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Core i9 10980XE Friday

Intel Core i9-10980XE testing with a Gigabyte X299X DESIGNARE 10G (F1 BIOS) and MSI AMD Radeon RX 470/480/570/570X/580/580X 8GB on Clear Linux OS 32050 via the Phoronix Test Suite.

Test Systems:

Core i9 10980XE

Processor: Intel Core i9-10980XE @ 4.60GHz (18 Cores / 36 Threads), Motherboard: Gigabyte X299X DESIGNARE 10G (F1 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 32GB, Disk: Samsung SSD 970 PRO 512GB, Graphics: MSI AMD Radeon RX 470/480/570/570X/580/580X 8GB (1366/2000MHz), Audio: Realtek ALC1220, Monitor: ASUS VP28U, Network: 2 x Intel 10G X550T + Intel Device 2723

OS: Clear Linux OS 32050, Kernel: 5.4.8-886.native (x86_64), Desktop: GNOME Shell 3.34.3, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.6 Mesa 20.0.0-devel (LLVM 9.0.0), Vulkan: 1.1.107, Compiler: GCC 9.2.1 20200108 gcc-9-branch@279985 + Clang 9.0.0 + LLVM 9.0.0, File-System: ext4, Screen Resolution: 3840x2160

Core i9 10980XE Friday

Environment Notes: CFLAGS="-g -O3 -feliminate-unused-debug-types -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --param=ssp-buffer-size=32 -m64 -fasynchronous-unwind-tables -Wp,-D_REENTRANT -ffree-loop-distribute-patterns -WI,-z -WI,no -WI,-z -WI,retro -malign-data=abi -fno-semantic-interposition -ffree-vectorize -ffree-loop-vectorize -WI,-sort-common -WI,--enable-new-dtags" FFLAGS="-g -O3 -feliminate-unused-debug-types -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --param=ssp-buffer-size=32 -m64 -fasynchronous-unwind-tables -Wp,-D_REENTRANT -ffree-loop-distribute-patterns -WI,-z -WI,no -WI,retro -malign-data=abi -fno-semantic-interposition -ffree-vectorize -ffree-loop-vectorize -WI,--enable-new-dtags -Wa,-mbranches-within-32B-boundaries" CXXFLAGS="-g -O3 -feliminate-unused-debug-types -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --param=ssp-buffer-size=32 -Wformat -Wformat-security -m64 -fasynchronous-unwind-tables -Wp,-D_REENTRANT -ffree-loop-distribute-patterns -WI,-z -WI,no -WI,retro -fno-semantic-interposition -ffat-lto-objects -fno-trapping-math -WI,-sort-common -WI,--enable-new-dtags -mtune=skylake -Wa,-mbranches-within-32B-boundaries -fvisibility-inlines-hidden -WI,--enable-new-dtags" MESA_GLSL_CACHE_DISABLE=0 CFLAGS="-g -O3 -feliminate-unused-debug-types -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --param=ssp-buffer-size=32 -Wformat -Wformat-security -m64 -fasynchronous-unwind-tables -Wp,-D_REENTRANT -ffree-loop-distribute-patterns -WI,-z -WI,no -WI,retro -fno-semantic-interposition -ffat-lto-objects -fno-trapping-math -WI,-sort-common -WI,--enable-new-dtags -mtune=skylake -Wa,-mbranches-within-32B-boundaries" THEANO_FLAGS="floatX=float32,openmp=true,gcc.cxxflags=-ffree-vectorize -maxv" Compiler Notes: --build=x86_64-generic-linux --disable-libmpx --disable-libunwind-exceptions --disable-multiarch --disable-vtable-verify --disable-werror --enable__cxa_atexit --enable-bootstrap --enable-cet --enable-clocale-gnu --enable-default-pie --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-gcc-major-version-only --with-glibc-version=2.19 --with-gnu-ld --with-isl --with-ppl=yes --with-tune=haswell Disk Notes: MQ-DEADLINE / relatime,rw Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0x500002c Java Notes: OpenJDK Runtime Environment (build 1.8.0-u232-ga-b00) Python Notes: Python 3.8.1 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/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + tsx_async_abort: Mitigation of TSX disabled

Core i9 10980XE

7-Zip Compression - C.S.T (MIPS)	103598
Standard Deviation	0.9%
ACES DGEMM - S.F.P.R (GFLOP/s)	5.725821
Standard Deviation	5.4%
asmFish - 1.H.M.2.D (Nodes/s)	55311394
Standard Deviation	1.1%
C-Ray - Total Time - 4.1.R.P.P (sec)	38.006
Standard Deviation	0.1%
CloverLeaf - L.E.H (sec)	2.54
Standard Deviation	0.3%
Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)	709827
Standard Deviation	0.2%
CP2K Molecular Dynamics - Fayalite-FIST Data (sec)	733.974
Cython benchmark (sec)	22.130
Standard Deviation	1%
DaCapo Benchmark - H2 (msec)	3332
Standard Deviation	2.1%
DaCapo Benchmark - Jython (msec)	3337
Standard Deviation	0.5%
DaCapo Benchmark - Tradesoap (msec)	3099
Standard Deviation	2.7%
DaCapo Benchmark - Tradebeans (msec)	2756
Standard Deviation	0.6%
dav1d - Summer Nature 4K (sec)	18.867
Standard Deviation	0.4%
dav1d - S.N.1 (sec)	6.615
Standard Deviation	0.7%
DeepSpeech - CPU (sec)	105.66224
Standard Deviation	0.2%
ebizzy (Records/s)	633972
Standard Deviation	4.6%

Embree - Pathtracer - Crown (FPS)	19.6358
Standard Deviation	0.4%
glibc bench - cos (nanoseconds)	36.2880
Standard Deviation	0%
glibc bench - sin (nanoseconds)	36.1245
Standard Deviation	0.1%
glibc bench - sqrt (nanoseconds)	1.60407
Standard Deviation	0.1%
glibc bench - pthread_once (nanoseconds)	1.40894
Standard Deviation	0.3%
GraphicsMagick - Swirl (Iterations/min)	747
Standard Deviation	2.3%
GraphicsMagick - Rotate (Iterations/min)	988
Standard Deviation	3%
GraphicsMagick - Sharpen (Iterations/min)	237
Standard Deviation	0.2%
GraphicsMagick - Enhanced (Iterations/min)	368
GraphicsMagick - Resizing (Iterations/min)	1472
Standard Deviation	3%
GraphicsMagick - Noise-Gaussian (Iterations/min)	411
Standard Deviation	0.1%
GraphicsMagick - HWB Color Space (Iterations/min)	1459
Standard Deviation	0.8%
GROMACS - Water Benchmark (Ns/Day)	1.624
Standard Deviation	0.1%
Hackbench - 32 - Process (sec)	38.290
Standard Deviation	0.1%
Himeno Benchmark - P.P.S (MFLOPS)	3323
Standard Deviation	0.4%
Himeno Benchmark - P.P.S (MFLOPS)	4153
Standard Deviation	0.1%
Intel Open Image Denoise - Memorial (Images / Sec)	22.03
Standard Deviation	0.2%
John The Ripper - Blowfish (Real C/S)	32533
Standard Deviation	0%
libjpeg-turbo tjbench - D.T (Megapixels/sec)	219.098116
Standard Deviation	0.2%
m-queens - Time To Solve (sec)	42.751
Standard Deviation	0%
MariaDB - 64 (Queries/sec)	219
Standard Deviation	0.2%
MBW - Memory Copy - 4096 MiB (MiB/s)	8621
Standard Deviation	3%
MBW - M.C.F.B.S - 4096 MiB (MiB/s)	7737
Standard Deviation	2.9%
MKL-DNN - D.B.d - f32 (ms)	36.1764
Standard Deviation	3%
MKL-DNN - C.B.c - f32 (ms)	1955
Standard Deviation	2.8%
MKL-DNN - C.B.c - f32 (ms)	984.881
Standard Deviation	1.4%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	0.96937
Standard Deviation	0.4%

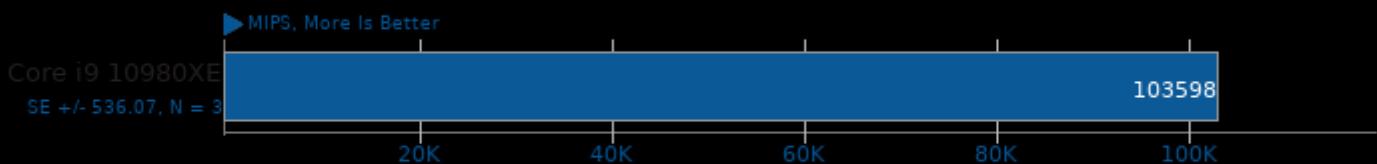
NAS Parallel Benchmarks - BT.C (Mop/s)	42073
Standard Deviation	0.3%
NAS Parallel Benchmarks - EP.D (Mop/s)	2494
Standard Deviation	2.9%
NAS Parallel Benchmarks - FT.C (Mop/s)	19370
Standard Deviation	0.1%
NAS Parallel Benchmarks - LU.C (Mop/s)	43110
Standard Deviation	0.1%
NAS Parallel Benchmarks - MG.C (Mop/s)	17416
Standard Deviation	0.4%
NAS Parallel Benchmarks - SP.B (Mop/s)	12215
Standard Deviation	0.4%
Node.js Express HTTP Load Test (Req/s/sec)	13433
Standard Deviation	0.3%
OpenCV Benchmark (sec)	62.048
Standard Deviation	0.3%
OpenSSL - R.4.b.P (Signs/sec)	5220
Standard Deviation	0.4%
OSPray - XFrog Forest - SciVis (FPS)	4.57
Standard Deviation	0.2%
OSPray - M.R - SciVis (FPS)	30.30
Standard Deviation	0%
POV-Ray - Trace Time (sec)	51.056
Standard Deviation	78.2%
Radiance Benchmark - Serial (sec)	619.113
Radiance Benchmark - SMP Parallel (sec)	209.111
RAMspeed SMP - Add - Integer (MB/s)	27742
RAMspeed SMP - Copy - Integer (MB/s)	28815
RAMspeed SMP - Scale - Integer (MB/s)	28241
RAMspeed SMP - Average - Integer (MB/s)	28377
RAMspeed SMP - Add - Floating Point (MB/s)	27779
RAMspeed SMP - Copy - Floating Point (MB/s)	28618
RAMspeed SMP - Scale - Floating Point (MB/s)	28873
RAMspeed SMP - Average - Floating Point (MB/s)	28262
rav1e - 6 (FPS)	1.153
Standard Deviation	0.1%
rav1e - 9 (FPS)	1.467
Standard Deviation	0.1%
rays1bench - Large Scene (mrays/s)	99.65
Standard Deviation	0.1%
Renaissance - Scala Dotty (ms)	5196
Standard Deviation	0.9%
Renaissance - Savina Reactors.IO (ms)	19748
Standard Deviation	8.1%
Renaissance - A.S.P (ms)	24412
Standard Deviation	4.3%
Rodinia - OpenMP LavaMD (sec)	15.080
Standard Deviation	0%
Rodinia - OpenMP CFD Solver (sec)	11.337
Standard Deviation	1.6%
Rodinia - O.S (sec)	14.842
Standard Deviation	3.3%

Rust Mandelbrot - T.T.C.S.P.M (sec)	38.875
Standard Deviation	0%
SQLite - 1 (sec)	47.604
Standard Deviation	0.4%
SQLite - 8 (sec)	175.816
Standard Deviation	0.2%
Stockfish - Total Time (Nodes/s)	49855902
Standard Deviation	1%
Stream - Copy (MB/s)	45353
Standard Deviation	0.1%
Stream - Scale (MB/s)	34477
Standard Deviation	0%
Stream - Triad (MB/s)	37595
Standard Deviation	0.1%
Stream - Add (MB/s)	37367
Standard Deviation	0.1%
SVT-AV1 - 1.8.b.Y.T.A.V.E (FPS)	54.707
Standard Deviation	0.7%
SVT-AV1 - Enc Mode 4 - 1080p (FPS)	6.489
Standard Deviation	1.4%
SVT-AV1 - Enc Mode 8 - 1080p (FPS)	53.569
Standard Deviation	0.3%
SVT-HEVC - 1.8.b.Y.T.H.V.E (FPS)	297.98
Standard Deviation	1%
SVT-VP9 - P.S.O - Bosphorus 1080p (FPS)	325.51
Standard Deviation	2.9%
SVT-VP9 - V.Q.O - Bosphorus 1080p (FPS)	273.48
Standard Deviation	0.3%
SVT-VP9 - 1.8.b.Y.T.V.V.E (FPS)	329.19
Standard Deviation	2.8%
Swet - Average (Operations/sec)	5258706868
Standard Deviation	2.9%
Timed GCC Compilation - Time To Compile (sec)	477.907
Standard Deviation	0.1%
Timed Linux Kernel Compilation - Time To Compile (sec)	35.344
Standard Deviation	2.8%
Timed Linux Kernel Compilation - Time To Compile (sec)	40.629
Standard Deviation	2.2%
Timed MrBayes Analysis - P.P.A (sec)	111.283
Standard Deviation	0.3%
Timed PHP Compilation - Time To Compile (sec)	81.021
Standard Deviation	0.6%
Tinymembench - Standard Memcpy (MB/s)	9373
Standard Deviation	2.8%
Tinymembench - Standard Memset (MB/s)	26467
Standard Deviation	2.2%
Tungsten Renderer - Hair (sec)	13.9952
Standard Deviation	0.2%
Tungsten Renderer - Water Caustic (sec)	20.4144
Standard Deviation	0.4%
Tungsten Renderer - Non-Exponential (sec)	6.01810
Standard Deviation	2.4%
Tungsten Renderer - Volumetric Caustic (sec)	7.39468

VP9 libvpx Encoding - Speed 0 (FPS)	7.01	Standard Deviation 1.3%
VP9 libvpx Encoding - Speed 5 (FPS)	25.86	Standard Deviation 0.2%
x264 - H.2.V.E (FPS)	145.71	Standard Deviation 1.8%
x265 - H.2.1.V.E (FPS)	59.41	Standard Deviation 0.7%
x265 - H.2.1.V.E (FPS)	72.07	Standard Deviation 0.5%
XZ Compression - C.u.1.0.3.s.i.i.C.L.9 (sec)	17.164	Standard Deviation 0.2%
Zstd Compression - C.u.1.0.3.s.i.i.C.L.1 (sec)	10.864	Standard Deviation 0.7%
		Standard Deviation 0.3%

7-Zip Compression 16.02

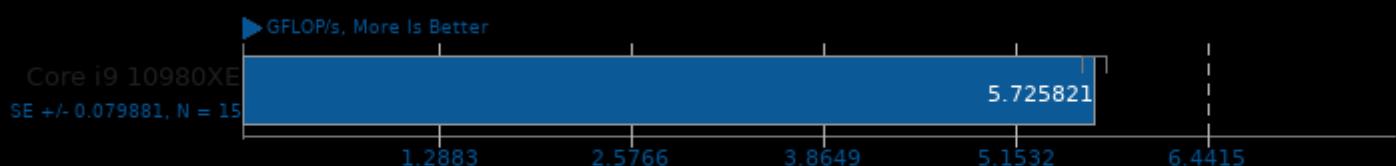
Compress Speed Test



1. (CXX) g++ options: -pipe -fthread

ACES DGEMM 1.0

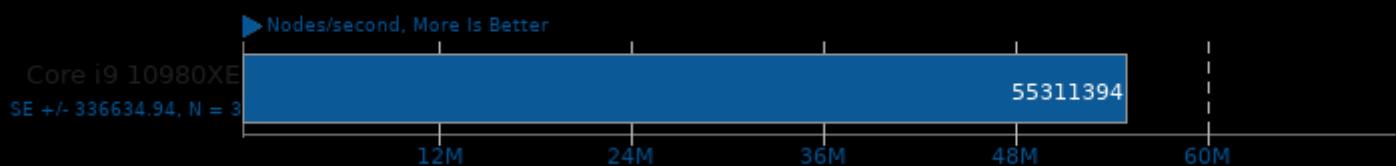
Sustained Floating-Point Rate



1. (CC) gcc options: -O3 -march=native -fopenmp -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

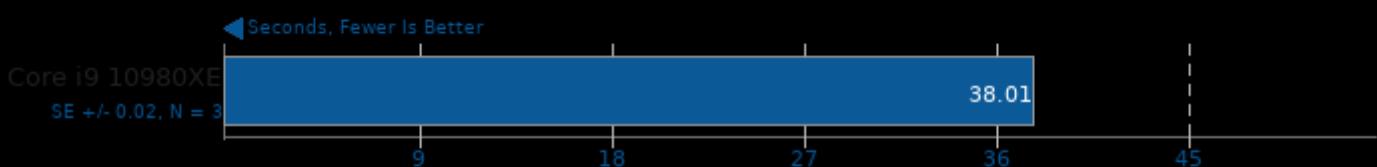
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



C-Ray 1.1

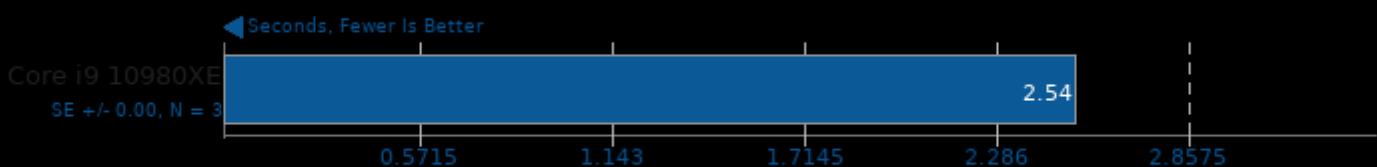
Total Time - 4K, 16 Rays Per Pixel



1. (CC) gcc options: -lm -fthread -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

CloverLeaf

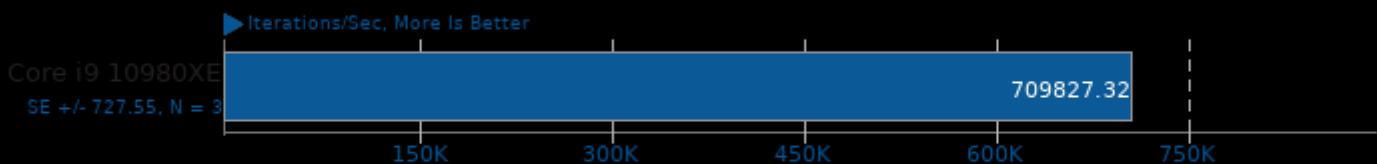
Lagrangian-Eulerian Hydrodynamics



1. (F9X) gfortran options: -O3 -march=native -funroll-loops -fopenmp

Coremark 1.0

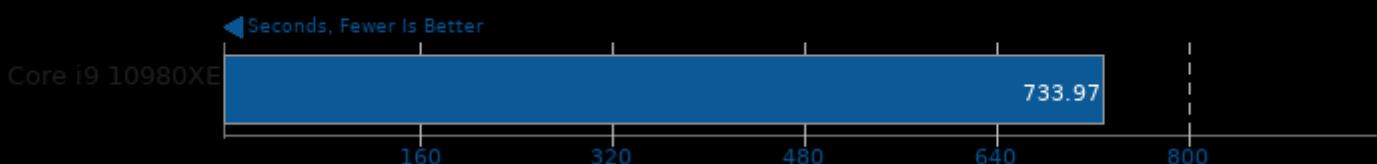
CoreMark Size 666 - Iterations Per Second



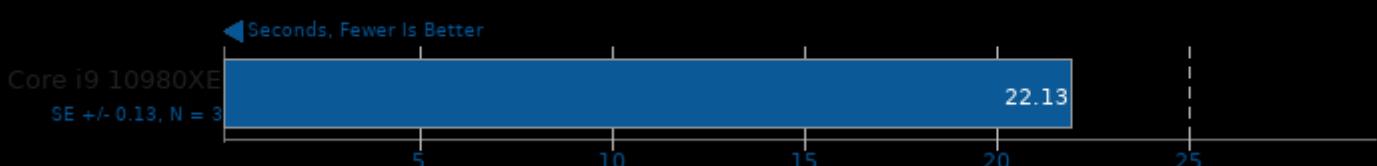
1. (CC) gcc options: -O2 -O3 -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -ftrigraphs

CP2K Molecular Dynamics 6.1

Fayalite-FIST Data

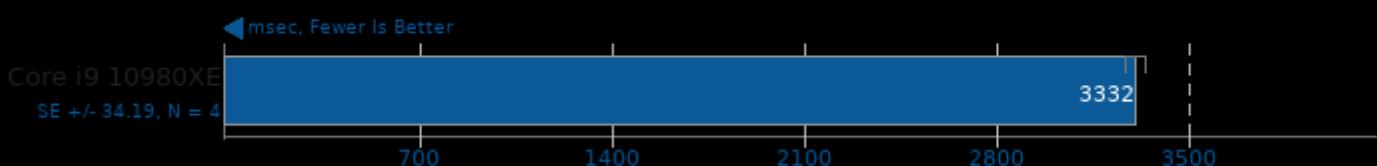


Cython benchmark 0.27



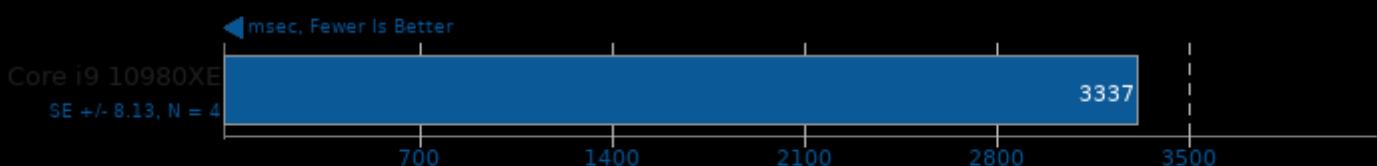
DaCapo Benchmark 9.12-MR1

Java Test: H2



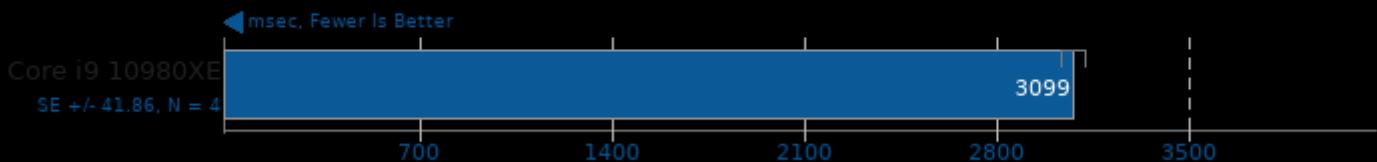
DaCapo Benchmark 9.12-MR1

Java Test: Jython



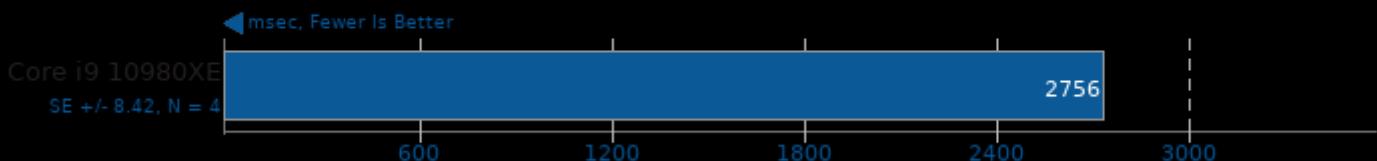
DaCapo Benchmark 9.12-MR1

Java Test: Tradesoap



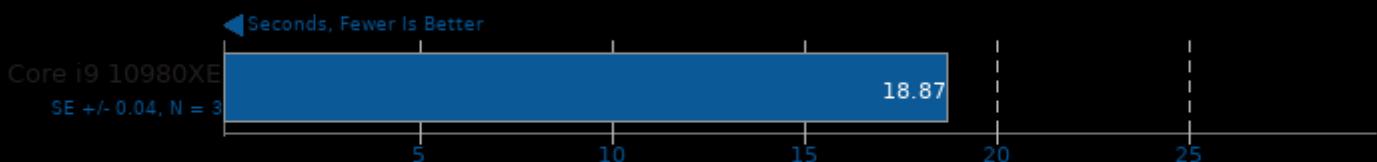
DaCapo Benchmark 9.12-MR1

Java Test: Tradebeans



dav1d 0.3

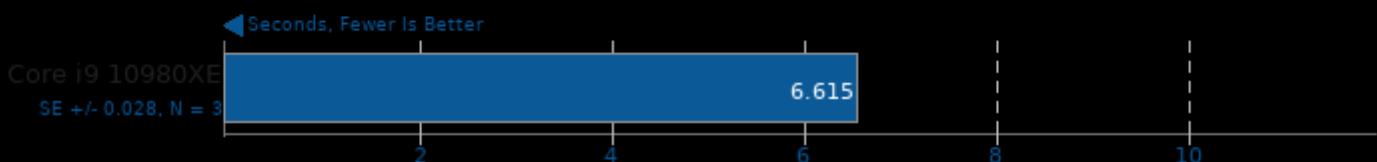
Video Input: Summer Nature 4K



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread

dav1d 0.3

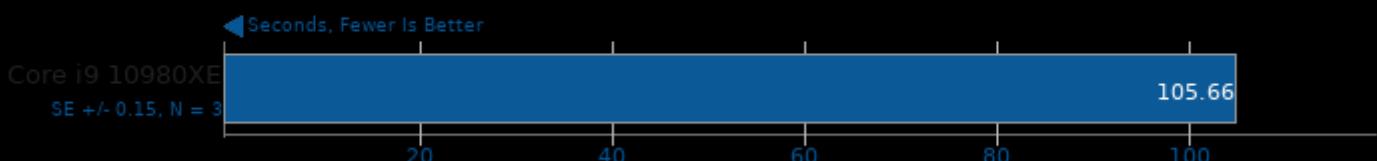
Video Input: Summer Nature 1080p



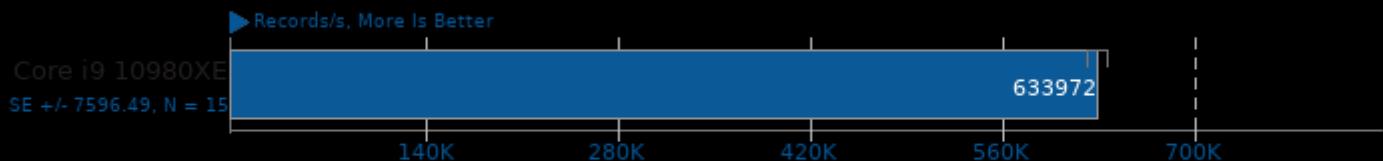
1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread

DeepSpeech 0.6

Acceleration: CPU



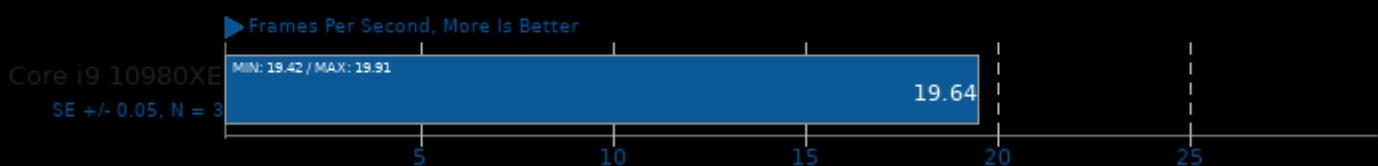
ebizzy 0.3



1. (CC) gcc options: -pthread -lpthread -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native

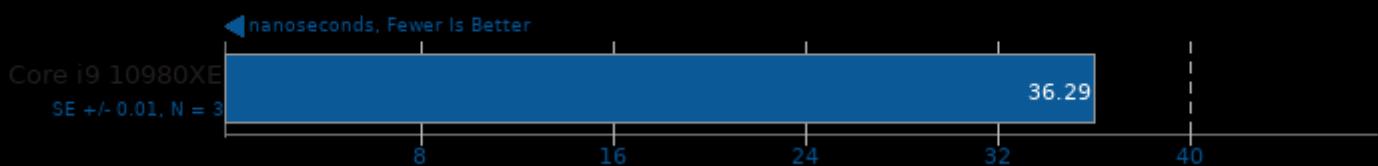
Embree 3.6.1

Binary: Pathtracer - Model: Crown



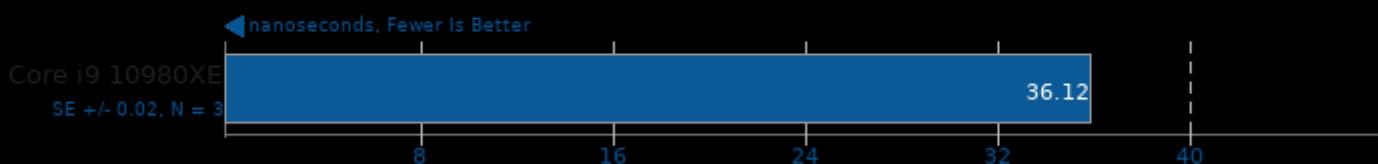
glibc bench 1.0

Benchmark: cos



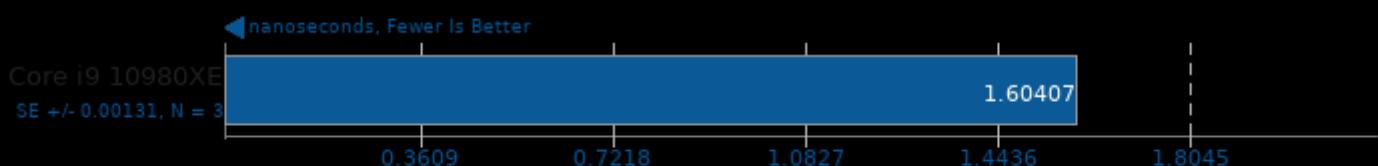
glibc bench 1.0

Benchmark: sin



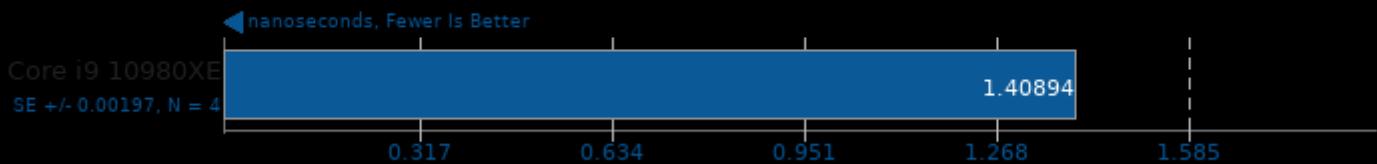
glibc bench 1.0

Benchmark: sqrt

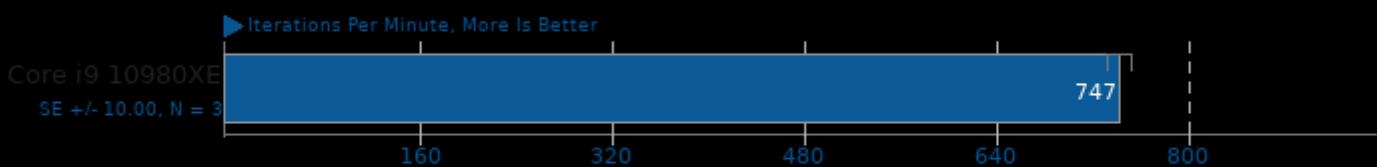


glibc bench 1.0

Benchmark: pthread_once

**GraphicsMagick 1.3.33**

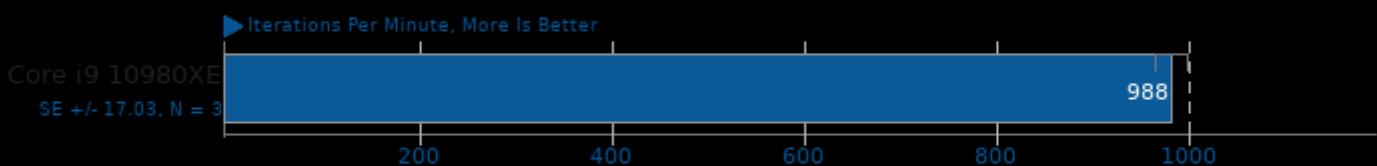
Operation: Swirl



1. (CC) gcc options: -fopenmp -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread -lcms2 -ltiff -lf

GraphicsMagick 1.3.33

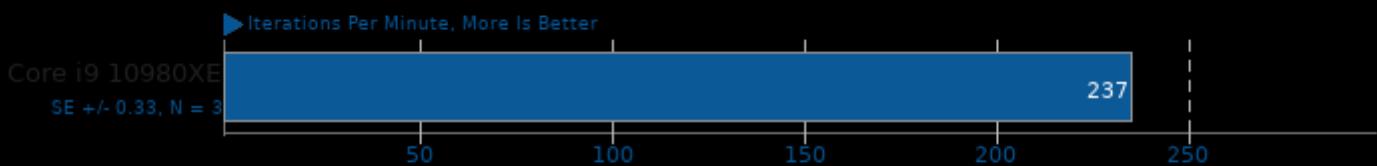
Operation: Rotate



1. (CC) gcc options: -fopenmp -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread -lcms2 -ltiff -lf

GraphicsMagick 1.3.33

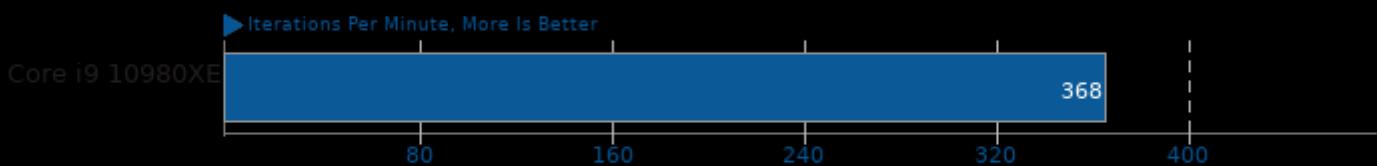
Operation: Sharpen



1. (CC) gcc options: -fopenmp -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread -lcms2 -ltiff -lf

GraphicsMagick 1.3.33

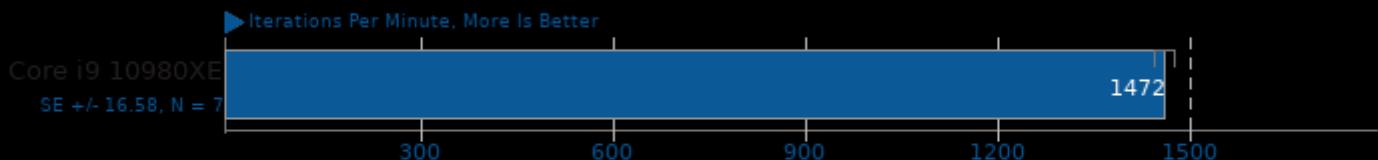
Operation: Enhanced



1. (CC) gcc options: -fopenmp -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread -lcms2 -ltiff -lf

GraphicsMagick 1.3.33

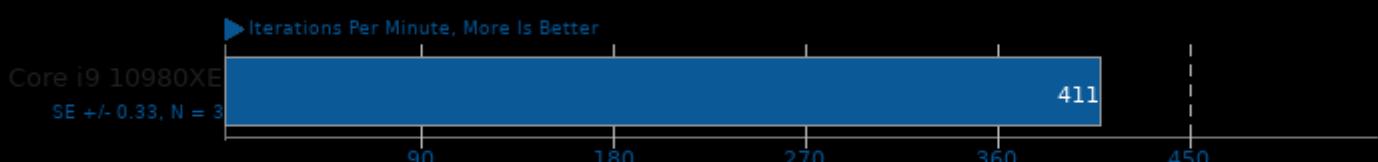
Operation: Resizing



1. (CC) gcc options: -fopenmp -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread -lcms2 -ltiff -lf

GraphicsMagick 1.3.33

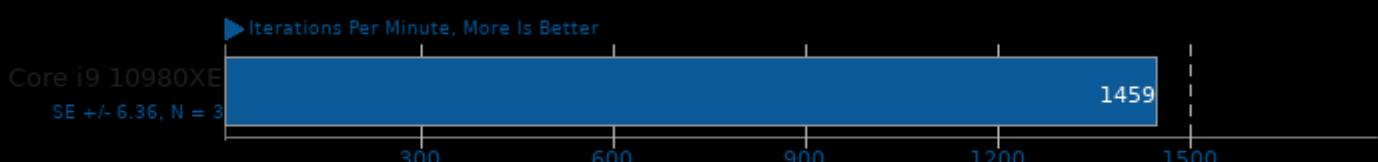
Operation: Noise-Gaussian



1. (CC) gcc options: -fopenmp -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread -lcms2 -ltiff -lf

GraphicsMagick 1.3.33

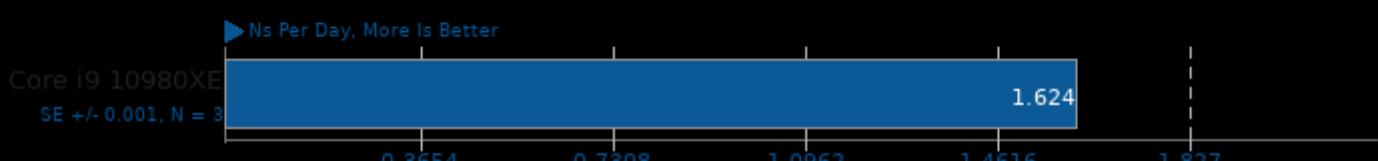
Operation: HWB Color Space



1. (CC) gcc options: -fopenmp -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread -lcms2 -ltiff -lf

GROMACS 2019.4

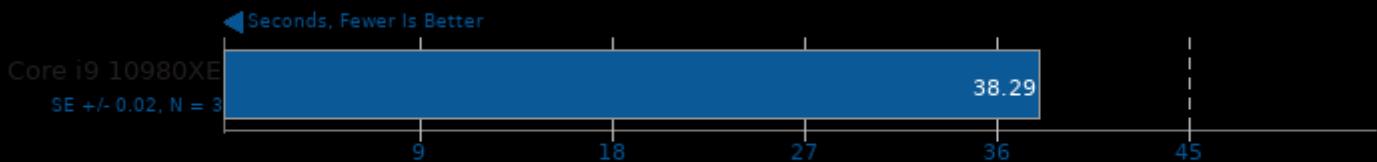
Water Benchmark



1. (CXX) g++ options: -mavx512f -mfma -pthread -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -std=

Hackbench

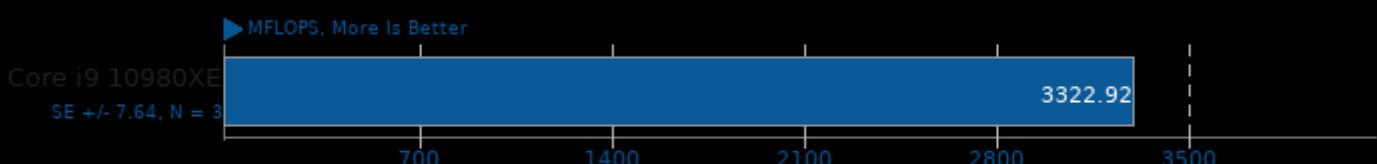
Count: 32 - Type: Process



1. (CC) gcc options: -lpthread -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

Himeno Benchmark 3.0

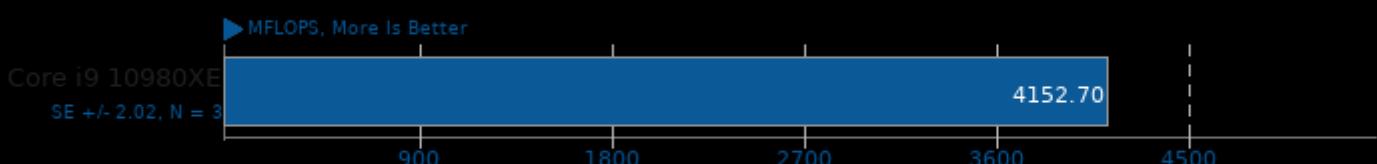
Poisson Pressure Solver



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -mavx2

Himeno Benchmark 3.0

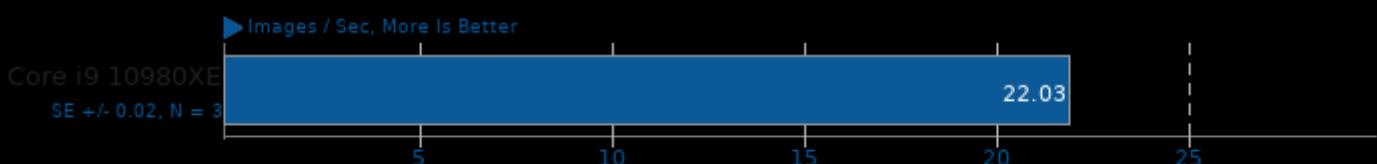
Poisson Pressure Solver



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -mavx2

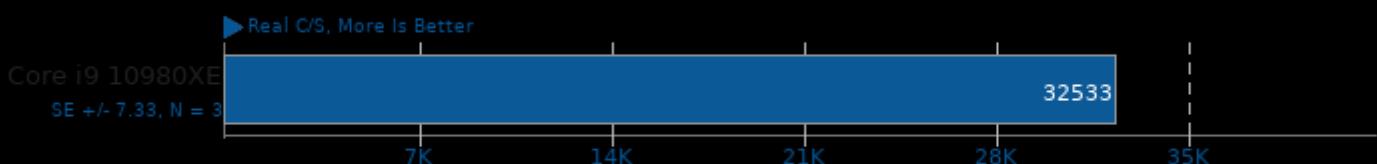
Intel Open Image Denoise 1.0.0

Scene: Memorial



John The Ripper 1.9.0-jumbo-1

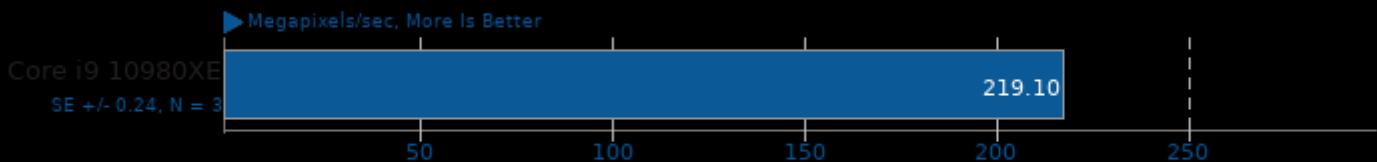
Test: Blowfish



1. (CC) gcc options: -m64 -lssl -lcrypto -fopenmp -lgmp -pthread -lm -lz -ldl -lcrypt -lbz2

libjpeg-turbo tbench 2.0.2

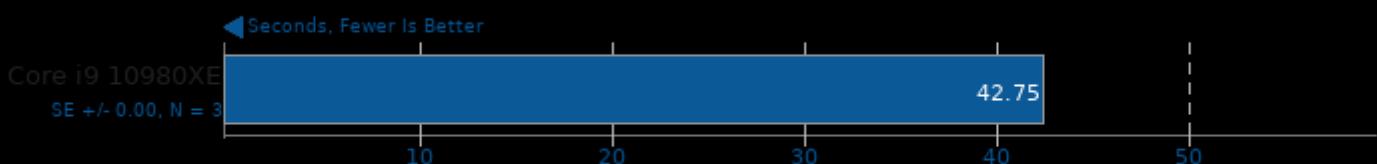
Test: Decompression Throughput



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -rdynamic

m-queens 1.2

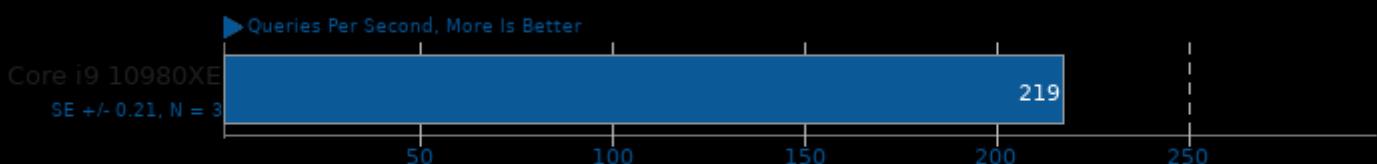
Time To Solve



1. (CXX) g++ options: -fopenmp -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -O2 -march=native

MariaDB 10.3.8

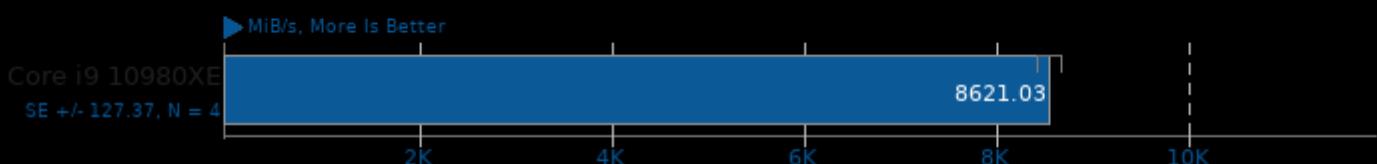
Clients: 64



1. (CXX) g++ options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pie -fPIC -fno-rtti -O2 -lpthread

MBW 2018-09-08

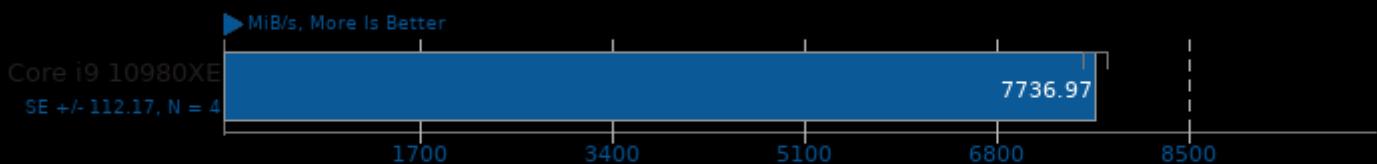
Test: Memory Copy - Array Size: 4096 MiB



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

MBW 2018-09-08

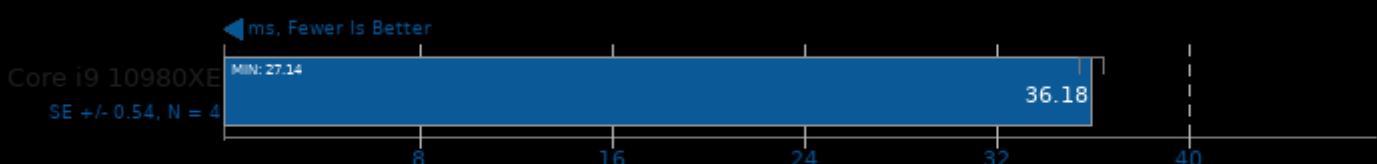
Test: Memory Copy, Fixed Block Size - Array Size: 4096 MiB



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

MKL-DNN 2019-04-16

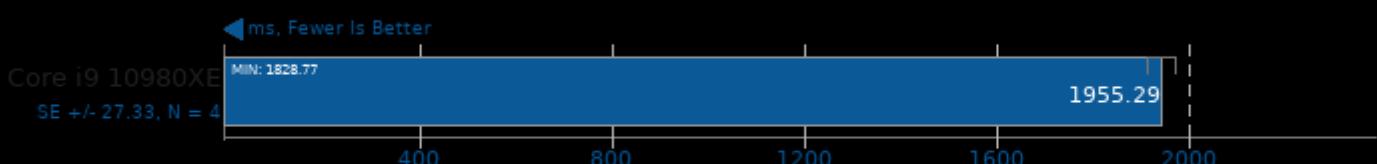
Harness: Deconvolution Batch deconv_1d - Data Type: f32



1. (CXX) g++ options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -std=c++11 -march=native -mt

MKL-DNN 2019-04-16

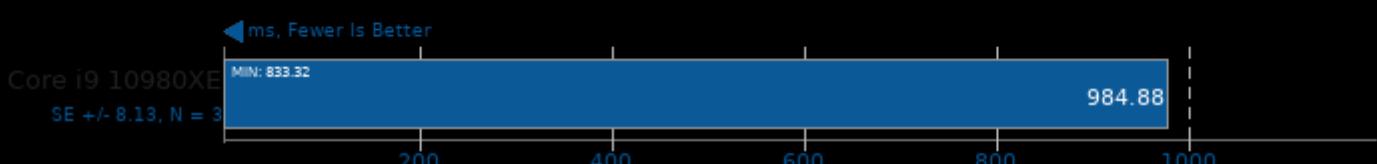
Harness: Convolution Batch conv_alexnet - Data Type: f32



1. (CXX) g++ options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -std=c++11 -march=native -mt

MKL-DNN 2019-04-16

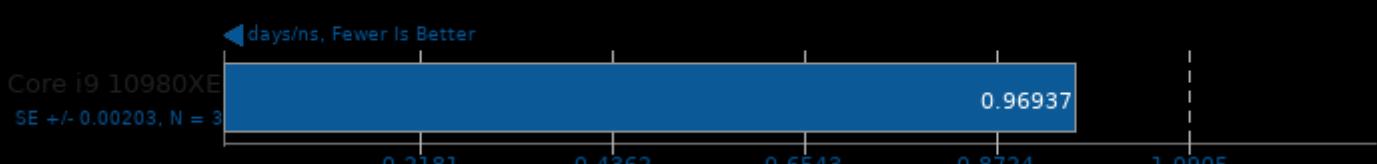
Harness: Convolution Batch conv_googlenet_v3 - Data Type: f32



1. (CXX) g++ options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -std=c++11 -march=native -mt

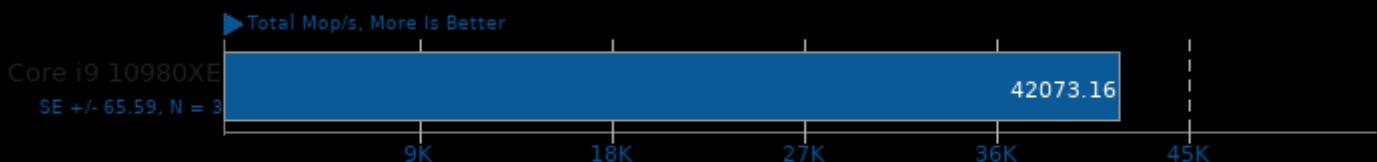
NAMD 2.13b1

ATPase Simulation - 327,506 Atoms



NAS Parallel Benchmarks 3.4

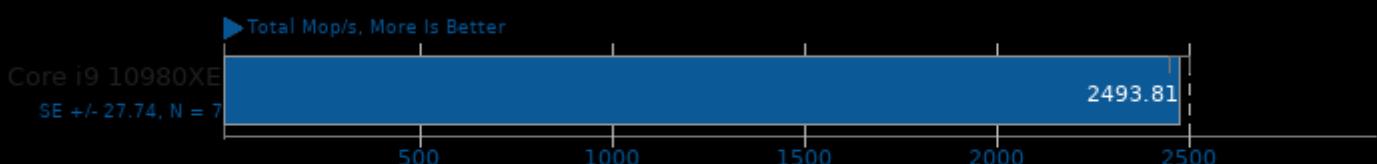
Test / Class: BT.C



1. (F9X) gfortran options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -pthread -lm
 2. 3.2

NAS Parallel Benchmarks 3.4

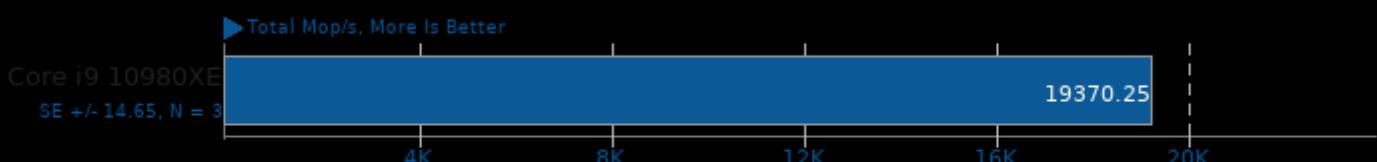
Test / Class: EP.D



1. (F9X) gfortran options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -pthread -lm
 2. 3.2

NAS Parallel Benchmarks 3.4

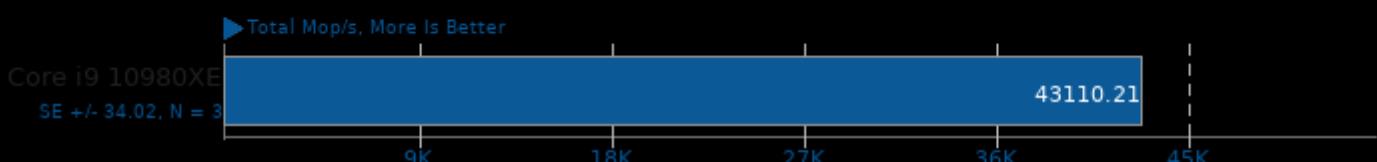
Test / Class: FT.C



1. (F9X) gfortran options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -pthread -lm
 2. 3.2

NAS Parallel Benchmarks 3.4

Test / Class: LU.C

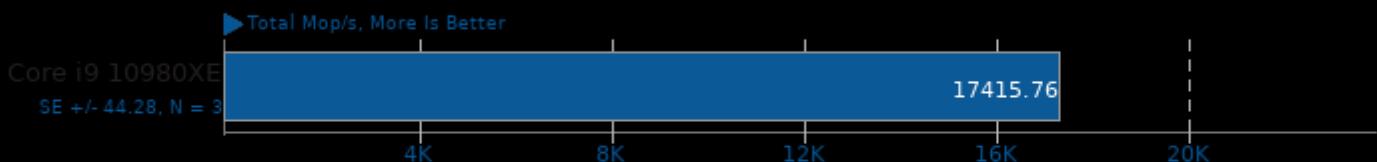


1. (F9X) gfortran options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -pthread -lm
 2. 3.2

Core i9 10980XE Friday

NAS Parallel Benchmarks 3.4

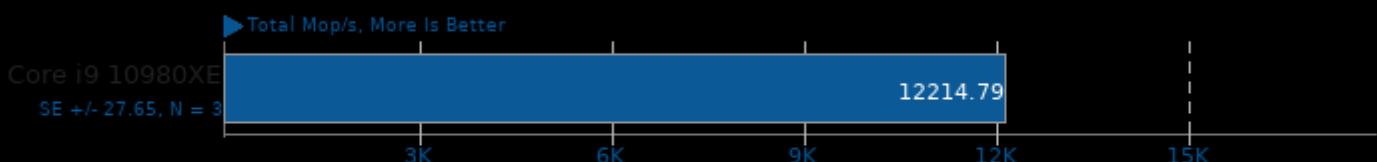
Test / Class: MG.C



1. (F9X) gfortran options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -pthread -lm
 2. 3.2

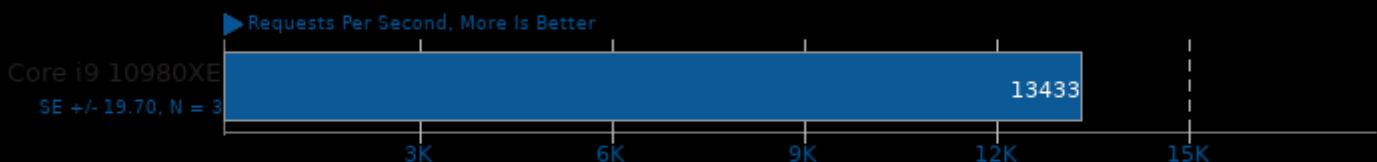
NAS Parallel Benchmarks 3.4

Test / Class: SP.B



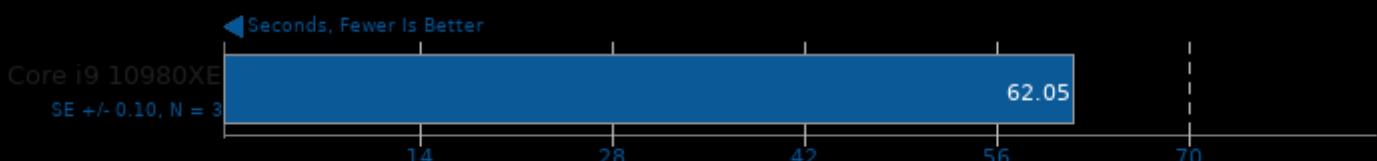
1. (F9X) gfortran options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -pthread -lm
 2. 3.2

Node.js Express HTTP Load Test



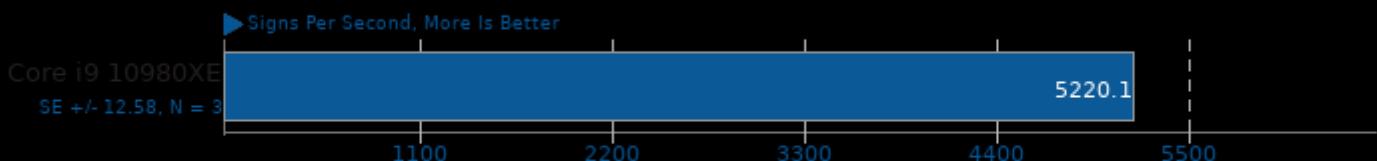
1. Nodejs

OpenCV Benchmark 3.3.0



OpenSSL 1.1.1

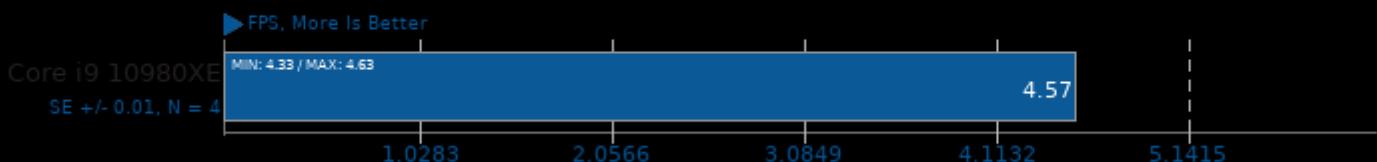
RSA 4096-bit Performance



1. (CC) gcc options: -pthread -m64 -O3 -pipe -fexceptions -fstack-protector -ffat-lto-objects -fno-trapping-math -mtune=skylake -lssl -lcrypto -ldl

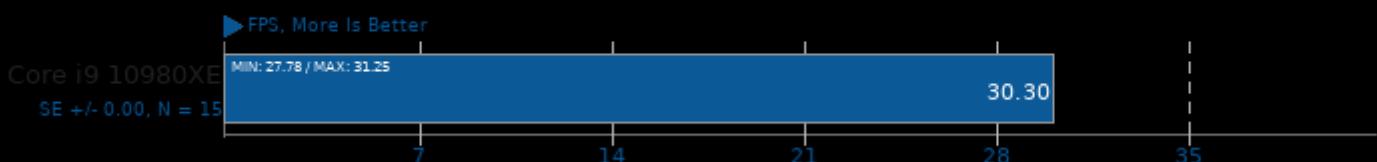
OSPray 1.8.5

Demo: XFrog Forest - Renderer: SciVis



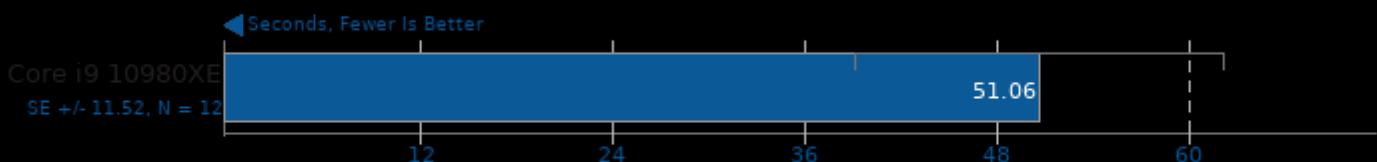
OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: SciVis



POV-Ray 3.7.0.7

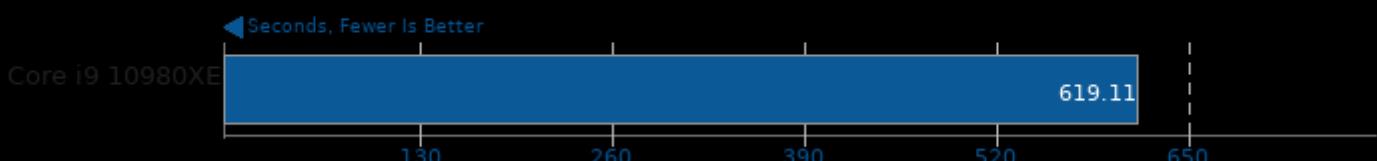
Trace Time



1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -fexceptions -fstack-protector -m64 -fno-lto-objects -fno-trapping-math -mtune=skylake -fno-

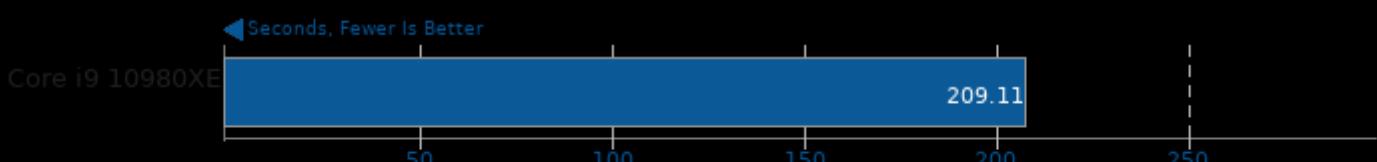
Radiance Benchmark 5.0

Test: Serial



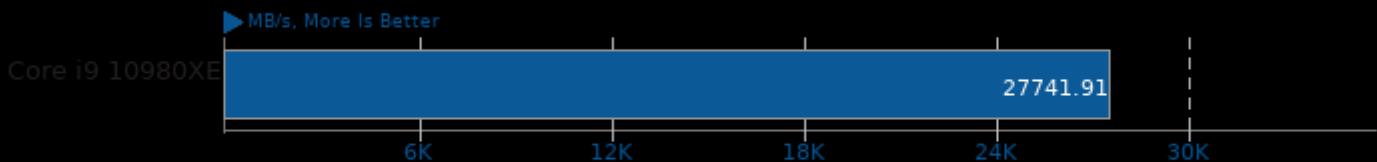
Radiance Benchmark 5.0

Test: SMP Parallel



RAMspeed SMP 3.5.0

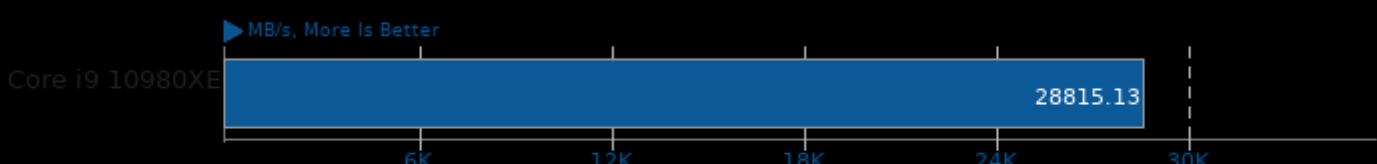
Type: Add - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

RAMspeed SMP 3.5.0

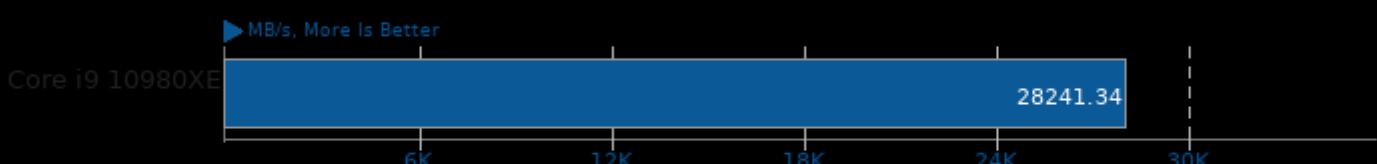
Type: Copy - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

RAMspeed SMP 3.5.0

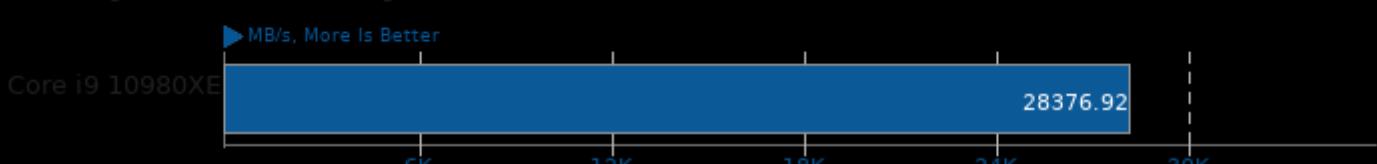
Type: Scale - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

RAMspeed SMP 3.5.0

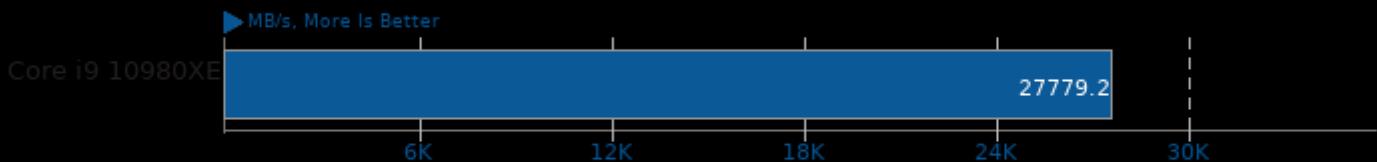
Type: Average - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

RAMspeed SMP 3.5.0

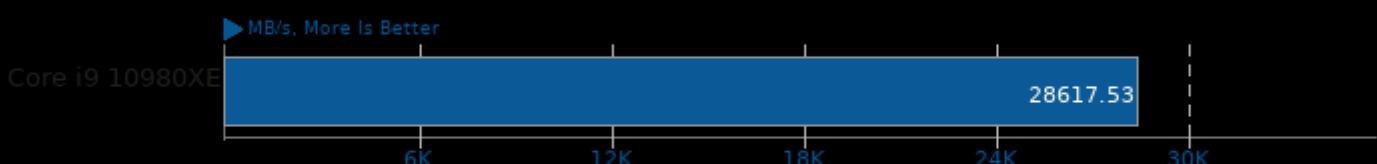
Type: Add - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

RAMspeed SMP 3.5.0

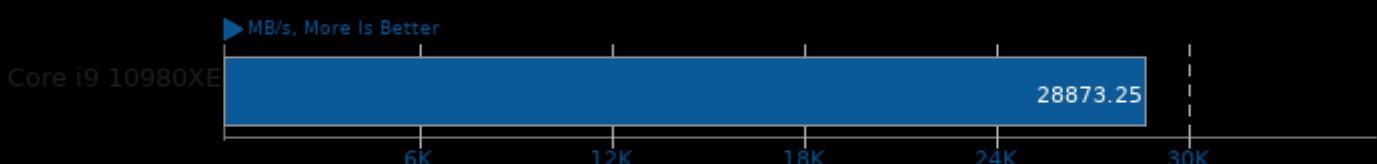
Type: Copy - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

RAMspeed SMP 3.5.0

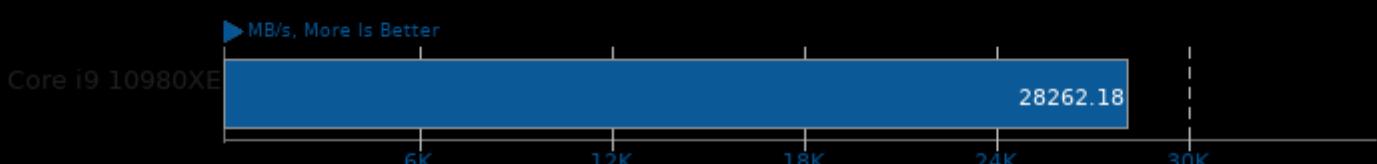
Type: Scale - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

RAMspeed SMP 3.5.0

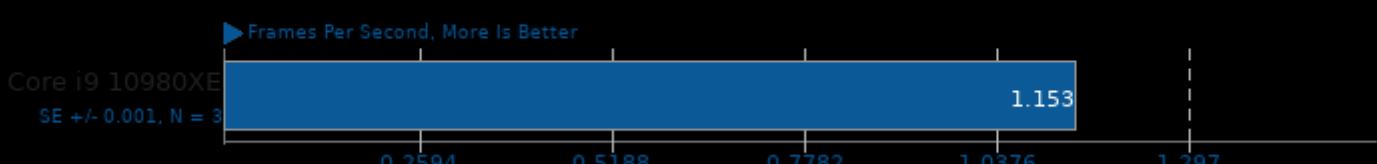
Type: Average - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

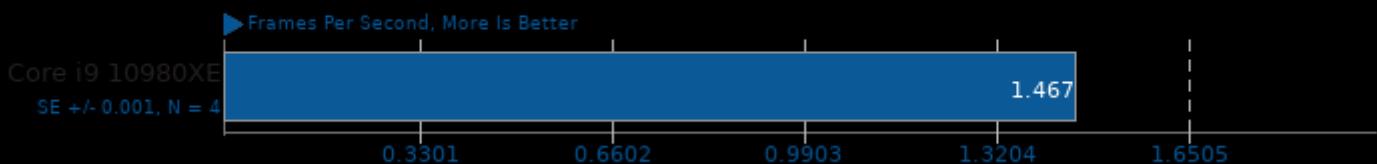
rav1e 0.2.0

Speed: 6

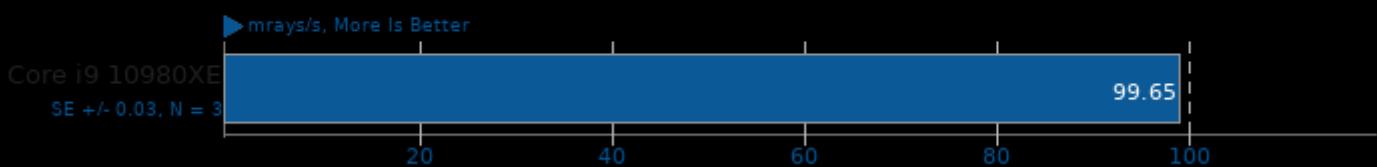


rav1e 0.2.0

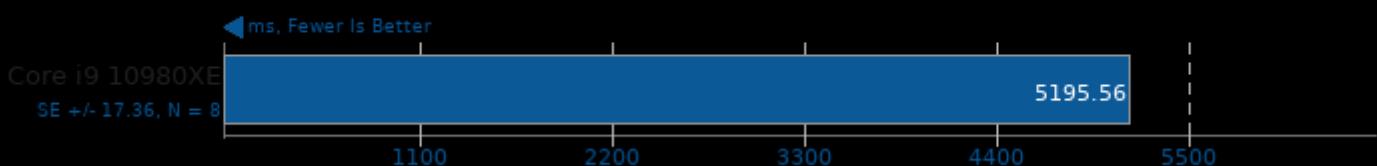
Speed: 9

**rays1bench 2020-01-09**

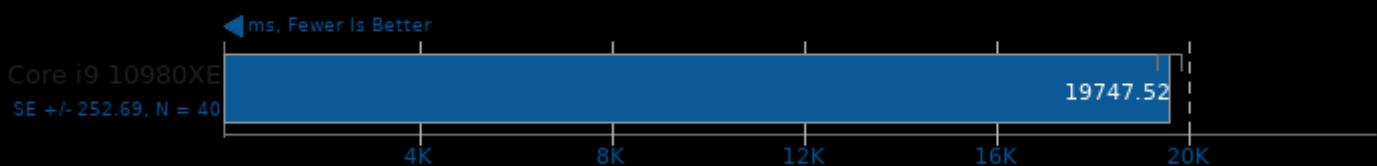
Large Scene

**Renaissance 0.9.0**

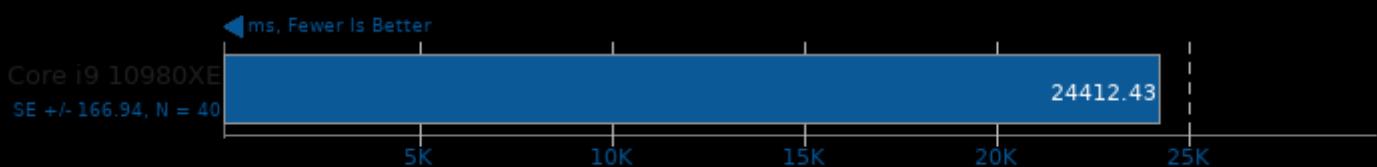
Test: Scala Dotty

**Renaissance 0.9.0**

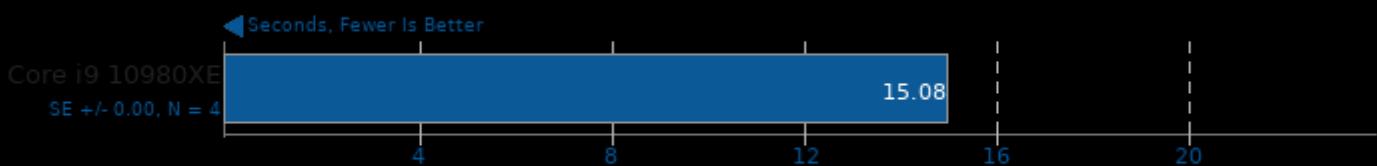
Test: Savina Reactors.IO

**Renaissance 0.9.0**

Test: Apache Spark PageRank

**Rodinia 2.4**

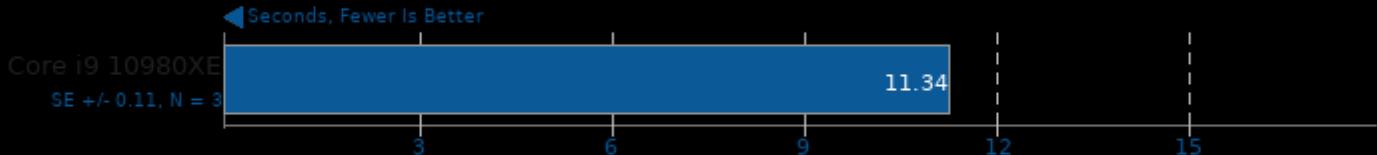
Test: OpenMP LavaMD



1. (CXX) g++ options: -O2 -fOpenCL

Rodinia 2.4

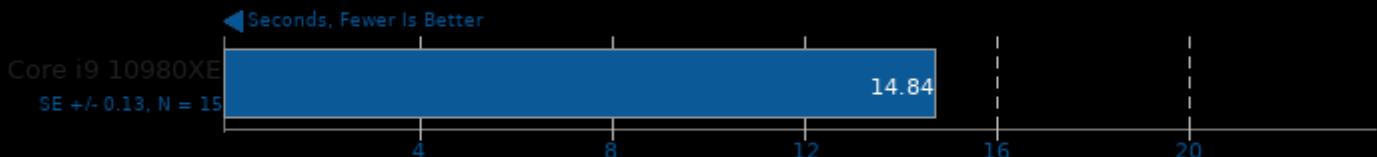
Test: OpenMP CFD Solver



1. (CXX) g++ options: -O2 -fOpenCL

Rodinia 2.4

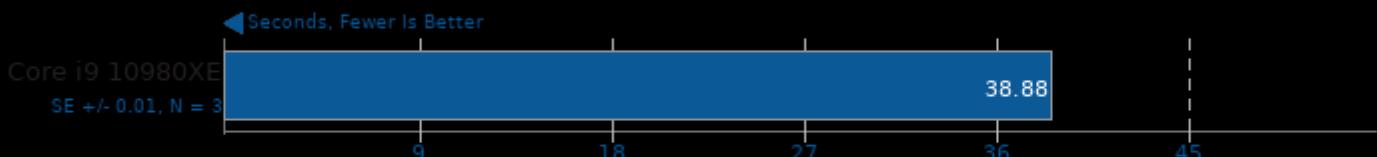
Test: OpenMP Streamcluster



1. (CXX) g++ options: -O2 -fOpenCL

Rust Mandelbrot

Time To Complete Serial/Parallel Mandelbrot



1. (CC) gcc options: -m64 -pie -nodefaultlibs -lutil -ldl -lrt -lpthread -lgcc_s -lc -lm

SQLite 3.30.1

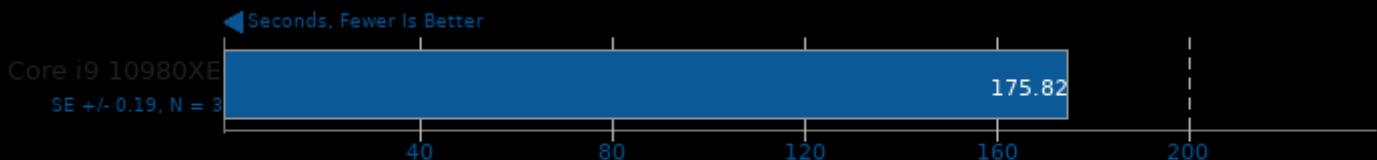
Threads / Copies: 1



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -lz -lm -ldl -lpthread

SQLite 3.30.1

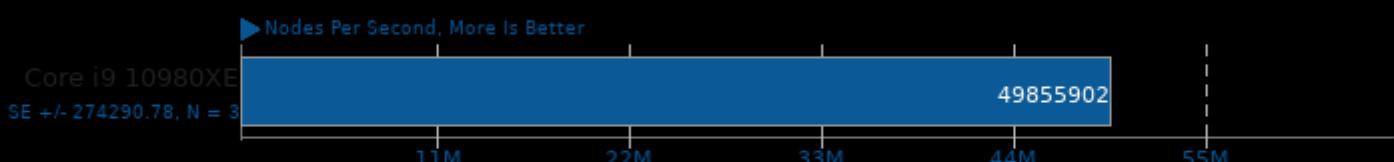
Threads / Copies: 8



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -lz -lm -ldl -lpthread

Stockfish 9

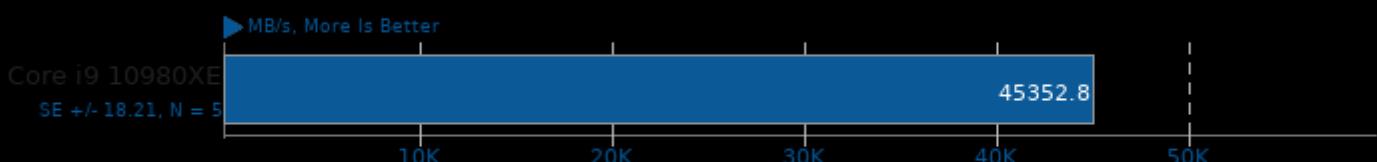
Total Time



1. (CXX) g++ options: -m64 -lpthread -O3 -pipe -fexceptions -fstack-protector -ffat-lto-objects -fno-trapping-math -mtune=skylake -fno-exceptions -std=c++11 -fopenmp

Stream 2013-01-17

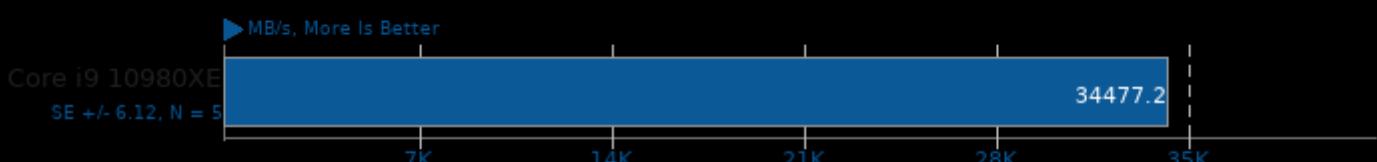
Type: Copy



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -fopenmp

Stream 2013-01-17

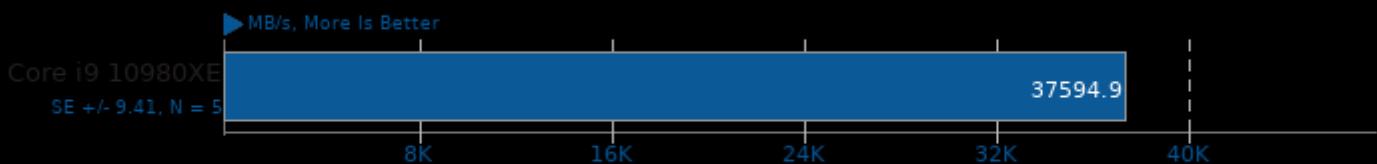
Type: Scale



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -fopenmp

Stream 2013-01-17

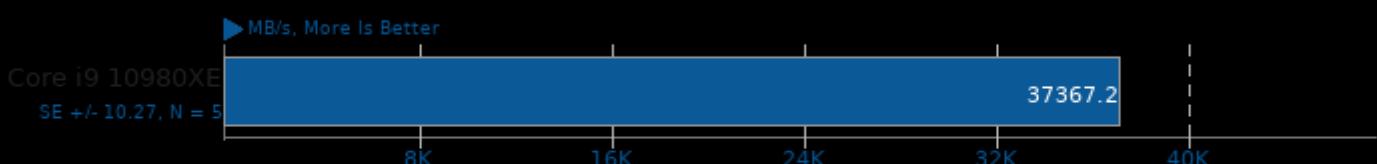
Type: Triad



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -fopenmp

Stream 2013-01-17

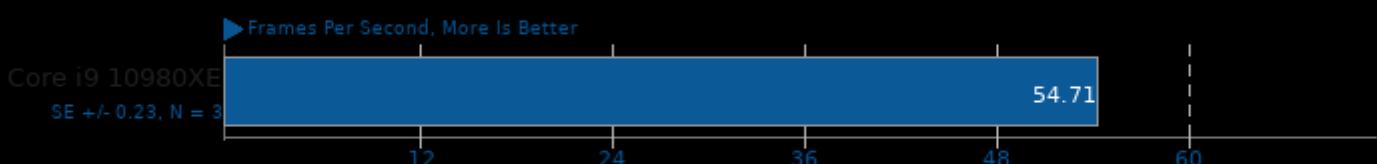
Type: Add



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -march=native -fopenmp

SVT-AV1 0.5

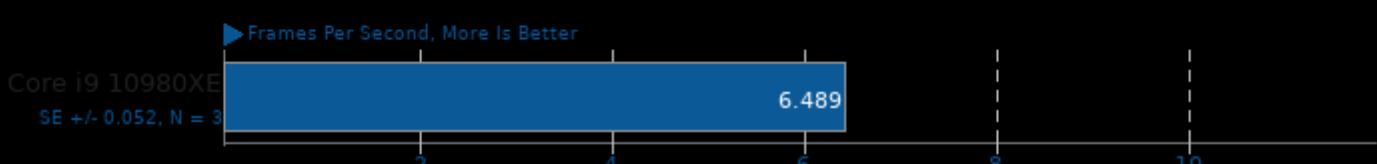
1080p 8-bit YUV To AV1 Video Encode



1. (CXX) g++ options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pie -lpthread -lm

SVT-AV1 0.8

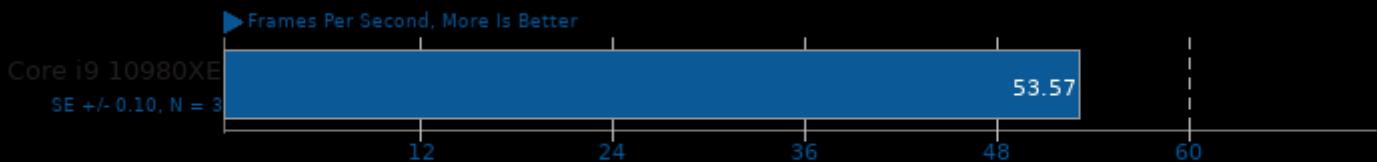
Encoder Mode: Enc Mode 4 - Input: 1080p



1. (CXX) g++ options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -fPIE -fPIC -pie

SVT-AV1 0.8

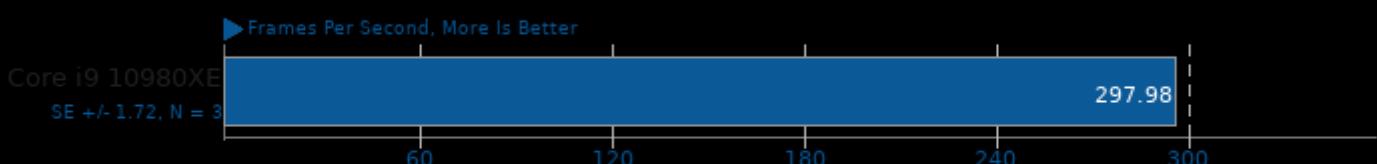
Encoder Mode: Enc Mode 8 - Input: 1080p



1. (CXX) g++ options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -fPIE -fPIC -pie

SVT-HEVC 2019-02-03

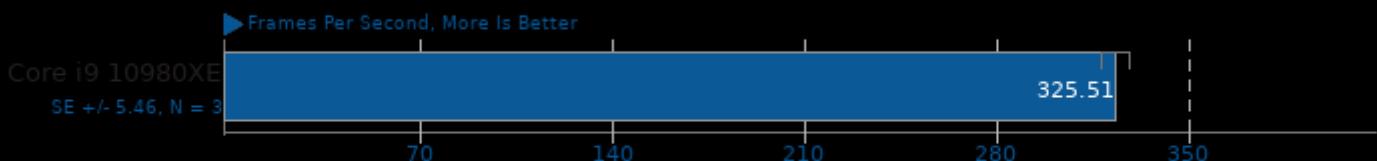
1080p 8-bit YUV To HEVC Video Encode



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -fPIE -fPIC -O2 -fno-rtti -fvisibility=hidden -fno-pie -fno-pie -fno-PIE

SVT-VP9 0.1

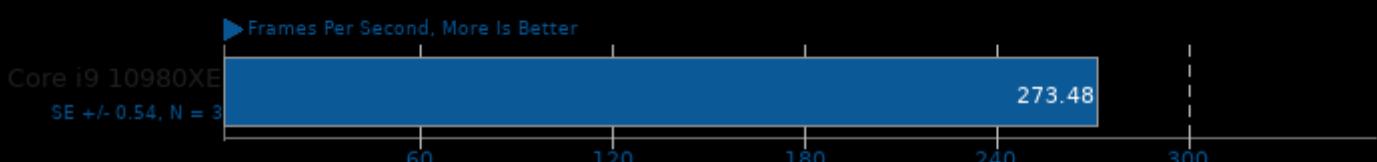
Tuning: PSNR/SSIM Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -fPIE -fPIC -fvisibility=hidden -fno-pie -fno-pie -fno-PIE

SVT-VP9 0.1

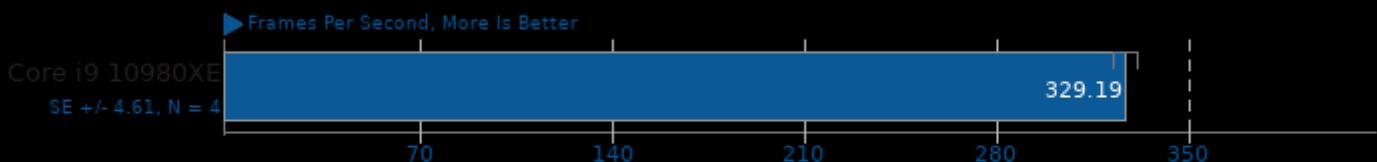
Tuning: Visual Quality Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -fPIE -fPIC -fvisibility=hidden -fno-pie -fno-pie -fno-PIE

SVT-VP9 2019-02-17

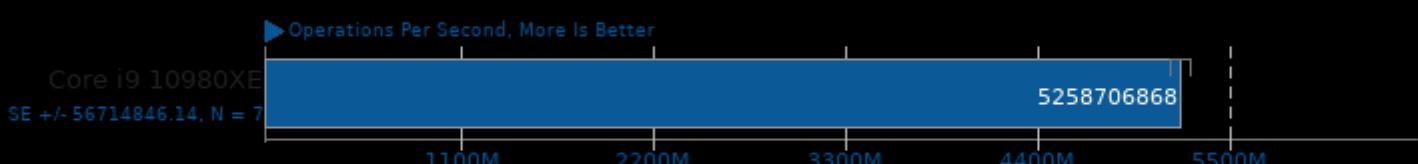
1080p 8-bit YUV To VP9 Video Encode



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -fPIE -fPIC -O2 -fno -fvisibility=hidd

Swet 1.5.16

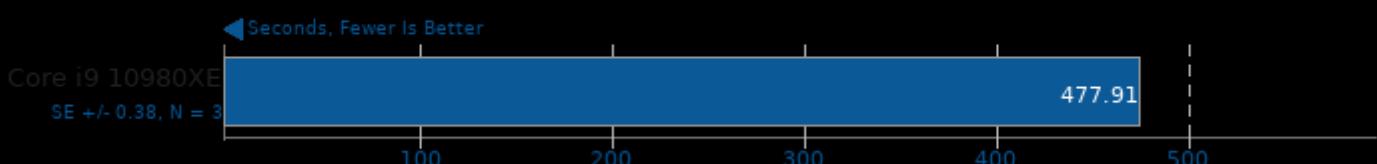
Average



1. (CC) gcc options: -lm -lpthread -lcurses -lrt

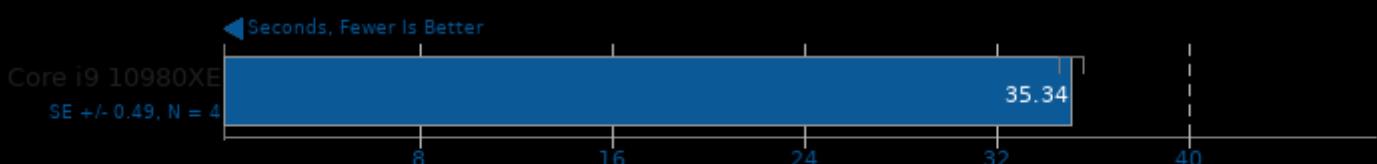
Timed GCC Compilation 8.2

Time To Compile



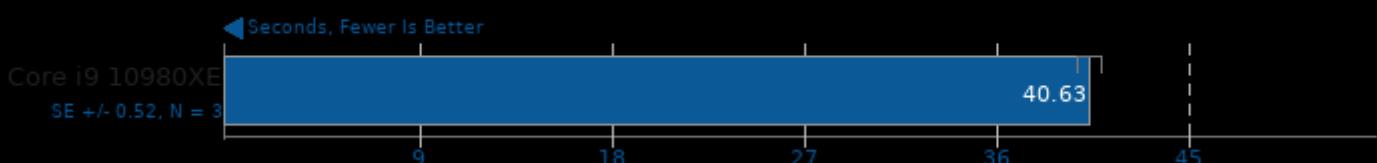
Timed Linux Kernel Compilation 4.18

Time To Compile



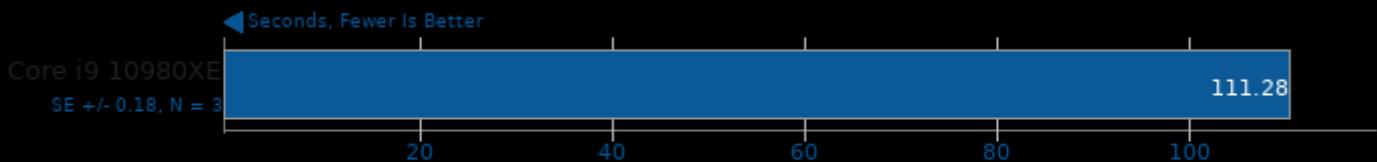
Timed Linux Kernel Compilation 5.4

Time To Compile



Timed MrBayes Analysis 3.2.7

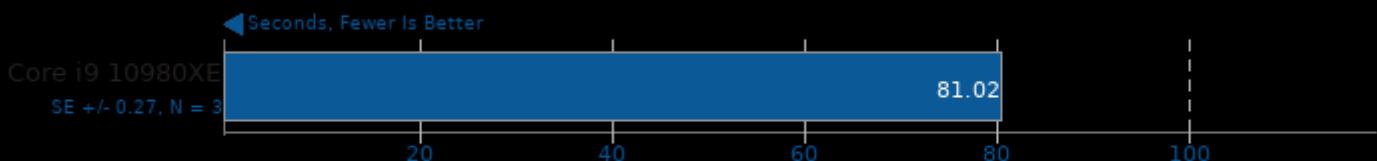
Primate Phylogeny Analysis



1. (CC) gcc options: -mmmx -msse -msse2 -msse3 -msse3 -msse4.1 -msse4.2 -maes -maxx -mfma -maxx2 -maxx512f -maxx512cd -maxx512vl -maxx512vld

Timed PHP Compilation 7.1.9

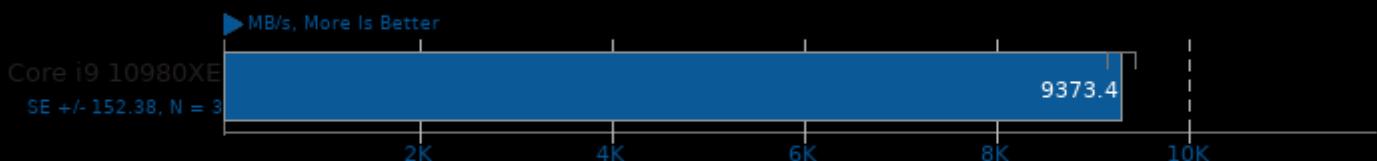
Time To Compile



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pedantic -ldl -lz -lm

Tinymembench 2018-05-28

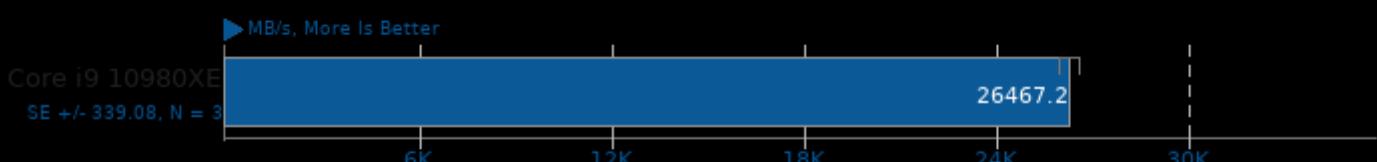
Standard Memcpy



1. (CC) gcc options: -O2 -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -lm

Tinymembench 2018-05-28

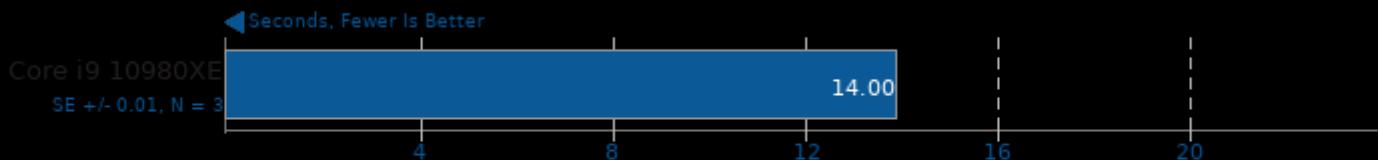
Standard Memset



1. (CC) gcc options: -O2 -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -lm

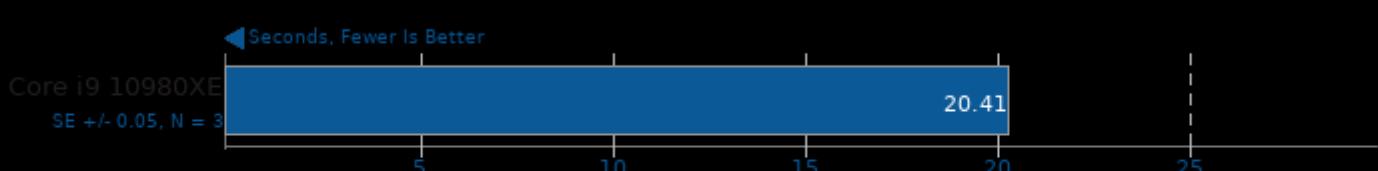
Tungsten Renderer 0.2.2

Scene: Hair



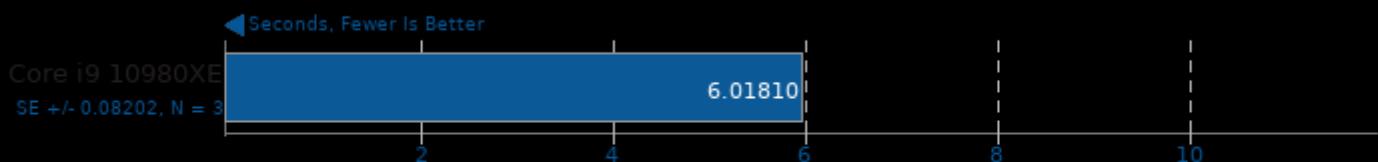
Tungsten Renderer 0.2.2

Scene: Water Caustic



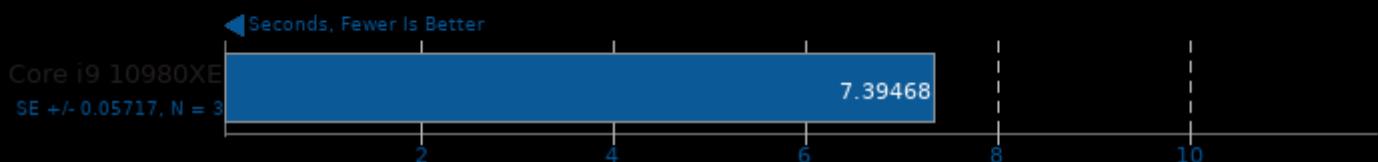
Tungsten Renderer 0.2.2

Scene: Non-Exponential



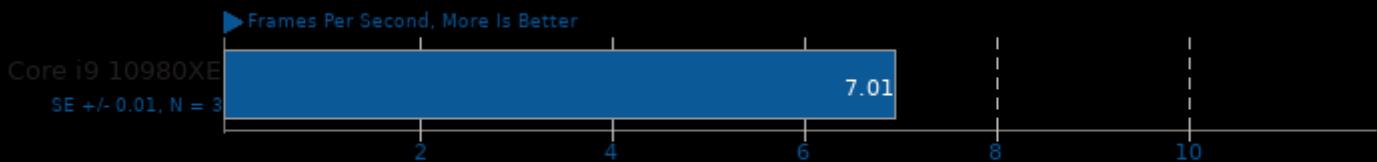
Tungsten Renderer 0.2.2

Scene: Volumetric Caustic



VP9 libvpx Encoding 1.8.2

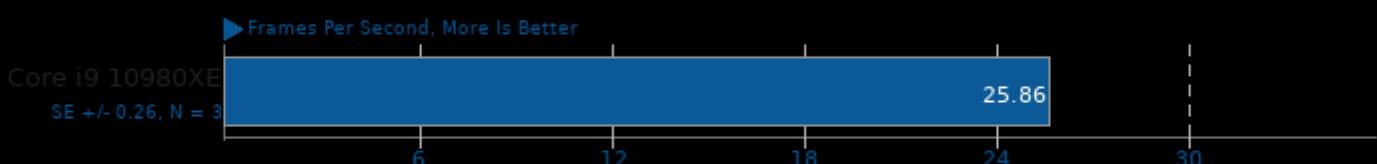
Speed: Speed 0



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -pipe -fexceptions -fstack-protector -ffat-lto-objects -fno-trapping-math -mtune=skylake -fPIC -std=c++11

VP9 libvpx Encoding 1.8.2

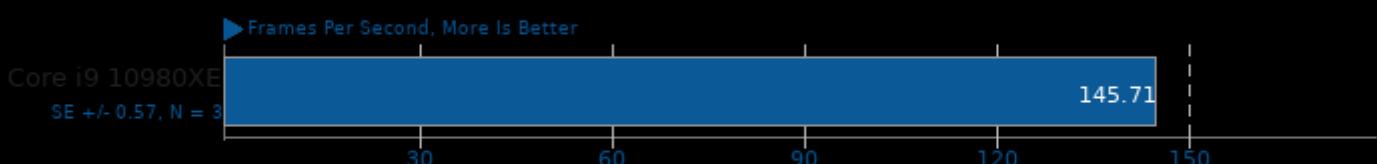
Speed: Speed 5



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -pipe -fexceptions -fstack-protector -ffat-lto-objects -fno-trapping-math -mtune=skylake -fPIC -std=c++11

x264 2018-09-25

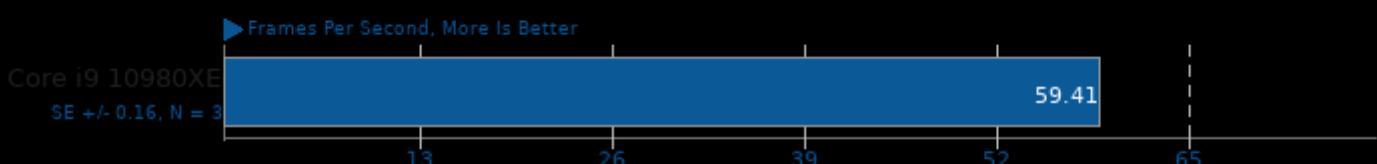
H.264 Video Encoding



1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -ffast-math -pipe -fexceptions -fstack-protector -ffat-lto-objects -fno-trapping-math -mtune=skylake -std=

x265 3.0

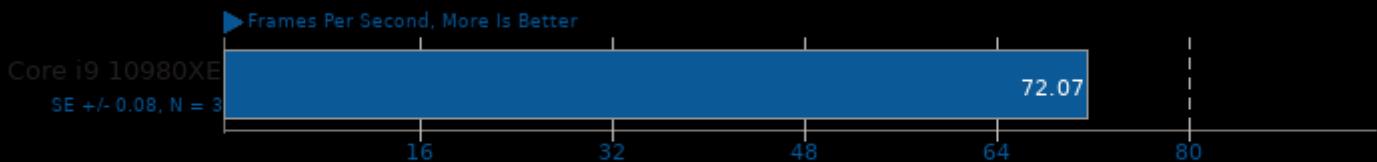
H.265 1080p Video Encoding



1. (CXX) g++ options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -rdynamic -lpthread -lrt -ldl -lnu

x265 3.1.2

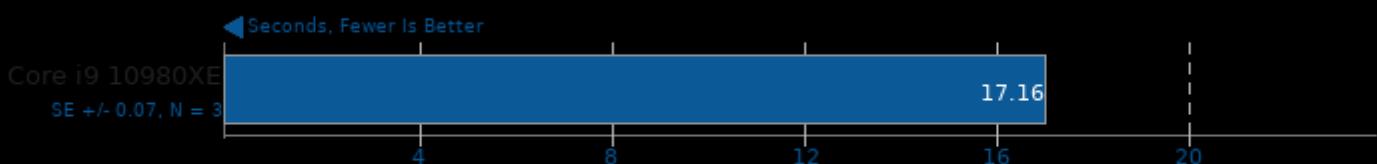
H.265 1080p Video Encoding



1. (CXX) g++ options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -rdynamic -lpthread -lrt -ldl -lnu

XZ Compression 5.2.4

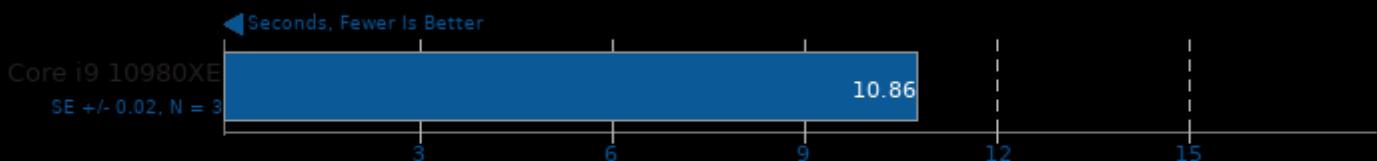
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9



1. (CC) gcc options: -pthread -fvisibility=hidden -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake

Zstd Compression 1.3.4

Compressing ubuntu-16.04.3-server-i386.img, Compression Level 19



1. (CC) gcc options: -O3 -pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-trapping-math -mtune=skylake -pthread -lz

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 03:08.