



HP DL380p Gen8 2x2690v1 256GB Ram

2 x Intel Xeon E5-2690 0 testing with a HP ProLiant DL380p Gen8 (P70 BIOS) and Matrox MGA G200EH on Ubuntu 18.04 via the Phoronix Test Suite.

Test Systems:

HP DL380p Gen8 2x2690v1 256GB Ram

Processor: 2 x Intel Xeon E5-2690 0 @ 3.80GHz (16 Cores), Motherboard: HP ProLiant DL380p Gen8 (P70 BIOS), Chipset: Intel Xeon E5/Core, Memory: 16 x 16384 MB DDR3-1333MT/s, Disk: 126GB, Graphics: Matrox MGA G200EH, Monitor: BenQ FP73G, Network: 4 x Broadcom NetXtreme BCM5719 PCIe

OS: Ubuntu 18.04, Kernel: 5.4.0-65-generic (x86_64), Display Server: X Server 1.20.8, Compiler: GCC 7.5.0, File-System: overlaysfs, Screen Resolution: 1280x1024

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new

--with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0x71a

Java Notes: OpenJDK Runtime Environment (build 11.0.11+9-Ubuntu-0ubuntu2.18.04)

Python Notes: Python 2.7.17 + Python 3.6.9

Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 11tf: 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/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW RSB filling + srbsds: Not affected + tsx_async_abort: Not affected

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Stress-NG - Crypto (Bogo Ops/s)	2025
Standard Deviation	0.5%
Stress-NG - CPU Stress (Bogo Ops/s)	4087
Standard Deviation	0.1%
Sysbench - CPU (Events/sec)	15732
Standard Deviation	0%
Kvazaar - Bosphorus 4K - Slow (FPS)	1.02
Standard Deviation	0%
Kvazaar - Bosphorus 4K - Medium (FPS)	1.03
Standard Deviation	0.6%
Kvazaar - Bosphorus 1080p - Slow (FPS)	4.58
Standard Deviation	0.2%
Kvazaar - Bosphorus 1080p - Medium (FPS)	4.63
Standard Deviation	0.2%
Kvazaar - Bosphorus 4K - Very Fast (FPS)	2.98
Standard Deviation	0%
Kvazaar - Bosphorus 4K - Ultra Fast (FPS)	6.17
Standard Deviation	0.1%
Kvazaar - Bosphorus 1080p - Very Fast (FPS)	10.99
Standard Deviation	0.1%
Kvazaar - Bosphorus 1080p - Ultra Fast (FPS)	22.05
Standard Deviation	0.2%
x264 - H.2.V.E (FPS)	68.38
Standard Deviation	0.2%
x265 - Bosphorus 4K (FPS)	5.90
Standard Deviation	0.9%
x265 - Bosphorus 1080p (FPS)	34.99
Standard Deviation	0.2%
RAMspeed SMP - Add - Integer (MB/s)	28682
Standard Deviation	0.2%
RAMspeed SMP - Copy - Integer (MB/s)	25010
Standard Deviation	0.1%
RAMspeed SMP - Scale - Integer (MB/s)	25461
Standard Deviation	0.9%
RAMspeed SMP - Average - Integer (MB/s)	26646
Standard Deviation	0.1%
RAMspeed SMP - Add - Floating Point (MB/s)	25196
Standard Deviation	0.3%
RAMspeed SMP - Copy - Floating Point (MB/s)	25001
Standard Deviation	0.2%

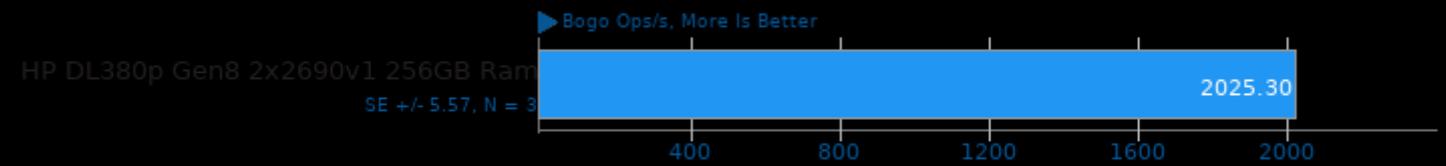
RAMspeed SMP - Scale - Floating Point (MB/s)	25174
Standard Deviation	0.1%
RAMspeed SMP - Average - Floating Point (MB/s)	25159
Standard Deviation	0.1%
Stream - Copy (MB/s)	64340
Standard Deviation	0.3%
Stream - Scale (MB/s)	47316
Standard Deviation	0.8%
Stream - Triad (MB/s)	52678
Standard Deviation	1%
Stream - Add (MB/s)	52452
Standard Deviation	1%
Zstd Compression - 3 - Compression Speed (MB/s)	2130
Standard Deviation	2.8%
Zstd Compression - 3 - D.S (MB/s)	2140
Standard Deviation	0.4%
Zstd Compression - 8 - Compression Speed (MB/s)	699.6
Standard Deviation	1.2%
Zstd Compression - 8 - D.S (MB/s)	2151
Standard Deviation	0.4%
Zstd Compression - 19 - Compression Speed (MB/s)	33.0
Standard Deviation	1.9%
Zstd Compression - 19 - D.S (MB/s)	1802
Standard Deviation	3.8%
Zstd Compression - 3, Long Mode - Compression Speed (MB/s)	506.1
Standard Deviation	2.4%
Zstd Compression - 3, Long Mode - D.S (MB/s)	2293
Standard Deviation	2.5%
Zstd Compression - 8, Long Mode - Compression Speed (MB/s)	588.7
Standard Deviation	1.7%
Zstd Compression - 8, Long Mode - D.S (MB/s)	2320
Standard Deviation	0.3%
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	32.0
Standard Deviation	2.3%
Zstd Compression - 19, Long Mode - D.S (MB/s)	1946
Standard Deviation	3.6%
libjpeg-turbo tjbench - D.T (Megapixels/sec)	127.336020
Standard Deviation	0.3%
Himeno Benchmark - P.P.S (MFLOPS)	2829
Standard Deviation	0.3%
7-Zip Compression - C.S.T (MIPS)	48438
Standard Deviation	0.2%
Stockfish - Total Time (Nodes/s)	21970290
Standard Deviation	0.7%
asmFish - 1.H.M.2.D (Nodes/s)	28078402
Standard Deviation	0.5%
John The Ripper - Blowfish (Real C/S)	13526
Standard Deviation	1.8%
Redis - GET (Reqs/sec)	1709321
Standard Deviation	0.3%
Redis - SET (Reqs/sec)	1277999
Standard Deviation	1.5%
Numpy Benchmark (Score)	209.81

	Standard Deviation	0.5%
PHPBench - P.B.S (Score)		440626
	Standard Deviation	0.4%
OpenSSL - R.4.b.P (Signs/sec)		1802
	Standard Deviation	0%
NAS Parallel Benchmarks - EP.C (Mop/s)		626.66
	Standard Deviation	1.7%
NAS Parallel Benchmarks - LU.C (Mop/s)		35501
	Standard Deviation	0.7%
ctx_clock - C.S.T (Clocks)		969
	Standard Deviation	0.1%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)		1.69092
	Standard Deviation	1.3%
PyBench - T.F.A.T.T (Milliseconds)		1559
	Standard Deviation	0.4%
Renaissance - Scala Dotty (ms)		1541
	Standard Deviation	0.5%
Renaissance - Savina Reactors.IO (ms)		15952
	Standard Deviation	5.2%
Renaissance - A.S.P (ms)		5762
	Standard Deviation	2.2%
DaCapo Benchmark - Jython (msec)		6576
	Standard Deviation	0.3%
DaCapo Benchmark - Tradebeans (msec)		8924
	Standard Deviation	0.4%
glibc bench - cos (nanoseconds)		46254
	Standard Deviation	0%
glibc bench - sin (nanoseconds)		46339
	Standard Deviation	0.2%
glibc bench - sqrt (nanoseconds)		5.29693
	Standard Deviation	0%
glibc bench - pthread_once (nanoseconds)		2.66250
	Standard Deviation	0.1%
Rodinia - OpenMP LavaMD (sec)		813.237
	Standard Deviation	0%
Timed GCC Compilation - Time To Compile (sec)		1435
	Standard Deviation	0.3%
Timed Linux Kernel Compilation - Time To Compile (sec)		93.784
	Standard Deviation	1.5%
Timed PHP Compilation - Time To Compile (sec)		61.994
	Standard Deviation	0.2%
C-Ray - Total Time - 4.1.R.P.P (sec)		91.025
	Standard Deviation	0.3%
POV-Ray - Trace Time (sec)		53.326
	Standard Deviation	1.3%
Rust Mandelbrot - T.T.C.S.P.M (sec)		61.674
	Standard Deviation	0.3%
Hackbench - 32 - Process (sec)		109.775
	Standard Deviation	0.2%
m-queens - Time To Solve (sec)		79.742
	Standard Deviation	0.1%
OpenCV Benchmark (sec)		90.480
	Standard Deviation	0.1%

Radiance Benchmark - Serial (sec) 1024
Radiance Benchmark - SMP Parallel (sec) 337.259
GIMP - resize (sec) 11.704
Standard Deviation 0.6%
GIMP - rotate (sec) 25.914
Standard Deviation 0%
GIMP - auto-levels (sec) 24.018
Standard Deviation 0.1%
GIMP - unsharp-mask (sec) 49.226
Standard Deviation 0.6%
Blender - BMW27 - CPU-Only (sec) 203.65
Standard Deviation 0.3%
Blender - Classroom - CPU-Only (sec) 778.76
Standard Deviation 0.4%
Blender - Fishy Cat - CPU-Only (sec) 340.56
Standard Deviation 0.4%
Blender - Barbershop - CPU-Only (sec) 870.34
Standard Deviation 0.2%
Numenta Anomaly Benchmark - Time To Completion (sec) 604.127
Standard Deviation 2.8%
Appleseed - Emily (sec) 555.129806
Appleseed - Disney Material (sec) 342.704624
Scikit-Learn (sec) 154.364
Standard Deviation 0%

Stress-NG 0.11.07

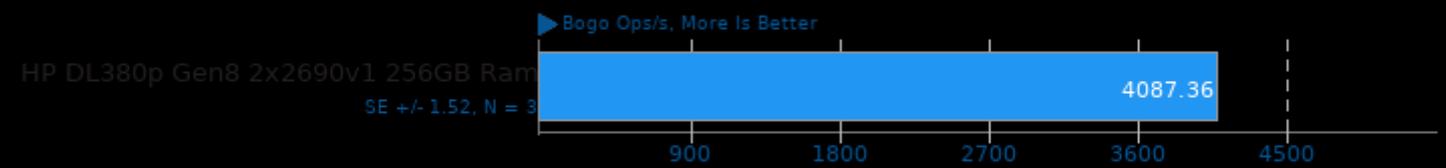
Test: Crypto



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lz -ldl -lpthread -lc

Stress-NG 0.11.07

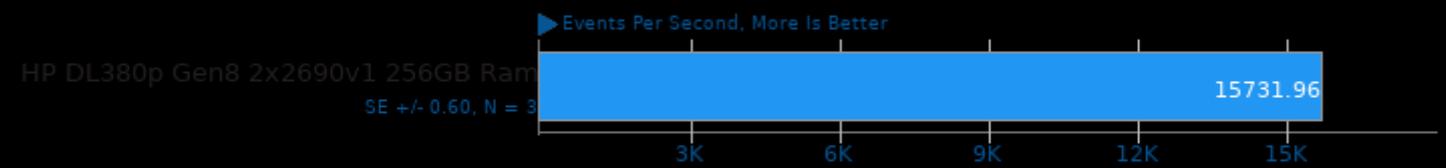
Test: CPU Stress



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lz -ldl -lpthread -lc

Sysbench 1.0.20

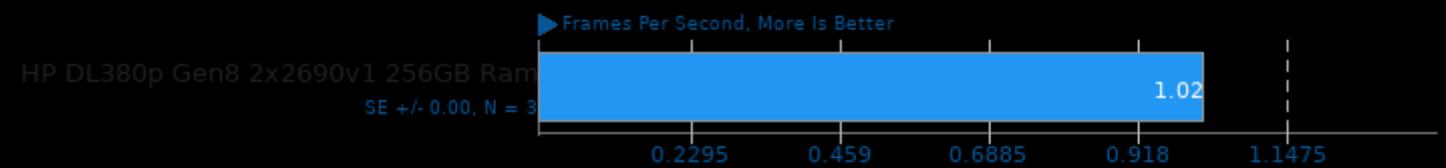
Test: CPU



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

Kvazaar 2.0

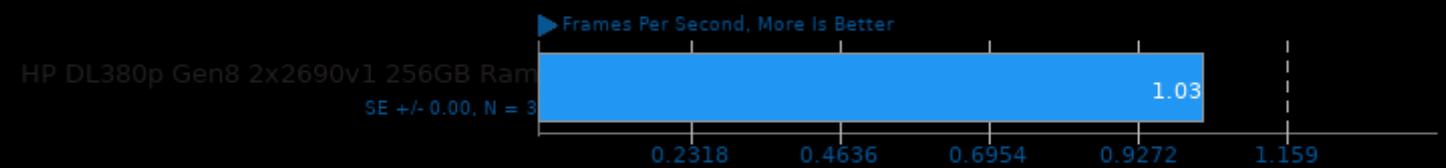
Video Input: Bosphorus 4K - Video Preset: Slow



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.0

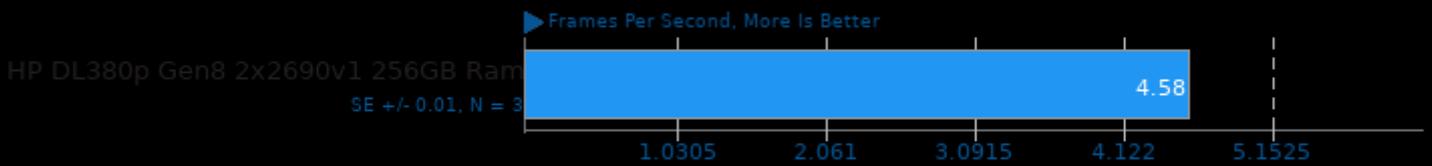
Video Input: Bosphorus 4K - Video Preset: Medium



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.0

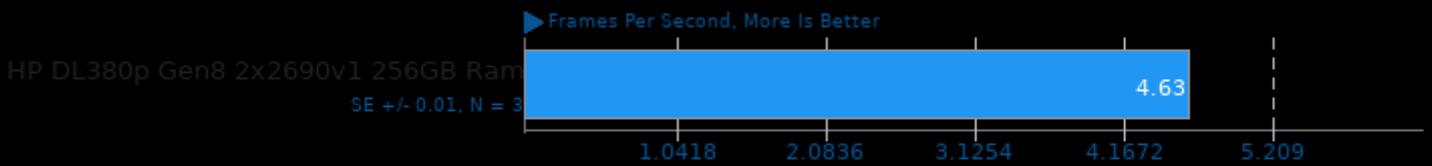
Video Input: Bosphorus 1080p - Video Preset: Slow



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lthread -lm -lrt

Kvazaar 2.0

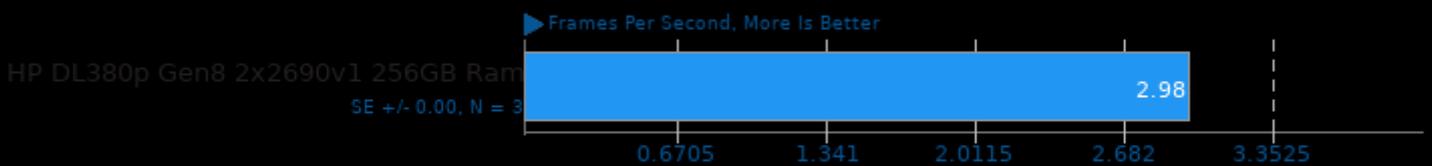
Video Input: Bosphorus 1080p - Video Preset: Medium



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lthread -lm -lrt

Kvazaar 2.0

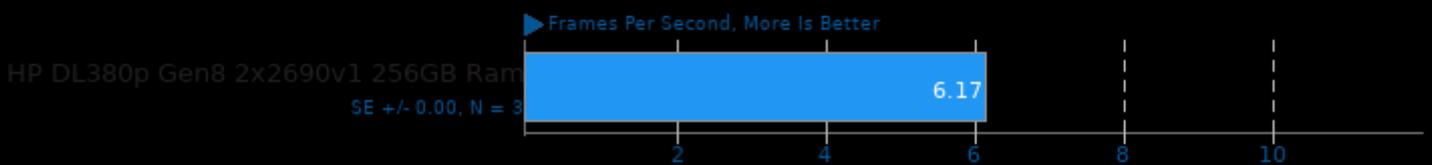
Video Input: Bosphorus 4K - Video Preset: Very Fast



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lthread -lm -lrt

Kvazaar 2.0

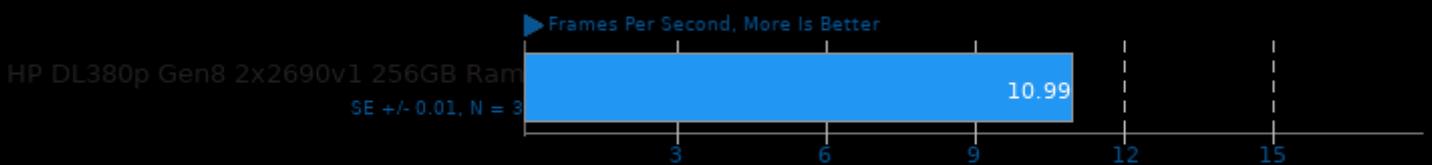
Video Input: Bosphorus 4K - Video Preset: Ultra Fast



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lthread -lm -lrt

Kvazaar 2.0

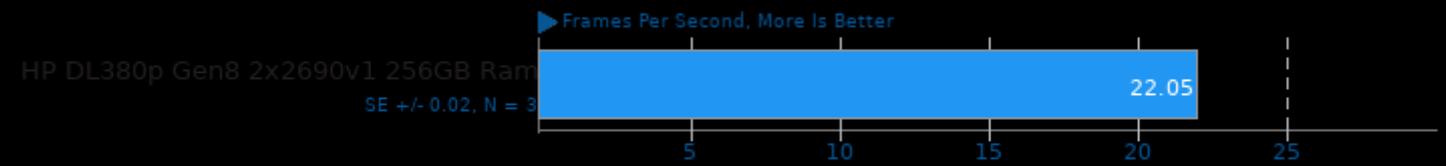
Video Input: Bosphorus 1080p - Video Preset: Very Fast



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lthread -lm -lrt

Kvazaar 2.0

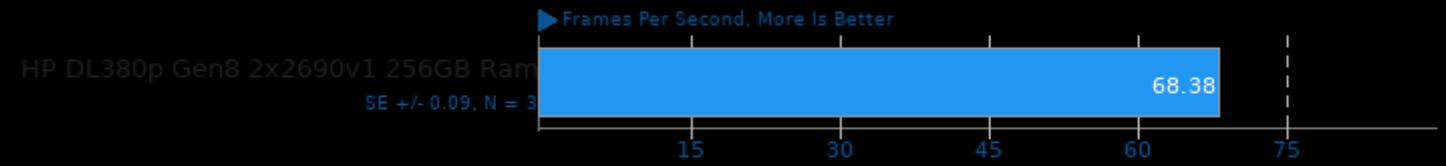
Video Input: Bosphorus 1080p - Video Preset: Ultra Fast



1. (C) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lthread -lm -lrt

x264 2019-12-17

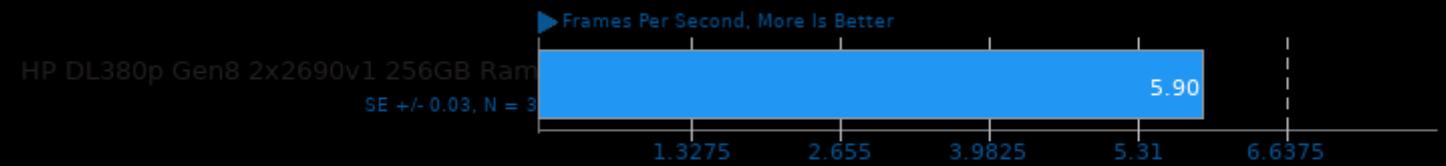
H.264 Video Encoding



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

x265 3.4

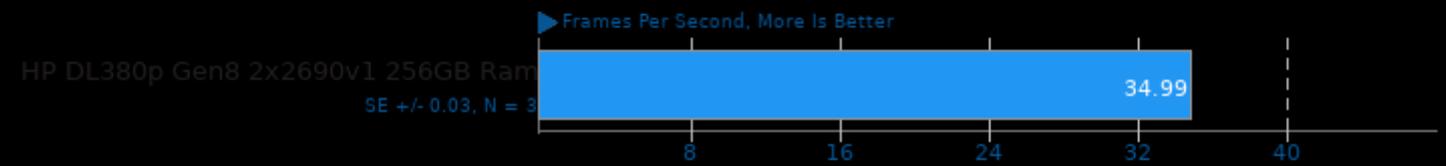
Video Input: Bosphorus 4K



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

x265 3.4

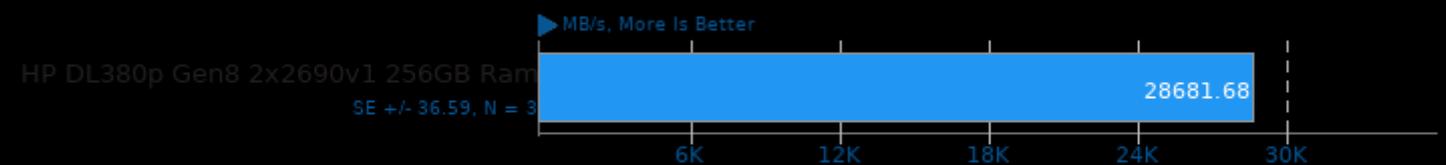
Video Input: Bosphorus 1080p



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

RAMspeed SMP 3.5.0

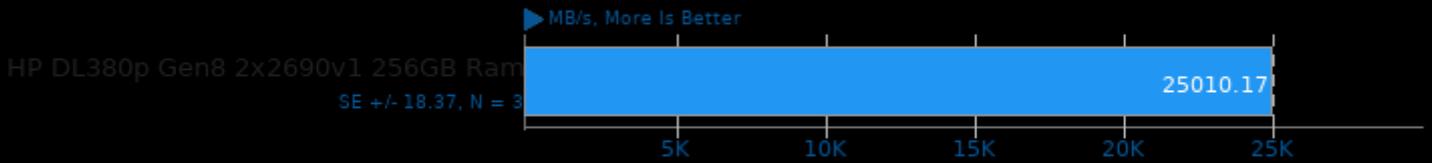
Type: Add - Benchmark: Integer



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

RAMspeed SMP 3.5.0

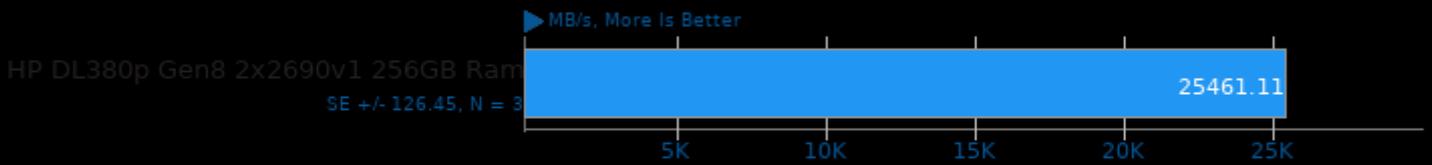
Type: Copy - Benchmark: Integer



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

RAMspeed SMP 3.5.0

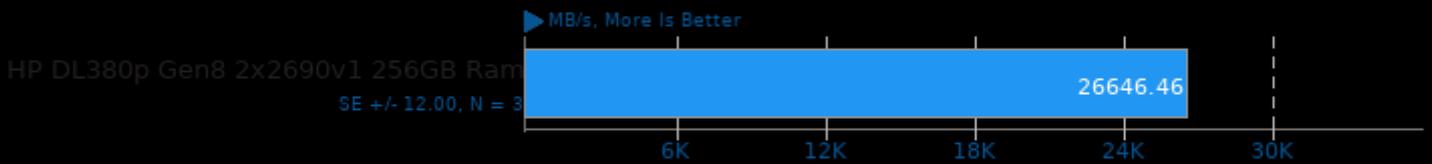
Type: Scale - Benchmark: Integer



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

RAMspeed SMP 3.5.0

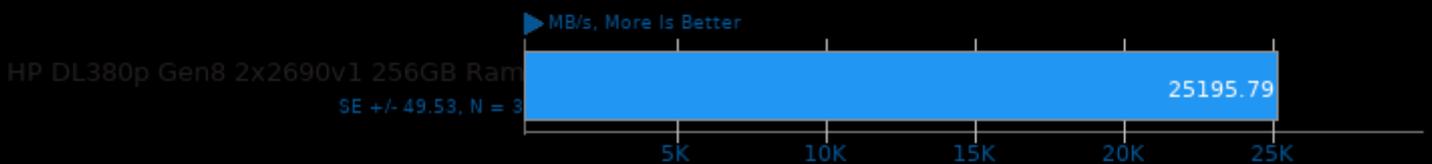
Type: Average - Benchmark: Integer



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

RAMspeed SMP 3.5.0

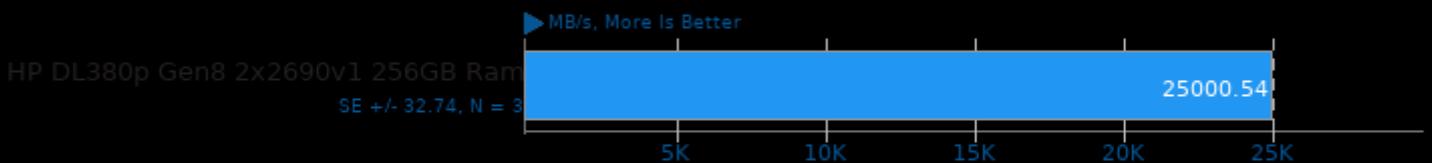
Type: Add - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

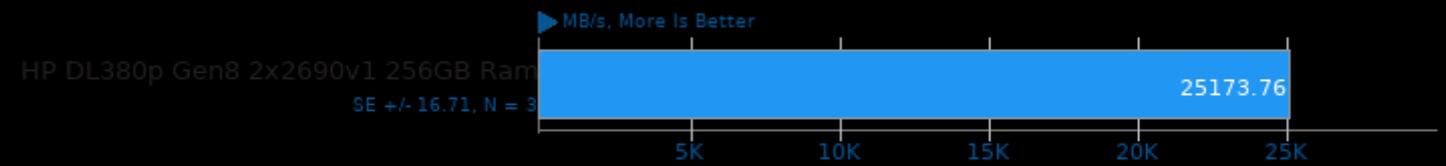
Type: Copy - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

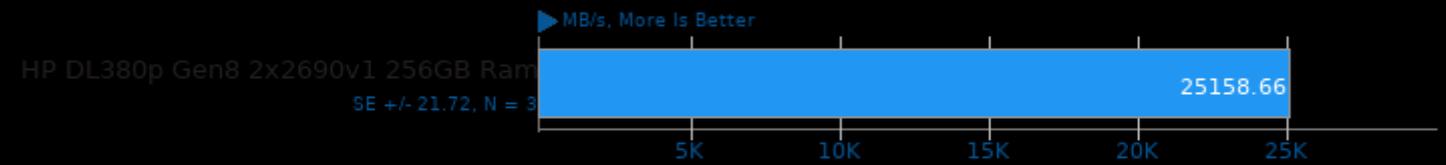
Type: Scale - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

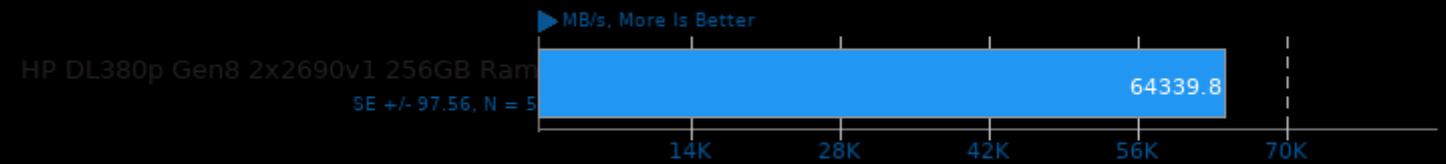
Type: Average - Benchmark: Floating Point



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

Stream 2013-01-17

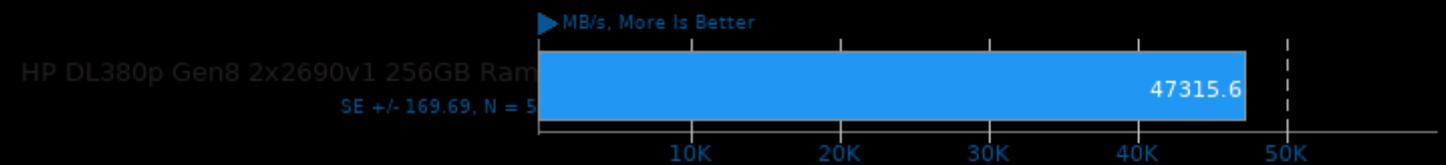
Type: Copy



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

Stream 2013-01-17

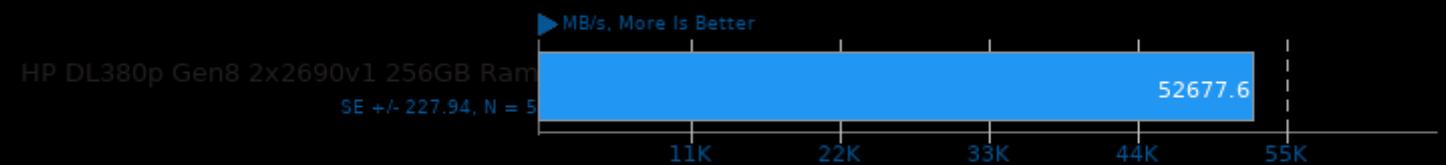
Type: Scale



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

Stream 2013-01-17

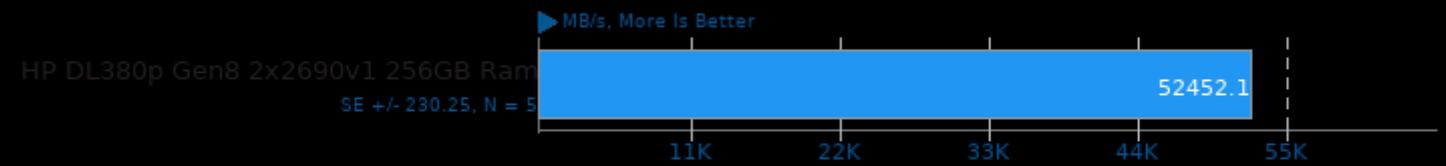
Type: Triad



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

Stream 2013-01-17

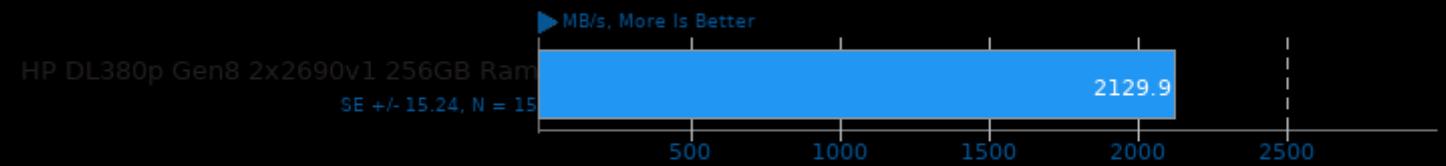
Type: Add



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

Zstd Compression 1.5.0

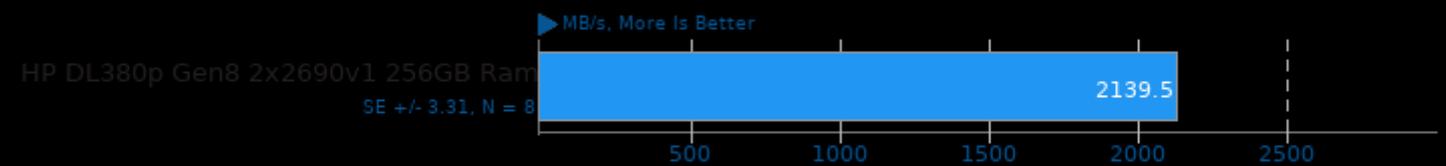
Compression Level: 3 - Compression Speed



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

Zstd Compression 1.5.0

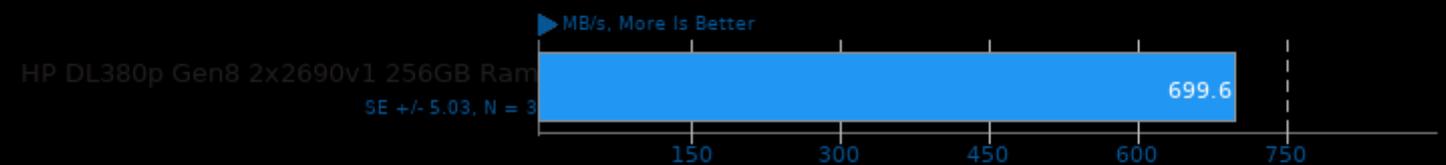
Compression Level: 3 - Decompression Speed



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

Zstd Compression 1.5.0

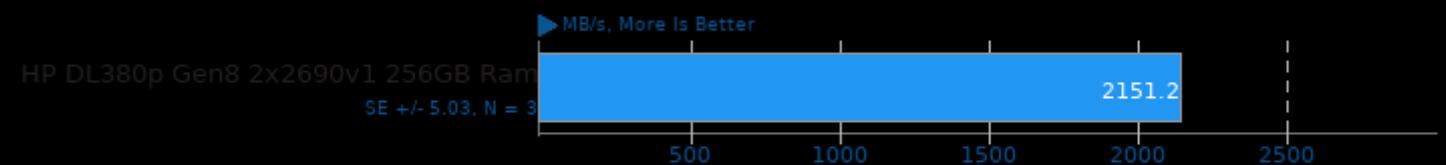
Compression Level: 8 - Compression Speed



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

Zstd Compression 1.5.0

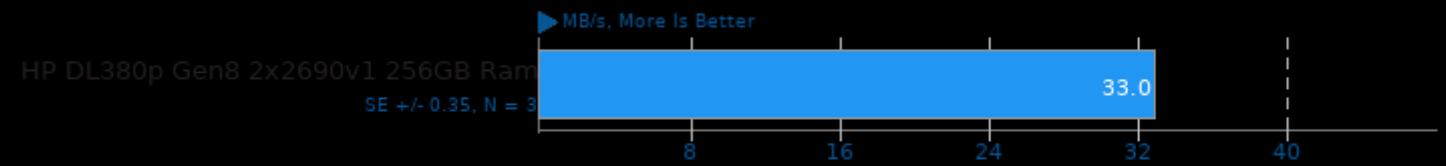
Compression Level: 8 - Decompression Speed



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

Zstd Compression 1.5.0

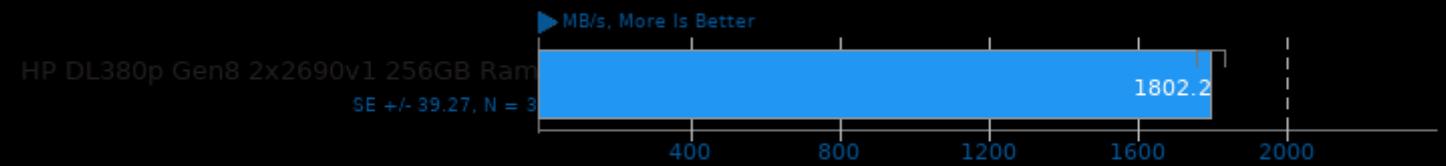
Compression Level: 19 - Compression Speed



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

Zstd Compression 1.5.0

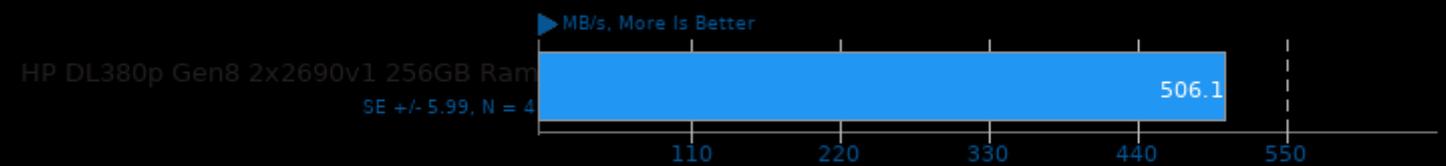
Compression Level: 19 - Decompression Speed



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

Zstd Compression 1.5.0

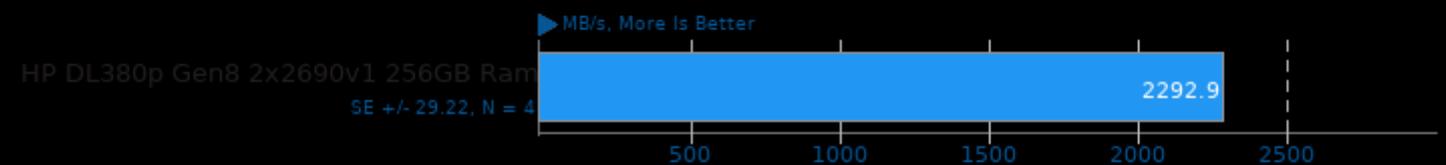
Compression Level: 3, Long Mode - Compression Speed



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

Zstd Compression 1.5.0

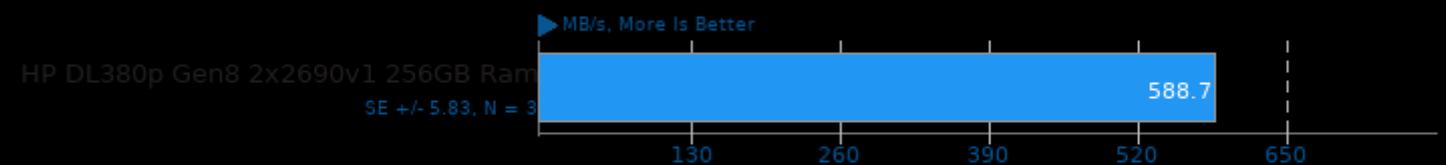
Compression Level: 3, Long Mode - Decompression Speed



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

Zstd Compression 1.5.0

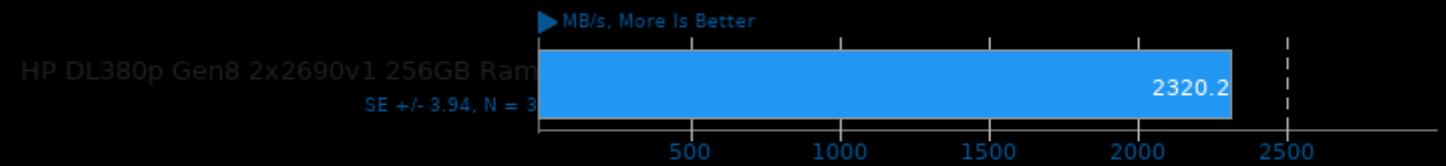
Compression Level: 8, Long Mode - Compression Speed



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

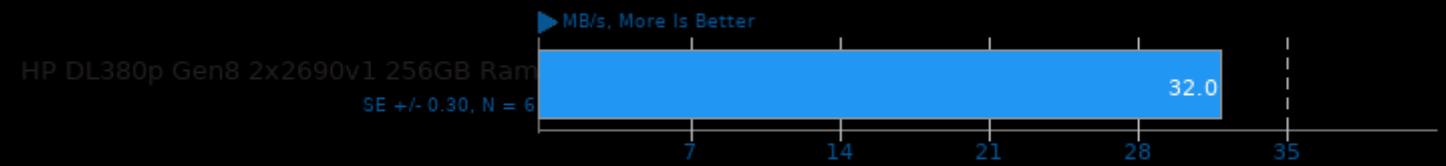
Zstd Compression 1.5.0

Compression Level: 8, Long Mode - Decompression Speed



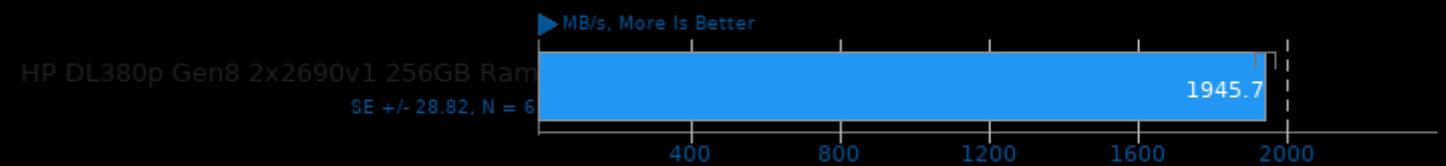
Zstd Compression 1.5.0

Compression Level: 19, Long Mode - Compression Speed



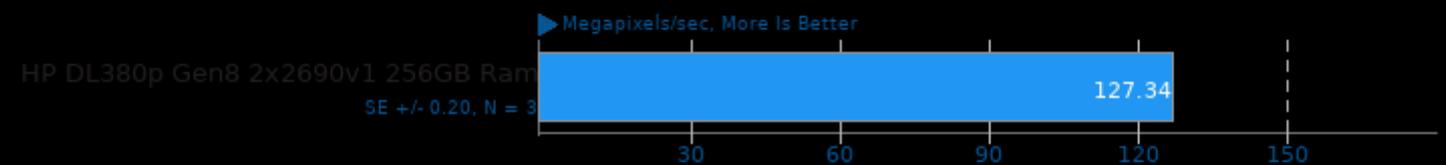
Zstd Compression 1.5.0

Compression Level: 19, Long Mode - Decompression Speed



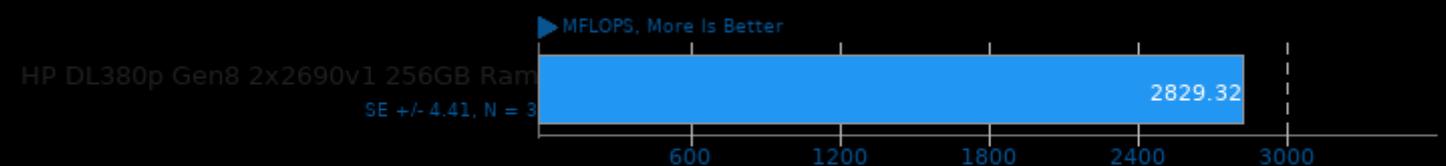
libjpeg-turbo tjbench 2.1.0

Test: Decompression Throughput



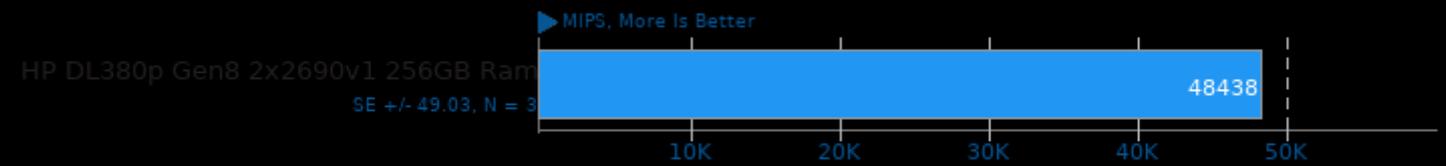
Himeno Benchmark 3.0

Poisson Pressure Solver



7-Zip Compression 16.02

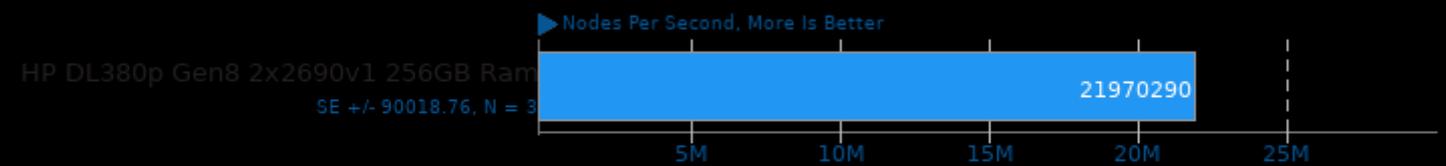
Compress Speed Test



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

Stockfish 13

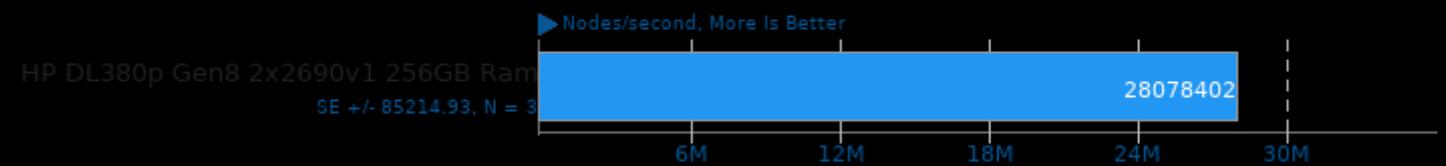
Total Time



1. (CXX) g++ options: -lgcov -m64 -pthread -fno-exceptions -std=c++17 -fprofile-use -fno-peel-loops -fno-tracer -pedantic -O3 -msse -msse3 -mpopcnt

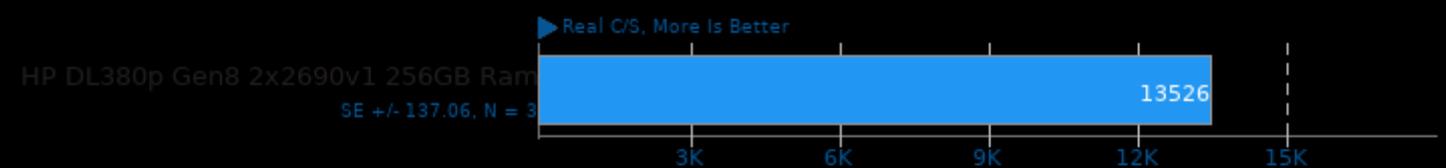
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



John The Ripper 1.9.0-jumbo-1

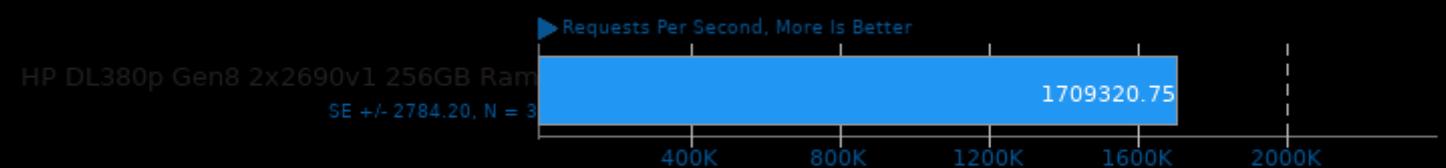
Test: Blowfish



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

Redis 6.0.9

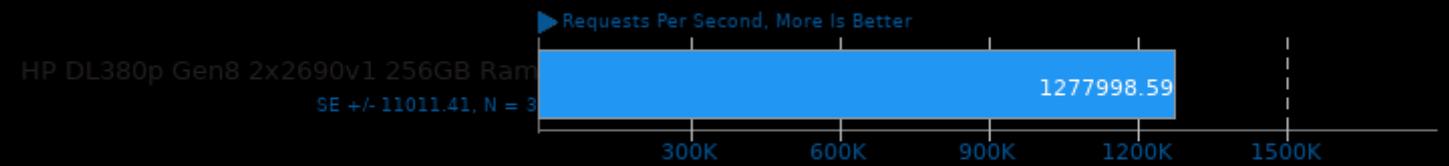
Test: GET



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

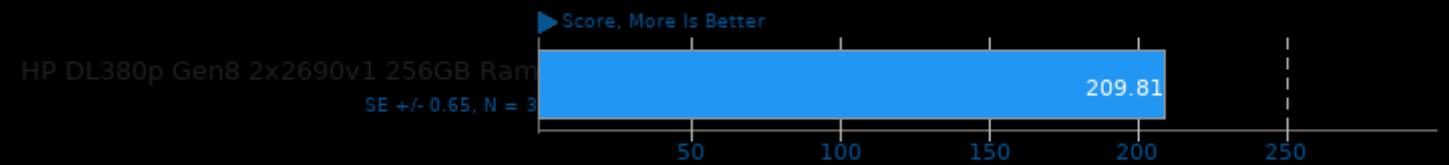
Redis 6.0.9

Test: SET



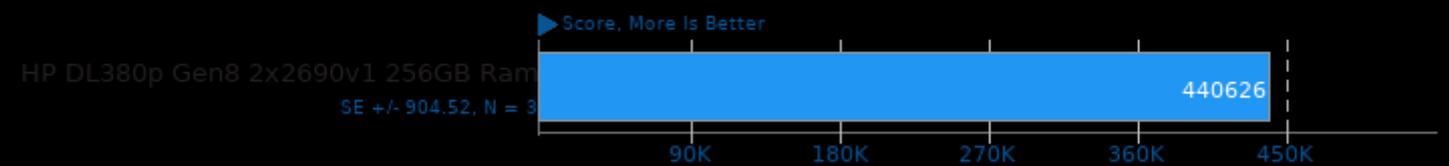
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Numpy Benchmark



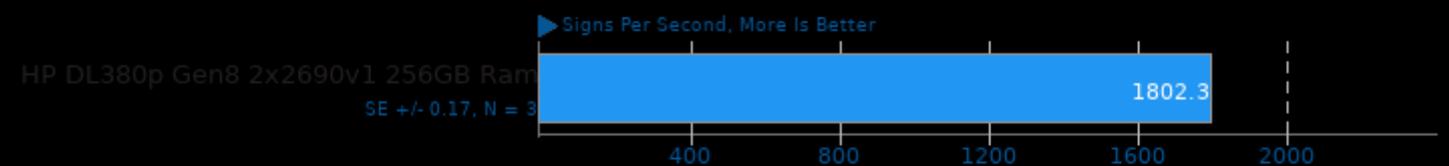
PHPBench 0.8.1

PHP Benchmark Suite



OpenSSL 1.1.1

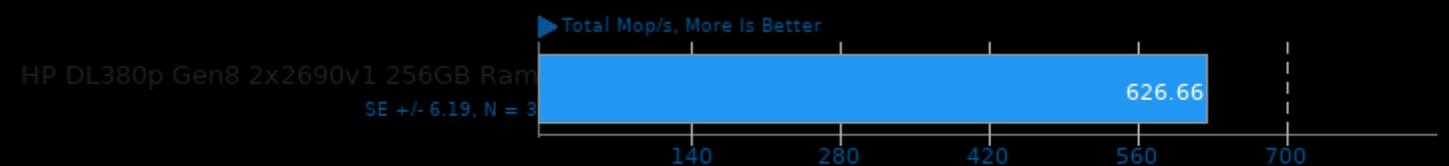
RSA 4096-bit Performance



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

NAS Parallel Benchmarks 3.4

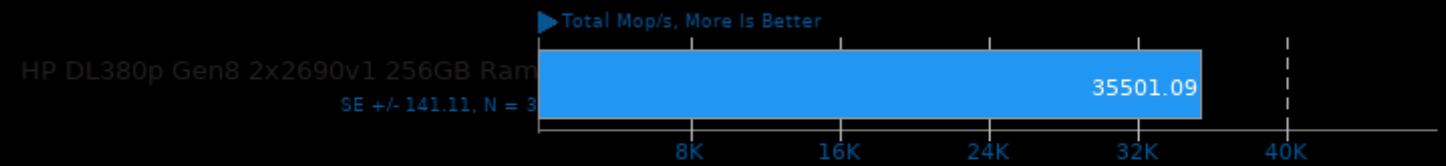
Test / Class: EP.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 2.1.1

NAS Parallel Benchmarks 3.4

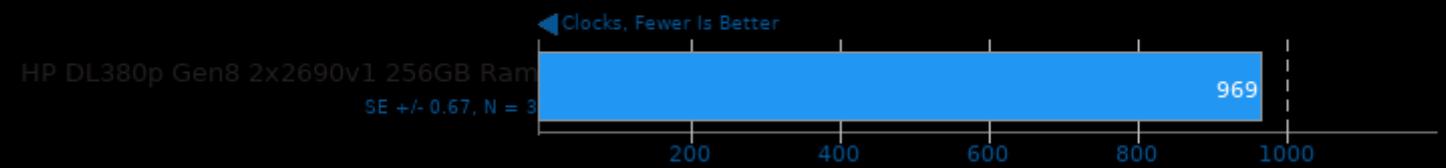
Test / Class: LU.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpi fh -lmpi
2. Open MPI 2.1.1

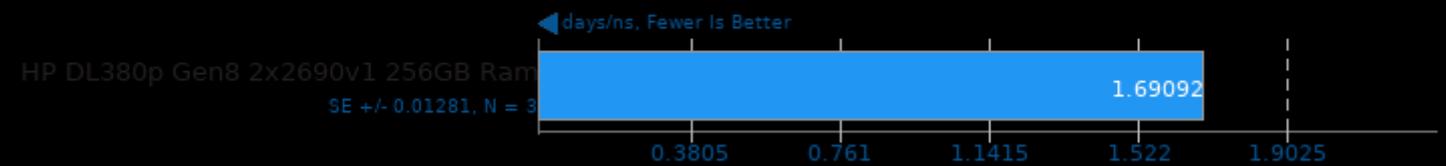
ctx_clock

Context Switch Time



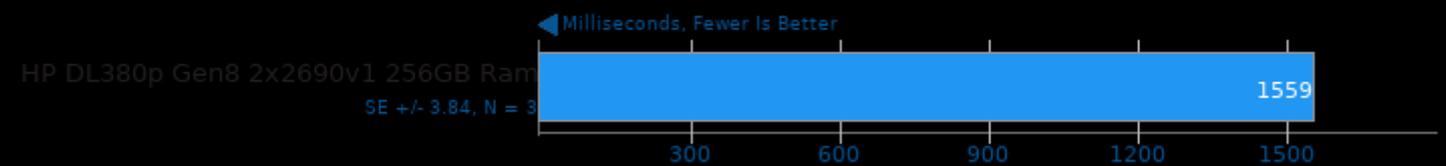
NAMD 2.14

ATPase Simulation - 327,506 Atoms



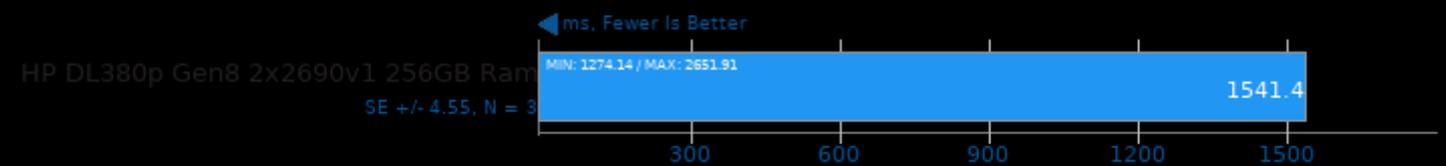
PyBench 2018-02-16

Total For Average Test Times



Renaissance 0.12

Test: Scala Dotty



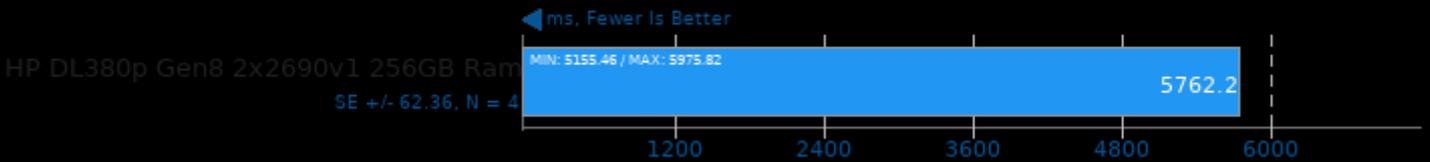
Renaissance 0.12

Test: Savina Reactors.IO



Renaissance 0.12

Test: Apache Spark PageRank



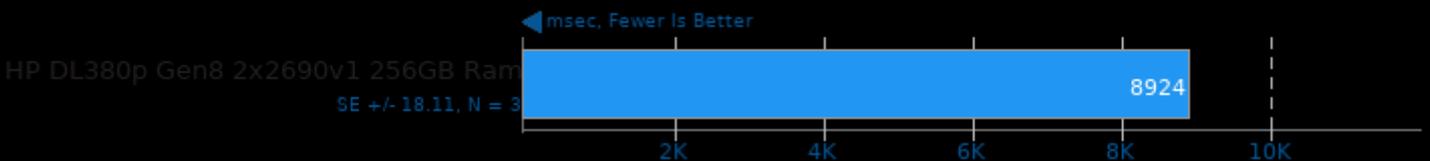
DaCapo Benchmark 9.12-MR1

Java Test: Jython



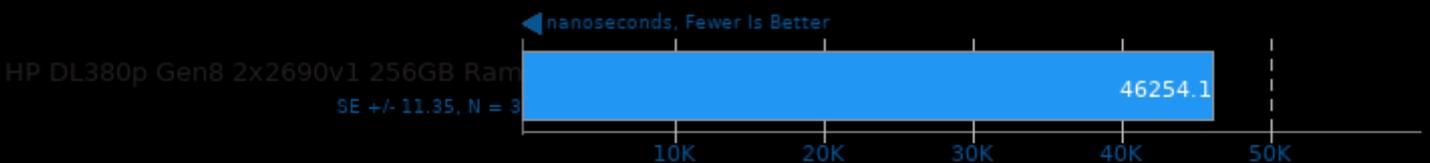
DaCapo Benchmark 9.12-MR1

Java Test: Tradebeans



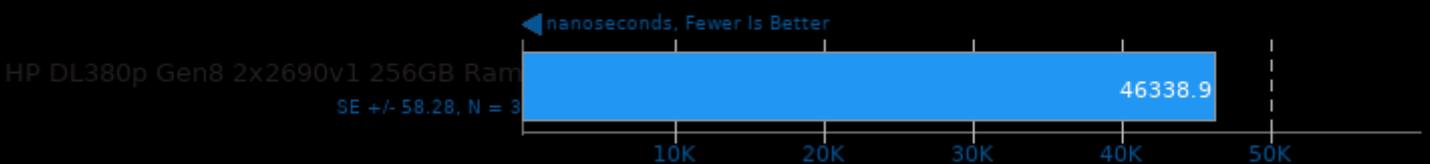
glibc bench 1.0

Benchmark: cos



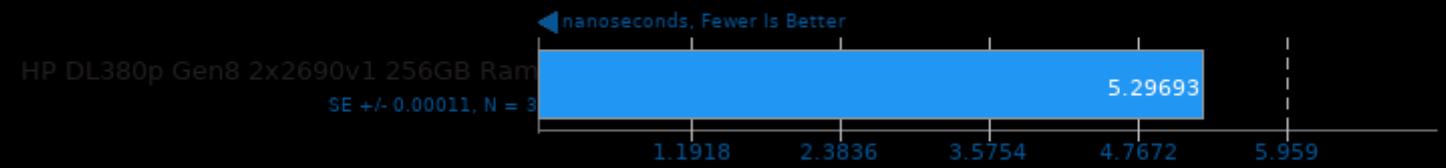
glibc bench 1.0

Benchmark: sin



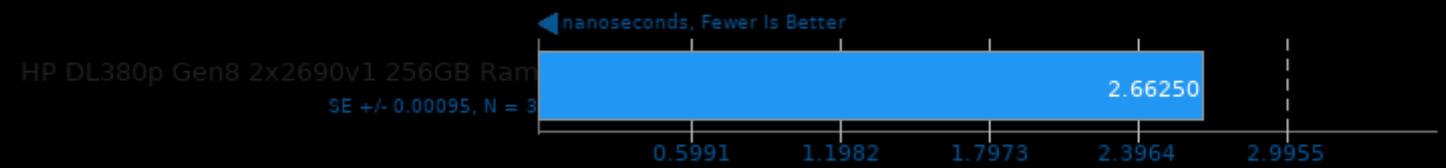
glibc bench 1.0

Benchmark: sqrt



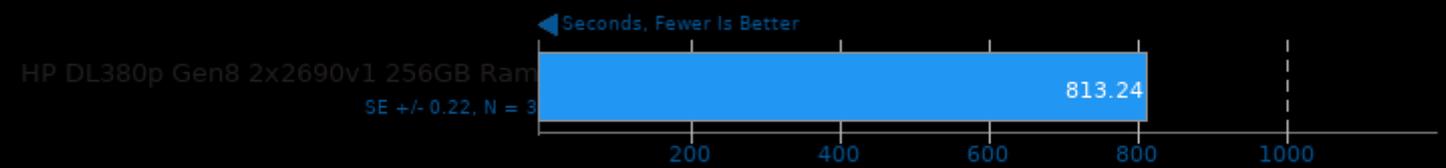
glibc bench 1.0

Benchmark: pthread_once



Rodinia 3.1

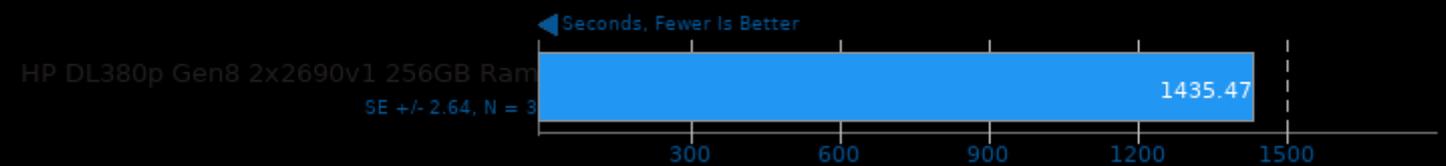
Test: OpenMP LavaMD



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

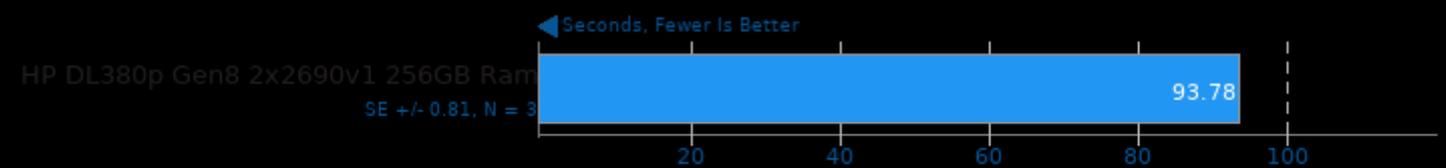
Timed GCC Compilation 9.3.0

Time To Compile



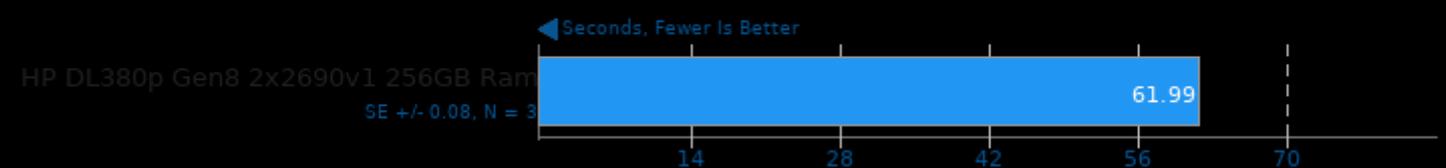
Timed Linux Kernel Compilation 5.10.20

Time To Compile



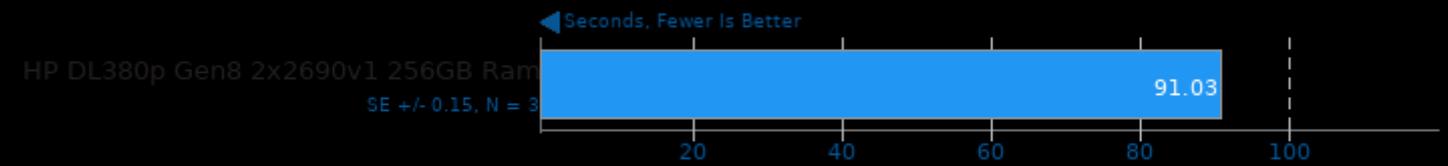
Timed PHP Compilation 7.4.2

Time To Compile



C-Ray 1.1

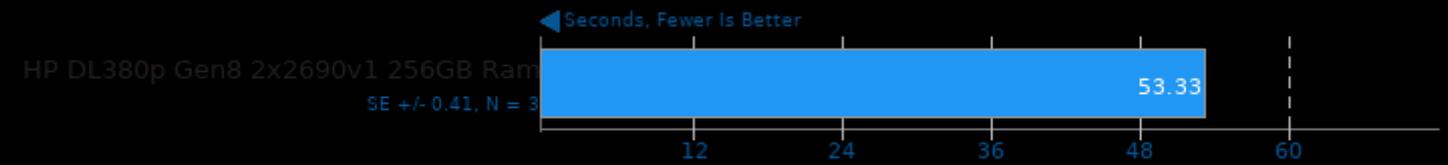
Total Time - 4K, 16 Rays Per Pixel



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

POV-Ray 3.7.0.7

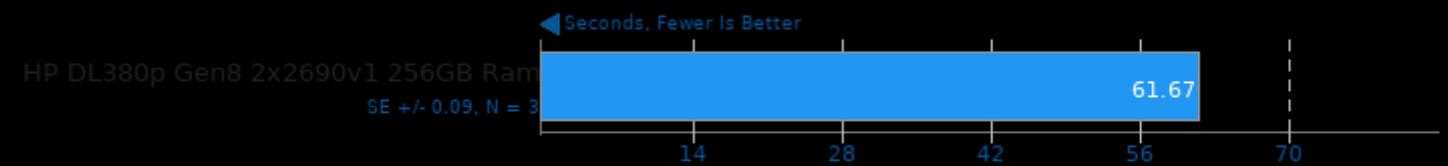
Trace Time



1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -pthread -JSM -JICE -JX11 -JllmImf -Jlmath -JHalf -Jlex -JlexMath -JllmThread -lpthread -ltiff -ljpe

Rust Mandelbrot

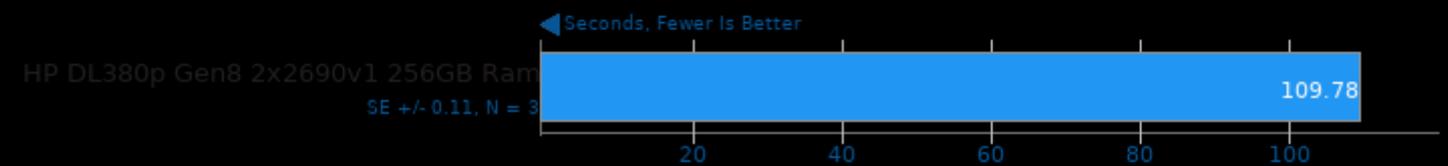
Time To Complete Serial/Parallel Mandelbrot



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

Hackbench

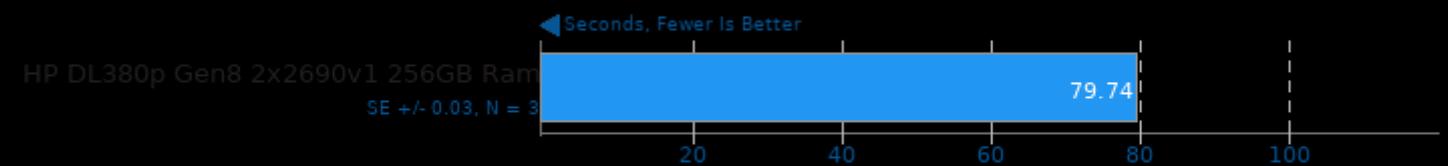
Count: 32 - Type: Process



1. (CC) gcc options: -lpthread

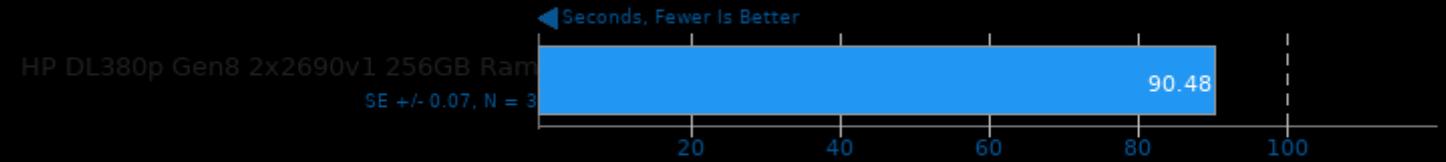
m-queens 1.2

Time To Solve



1. (CXX) g++ options: -fopenmp -O2 -march=native

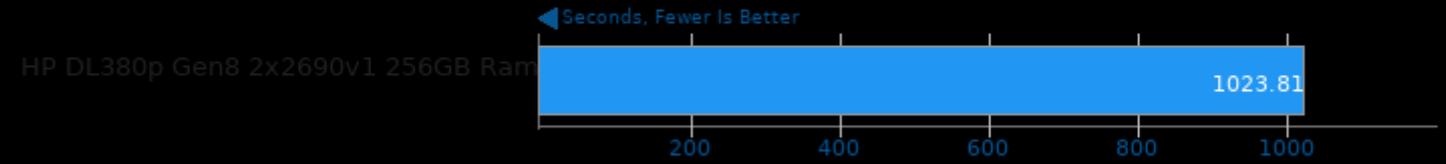
OpenCV Benchmark 3.3.0



1. (CXX) g++ options: -std=c++11 -rdynamic

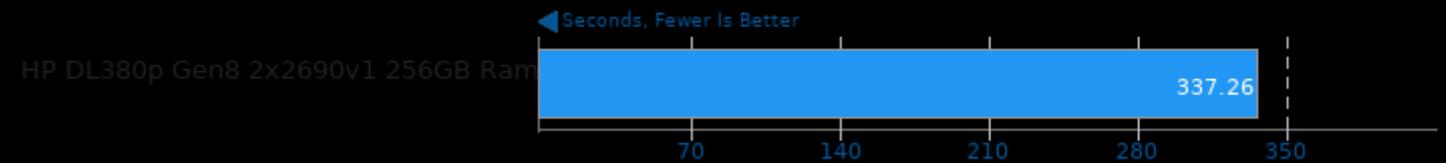
Radiance Benchmark 5.0

Test: Serial



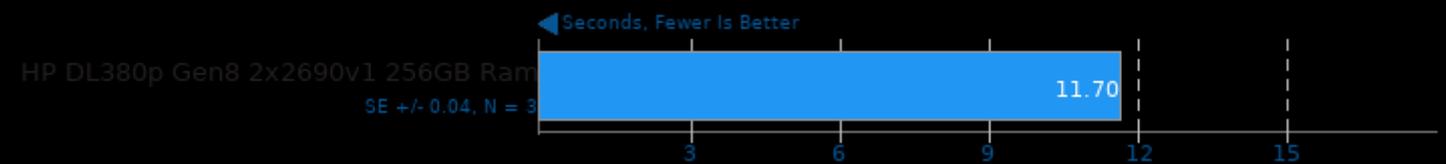
Radiance Benchmark 5.0

Test: SMP Parallel



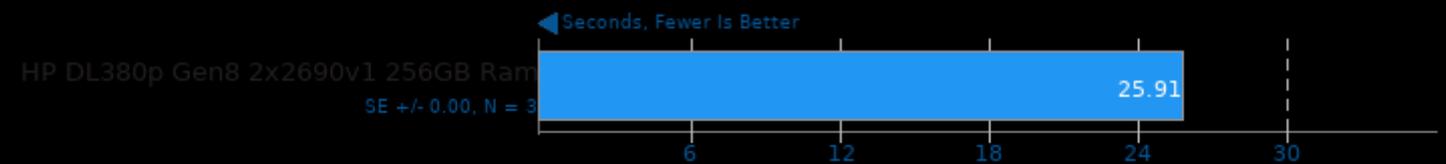
GIMP 2.8.22

Test: resize



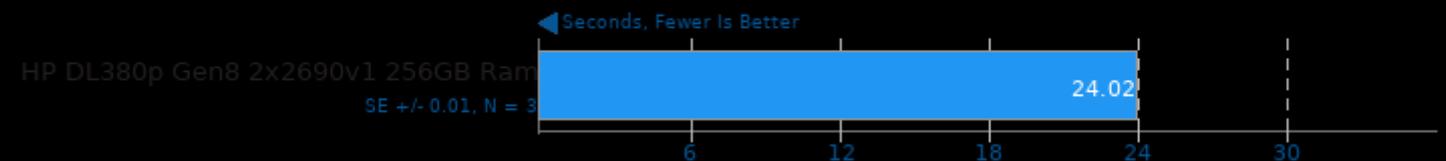
GIMP 2.8.22

Test: rotate



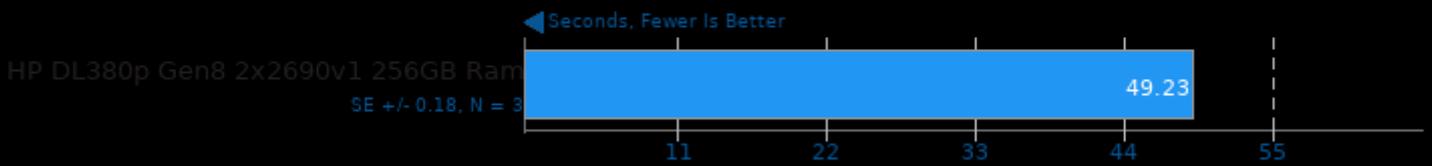
GIMP 2.8.22

Test: auto-levels



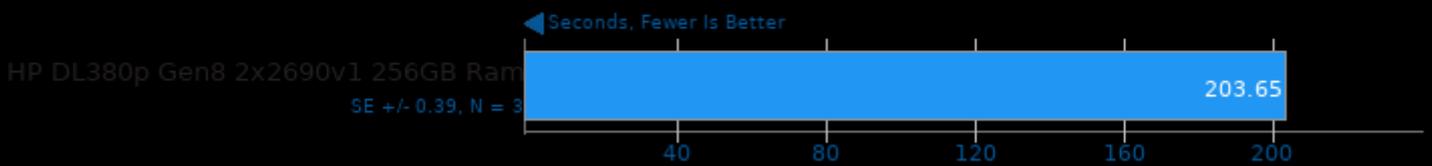
GIMP 2.8.22

Test: unsharp-mask



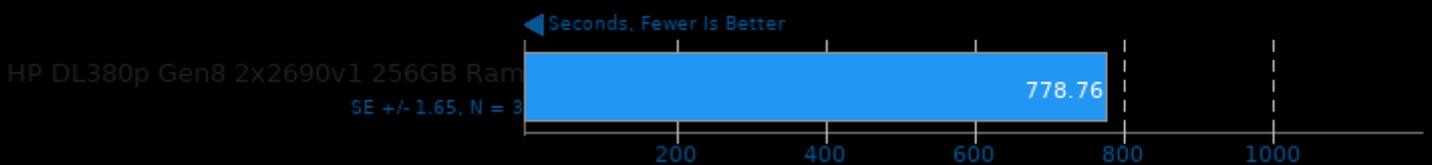
Blender 2.92

Blend File: BMW27 - Compute: CPU-Only



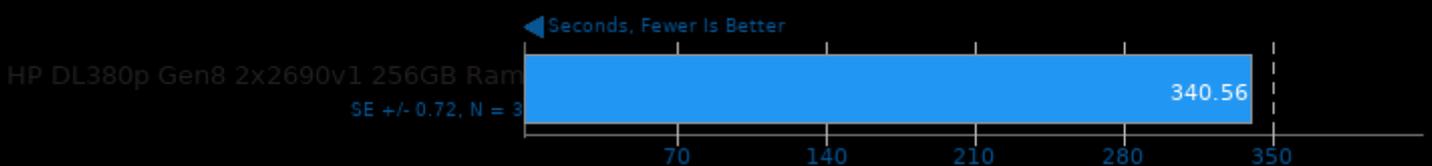
Blender 2.92

Blend File: Classroom - Compute: CPU-Only



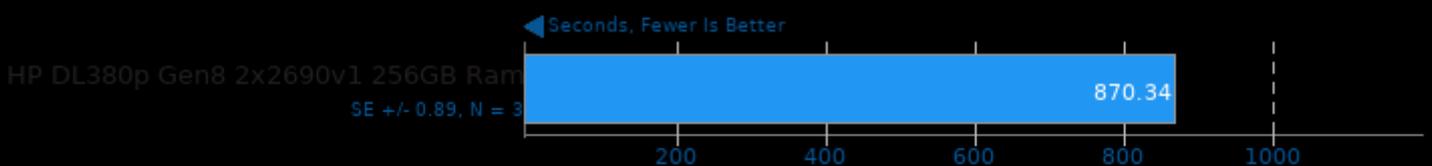
Blender 2.92

Blend File: Fishy Cat - Compute: CPU-Only



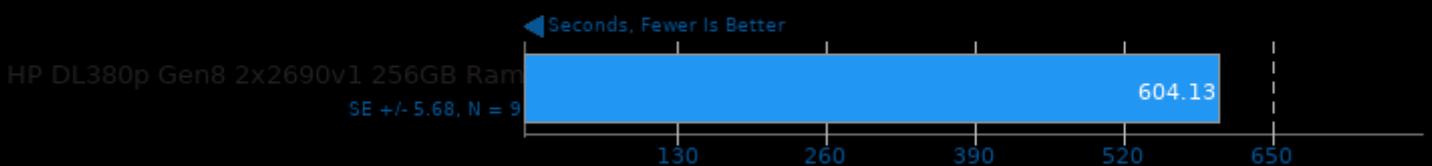
Blender 2.92

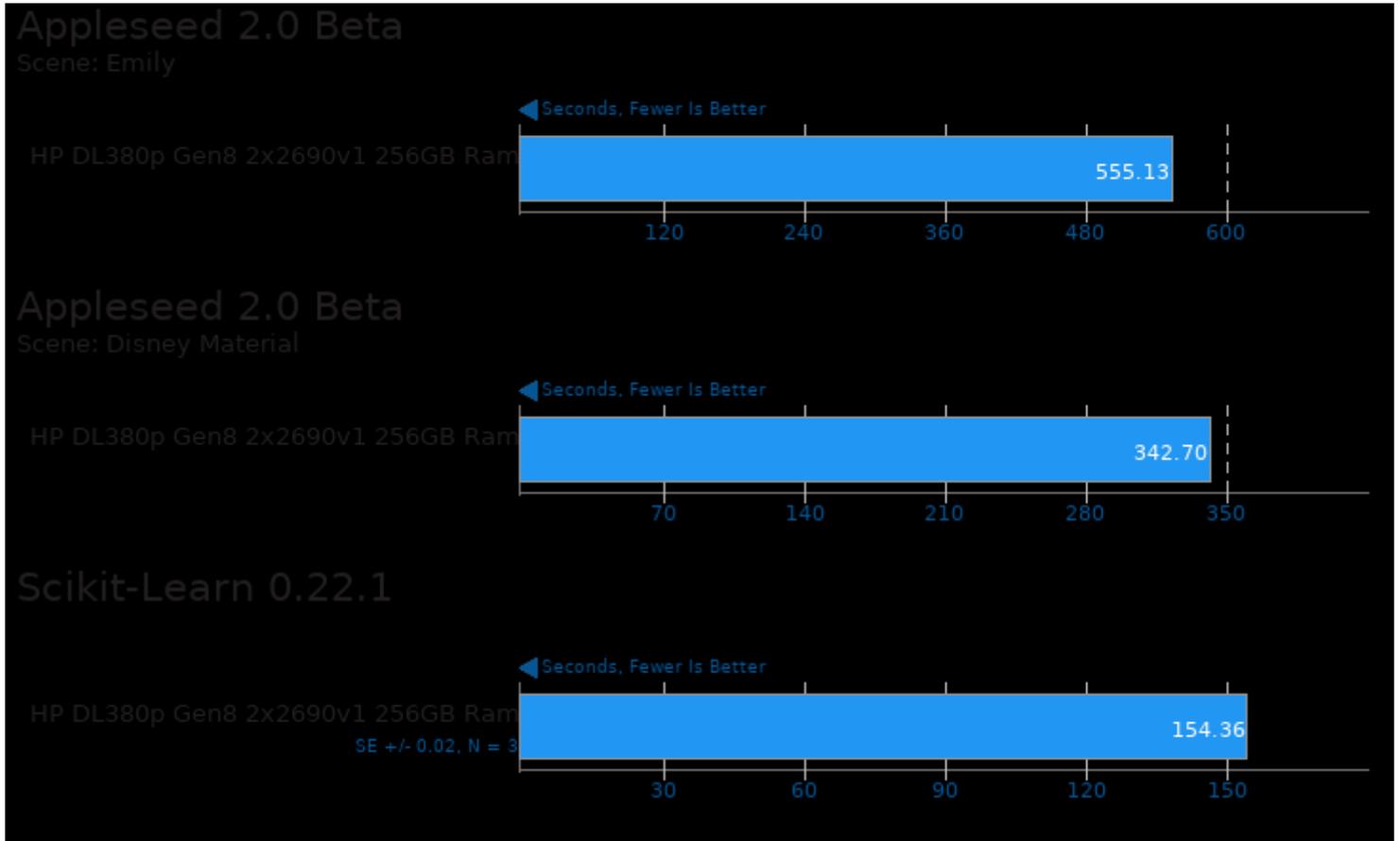
Blend File: Barbershop - Compute: CPU-Only



Numenta Anomaly Benchmark 1.1

Time To Completion





This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 11:46.