
4000K
1. (CC) gcc options: -ggdb -rdynamic -lm -pthread


Redis 3.0.1
Test: SET
Threadripper
Core i9 7900X
Core i9 7960X
Requests Per Second, More Is Better
Ubuntu 17.10
Clear Linux
SE +/- 10716.91, N = 3
1549735.71
SE +/- 11291.35, N = 3
1955802.25
SE +/- 26092.04, N = 3
2295929.00
SE +/- 18239.53, N = 3
1932086.17
SE +/- 12401.52, N = 3
2654983.42
SE +/- 30633.44, N = 3
2567035.33
600K
1200K
1800K
2400K
3000K
1. (CC) gcc options: -ggdb -rdynamic -lm -pthread

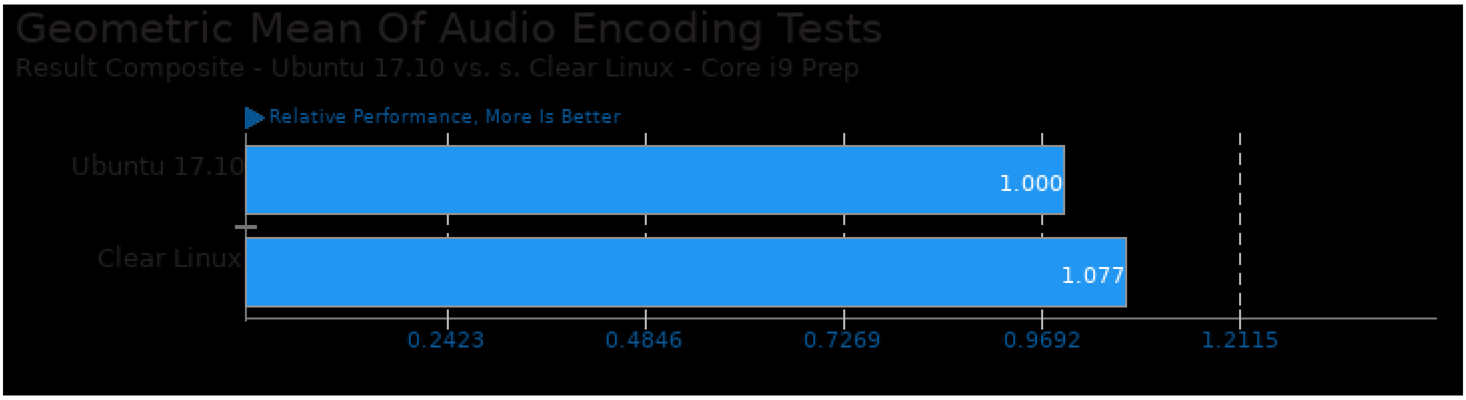
Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep



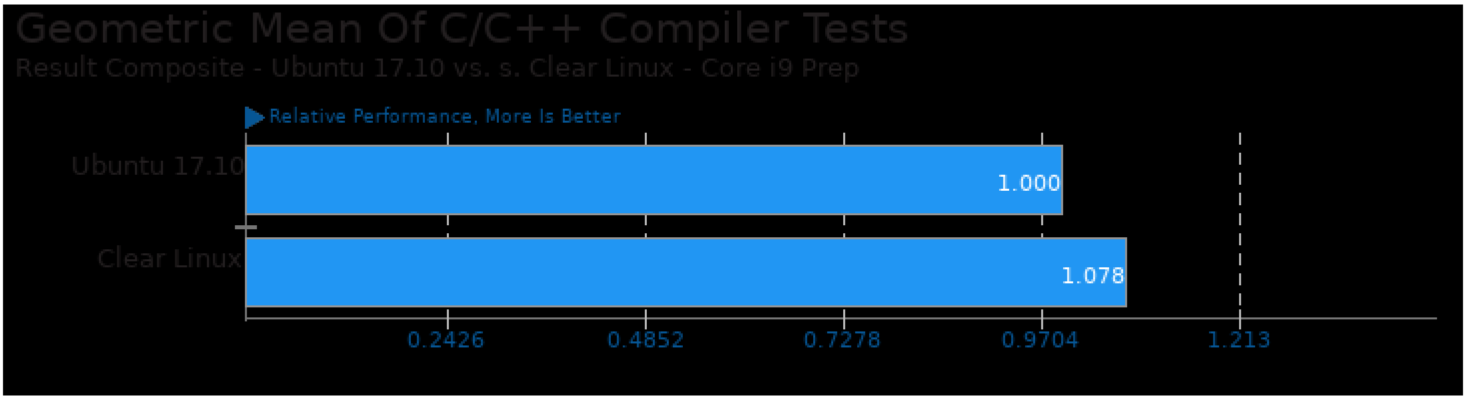
Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep



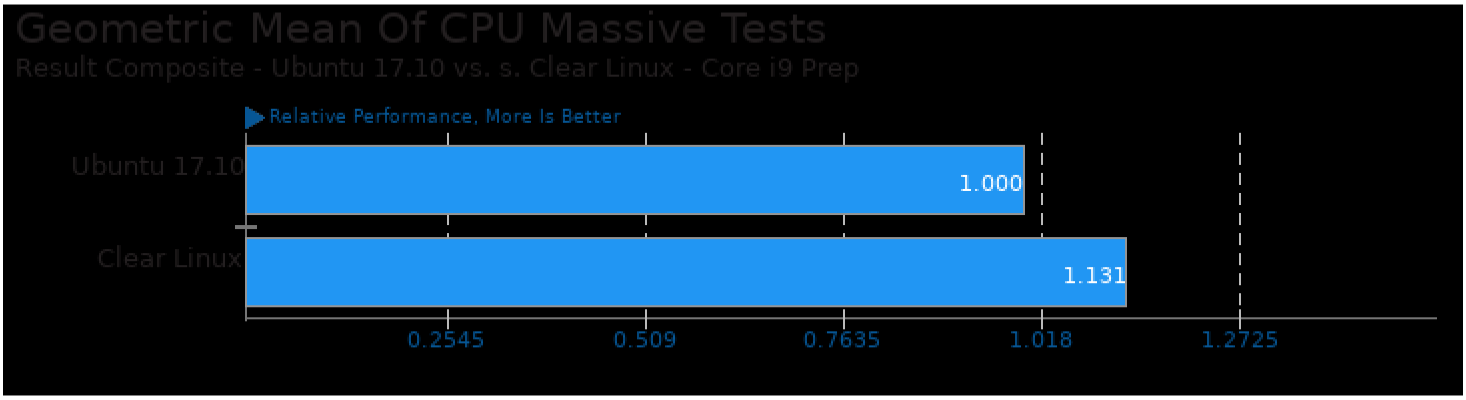
These geometric means are based upon test groupings / test suites for this result file.



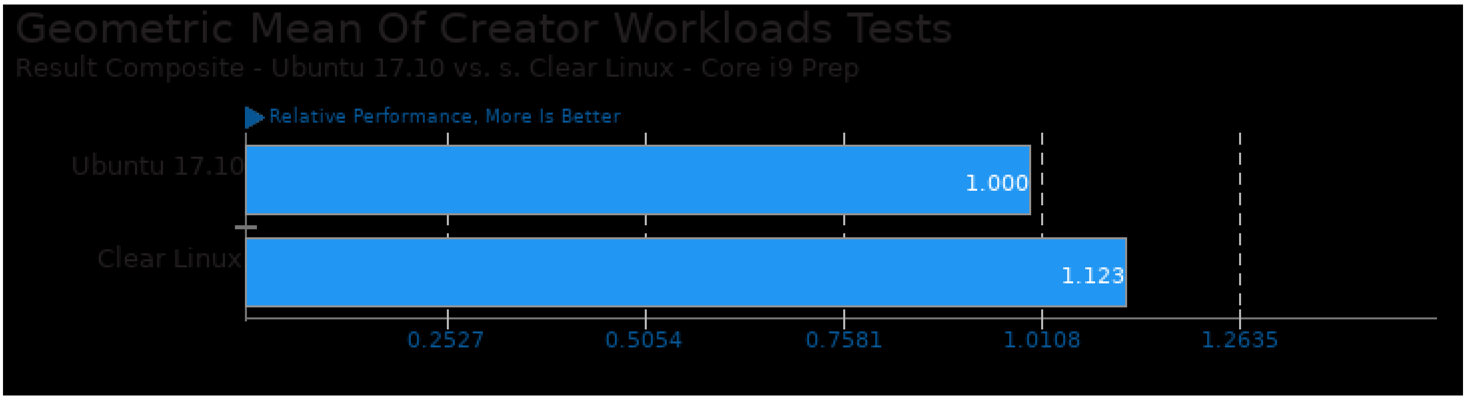
Geometric mean based upon tests: pts/encode-mp3 and pts/encode-flac



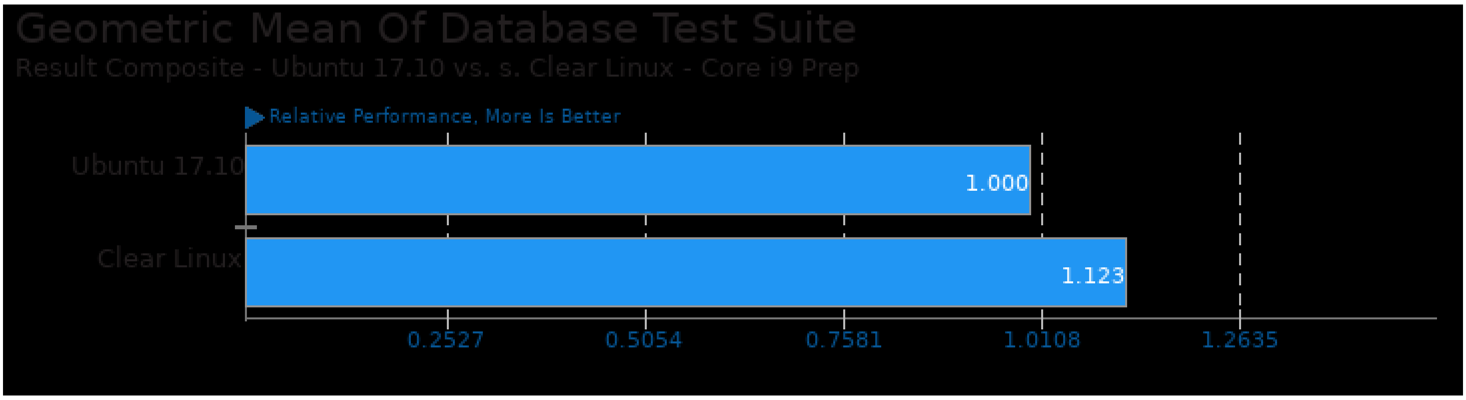
Geometric mean based upon tests: pts/fftw, pts/graphics-magick, pts/himeno, pts/stockfish, pts/hmmer, pts/build-llvm, pts/c-ray, pts/encode-mp3, pts/encode-flac, pts/pgbench, pts/apache and pts/openssl



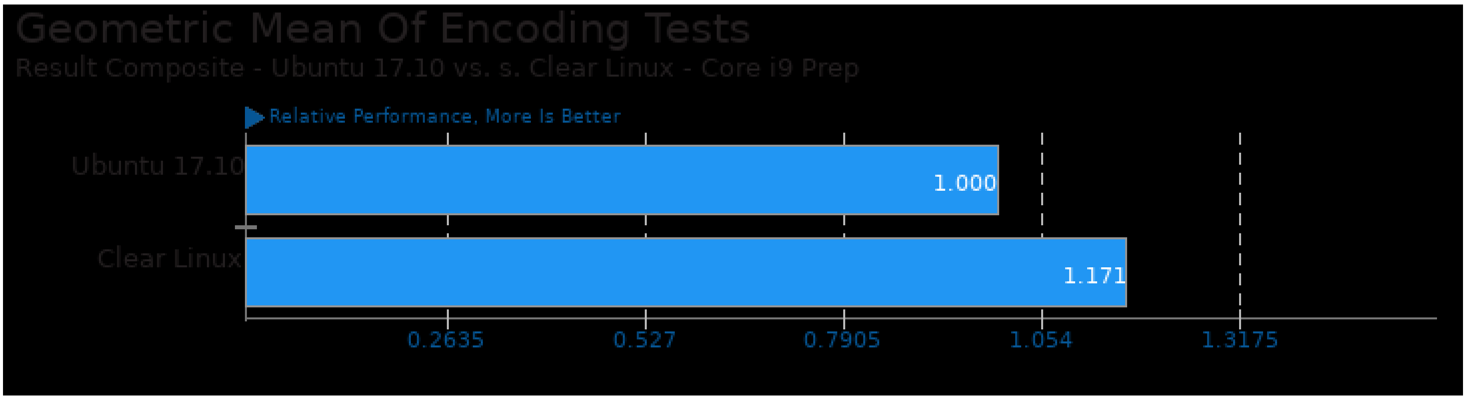
Geometric mean based upon tests: pts/apache, pts/build-llvm, pts/c-ray, pts/cachebench, pts/encode-flac, pts/encode-mp3, pts/fftw, pts/graphics-magick, pts/himeno, pts/hmmer, pts/openssl, pts/parboil, pts/pgbench, pts/redis, pts/rodinia, pts/stockfish, pts/blender and pts/xsbench



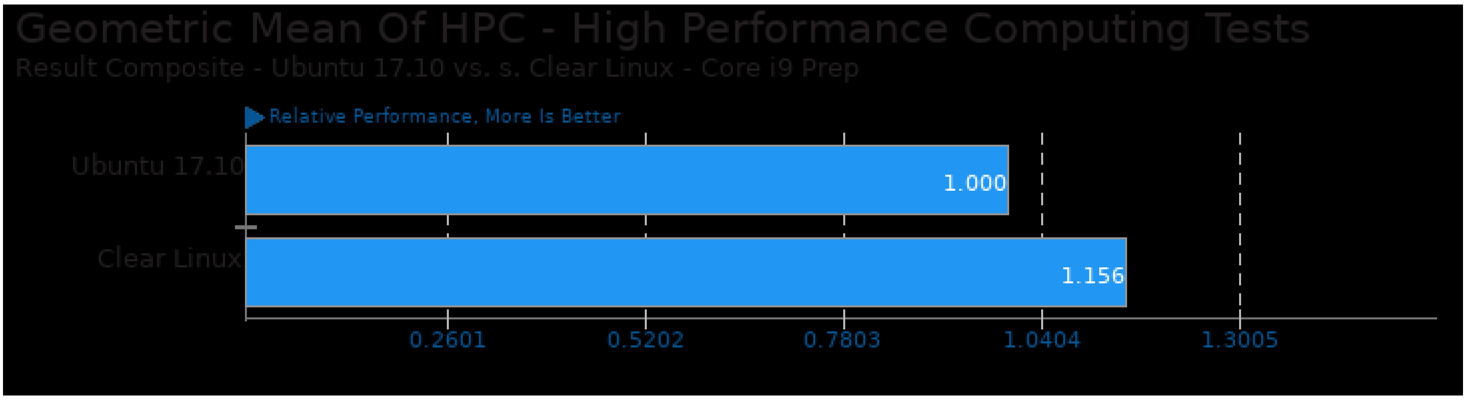
Geometric mean based upon tests: pts/c-ray, pts/blender, pts/ffmpeg, pts/encode-mp3, pts/encode-flac and pts/graphics-magick



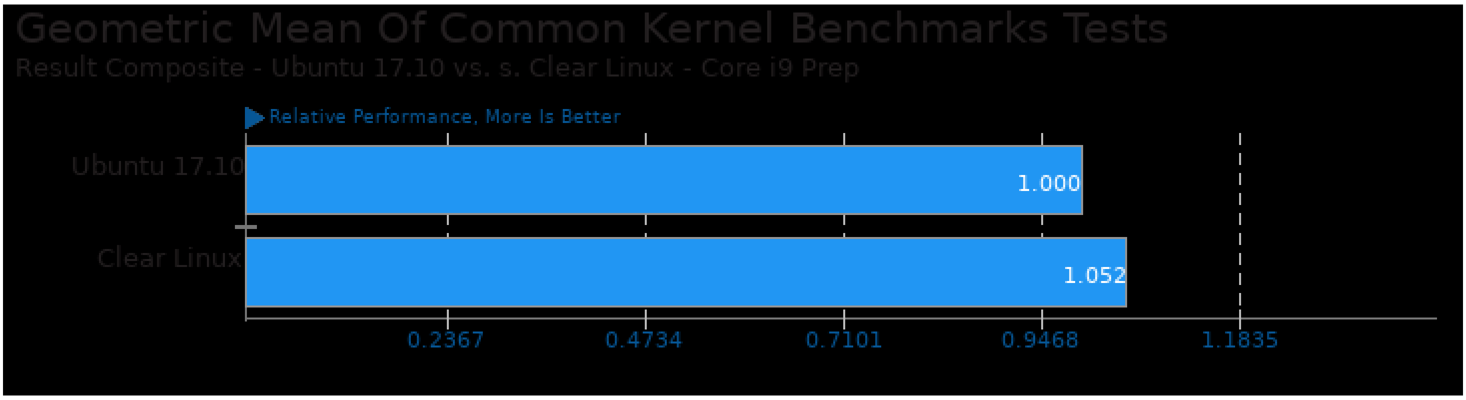
Geometric mean based upon tests: pts/redis and pts/pgbench



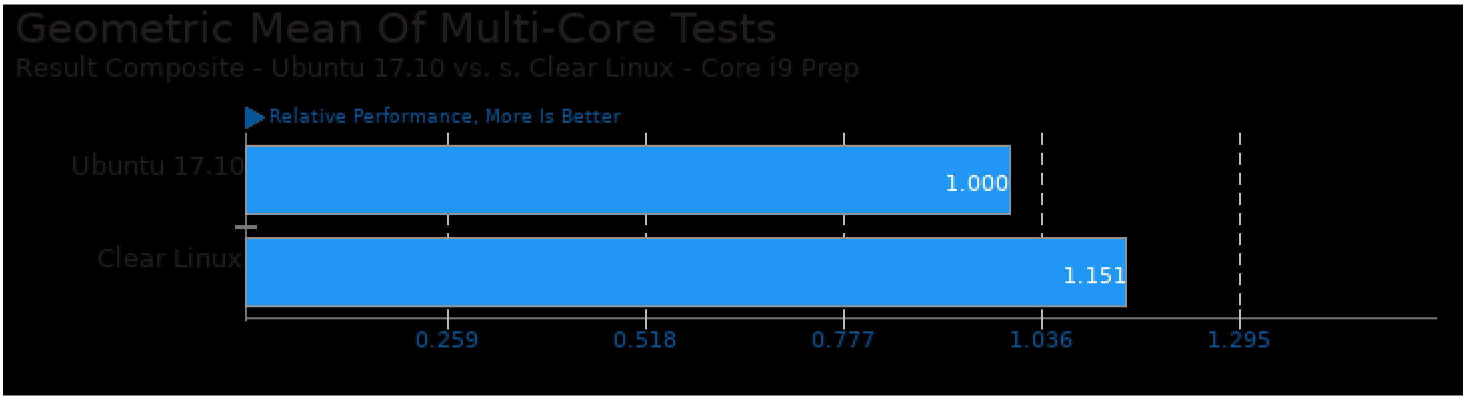
Geometric mean based upon tests: pts/encode-mp3, pts/encode-flac and pts/ffmpeg



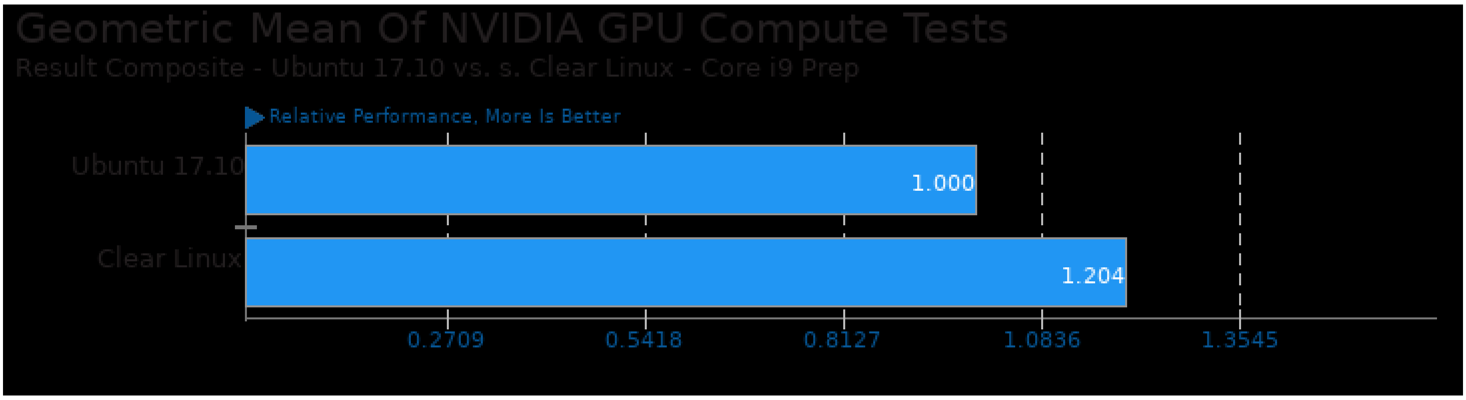
Geometric mean based upon tests: pts/rodinia, pts/parboil, pts/fftw, pts/himeno and pts/hmmer



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

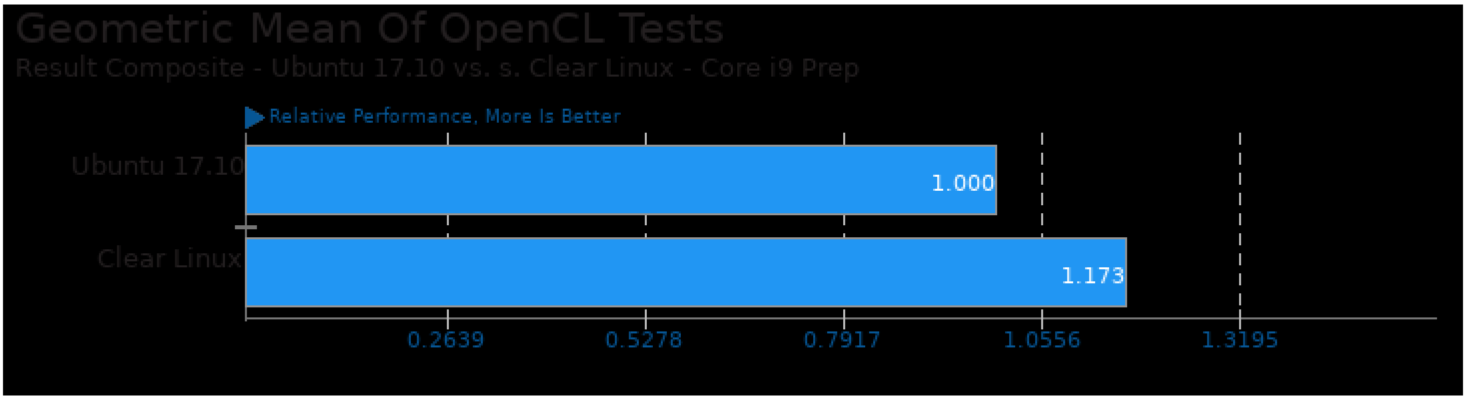


Geometric mean based upon tests: pts/blender, pts/c-ray, pts/stockfish, pts/ffmpeg, pts/rodinia, pts/parboil, pts/graphics-magick, pts/build-llvm, pts/xsbench and pts/pgbench

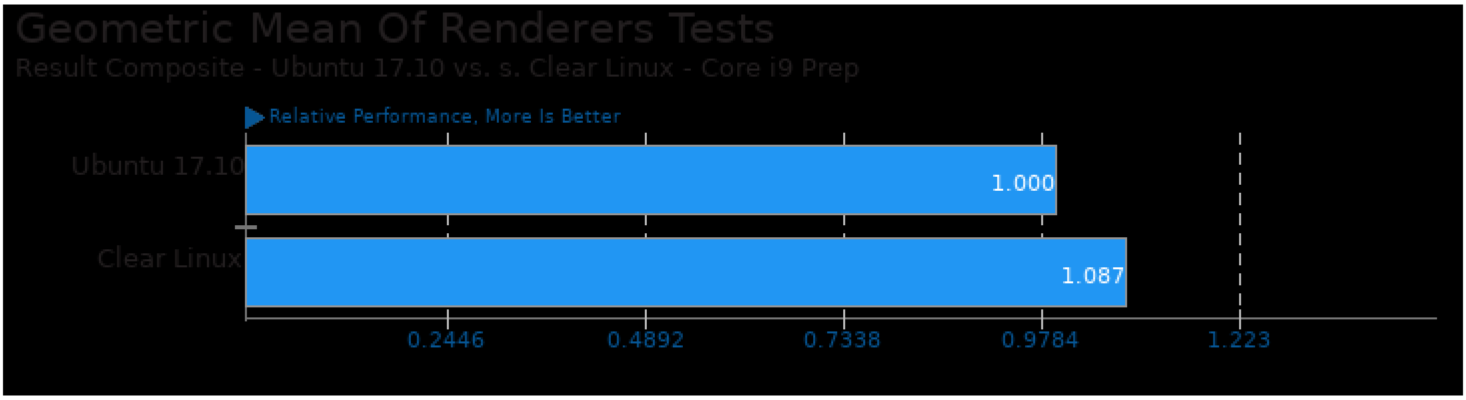


Geometric mean based upon tests: pts/rodinia and pts/blender

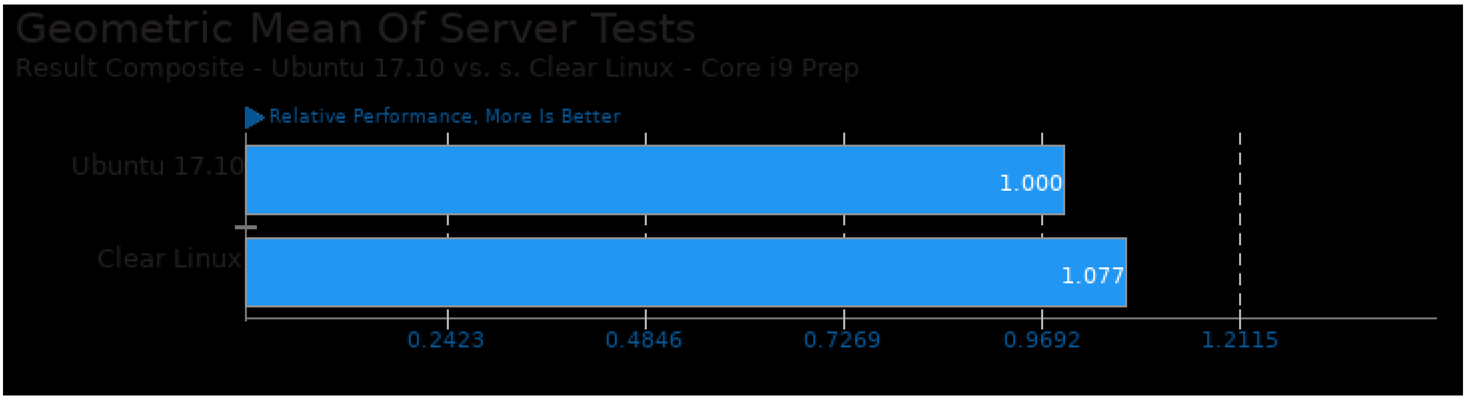
Ubuntu 17.10 vs. s. Clear Linux - Core i9 Prep



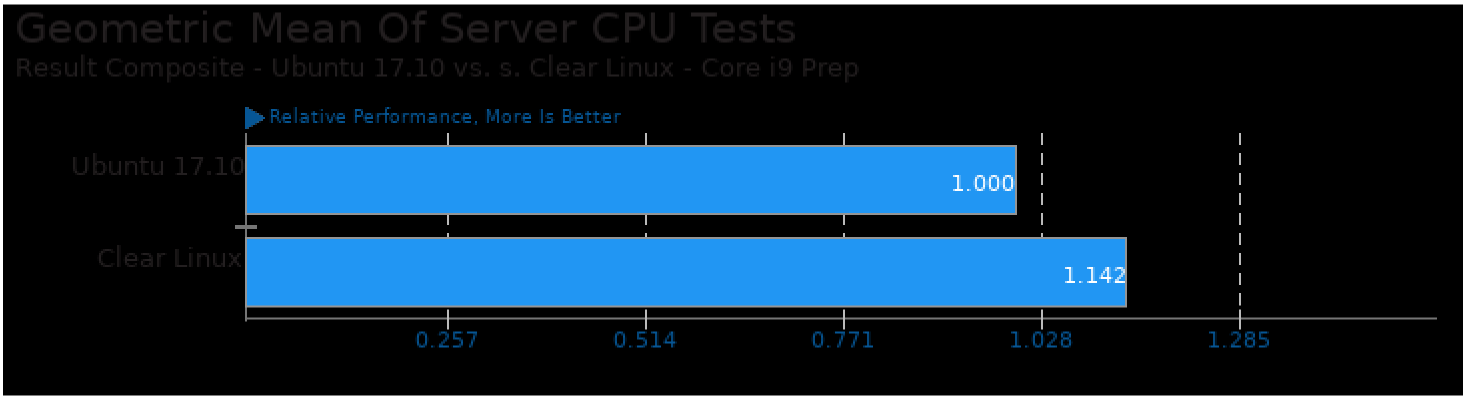
Geometric mean based upon tests: pts/rodinia and pts/parboil



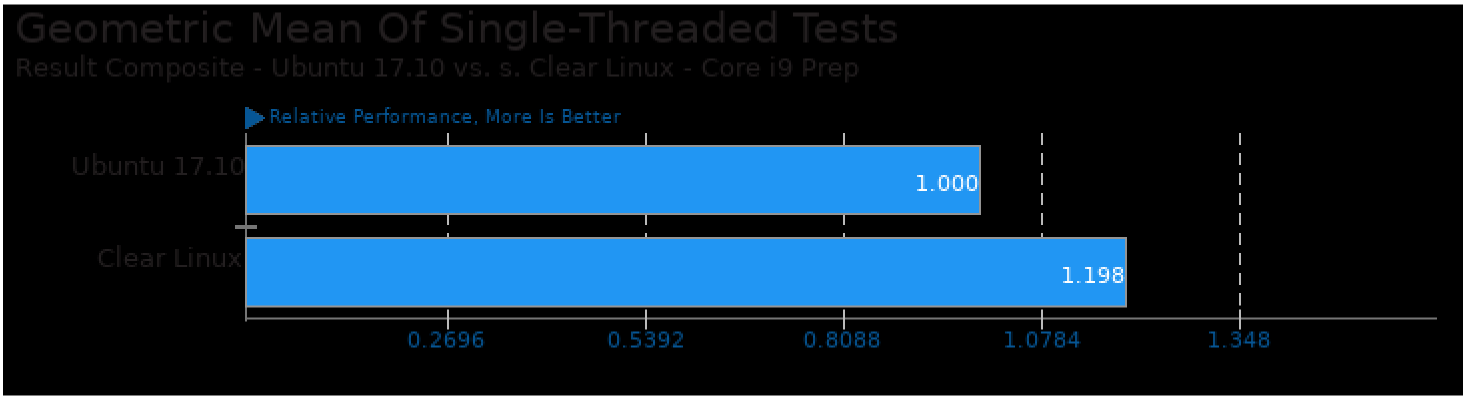
Geometric mean based upon tests: pts/c-ray and pts/blender



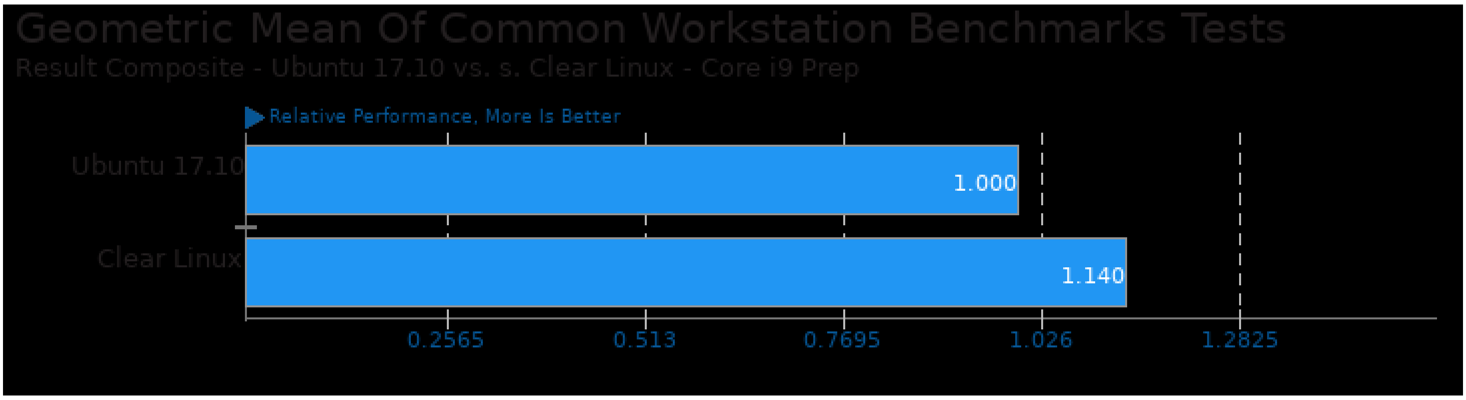
Geometric mean based upon tests: pts/apache, pts/pgbench, pts/redis and pts/openssl



Geometric mean based upon tests: pts/rodinia, pts/himeno, pts/stockfish, pts/build-llvm, pts/c-ray, pts/openssl, pts/redis and pts/blender



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



Geometric mean based upon tests: pts/blender, pts/rodinia, pts/parboil and pts/himeno

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 22:00.