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2018-09-02-2058

Intel Core i7-10700 testing with a Gigabyte B460M DS3H (F3 BIOS) and NVIDIA GeForce GTX 1050 2GB on Ubuntu 20.04 via the Phoronix Test Suite.

Test Systems:

Intel Core i3-8100

Processor: Intel Core i3-8100 @ 3.60GHz (4 Cores), Motherboard: ASUS PRIME Z370-P, Chipset: Intel Device 3e1f, Memory: 16384MB, Disk: 500GB Seagate ST500DM002-1BD14 + 2 x 1000GB Seagate ST1000DM003-1CH1 + 250GB Samsung SSD 850, Graphics: NVIDIA GeForce GTX 1050 2048MB (1354/3504MHz), Audio: Realtek ALC887-VD, Monitor: HP 23xi, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.15.0-33-generic (x86_64), Desktop: GNOME, Display Driver: NVIDIA 390.48, OpenGL: 4.6.0, Compiler: GCC 7.3.0 + TCC 0.9.27 + Clang 6.0.0-1ubuntu2, File-System: ext4, Screen Resolution: 1920x1080

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-as=/usr/bin/x86_64-linux-gnu-as --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-ld=/usr/bin/x86_64-linux-gnu-ld --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave

Intel I7-10700

Processor: Intel Core i7-10700 @ 4.80GHz (8 Cores / 16 Threads), Motherboard: Gigabyte B460M DS3H (F3 BIOS), Chipset: Intel Device 9b43, Memory: 32768MB, Disk: 1000GB CT1000MX500SSD1 + 250GB Samsung SSD 850 + 2 x 1000GB Seagate ST1000DM003-1CH1, Graphics: NVIDIA GeForce GTX 1050 2048MB (1354/3504MHz), Audio: Realtek ALC887-VD, Monitor: HP 23xi, Network: Realtek RTL8111/8168/8411 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-66-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.9, Display Driver: NVIDIA 390.141, OpenGL: 4.6.0, Compiler: GCC 9.3.0 + TCC 0.9.27 + Clang 10.0.0-4ubuntu1, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: NVM_CD_FLAGS=-q
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: intel_pstate powersave
Security Notes: usercopy/swapgs barriers and __user pointer sanitization + Enhanced IBRS IBPB: conditional RSB filling + SSB disabled via prctl and seccomp Protection

Intel I7-10700 Phoronix 10.2.2

Processor: Intel Core i7-10700 @ 4.80GHz (8 Cores / 16 Threads), Motherboard: Gigabyte B460M DS3H (F3 BIOS), Chipset: Intel Device 9b43, Memory: 32GB, Disk: 1000GB CT1000MX500SSD1 + 250GB Samsung SSD 850 + 2 x 1000GB Seagate ST1000DM003-1CH1, Graphics: NVIDIA GeForce GTX 1050 2GB, Audio: Realtek ALC887-VD, Monitor: HP 23xi, Network: Realtek RTL8111/8168/8411 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-66-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.9, Display Driver: NVIDIA 390.141, OpenGL: 4.6.0, Compiler: GCC 9.3.0 + TCC 0.9.27 + Clang 10.0.0-4ubuntu1, File-System: ext4, Screen Resolution: 1920x1080

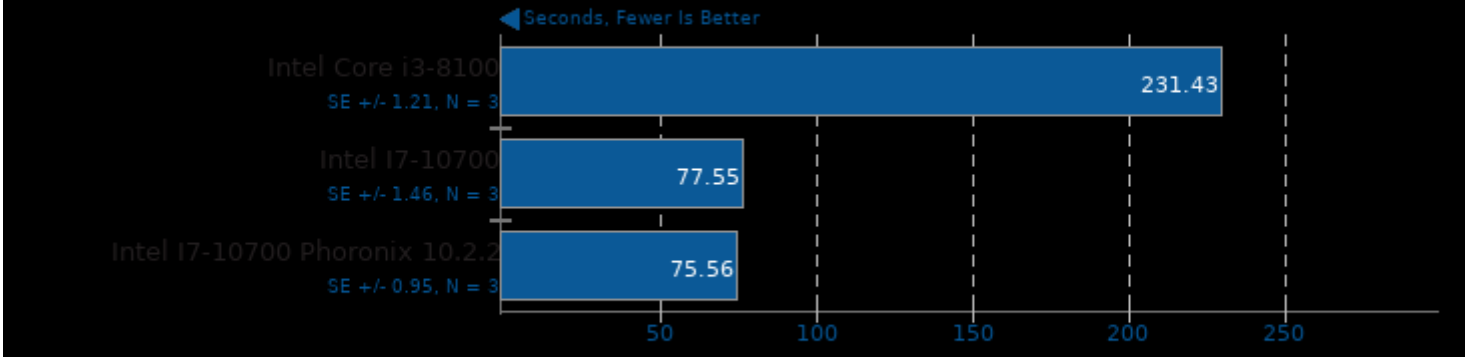
Kernel Notes: Transparent Huge Pages: madvise
Environment Notes: NVM_CD_FLAGS=-q
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --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: intel_pstate powersave - CPU Microcode: 0xe0 - Thermald 1.9.1
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 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 Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	Intel Core i3-8100	Intel I7-10700	Intel I7-10700 Phoronix 10.2.2
C-Ray - Total Time - 4.1.R.P.P (sec)	**231.43**	77.55	**75.560**
Normalized	32.65%	97.43%	100%
Standard Deviation	0.9%	3.3%	2.2%
FFmpeg - H.2.H.T.N.D (sec)	**8.18**	5.32	**5.059**
Normalized	61.85%	95.09%	100%

Standard Deviation	18.9%	6.3%	7.6%
OpenSSL - R.4.b.P (Signs/sec)	1014		
Standard Deviation	0.8%		
OpenSSL - R.4.b.P (Signs/sec)			2650
Standard Deviation			3.4%

C-Ray 1.1

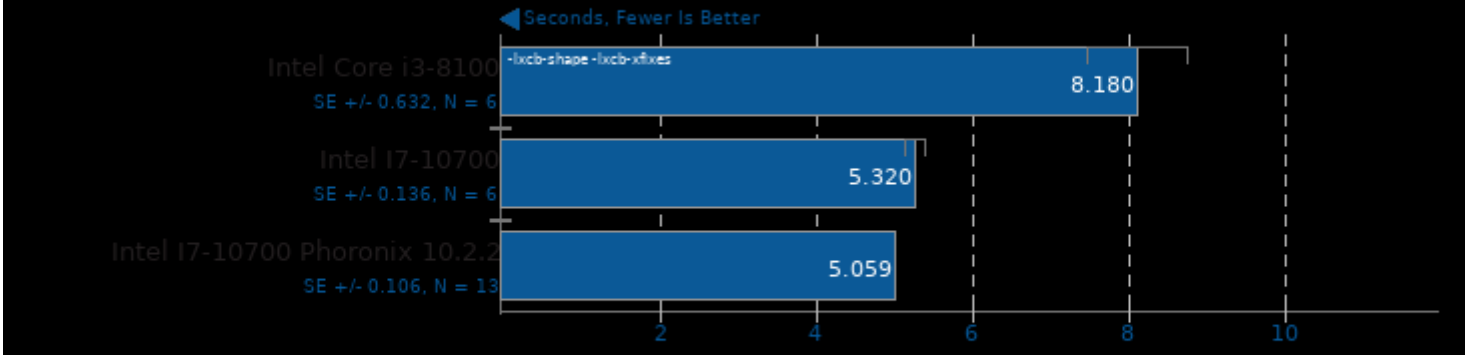
Total Time - 4K, 16 Rays Per Pixel



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

FFmpeg 4.0.2

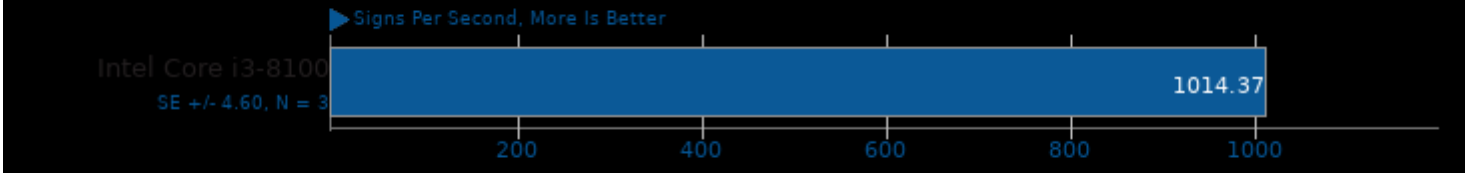
H.264 HD To NTSC DV



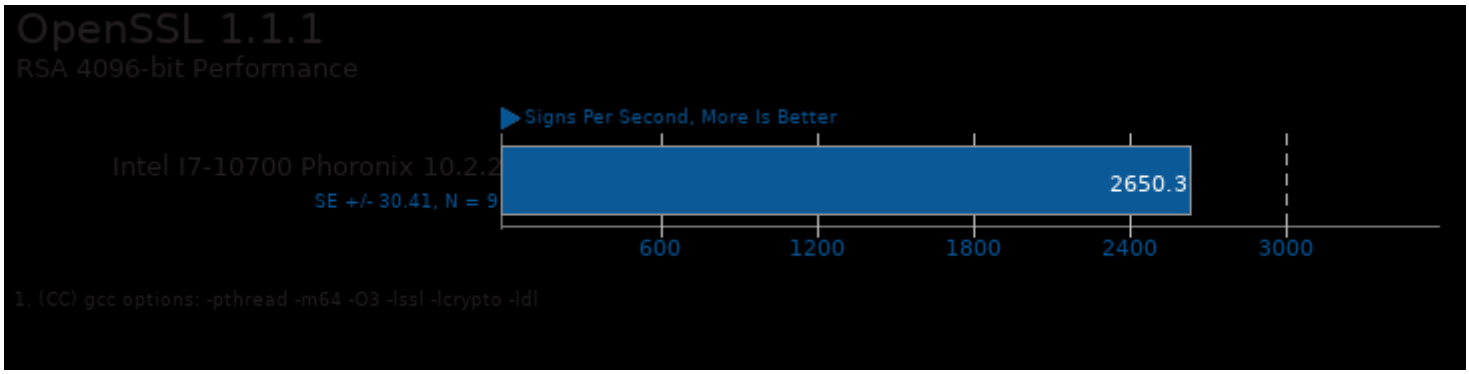
1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lXv -lX11 -lXext -lm -lxcb -lxcb-shm -lasound -lSDL2 -lsndio -p

OpenSSL 1.1.0f

RSA 4096-bit Performance

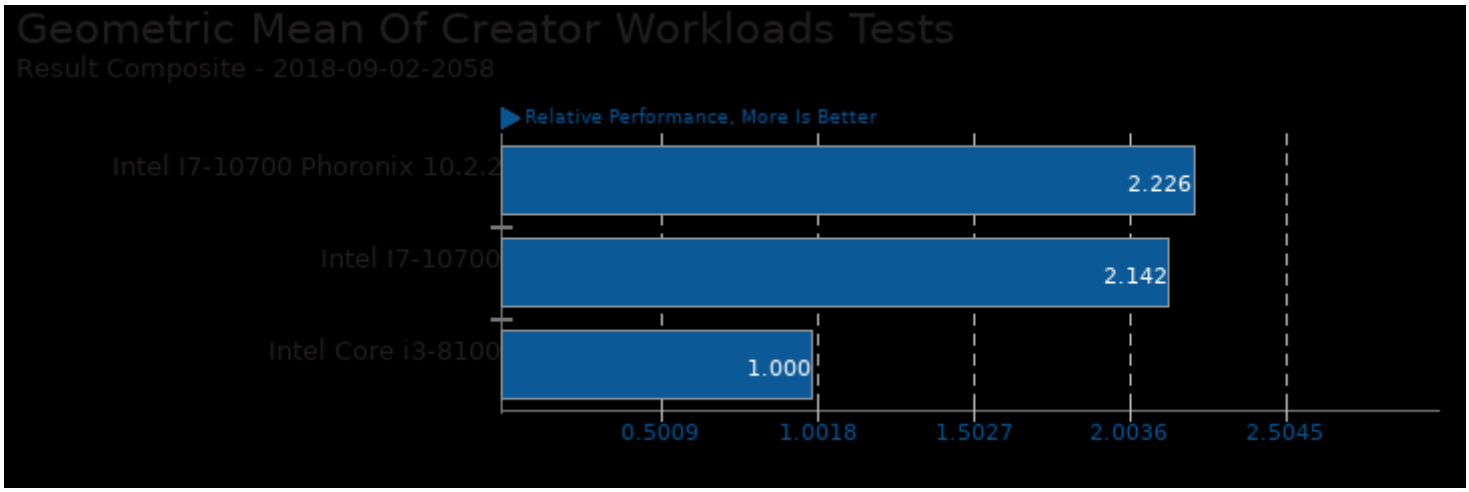


1. (CC) gcc options: -O3 -pthread -m64 -lssl -lcrypto -ldl

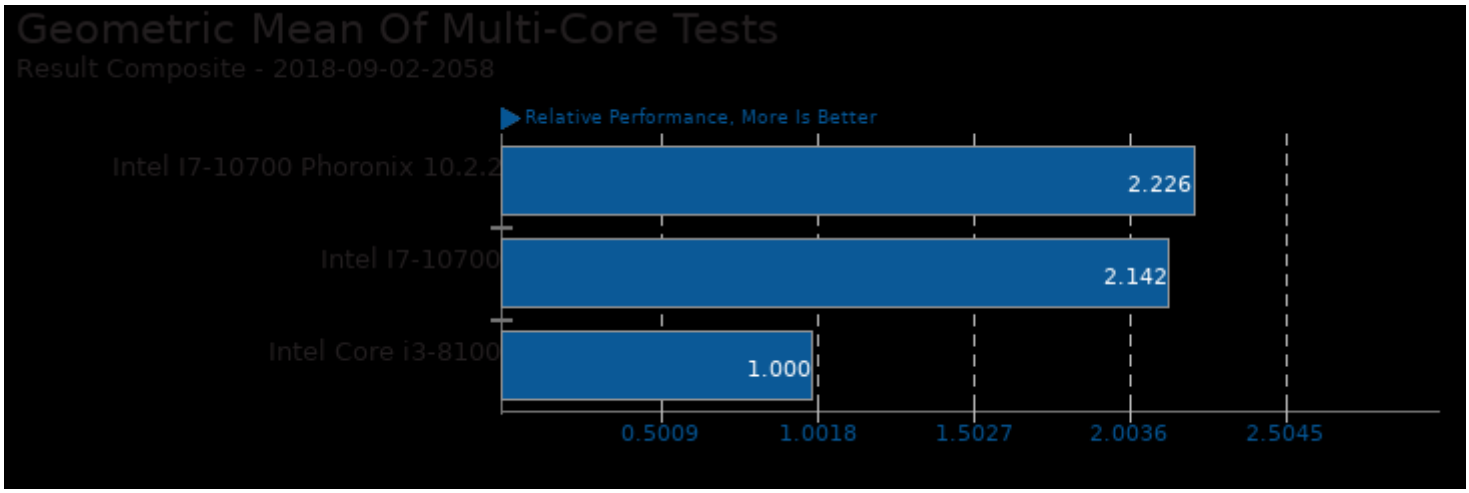

OpenSSL 1.1.1
RSA 4096-bit Performance
Signs Per Second, More Is Better
Intel I7-10700 Phoronix 10.2.2
SE +/- 30.41, N = 9
2650.3
600
1200
1800
2400
3000
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

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



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



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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 04:22.