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mini-3cs-made-ram

Intel Xeon E3-1225 v6 testing with a (2.002 BIOS) and Intel HD P630 on Ubuntu 20.04 via the Phoronix Test Suite.

Test Systems:

Full 3CS in-house build

Processor: Intel Xeon E3-1225 v6 @ 3.70GHz (4 Cores), Motherboard: (2.002 BIOS), Chipset: Intel Xeon E3-1200 v6/7th, Memory: 2 x 16384 MB DDR4-2400MT/s Kingston, Disk: 256GB Samsung SSD 860, Graphics: Intel HD P630 (1150MHz), Audio: Intel 100 /C230, Monitor: DELL P2417H, Network: 6 x Intel I210

OS: Ubuntu 20.04, Kernel: 5.4.0-70-generic (x86_64), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale-gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xde - ThermalD 1.9.1

Java Notes: OpenJDK Runtime Environment (build 11.0.10+9-Ubuntu-0ubuntu1.20.04)

Python Notes: Python 3.8.5

Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT disabled + mds: Mitigation of Clear buffers; SMT disabled + meltdown: Mitigation of PTI + 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 Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbd: Mitigation of Microcode + tsx_async_abort: Mitigation of Clear buffers; SMT disabled

Full 3CS in-house build

BRL-CAD - V.P.M (VGR Performance Metric)	35337
PHPBench - P.B.S (Score)	621174
Standard Deviation	0.3%
Apache Siege - 100 (Transactions/sec)	25609
Standard Deviation	0.5%
Appleseed - Material Tester (sec)	714.903237
Appleseed - Disney Material (sec)	689.259079
Appleseed - Emily (sec)	1339
Apache Benchmark - S.W.P.S (Req/s)	28808
Standard Deviation	0.3%
NGINX Benchmark - S.W.P.S (Req/s)	32164
Standard Deviation	0.1%
PyBench - T.F.A.T.T (Milliseconds)	1177
Standard Deviation	0.1%
Blender - Barbershop - CPU-Only (sec)	2305
Standard Deviation	0.2%
Blender - Classroom - CPU-Only (sec)	1603
Standard Deviation	0.3%
Facebook RocksDB - Read While Writing (Op/s)	501718
Standard Deviation	0.6%
Facebook RocksDB - Seq Fill (Op/s)	692957
Standard Deviation	0.6%
Facebook RocksDB - Rand Read (Op/s)	20698578
Standard Deviation	0.1%
Apache Cassandra - Writes (Op/s)	14055
Standard Deviation	1.1%
Sysbench - CPU (Events/sec)	4906
Standard Deviation	0%
Sysbench - Memory (MiB/sec)	9874
Standard Deviation	1.4%
Redis - SET (Req/s)	1650169
Standard Deviation	0.8%
Redis - GET (Req/s)	2219749
Standard Deviation	4.9%
GNU Octave Benchmark (sec)	8.360
Standard Deviation	1.2%
GIMP - unsharp-mask (sec)	17.459
Standard Deviation	0.1%
GIMP - auto-levels (sec)	15.283
Standard Deviation	0.2%
GIMP - rotate (sec)	14.517
Standard Deviation	0.9%

GEGL - Rotate 90 Degrees (sec)	50.722
Standard Deviation	0.1%
GEGL - Color Enhance (sec)	72.683
Standard Deviation	0.1%
GEGL - Antialias (sec)	49.017
Standard Deviation	0.1%
GEGL - Reflect (sec)	37.594
Standard Deviation	0%
GEGL - Cartoon (sec)	113.152
Standard Deviation	0.1%
GEGL - Crop (sec)	10.155
Standard Deviation	1.7%
SQLite Speedtest - Timed Time - Size 1,000 (sec)	76.361
Standard Deviation	0.6%
libjpeg-turbo tjbench - D.T (Megapixels/sec)	166.074071
Standard Deviation	0%
OpenSSL - R.4.b.P (Signs/sec)	1006
Standard Deviation	2.5%
Radiance Benchmark - SMP Parallel (sec)	259.568
DeepSpeech - CPU (sec)	72.42842
Standard Deviation	2.1%
XZ Compression - C.u.1.0.3.s.i.i.C.L.9 (sec)	73.702
Standard Deviation	0.3%
Tungsten Renderer - Water Caustic (sec)	57.9406
Standard Deviation	0.2%
Build2 - Time To Compile (sec)	344.235
Standard Deviation	0.9%
Timed PHP Compilation - Time To Compile (sec)	127.543
Standard Deviation	0.1%
Timed LLVM Compilation - Time To Compile (sec)	1865
Standard Deviation	0.1%
Timed Linux Kernel Compilation - Time To Compile (sec)	272.098
Standard Deviation	0.7%
asmFish - 1.H.M.2.D (Nodes/s)	8750202
Standard Deviation	0.9%
7-Zip Compression - C.S.T (MIPS)	15993
Standard Deviation	0.5%
Himeno Benchmark - P.P.S (MFLOPS)	3127
Standard Deviation	0.2%
Intel Open Image Denoise - Memorial (Images / Sec)	3.74
Standard Deviation	0%
ACES DGEMM - S.F.P.R (GFLOP/s)	1.143988
Standard Deviation	0.9%
x265 - Bosphorus 1080p (FPS)	28.02
Standard Deviation	0.7%
x265 - Bosphorus 4K (FPS)	6.47
Standard Deviation	1.6%
x264 - H.2.V.E (FPS)	29.72
Standard Deviation	3%
VP9 libvpx Encoding - Speed 5 (FPS)	21.65
Standard Deviation	2.5%
rav1e - 9 (FPS)	1.895
Standard Deviation	0.6%

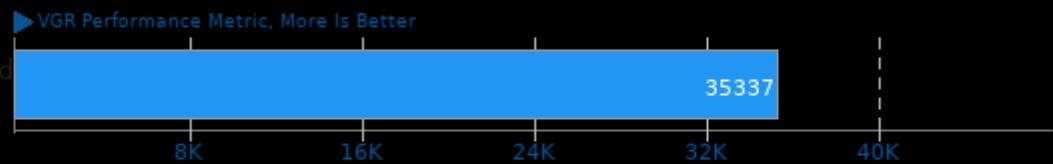
Embree - Pathtracer - Crown (FPS)	2.9931
Standard Deviation	0.2%
OSPRay - M.R - SciVis (FPS)	5.09
Standard Deviation	0.3%
OSPRay - XFrog Forest - SciVis (FPS)	0.80
Standard Deviation	0.1%
dav1d - Summer Nature 4K (FPS)	70.22
Standard Deviation	0.2%
oneDNN MKL-DNN - D.B.d - f32 (ms)	10.7320
Standard Deviation	0.1%
GraphicsMagick - Resizing (Iterations/min)	371
Standard Deviation	0.3%
GraphicsMagick - Enhanced (Iterations/min)	74
GraphicsMagick - Sharpen (Iterations/min)	39
GraphicsMagick - Rotate (Iterations/min)	663
Standard Deviation	1.4%
Node.js Express HTTP Load Test (Req/s)	8107
Standard Deviation	0.3%
John The Ripper - Blowfish (Real C/S)	5625
Zstd Compression - 19, Long Mode - D.S (MB/s)	2941
Standard Deviation	0.2%
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	12.6
Standard Deviation	0.5%
Zstd Compression - 8, Long Mode - D.S (MB/s)	3483
Standard Deviation	0.1%
Zstd Compression - 8, Long Mode - Compression Speed (MB/s)	258.6
Standard Deviation	1.3%
Zstd Compression - 3, Long Mode - D.S (MB/s)	3359
Standard Deviation	0.2%
Zstd Compression - 3, Long Mode - Compression Speed (MB/s)	796.8
Standard Deviation	0.6%
Zstd Compression - 19 - D.S (MB/s)	2933
Standard Deviation	0.4%
Zstd Compression - 19 - Compression Speed (MB/s)	14.8
Standard Deviation	0%
Zstd Compression - 8 - D.S (MB/s)	3269
Standard Deviation	0.1%
Zstd Compression - 8 - Compression Speed (MB/s)	245.9
Standard Deviation	1.9%
Zstd Compression - 3 - D.S (MB/s)	3162
Standard Deviation	0.1%
Zstd Compression - 3 - Compression Speed (MB/s)	1627
Standard Deviation	0.9%
Renaissance - G.A.U.J.F (ms)	1778
Standard Deviation	1.1%
Renaissance - I.M.D.S (ms)	4309
Standard Deviation	4%
Renaissance - T.H.R (ms)	1552
Standard Deviation	3.3%
Renaissance - Apache Spark Bayes (ms)	387.795
Standard Deviation	4.9%
Renaissance - Apache Spark ALS (ms)	2506
Standard Deviation	1.2%

Renaissance - Rand Forest (ms)	1881
Standard Deviation	0.8%
Renaissance - Scala Dotty (ms)	1865
Standard Deviation	1.1%
DaCapo Benchmark - Tradebeans (msec)	3362
Standard Deviation	4.1%
DaCapo Benchmark - Tradesoap (msec)	8754
Standard Deviation	2.4%
DaCapo Benchmark - Jython (msec)	4605
Standard Deviation	0.9%
Timed MrBayes Analysis - P.P.A (sec)	98.657
Standard Deviation	0.2%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	4.73923
Standard Deviation	0.2%
Rodinia - O.S (sec)	38.413
Standard Deviation	0%
Rodinia - OpenMP CFD Solver (sec)	54.525
Standard Deviation	0.1%
Rodinia - OpenMP LavaMD (sec)	795.518
Standard Deviation	0%
CloverLeaf - L.E.H (sec)	179.61
Standard Deviation	0%
Parboil - OpenMP Stencil (sec)	19.526615
Standard Deviation	0.9%
Parboil - OpenMP LBM (sec)	113.797686
Standard Deviation	0.1%
NAS Parallel Benchmarks - SP.B (Mop/s)	5095
Standard Deviation	0%
NAS Parallel Benchmarks - MG.C (Mop/s)	8284
Standard Deviation	0.1%
NAS Parallel Benchmarks - LU.C (Mop/s)	16031
Standard Deviation	0%
NAS Parallel Benchmarks - FT.C (Mop/s)	8696
Standard Deviation	0.6%
NAS Parallel Benchmarks - BT.C (Mop/s)	14953
Standard Deviation	0.1%
MBW - M.C.F.B.S - 4096 MiB (MiB/s)	8981
Standard Deviation	0.4%
MBW - Memory Copy - 4096 MiB (MiB/s)	13120
Standard Deviation	0.3%
Stream - Add (MB/s)	22517
Standard Deviation	0.1%
Stream - Triad (MB/s)	22466
Standard Deviation	0%
Stream - Scale (MB/s)	20093
Standard Deviation	0.1%
Stream - Copy (MB/s)	30474
Standard Deviation	0.1%
RAMspeed SMP - Average - Floating Point (MB/s)	22038
Standard Deviation	0%
RAMspeed SMP - Scale - Floating Point (MB/s)	21003
Standard Deviation	0%
RAMspeed SMP - Copy - Floating Point (MB/s)	20963

Standard Deviation 0.1%
RAMspeed SMP - Add - Floating Point (MB/s) 23097
Standard Deviation 0%
RAMspeed SMP - Average - Integer (MB/s) 22011
Standard Deviation 0%
RAMspeed SMP - Scale - Integer (MB/s) 20903
Standard Deviation 0%
RAMspeed SMP - Copy - Integer (MB/s) 20958
Standard Deviation 0.1%
RAMspeed SMP - Add - Integer (MB/s) 23146
Standard Deviation 0.1%
Renaissance - A.U.C.T (ms) 8578
Standard Deviation 8.5%
Renaissance - A.S.P (ms) 4622
Standard Deviation 7.8%
Renaissance - Savina Reactors.IO (ms) 11812
Standard Deviation 8.5%
DaCapo Benchmark - H2 (msec) 3251
Standard Deviation 6.4%
Parboil - O.M.G (sec) 28.087967
Standard Deviation 9.4%

BRL-CAD 7.30.8

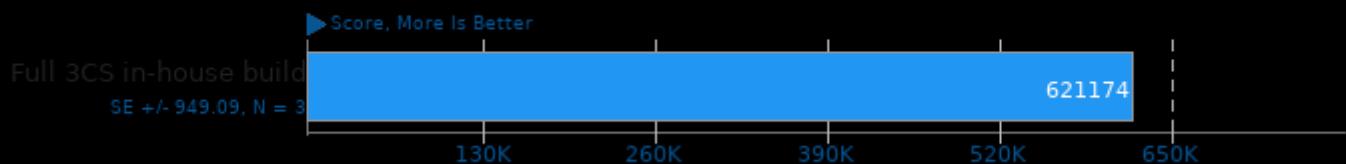
VGR Performance Metric



1. (CXX) g++ options: -std=c++11 -pipe -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth=128 -m64 -ggdb3 -O3 -fipa-pta -fstrength-reduce

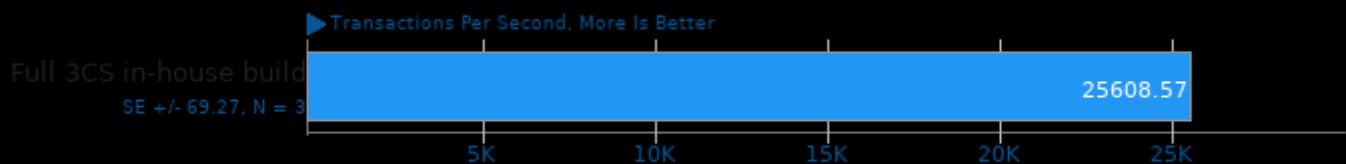
PHPBench 0.8.1

PHP Benchmark Suite



Apache Siege 2.4.29

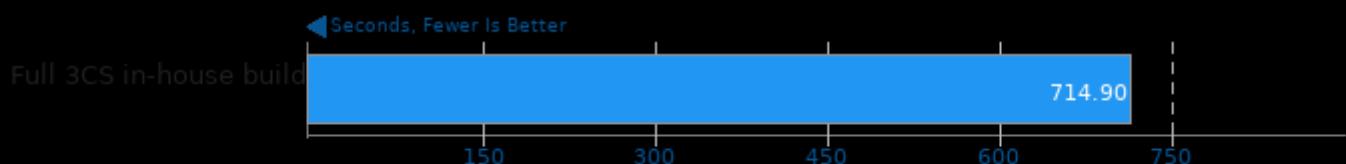
Concurrent Users: 100



1. (CC) gcc options: -O2 -lpthread -ldl -lssl -lcrypto

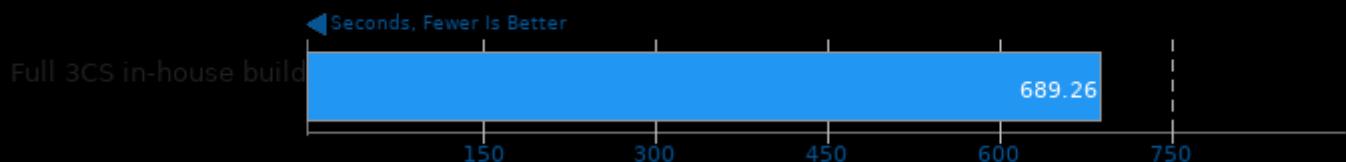
Appleseed 2.0 Beta

Scene: Material Tester



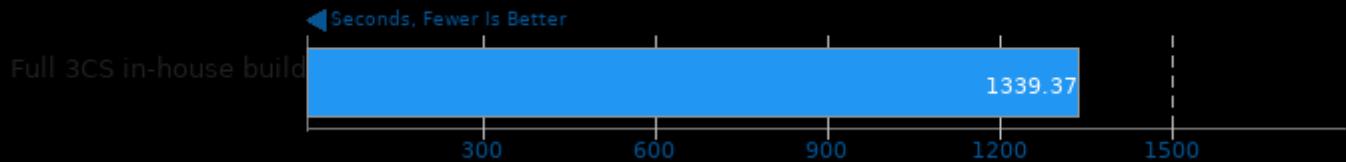
Appleseed 2.0 Beta

Scene: Disney Material



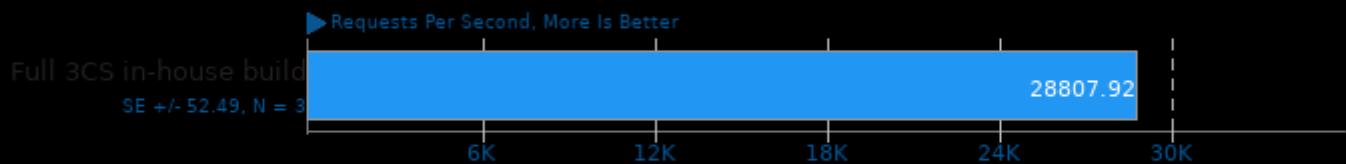
Appleseed 2.0 Beta

Scene: Emily



Apache Benchmark 2.4.29

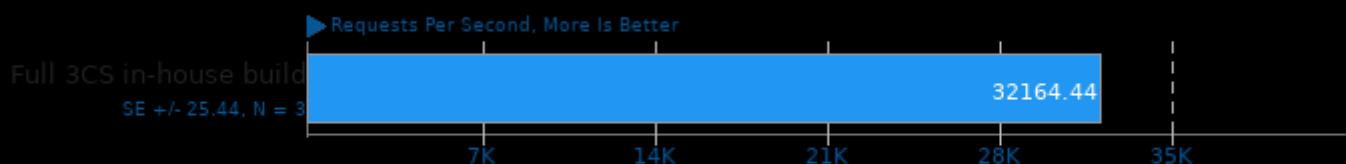
Static Web Page Serving



1. (CC) gcc options: -fPIC -O2 -pthread

NGINX Benchmark 1.9.9

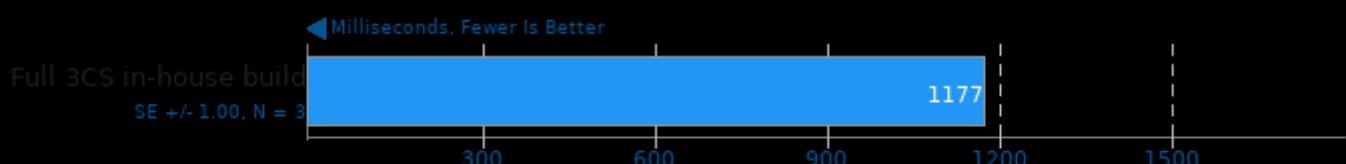
Static Web Page Serving



1. (CC) gcc options: -lpthread -lcrypt -lcrypto -lz -O3 -march=native

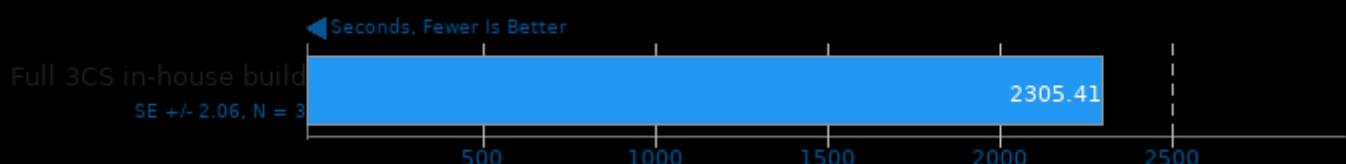
PyBench 2018-02-16

Total For Average Test Times



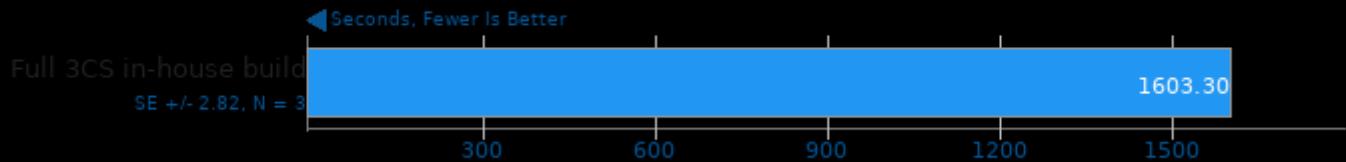
Blender 2.92

Blend File: Barbershop - Compute: CPU-Only



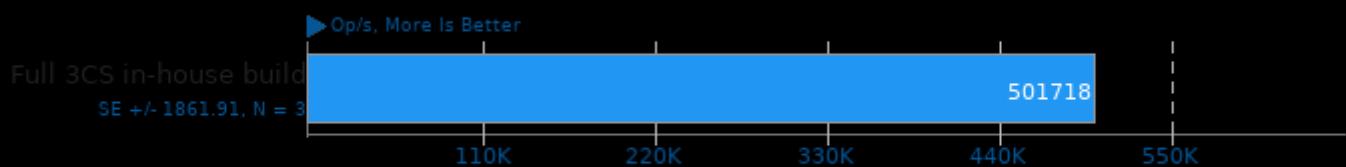
Blender 2.92

Blend File: Classroom - Compute: CPU-Only



Facebook RocksDB 6.3.6

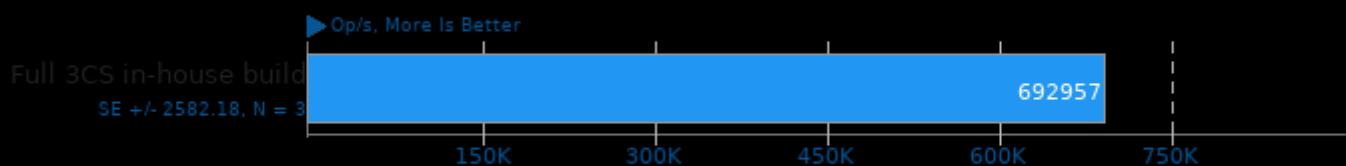
Test: Read While Writing



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-builtin-memcmp -fno-rtti -rdynamic -lpthread

Facebook RocksDB 6.3.6

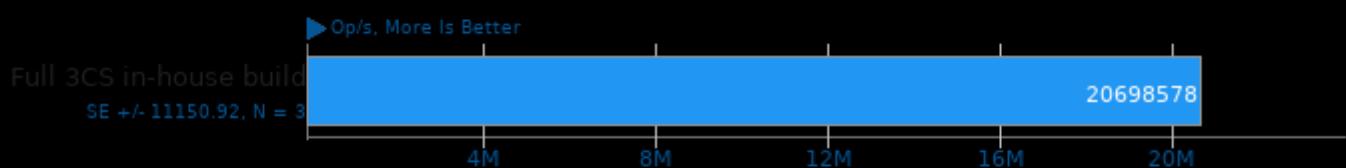
Test: Sequential Fill



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-builtin-memcmp -fno-rtti -rdynamic -lpthread

Facebook RocksDB 6.3.6

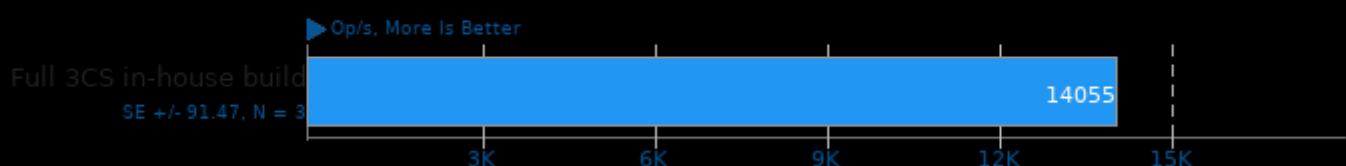
Test: Random Read



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-builtin-memcmp -fno-rtti -rdynamic -lpthread

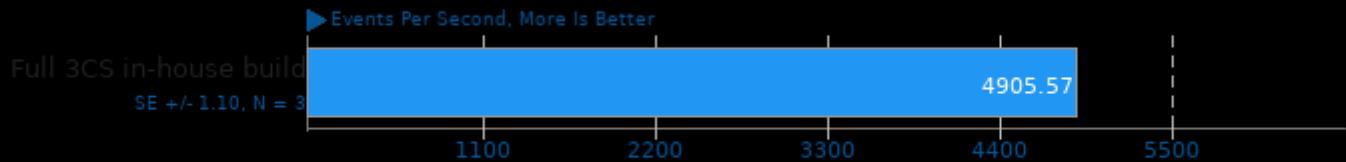
Apache Cassandra 3.11.4

Test: Writes



Sysbench 1.0.20

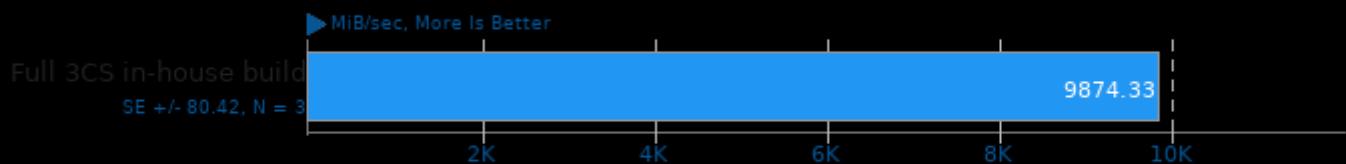
Test: CPU



1. (CC) gcc options: -pthread -O2 -funroll-loops -rdynamic -ldl -lao -lm

Sysbench 1.0.20

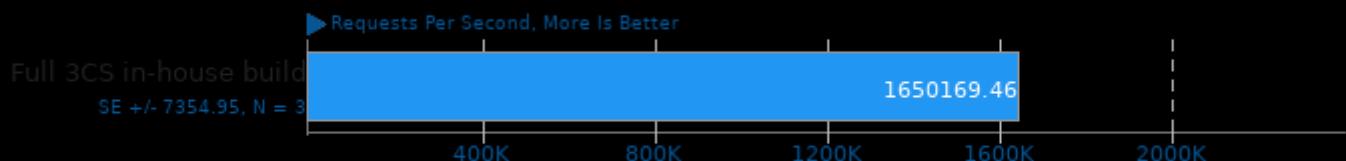
Test: Memory



1. (CC) gcc options: -pthread -O2 -funroll-loops -rdynamic -ldl -lao -lm

Redis 6.0.9

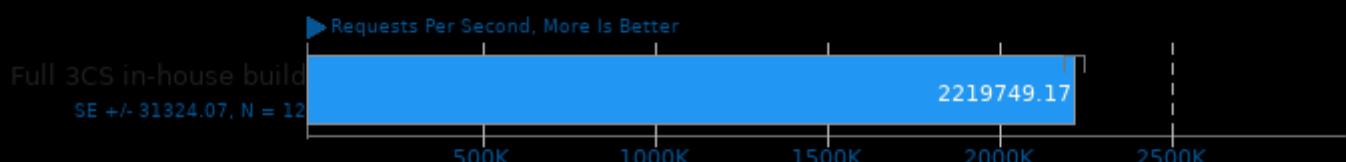
Test: SET



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

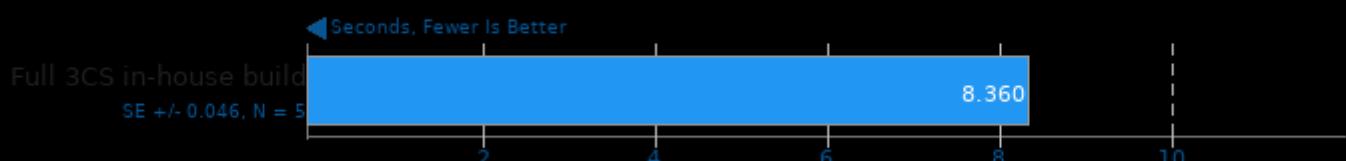
Redis 6.0.9

Test: GET



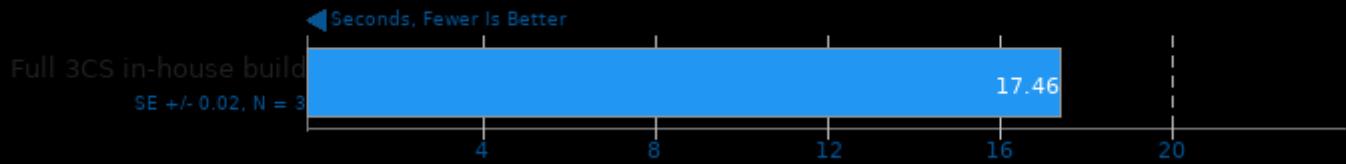
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

GNU Octave Benchmark 5.2.0

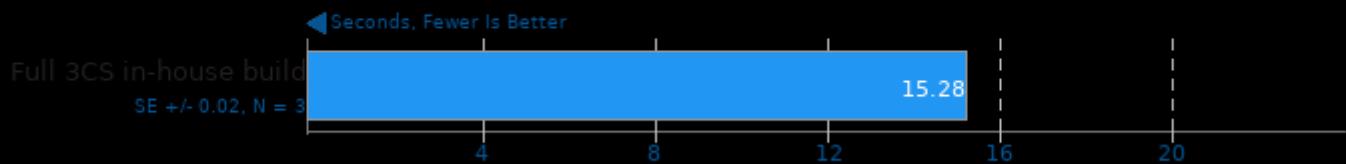


GIMP 2.10.18

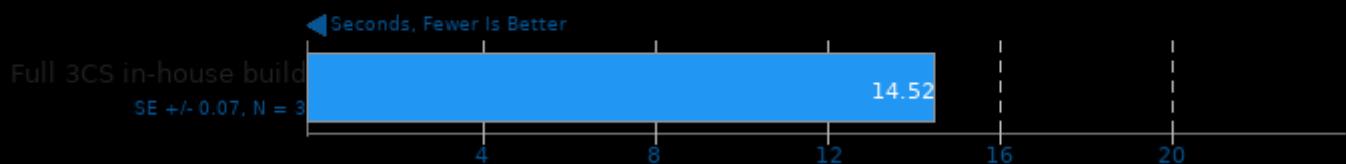
Test: unsharp-mask

**GIMP 2.10.18**

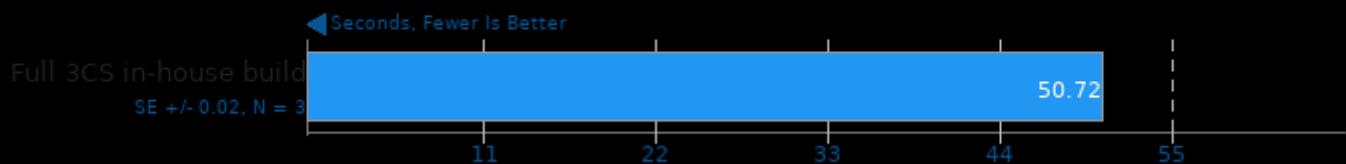
Test: auto-levels

**GIMP 2.10.18**

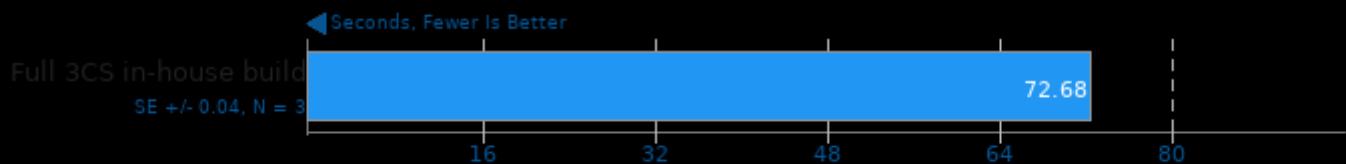
Test: rotate

**GEGL**

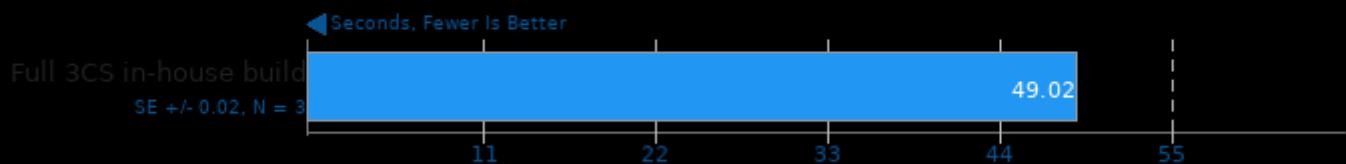
Operation: Rotate 90 Degrees

**GEGL**

Operation: Color Enhance

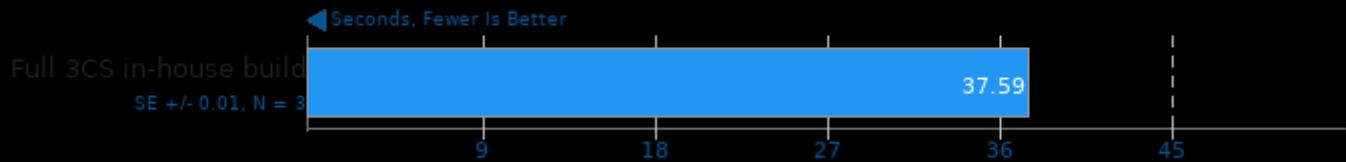
**GEGL**

Operation: Antialias

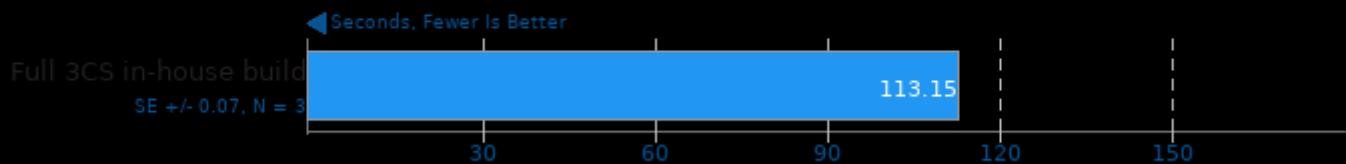


GEGL

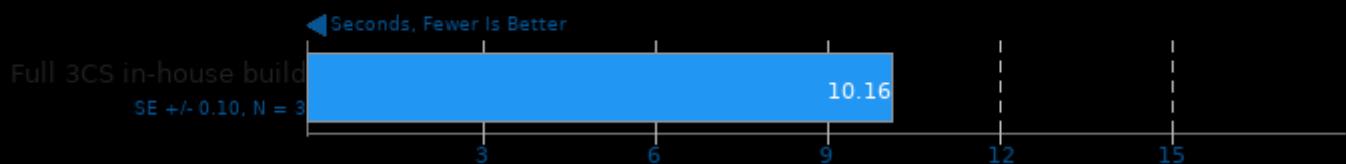
Operation: Reflect

**GEGL**

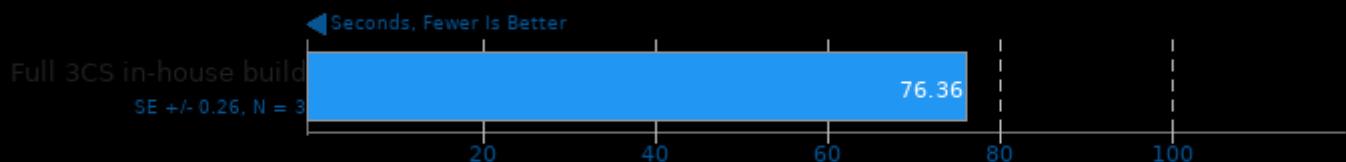
Operation: Cartoon

**GEGL**

Operation: Crop

**SQLite Speedtest 3.30**

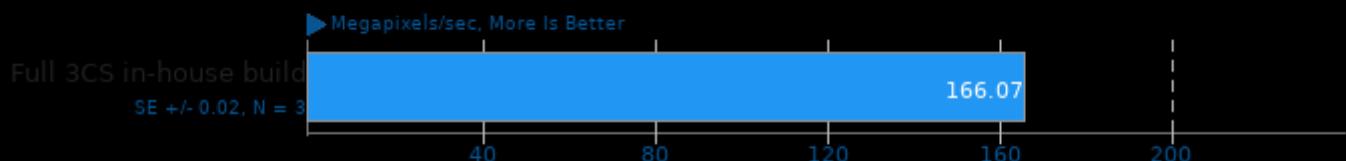
Timed Time - Size 1,000



1. (CC) gcc options: -O2 -ldl -lz -lpthread

libjpeg-turbo tjbench 2.0.2

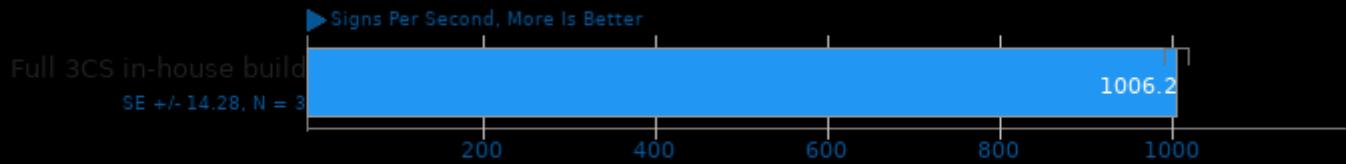
Test: Decompression Throughput



1. (CC) gcc options: -O3 -rdynamic

OpenSSL 1.1.1

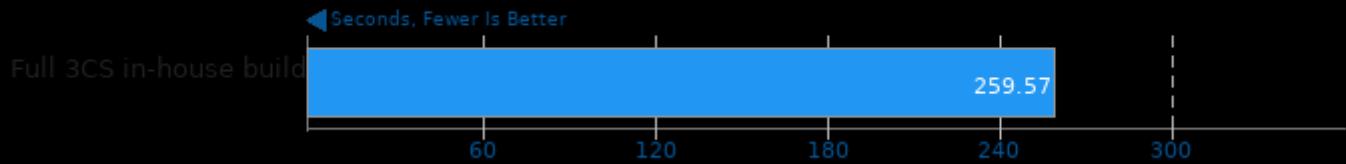
RSA 4096-bit Performance



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

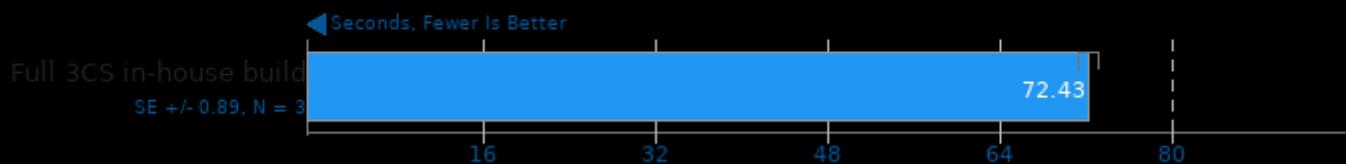
Radiance Benchmark 5.0

Test: SMP Parallel



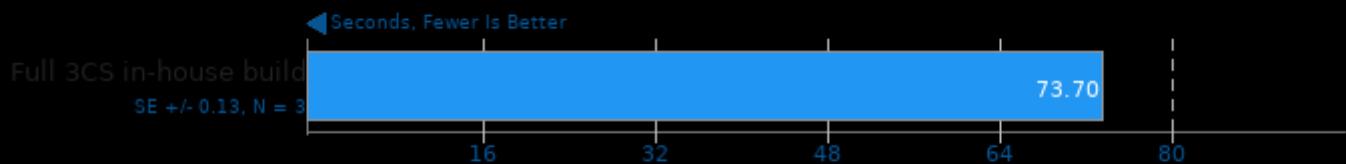
DeepSpeech 0.6

Acceleration: CPU



XZ Compression 5.2.4

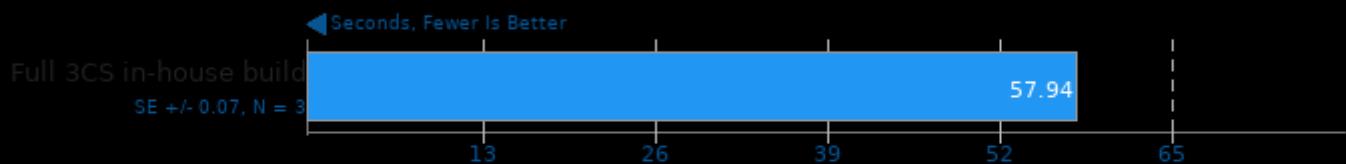
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9



1. (CC) gcc options: -pthread -fvisibility=hidden -O2

Tungsten Renderer 0.2.2

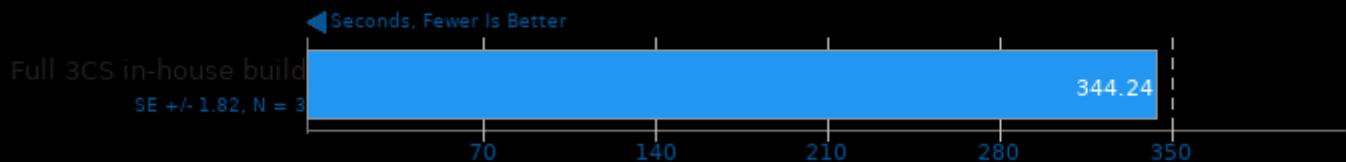
Scene: Water Caustic



1. (CXX) g++ options: -std=c++0x -march=skylake -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -mfma -mbmi2 -mno-sse4a -mno-avx -mno-avx2 -mno-xo

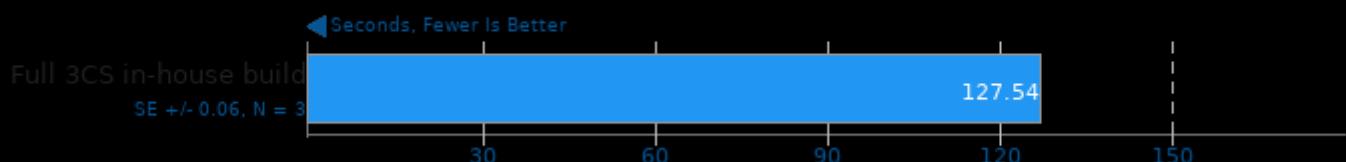
Build2 0.13

Time To Compile



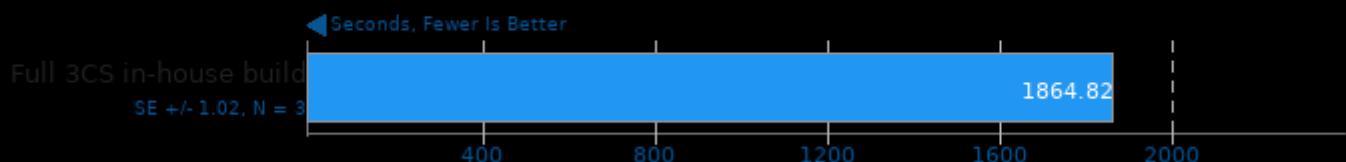
Timed PHP Compilation 7.4.2

Time To Compile



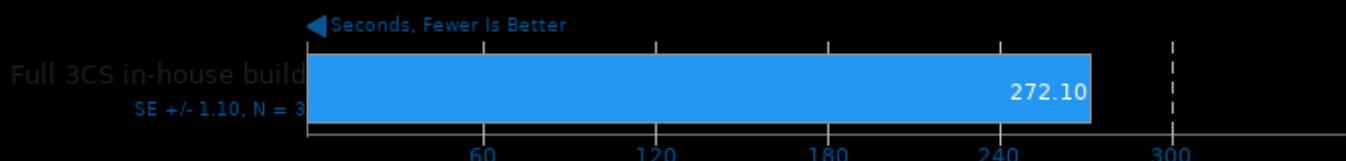
Timed LLVM Compilation 10.0

Time To Compile



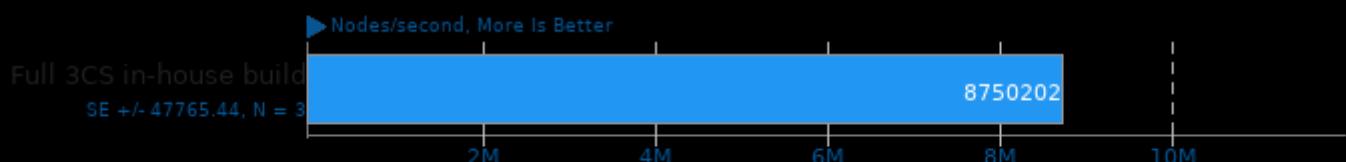
Timed Linux Kernel Compilation 5.10.20

Time To Compile



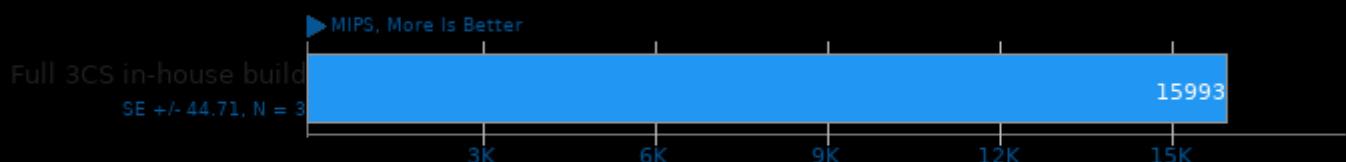
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



7-Zip Compression 16.02

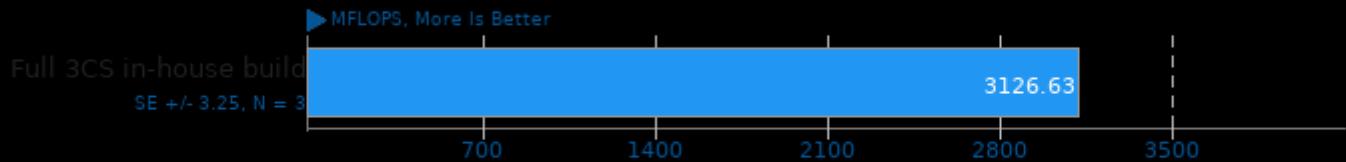
Compress Speed Test



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

Himeno Benchmark 3.0

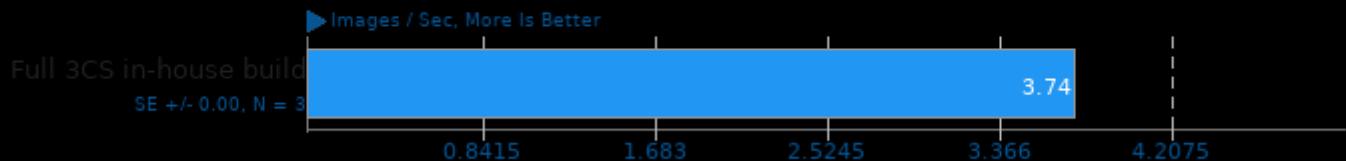
Poisson Pressure Solver



1. (CC) gcc options: -O3 -mavx2

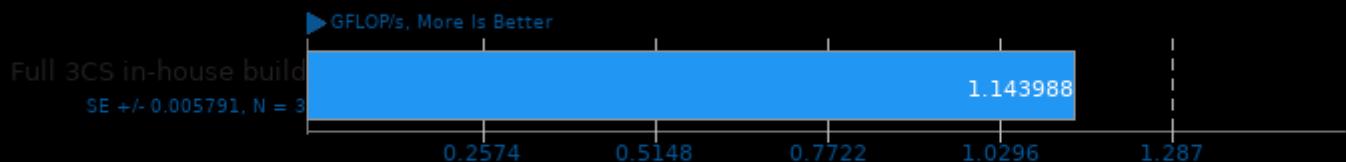
Intel Open Image Denoise 1.2.0

Scene: Memorial



ACES DGEMM 1.0

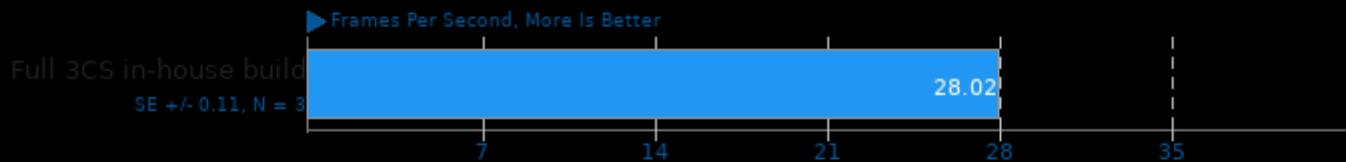
Sustained Floating-Point Rate



1. (CC) gcc options: -O3 -march=native -fopenmp

x265 3.4

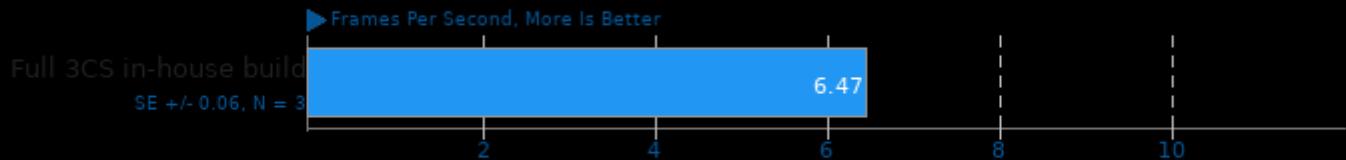
Video Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma

x265 3.4

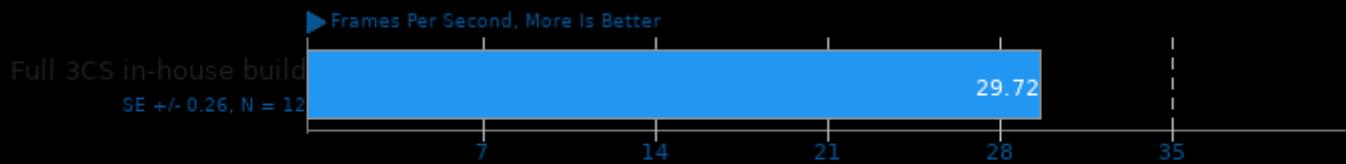
Video Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma

x264 2019-12-17

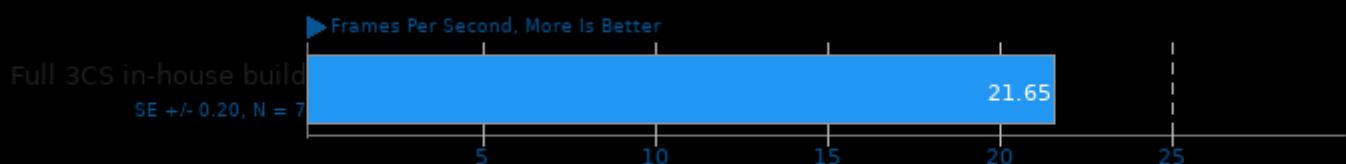
H.264 Video Encoding



1. (CC) gcc options: -ldl -lavformat -lavcodec -lavutil -lswscale -m64 -lm -lpthread -O3 -ffast-math -std=gnu99 -fPIC -fomit-frame-pointer -fno-tree-vectorize

VP9 libvpx Encoding 1.8.2

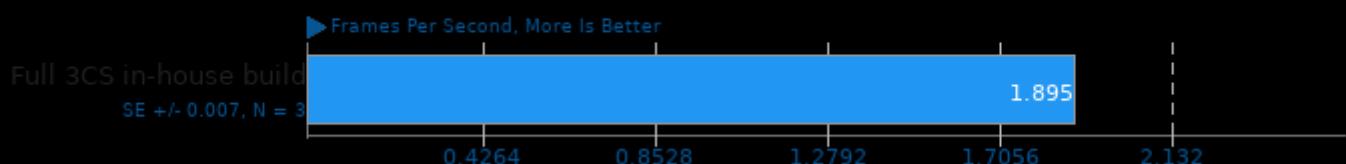
Speed: Speed 5



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=c++11

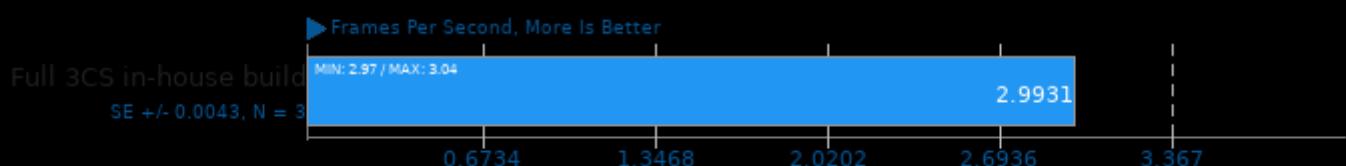
rav1e 0.4

Speed: 9



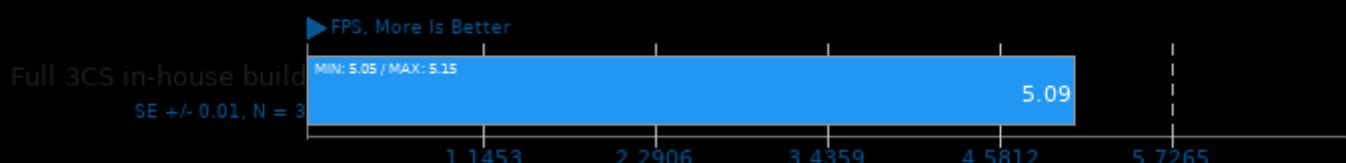
Embree 3.9.0

Binary: Pathtracer - Model: Crown



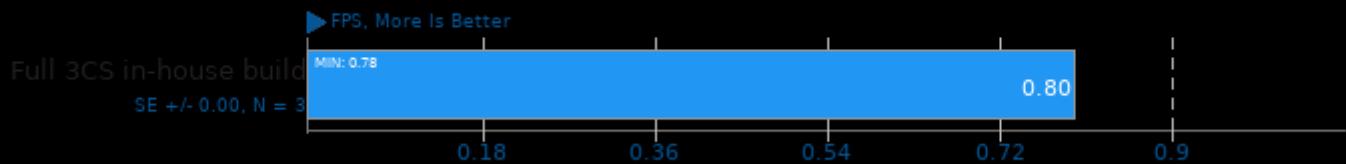
OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: SciVis



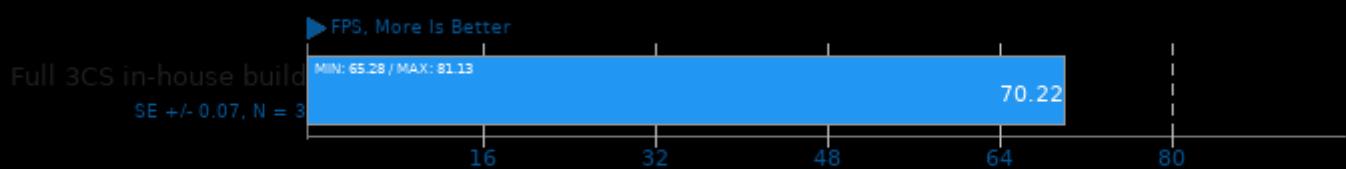
OSPray 1.8.5

Demo: XFrog Forest - Renderer: SciVis



dav1d 0.8.2

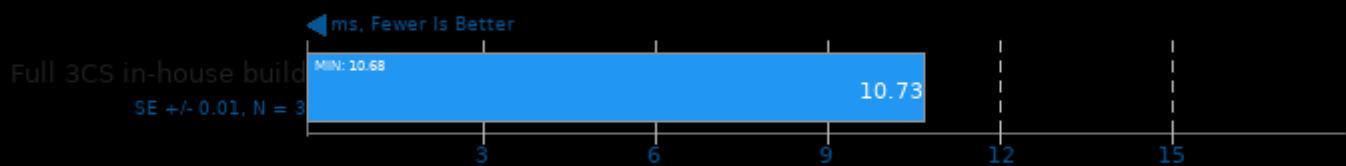
Video Input: Summer Nature 4K



1. (CC) gcc options: -pthread -lm

oneDNN MKL-DNN 1.3

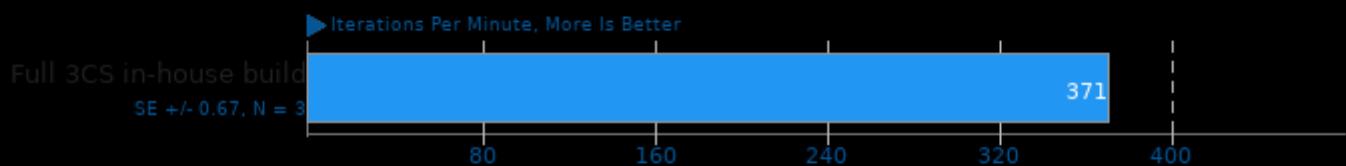
Harness: Deconvolution Batch deconv_1d - Data Type: f32



1. (CXX) g++ options: -O3 -march=native -std=c++11 -msse4.1 -fPIC -fopenmp -pie -lpthread -lrt -ldl

GraphicsMagick 1.3.33

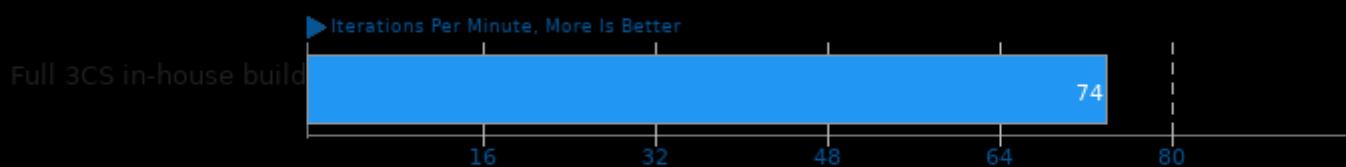
Operation: Resizing



1. (CC) gcc options: -fopenmp -O2 -pthread -ljpeg -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

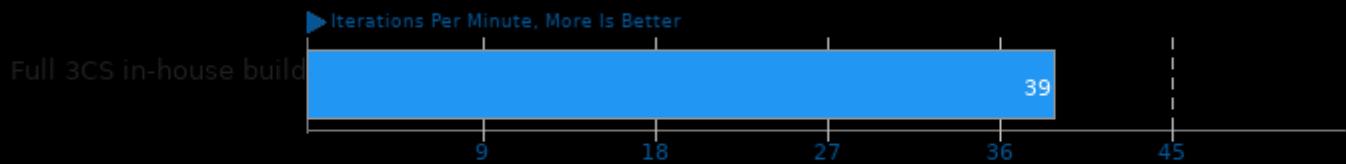
Operation: Enhanced



1. (CC) gcc options: -fopenmp -O2 -pthread -ljpeg -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

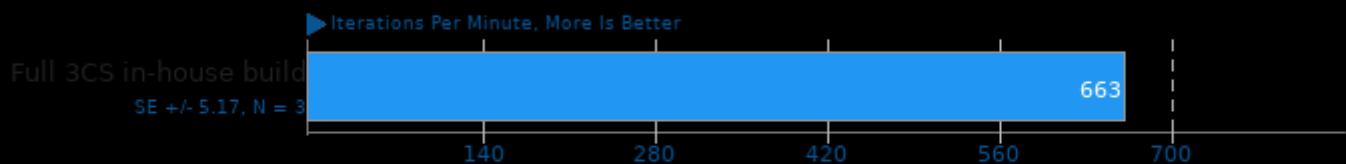
Operation: Sharpen



1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lxml2 -lz -lm -lpthread

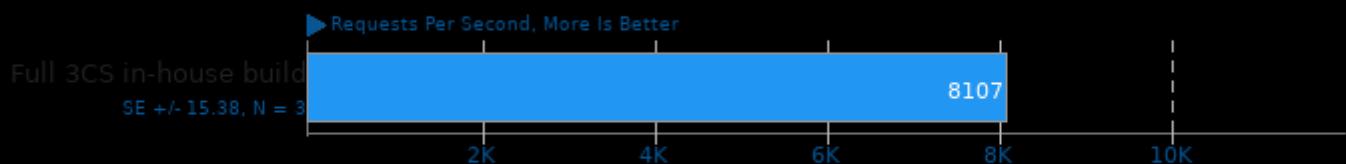
GraphicsMagick 1.3.33

Operation: Rotate



1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lxml2 -lz -lm -lpthread

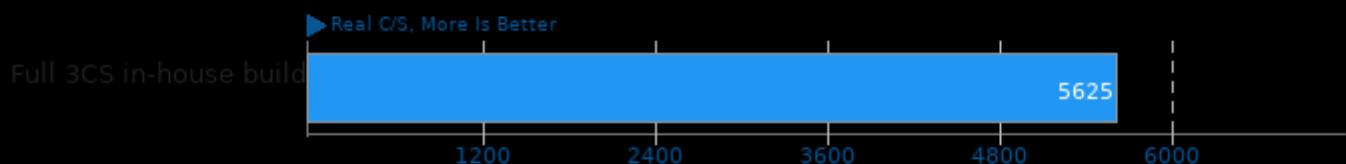
Node.js Express HTTP Load Test



1. Nodejs
v10.19.0

John The Ripper 1.9.0-jumbo-1

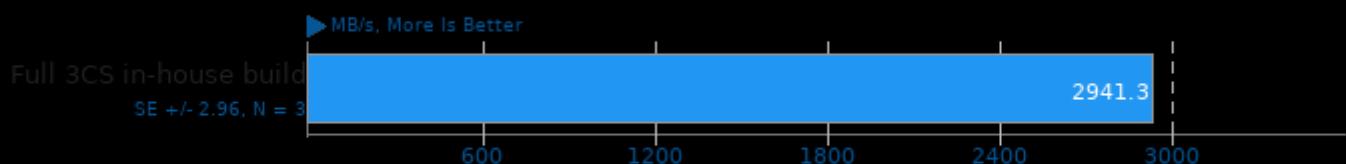
Test: Blowfish



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

Zstd Compression 1.4.9

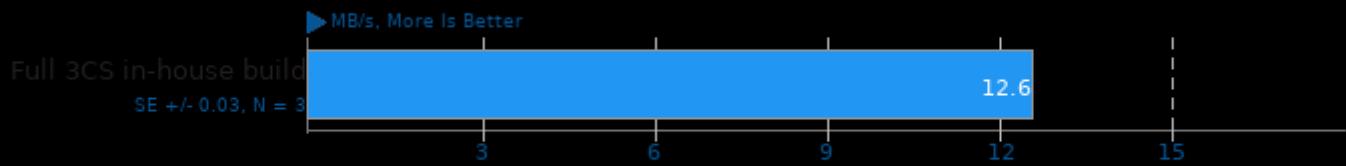
Compression Level: 19, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lzma

Zstd Compression 1.4.9

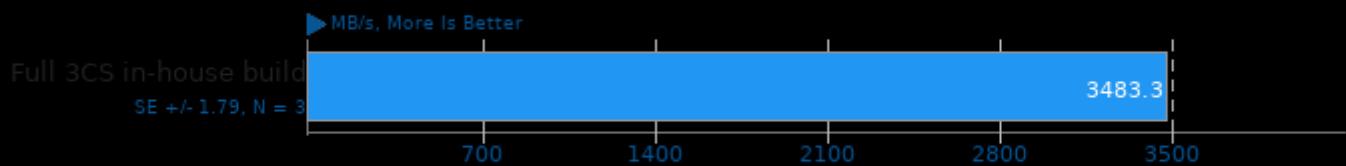
Compression Level: 19, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

Zstd Compression 1.4.9

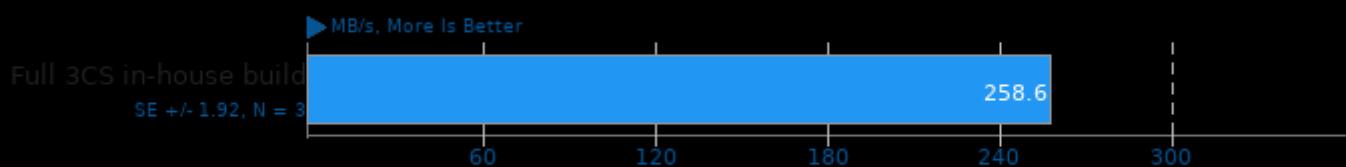
Compression Level: 8, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

Zstd Compression 1.4.9

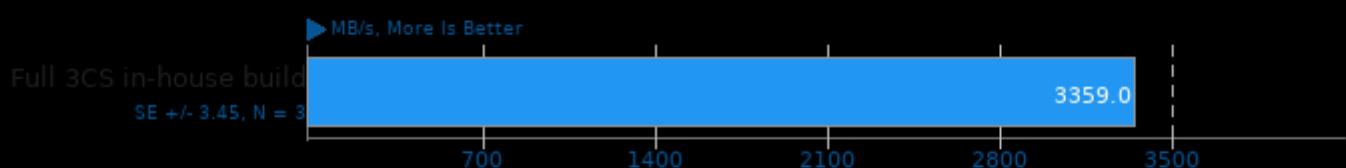
Compression Level: 8, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

Zstd Compression 1.4.9

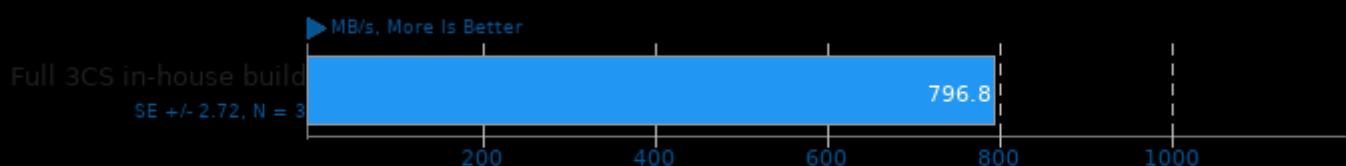
Compression Level: 3, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

Zstd Compression 1.4.9

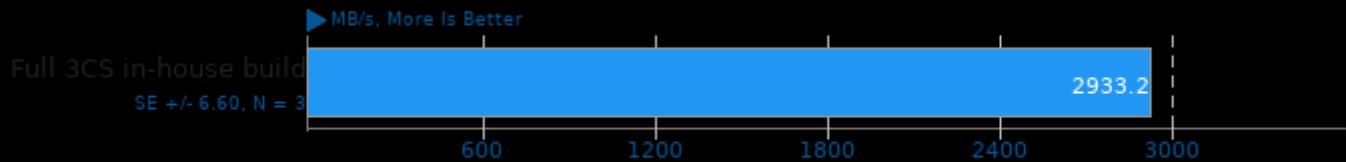
Compression Level: 3, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

Zstd Compression 1.4.9

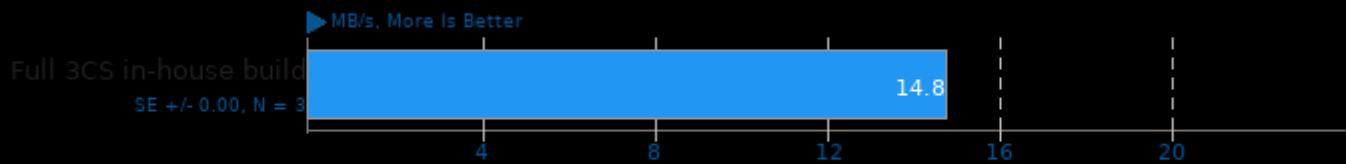
Compression Level: 19 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

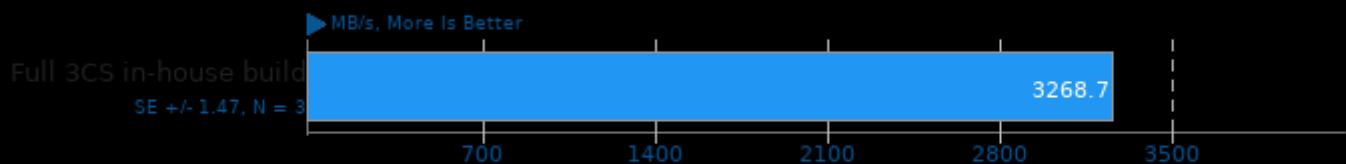
Compression Level: 19 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

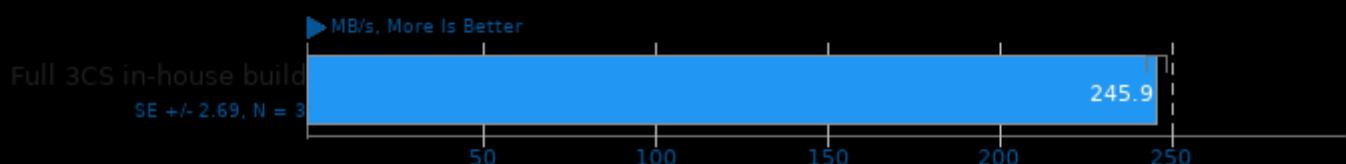
Compression Level: 8 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

Compression Level: 8 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

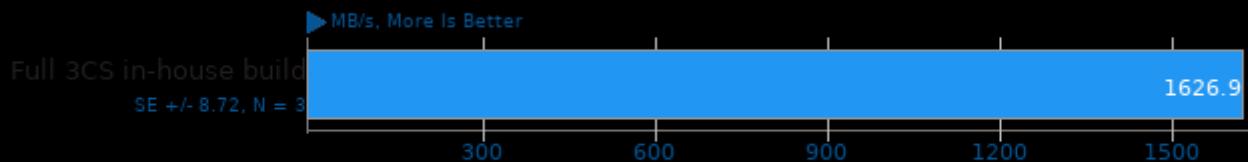
Compression Level: 3 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

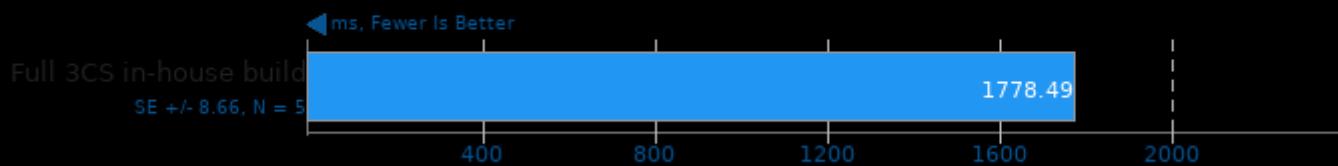
Compression Level: 3 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lzma

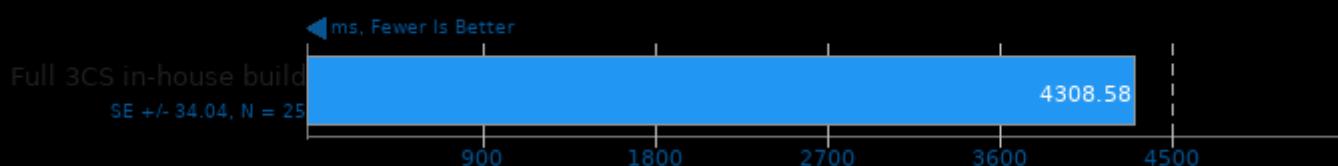
Renaissance 0.10.0

Test: Genetic Algorithm Using Jenetics + Futures



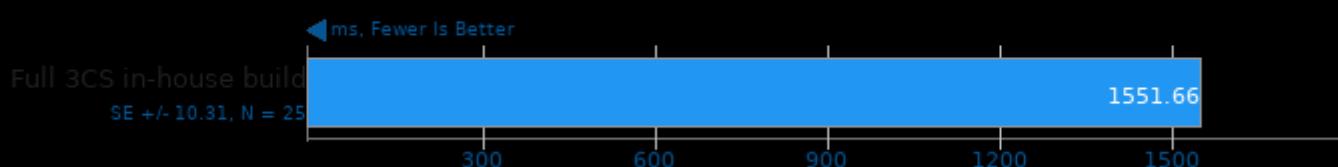
Renaissance 0.10.0

Test: In-Memory Database Shootout



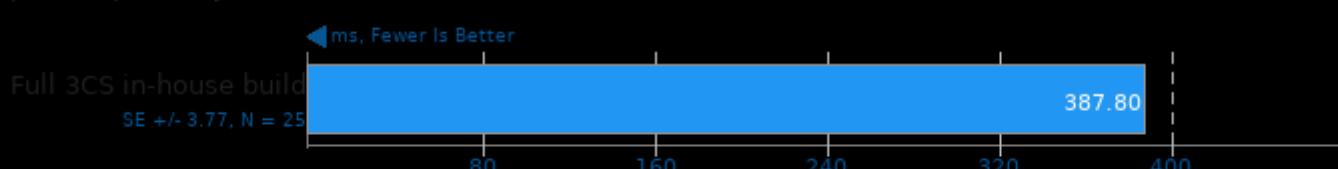
Renaissance 0.10.0

Test: Twitter HTTP Requests



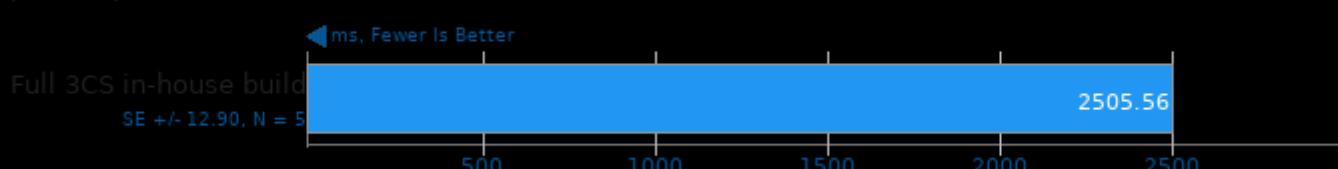
Renaissance 0.10.0

Test: Apache Spark Bayes



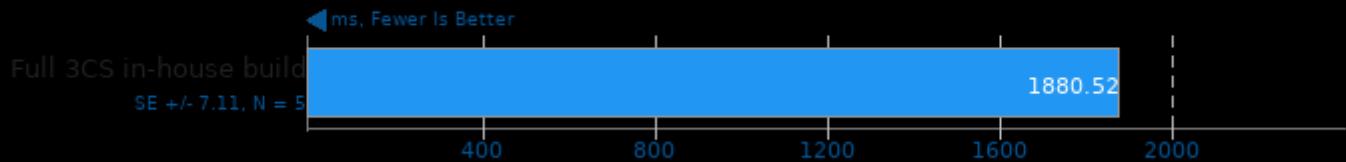
Renaissance 0.10.0

Test: Apache Spark ALS



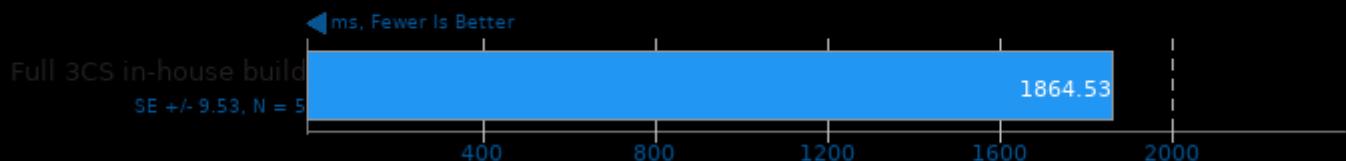
Renaissance 0.10.0

Test: Random Forest



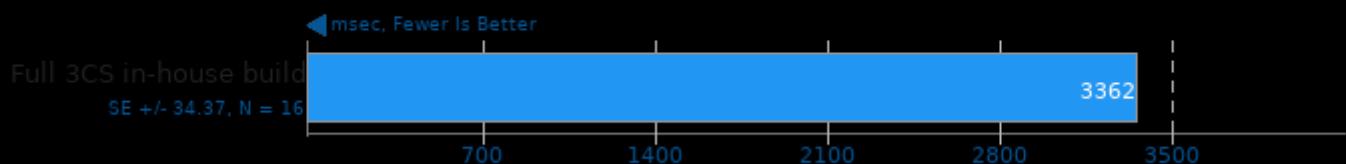
Renaissance 0.10.0

Test: Scala Dotty



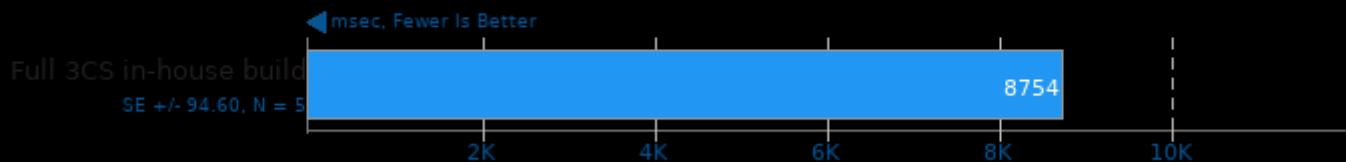
DaCapo Benchmark 9.12-MR1

Java Test: Tradebeans



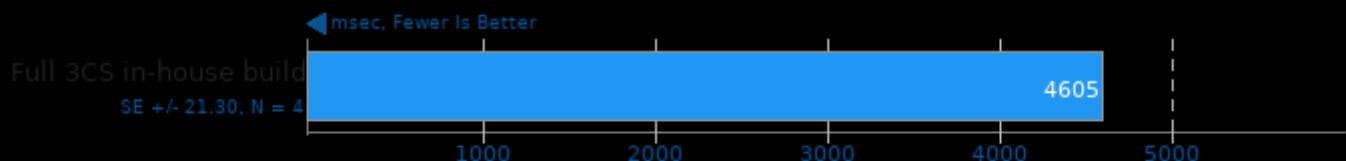
DaCapo Benchmark 9.12-MR1

Java Test: Tradesoap



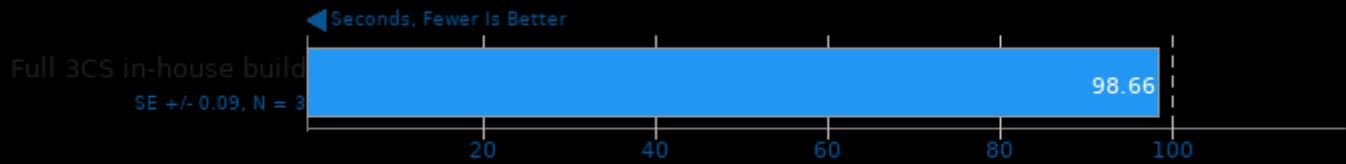
DaCapo Benchmark 9.12-MR1

Java Test: Jython



Timed MrBayes Analysis 3.2.7

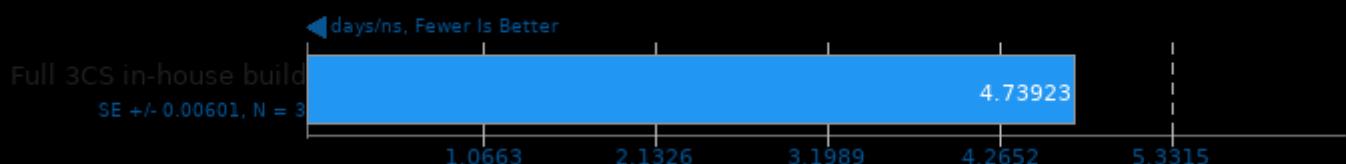
Primate Phylogeny Analysis



1. (CC) gcc options: -mmmx -msse -msse2 -msse3 -msse3 -msse4.1 -msse4.2 -maes -mavx -mfma -mavx2 -mrdrnd -mbmi -mbmi2 -madx -mmpx -mabm

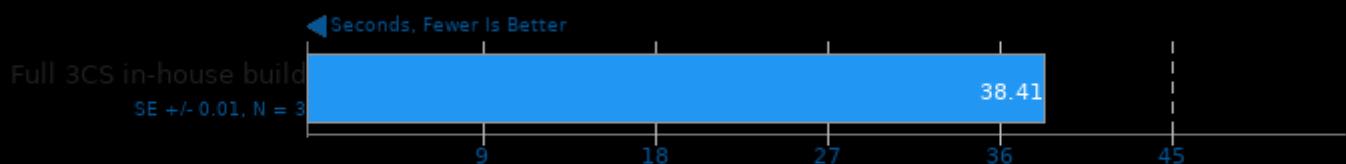
NAMD 2.14

ATPase Simulation - 327,506 Atoms



Rodinia 3.1

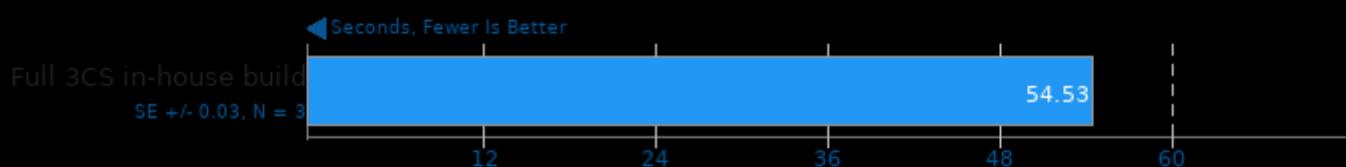
Test: OpenMP Streamcluster



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

Rodinia 3.1

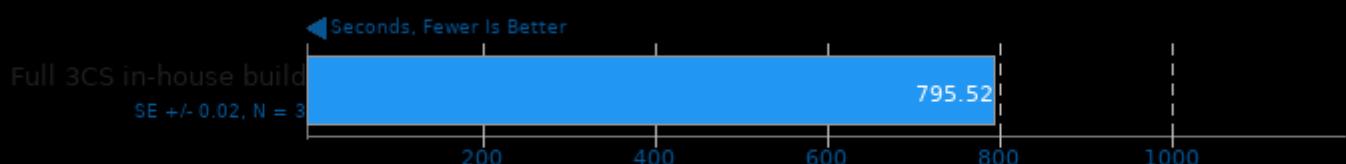
Test: OpenMP CFD Solver



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

Rodinia 3.1

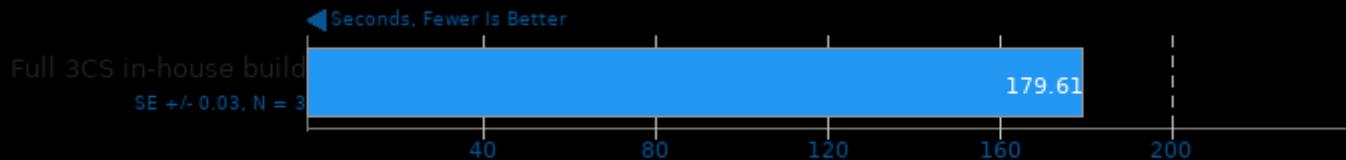
Test: OpenMP LavaMD



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

CloverLeaf

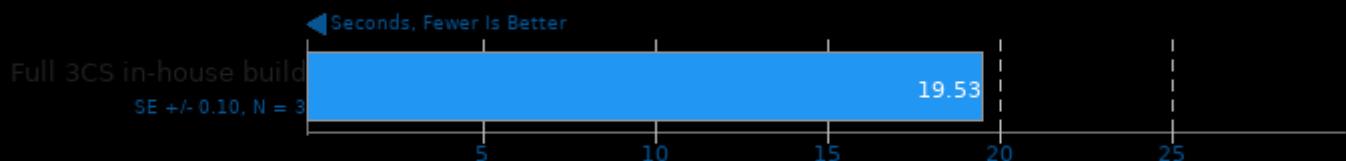
Lagrangian-Eulerian Hydrodynamics



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

Parboil 2.5

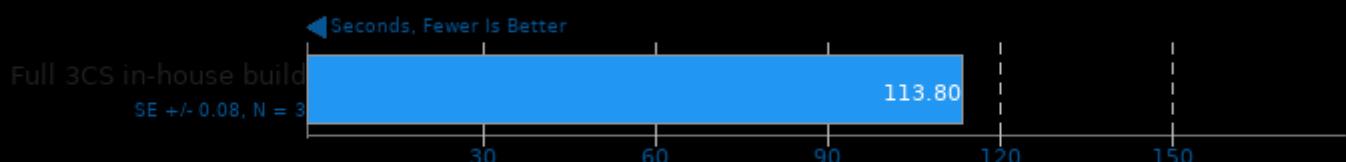
Test: OpenMP Stencil



1. (CXX) g++ options: -lm -lpthread -lgomp -O3 -ffast-math -fopenmp

Parboil 2.5

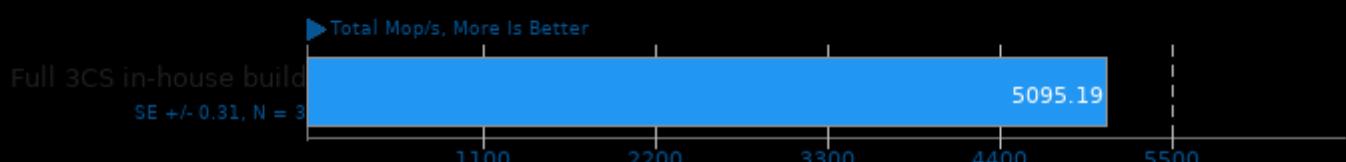
Test: OpenMP LBM



1. (CXX) g++ options: -lm -lpthread -lgomp -O3 -ffast-math -fopenmp

NAS Parallel Benchmarks 3.4

Test / Class: SP.B

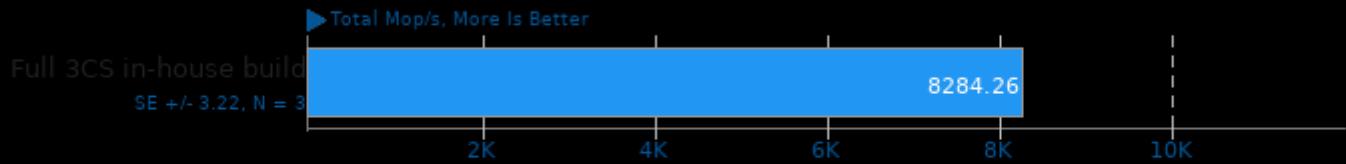


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

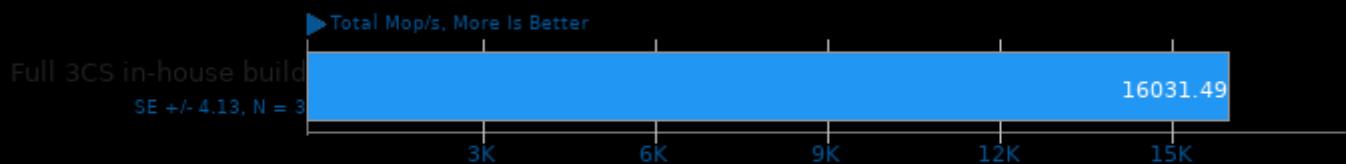
Test / Class: MG.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

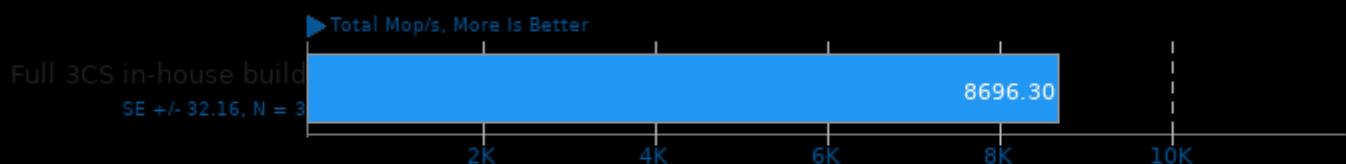
Test / Class: LU.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

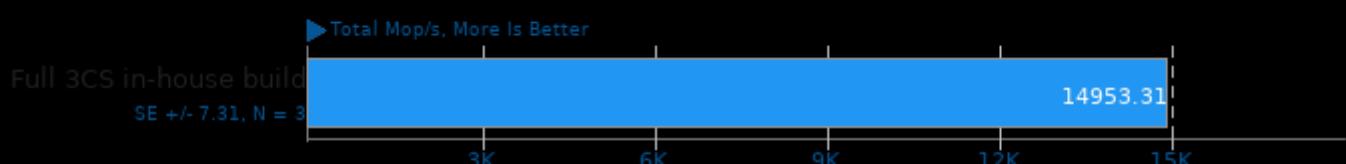
Test / Class: FT.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

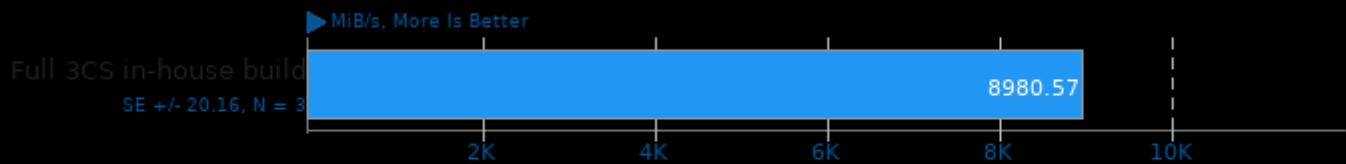
Test / Class: BT.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3

MBW 2018-09-08

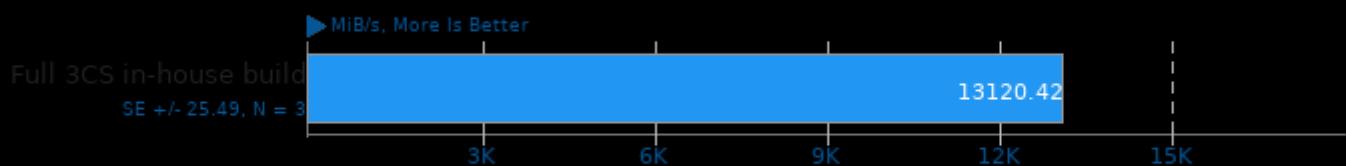
Test: Memory Copy, Fixed Block Size - Array Size: 4096 MiB



1. (CC) gcc options: -O3 -march=native

MBW 2018-09-08

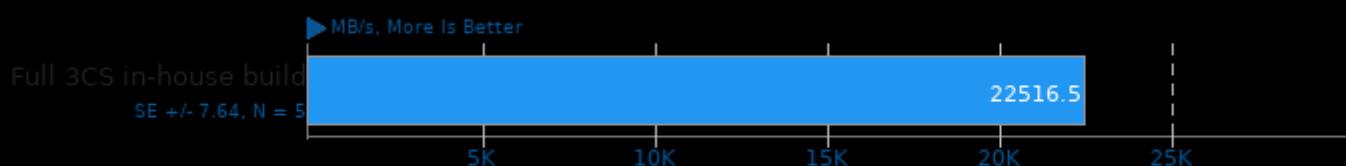
Test: Memory Copy - Array Size: 4096 MiB



1. (CC) gcc options: -O3 -march=native

Stream 2013-01-17

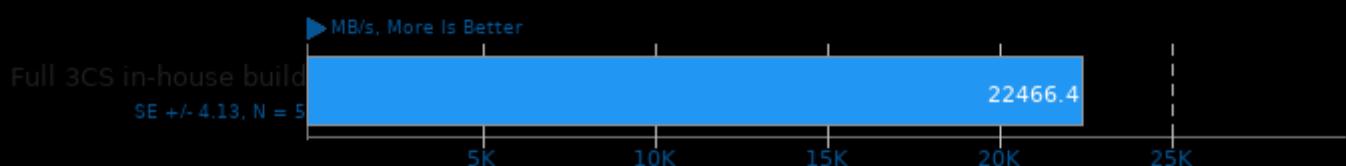
Type: Add



1. (CC) gcc options: -O3 -march=native -fopenmp

Stream 2013-01-17

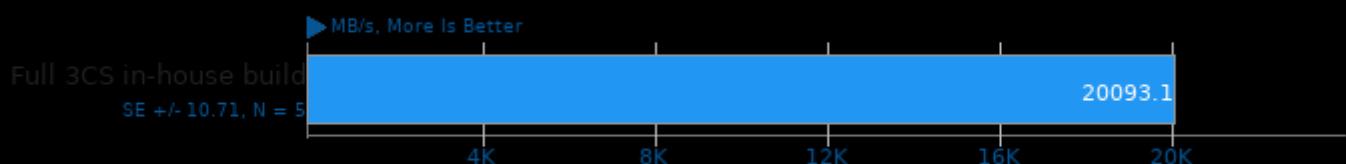
Type: Triad



1. (CC) gcc options: -O3 -march=native -fopenmp

Stream 2013-01-17

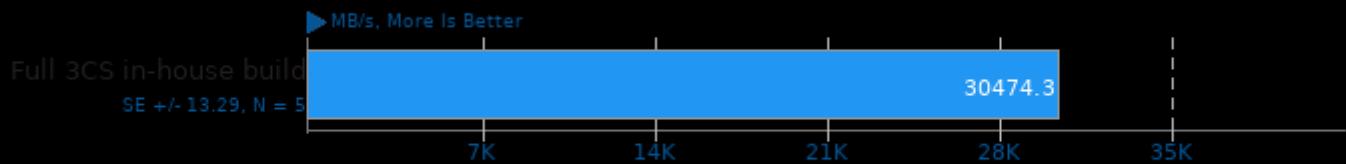
Type: Scale



1. (CC) gcc options: -O3 -march=native -fopenmp

Stream 2013-01-17

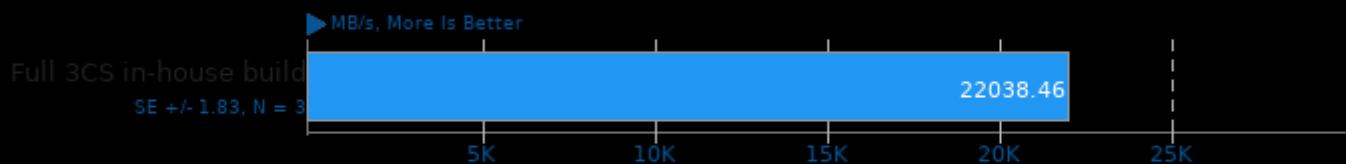
Type: Copy



1. (CC) gcc options: -O3 -march=native -fopenmp

RAMspeed SMP 3.5.0

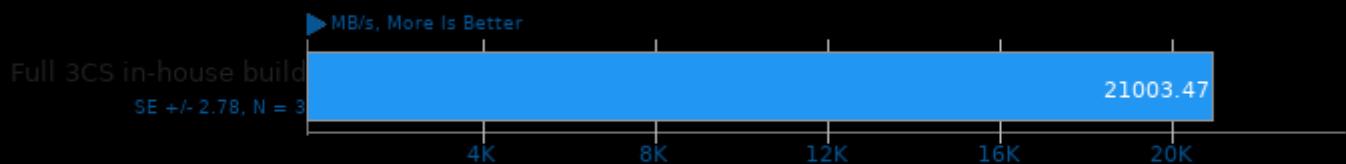
Type: Average - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

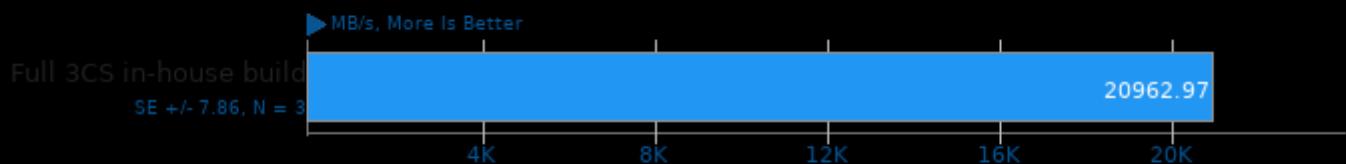
Type: Scale - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

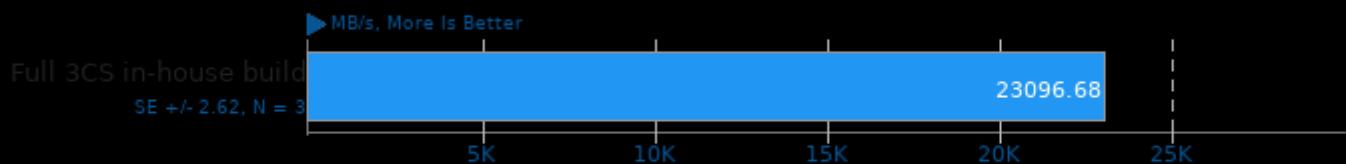
Type: Copy - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

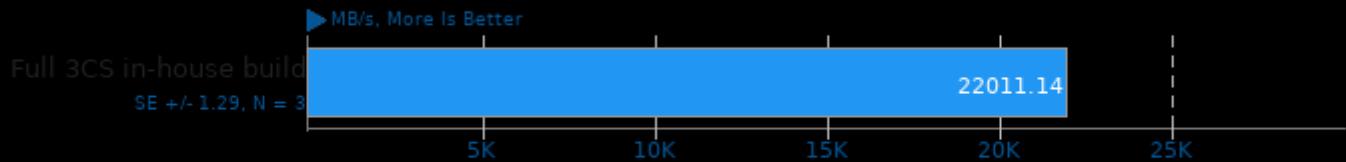
Type: Add - Benchmark: Floating Point



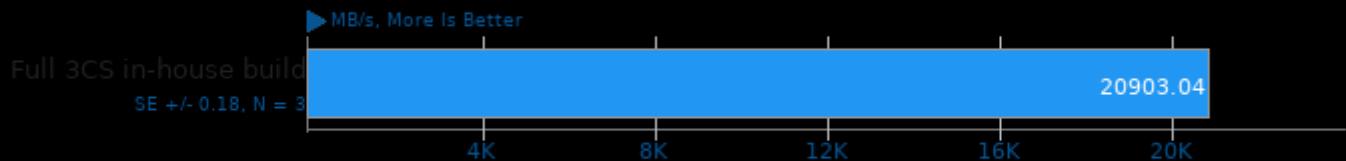
1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

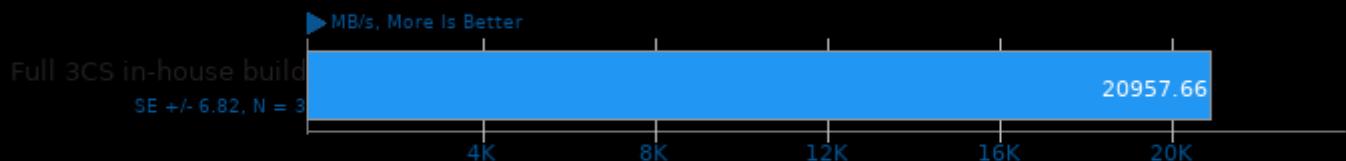
Type: Average - Benchmark: Integer

**RAMspeed SMP 3.5.0**

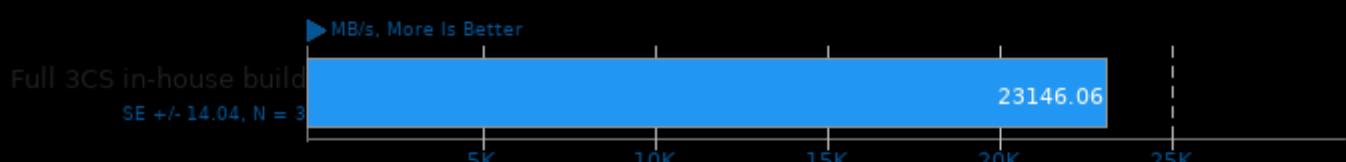
Type: Scale - Benchmark: Integer

**RAMspeed SMP 3.5.0**

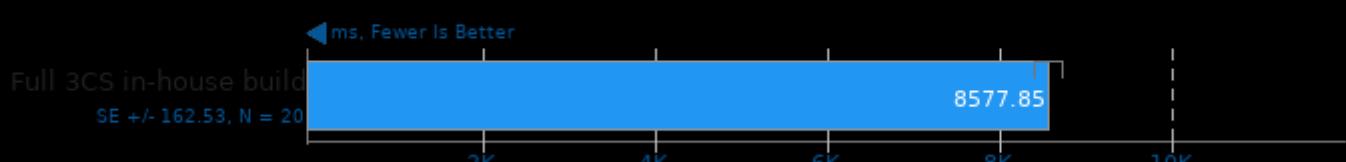
Type: Copy - Benchmark: Integer

**RAMspeed SMP 3.5.0**

Type: Add - Benchmark: Integer

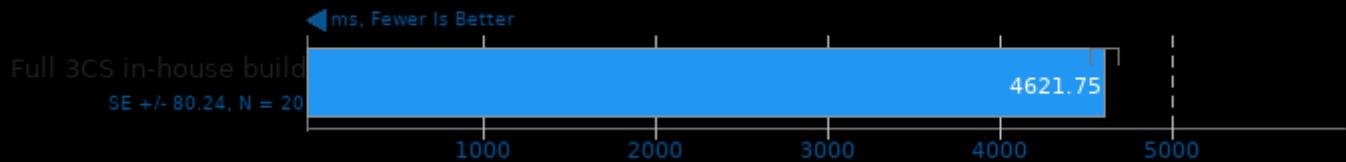
**Renaissance 0.10.0**

Test: Akka Unbalanced Cobwebbed Tree



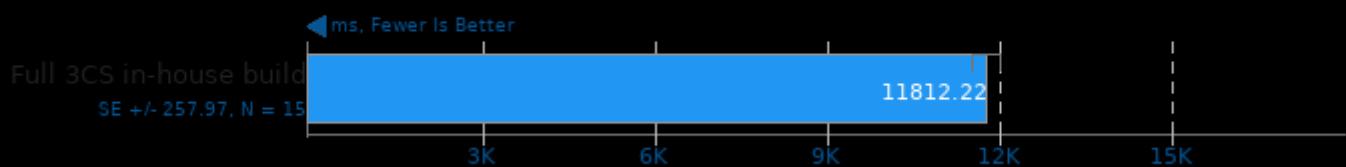
Renaissance 0.10.0

Test: Apache Spark PageRank



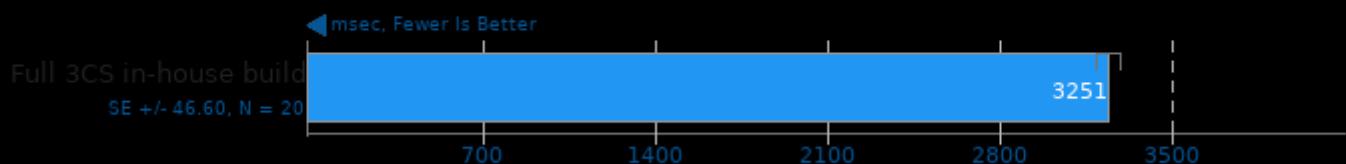
Renaissance 0.10.0

Test: Savina Reactors.IO



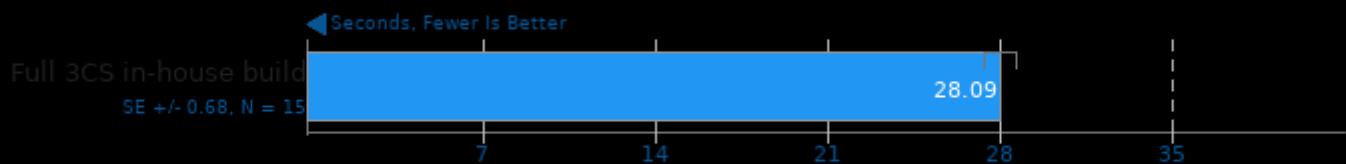
DaCapo Benchmark 9.12-MR1

Java Test: H2



Parboil 2.5

Test: OpenMP MRI Gridding



1. (CXX) g++ options: -lm -lpthread -lgomp -O3 -ffast-math -fopenmp

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 19:55.